

HI-FI CHOICE

THE WORLD'S NUMBER ONE GUIDE TO BUYING HI-FI

MAY 1993 £2.95 US\$5.50

22 speakers on test

We pick the Best Buys



An Analogue Statement
SME Series 20

DCC/Mini Disc -
a Japanese perspective

10 Soundstyle equipment
supports to be won



BRITAIN'S LARGEST INDEPENDENT BUYER'S GUIDE
TEST REPORTS - NOT MANUFACTURERS' SPECIFICATIONS



*For us,
the realistic
reproduction
of music
is the essential
premise.*

The critics agree.
"The CD 52 Mark IIE
may just be
the biggest bargain
in digital hardware
available as of
early 1993."

Hi-Fi News, March 1993.

**See your nearest dealer for
a demonstration.**

MIDLANDS & EAST ANGLIA

BANBURY	
PJ'S	0295 263333
BIGGLESWADE	
SOUND DEALS	0767 312249
BIRMINGHAM	
HORNTONS ELECTRONICS	021 643 0972
MUSIC MATTERS	021 429 2811
SUPERFI	021 631 2675
BISHOP STORTFORD	
THE AUDIO FILE	0279 506576
BOSTON	
BOSTON HI FI	0205 365477
BROMSGROVE	
SPAINS	0527 72460
CAMBRIDGE	
CAM AUDIO	0223 60442
SAUCIERS	0223 321686
STEVE BOXSHALL	0223 68305
UNIVERSITY AUDIO	0223 354237
COVENTRY	
FRANK HARVEY	0203 525200
DERBY	
ACTIVE AUDIO	0332 385185
DUNSTABLE	
WENTWORTH AUDIO	0582 663383
HEREFORD	
ENGLISH AUDIO	0432 355081
IPSWICH	
AVALON	0473 281922
EASTERN AUDIO	0473 217217
THE STEREO SHOP	0473 233832
KETTERING	
CLASSIC HI-FI	0536 515766
KINGS LYNN	
MARTINS HI FI	0603 627010
LEAMINGTON SPA	
HI-FI EXPERIENCE	0926 881500
LEICESTER	
LEICESTER HI-FI	0533 539753
LINCOLN	
SOUND EXPERIENCE	0522 567636
MELTON MOWBRAY	
STUART WESTMORELANDS	0664 411511
NEWARK	
PETER ELLIS	0636 704571
NORTHAMPTON	
AUDIOCRAFT	0604 36291
LISTEN INN	0604 37871
NORWICH	
MARTINS HI-FI	0603 627010
NOTTINGHAM	
FORUM HI-FI	0602 622150
SUPERFI	0602 412137
OXFORD	
AUDIO CONSULTANTS	0865 790879
WESTWOOD & MASON	0865 247783
PETERBOROUGH	
THE HI-FI PEOPLE	0733 341755
REDDITCH	
SWANSTONS	0527 62087
RUGBY	
SOUNDS EXPENSIVE	0788 540772
SHREWSBURY	
SHROPSHIRE HI-FI	0743 232065
STAFFORD	
MUSICAL APPROACH	0785 55154
STEVENAGE	
SOUND DEALS	0438 369999
STOKE ON TRENT	
PURKISS HI-FI	0782 265010
TELFORD	
MID SHROPSHIRE AUDIO	0952 630172
WALSALL	
MAINWAY HI-FI	0922 473499
WARWICK	
CASTLE HI-FI	0926 499963
WITNEY	
WITNEY AUDIO	0993 702414
WOLVERHAMPTON	
UNIVERSAL ELEC	0902 23741
WORCESTER	
WEST MIDLANDS AUDIO	0905 58046

marantz®
PURE HIGH FIDELITY

Telephone 0753 680868



CD 52 MARK IIE
COMPACT DISC PLAYER

HI-FI CHOICE

Editorial

FAX: 071 323 3547

Editor Paul Messenger

Art Editor Andrew Ryan

Deputy Editor Jason Kennedy

Production Editor Janet Moorhouse

Reviews Editor Alan Sircom

Sub Editor Lisa Nickson

Contributors Richard Black, George Cole, Barry Fox, Alvin Gold, Jimmy Hughes, Dan Houston.

Photography Chris Richardson

Advertising

TEL: 071 631 1433 FAX: 071 636 1640

Group Advertisement Manager Christine Reid

Advertisement Manager Ian Westwood

Senior Sales Executive Julian O'Kelly

Production

TEL: 071 436 1770 FAX: 071 580 6430

Production Manager Jim Bulley

Advertisement Production Sara Bray

Circulation

TEL: 071 580 6163 FAX: 071 636 5668

Circulation Director Sean Farmer

Mail Order Manager Julia French

Publisher Andy Benham

Dennis Publishing Ltd

Publishing Director Bruce Sawford

Creative Director Jimmy Egerton

Managing Director Alistair Ramsay

Chairman Felix Dennis

PUBLISHED by Dennis Publishing Ltd, 19 Bolsover Street, London W1P 7HU

Tel: 071 631 1433

Company registered in England.

Origination Those nice people at Graphic Ideas Studios

Printing Riverside Press, St Ives Pk

Distribution Comag UK Ltd, Tavistock Road, West Drayton, Middlesex

Tel: 0895 444 055

A



PUBLICATION



PRODUCTS AND EDITORIAL SUBMISSIONS

Hi-Fi Choice welcomes all information on new and upgraded products and services, for possible coverage within the news and reviews pages. However, the publisher respectfully points out that the magazine is not obliged to either review or return unsolicited products. The editor is always pleased to receive ideas for articles, preferably sent first in outline form, with details of the author's background, and - where available - samples of previously published work. He cannot, however, accept responsibility for unsolicited copy and would like to point out that it may take time for a reply to be sent.

READER DIFFICULTIES

Hi-Fi Choice welcomes any technical questions, although these can only be discussed within the pages of the magazine. Regrettably, *Choice* is not in any way able to offer telephone assistance.

PERMISSIONS & REPRINTS

Material in *Hi-Fi Choice* may not be reproduced in any form without the written permission of the publisher. Please address such requests for re-use of copyright material to Andy Benham, 19 Bolsover Street, London W1P 7HU

SUBSCRIPTION ENQUIRIES

Hi-Fi Choice is available on subscription. The standard rates are (UK) £22.95 (1yr), £37.95 (2yr); rest of Europe £32.95 (1yr), £62.95 (2yr); rest of world £49.95 (1yr), £79.95 (2yr)

Please address all subscription enquiries to *Hi-Fi Choice* Subscriptions, Tower House, Sovereign Park, Market Harborough, Leicestershire LE16 9EF

Back issues of the magazine are also available, please refer to page 96 for full details.

THE GET OUT CLAUSE

While every care has been taken in the preparation of this journal, the publishers cannot be held responsible for the accuracy of the information herein, or any consequence arising from it. Readers should note that all judgements have been made in the context of equipment available to *Hi-Fi Choice* at the time of review, and that 'value for money' comments are based on UK prices at the time of review, which are subject to fluctuation and are only applicable to the UK market.

This edition ©1993, Felden Productions. ISSN No. 0955 111 5

Member of the Audit Bureau of Circulation

GUT FEELINGS

Life in the old dog yet!

In February this year Dolby Labs sent out a press release concerning WEA's decision that all its analogue prerecorded cassette releases in America will henceforth incorporate Dolby S-type noise reduction. Although this isn't the first company to do so, the fact that Warner, Electra and Atlantic (the component parts of WEA) have made this move is certainly interesting. The reason behind it hinges on a quote by Joe Vayda, Senior Vice President Research and Development at WEA who tells us: "It allows us to release economical analogue cassettes that will sound dramatically better on the new Dolby S-type decks, yet give excellent results on conventional players."

He's got a point. For the last six months I've had an Arcam *Delta 100* cassette deck at home, arguably the best S-type deck yet, which has been doing sterling service grabbing the odd bit of *Radio 4* for use with the main system. But the majority of its time is spent making up compilations for car and Walkman, complete with Dolby S-type noise reduction. This despite the fact that neither the car, nor the Walkman, can cope with anything other than Dolby B.

After six months of experimentation I can say that for use in a noisy environment, such as the tube or a motorway, I actually prefer the sound of Dolby S encoding played via B decoding to the sound of B on B. As an example I use an £80 Sony Walkman to lighten the tedium of long flights and tube journeys, and this little beastie positively laps up Dolby S. Heavy metal compilations benefit from more impact and punch when played at high volumes, and even more subtle material such as female voices, while still slightly compressed by the process, manages to survive remarkably well.

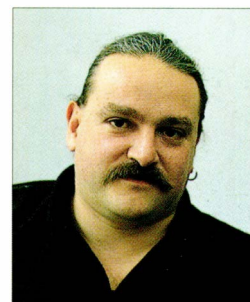
All in all, the *Delta 100* actually gets quite a lot of use, but the

interesting point is that 90 per cent of the recordings made on the machine end up being played back elsewhere. At the same time as the *Delta 100* was taking up shelf space, I had a Philips *DCC900* next to it, along with a selection of prerecorded software.

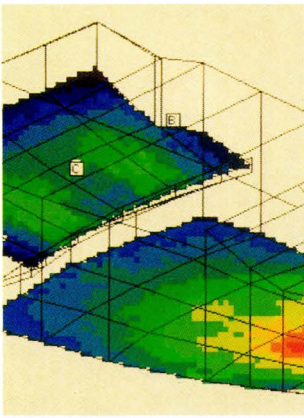
Comparing my usage of the two machines I found that the DCC deck was employed for playing prerecorded material, usually at the request of friends who wanted to see how good it sounded. Recordings were made for much the same reason. I did a couple of compilations but, because they were limited to one machine, they didn't get played that often.

There can be no question that DCC can sound extremely good indeed, and that as a recording home format it is good enough to succeed. The problem is that until I find myself using a DCC Walkman and a DCC in-car unit, it seems a bit of a waste of time to record material that I can't play anywhere other than in my front room. With these restrictions in mind it would seem that there is still a lot of life left in the analogue cassette.

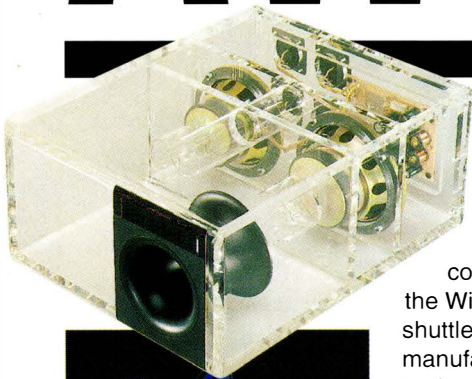
Given the vast number of cassette decks out there, it's going to take a very long time before they are replaced by their digital equivalents, be this DCC or MiniDisc. Meanwhile, I suppose I'll just have to go on listening to my compilations encoded with Dolby S-type noise reduction, which with comparatively low hardware upgrade costs, might begin to look like a bargain.



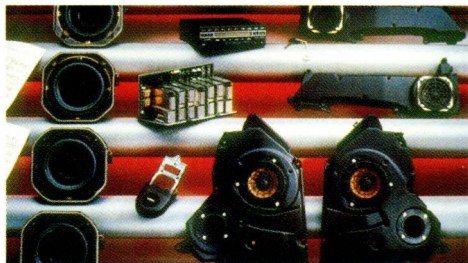
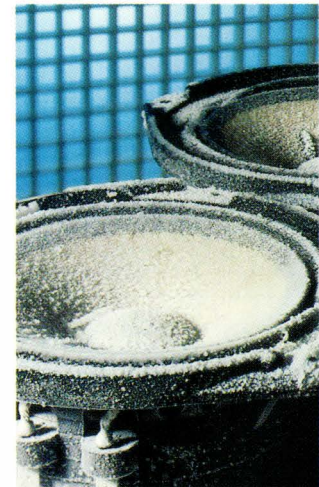
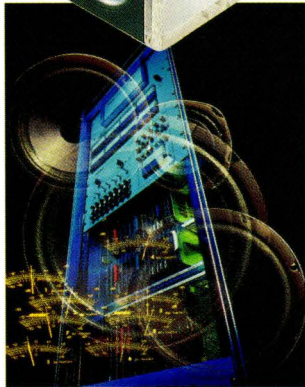
Andy Benham waves the flag for the versatile and ubiquitous analogue cassette.



AWESOME



Awesome is how the crew of the Endeavour described the sound produced by the Bose® speakers inside the space shuttle. Bose are, quite simply, the world's largest manufacturer of component quality loudspeakers. From the Winter Olympics to the N.A.S.A. space shuttle – and from supplying major car manufacturers like Mercedes-Benz and Audi to developing noise cancelling Aviation Headsets – Bose continue to forge new frontiers in the understanding and reproduction of sound. Bose brought Acoustimass® technology to the market, with best selling products like the Acoustimass 3 and Acoustimass 5 loudspeakers, and more recently they employed Acoustimass technology (to produce rich, deep, distortion free bass) in the acclaimed new home cinema system, the award winning Acoustimass 7 system. Unique computer based design applications like Modeler® have enabled professional sound companies to provide an un-equalled service to their customers. And Class A manufacturing facilities around the globe have enabled Bose Corporation to continually improve standards of quality and service. If you are looking for the best sound system available, look no further than Bose. Call the Customer Service Department on **(0795) 475341** for details on your nearest dealer, and discover for yourself the Awesome Sound of Bose.



AND YOU THOUGHT WE ONLY MADE SPEAKERS

BOSE[®]
Better sound through research.

BOSE (UK) LIMITED, TRINITY TRADING ESTATE, SITTINGBOURNE, KENT ME10 2PD

HI-FI CHOICE



The Front End

- 4** Update
All the latest on what's new in the hi-fi industry, plus hot new products from the hi-fi shows.
- 14** Sessions
Six pages of the latest products clamouring for review, including a set of cushions for your ceiling.
- 22** Statements
Andy Benham digs out his records to enjoy an engineering masterpiece — the SME Model 20.
- 36** Lifestyle
Alvin Gold investigates the Evolution system from Revox.
- 39** Help!
Got a hi-fi problem? Write to Choice and let our team of experts sort it out.
- 45** Write On
Don't bottle up your feelings. Turn on, tune in, write a letter and maybe win a Choice sweatshirt.

Columns

- 1** Gut feelings
Andy Benham takes to the word processor once again for his monthly dip into the hi-fi pond.
- 49** 21st Century Fox
Barry Fox looks at the tape levy lobby and warns about cannons being fired through PA systems.
- 128** Personal Messages
Paul Messenger considers the importance of the presence band to loudspeaker sound quality.

Aspirations

- 28** A Redesigned Sound
We meet a man who refused to accept his hi-fi's utilitarian styling and changed his system to suit.



The latest loudspeaker crop gathered for analysis.

LOUDSPEAKERS

- 52** Choosing and Using Loudspeakers
Paul Messenger takes a detailed look at loudspeaker design and shows you what to look for when shopping for a pair of speakers.
- 57** The Reviews
Paul brings you full in-depth technical evaluations and the results of blind listening tests on 22 of the latest speakers. Which ones are worthy of Choice commendation?
- 92** Conclusions, Best Buys and Recommendations
Which loudspeakers gave the most outstanding results and which ones proved the most disappointing? A handy overview of the best models on the market.

Competition

46 WIN ONE OF TEN SOUNDSTYLE TRIPOD STANDS IN OUR SUPPORTIVE COMPETITION.

The Directory

- 110** The Choice Directory
This country's most comprehensive guide to hi-fi components. Every significant model is there, and each one has been fully reviewed by Hi-Fi Choice.

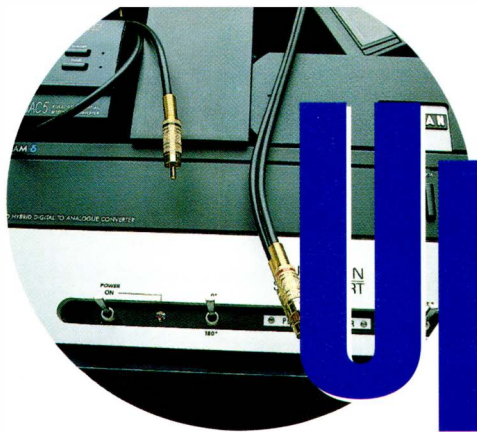
Choice Matters

- 12** Coming Up
In the June issue we'll be looking at the latest batch of CD players and much, much more.



Dig out the vinyl for a spin on the SME Model 20: it's featured in this month's Statements on page 22.

- 32** A Game Of 2 Halves
Barry Fox speaks to JVC in Japan, which is supporting both MiniDisc and DCC.
- 51** Choice Subscriptions
Get your copy of Hi-Fi Choice delivered by post.
- 96** Readers' Offers
Excellent audiophile recordings and superb accessories all courtesy of the Hi-Fi Choice mail order pages.
- 99** Reader Classifieds
Sell or exchange your hi-fi equipment, or buy that essential component at second-hand prices.



Update

CHOICE NEWS FROM AROUND THE WORLD

Home theatre systems from JBL

Harman Audio has five new home theatre loudspeaker systems, including three complete surround packages and two for upgrading existing stereo speakers.

The complete HTS 2, 3 and 4 retail at £750, £1,000 and £1,400 respectively. All the full systems have centre front dialogue speakers for Dolby Pro Logic, plus stereo left/right, two surround units and a sub-bass unit with the two smaller systems.

All are made up from JBL's *Control* loudspeaker family of compact semi-pro speakers, which have various optional mounting accessories and are magnetically shielded to be fully compatible with video equipment.

The HTS-2 has *Control 1*s throughout, specified at 150W RMS power handling and using a 135mm polypropylene bass driver. The HTS-3 has *Control 5*s in the main stereo channels, giving 175W RMS with a 165mm bass driver. The HTS-4 further upgrades the main stereo channels with *Control 10*s, a three-way design which utilises JBL's proprietary titanium diaphragm and diamond pattern surround for high frequencies, while the 300mm aquaplas bass driver incorporates Symmetrical Field Ge-



*Control 1*s a go-go: One of JBL's five new home cinema speaker systems.

ometry to reduce distortion.

Control SB-1 and *Control SB-5* subwoofers are used to enhance bass performance in the HTS-2 and HTS-3 systems respectively.

These home theatre systems are supplied with the necessary installation brackets and come in a choice of white, black and mid-grey finish. ☎ 0753 554 900

A CD player in a lower price bracket

The £180 DCD-595 is Denon's cheapest CD player to date.

The player incorporates a 20-bit micro-circuit digital filter and 18-bit advanced super linear convertors and

also includes Denon's Lambda system, which provides greater speed accuracy and cuts down on noise and timing errors.

The CD player has full infra red

remote operation with volume control which operates a digital attenuator that reduces output level in 12 steps of 1.5db in the digital domain. ☎ 0753 888 447



The Studio 7 with its back to the wall

Rogers' £880 Studio 7 follows the same tradition as its popular Studio 1 a predecessor. It is a two-way design, the low frequency driver crossing over to a fabric dome tweeter using a hardwired crossover network.

Because its reflex loading port is located on the front baffle, the Studio 7 can be placed quite close to a wall and needn't intrude too far into the room.

The damped cabinet is available in a choice of walnut or black ash veneer with rosewood available to special order.

☎ 081 640 2172



A new valve amp from C R Developments

The Romulus is the new £750 valve amplifier from CR Developments in Essex.

It puts out 24Watts per channel into six ohms, weighs 15.5Kg and measures 430mm by 350mm and 150mm in height. A 38W per channel version is available for £825. The Romulus incorporates toroidal core output transformers manufactured in house with multifilar winding techniques for optimum electromagnetic coupling. Polypropylene capacitors minimise colorations in the signal path, and close tolerance metal film resistors are used throughout. Various finishes are available to order, the two main combinations being brass and black or stainless steel and black. ☎ 0702 469 055

2001, 2, 3 and 4: a B&W odyssey

B&W has a new set of four speakers aimed squarely at the budget end of the market. Called the 2000 Series, prices range from £120 to £250.

Outwardly these speakers have a strikingly different Pentagonam designed appearance. This is not just for the Miami Vice effect: the grooved and radiused polypropylene baffles have anti-diffraction properties and give added rigidity to the cabinet.

B&W has stuck to its old favourite metal dome tweeter design, with magnetic fluid cooling and a high temperature voice coil for high power handling. The bass drivers on the other hand are new, designed specifically for the enclosures and therefore need only minimal EQ from simple crossovers in the interests of transparency and efficiency. They use doped paper cones, and low hysteresis rubber surrounds.

The 2001 is the baby of the range, just 285mm high with a volume of 6.8 litres, while 2002 is another compact shelf speaker, of 8.4 litres. The 2003 and 2004 are both stand mounted speakers, 14 litres and 21.5 litres in volume respectively. All are finished in black ash vinyl.

☎ 0903 750 750



The 2000 Series attempts to prove that it is built for the modern environment.

KEF centres on home theatre

Following acceptance as a THX licensee, KEF continues to develop models for the Audio Visual market. Its two latest Reference Series range loudspeakers are magnetically-shielded dialogue speakers designed to work as centre channel units for home cinema systems. They're intended to be an acoustic match with other models in the KEF Reference family.

The cheaper of the two, the £249 Reference Series Model 90, is designed to match the Reference 101/2 and 102/2 speakers. The 90 features a 165mm polypropylene Uni-Q driver with a built-in 19mm polymer dome in a reflex loaded box, styled to fit above or below a television set. Claimed sensitivity is 87dB, with a suggested maximum output of 110dB.

One hundred pounds more buys the Model 100, designed to suit the larger and more upmarket Reference 103/4 and 105/3 loudspeakers. Again using Uni-Q technology, but this time with a larger 25mm polymer dome and 165mm polypropylene cone, the 100 is blessed with higher sensitivity (91dB) and maximum output (112dB).

As with all Reference Series speakers, both models are calibrated against factory reference standards to maintain consistency. Both are finished in dark grey with a black cloth grille, although the 90 is also available in white. ☎ 0622 672 261

Testing, testing, one, two, three

Sound Check is a £16.50 professional audio disc for testing and demonstrating sound equipment.

Researched and compiled by Alan Parsons and Stephen Court and mastered at Abbey Road Studios, the CD contains 92 tracks of specially selected and recorded material from spoken voice and music tracks to sound effects and particular test tones.

As some of the tracks (including the tank gun mentioned by Barry Fox, p49) on the disc are not compressed or limited, care must be taken not to play them at too high a level as they could damage hi-fi equipment. ☎ 0753 833 524

A new mini on the market from Sharp

Sharp is extending its mini system range with the £500 Sys-C5300E.

At its heart is a fully integrated six disc changer CD player with 32 track programmable memory.

The twin auto reverse cassette deck has Dolby B noise reduction, APSS (auto programme search system), automatic tape selection and CD synchronised recording. The third and final source is a three band synthesised tuner with 30 preset memory.



A button fancier's dream, the Sys-C5300E complete with CD changer.

Extra twiddly bits include a stereo five band graphic equaliser and X-Bass boost. Mini system essentials like infra-red remote control and motorised volume are also included. ☎ 061 205 2333

In Brief

In our March issue we neglected to mention that Audio South was the installer of our Aspirations system. We apologise to Audio South, and anyone interested in their installations can contact them at 24 The Woolmead, East Street, Farnham, Surrey GU9 7TT. ☎ 0252 714 555

Harman Kardon is celebrating its fortieth year with an 8.6 per cent increase in international sales, and by acquiring one of the front-runners of digital signal processing, Lexicon Inc, subject to final approval by Lexicon's shareholders. Based in the professional market, but with products in the high-end home audio field, Lexicon joins JBL Professional, Soundcraft and DOD as wholly-owned members of Harman's Professional Group. Harman (Audio) UK Ltd, Mill Street, Slough, Berks SL2 5DD.

☎ 0753 576 911

As if to prove that the analogue cassette is not yet dead, WEA announced that new prerecorded cassette releases in the US will use Dolby S noise reduction, instead of the Dolby B commonly used. This will include labels such as Warner Bros, Atlantic and Elektra, with the first Dolby S encoded titles arriving in the spring. WEA is the first major recording company to adopt the new Dolby system, and claims that "Dolby S will help support the huge investment by both the music industry and music listeners in the analogue cassette".

Dolby S noise reduction on prerecorded cassettes is said to give exceptional levels of performance on the top Dolby S equipped players, but should also give good results on all cassette players, as it has some general tonal compatibility with Dolby B. The process also involves high-quality mastering and duplicating. (See *Gut Feelings*, page 1).

DPA Digital has increased its range of loudspeaker and interconnect cables and revised its *Power Slink* mains lead. The new *White Slink* interconnect attempts to achieve much of the performance of DPA's upmarket *Black Slink* cable, at a far lower price of £69.65 for a 1m pair, while IS7 speaker cable uses similar construction and costs £12.50 per unterminated metre. The new £24 per metre *Power Slink* power cable sports a compound running the length of the cable that converts RF energy into heat. DPA Digital Ltd, Unit 7, Willowbrook Tech. Units, Crickhowell Rd, St Mellons, Cardiff, CF3 0E1. ☎ 0222 795 621

Now you can afford to show off your Hi-Fi with our lower New Year prices



3 Tier Midi Hi-Fi Stand and pair of Single Tier Speaker Stands in Black & Gold.

The Triskom Complementary Collection of audio/visual display furniture not only offers great functional value but impeccable looks to match.

And due to an ever growing demand, we are offering new year price reductions across the complete range. Making it more appealing than ever!

Manufactured to the highest standards and with a choice of finishes, the Triskom Collection is available in a wide variety of formats and sizes to suit every taste and requirement (spikes are also available to maximise sound quality).

So if your looking for attractive and practical stands for your Hi-Fi, TV and Video or Satellite, with a complete range of



3 Tier TV/VCR/Satellite Stand in White & Gold.



5 Tier Hi-Fi Separates Stand in Black & Gold.

matching display furniture, than Triskom has something to suit.

That little something that's certain to bring compliments for years to come!

Triskom

THE COMPLEMENTARY COLLECTION

AVAILABLE AT THE STOCKISTS LISTED BELOW - OR FOR A FREE COPY OF OUR FULL COLOUR BROCHURE FEATURING THE TRISKOM COMPLEMENTARY COLLECTION CONTACT TRISKOM SALES LIMITED, UNIT 27A POPIN BUILDING, SOUTH WAY, WEMBLEY, MIDDX HA9 0HB. TELEPHONE: 081-903 3583. FAX: 081-903 4822.

FULL RANGE NOW ON DISPLAY AT SHASONIC MEGASTORE, 42 TOTTENHAM COURT ROAD, LONDON W1. TELEPHONE: 071-323 0333. Also contact Triskom for all your export enquiries

LONDON (SW1) HARRODS LTD 071-730 1234 (W1) MUSICAL VISION 071-636 6025 PNR 071-580 9098 UNIQUE SOUND 071-636 3001 (W2) PNR 071-724 8819 PHOTOSTEREO 071-221 3227 (W4) WHEATLANDS 081-994 2464 JATALA 081-994 8535 (W13) BABBER ELECTRONICS 081-579 6315 (SW11) WOODS RADIO 071-228 1768 (SW12) HIFI GENERAL 081-673 5694 SOUND VIDEO CENTRE 081-673 3398 (SW17) MULTI VIDEO 081-672 7369 (NW2) SAMPREE ELECTRONICS 081-452 0539 (NW7) SOUND SHOP 081-906 3364 (NW9) KILWORTH 081-205 1793 (NW11) HILTON CAMERAS 081-455 9700 (N7) BARTLETTS 071-607 2296 (N22) MUSICAL VISION 081-881 8788 MIDDLESEX SONY CENTRE 0895-633008 - SCANVIEW 081-904 6626/081-748 2059 - VICTOR ELECTRONICS 081-427 1889 - MUSICAL IMAGES 081-569 5802/081-952 5535 ATLANTIC ELECTRONICS 081-451 0302 - AKASH ELECTRONICS 081-847 1073 - C. F. LAKE 081-570 7103 - SIGHT & SOUND 081-572 5418 - TEDDINGTON ELECTRONICS 081-977 4444 SURREY SONY CENTRE 081-686 0535 SPALDINGS 081-654 1231 - MUSICAL VISION 0932-232393 ESSEX SONY CENTRE 0268-287411/0708-862159 - BENFLEET 0268-757860 - D. P. LEAKE 0992-716384 - CHEW & OSBOURNE 0799-23728 BERKSHIRE MUSICAL VISION 0734-568846 - C. F. LAKE 0753-538288 - BERKS HIFI 0628-27760 - SONICS 0753-860716 KENT SONY CENTRE (BEXLEY HEATH) 081-304 8425/(BROMLEY) 081-460 5610 - MUSICAL VISION 081-313 3336 AVON SONY CENTRE 0272-290448 SUSSEX SUNDERLAND ELECTRONICS 0273-774113 MID-GLAMORGAN J. H. LEEKE 0443-237700 TELE ELECT SVCS 0656-654156 SOUTH-GLAMORGAN DAN-EVANS 0446-734242 OMNI-DEEN 0446-737449 DORSET SONY CENTRE 0202-293112 NOTTINGHAM PINWOOD STUDIOS 0602-455556 OXON P.J.'s 0295-263222

Update

Denon's DRW-760 double decker

The DRW-760 is a sturdy £250 twin cassette deck from Denon which includes dubbing facilities and claims no compromise in sound quality.

A metal fascia emphasises the build quality and the construction includes two twin-motor mechanisms under full IC logic control.

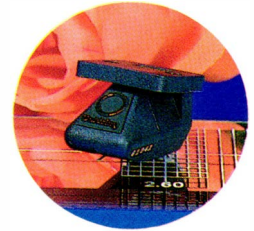
This cassette deck also features Dolby HX Pro (headroom extension for low cost tapes), auto tape selector and manual bias adjustment for fine tuning recordings. A fluorescent display shows a four digit electronic counter, and the

peak level meters range between -40db to +10db in 12 stages.

A relay play facility provides five cycles of play from deck A to deck B and a built-in infra-red sensor accepts commands from handsets supplied with Denon system remote control amplifiers and receivers, although the handsets are not available separately.

Denon's latest double deck diversion is the slick looking DRW-760.

Dolby B and C noise reduction, music search, two speed dubbing, memory stop, auto record mute and CD synchro record complete the feature list. ☎ 0753 888 447



Goldring dedicated to the analogue sound

Goldring is improving the profile of its 1000 Series range of cartridges from the elliptical £45 1006 up to the £80 1022GX, with its Gyger I stylus.

All these moving magnet-cartridges have upgraded diamond styli, used with the same one-piece Pocan body and magnetic circuit. A 'user-friendly' home replacement stylus assembly is supplied with each cartridge, so that worn or damaged styli can be easily replaced. ☎ 0284 701 101

DCC and MiniDisc at NARM

Visitors to Orlando, Florida (home of Disneyland), were joined by over 3,500 delegates attending the 35th convention of the National Association for Recording Merchandisers (NARM) in early March. At NARM, music companies, record distributors and retailers wheel and deal. Jan Timmer, president of Philips gave the keynote speech, and not surprisingly beat the drum for DCC. "We think that DCC rejuvenates the audio cassette". Although Sony has begun a DCC spoiling operation by reducing prices of DAT hardware (and the company plans to launch a £399 DAT portable that runs on alkaline batteries), Timmer said that Philips had no plans to launch a domestic recordable CD system: "CD-R will arrive, but it should not come as a result of a unilateral decision by a hardware company", he said.

Meanwhile, there was lots of new DCC and MiniDisc hardware on show. Philips unveiled its first DCC personal stereo, the DCC130. It provides up to two hours of playing time from a NiCad battery which takes just one hour to recharge. Other features include a 12-character illuminated LCD screen with scrolling facility, a three position Dynamic Bass Boost (DBB) system, and an optical digital output socket. Accessories include a mains adaptor/battery charger and carry case. The DCC130 measures 120x35x118mm (wxhxd), weighs 0.5kg and costs \$549 (£392). Philips DCC821 is an in-car system which includes an RDS tuner and CD-changer controller. A number of car companies, including

Chrysler and General Motors, plan to offer DCC systems next year. Philips also showed a working DCC mini hi-fi system.

Panasonic showed its portable RQ-DP7 DCC player. It weighs 0.5kg and includes a wired remote, Dolby B (for analogue tapes) and built-in rechargeable batteries. It will be launched in the US in August, priced at \$549 (£392). There were also table-top DCC machines from Tandy and Marantz.

Philips demonstrated the DCC Slide Show system, which stores large amounts of information in the sub-code track. The Slide Show is designed to show text information on a TV screen and up to

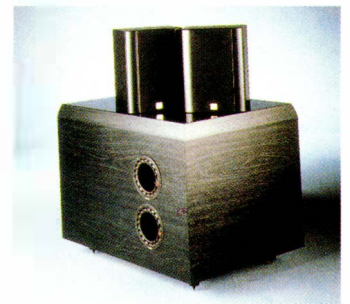
250 pages of text (comprising of 21 lines of 40 characters) can be stored on a tape. The display looks like teletext and can contain track and time information, lyrics and artist information.

Sony showed MiniDisc in-car systems and its first table-top MiniDisc player/recorder, the ZS-M1. Costing \$900 (£643), this includes an AM/FM tuner with 24 presets and remote control.

Sharp displayed two MiniDisc personal stereos; the \$549 (£392) MD-D10 and the \$599 (£430) MD-S10. Both include a scrolling LCD display, X-Bass booster and a NiCad battery.



Disguised as a discman the Philips DCC130 looks like being the first of a new breed.



More bass any time, any place

Jamo's £400 SW500 subwoofer (used with carefully placed Sat 500 speakers) gives extra bass from anywhere in the room.

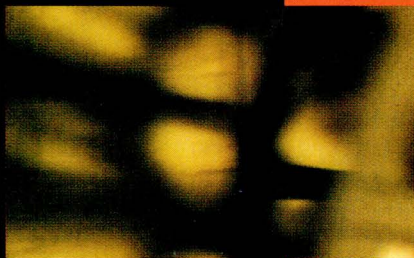
For the bass, two ten inch units mounted in Jamo's push-pull coupling arrangement provide high efficiency and low distortion. The satellites use a dome tweeter for the treble and a four inch midrange unit with dual magnet.

The subwoofer is designed to be on show, not hidden away, and a swivel ball-joint allows it to be wall-mounted if desired. It has stylish rounded edges which also enhance sound reproduction. The SW500 can be tuned to blend sonically with the room characteristics and siting by adjusting the bass reflex port, and it has gold-plated terminals.

The partnering SAT 500 satellite speakers are also fitted with a swivel ball-joint for wall mounting, and are designed to look nice as well as sound good in any surround sound system.

☎ 0327 301 300

**PINK
TRIANGLE
PROJECTS**



THE FINEST
IMPLEMENTATIONS OF
ANALOGUE AND DIGITAL
HI-FI EQUIPMENT

PT ANNIVERSARY
PT EXPORT
LITTLE PINK THING
THE PINK-LINK
DACAPO
ORDINAL



STERN CORRECTIVE MEASURES, CALL 071-703-5498

A DSP-1000 for under £1,000

American high-end manufacturer Enlightened Audio Design is moving into the almost affordable end of the market.

The £995 DSP-1000 is a 20-bit outboard DAC with AT&T, TosLink and coaxial electrical inputs and a choice of black or gold for the front panel.

The complementary disc drive is the £1,200 T-1000, which is based on Pioneer's Stable Platter mechanism, features an AT&T glass optical interface and a solid metal case and front panel for mechanical stability. EAD has also included a proprietary reclocking circuit, that is claimed to produce extremely low jitter performance.

Moving up the price scale, a Mk2 version of the DSP-7000 DAC is now available for £2,000. The output voltage is now set at 4V to be fully compatible with passive preamplifiers. A gold front panel, AT&T glass optical interface and balanced outputs are optional extras. A £495 upgrade can be fitted to the original DSP-7000. ☎ 081 948 4153

Continental cabinets and Romish racks

Over 50 different models are available in a range of Italian hi-fi and AV furniture.

The hi-fi units and CD storage towers in the 1993 Programma Cinque range vary in price from £53 to £429. Distributed in the UK by Takebond (of 31 Bedford Square, London WC1) the units hail from a European partnership between the Italian company Artexport and the French Artarredi. Together with Scandinavian subsidiary X-IT and American IFS, Artexport hopes to market its furniture to enthusiasts throughout the world. ☎ Takebond 071 323 2722



Bristol '93 Show Report

After a year's break, Hi-Fi 93, the Bristol show, was back with a vengeance last February and the *Choice* team was there in strength to spread the word, demonstrate serious AV and generally get some sponsoring in. This year the venue had changed name but not location. The old Holiday Inn has become the Marriot Hotel, which meant a few cosmetic changes and a new section in the basement with larger rooms for bigger dems, and the AV set-ups, which seem to be getting ever more popular at shows these days. Bristol must have had a dozen or so such rooms being run by companies including KEF, Celestion, Bose and Pioneer. In fact most of the major loudspeaker companies have moved into this increasingly popular area of home entertainment — which is hardly surprising given that your basic Dolby Pro Logic set-up needs five loudspeakers.

But it wasn't all *Terminator 2*. The enthusiasts had plenty to salivate over as well, with companies like Reference Imports, Hailey Audio and Audio Note UK playing the sort of megabucks kit that hi-fi dreams are made of. Because of the time of year, brand new product was fairly thin on the ground. However, there were a few interesting debuts: Definitive Audio not only had its awesome *Air Partner* horn speakers but a new and more manageable model from Denmark called the *Horning Agathon* (£3,500), a hybrid horn with two Lowther drivers plus a paper cone tweeter covering the very high frequencies. Michell Engineering was previewing a 60W stereo version of its *Alecto*

power amp, which looks to all intents like a single *Alecto* monoblok and will cost around £1,200. Also shown was an HR version of the *Argo* preamp complete with new PCB and 'full-on' power supply, which will cost about £1,300.

Audio Innovations had production samples of its P2 phono stage in action, available in MM (£699) and MC (£899) versions, which is being touted as state of the art at an accessible price

Cyrus electronics for the first time in the UK, emphasising the communications bus that allows complete remote control of all sources from a single handset. Marantz showed the CD-10 (£1,100), a new heavyweight single box player that's equipped with a diecast CDM4 mechanism and a pair of DAC7 Bitstream decoder chips.

JPW has now finalised its flagship range of *Ruby* loudspeakers which is now looking very attractive in

around £250 in Japan but as yet it's not known whether it will be made available in the UK. Sony also had some professional HD (high definition) video equipment including a Laserdisc player and a projection system that can be used with any format be it PAL, NTSC or 16:9.

On the domestic hi-fi front nearly everything new is being saved for the Spring trade shows. All that Sony was prepared to reveal at Bristol was the MDS-101 mains MD recorder, which is the production version of a carradio sized unit that has been on the scene since the format's early days. Price is yet to be announced.

The show was also well attended

by magazines, with representatives from all the major titles displaying their wares and Roy Gregory touting the first issue of his truly alternative audio publication *Sonic Boom*. But more importantly the sponsors (us) were proving that AV systems have other uses apart from to playing the loud bits from T2. We had a fine system consisting of the huge Pioneer rear projection monitor (SD-T5000), a Harman Kardon AVP-1 Pro-Logic decoder, the RATA CLD-1750 LD player, no less than three Quad 606 power amps and loudspeakers from Thiel (CS3.6 front left and right), Epos (ES11 centre), and Canons (a cluster of V-100s rear). Which made an adequate, nay excellent system with which to watch *Apocalypse Now*.



— we'll find out soon, watch *Sessions*. Innovations also had T2, not the movie but the step-up transformer; this T2 costs £399 and comes in a rather tasty case with impedance switching.

Klipsch horn loudspeakers made a surprise UK re-appearance courtesy of Midland Radio Supplies, which had two models in action. The *Heresy IIs* (£849) were making some very ballsy sounds and a pair *Klipschorns* (£3,800) also looked purposeful.

Another unusual set up was found in the Sansui room where the AU-a707DR (£1,500) integrated amp was being put through its paces in the company of an SME Model 20 turntable and a pair of Apogee *Stage* ribbon loudspeakers — ambitious stuff.

On the more popular and accessible front, Mission showed the new

The Marantz CD-10, a serious new £1,100 dual DAC7 equipped beast.

rosewood veneer with all metal diaphragm drivers; the *Ruby 1* costs £499 and *Ruby 2* £699, while matching *HS 1* and 2 heavyweight stands are available for £129.

Sony was playing with some very new products that may or may not end up in the shops, but which are nonetheless an interesting indication of things to come. Most appealing was the WM DDT-1 DAT Walkman, the world's smallest DAT player at barely the size of an analogue cassette case. This is achieved by using NT (non tracking) technology and doesn't spool the tape around a rotary head but pushes it into the cassette shell. The playback only WM DDT-1 is selling for

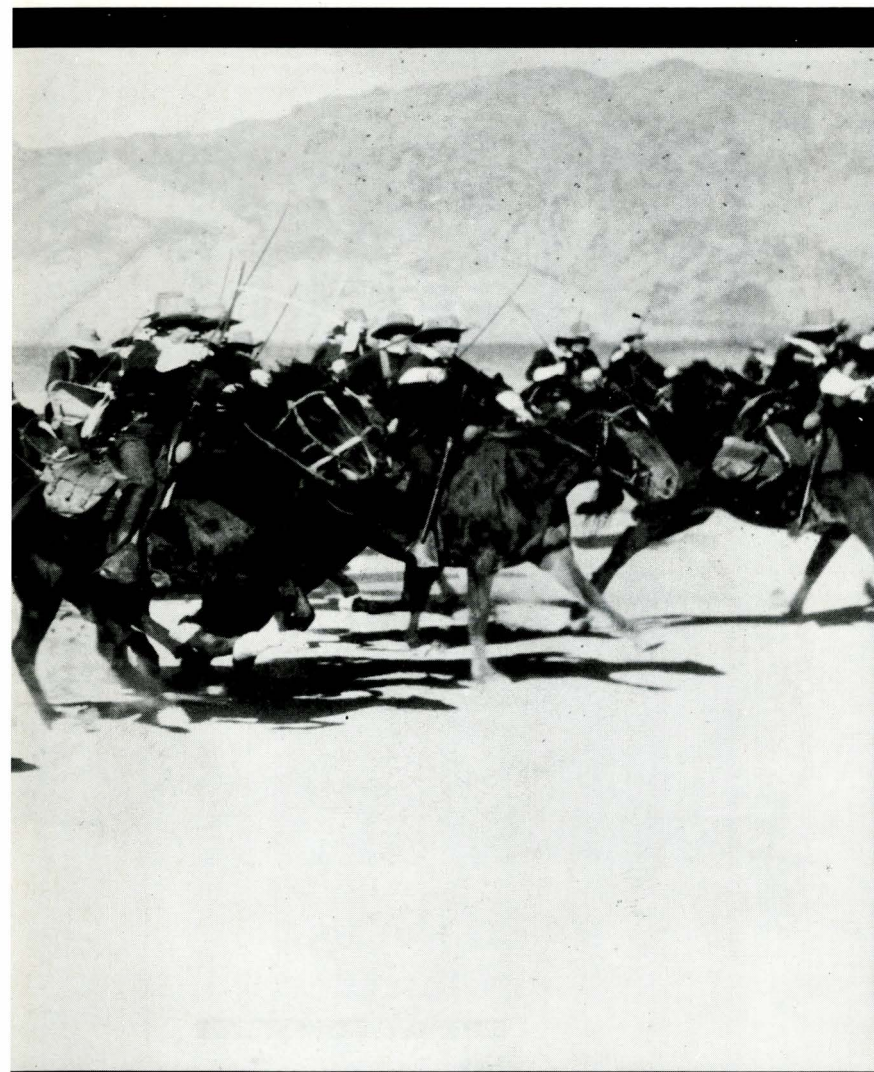


What good's a wi

So you've got your new big screen. And a big movie to show it off to full effect. And everything's just great. But hang on...what's up with the sound? Is it out of sync? Is everyone in the film a ventriloquist? No...it's your speakers. Because conventional box speakers – however good, however numerous – only deliver true stereo to a very

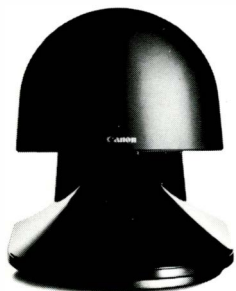
limited central "hot spot." Anyone outside that spot receives a sound image biased towards one or other of the speakers. Which is bad enough when you're listening to hi-fi, but is downright weird if your brain is seeing a central image on a screen and expecting the sound to appear from the same source.





Wide screen if you've still got narrow sound?

So what's the answer? Wide Imaging Stereo™ speakers. As purveyed exclusively by Canon. Prices start at under £150 a pair. If you want to get technical about it, you'll have to send for our free information pack. But essentially what they do, is use an acoustic mirror to reflect sound out in a tightly controlled curve, giving a much wider



hotspot and maximising the stereo effect for everyone in the room. Sounds good? You bet it does. In fact, when you're talking about installing home cinema, you ought to give them a listen.

Canon
WIDE
IMAGING
STEREO.
LOUDSPEAKERS

FOR FURTHER INFORMATION WRITE TO CANON AUDIO LTD., UNIT 6, GENESIS BUSINESS PARK, ALBERT DRIVE, WOKING, SURREY GU21 5RW. TEL: 0483 740005



Please reserve me a regular copy of Hi-Fi Choice

Yes! I would like to receive Hi-Fi Choice, the World's No.1 guide to buying hi-fi, every month so please would you make the following arrangements:



- Hold on to it so I can collect it myself
 Deliver it to my home office

Number of copies required _____

Name _____

Company name _____
(where applicable)

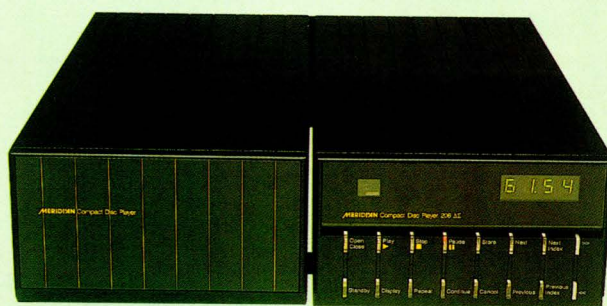
Address _____

Postcode _____ Phone No _____

Don't miss next month's issue of

HI-FI CHOICE

Packed with in-depth reviews!



20 CD players fully tested

All the newest, brightest CD players from such famous names as Linn, Meridian, Sony, Philips and NAD are put through their paces and exhaustively tested to give you the most comprehensive assessment possible.

Plus

A FREE guide crammed with all you ever wanted to know about speaker stands. A regular round up of all the latest news in Update, a look at the most desirable (if least affordable) in Statements and a chance to win a home entertainment system worth over £2,000 from Mordaunt-Short.

HI-FI CHOICE

JUNE ISSUE ON SALE
14TH MAY 1993

AEGIS

AEGIS SERIES MODEL 1 LOUDSPEAKER BY ACOUSTIC ENERGY



ACOUSTIC ENERGY

Manufacturers and distributors of the finest audio products

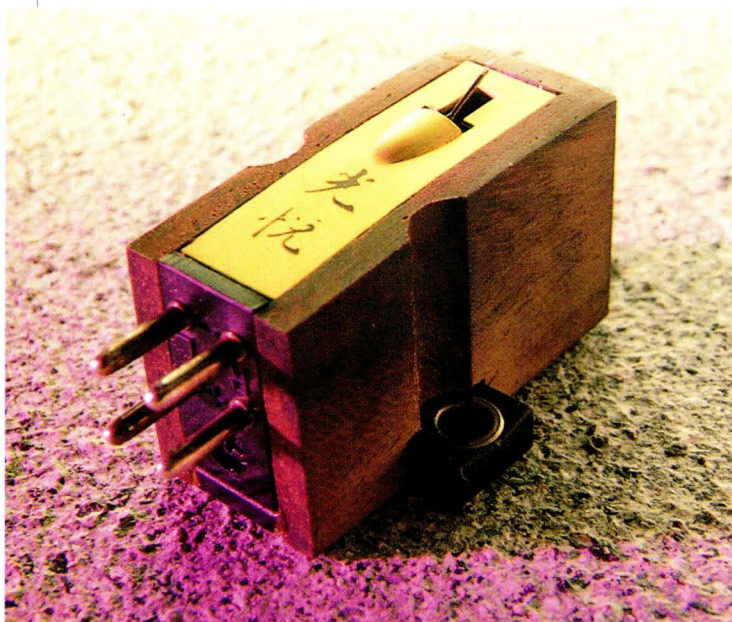
For full details of these products and our dealers contact:

Acoustic Energy Ltd

3A Alexandria Road London W13 0NP

Tel 081-840 6305 Fax 081-579 1761

Choice Sessions



CARTRIDGE

Koetsu Red T

The latest £1,245 Koetsu Red T, looks little different from earlier models from the same stable. It is an mc cartridge, but with (just) enough output to be run directly into an amplifier's moving magnet input without necessarily needing a step-up. It still has the solid square look, the wooden body and the Kanji lettering of old, which is perhaps one reason why Koetsu has been receiving so little coverage of late. But new Koetsu cartridges have also been thin on the ground, due in part to the tail-off of analogue, as well as the advanced age of Mr Sugano, the man behind the brand.

What has also stayed constant from year to year, and from

The Koetsu Red T gets behind the musical score and produces highly emotive images.

Koetsu to Koetsu, is the sound. Although general developments in cartridge design are implemented in new Koetsus and there are obvious improvements moving up the range, there is a very distinct family sound. This has been labelled by some people as rich, warm and musical, but also old-fashioned with fat bass; some people can also be very wrong.

This is the first time I have tried out a Koetsu at length, and although I know a number of valued sets of ears who use them, I admit to a prior personal prejudice against Koetsu bass. Having played with a Red T for some weeks I have to accept that I was wrong. The Red T won me over, playing music above and beyond all else.

I have never been particularly impressed with the 'musicality' concept put forward by some manufacturers, but the Koetsu's tonal beauty, warmth and naturalness make a good case for the argument. It may not stress rhythmic integrity like the new Linn Arkiv, or transparent neutrality like the Ortofon MC 3000, yet its balance of virtues mean that it shouldn't be overlooked in the quest for a

high-end cartridge, especially if you feel that a good system should make everything sound good.

Describing the Red T in hi-fi terms does it an injustice, as it belongs to that small group that live outside the law of audio jargon. Detail and imagery are first-rate, although these are not stressed as highlights. The bass is slightly rounded and this gives it a trace of time-smearing, although this is subtle, and seldom likely to rear its head unless your collection is made up of drum majorette records.

Where the Red T scores above all others in this group is its ability to get behind the musical score and produce highly emotive images of music and musicians. Played through a good system, the Linn will pin-point every leading edge of an instrument like a solo violin, the Ortofon will accurately describe every movement of the bow on the strings, while the Koetsu will leave you emotionally moved at the end of the performance. It is a sound full of character, in a world fast becoming characterless and bland.

Normally, such an individual product would be classed as 'tweaked' and only sound good with a particular genre of music. But the Red T, no matter how bizarre the music, simply got the best out of a recording. If pushed, it could sound a trifle over-sweet on Lubricated Goat,

Camper van Beethoven and Butthole Surfers albums, but that is no bad thing!

At this price I would not expect to find significant fault with a cartridge, but it is rare to find a product that provokes the musical appetite so readily, making me want to explore the finer Koetsu cartridges, like a gourmet explores Michelin recommended restaurants. Those who find its strengths are to their taste can rest assured that that I've found no finer cartridge at the price. And having discovered that my own prejudices were totally without substance, I'm now finding it hard to do without the superb Red T.

Alan Sircom

SUBWOOFER

REL Stentor

The word subwoofer can conjure up pictures of cheap and cheerful three-box systems bringing a little bass into the lives of those unable or unwilling to put up with full size loudspeakers. Right from the start let me point out that the Stentor subwoofer costs a cool £1,200, looks absolutely superb, and is designed to be used with good quality, full range speakers

Who would have thought that this understated cabinet could produce trouser flapping bass.



VERDICT

Koetsu Red T cartridge

■■■■■ □ £1,245.00

PROS: Passionate, lucid. Plays all styles of music with ease.

CONS: Slight time-smear, but little else.

▶ **ABSOLUTE SOUNDS LTD,**
58 Durham Road, London
SW20 0DE.
Tel: (081) 947 5047

rather than dedicated satellite units.

The *Stentor* is also rather unusual in that it doesn't impose a crossover network on the main stereo pair, which are left completely unprocessed. Instead it is wired in parallel across the speaker terminals of the main power amplifier, and includes its own 100Watt power amp to control the ten inch driver. Connection to the main amp's speaker terminals ensures that the volume stays in step with the main system; a high impedance step-up device is in the pipeline for active system users.

Setting the system up is very easy indeed. The *Stentor* comes with a generous 5m lead so you can site it just about anywhere, provided of course that there is a mains socket nearby to power the amplifier. It gives best results when placed between the main speakers, but a couple of metres either way doesn't really make that much difference.

To set up the unit adjust the volume control until you can just hear the subwoofer working alongside your main speakers with the sub set to its widest range. Once the level is OK you alter the crossover roll-off frequency setting to get the best fit with your existing speakers. It's important to note that the *Stentor* works alongside your main pair, and doesn't affect their own bass response in any way. At its widest setting the *Stentor* works upwards from a -6dB point of 17Hz to around 120Hz. In my room, with the Acoustic Energy *AE1s*, a top setting of around 75-80Hz gave the best fit, but you will have to experiment — indeed, it even seemed to vary from track to track.

The most obvious effect of the *Stentor*, is, surprise surprise, to add more deep bass. The *AE1s* are no slouches in their own right, but the addition of the *Stentor* really gives the system a bit of welly in the bottom end.

However, this is far from the end of the story. The *Stentor* is actually at its most impressive in less obvious respects, the most interesting of which is depth of image. With the *Stentor* wired into the system the stereo image produced by the *AE1s* was quite noticeably deeper, and even a little wider, something I am rather at a loss to explain, but since it was remarked upon by a number of listeners, I'll just state it as fact and leave the logic to someone else to figure out.

The other factor is perceived level. The *AE1* is a great little speaker, but it needs a little volume for things to really come together. Adding the *Stentor* makes listening at low volume levels a much more realistic experience and I found that I ended up with a lower volume setting than with the *AE1s* alone.

Obviously one of the great delights of this sort of system is that it is fairly inconspicuous. Couple that with the gorgeous finish of the *Stentor*, and you have an exceptionally visually unobtrusive system. As the *Stentor* just adds to the bass performance of the main speakers, it is very much as their mercy, but when partnered with decent units the results can be remarkable. As an experiment we used a *Stentor* at the Bristol Hi-Fi Show partnering a giant pair of Thiels, and results were no less impressive. In short, the *Stentor* is a superb product, capable of enhancing even the best system, and highly recommended.

Andy Benham

AMPLIFIERS

Musical Fidelity A1000

Guess the leading brand of 'Class A' amplifiers in Japan. Could it be Denon? Lux? Audio Note? Hoover maybe? The rather surprising answer turns out to be our very own Musical Fidelity, whose A series range generally, and the diminutive A1 in particular, turn out to be extremely popular along Akihabara and the Ginza. Musical Fidelity's achievement has been enough to attract the interest of some major Japanese names who have jumped in with some comparable (though more

expensive) 'Class A' amplifiers of their own. But that's another story.

Some months ago, the Japanese Musical Fidelity distributor was asked, rhetorically according to Musical Fidelity's Anthony Michaelson, what amplifier he would design if he had a completely free hand. He replied by asking for a sheet of paper, and he drew a screw.

A screw? He did so, it transpired, to illustrate something about the Japanese psyche that isn't always apparent at this distance: the Japanese are

obsessed with detail. Typical British and American buyers are concerned with the way a product performs, but less so about the way it is built and presented. The Japanese buyer, who some regard as the most sophisticated in the world, looks at every aspect of the products he is offered, right down to the screws which hold it together.

From this unlikely encounter the A1000 was developed. It is described as a pre-power amp, a rather pedantic phrase justified by the fact that it is not a true integrated amplifier, as all the power supplies are contained in a separate box, as well as by the almost obsessive way that the pre and power amplifiers are separated inside a single case. The power supplies are external to avoid electromagnetic hysteresis effects, but the convenience of substituting just this box for different export market requirements, and removal of its contribution to waste heat creation are useful

bonuses. This separately supplies the pre and power amp sections through umbilical cables. Feature levels are typical minimalist Musical Fidelity, with five inputs, the vinyl disc one being selectable for MM or MC cartridges which worked very well indeed with a Roksan record player on its MC setting. Notwithstanding the heavy-weight build, the technical genesis of the power amp section is pure A1. The power amp is essentially the same circuit, magnified by the influence of its much larger power supply and using four custom designed output



Look at that! MF's turbocharged A1, the A1000.

obsessed with detail. Typical British and American buyers are concerned with the way a product performs, but less so about the way it is built and presented. The Japanese buyer, who some regard as the most sophisticated in the world, looks at every aspect of the products he is offered, right down to the screws which hold it together.

From this unlikely encounter the A1000 was developed. It is described as a pre-power amp, a rather pedantic phrase justified by the fact that it is not a true integrated amplifier, as all the power supplies are contained in a separate box, as well as by the almost obsessive way that the pre and power amplifiers are separated inside a single case. The power supplies are external to avoid electromagnetic hysteresis effects, but the convenience of substituting just this box for different export market requirements, and removal of its contribution to waste heat creation are useful

transistors to the A1's one, and four times the current per channel to match. The amplifier is rated at 50 watts/8ohms and like most Class A amps including valve designs, there's little more available for 4ohm loads. Those enormous cooling fins along each side are not for show!

The preamp section is described by Anthony Michaelson as being in essence a tube circuit executed in Mosfets. It is designed to sound valve like, and is said to have valve-like stability margins, bandwidth and other parameters.

The attention to detail is quite obvious, and from this point of view, it is plain that Musical Fidelity really has turned a fresh leaf. It is obvious in the sophisticated silkscreening on the front panel, in the most un-Musical Fidelity-like arrangement that allows the output transistors to be viewed from the outside. It shows also in the outboard power supply that is finished to

VERDICT

REL Stentor

■■■■■ £1,200.00

PROS: Well built, looks great, makes floorboards shake.

CONS: Not cheap, needs its own mains feed.

▶ REL, Unit 2, New Street, Bridgend Ind Est, Mid Glamorgan, CF31 3UD. Tel: (0656) 768777

SME MODEL 20



Built to the same engineering standards and incorporating many design features originated for the Model 30, 'the best turntable of all time' this attractively priced precision turntable offers the same reliability and freedom from critical adjustments. Massive construction and vibration free moving parts ensure wide-band sound of exceptional detail, resolution and dynamic range.

Now available through leading dealers, further information on request from:

SME LIMITED · STEYNING · SUSSEX · BN44 3GY · ENGLAND ☎ (0903)814321 Fx (0903)814269

ROMULUS



The ROMULUS line level integrated stereo valve amplifier, a small step backward in technology, a giant leap forward in sound sense.

Available direct from C.R. Developments Ltd.
Unit 8 Craftsman Square
Temple Farm Industrial Estate, Sutton Road
Southend on Sea, Essex SS2 5RH
Tel 0702 469055, Fax 0702 601883
(Demonstrations by appointment)

UK dealer enquiries welcome

Try me & save on current Micromega stock*

- ▶ MICRODAC ~~£349~~ now £225
- ▶ LOGIC ~~£569~~ now £399
- ▶ LEADER ~~£849~~ now £549
- ▶ SOLO II ~~£1599~~ now £999

Sensational prices guaranteed
on ANY current Hi-Fi AV or Home Cinema unit

- ▶ Budget, Regular and Esoteric Equipment
- ▶ Full Manufacturer's Warranty
- ▶ Fax us your priority order **081-563 0300**
- ▶ Free Insured Delivery, anywhere in the U.K.
- ▶ Minimum order £250
- ▶ Credit Cards accepted including Switch and Connect

* LIMITED OFFER ON CURRENT MODELS AVAILABLE WHILE STOCKS LAST:

Ex-demo stock sold AS NEW, with full manufacturer's warranty.

In addition, we promise to collect and return any repairs under warranty.

Try Me & See Ltd,
5 Rocks Lane, Barnes,
London SW13 0DB

081-563 0003

the same standards as the main amplifier. And yes, it even shows in the design of the fixing screws.

Anthony claims that the A1000 has a musical family resemblance to the A1 — indeed that the A1000 somehow validates the A1. I did detect some underlying similarity, but the A1000 is really a much better amplifier. For one thing, it is very obviously in charge in a way that the A1 can never achieve. This isn't simply a matter of power output since the A1000's authority is almost palpable even at low volumes. It is the presence of the sound even when the music sinks towards the quiet end of the range that sets it apart from much of the competition.

The family resemblance is to be found elsewhere, for example in the smooth and graceful sound with no undue sharpness or sterility. It can also be heard in the characteristic upper bass warmth, which is less marked than on some previous MF amplifiers (especially the A1 which is distinctly coloured in comparison), but still has a detectable 'bloom' which can be traced through the rich, sonorous cellos and basses, and in a certain silkiness added to voices.

A departure from reality is a departure, however you dress it up, and playing fast and loose with what is on the disc or record is not to be condoned. But it is not taken to excesses here. It took some time even to identify positively the characteristics described, and the sound was never less than poised and self-contained, with no trace of overhang, boom or heaviness.

As well as sounding bold and authoritative, the A1000 is also

lively and engaging, and capable of delivering transient material with tremendous slam. And in the author's opinion it's certainly among the best two or three integrated amplifiers available in this country, irrespective of price — even though the external power supply means it is not strictly an integrated amp at all, but something rather different and in its own way entirely logical. And in between listening sessions, you can always of course admire the way the amplifier has been screwed together.

Alvin Gold

INTEGRATED SYSTEM

Nakamichi Sound Space 7

The (£1,295) *Sound Space 7* consists of CD player, tuner and amplifier in a single unit together with a separate pair of loudspeakers. The design implies that it should be sited in a row with the speaker either side of the main unit, which makes for 34 inches of continuous hi-fi equipment. Conventional equipment stands are therefore not exactly encouraged, but then again, the system is not designed with convention in mind. We are talking serious styling here; hi-fi for the fashion conscious, for people who wear designer gear and drink designer beer. And who better to manufacture a system for such folk than Nakamichi — a name virtually synonymous with street cred.

The smooth, grey finish adds to its sleek and expensive appearance — but be warned, this system will not blend in with the typical living room. Those who own show houses be-



Fill your space with sound with the decidedly unsit-com styling of the SS7.

decked with Versace soft furnishings should be alright, but it looked slightly out of place atop my wooden dining table, its contemporary coolness making the rest of the room look distinctly Seventies sit-com. And for a while I was very unconvinced by the design, especially the tangerine, turquoise and red triangles, buttons and dots in a variety of sizes which control CD and tuner operation.

When it came to setting up, however, the design definitely started to grow on me. It was simple to manage and, armed with the concise but clear instruction booklet, I had a CD playing in about five minutes, which is something of a record for a self-confessed technophobe. And then for the tricky bits. The CD player is a Nakamichi *MusicBank* model, which basically means it is a multiplayer that can house up to seven discs. These can be played back continually, randomly or in an order of your choice, using a memory which can store up to 50 tracks. This all came as something of a surprise, as the unit doesn't look big enough to house a tuner, amplifier and seven CDs all at once, to say nothing of the fact that you

cannot see any of the normal multiplayer trappings (carousels, disc trays and such like).

Fortunately, operation once again proved very simple. The discs are loaded in one by one which is a little time consuming when you are not familiar with the controls, but this was when I started to see the sense of the differently shaped and coloured buttons. After a couple of goes I began to remember that Track Skip is a grey triangle, Stop is a red square and so on. It sounds a little tricky, but it seems to herald an end to the days of frantically reading the labels on infinite rows of black dots.

Tuner operation was equally simple. Pin the FM wire antenna onto the wall, plug it into the back of the unit, and the player will locate the strongest signals at the touch of a button. Incidentally, the house proud needn't be concerned about the pink T-shaped aerial looking unsightly against the white-with-a-hint-of-not-really-white wall coverings, as it is quite happy to be pinned up behind the Ikea bookshelf, Man Ray print or ethnic wall hanging.

Additionally an AM aerial can be used, and up to ten station presets can be held in the

VERDICT

Musical Fidelity A1000

■■■■■ □ **£1,399**

PROS: Great Class A sound quality, nice screws!

CONS: Gets hot, doesn't like low impedance loads.

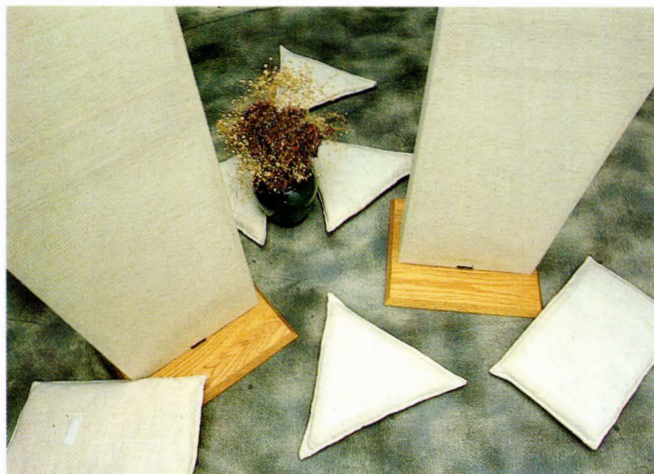
MUSICAL FIDELITY
15/16 Olympic Trading Est
Fulton Road, Wembley
Middx, HA9 0TF.
Tel: (081) 900 2866

memory. Manual tuning is also an option.

The system's only real downside comes with CD playback, as I could find no facility to scan through a track to the wanted bits. *Clockwork Orange* fans who just want to hear the final crescendo of Beethoven's *Ninth* will find it impossible, and in our house this omission became a catastrophe when the resident Hawkwind fan decided to play a few numbers. 13 minutes of 'space improvisation' to get to one minute of 'poetry' ain't my idea of fun.

My usual system is made up of separates which come to around the same price as the 7, making a sound per pound comparison relatively easy. I found that I preferred my reference in terms of spaciousness, a sense of filling the room with music that I didn't really get with the Nakamichi. Then again, my system in no way compares with the 7 in terms of set up simplicity, operation and of course styling. Sound quality is perhaps bound to be slightly inferior to a similarly priced separates system as a larger proportion of the budget has been spent on design, so you pay your money and makes your choice. Me? I'm off to the interior decorator.

Janet Moorhouse



treatment systems suggests aesthetics also play a part: large, slatted wooden baffles, or vast expanses of oatmeal coloured cloth are unlikely to vanish in the smaller British room. Stateside, however, with its generally larger listening rooms, such treatments are the norm for any aspiring high-ender.

RoomTunes, imported by AudioFreaks, is probably the first decorator-friendly acoustic tuning system. There are four basic devices, although in practice the large triangular *BassTune*, that bears a striking similarity to a partly folded mattress lying on its side, is unlikely to be used in this country.

The RoomTunes system starts with an £89 set of four *CornerTunes*: triangular, ivory coloured cushions (black and blue/grey finishes are also available) filled with fibreglass which are stuck into each top corner of the room with Velcro pads. *CornerTunes* are designed to minimise corner reflection problems; some reflection has to occur, however, so there is a semi-reflective element within the tuning device itself. I tried to see if you could save money by nailing up conventional cushions, but it didn't work as well and looked exceptionally silly.

Having worked on the corners, there are still highly reflective areas along the top of the walls. These can be discovered by listening to the reverberation, which involves looking rather stupid standing on a ladder, clapping at a wall. The worst reverberation points, described in the RoomTunes brochure as

So much for the bean bags here's the RoomTunes, guaranteed to sort out your echo slap points.

'Echoslap' points, are improved by fitting the rectangular *EchoTunes* (£49 a pair).

Finally, the floorstanding *RoomTunes*, supplied in pairs for £200, are used to reinforce the benefits provided by the previous two RoomTune products. Used in freespace, the *RoomTune* has a number of very different applications, depending on the room and type of hi-fi system. The supplied literature even suggests it is desirable to position the loudspeakers in the centre of the listening room (!) and adjust the *RoomTunes* accordingly — an arrangement which, perhaps coincidentally, is shown in the brochure using up to seven of the *RoomTunes* devices.

I tried to adapt my system in this manner, albeit only with a pair of both *EchoTunes* and *RoomTunes*. Moving the small *ProAc Response One S* loudspeakers out into the centre of the room highlights their lack of

low bass, but by adding RoomTunes devices, the sheer 3D imagery, the silken highs and the lack of mid-band chestiness largely made up for the reticent bottom end. Using *RoomTunes* with speakers with more bass highlighted their ability to suck out any in-room bass anomalies, leaving the system sounding drier and more taut.

Tuning the room with the loudspeakers placed in their normal positions worked in broadly the same direction, but of course bass was enhanced, at the expense of the holographically transparent mid and high frequencies. It takes time to work on a specific room with the RoomTunes system and it is difficult to make sweeping generalisations. Only the briefest guidelines are given here, as the improvements may well vary from room to room.

Ultimately, an acoustician can do a better job, but this will generally cost far more than a set of RoomTunes. Especially when used with a pair of full-range speakers, the RoomTunes system can help to eliminate a surprising variety of the room anomalies which can often compromise the performance of high quality hi-fi. Enthusiasts have already accepted the importance of quality stands and tables in a system; I believe that room acoustic modifiers are every bit as important, especially in a poor environment. And even a good setting still leaves room for worthwhile improvement.

Alan Sircom

CD/LD PLAYER

RATA/Pioneer CLD-1750

The RATA/Pioneer *CLD-1750* is a Laserdisc player Russ Andrews found had such great potential as a CD player that he has done some serious upgrading to its electronics and put it on the market as the RATA CD player. Pretty weird huh? Where does someone like Russ Andrews get off trying to convince the audiophile cognoscenti that a £580 Laserdisc player and a bit of serious circuitry can make the grade as a £1,173 CD player?

VERDICT

Nakamichi Sound Space 7

■■■■■■□□ £1,295.00

PROS: Sleek design, very easy to set up and operate.

CONS: Looks will not suit all tastes, rather expensive.

▶ **NAKAMICHI B&W (UK) LTD,**
Marlborough Road, Lancing,
West Sussex BN15 8TR.
Tel: (0903) 750 750

ACOUSTIC TREATMENTS

Roomtunes

The UK hi-fi elite have traditionally taken a dim view of products that modify the acoustics of the listening room. One reason has been scepticism about the value of such products, but a glance at earlier room

VERDICT

RoomTunes Acoustic Treatments

■■■■■■□□ £Various

PROS: Good for treating poor rooms, controls excessive bass.

CONS: RoomTune is obtrusive, not for bass shy equipment.

▶ **AUDIOFREAKS,**
15 Linkway, Ham, Surrey
TW10 7QT.
Tel: (081) 948 4153

There is some precedent for such a move however. At least two American companies, Theta and EAD have brought out CD transports based on LD players, quite possibly also of Pioneer origin. What's more, the Theta at least has received a fair amount of critical acclaim. So in a way the RATA 1750 is a relatively affordable variation on the theme (the high-end US transports costing several thousand pounds a piece) although the RATA's designed to be used as a standalone player rather than a transport. Regrettably the only digital output is the TOSLINK optical one that comes as standard, so outboard DAC upgrading is limited.

So what does the nigh £600 premium over a standard 1750 buy you? Looking at the player from the outside the only differences are a hosepipe size Kimber mains lead that's only a metre long (longer leads can be had at extra cost) and a pair of chunky gold plated output sockets. The main differences are of course on the inside and take the form of general power supply upgrades and a new two stage analogue board bridging the gap between the bitstream DAC chip and the output sockets. The board is glassfibre and uses Holco resistors, while a 1750XL version which sells for £1,961 has a Teflon board with Vishay resistors. Internal cabling varies between the two versions as well with Kimber *TC* adopted in the *Basic* and Kimber *Silver* in the *XL*.

So what sort of CD player do these mods turn the 1750 into? Basically a smooth and informative one, which has the ability to resolve plenty of detail without over emphasising it. A lot of CD players can do one or the other, give you detail with a capital D or give you a smooth homogenous sound, but it's unusual to find one that does both in such a complimentary fashion. If anything this player sits on the mellow side of the line, delivering first and foremost fluent and natural music.

It tends to sound a bit blowsy compared with a venerable Marantz *CD-12*, and imaging in particular seems rather vague by comparison while the 12 ob-



viously has the upper hand when it came to the elusive slam factor. That said however, the LD player managed to create a better sense of depth or three dimensionality, approaching a good turntable in this respect. The 1750 seemed to extend down further into the bass and where the high definition of the 12 can become a little wearing with some discs, the more laid back balance of the 1750 made listening a more inviting experience. The other key area that differentiated the two players was timing, an area where the RATA performed quite differently to your average CD player. It seemed to have an easy, relaxed sense of rhythm that made the alternative sound forced. To be frank the jury is still out as to which is the most accurate, but

Reference Recordings samplers treated with various stick on tuning devices.

the sheer listenability of the RATA suggests that it could well be the most natural.

I also compared the RATA 1750 with a standard 1750 borrowed from Pioneer, which showed what the extra £600 bought you sonically. And that was a considerably more confident and detailed sound. The standard player is very pleasant but sounds ineffectual next to the tweaked version.

Jason Kennedy

TUNING DEVICES

CD Stickers

Despite Compact Disc's claimed perfection there's no end to the tweaks available to improve on its performance, some of which apply to players while others are concerned with the discs. This latter option became a logical subject of investigation when several samples of the Reference Recordings sampler became available last December.

The particular species under consideration is the stick on stabiliser/damper variety that is usually permanent unless you

want to risk taking the print off of the disc. Which is one reason why such devices tend to pile up on the desk rather than finding their way onto the discs in my collection. A rather more scientific assessment than just putting one onto a known disc is really necessary in order to assess their worth.

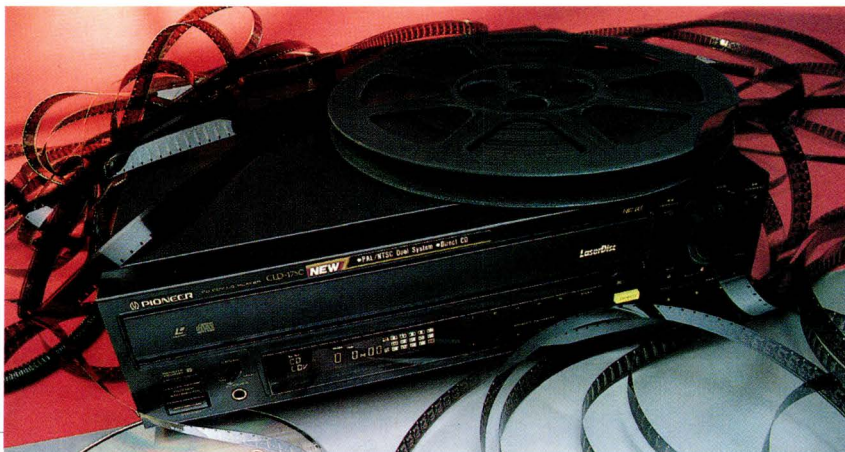
For the purposes of this review I gathered three such sticky-backed pieces of clear plastic: Harmonix *RF-11* (£17.95 for eight) that AS touched on in his Harmonix overview last month; *CD Upgrade* (£7 for five up to £40 for 50), a system that is applied to both sides of the disc and the *CD Interface Mat* (£5.99 for ten) which is the least visually obtrusive of the three being completely devoid of print.

Each of these were to different copies of the sampler disc and listened to on the RATA *CLD-1750* reviewed in this issue and my Marantz *CD-12* combo, using a naked and untreated disc as a reference.

Harmonix (Absolute Sounds)

Last month Alan pointed out that the Harmonix sheets are in fact removable, which is useful. He also noted that although they were generally very beneficial they could also make some discs sound worse. The first few times I listened to the disc with the Harmonix sheet onboard I was impressed that it brought to the music, its ability to enhance the sense of image within a more specific acoustic environment was also very appealing. On the

VERDICT	
RATA 1750	
■ ■ ■ □ □	£1,173.00
PROS: Sounds good and plays Laserdiscs.	
CONS: Has no electrical digital output.	
▶ RATA Edge Bank House, Skelsmergh, Kendall, Cumbria, LA8 9AS Tel: (0539) 83247	



Forget the films, this Laserdisc player's all about getting the best out of your CDs.

THE LISTENER

You'll hear better if you use your head

Ringling telephones, vacuum cleaners, traffic — and you thought CDs meant the end of background noise. Think again.

At Sennheiser we have been putting thought into producing high-quality headphones since the HD 414s (released in 1968). We're also highly thought of — worldwide critical acclaim has included six awards in *What HiFi* magazine.

The new Sennheiser range continues to excel in terms of sound quality. All our headphones come with a two year warranty, plus our assurance that all parts are and remain replaceable (nearly a quarter of a century on, spares are still available for the HD 414s). And with all products entirely developed and manufactured by us, backed up by 100% quality testing, the craftsmanship is guaranteed too.

That's the background. Now listen. Unbeatable sound quality — no noise.



**Sennheiser —
the thinking
man's
headphone**



Sennheiser UK Ltd, Freepost, Loudwater, High Wycombe, HP10 8BR.
Fax 0628 850958. Telephone 0628 850811.

 **SENNHEISER**

*Just when you thought it was safe to put
the records back into the attic, pick-up
arm engineers SME bounce back with
the Model 20 turntable, which makes a
valid claim for the best turntable in the
world, according to Andy Benham.*

Statements

It's rather difficult sitting down to review a £4,000 turntable. You feel as though some sort of justification is needed for even daring to contemplate spending this much money on something that we are told at every turn is a dying medium. Although it is not exactly a buoyant market, people are still buying turntables, and over the last couple of years at least half a dozen significant high-end models have been launched at the 'this is the last turntable I'm ever going to buy so I'd better make it a good one' market.

Shiny coasters

In some ways this sort of approach makes a lot of sense. If you are sitting on a record collection of even 500 albums, then you are looking at a bill not totally unrelated to £5,000 for replacing them with those shiny little coasters the music industry's accountants love so dearly.

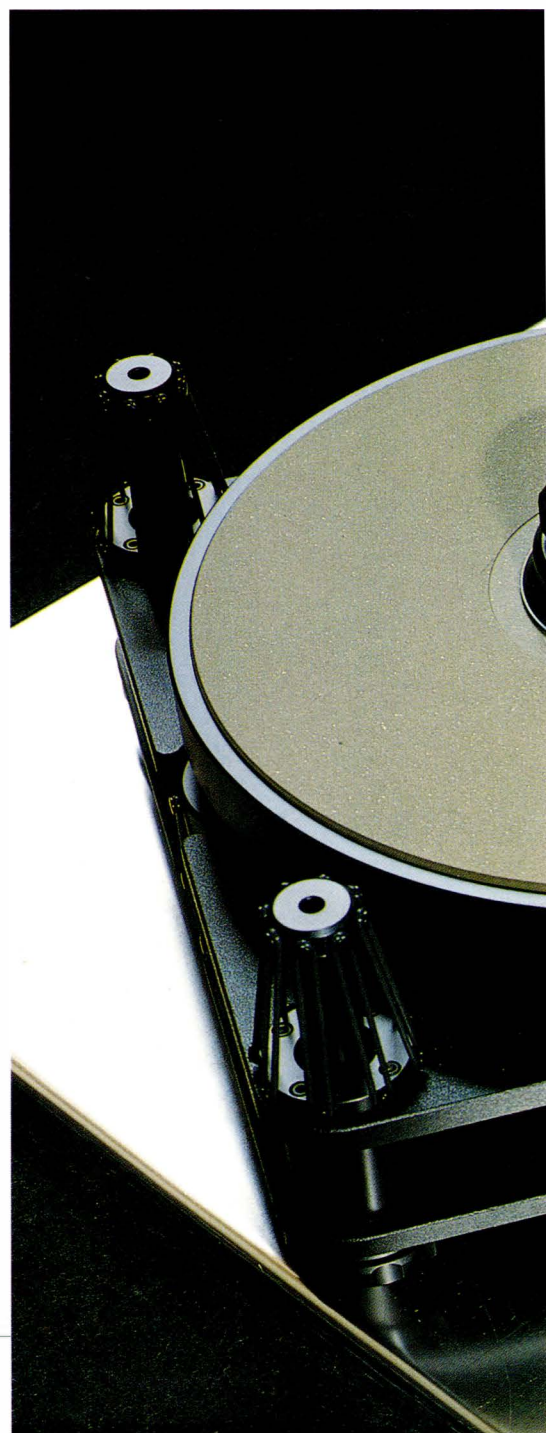
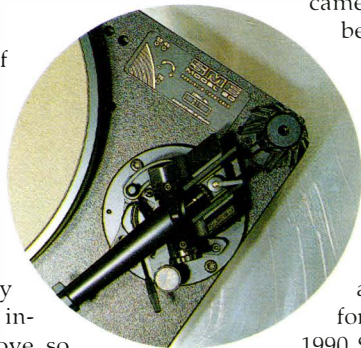
The argument runs that if you can buy a turntable for a grand or four that will make your vinyl collection sound better than its CD equivalent, it makes more sense to spend the money on the deck and live with the neighbours' disdain for such Luddite behaviour.

If you're looking for a turntable with a view to playing your records in the

year 2010, you could do a lot worse than the SME *Model 20*. For those unfamiliar with the company's history, SME started life as Scale Model Equipment Ltd back in 1946, under the stewardship of one Alastair Robertson-Aikman. After a decade or so of turning out some astonishingly beautiful scale model boats and cars, the company's attentions turned to tonearms, mostly as a result of just such a device which the hi-fi enthusiast founder had built for his own use. The rest, as they say, is history. Over the years, Scale Model Equipment became SME, and its founder became ARA.

From the late Fifties to the late Eighties SME was known as a specialist tonearm manufacturer, its most recent *Series IV* and *V* tonearms winning bucketloads of awards and setting the standards for others to live up to. In 1990, SME made something of a departure with the launch of the *Model 30*, a cool £11,000 statement on the state of the turntable manufacturer's art. The glorious looking beast featured on these pages is its baby brother, the *Model 20*, which was launched earlier this year, at a far more reasonable asking price of a mere £2,682, or £3,762 for those of you who can also afford to include a *Series V* tonearm in the package.

The *Model 20* certainly creates a good impression right from the word go. Just unpacking the component pieces is a labour of several hours and left me with enough bubble wrap to insulate a fair size greenhouse. The total component count is no less than 23 pieces, one being the turntable itself, the rest consisting of an array of tools that B&Q can only dream about, and a selection of spares. So when your belt does wear out, you simply use the spare and order up another one to take its place; that way you can carry on listening to your turntable rather than having to wait a couple of days for a replacement to drop out of the post. By the time you've unpacked the *Series V* arm as well you are well on the way to a



complete set of Allen keys, numerous screw drivers, spanners and goodness knows what else. I think it's called attention to detail!

The deck itself consists of two basic parts, a lower assembly, which looks rather like an oil rig with a pillar sticking up at each corner, and an upper deck which is suspended from the pillars by means of what are to all intents and purposes rubber bands. Well OK, not exactly rubber bands, rather rubber O-rings, eight to each tower. The record is firmly pressed onto a massive, Isodamp faced platter by means of a huge screw-down clamp. This, incidentally, is powerful enough to flatten even the most warped of records, so perhaps there is life in that Adam and the

Ants fruit bowl after all . . .

Setting up the deck is a simply matter of levelling the lower deck on its four huge feet, ensuring that the upper deck floats the required distance above the lower deck (a metal feeler gauge is, of course, provided for this purpose), attaching the platter and connecting up the drive band.

The turntable has an outboard power supply for the three-phase brushless motor, and gives you access to 33, 45 and 78 rpm speed settings. On the deck itself you will find fine adjustment screws for the first two speed settings, and a rather broader range for 78s, to take into account early, non-standard discs.

Once the deck is set up there should be

little need for further adjustment. I checked the suspension height every day for the first week or so, then once a week for the next month, but the deck quickly settles down and I haven't touched the bands this last couple of months.

School laboratories

The package comes complete with a translucent plastic cover, rather like those employed to cover weighing machines in school laboratories. Quite frankly this can be a bit of a pain to remove, and a little care is needed to avoid catching the arm, but SME's rationale is that attaching a hard cover to the deck would be detrimental to the sound quality.

The SME 20 arrived at the end of a



Who says vinyl is dead? Certainly not the engineers behind the Model 20.

REL Acoustics

The Stentor Sub Woofer

"Whether I listened to organ music, rock or small scale classical, whatever the bass content of the signal, the Stentor's contribution remained steadfastly appropriate. This is a telling test of a sub-woofer's integration, and the Stentor passed it nonchalantly. In truth, it easily satisfied all four of the performance criteria outlined in the accompanying panel."

Keith Howard, *Audiophile with Hi-Fi Answers*, June 1992.

Since our formation just two and a half years ago, we have had some outstanding reviews. The above is one of the many nice things Keith Howard had to say when he tested it last year. Many of our customers have written in and commented on the improvement a REL has made in their system.

"A very well built product that lives up to its advertisement."

Mr R.J. of Canvey Island, Essex, was kind enough to write and make that comment. It is typical of literally dozens and dozens of others.

Call your nearest dealer and ask for a demonstration, or call us for a copy of our Factpack.

REL Acoustics **"you'll hear more from us"**

Unit 2 New Street, The Industrial Estate, Bridgend, Mid Glamorgan, CF31 3UD, United Kingdom.

Telephone: 0656 768 777

Phone/fax: 0656 766 093

(Overseas Distributors, please ask for our competitive export prices.)

To hear the unique sound of the Stentor Sub Woofer call your nearest dealer today.



AVON

Paul Green Hi-Fi
Kensington Showrooms
London Road
BATH
0225 316 197

V'AUDIO

36 Druid Hill
Stoke Bishop
Bristol
B59 1EJ
0272 686 005

CORNWALL

Art of Music
Nr Launceston
0566 86649

HERTFORDSHIRE

Hertford Music
161 Ordinance Road
ENFIELD
EN3 6AD
0992 700 900

KENT

Soundcraft Hi Fi
40 High Street
Ashford
KENT
TN24 8TE
0233 24 441

LONDON

The Listening Rooms
161 Old Brompton Road
London
SW5 0LS
071 244 7759

Nicholls Hi Fi

430-434 Lee High Street
Lewisham
LONDON
SE12 8RW
081 852 5780

NORTH WEST & LONDON

Doug Brady Hi-Fi
Warrington, Otley, Leeds,
Liverpool, Covent Garden
(See Dealer Directory)

NOTTINGHAMSHIRE

Chantry Audio
Chantry Walk
18 Eldon Street
Tuxford
Newark
NOTTS
NG22 0LH
0777 870 372

OXFORD

Oxford Audio Consultants
Cantay House
Park End Street
OXFORD
0865 790 879

SURREY

Audio South
24 (The Woolmead)
East Street
Farnham
SURREY
GU9 7TT
0252 714 555

SUSSEX

Eastbourne Audio
16 Albert Parade
Eastbourne
East Sussex
BN21 1SD
0323 725 828

SCOTLAND

The Music Room
98 Bath Street
Glasgow G2
041 332 5012

audio excellence

WHERE THE MUSIC MATTERS

WALES & WEST

Audio Excellence
Park Street
BRISTOL
0272 264 975

Audio Excellence

134 Carys Road
CARDIFF
0222 228 565

Audio Excellence

58 Bristol Road
GLOUCESTER
0452 300 046

Audio Excellence

9 High Street
SWANSEA
0792 474 608

WILTSHIRE

Martin Bennett Audio
52 Morse Street
Swindon
WILTS
SN1 5QP
0793 539 008

YORKSHIRE AND SURROUNDING AREA

The Hi Fi Studios
5 Norman Crescent
Sunny Fields
Doncaster
S. YORKSHIRE
0302 781 387

We know all our customers buy Naim . . .

Cam Audio



. . . **S**ooner or later.

FRIENDLY SERVICE. BRILLIANT PRODUCT.

NAIM, ARCAM, REGA, NAKAMICHI, EPOS, HEYBROOK, CASTLE, DENON, MARANTZ, LYRA, TARGET, CHORD

0% INTEREST FREE
CREDIT AVAILABLE ON
PURCHASES OVER £300.
(DETAILS ON
APPLICATION)

**110 MILL ROAD
CAMBRIDGE
(0223) 60442**

**Open 9.30 - 6.00
Mon - Sat**



period of experimentation during which I had been living with an all digital system comprising DCC machine, CD transport and a pair of Philips digital speakers. The sound quality was quite good, and I certainly thought I could learn to live without an analogue source, to the extent that my records were on the verge of being consigned to the garden shed. Enter the SME 20, a bi-amped Musical Fidelity amplifier combo, a pair of *AE1*s and the *Stentor* sub-woofer that you can read about in this month's *Sessions*.

Swapping over to the *AE1/Stentor* set-up and the Musical Fidelities caused a quite large improvement — as you would expect from a set-up that costs over £1,000 more than the digital speakers it replaced. However, the biggest shock came in going back to a decent turntable after a couple of months of pure 'digititus'.

Right from the moment the stylus hit the first groove of the first record it was obvious that the SME is a rather special turntable. It's rather difficult to say that one deck is better than another once you have established that a turntable has reached a certain standard. The SME is certainly one of the best decks on the market, but whether it is the best deck for you will come down to a matter of personal preference. And it just so happens that the '20 is almost exactly attuned to my own particular preferences.

Oodles of bass

The bass is remarkably tight, there's oodles of it, and perhaps more importantly it has the speed to keep up with even the most manic drum or guitar solos, picking out individual notes with ease and separating everything out in an amazingly realistic fashion. The impact this deck imparts to the leading edges of bass notes has to be heard to be believed, and in this department it's certainly the equal of the *Rock*, which I had previously thought to be the bass reproduction benchmark.

The only problem was that the '20 proved a little choosy when it came to support. Plac-

ing the deck on a wall mounted shelf resulted in a little feedback, particularly when the music was blasting out at seriously anti-social volume levels. This was quickly and simply cured by placing the deck upon a Townshend *Seismic Sink*, which, at least during louder passages, tautened everything up and prevented the deck from causing itself problems. After a couple of months of it this way I would strongly recommend that any prospective '20 user should invest in a *Sink*; the £200 or so outlay is amply repaid and the SME is capable of quite astonishing results when used in this manner.

The bass response is not the whole story. Far from it. The '20 also has a quite remarkably smooth midband and it is likely to worry quite a few Roksan users in terms of detail retrieval. With well recorded female vocals, Michelle Shocked and Tracy Chapman for example, the '20 shows just why so many listeners still prefer vinyl to CD. Comparing the deck to an expensive twin box CD player showed the '20 quite clearly ahead on points. Percussion was simply more natural and less strident while voices sounded more like voices and less like recordings. The top end was slightly less strident than CD and again more natural, while there seemed to be far more subtle clues to the nature of the recording venue making it easy to hear how a recording had been miced up, while the equivalent CD somehow managed to submerge this information within the music. Eric Clapton's *Unplugged* provided a good example, *Tears In Heaven* on vinyl showing exactly where the mic had been placed in relation to the soundbox, whereas the CD tended to screech a bit, leaving the impression that the mics were simply too close.

Rather surprisingly the '20 is also a forgiving turntable and is capable of giving decent results from most recordings. The *Rock* that I normally use is very recording dependent, and will beat the SME with the right recording, but on average the SME



Attention to detail is a watch-word with SME. Even the power supply and motor (below left) are heavily modified.

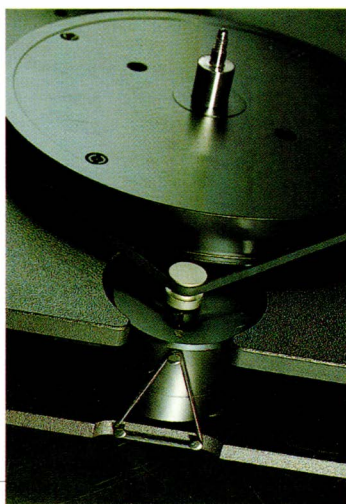
was capable of more pleasing results from a wider range of material. Modern rock recordings, which can sound a little dull and compressed, opened out and the '20 demonstrated a remarkable facility for separating instruments apart and positioning them accurately in the soundstage.

Fooling the cat

One thing I had forgotten was just how good a 12 inch single can sound. In Deep's classic *Last Night A DJ Saved My Life* had the entire house shaking, the bassnote attack being nothing less than superb while the off-the-wall sound effects even fooled the cat into believing it was listening to real events rather than a recording. On the other hand the Becker and Fagan produced Rosie Vela single *Magic Smile* boogied along in a very Steely Dan-esque manner, emphasising that you can still make decent recordings in a multi-track studio.

As previously stated, once you reach this level of performance there are no right and wrong answers just personal preferences, as all are extremely competent. My personal preference, in my room and with my current system, has to be the *Model 20*. It's quite simply a glorious sounding turntable. Couple that with a degree of engineering overkill and attention to detail which gives a real pride of ownership, and the warm, glowing feeling that however you treat it the '20 will still be playing your favourite records in 20 years time and you have a winning combination.

Before you decide to junk your prized record collection for ever and go over to a single source system, do yourself a favour and check out the SME *Model 20*. The fun to be had re-exploring your vinyl collection makes the asking price look like one of the best investments you'll ever make.





*'... Full complementary DAC operation with lower distortion and lower noise ... As a result the reedy quality of sax strode confidently from the speakers ... Sony has placed the player well inside Recommended territory.'**

SONY CDP797 CD PLAYER.



Sony CD Players.



SONY

Why compromise?

*Reprinted from Hi-Fi Choice June 1992. Sony is a registered trademark of the Sony Corporation.

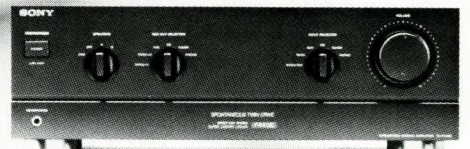


*'... Distortion and overload margins are also taken from the company textbook ... drawing out Marty Paich's double bass as clearly and cleanly as the kettle drum ... an extremely powerful, no-nonsense amp that would seem hard to beat.'**

SONY TA-F440E AMPLIFIER.



Sony Amplifiers.

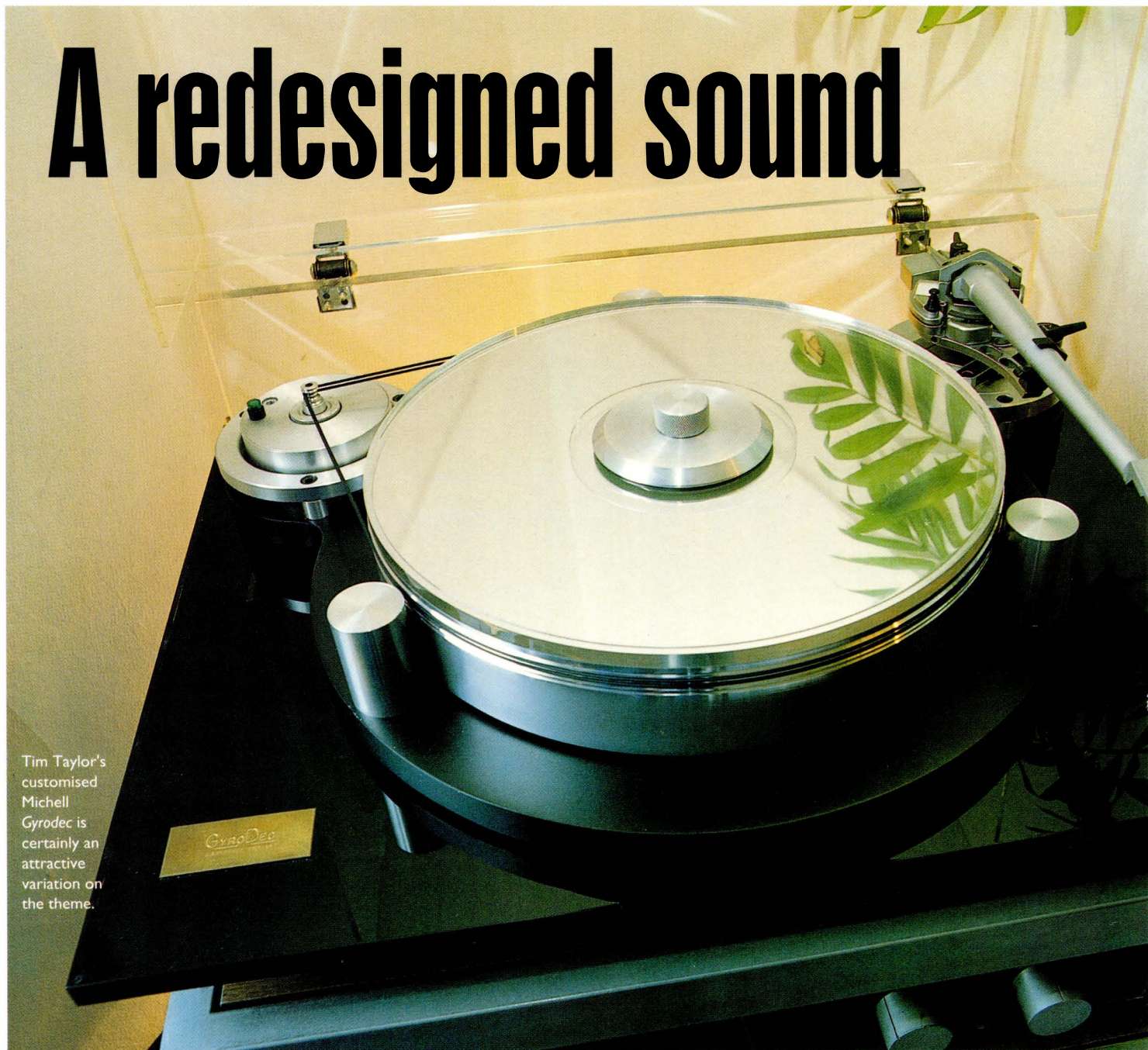


SONY

Why compromise?

*Reprinted from Hi-Fi Choice March 1992. Sony is a registered trademark of the Sony Corporation.

A redesigned sound



Tim Taylor's customised Michell Gyrodec is certainly an attractive variation on the theme.

It all started when our host found that the weights hanging underneath the spinning platter of his *Gyrodec* were annoying him. Then the looks of his amplifier weren't quite right, and what about the speakers; couldn't their style be improved?

This month we're visiting a young freelance illustrator who decided that although he loved the sound of his equipment, its looks left much to be desired.

Anyone who has used the Michell *Gyrodec* record player may have some sympathy with Tim Taylor; the cylindrical brass weights, each about the size of a film can, catch the light as the platter spins, creating a little strobe effect wherever you put it in a room. And while the design certainly impresses visitors who may liken it to a space station or a piece of engineering art . . . well, sometimes the strobe effect can be tiring.

"I read hi-fi reviews with all the technical terminology, but I don't have any highfalutin adjectives to describe the sound of this equipment. Whether it's a natural portrayal of the musical event or not I don't know."

Of course you can't just take the weights off, a *Gyrodec* is a piece of highly tuned apparatus. Nor can you easily cover them up without adding drastically to the platter weight — so altering its relationship with the motor.

Tim had been improving his hi-fi system for several years, upgrading the record deck from a Michell *Syncro* bought in 1985. Three years later, with a SME *IV* tonearm and the famed Koetsu *Black* cartridge, he felt he had arrived, soundwise at least, at his aspiration.

A comprehensive Naim amplification system was soon superseded by EAR 509 valve monoblocks with a French Nuance solid state preamplifier, all now powering SD Acoustics *SD1* loudspeakers. "I felt that the Naim system was a mismatch with the *Gyrodec*," Tim explains. "And anyway the plain black Naim boxes were a bit boring to look at. I think that although things have to work well, they



Above: EAR 509, external crossover and a re-styled SD1 sharing close quarters. Below: Tim's uniquely finished Naim tuner and Nuance preamplifier balanced on some serious spikes.

This month Dan Houston talks to a young freelance illustrator who liked the sound of his hi-fi system, but was less than impressed by the way it looked. He therefore decided to set about making some changes, sending various bits and pieces down to the local metal workshop.

also have to look right as well."

Tim, who was using a ghetto blaster prior to his *Synco* based system, describes himself as being seduced by hi-fi, saying he was completely bowled over by the looks and performance of the SME IV tonearm when he first heard one. But, like a partner who snores, the effect of the *Gyrodec's* strobe effect began to annoy him. "It was just the goldy chrome-finished weights. I could always see them following each other around, and wherever I was they would catch my eye all the time. I originally started thinking along the lines of a *Crystal Deck* (by Oxford Acoustics), and liked the idea of an acrylic platter with light passing through it. Then I decided to put an acrylic platter on the *Gyrodec*. If I could keep all the weight ratios the same then it would be possible. And I thought it would be a challenge; I always wanted to do industrial design and although I know nothing about elec-

tronics I do enjoy visualising how something should look."

Tim drew up some engineering designs and took them to a local workshop in Brixton, South London. His new platter would have an acrylic top, with a skirt of aluminium replacing the previous open design and its carousel of weights.

The existing platter had to be machined down to make way for the acrylic which was then sandwiched on top of it with a layer of 'mirror' aluminium between to reflect the light. The aluminium skirt, which makes the platter look much heavier, is machined from a piece of solid metal. It is bolted onto the old platter where the weights used to be. In fact the dimensions of the new platter are virtually the same.

"I was a little bit out on the weight," Tim admits, "so I stuck a ring of coins underneath the platter to compensate."

A deep lustrous effect

Other changes were also made to the 'dec. Tim had to alter the spindle slightly and sprayed black paint underneath the acrylic base to give a lustrous effect. For symmetry he ordered a second arm mounting ring to surround the motor housing at the other back corner of the plinth.

The changes were made principally for looks and Tim is the last person to admit any capability when it comes to sound quality. But the acrylic platter is based on the sound audiophile idea that the record should be placed on a surface made of similar material to itself. Tim admits to being pleased with the sonic as well as visual results of his labours, and calculates that the entire cost of these changes has only been around £120.

Having changed the appearance of his

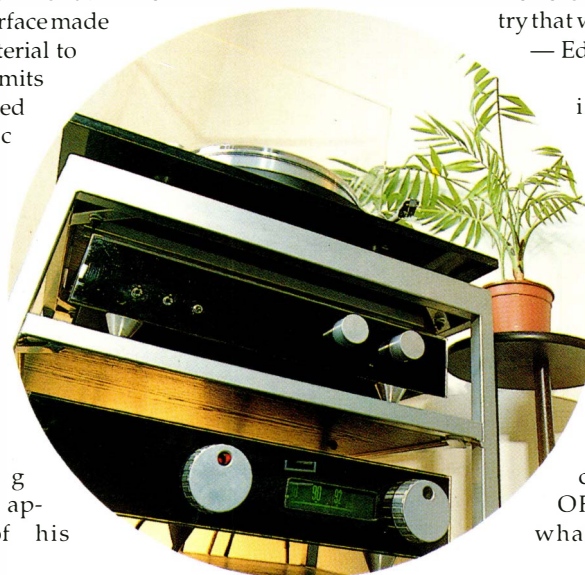
record player, Tim turned his attention to the rest of his equipment. The SD Acoustics loudspeakers were next: "I decided I didn't like the height or the shape and I felt they were using up too much space," he says. "I did like the idea of mounting a smaller box separately on top of a larger box, so I kept that basic arrangement the same, but the tweeter is now set slightly back from the bass unit."

The cabinet volumes were maintained but the design was made more square, stiffened with bracing and finished in a blue-grey laminate. The upper and lower enclosures are separated on bolts covered by acrylic columns. The speakers have to be kept off the floor because they are ported underneath, they are now supported on a new stand or baseplate, with stainless steel spikes going into the floor. The speakers clamp onto a ridge on the baseplate, supported at the four corners by ball bearings which couple with the Allen sockets in the spikes and a clout nail hammered into the cabinet.

The crossover networks are now sited outside the cabinets in their own boxes. "I did that because I didn't want to use speaker cables, so the crossovers actually fit over the output terminals on the amps.

They just plug straight in with four millimetre sockets." (Don't try that with Naim amps — Ed.)

It's a clever idea, although it hides the power amplifiers out of sight behind the speakers. Internal speaker wiring is now all linear crystal oxygen free copper (LC-OFC) replacing what had been





straightforward solid core copper cable.

"At the time I was doing this," Tim explains, "there was a lot of hoo hah in the specialist magazines about loudspeaker cable and which type to use. But these amplifiers don't mind long interconnects so I was able to do away with speaker cable altogether." The interconnect used here is the French Vecteur made with LC-OFC and terminated with Michell gold-plated plugs. As a finishing touch, since there are no grilles on the modified speakers, Tim has polished the aluminium drive unit frames to make them a visual feature. He costs the speaker redesign materials at somewhere around £170 — plus a lot of his own time.

He is less coy about the sound improvements altering his loudspeakers has brought. "They now sound a hell of a lot better than before," he enthuses. He partly attributes this to a new crossover upgrade kit which SD Acoustics has supplied, and partly to the simple act of taking the crossover out of the cabinet in the first place, rescuing it from the high energy environment of the loudspeaker cabinet.

He also replaced the fascia of his preamplifier with clear acrylic and had a

new perspex fascia made for his Naim NAT01 tuner. This is a two box design, but Tim has bolted the boxes together and given them a single front panel. He has had the large knobs painted silver and has painted out all the lettering on his Denon cassette deck. "I don't like labels anywhere," he states. "But I've had to leave the Michell nameplate on the record deck because it's covering a hole."

The EAR monoblocks are the only items to remain untouched: "I've just tried to cover up the logo, that's all. I liked looking at them with the valves glowing and the grilles off but now they have to be behind the speakers."

Tim considers himself a music lover, so it's surprising to hear him play down the improvements in sound quality. He describes the changes mostly in terms of looks. "I read hi-fi reviews with all the technical terminology, but I don't have any high-

falutin adjectives to describe the sound of this equipment. It's just a warm comfortable sound. Whether it's a natural portrayal (of the musical event) or not I don't know. Obviously it's not as good as a live performance, but a lot depends on the record's quality."

"I'd be flattered if anyone decides to copy this system."

Vegetation - 1,
loudspeakers - 0.
Tim Taylor with
what started life as
a pair of SD/1s and a
cheeseplant with
attitude.



Record. That sounds like an outdated term in the week when several large record companies decided to cease making seven inch vinyl singles. Tim doesn't own a CD player, and doesn't possess a single Compact Disc, although he was auditioning the Aura CD50 at the time of our visit. "I'll buy a CD player when I can't find a recording I want," he says emphatically. He admits that new recordings are now extremely hard to find, especially since he listens mainly to classical music, but notes that often pristine condition records of the great works turn up at reasonable prices in the second-hand market.

Tim does not see himself as an audiophile, so he isn't about to talk about the window of sound quality being clearer and wider with his Gyrodec than any CD player: "I don't think about it in terms of sound quality as much as just needle-in-the-groove technology," he says. "I feel more involved if I'm playing a record. People may laugh at me when they see me get out the record, clean it and clamp it onto the platter. They think it's much



Below right: the only standard (ish) components in the system are the Denon tape deck and the Aura CD player currently on audition.

easier to put in a CD and use a remote control. But I don't know what's going on inside a CD player. In fact I don't know anything about electronics, I just like the visual aspect of things."

Although he appreciates the design of the Aura, he doesn't plan to buy it. He would rather improve his record playing system, and wistfully talks about owning a Koetsu *Red* cartridge. "I think the next upgrades are going to be a decent power supply for the deck and a proper phono stage, either on its own or by replacing the Nuance. I would like a more sensitive volume control than the Nuance has but do like the useful feature that you can adjust the RIAA curve simply by substituting some resistors. The alternatives come with it, and are useful if you're listening to early records (before the record industry

standardised equalisation). I'd also like to replace the turntable bearing, now that Michell has a new design."

At present he is using his system "every other night and on Sunday mornings" and describes it as a good antidote to TV.



It's even prompted him to start learning the cello, inspired by Ofra Harnoy, though whether this is because he found a signed second-hand copy of her Brahms' *Cello Sonatas* or not is unclear!

Absolute Mahler freak

The rest of the collection shows a liking for female soprano voices such as Dame Janet Baker and Jessye Norman. He also describes himself as 'an absolute Mahler freak', but isn't so concerned about any particular conductor's interpretations.

Listening to a Deutsche Gramophon recording of Berlioz' *Te Deum*, with nine choirs, confirms the system's ability to reproduce what is on record. The sound is big, well out of the speakers, revealing and detailed in its rendition of the instruments. A good sense of timing comes across and one is unaware of any particular component putting its own signature through the score.

In fact the whole exercise is a revealing one, demonstrating that by changing the looks you can change the sound quality — sometimes for the better. The system here still looks unmistakably like hi-fi, and there has been no attempt to hide the fact that it is a collection of boxes of electronics. What was surprising was that the redesigns could be achieved for the price many would pay for a new interconnect lead at this level. If you're someone who suffers from the 'Gyrodec effect' it could be a worthy upgrade. "I'd be flattered if anyone decides to copy this," Tim says.

The system:

Michell Gyrodec turntable
SME IV tonearm

Koetsu *Black* cartridge
Nuance preamplifier
EAR 509 valve monoblocks
SD Acoustics *SD 1* loudspeakers
Naim *NAT 01* tuner
Interconnect: Vecteur LC-OFC

Original system supplied by: Bob Pierce of Ambience,
Tel/Fax: (071) 274 8317

The Editor points out that Choice is not recommending you try to emulate such extensive modifications, whose implications for changing the originally designed sound are extensive and unpredictable.



A game of 2 halves

The record industry 'bought' the idea of DCC on the vision of low cost playback-only portables that would stimulate a new market for pre-recorded music. What hit the shops, however, was an expensive table top recorder, backed by adverts explaining how easily it could make perfect digital copies of CDs. Although we are already seeing the launch of lower cost table top models, there will be no playback-only portable until the summer, at the earliest. And the price will start very high. This, and the fact that DCC sound quality appears able to get close to CD, only makes the record companies even less happy about the emphasis on home recording.

Sony launched MiniDisc with portables, but the first machines are bulky and have far too little battery life for the portability of either player or recorder to be taken seriously. Already there is a table top mains MD recorder in Japan, but initial reaction to the format's sound quality has been a disappointment. Sony now has to decide whether to push for improvements in sound quality, and thereby risk damaging CD sales, or freeze the MD standard at a level which condemns it for ever to be a cut below CD and DCC.

Attempts at improving CD sound, to allow improvements in MD while still maintaining a marketing gap, are hampered by the CD Red Book standard which (thankfully) guarantees that a CD bought anywhere in the world will play on any CD player. This has led to a plethora of proposals for tweaking

Both DCC and MiniDisc are off to a slow start. Neither format was really ready at launch. But sooner or later there has to be a winner and a loser. Or does there? Pointers from Japan suggest that there could be different decisions in different countries, creating a split in world audio standards for the first time ever. Barry Fox reports.

the CD standard, mainly by getting more of the benefit from 18- or 20-bit master recordings onto the 16-bit pressing. So far the proposers' main achievement has been to confuse a previously stable market. And they look like creating a lot more confusion before they are done.

Sony has been relatively quiet on MD since the low key launch, but other Japanese companies, notably Sharp and Sanyo, are tooling up to make truly portable portables. They will also sell the key components which other manufacturers need to make their own models. The big push on MD is expected this autumn, but a large question mark hangs over Matsushita.

Matsushita, better known for brand names such as Panasonic and Technics, is the largest manufacturer of consumer electronics in the world. It is often compared to a supertanker, slow to start but unstoppable (and unsteerable) when under way. This means that smaller Japanese companies often follow Matsushita's lead. It was Matsushita's adoption of the CD format, rather than the larger AHD system developed by its subsidiary JVC, that made the format fly.

Matsushita has adopted DCC. The company even started running TV adverts for the format in Japan, in February. This suggests total commitment, even though company President Akio Tanii recently resigned because of policy errors and poor financial results.

In Eindhoven, Philips remains quite confident that DCC will prevail in the long run, largely because of the opportunity presented by the replacement market.



Every year around the world people buy over 300 million analogue cassette decks, for their homes, for their cars and for use as portables. That then creates the market potential for digital music cassette sales that the record industry dreams of. It will take longer than many people expected but it will happen in the end. The logic is hard to refute.

But so too is the logic behind the clear conviction of Sony President Norio Ohga, that the public has now had a ten year taste of the rapid track access which an optical disc system can offer, and will progress naturally to disc-based portables and disc-based recorders.

The smells of fear

But everywhere outside the corporate bastions of confidence, and even sometimes inside them, there are two smells of fear. There is the smell that the confusion created by the fight between DCC and MD will end with public rejection of both new ideas, irrespective of merit. And there is the smell that the world of audio will for the first time end up with what TV and video has had to suffer all along — different countries selling different and incompatible hardware and software. Ironically this is on the cards just as the move towards digital video looks likely to bridge the gap between different TV standards.

Where to look for independent guidance? Try JVC, the subsidiary of Matsushita which has not yet followed either the parental line on DCC, or the current groundswell in Japan towards MD. JVC is hedging bets, outwardly showing equal enthusiasm for both formats and inwardly still evaluating them. JVC's position is unique. It developed a stationary head DAT system, a forerunner of DCC, ten years ago, and then abandoned it for R-DAT. JVC has a heavy commitment to CD and all laser disc technology, after finally and openly admitting that its own video and digital audio disc systems were 'failures'.

JVC is one of Japan's major players in the software game, duplicating analogue music cassettes and pressing CDs. The company is also a leading manufacturer of audio and video cassette hardware, makes its own laser optics for CD and has also developed magneto-optical recorders, which work similarly to MD, but so far only for the computer industry.

You can't get much more into the middle between DCC and MD than that . . . And the bet-hedging signals coming out of JVC give some valuable pointers.

Early this year JVC celebrated 65 years in the business of making consumer electronics by holding a Technofair in

Yokohama, just outside Tokyo. Like all Japanese electronic companies JVC has been hit hard by the world recession, with annual sales down by around ten per cent. To generate confidence for the future the company hired a 6,000m² of exhibition space in the new Pacific Convention Plaza, culled a thousand research or prototype projects from its laboratories and put them on show to 22,000 trade visitors from around the world.

Significantly, both DCC and MiniDisc were on show, but separately and well spaced. The DCC decks were basically Philips/Marantz 900 series models as also

JVC is hedging bets, outwardly showing equal enthusiasm for both formats and inwardly still evaluating them.

supplied to Matsushita for badging, but here with a fancy flock finish. MiniDisc was labelled the 'Dream Audio Machine'. Another sign explained that 'JVC was contributing to the development of MD technology', while the mock-up of a stylish music centre combined radio tuner, CD player and MD recorder. Elsewhere in the exhibition, JVC was showing key components for both systems, giving trade visitors a specification sheet for 64 times high speed DCC duplication heads and showing them MD laser drives.

The Japanese market for CDs is now levelling off at around 360 million units per year, of which JVC has just over 20 per cent. Peculiar to Japan, the 8cm CD single has a high share, with well over 100 million units annually, while the rest is full size 12cm discs. JVC's predictions show MD's share increasing fast at the expense of both 8cm and 12cm CD, to 10 million in 1993 and 35 million in 1994.

Katsuhiro Kawasaki, General Manager of the Disc Division and Hiroki Shimizu, General Manager of the Audio Sector, duly con-

firmed that JVC is developing MD production, with a pilot pressing line. This follows logically from the fact that JVC is gradually replacing all its batch CD production lines with monolines.

Installed ten years ago, the batch lines still look efficient; two batches of eight presses work wholly unattended in sealed clean-rooms, each popping out one disc every nine seconds. The discs are then moved automatically by conveyor to chambers which deposit aluminium. But competition in the CD pressing industry is now so intense that everyone must increase speed and reduce costs, to stay ahead. This is driving the industry towards the installation of monolines.

A CD monoline combines a press, metallisation chamber and label screen-printer into a single clean-air chamber. Modified monolines will be used to press MDs, because MDs differ from CDs only in size and their use of a caddy instead of direct on-disc labelling.

Monoline technology is fast refining. Those which JVC installed two years ago press one 8cm CD every six seconds. Monolines installed in Spring 1992 have whittled away another second off that cycle. Kawasaki says this is not the bottom limit, and that cycle time can be further reduced. JVC will press both pre-recorded MDs and recordable blanks.

CD singles have around one third the raw data capacity of full size 12cm CDs,



and therefore hold one third the replay time. 6.5cm MDs only have similar data capacity to CD singles (but of course audio compression techniques significantly increase actual playing time. Both CD singles and MDs thus require considerably

East meets West in the format war of the future. But which will the music industry go for — MiniDisc or DCC?



It costs the same
to get it right
as it does to get
it wrong.

You don't have to be a complete Hi-Fi nut to appreciate great sound, and contrary to popular myth, you don't have to spend a fortune on it.

After all, even a stacking system that you can pick up anywhere will set you back a few hundred pounds, and you can really hear the difference between one of these and one of our systems!

At The Listening Rooms, we pride ourselves on matching your needs with exactly the right equipment, (even on a budget), and because we also stock the best, that's what you get.

What you'll also get is sound professional advice and a chance to relax and listen to some of the world's finest Hi-Fi equipment.

What you won't get is any pressure.

35 years combined experience.

Two fully equipped listening rooms.

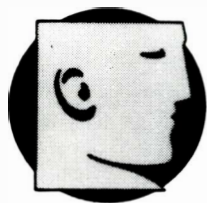
Home installation service.

Multi-room design and installation.

2 years Parts and Labour Guarantee.

Home cinema surround-sound.

LINN • QUAD • MERIDIAN • NAKAMICHI • ARCAM • AUDIOLAB • ACOUSTIC ENERGY • SME • AUDIO RESEARCH • KRELL • CLASSE AUDIO • WADIA • THETA • MICROMEGA
APOGEE • MARTIN LOGAN • SONUS FABER • KOETSU • MUSICAL FIDELITY • REVOX • ROGERS • PIONEER • TANNOY • STAX • SYSTEMDEK • PINK TRIANGLE • MICHELL
MONITOR AUDIO • YAMAHA • MARANTZ • KEF • BOSE • CELESTION • EPOS • MISSION • DENON • NEAT PETITE



THE listening
rooms

The Listening Rooms Ltd., 161 Old Brompton Rd. London SW5 0LJ. Tel: 071- 244 7750/59. Fax: 071-370 0192.
Visa, Access, American Express. Export and credit facilities. Monday – Saturday 10am-6pm. Nearest Tube: South Kensington or Gloucester Road.

less raw material and energy to press. JVC charges record company customers somewhat less for 8cm CDs than for 12cm CDs, but clearly may not be passing on the full raw cost saving. Although both managers stress that any move from CD to MD pressing will be dictated solely by customer demand for the new format, it is also clear that success for MD at the expense of CD would mean more profit both for the record companies and pressing plants.

Another factor which attracts some of the majors to the idea of MD may well be the ease with which any small company can now buy a monoline and start pressing CDs. If Sony controls the licensing of MD pressing more tightly, success for MD could shift the balance of pressing power back to the majors, and move the base rate for producing a music disc up from its current low level of just over one dollar.

Shimizu rejects the suggestion that JVC may be showing an interest in DCC only because parent Matsushita dictates it. He also says that JVC will make its own products, even though the DCC decks shown at the company's Technofair were clearly badged Philips/Marantz DCC 900 series units, with fancy flocked finish.

"We will design our own", says Shimizu, "although of course in the early stages we will buy in components."

JVC's factory at Yamato now makes CD laser pickups on an almost-wholly automated production line. Shimizu says it is JVC's intention to make MD pickups on the same line if the market demands MD. He repeatedly stresses that the choice between DCC and MD will be left to the consumer, and states that JVC is also working on thin film heads for DCC decks.

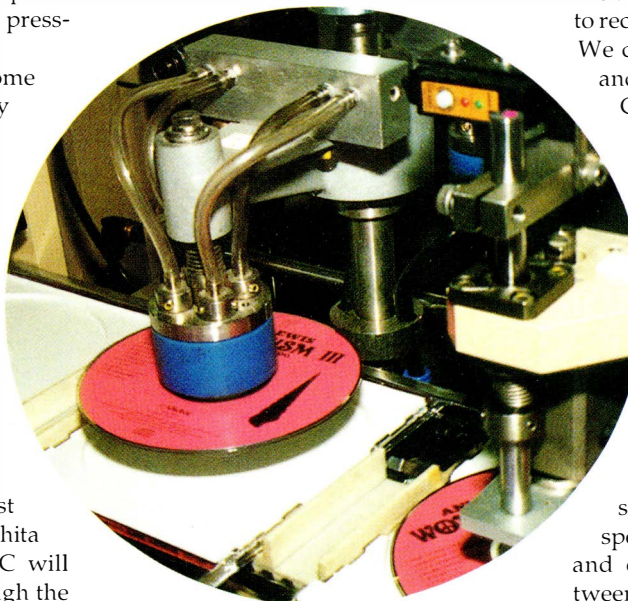
"The JVC brand is independent" he says of the Matsuhita connection. "We will choose our own products, depending on what we think is best. Our engineers work separately from Matsushita, and we compete for sales. Any choice between between DCC and MD will be based on consumer demands. Both formats may find a place in the market. I don't think they will kill each other. Both may co-exist. But in what ratio? JVC will introduce both later this year, and talk to customers, step by step. MD is another branch of CD. DCC may be the next branch of the compact cassette. It might be. I am not sure".

The current MD plan is for a recorder first, then later a playback-only unit. There

seem to be no firm plans for any DCC unit other than the badged Philips, although Shimizu talked of launching both a "portable and hi-fi deck this autumn".

On the question of Matsushita's influ-

The final stages of making a Compact Disc. Sadly, at this point, it's too late to change from fluorescent pink.



"The JVC brand is independent" he says of the Matsuhita connection. "We will choose our own products, depending on what we think is best."

ence on DCC he adds:

"There is no reason to fight with relatives". But he also adds: "In my personal opinion. MD has a higher potential than DCC, and the laser pickup can be very small. But MD is a higher risk than DCC."

The line at Yamato uses a sequence of around 40 robots to make a laser CD pickup weighing only 30gms, with human aid only at a few final alignment steps. And already some of this this work is being done by machines. As more of the same are installed, production will be one hundred per cent automated.

Previously Shimizu had drawn attention to the "high hi-fi potential" of DCC, with quality possibly reaching the level of 24 bits. JVC would, he said, concentrate on this potential. "We have been study-

ing stationary head recording for more than ten years. We must look very seriously at it to avoid another mistake like DAT".

Says Masahiro Inbe, General Manager of Audiovisual Software and Media Business Group: "At the end of last year we completed our production line for MD pressing. Capacity is 300,000 a month. We are now doing tests and expect soon to receive orders from record companies. We completed our DCC plant last year and started producing in December. Capacity is again 300,000 per month.

However, orders from record company customers are only around half that. This is because the only available hardware is a home deck. We think that starting this spring there will be a portable player and this will generate sales for prerecorded tapes.

"We are still surveying the market. We don't want MD to take over from CD. The record companies have a strong opinion that the playback capability of CD should be upgraded because the specification for MD is similar to CD, and customers cannot distinguish between them. We are arguing on this at the moment. It is difficult — how CD and MD can coexist. We expect that DCC will fill the area lost by compact cassette"

The man at the top of JVC, President Takuro Bojo, comes from the audio division.

"My personal view" says Bojo, "is that DCC is a Western type of product, for Europe and the USA. This is because of the compatibility with existing cassettes. In the West, past assets of technology are cherished. MD is a Japanese type of product. It is smaller with no compatibility. So there is a need to develop a new market and we are determined to develop all types of new product. But even though there is no compatibility, the Japanese consumer will jump. In Japan so far sales of record/playback MD equipment has outsold playback only MD equipment 10:1. This is because there is not sufficient software. The Japanese consumer records from CD to MD. So we must work on both the hardware and the software".

It seems that there is more long term enthusiasm for MD than DCC inside JVC, but while the supertanker parent Matsushita sails the DCC route, MD still has a good chance, even in the faddish Japanese market. And in the new era of recession that is hitting Japan, buying into a new system that plays existing material may well prove more attractive than starting all over again.

With the Evolution system Revox has broken free of its conservative mould and is attempting to establish itself in the lifestyle market. Alvin Gold has been assessing how good a job has been done.

Revox Evolution

While specialist audio from component manufacturers continues to set the standards and to sell in respectable quantities, the big electronics companies are finding that more and more of their audio turnover is being made with packaged systems of one kind or another. Contrary to popular belief, the rise of the packaged system does not necessarily represent a loss of interest in decent sound quality. It's just that not everyone can be bothered with the complex plumbing, the abstruse controls and arcane displays. Most of all, however, there's an increasing unwillingness to understand the technology before making a choice, and an increasing reluctance to put up with boring black boxes.

Bang & Olufsen was the first to identify the requirement for stylish but simply presented audio, and to date has gone further than any other to meeting the needs of the technologically illiterate but style conscious for whom money is a secondary consideration. Now Revox has joined in with a radical £2,249 *Evolution* system with multiroom potential of its own.

To look at, the stark, angular *Evolution* is every bit as outrageous as the most fanciful of B&O's creations. A more careful

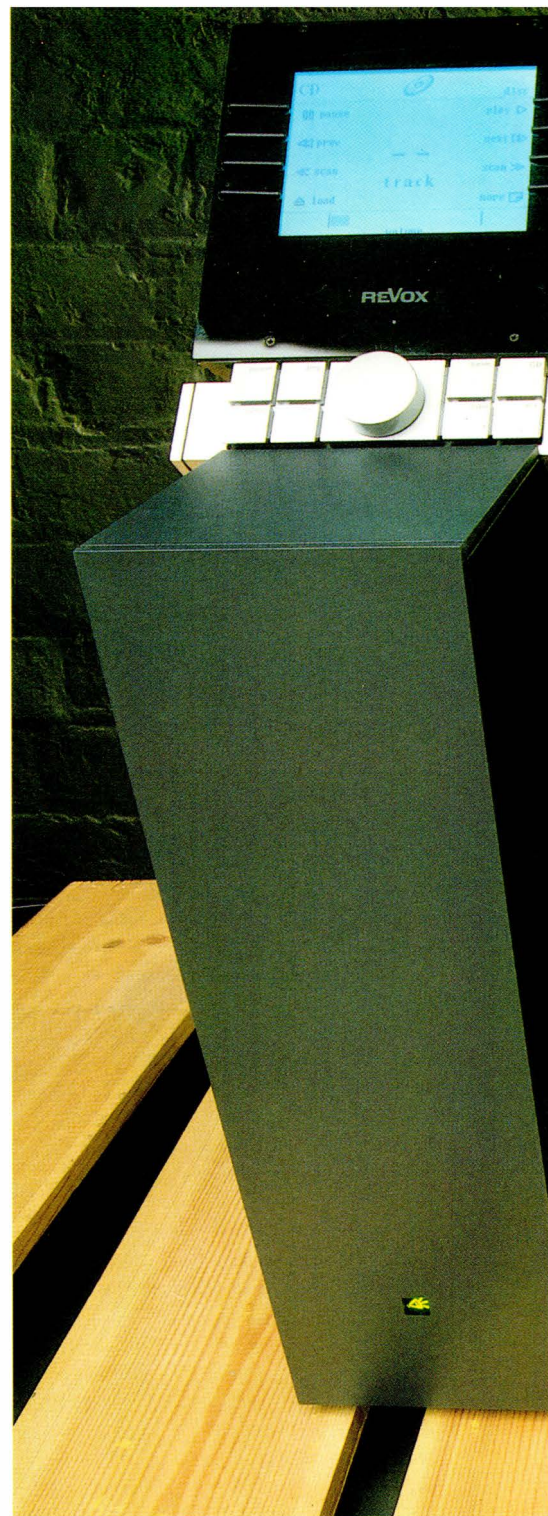
examination, however, shows the line of descent from conventional high fidelity components. In essence, what you get is a number of individual components — an amplifier, a tuner and a CD player in the

most basic configuration, although the optional cassette deck was included with the test system — each of more or less the standard dimensions of a full size component, but turned on their ends and bolted together to make a single, integrated whole. The square section aluminium tubing that holds the system together at each end (ie below and on top) acts as conduits for the audio, power and control signals, and can be extended to accommodate additional components.

Where normal systems would have controls on each component, and perhaps a remote control to tie everything together, Revox has integrated the system at the lowest and most fundamental level by building individual 'black boxes' which are only accessed to insert or remove tapes or CDs. Instead of local controls there's a central control area consisting of a backlit LCD panel and a bank of control buttons, some assignable according to what you're doing at the time. There is also a remote control unit of course, an unlikely looking square section truncheon of a device that echoes the style of the tubing that links the main system together.

The facilities on offer are more or less familiar. The Bitstream CD player has no important un-

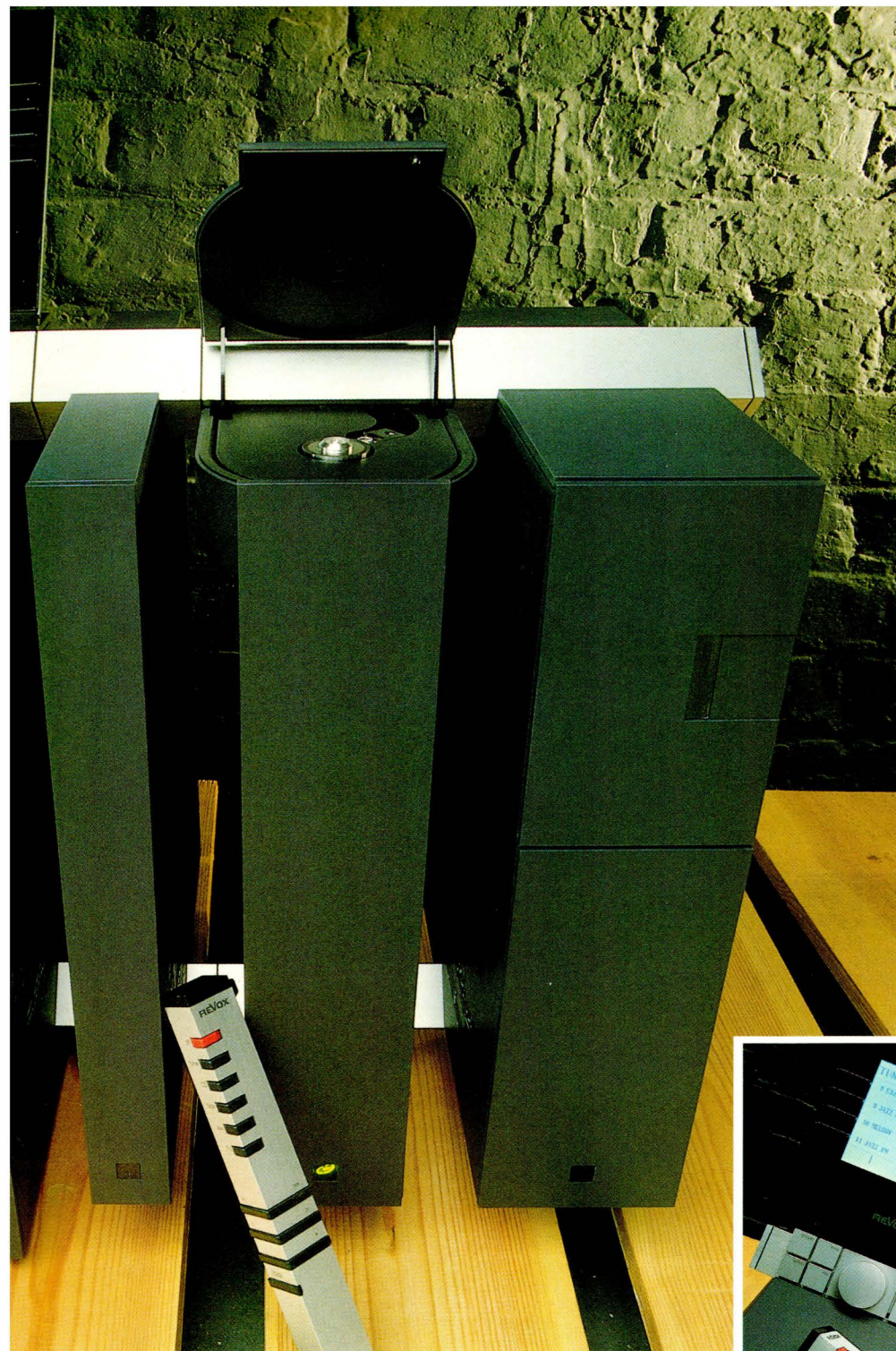
expected quirks, but the tuner has some nice features including auto-presetting, RDS and manual station naming, so that all preset stations (including those without RDS transmissions) may be named in



the display panel. The only real criticism is that no provision has been made for AM reception. The cassette deck (an extra £829) is a unidirectional, dual capstan design with press button tape calibration but disappointingly, no Dolby S. Finally, the amplifier is rated at 100 watts/channel, and is equipped for multiroom applications, with external socketry for remote I/R links and displays, though the hardware and final specifications to support this capability are not yet ready.

There's an inescapable irony in the Revox approach. While lifestyle systems are ostensibly all about using technology to build in user and room friendliness at ground level, the *Evolution* also comes very close to processing sound in a way that should please the purist audiophile.

To look at, the stark, angular *Evolution* is every bit as outrageous as the most fanciful of B&O's creations.



All this and great sound too. The future of hi-fi design according to Revox, featuring left to right: amplifier, tuner, CD player and cassette deck.

The system is not overflowing with needless gadgetry, and the use of a central display and control area, remote from the rest of the system, meets one of the basic requirements of good audio engineering.

To a large extent this purist approach sets the scene. For years I have been making the point that leaving price to one side, Bang & Olufsen's better systems were not necessarily severely compromised by the heavy emphasis on cosmetics and multiroom features. This is the case here too, only with bells on. To assess the system as individual components would be a denial of what the package is

all about, but what can be said is that this Revox works more than well enough at CD, radio and tape playing it to hold its own with many very respectable hi-fi systems.

The components appear to be closely modelled on existing separates, and behave with the same class and poise. Even the amplifier, a component for which Revox has rightly attracted criticism in the past, turns out to be seamless in the way it tracks recorded dynamics, with little of the tightening and narrowing of the sound at elevated volume levels that is common with all too many amplifiers. There's plenty of detail and despite a trace of bass warmth and midband hard-

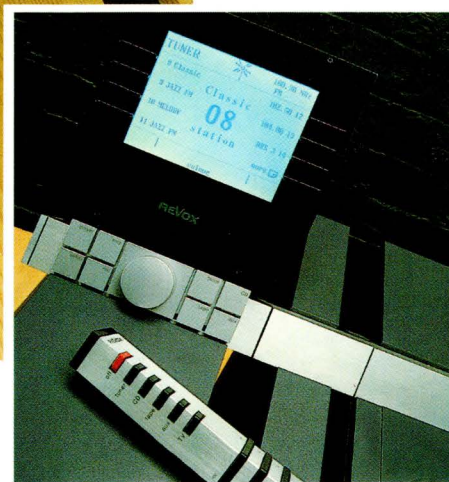
ness at times, the amplifier mostly sounds transparent and unprocessed. More to the point, however, is that the system as a whole sounds this way too.

With Revox' established tape expertise it's no surprise that the cassette deck sounds stable and refined. Nevertheless, compared to the other components, the cassette has feet of clay: the sound is perceptibly denser and less articulate through complex passages. Metal tapes give the cleanest results when pressed, and as is so often the case, Dolby B represents the optimum compromise between hiss reduction and transparency.

The CD player is typical of good, modern practice. It lacks the special tangibility and presence of the very best hardware, but avoids all the usual traps and I enjoyed many hours of excellent music using it. Imagery is explicitly presented, and the music 'breathes' convincingly, though I sensed some intolerance of less than ideally recorded material. The tuner is nothing less than first class in every respect.

Although the typical Revox buyer may never ask the question, aspiring owners who also read this magazine will probably want to know whether the *Evolution* system's benefits can be had without severe loss of musical ability, and the answer is a

resounding yes. There are only two snags. Sound for sound you probably pay about twice as much for the Revox system as for a non-lifestyle 'unpacked' equivalent. The other potential snag is that there is little scope for making improvements, although the system can be extended using the sole spare line input, or transmogrified into a full blown multi-room system. What you do get is very respectable sound quality (assuming the use of suitable third-party loudspeakers — I used Mission 753s) matched to a fabulous piece of industrial design.



Uxbridge

A U D I O

LINN HELP LINE
 Are you having problems
 getting your Linn serviced?
 Ring us, we can help!

- ACOUSTIC ENERGY ●
- ARCAM ●
- AUDIOLAB ●
- CASTLE ●
- CREEK ●
- CYRUS ●
- DENON ●
- EPOS ●
- EXPOSURE ●
- ION SYSTEMS ●
- JPW ●
- LINN PRODUCTS ●
- MARANTZ ●
- MERIDIAN ●
- MISSION ●
- MONITOR AUDIO ●
- NAIM AUDIO ●
- NAKAMICHI ●
- QED ●
- QUAD ●
- REVOLVER ●
- REVOX ●
- ROGERS ●
- ROTEL ●
- ROYD ●
- RUARK ●
- SHAHINIAN ●
- STAX ●
- TANNOY ●
- TARGET ●
- THORENS ●
- WHARFEDALE ●

If you shop around how do you Choose the right shop

Hi-fi is something you will enjoy if you choose your Dealer
 carefully

The first step in choosing hi-fi is to find a shop that cares about music, has a wide range of quality levels and offers advice and guidance.

There are two popular myths about specialist hi-fi shops. They only stock the most expensive systems and they blind you with science. Neither of these is true.

A genuine specialist shop will let you take your time. They'll make sure you can sit quietly in a separate, comfortable demonstration room, where you can listen to different systems and judge for yourself which sounds best.



STOP PRESS. MARCH '93 Audiophile Magazine give Uxbridge Audio their coveted 5 ★ dealer award. Uxbridge are the only dealer in England to receive this prestigious award, which is based on service to real life customers.

Choose Uxbridge Audio when buying a music system and hear the difference

- We demonstrate the difference and help you decide what to buy
- We ensure it sounds as good in your home as in the shop
- We look after you if something goes wrong in the future

**UXBRIDGE
 AUDIO**
 278 High Street
 Uxbridge
 Middlesex UB8 1LZ
 0895 230404

Open 10am till 6pm
 Monday to Saturday

**NEW CHISWICK
 BRANCH**
 109 Chiswick High Road
 Chiswick

London W4 2ED
 081-742 3444

Open 10am till 6pm
 Closed Mondays



BRITISH AUDIO
 DEALERS ASSOCIATION
BADA
 THE ULTIMATE IN
 SOUND ADVICE

- TWO DEMONSTRATION ROOMS
- 7 DAY EQUIPMENT EXCHANGE OR REFUND
- RECORD CLEANING SERVICE
- HOME INSTALLATION SERVICE
- WIDE CREDIT OPTIONS AVAILABLE
- 2 YEARS GUARANTEE
- PARTS AND LABOUR
- FULL SERVICE AND TURNTABLE SET UP FACILITIES
- PART EXCHANGE

HELP!

WE SORT OUT YOUR SYSTEM QUERIES

Reflected improvement

Q Having upgraded from a Dual 505 and NAD 3020 to a LP12/Valhalla/K9 and Audiolab 8000A, I need some speakers that are going to reflect this improvement. My proposed budget is £300 and I already have some 18inch three leg stands.

I want speakers that are capable of imparting plenty of detail at low volume and play loud when required. I also want to site them close to the wall in a 20 feet by 12 feet room.

My musical tastes are varied, they err towards loud rock and dance, but don't preclude acoustic and classical material. Lastly, finishes other than black ash would be a bonus.

Chris Madley, Axbridge, Somerset.

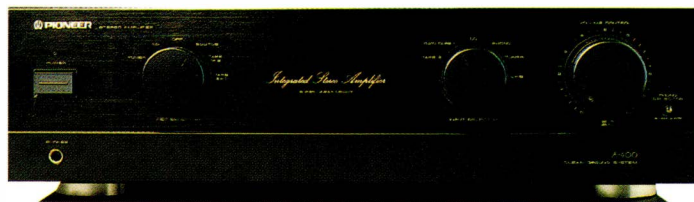
A You don't like black ash! What sort of audiophile do you call yourself? Just kidding, it's about time we escaped from the tedium of black in this industry. How about some limed oak veneer with white circular grilles?

To get down to the nitty gritty of speaker selection, the most suitable options on the up to £300 wall mount front are the following; AR M1 (£199), Celestion 7 (£200), JPW AP3 (£225), Heybrook HB1 S3 (£250) and Linn Index (£249). Of these the Heybrook, JPW and Linn are the most likely to do what you want and should be put on your auditioning list. I think all three can be had in finishes other than black ash as well.

How far can I push the A-400?

Q At present my system is as follows: Meridian 200 transport, QED Digit DAC, Pioneer A-400 amp and AR 33BX loudspeakers. I have so few records that I won't mention the turntable.

As I think the speakers are the weakest link in the chain I will be replacing them soon and have a budget of up to £2,000 for the



Capable of blurring sentiments, the ubiquitous Pioneer A-400.

purpose.

I have often read that the A-400 works better with more expensive sources and loudspeakers than it does with budget components. But I wonder whether it really makes sense to spend this much on speakers or should I upgrade both amp and speakers?

Everything revolves around my dear A-400 but I would like to know if my sentiment towards it is blurring my reason. Am I asking too much?

M Sendin, Madrid, Spain.

A I don't think there is a hard and fast answer to this one. On the one hand I've heard

the A-400 in the company of Audio Note AN-Es, KEF 105/3s and Townshend Sir Galahads making exceptionally palatable noises. On the other hand there are plenty of £2,000 amp/speaker combinations which are capable of better results in many important respects.

I think you are going to have to do some listening to assess whether the sort of advantages that a better amplifier will offer (ie dynamics, resolution, timbral naturalness etc), are worth giving up for the bass extension and resolution offered by better loudspeakers.

The best option might be to go for serious speakers now and replace the amp in the long run.

Letting go with the volume

Q I eagerly await your magazine each month and it has taught me a tremendous amount about hi-fi but I still need to ask the question, 'where do I go from here?'

I am currently enjoying a Pink Triangle Little Pink Thing turntable with a Roksan Tabriz arm and Corus Black cartridge, Pioneer A-400 amplifier, Philips 620 CD player through a QED Digit DAC and up front a Wharfedale 2130 satellite speaker system. The components all sit on a Stand Design support.

The room has 18 inch thick walls and measures roughly 12 feet by 11 feet with a false wooden floor on top of thick quarry tiles, so I can really let go with the volume as I don't have any close neighbours to disturb. I really like the sound of the turntable and prefer it for long term listening but I'm sure the system could sound better. Do you think the

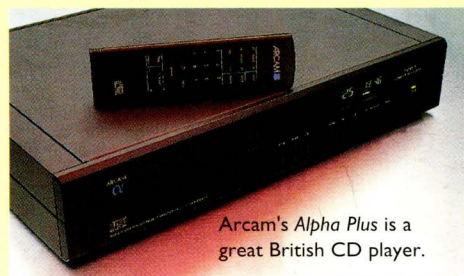
Fly that flag

We have recently moved house and I want to install a new system. I would very much like to buy an all British set-up and am prepared to pay marginally more in order to keep to British manufacturers. Given the following requirements what would you suggest:-

1. I want a CD player, tuner, amplifier and speakers.
2. Budget between £1,250 and £1,500, to include cabling.
3. The tuner must have both medium and long wave bands.
4. The speakers will have to be bookshelf speakers, the smaller the better.
5. The overall depth of components, including cables etc should not exceed 13 inches (330 mm).
6. The system should be capable of running a second pair of speakers.
8. Musical tastes are Sixties and Seventies pop and rock and some classical and jazz.

Peter Anwyl-Harris, Bethersden, Kent.

Within your specifications there are a variety of options on the amplifier and loudspeaker front, but not that many when it comes to source components. The sort of brands you should be considering include Aura, Arcam and Audiolab, the former two making all the electronics you require in budget and budget/mid price ranges respectively. Audiolab makes a well respected integrated amp called the 8000A (£430), and a tuner that has received acclaim elsewhere but is yet to be tested by Choice.



Arcam's Alpha Plus is a great British CD player.

If you want a specific system recommendation, however, I would be inclined to look at the following Arcam units: Alpha Plus CD player, Alpha 2 tuner and Delta 290 remote control amplifier. This collection amounts to about £1,000 leaving you plenty for some decent bookshelf speakers such as one of the following; Monitor Audio Monitor One (£150), JRT AD1 Micro (£389), Rogers Studio 3 £450 and Rega Kyte (£198).

LETTER OF THE MONTH

Isoda
Interconnect cable
winner

The surprising HARBETH HL-P3

Smooth, sophisticated . . . and so small

The HARBETH HL-P3 Hi-Fi/AV Broadcast monitor
is the small speaker redefined
(a revelation even to admirers of the HARBETH LS3/5A!)

- Smooth, tonally accurate and easy to drive. Bi-wired 1990's design meeting today's demanding digital audio standards.
- Features the latest Screened Magnet Technology so can be safely placed *right next* to colour TV monitors.
- Suitable for all domestic hi-fi and AV systems, recording studios, video editing/control rooms and ideal for NICAM digital stereo and satellite TV at home.



- Overcomes the limitations of even *the* most respected mini monitors. Altogether a triumph of design and technological innovation!
- Assurance of HARBETH quality through advanced QC techniques and meticulous attention to detail. Every pair supplied with Owner's Test Certificate.
- Available in beautiful matched real wood veneers: Teak, Walnut, Black Ash, Mahogany, Oak, Natural Ash, Ebony, Rosewood and Yew.

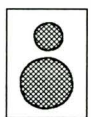
REVIEWED IN THIS ISSUE

For more information, complete the coupon below and post it to HARBETH ACOUSTICS LTD, Unit 1, Bridge Road, Haywards Heath, West Sussex RH16 1UA or simply telephone us on (0444) 440955 or fax us on (0444) 440688.

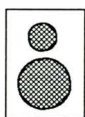
Cut along dotted line or photocopy

I would like information about: - please tick box(es)

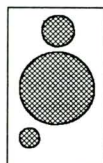
(PLEASE USE BLOCK CAPITALS)



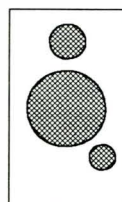
BBC
LS3/5A



HL-P3



HL
Compact



Monitor
HL5

Title: First Name:

Surname:

Address:

.....

Postcode:

Daytime Tel:

HELP!

speakers need replacing or do you have any other suggestions?

I like all sorts of music including classical organ and rock, and appreciate good controlled bass with as much detail as possible. I have from £600 to £800 to make my system sing.

Ralph Forster, Bridgwater, Somerset

A I think you've hit the nail on the head with your suggestion about new loudspeakers. Satellite and subwoofer systems have their qualities, but are rarely in the same league as good conventional designs. The question is, 'which ones?'

Probably the most competitive models in your price range are the floorstanding Linn Keilidh (£579), Ruark Talisman 2 (£700 - reviewed in this issue), Audio Note AN-J (£799) and Cabasse Bisquine £600. The latter models require decent stands to give of their best which will cost an extra £100 or so. For absolute bass extension the Keilidh wins the day, but listen to the alternatives if you can, as they have strengths which you might find more appealing than floor shaking.

The slam factor

Q My system comprises Meridian 200 transport, Deltran linked to a DPA Bigger Bit DAC, Linx Nebula amplifier and Helius Sirius IV loudspeakers. The connections are made with Digilink, Black Slink and NAC A5.



The Cabasse Bisquine is a strong competitor with appealing dynamic skills.

I am very pleased with the excitement and transparency of the sound but feel there is a lack of 'slam', leaving a slightly soft feel to drum beats, plucked guitar etc. In this respect my previous DAC, a Little Bit, was better, though in all other areas the upgrade was a significant one.

I have used a Voyd/RB300/1040 record player in this system and that managed to bring 'slam' back into the aural picture. Any shortcoming would not therefore appear to lie with the amp or speakers.

I put the Meridian on sorbothane feet atop a wall shelf which improved matters but not

to the extent that I would like.

Frankly I am loath to spend double the money on a Wadia/PDM2 combination, only to find that the DAC is out of date in six months time, and something better and cheaper has come along. What should I do?

S Brocklebank, Plymouth, Devon

A I think you are correct in your assessment that the transport is limiting the slam factor, but the DAC is also weak in this respect. In fact this elusive quality appears to be largely the domain of good multibit DACs and substantial transports, which tend to be expensive things. However, if you are dedicated to getting more weight out of your discs this is probably the only path to digital audio gratification.

Of the transports we have tested the Teac P-10 (£1,499) stands out as the least expensive way to get real weight out of CDs and may be able to give you enough of what you are after even in the company of the mellow Bigger Bit. If not consider the Sugden SDA-1 (£749), Forte Model 50 (£950) and the Teac D-10 (£800) which, although it hasn't been formally reviewed yet, proved very successful in the P-10 review.

There is, however, an alternative course of action which you should consider, and that is to go for an amplifier with more welly. I know that the Linx did it with the Voyd and that the source is king, but a more powerful amp would be able to make more of your CD player's output. See

if you can't listen to some pre/power combos from one or two of the following companies: Naim, John Shearne, Michell and Audio Innovations.

And finally get a Mana table for the DAC and amp, and a Seismic Sink for the transport. Both have a dramatic effect on low frequency power/resolution.

Digital options

Q My system is as follows: Roksan Xerxes/Artemiz/Corus Black record player, Copland CTA 401 amplifier, Point Source Aria Five loudspeakers and van den Hul MCD 352 speaker cable.

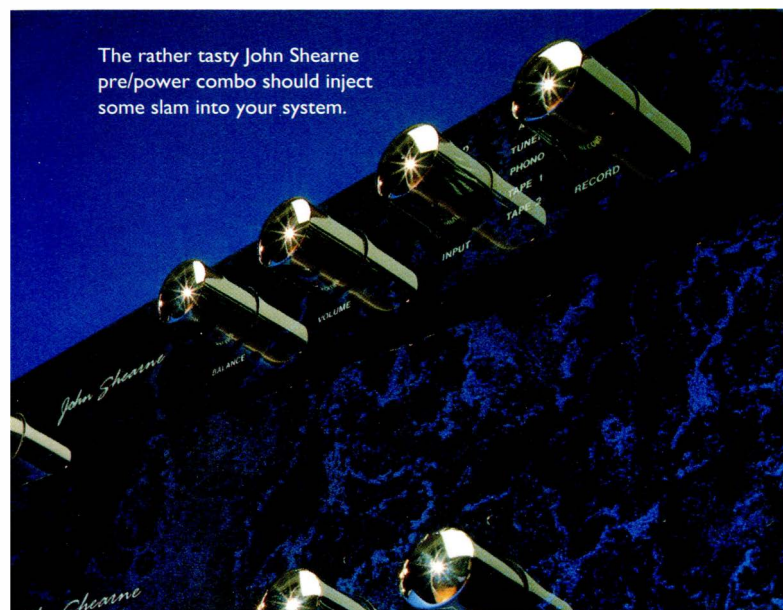
I want to buy a CD transport and DAC combination and have shortlisted the following options: transports — Meridian 200, Roksan ROK-DP1 and Arcam Delta 170.3. DACs — Meridian 203, Audiolab 8000DAC, Sugden SDA-1 and Arcam Black Box 5.

Wolfgang Stasser, Salzburg, Austria

A You are obviously an enthusiast and as such aware that at this level personal taste plays an important part in component selection. Looking at your existing system this would certainly appear to be the case so far. However, I can understand your need to cut the audition list down to size.

Of the options you list, we haven't actually reviewed enough of the latest versions (the Meridians and Audiolab have recently changed) to come up with a recommendable combination. However, the following set-ups have proved most effective and should be auditioned. The Teac P-10 transport with either the Sugden, Forte Model 50, Audio Alchemy DDE or DPA Digital Bigger Bit DACs. These DACs also worked well, with the Meridian 200 in its original guise, so it would be well worth listening to the new version. You could do worse than note the findings of Mr Brocklebank whose letter precedes your own.

The rather tasty John Shearne pre/power combo should inject some slam into your system.



SEND YOUR HI-FI QUERIES TO HI-FI CHOICE

**Hi-Fi Choice
Dennis Publishing Ltd,
19 Bolsover Street,
London W1P 7HJ**

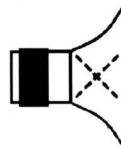
RINGMAT

FOR RECORD LOVERS

First record support properly designed.
Takes LP sound quality significantly
above current reference levels.



For more details contact
RINGMAT DEVELOPMENTS
PO BOX 200 BRENTWOOD
ESSEX CM15 8QG
Tel: 0277 200 210 Fax: 0277 201 225



BANDOR

MINIATURE LOUDSPEAKERS
THE SOUND OF EXCELLENCE

Design & Development Studio 11 Penfold Cottages Penfold Lane
Holmer Green Bucks HP15 6XR. Tel/Fax: (0494) 714058



2" 50MM MODULE	£36
6" 100MM DRIVER	£72
8" 150MM DRIVER	£82
15" 300MM DRIVER	£215

Prices exclude VAT & postage

PASSIVE & ACTIVE X/OVER
AVAILABLE

SPECIALITY:

1. Exceptionally fast transit response
2. Moving mass under 2 grams (2")
3. Covers 2/3rds of the frequency spectrum 100Hz/20kHz
4. HUMIDITY-PROOF

ANODISED SPUN ALUMINIUM CONE DRIVERS
DEVELOPED AND DESIGNED BY DOREEN
JORDAN SINCE OCTOBER 1984

SUPPLIED ONLY DIRECT FROM
BANDOR MANUFACTURING (UK)
Trade Prices and brochures available on request.
35 YEARS EXPERIENCE • BUILT FOR RELIABILITY
WARRANTY



DACULA is the new DAC from Perfect Pitch Music.

Based on the acclaimed Crystal Semiconductor chip set, DACULA also incorporates proprietary *current conveyor* analogue technology to achieve a performance which (we believe) will set a new standard for a mid price DAC.

Don't wait until sundown!...DACULA is now available for audition.

For further information contact:

Michael Vere-Hunt
Select Systems Ltd.
Hanworth Trading Estate
Feltham
Middx TW13 6DH
Tel: 081 893 8662
Fax: 081 893 4318



Perfect Pitch Music is a trademark of Select Systems

TM

SANSUI

"BEAUTIFUL ENGINEERING - IMMACULATE LOOKS"

THE NEW SANSUI "VINTAGE LINE"

from £1,300 and above is exclusively
available from

MUSIC MATTERS

HI - FI
THE AUDIO
SPECIALISTS
351 HAGLEY ROAD, EDGBASTON,
BIRMINGHAM B17 8DL
TEL: 021 429 2811

COTTAGE AUDIO

17 BRIDGE STREET, SAXILBY,
LINCOLN, LN1 2PZ
TEL: 0522 702834
FAX: 0522 702834
CALL US NOW FOR
FURTHER DETAILS

MUSIC ROOM

50 BRIDGE STREET,
MANCHESTER
TEL: 061 835 1366

The dealer in the
NORTH WEST

KAMLA ELECTRONICS

251 TOTTENHAM COURT ROAD,
LONDON W1P 9AD
TEL: 071 323 2747

If you are in the London area - come in
and see the stunning Sansui AU-a707DR

... and six other prestigious retailers soon to be announced.

SANSUI (UK)
91 COLEMAN ROAD
LEICESTER LE5 4LE
TEL: 0533 460021. FAX: 0533 742037

HELP!

Starting afresh?

Q My present system consists of a Kenwood DP-1100SG CD player, KA-550D amplifier, and a pair of Sennheiser HD560 Ovation II headphones. I am now in a position to spend £1,500 on improving the CD player and bringing the sound out into the room.

I liked the sound of Tannoy's DC2000s so the 611s are high on my list of preferences, or even 613s if my budget can stretch to them. Amplifiers I am considering are the Audiolab 8000A and Pioneer A-400. I want to continue using the Sennheisers so a headphone socket is essential. Is it worthwhile adding a DAC to my existing player or should I start afresh? I have read some stunning reviews of the Audiolab 8000 DAC so this also features strongly on my list, together with the Meridan 203. My musical tastes are mainly rock, but basically anything that has full, crisp, well-controlled bass. I am looking for as detailed and revealing a sound as my money will buy.

David Bellchambers,
Fareham, Hampshire.

A It looks like you are on the right tracks with your suggestions so far, but I would encourage you to consider a few other options on the speaker front at least. Two models that offer almost precisely what you are after, and work well with the A-400 at least, are the Castle Chester (£650) and Audio Note AN-J (£799).



Tannoys 611s, good but not the most competitive model at the price.

As far as CD playing is concerned I would suggest you take your player down to the store and make some comparisons. Whether or not you should get a new player or add a DAC to the Kenwood depends on how good a transport it has. It was a fairly prestigious model in its time, but is about seven years old now so it's anyone's guess how well it will perform by today's standards.

To quote the vernacular

Q As usual in my life I have done, once again, everything the wrong way round.

Let me explain. First may I say that I have little or no knowledge of hi-fi. In view of this I recently purchased a 'separates system'. I then bought your publication. Without going into the 'whys and wherefores' suffice it to say that I am and have been for most of my life 'into' classical music to quote the vernacular.

My old B&O system had served me well for the past twelve years or so, but it was now getting very old, very old indeed, which prompted me to replace it with a new B&O system, or so I thought, until I heard the price. Well, I thought in my innocence, I will buy one of these midi or mini things. Try them I did, but alas I could not find one with the same quality as the old B&O.

In the end it was suggested that I should 'go into' separates. When it was explained to me what



Dual's CS505.4 is a budget winner but what's the best cartridge for it?

they were and that they 'gave off' much better noises I succumbed. The outcome of which is as follows Pioneer PD-7700 CD player, CT-449 cassette deck, F-676 tuner, A-400 amp and Wharfedale 420 speakers.

It does seem to work quite well but I do feel the speakers are a bit 'boomy'. I would like to know what your comments are regarding this system, particularly in regard to the speakers and anything at all that can be done to improve it.

Ralph Ruddle,
Basingstoke, Hants

A You're right Ralph, it's not a good plan to read hi-fi magazines after you buy a system, it's bound to inspire insecurity.

However, fear not, you have purchased a good system, which should serve you well. We haven't reviewed the Wharfedale 420 as yet, but its brother, the 425, has come out well in this issue. You might find that if you experiment with speaker placement, bring them away from the wall and put them on a pair of decent stands, that the boominess can be cured. If this doesn't work you might have to trade them in for something that does a better job.

Ancillary activity

Q My system is as follows: Mission DAD5 CD player, Dual CS505-4 turntable, Yamaha KX-250 cassette deck,

Cyrus 1 amp and Cyrus 780 loudspeakers.

I want to know which cartridge to buy and what the best speaker cables would be for the set-up, I'm using Linn K20 at the moment. I already have speaker stands, but I want to know what would be the best option for my speakers?

I listen to blues and rock, and have a budget of about £300.

TW Budd, Portsmouth

A The best cartridge depends on how far you can push a CS505-4, we once gave a £600 Ortofon MC2000 to a 505 owner in a competition, but that's a bit extreme and I would suggest you stick to models at around the £50 mark. The most appropriate model would seem to be another Ortofon, the £30 510. If you have trouble finding one try an Arcam C77Mg (£40).

To make a significant improvement on the cables you've got would involve spending around £80 on something like Furukawa FS-2T14 which is arguably a bit too good for your system — not that it wouldn't make it sound better, it's just quite a lot of money. However, it would serve you well through future upgrades and is relatively inexpensive compared to hardware changes.

As for stands, we are doing a major stand review for a supplement on the June issue, and we are using a speaker very much like yours in the process, so I would suggest you wait until the second Friday in May.

University Audio

SPECIALIST

Audio Visual Demonstration Studio

Starring

Lexicon • Bang & Olufsen • Canon
Yamaha • Pioneer • Sony

Sit in the comfort of a purpose built studio and
enjoy the ultimate in audio visual entertainment.

at

No.3 Peas Hill, Cambridge CB2 3PP
Telephone (0223) 68781

ADVENT
AUDIO TECHNICA
AR
A.K.G.
BOSTON
BEYER
CAMBRIDGE
CANON
CARVER
CERWIN VEGA
DENON
DEMON
DUAL
GOLDRING
HARMAN-KARDON
HECO
JAMO
JBL
KENWOOD
MARANTZ
MICHELL
MORDAUNT-SHORT
NAD
ORTOFON
PIONEER
PROJECT STANDS
PROTON
ROTEL
RUARK
SENNHEISER
TANNOY
THORENS
TDK
TEAC
WHARFDALE
YAMAHA

analog audio

ANALOG SALE SPECIALS

Tannoy 607 Speakers £199.90

Yamaha NS-B50 Speakers, 80 watt.

Normal Price £199.95. **SALE £119.90**

Infinity Infinitesimal Micro System (lpr. Satellites plus sub-woofer)

Normal Price £329.95. **EX-DEMO PRICE £199.90**

Marantz PM40SE Amplifier

Normal Price £249.90. **SALE PRICE £189.90**

Revolver Turntables – buy now before price increase.

Prices on most lines are going up so buy now!

Yamaha, DSP, A1000, A.V. Amplifiers in stock

MANY OTHER SPECIALS

CALL OR TELEPHONE FOR GOOD SERVICE AND ADVICE

MAIL ORDER AND DELIVERY. ACCESS & BARCLAYCARD ACCEPTED

849 HIGH ROAD
LONDON N12
(NORTH FINCHLEY)

analog audio

TEL 081-445 3267

FAX 081-445 1443

WRITE ON!

LETTERS EDITED BY LISA NICKSON & PAUL MESSENGER

A British tonearm through and through

I refer to Mr Woolliscroft's letter published in the January issue.

I was pleased to read that Mr Woolliscroft is supporting our hi-fi industry by buying British. However, he was under the mis-



The Linn Ekos tonearm, a hundred per cent precision made in Britain by Glaswegians.

conception that our world renowned Ekos tonearm is built in Japan.

The Ekos is a fine example of 'British is best'. It is precision engineered to a tolerance of 1 micron from raw materials, assembled and tested entirely on our premises in Glasgow. Even the most celebrated British car manufacturers cannot make such a claim.

Furthermore, the engineering expertise gained over the past twenty years has been successfully applied to the production of the Karik, the only British CD player with a precision built British transport and up to the minute surface-mount electronics.

We take pride in controlling the manufacture of all our products, made possible by huge reinvestment into the company. The end result is much superior sound and build quality giving all our customers great pleasure and enjoyment from their record and CD collections.

Peter Nowicki,
Linn Products.

Vinyl realism versus clinical sound

In response to Mr Gavin in the March issue I must confess total ignorance that my vinyl only system had eleven faults. This is of course in addition to my own lack of knowledge in recently buying an Arcam Alpha 3 and KEF speakers to link up to an old Rotel RP 1000 deck and a new AT95E cartridge.

I also bought some new speaker cable called Mission stranded and put the speakers on Apollo stands.

Goodness me, I like the sound I hear; clear informative with very little record surface noise (I clean my records Mr Gavin). Above all, this little lot did not break the bank, and surpasses the standards usually required of a domestic set-up.

Long live vinyl with all its warts. I don't want clinical sound reproduction: I want realism.

Ian Robertson, Kirriemuir, Argus.

All I want is a picture of you

As a regular reader of *Hi-Fi Choice*, may I congratulate you and your staff for the persistent high quality of your magazine which both my father and myself read every month with great pleasure.

However, may I raise a small point of view? If memory serves me well, I do not recall seeing photographs of the staff of *Choice*. I think it would be nice if in one edition you could print photographs of the contributors so that the reader may identify the people behind the pens/word processors instead of them being 'faceless'.

I do hope you'll give some consideration to my idea.

K L Mason,
Watford, Herts.

No sooner said than done; gorgeous photographs of our illustrious columnists began to appear last month. Bet you wish you hadn't asked now!

A difference of opinion

First of all let me compliment you on your fine magazine which I enjoy reading and find useful for advice when making a decision on buying new hi-fi products. I finally took out a year's subscription after having purchased single issues which make it expensive after a while — £5.50 here in Holland.

I have a criticism to make, however. In Sessions in your November issue the Mission 753s were reviewed by Alvin Gold who gave them a good write up — one of the reasons why I ordered a pair of them in the UK. However, in your January issue the speaker is seen in another light.

The November issue mentions 90db sensitivity, happy being driven by low power amplifiers and that this speaker is a bargain coming highly recommended. The January issue, mentions an 88 db sensitivity, the amplifier load being quite demanding and that the speaker is good but not as good as expected.

What am I to believe? Please correct me if I have misunderstood but I am slightly disappointed to find two different reviews by the same magazine.

Rob Maaskant, Landgraaf, The Netherlands.

Your letter raises some important points which are not easily answered. The purpose of our Sessions section is to provide topical and up-to-the-minute 'first look' coverage of the latest and most exciting products and developments. Reviews therein are therefore carried out subjectively and in isolation, without the comparative technical perspectives and blind listening backup which are applied to our large group reviews, and relying upon manufacturer supplied data.

Loudspeaker sensitivities are something of a grey area (a bit like amplifier power ratings). The figures quoted in our formal group reviews often disagree with the manufacturer's specification, but are internally consistent with one another, and are founded on a database which now covers well over 200 current models. All of these have been measured under precisely the same conditions, themselves specifically structured to determine real-world, in-room relative loudness levels.

You should not confuse the power rating of an amplifier with its inherent quality. The Mission 753 is still sensitive enough to be driven loudly by a low power amplifier, but its current demands are such, especially at high frequencies, that such an amplifier needs to be of good quality.

And finally, you must remember that reviewers are human beings, not machines, and that their judgments, however well founded in experience, are based on personal reactions to a product under a necessarily restricted set of circumstances. It is clear enough that the 753 was better suited to Alvin's room, ancillary equipment and personal preferences than it was to my own.

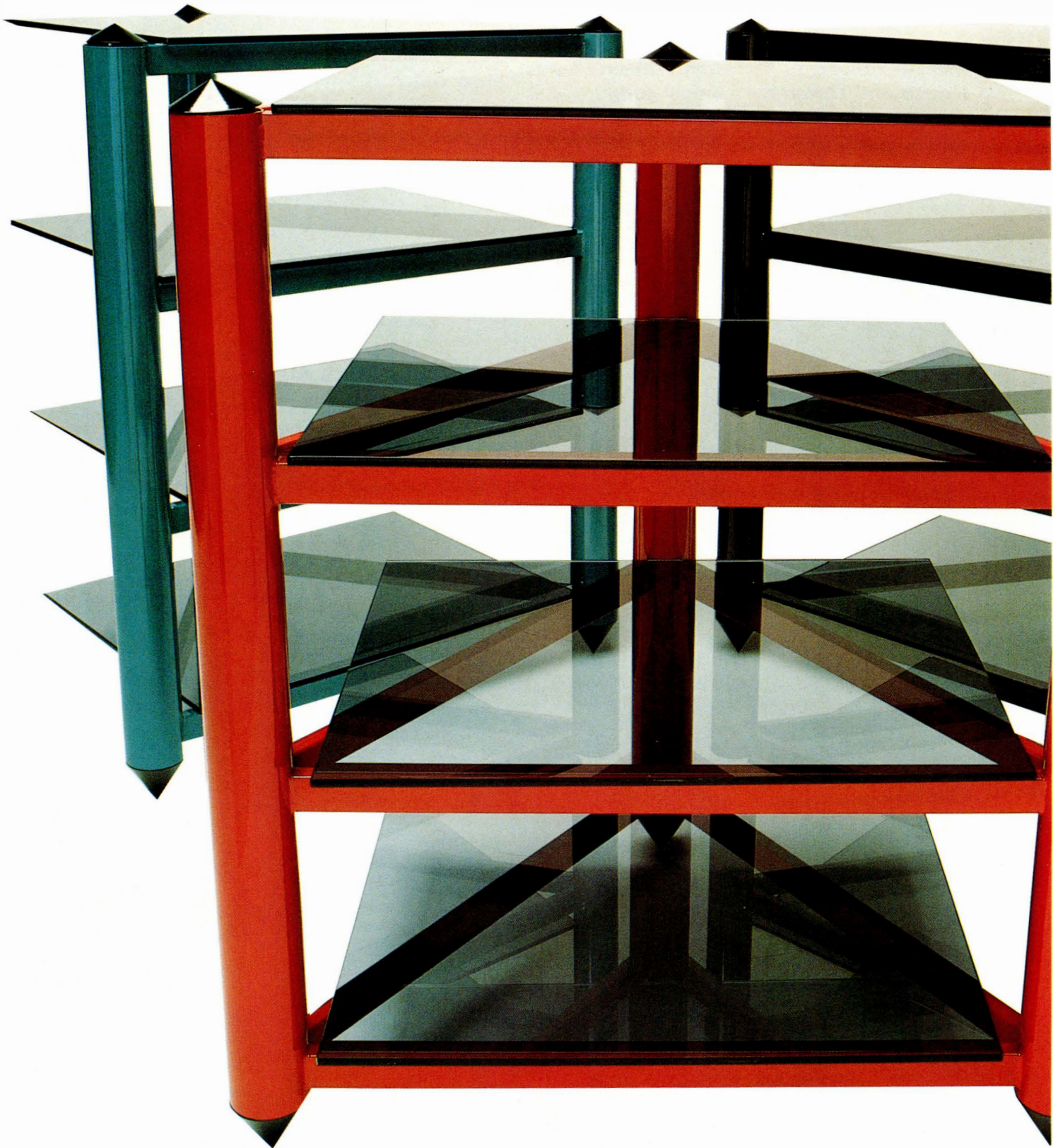
At the end of the day it is your room, preferences and system that the speaker has to work with, which is why we always stress the importance of getting your own demonstrations rather than relying solely on reviews.



LETTER OF THE MONTH

Hi-Fi Choice
sweatshirt Winner

WIN A SOUNDSTYLE TRIPOD



TABLE

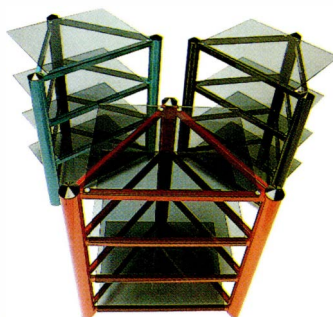
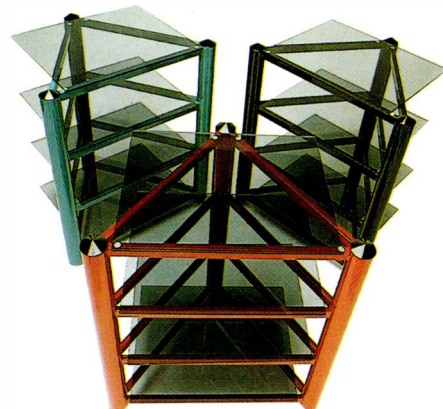
Brighten up your listening room with a fabulous four tier Soundstyle Tripod table. Worth £190 a piece, we have ten to give away this month's easy to enter competition.

How to enter

Only our six question quiz separates you from one of these superb Soundstyle tables. Please answer all six questions, in block capitals, on the entry form provided, and remember to include your name, address and colour preference. Then send the form to the address shown in bold type at the bottom of the page. Mark your envelope **Soundstyle Competition**.

The Prizes

The first ten correct entries out of the postbag will win a Soundstyle Tripod table worth £190. They are available in the following colours: Rock Red (RR), Sonata Blue (SB), Concert Blue (CB), Opus Green (OG), Symphony Grey (SG) and Classic Black (BL). CB is the turquoise one on the left of the main pic, SB is a light blue. Please use the initials to indicate your preference on the entry form.



Entry form

NAME:

ADDRESS:

POSTCODE: TEL:

COLOUR PREFERENCE.....

HFC/MAY/93

Closing date: Monday, 7th June, 1993

Your answers:

- 1.....
- 2.....
- 3.....
- 4.....
- 5.....
- 6.....

COMPETITION RULES

- 1) All entries must be on the entry forms provided. Photocopies will be accepted. Incomplete forms will not be considered. Only one entry per reader please!
- 2) There is no cash or other alternative to the prizes.
- 3) Employees of Dennis Publishing Ltd and associated companies, the manufacturers and suppliers of the prizes, their agents and relatives, are not eligible to enter the competition.
- 4) The competition is not open to readers living outside the United Kingdom.
- 5) The prizes will be awarded to the first sets of correct answers opened after the closing date. No correspondence whatsoever will be entered into regarding the competition. The Editor's decision is final and binding.
- 6) The winners will be notified by post.
- 7) Please notify us if you do not wish to be informed of any special offers and promotions.

Send your completed forms to:
Soundstyle Competition, Hi-Fi Choice, Computer Mailing Services, PO Box 249, London WC2H 0HS.

Questions

1. Which product has Revox created to compete with B&O ?
2. Which speaker was considered more capable, if less kuddly than the *Keilidh*?
3. How many million cassette machines are made each year?
4. Audio Innovations has named its new step up transformer after which film?
5. Which new recording technology has been used on the latest Reference Recordings CDs?
6. Which tonearm is used on this month's *Statements* subject?

Putting the performance back into your music



EXCLUSIVE MIDLANDS
MARK LEVINSON
DEALER

Linn/Naim Audio
Naim Audio/Rega/Roksan/
Rega/Roksan/Audio Research/
Roksan/Audio Research/Ion Systems/Arcam/
Audio Research/Ion Systems/Arcam/Rotel/Royd/
Ion Systems/Arcam/Rotel/Royd/
Arcam/Rotel/Royd/Sony ES/Yamaha/Revox/Magnepan
Royd/Sony ES/Yamaha/Revox/Magnepan Incc
Sony ES/Yamaha/Revox/Magnepan Incorporated/Acoustic Energy/De
Acoustic Energy/Denon/Epos/Heybrook/Mission Cyrus/Marantz/Nakan
Mission Cyrus/Marantz/Nakamichi/Sonus Faber/Onkyo/Ortofon
Sonus Faber/Ortofon
Onkyo/Ortofon/Mordaunt Short/Mantra/Radford/Tascam
Ortofon/Mordaunt Short/Mantra/Radford/Tascam
Tascam/Creek/Celestion/Sound Organisation
Tascam/Creek/Celestion/Sound Organisation/Koetsu/SME/Akai
Celestion/Sound Organisation/Koetsu/SME/Akai
Sound Organisation/Koetsu/SME/Akai
Koetsu/SME/Akai
SME/Akai (video)/AKG/Beyer Dynamic/Audio Technica
Akai (video)/AKG/Beyer Dynamic/Audio Technica
AKG/Beyer Dynamic/Audio Technica
Beyer Dynamic/Audio Technica
Audio Technica/Sony DAT/Linn/Naim Audio/Rega/Roksan/Audio Research/Ion Systems/Arcam/Rotel/Royd/Sony ES/Yamaha/Revox/Magnepan Incorporated/Acoustic Energy/Denon/Epos/Heybrook/Mission Cyrus/Marantz/Nakamichi/Sonus Faber/Onkyo/Ortofon/Sonus Faber/Ortofon/Mordaunt Short/Mantra/Radford/Tascam
Mordaunt Short/Mantra/Radford/Tascam
Radford/Tascam/Creek/Celestion/Sound Organisation/Tascam/Creek/Celestion/Sound Organisation/Koetsu/Celestion/Sound Organisation/Koetsu/SME/Akai/Sound Organisation/Koetsu/SME/Akai/SME/Akai (video)/AKG/Beyer Dynamic/Akai (video)/AKG/Beyer Dynamic/Audio Technica

Independent advice on the best systems around

West Midlands Audio
158 Ombersley Road
Worcester WR3 7HA
Telephone: 0905 58046
Fax: 0905 57585

Open 9.30am - 5.30pm
(8.30pm by appointment)

The blank tape levy lashback

Philips continues to push DCC with adverts that encourage people to copy CDs onto digital cassette. Blank 75 minute cassettes carry the sticker 'for CD'. But Philips and Technics will not launch the playback-only DCC portable which the record companies had been promised until the summer. The BPI, trade body for the British record companies, has written to both Philips and Sony, regretting that there is nothing in the ads for DCC and MiniDisc which warn that it is illegal to copy. The BPI has also passed on the concern of some member companies about the whole thrust of the ads.



With the rise of digital recording, tape levies look inevitable. Barry Fox investigates.

Although Sony in the UK has so far played down the dub-a-CD benefits of MiniDisc, Sony in Japan is now selling a mains-powered MD deck with editing features and is ideally suited to the creation of personalised discs.

As sure as night follows day there will now be a fresh call from the BPI for a tax on blank tape. Philips has pledged not to oppose any such call. The BPI thinks the UK government's DTI is now more keen on the idea. The European Commission in Brussels is debating a plan to

harmonize a home taping levy throughout Europe.

The Consumers' Association, publisher of *Which?* magazine, has always been against a tax on tape. In 1991 CA commissioned market research interviews to try and find out whether home taping really is the bogey that the record industry claims. The results show that a third of people who buy blank tapes use them mainly to tape from the radio or TV. A slightly smaller percentage (28 per cent) use them to tape records owned by themselves or somebody else in the house. Only 22 per cent use them to tape somebody else's records. So, says the CA, fewer than a quarter of the people who buy blank tapes use them in a way which can affect the sales of prerecorded music.

CA has always argued that if you buy a record, it is reasonable to make a taped copy. It is over-simplistic, argues CA, to say that people buy blank tapes to avoid buying prerecorded discs or tapes, and that a tax on blank audio tape would unfairly penalise over 75 per cent of audio tape purchasers.

Nevertheless, more than a third of the people questioned reckoned it would be fair to pay around

10p extra for a cassette in exchange for the right to copy. CA's position now is that if there is to be a levy, the law must be changed to give consumers the legal right to make copies for personal use, and there must be exemptions for the blind.

The idea of a tax was first raised by the European Parliament in 1991 and was discussed by Working Groups of the European Commission in Brussels last year. It looks likely that the EC will formally adopt the proposal this year. If adopted the proposal becomes an official Directive. National governments are then obliged to pass laws which enforce what the EC decides. Usually these laws come into force after a grace period of two or three years.

All this sounds confusingly cumbersome, with action a long way off. But be warned. When EC discussions drone on, apparently endlessly, they have a nasty habit of suddenly turning into a tablet of stone. The BPI believes that the British DTI is now more sympathetic to the idea of a tax. And whether or not you think the idea of a tax is fair, the main issue remains unresolved and must be debated. How will the collected money be distributed?

The record industry's plan is to distribute any such tax collected on the basis of existing copyright payments, eg giving artists a share based on their current earnings from record sales. This is obviously unpopular. In the past, when the BPI was lobbying the DTI for a local tax, there was talk of the money going to industry causes, like a music school. One idea was to give it to charity, for instance the blind or deaf. The issue of distributing the cash raised must be settled before the tax is implemented.

A lighter louder note

It is now nearly fifteen years since British pro-sound engineer Stephen Court stopped a Japanese hi-fi show dead, almost literally dead, in its tracks. First he played some sweet music through a bank of 2,000 watt amplifiers and enormous concert speakers. Then, every hour on the hour, he turned the volume up full and played a recording of the British army firing the gun on a Chieftain tank. I was there and taken completely unawares, cricking my neck as I was blown a couple of metres back against a wall. I was ready and prepared for the next demonstration, and saw three Japanese audio buffs fall out of their chairs.

Court recently teamed up with record producer Alan Parsons to make a CD which engineers can use to test their equipment. Most of the disc contains boring tone tests, but there was space on the end for the tank tape. Anyone curious, or perhaps with a grudge against the neighbours, can obtain a copy for £16.50, plus postage and VAT from Soundcheck Productions, Tel (0753) 833524. But if you blow the cones out of your loudspeakers, don't blame me.

Why do we win these awards?

Because they are voted by the public! Satisfied customers are so impressed by the service, advice and ultimate quality of the hi-fi we supply, that not only do they recommend their friends but also take the trouble to nominate Grahams for these honours. Four air-conditioned dem rooms,

F.B.A. PUBLIC ACCLAIM
DEALER OF THE YEAR 1985

SONY HI-FI NEWS & RECORDS REVIEW
DEALER AWARDS 1989 WINNER GREATER LONDON

SONY HI-FI NEWS & RECORDS REVIEW
DEALER AWARDS 1990 NATIONAL DEALER OF THE YEAR

SONY HI-FI NEWS & RECORDS REVIEW
DEALER AWARDS 1986 WINNER GREATER LONDON

SONY HI-FI NEWS & RECORDS REVIEW
DEALER AWARDS 1990 WINNER GREATER LONDON

“One of the 5 best Hi-Fi shops in the world.”
High Fidelity mag. May 1990

BADA
dealers are hi-fi and music enthusiasts
We are a BADA dealer

GRAHAMS HI-FI

Canonbury Yard
190A New North Road
London N1 7BS ☎ 071-226 5500



Come and ^{hear} see why!

probably the finest hi-fi facilities in Europe (most people are amazed when they visit us for the first time), lots of FREE parking, helpful, trained staff, 60 years trading, systems from £400 upwards.
Ring for a chat, an appointment and a map!

MANTRA AUDIO

- CARTRIDGES AND STYLII
- MAIL ORDER DIRECT 1-10 DAYS
- COMPETITIVE PRICES inc P&P
- 10% DISCOUNT ON STYLII QTY 2

TYPE	REPLACEMENT STYLUS IDENT	PRICE	MAKE	MODEL	CARTRIDGE	STYLUS
ADC	RK 8, RQ 4, QLM 30, RL 3/5	£ 7.50	Arcam	C 77	£ 27.00	£ 15.00
	R20 KE, QLM 32/34/36, XLM III	£11.50		E77	£ 45.00	£ 33.00
Aiwa	AN 5/6/7/10/11/30/35/8745	£ 7.50	Audio Technica	P77	£ 56.00	£ 45.00
	AN 2/50/70/77D/4932/8743	£ 9.50		P77 Mg	£ 60.00	£ 45.00
Akai	APN 2/5, RS 33/35/38/83	£ 7.50	Denon	AT 95 E	£ 20.00	£ 11.50
	DSN 24/28/39/44/47/57/66	£ 7.50		AT 110 E	£ 24.50	£ 13.50
Duel	DSN 50/54/60/65	£11.50	Goldring	AT 412 EP (T4P)	£ 24.50	£ 14.50
	DN 140/236/237/245	£ 9.50		AT420 E	£ 34.00	£ 24.00
Goldring	DN 145/155/165 E, DN 149S	£11.50	Denon	AT450 E	£ 49.50	£ 32.00
	G 800/820/850	£ 7.50		AT OC 3	£ 85.00	£ 57.80*
Hitachi	G800 Super E (10110E)	£11.50	Goldring	AT OC 5	£115.00	£ 86.00*
	DS-ST 7/12/14/15/26/30	£ 7.50		DL 110 MC	£ 68.00	---
JVC	DS-ST 5/16/23/24/25/55	£ 9.50	Nagaoka	DL 160 MC	£ 90.00	---
	DT 35/45/55/60, DT 2 1 S	£ 7.50		DL 304 MC	£180.00	---
Kenwood (Trio)	TT 333/443/551/553	£ 9.50	Nagaoka	EPIC II	£ 29.00	£ 19.00
	TT 333/443/551/553	£11.50		1006 GX	£ 40.00	£ 27.00
Marantz	N 11 MP	£25.00	Nagaoka	1012 GX	£ 54.00	£ 35.00
	N 11 MP BORON	£ 7.50		1022 GX	£ 72.00	£ 47.00
Nat Pan/Technics	EPS 23/24/25/30/33/51 CS	£ 7.50	Nagaoka	1042 GX	£ 90.00	£ 58.50
	EPS 2700, EPS 31/34/43 STSD	£ 7.50		Eroica (LX) (A)	£ 95.00	£ 65.00*
Ortofon	EPS, 30ES, EPS 202/270 ED	£ 9.50	Nagaoka	Elite	£179.00	£117.00*
	FF 15/VMS 10/20 EII, OM/P 10/20	£11.50		TS 10	£ 45.00	£ 20.00
Philips	GP 371/400/780/400 III/III	£ 7.50	Ortofon	TS 11	£ 63.00	£ 33.00
	GP 330/401/401 II/412 II	£ 9.50		TS 12	£ 72.00	£ 38.00
Pioneer	PN 110/210/220/K65/250T/295T	£ 7.50	Shure	OM/P 10 Super	£ 25.00	£ 18.00
	PN 30/35/50/135/200/290T	£ 9.50		OM/P 20 Super	£ 47.50	£ 31.50
Samsui	SN 10/27/28/37/41/50/80	£ 7.50	Shure	OM 30 Super	£ 71.50	£ 57.00
	ST G 8/9/10, ST 28/29 D	£ 7.50		OM N'CLUB S	£ 28.50	£ 18.00
Sanyo (Fisher)	ST 35/36/37/40/42/55 0	£ 7.50	Shure	510	£ 28.50	£ 18.00
	ST 26/30/36/38/44/66 D	£ 9.50		520, 520P (T4P)	£ 47.50	£ 35.50
Sharp	STY 104/111/116/117/118	£ 7.50	Shure	530, 530P (T4P)	£ 76.00	£ 57.00
	STY 123/124/127/136/141	£ 7.50		MC 1 TURBO	£ 54.00	£ 40.00*
Shure	N 75 6/C, N 708/916	£ 7.50	Shure	MC 3 TURBO	£ 99.00	£ 75.00*
	N 75 ED/EI T2, N 95 ED/EI	£ 9.50		MC 10 Super	£ 76.00	£ 60.00*
Sony	N 97 ED, VN 35E	£13.00	Shure	QUARTZ	£130.00	£100.00*
	ND 133/134/150/155/200/300 G	£ 7.50		ME 97 HE	£ 49.00	£ 34.00
Stanton	ND 115/135/143/148/153 G	£ 9.50	Shure	SC 35 C	£ 26.50	£ 17.50
	D 5100 E/5107 A/6071 A	£11.50		M 105 E	£ 49.00	£ 29.00
Tenorel	N 2001 D	£ 9.50	Shure	M 110 HE	£ 60.00	£ 39.00
	N 2001 ED	£11.50		ML 120 HE	£ 95.00	£ 82.00
Toshiba	N 62, N 290 D, N 292	£ 7.50	Shure	ML 140 HE	£120.00	£ 94.00
	N 37/72/76/78 D, N 500	£ 9.50		VN 15 E	(VN 15 III)	£ 47.00
MAKE	ACCESSORY		Shure	VN 35 MR	(VN 15 III)	£ 53.50
	AT 6101 PCOCC Cartridge leads	£ 9.00		VN 45 MR	(VN 15 IV)	£ 76.00
Shure	SFBG 2 Stylus Force Gauge	£14.00	Stanton	VN 15 V5	£220.00	£116.00
	Cartridge Alignment Protractor	£ 5.00		500 AL DISCO	£ 30.00	£ 18.00
Altai			Stanton	680 AL DISCO	£ 44.00	£ 32.00

*Exchange ***Other types available*** Tel (0757) 288652
Please state stylus ident no./colour, cartridge/ref on all orders/enquiries
MANTRA AUDIO (HFC), 22 GARTH AVENUE, NORTH DUFFIELD, SELBY, NORTH YORKS YO8 7RP

NUMBERS ALWAYS 'IN STOCK'

The best hi-fi Dealers know when they're on to a good thing. Get on to a good thing too by quoting these award winning numbers on your next hi-fi shopping spree.

AT-110E
← MOVING MAGNET →



AT-OC5_{MC}
← MOVING COIL →



AT-95E
← MOVING MAGNET →



ATH-L1a
HEADPHONES



Available at Good Hi-Fi Stores **ONLY**

audio-technica

□ INNOVATION □ PRECISION □ INTEGRITY

ATC002

3 Issues Free

FREE Trial Period Plus! Save Over £20!



This month we are giving you another chance to try out the world's number one guide to buying hi-fi for three months, completely free of charge. All you have to do is fill out the direct debit mandate and post it off to the address at the bottom of the page, you don't even need a stamp because we'll pay the postage!

You will then receive your three free copies of *Hi-Fi Choice*. If at the end of that period you don't agree with us that *Hi-Fi Choice* is quite simply the best hi-fi magazine on the market, write in and cancel your direct debit instructions. We won't debit your account until you have received your three free issues and if you decide to cancel, these issues are still yours to keep.

Even bigger savings!
If, however, you decide that you would like to continue to receive *Hi-Fi Choice* then simply do nothing and we will arrange for you to receive a regular copy of the magazine, delivered direct to your door.

All we will charge you is the paltry sum of £22.95, representing a generous saving of over £12 on news-stand prices. When you take account of your free issues this means that you are getting 15 issues of *Hi-Fi Choice* for a mere £22.95, around half what they would have cost you in the shops. Fill out the form today as this fantastic offer closes on 1st June, 1993.

Please note, free issues offer applies to UK only.

BY TAKING ADVANTAGE OF THIS SPECIAL SUBSCRIPTION OFFER YOU GET:

- **THREE FREE ISSUES**
- **A SAVING OF OVER £20 ON NORMAL COVER PRICE**
- **FREE DELIVERY TO YOUR DOOR**
- **SPECIAL READER OFFERS**

Priority Subscription Form

Your bank details:

Bank's name

Bank's address

.....

Postcode

Bank sort code

Name of Account Holder

Account number

Your instruction to your bank and your signature

- ◆ I/We instruct you to pay direct debits from my/our account at the request of Dennis Publishing Ltd.
- ◆ The amounts are variable and may be debited on various dates.
- ◆ I/We understand that Dennis Publishing Ltd may change the amounts and dates only after giving me prior notice.
- ◆ I/We will inform the Bank in writing if I/We wish to cancel this instruction.
- ◆ If any direct debit is paid which breaks the terms of these instructions the bank will make a refund.

Your signature(s) Date

Originators identification number 724680

NB: BANKS MAY REFUSE TO ACCEPT INSTRUCTIONS FROM SOME TYPES OF ACCOUNT.

PLEASE TICK THE SUBSCRIPTION YOU REQUIRE:

UK, £22.95 Please note: Offer applies to UK only, please phone the subscriptions hotline for details of overseas subscription rates

ADDRESS TO WHICH YOU WISH YOUR MAGAZINES TO BE SENT

Mr/Mrs/Ms Surname First name

Address

.....

Postcode

Daytime telephone number

NOW POST TO: DENNIS PUBLISHING LTD
UK SUBSCRIBERS: Post to *HI-FI CHOICE* Subscriptions, FREEPOST WD7, Market Harborough, Leicestershire LE87 4AU.
OVERSEAS SUBSCRIBERS: Please phone the subs hotline for current prices
TELEPHONE: Call us on our 24hr Subscription Hotline 0858 468888

Please tick here if you do not wish to receive further details of any special offers

Choosing and Using Loudspeakers

The first step on the road to choosing loudspeakers is to specify your own particular requirements. It is possible to do this on a basic level checking the price, size and intended location. But there are real benefits for those prepared to take a little more trouble. With a little care, the assistance of the data in this issue, and the co-operation of a skilled retailer, the end result can be much more worthwhile.

Those buying speakers will have a good idea of the money they have available, which is the bottom line of any purchasing decision. And when setting the loudspeaker budget, it is vital to allow sufficient funds for a decent stand or support, and good quality connecting wire. But there is — and always has been — controversy over the proportion of a budget that should be devoted to loudspeakers, vis a vis that spent on the other components.

While a magazine can assist in presenting the alternatives that are available, it is only through skilled demonstration that an individual can be confronted with the different but equally valid options to make an educated choice for himself. At one extreme a £1,000 system could consist of a £600 turntable with £200 amplifier and £80 loudspeakers on £100 stands. At another extreme, a £500 remote control multisource midi system could be used with with £500 worth of high performance, low coloration loudspeakers and stands. But unless one has the opportunity to hear the difference between these two very distinct approaches, how can one possibly have any basis for making a choice?

The site chosen for speakers is often as influential as the choice of loudspeakers themselves. Over the years I have used open space locations with both conventional box and panel types, and also models designed to be used close against a wall. Each site

has its own strengths and weaknesses and imposes its own characteristics on the sound, so again personal preference enters into the equation.

Having chosen the siting, one may then choose the speakers and stands to suit. Alternatively, choose the speakers you like in the shop and then move them around at home until they sound to your taste.

The end result comes from a complex interaction between the loudspeaker, its support, its site, the acoustics of the room, and the general characteristics of the driving system. This interaction is rarely entirely predictable, and for those intending to spend a fair amount of money, it is not unreasonable to expect the luxury of a home demonstration, and/or the option to return and change a pair which do not suit after a day or two.

For any given budget there is an obvious choice between large or small loudspeakers. One instinctive reaction is to favour the big one, particularly if it has lots of drive units, but others will plump for a miniature or compact on aesthetic grounds. In fact the differences and trade-offs are more far reaching.

Bass extension

Fundamentally, the larger the box the more extended the bass is for the same specific loudness.

Ultimately a good big'un is going to beat a good littl'un on both loudness and bass extension. But it is also going to cost a great deal more. The large enclosed volume remains the route to extended bass, and this in turn adds 'weight' and 'scale' to the sound. But it can also reveal the low frequency inadequacies of the sources, be they the equipment or the recordings themselves.

Big speakers suffer from several innate disadvantages. Large box enclosures are expensive to build and

Swing tags

Products that make the grade are awarded the Best Buy or Recommended accolade.

A product carrying the Best Buy swingtag is of excellent quality and good value for money in its price category.

Recommended products are runners up, but still definitely worth considering within their price bands.



ship, and represent an undesirably large surface area of unwanted radiation, which can colour the sound and blur stereo precision. Extra drive units do increase power handling, but bring problems of crossover complexity and unit integration.

Little speakers, on the other hand, can prove more fragile if used for the occasional party, and are certainly not at their best when trying to recreate the power and drama of rock or a full concert hall acoustic.

Given the number of different models competing for attention, manufacturers make much of the uniqueness of their particular brew. As a result the industry has become riddled with buzz words to describe any single type of engineering solution, and this leads to the sort of stereotyping which entirely misses the point of loudspeaker engineering.

Examples are legion, from the bextrene bass/midrange cones of the early Seventies through to the latest metal diaphragms which are currently springing up everywhere. The result is that people talk of a 'metal sound' as something desirable (or not) per se, whereas in fact there will be a whole range of different metal sounds, in all probability some distinctly more 'equal' than others.

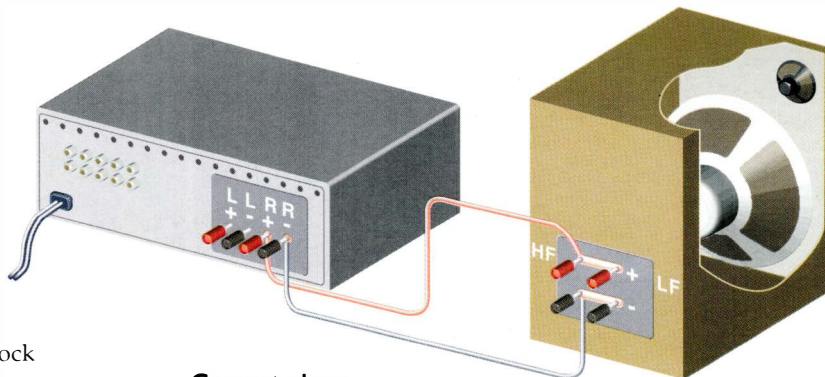
The underlying axiom is that great speakers are not created by adopting a quick technological 'fix'. Indeed, history has often shown that the 'radical innovation' is a mere flash in the pan, with benefits in one area more than offset by penalties elsewhere. Technology has improved the performance of speakers over the years, and some innovations have proved decidedly worthwhile. But the whole is always much greater than the apparent sum of the parts, and the buyer would do well to bear this in mind.

Tech Talk

Although it isn't the only factor that discriminates between the good, the bad and the indifferent, every speaker has a distinct frequency balance which says much about the way it will sound. This is measured in the same room as the listening tests take place, using a far field averaged energy technique which has the disadvantage of adding the characteristics of the room to those of the speaker, but the advantage of being truly relevant to the real world situation.

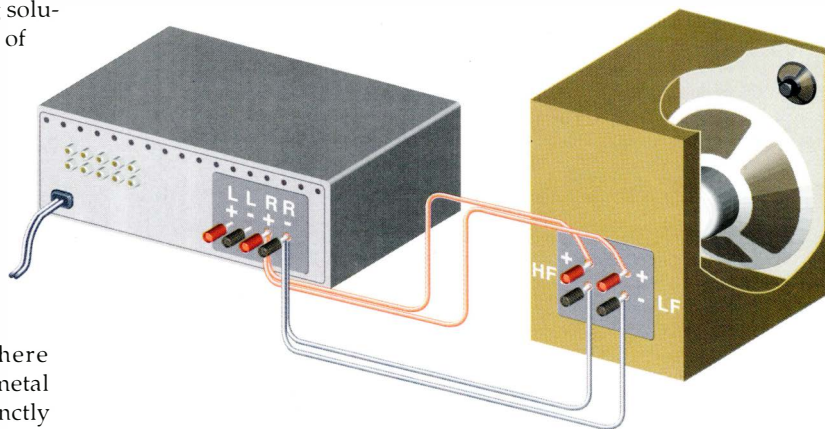
A single isolated in-room response of a loudspeaker is of limited value, but by carefully following the same procedures over several years, a large database of information allows reliable comparisons to be made, and some of the effects of the room can be taken into account. Two separate sets of room measurements are made, one with the speaker close against a rear wall (but more than a metre from side walls), the other a metre out into the room; intermediate positions produce more or less intermediate results.

A perfectly flat straight line is not expected. Low frequencies are heavily modified by the main room modes



Correct phase

Conventional single wired connection between an amplifier and bi-wirable loudspeakers with bridges across the speaker terminals. It is important to make sure that the positive output on the amp is connected to the positive terminal on the speaker in order to maintain absolute phase.



Bi-wiring

Bi-wired connection between an amplifier and bi-wirable loudspeakers with two cables connected to each terminal on the amp going to the individual bass (LF) and treble (HF) sockets on the speaker. Again it is important to connect positive to positive and negative to negative to maintain absolute phase.

The Hi-Fi Choice panel test

The basis of the test results you will find on the following pages is the blind, panel listening test. The blind listening tests are so called because the listening panel (usually five people) is unaware of either the name or price of the individual product.

The speakers are set up behind an acoustically transparent curtain so that the panellists can't see the speakers and the results are the thoughts of the panel rather than just one individual. Objectivity is further ensured by our lab results and measurements which are always our own, not manufacturers' statements.

— notably the c10dB boost at 30Hz (or 10dB suckout at 42Hz if you prefer) and early reflection modes, which are active well up into the midband for a small speaker close to the wall.

Nevertheless, comparison with listening findings does suggest the ideal balance should be as flat and smooth as possible. Gentle variations are preferable to sharp discontinuities, prominences tend to be more irritating than dips, and a gentle high frequency roll-off usually sounds perfectly acceptable.

DOUG BRADY HI-FI



Although Brady's are best known for selling the best quality Hi Fi separates in every price range, we also sell the best of the mini systems — Denon.

We also install Dolby Pro Logic Home Theatre, D.S.P. (Yamaha etc) and fully remote control multi room systems.

OTHER NEW GOODIES

- Wadia CD Player for under £3000.
 - Super tuner from Accuphase for under £1000.
 - New Lyra Lydian cartridge for only £549.
 - Naim '82' remote control pre-amp.
 - Budget price value amps from A.M.C. & Audio Innovations.
 - New pre-amps from Krell and Audio Research.
- Remember — it is your review that counts.
Let us help your choice...

MAKE FRIENDS AT DOUG BRADY HI-FI

Kingsway Studios Kingsway North, Warrington, Cheshire (0925) 828009 Open six days Fax: (0925) 825773	401 Smithdown Road, Liverpool L15 3JJ Merseyside. (051) 733 6859 Closed on Wednesday	14/18 Monmouth Street, Covent Garden, London WC2H 9HB (071) 379 4010 (071) 497 1346 Closed Sunday and Monday Fax: (071) 497 9205	The Forge Cottage, 19 Crossgate, Otley, Leeds, West Yorks LS21 1AA (0943) 467689 Closed Sunday & Monday
--	---	---	---

We aim to provide a well chosen selection of quality hi-fi and accessories including:
CREEK, EPOS, HEYBROOK, MICROMEGA, NAIM, NEAT, REGA, ROKSAN, ROTEL, ROYD, TEAC and YAMAHA

Now on demonstration:

Naim's ARMAGEDDON *and coming soon* the Micromega MICRODRIVE

Also on dem - the three best CD players available:

The Micromega CD3/PRO DAC, the Roksan Transport and DAC and the Naim CDI

Our demonstration room is furnished to be representative of your home environment where you can enjoy listening in comfort and privacy.

Call us now to arrange an appointment or just drop in for a chat and a cup of coffee.

f

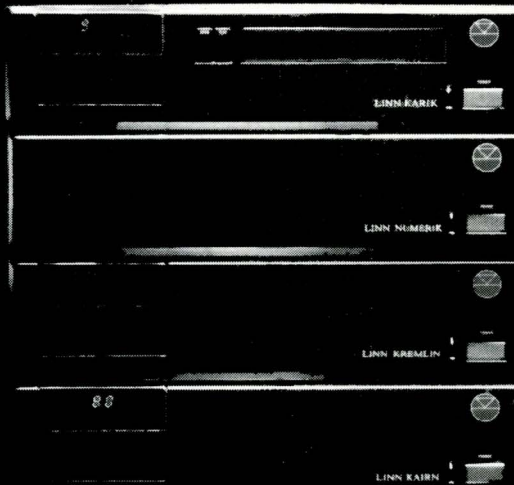
Buying hi-fi should be a pleasurable experience

Infidelity

indecently good hi-fi

9 High Street, Hampton Wick,
Kingston upon Thames, Surrey KT1 4DA
Tel: 081-943 3530
Open Tues - Sat 10.30am - 7.00pm.

Our best speakers cost nothing



Walk into Audio Excellence and you'll hear the difference straight away. The first thing you'll notice is that our staff are music lovers first and salesmen second. By talking and listening to you they'll be able to recommend a system or

separate that will give you the best sound possible. But you won't have to take our word for it. Just step into our listening room and you'll discover that here, music does all the talking.



- Carefully selected range of great Hi-Fi
- Comfortable listening rooms
- Friendly helpful advice from trained staff
- Free 2 year warranty
- Essential accessories
- Home installation where required
- In-house service department

Bristol
65 Park Street,
Bristol BS1 5PB
(0272) 264975

Cardiff
134/6 Crwys Road,
Cardiff CF2 4NR
(0222) 228565

audio excellence
WHERE THE MUSIC MATTERS

Gloucester
58 Bristol Road,
Gloucester GL1 5SD
(0452) 300046

Swansea
9 High Street,
Swansea SA1 1LE
(0792) 474608

The listening room

The speaker and microphone sites parallel the listening tests, giving a measuring distance of three to four metres. The room itself is a sturdily built, sparsely furnished 4.3x5.5x2.6m, with a wooden floor.

One consequence of the room-based testing is that the low frequency extension is defined as much by the room as the loudspeaker. Low frequency roll-off is traditionally expressed as the -6dB, such a technique can be applied with room measurements, but the result tend to be strongly modified by the main room modes.

Index

- Acoustic Energy Aegis I 57
- AR M2 59
- B&W 2001 60
- Castle Durham 61
- Celestion 300 63
- Harbeth HL-P3 65
- Heybrook Trio 66
- JBL Ti1000 67
- KEF Q90 69
- Kenwood LS-500G 71
- Linn Kaber 72
- Mission 764i 73
- Monitor Audio Studio 6 77
- Musical Fidelity MC-3 79
- Rogers Studio 3 80
- Royd Abbot 81
- Ruark Talisman 2 83
- Snell Type J/III 85
- Tannoy 607 87
- TDL Studio 1M 88
- Thiel CSI.2 89
- Wharfedale 425 91

Probably more useful is to specify the relative level of 20Hz ref the midband sensitivity. However, this has the drawback that a good percentage of speakers don't go down much below 50Hz, never mind 20Hz. Until I can figure out a better approach, I am quoting the -6dB points for both free space and wall mount conditions, plus the 20Hz level.

Bass loading

The purpose of a loudspeaker's enclosure is two-fold. First it must prevent the unwanted and out-of-phase sound vibrations created by the back of the main driver cone from interfering with the wanted signals coming from the front, and secondly it's to provide some form of loading to control and optimise the bass behaviour of the system.

The simplest bass loading is the sealed box, which attempts to absorb all the rear radiation, but the quest for higher overall efficiency has led to a variety of alternative approaches. By far the most common is reflex loading, which uses the cone's rear radia-

How the tests were done

The 'blind' tests on this occasion lasted three days with about five listeners, making up around 30 separate half hour presentations. Split evenly between vinyl and CD, with as broad a range of music as possible.

Care is taken to try and 'normalise' the relative volume of each loudspeaker, though differences in frequency balance, bass extension and room drive unavoidably get in the way. An operator places the loudspeakers carefully and securely; grilles are removed if appropriate.

The main drive system comprises Naim amplification (NAC52 and NAP135), backed up by Linn and NVA alternatives. Vinyl disc sources included Linn Sondek with Naim ARO

Serious Loudness

If you really want to annoy the neighbours and rattle a few window panes then the temptation is to look for a speaker capable of handling loads of watts. This is actually almost exactly the wrong way of going about things as the key to the total loudness capability of a hi-fi system is the loudspeaker's sensitivity rather than the amplifier's power rating.

Basically, the more sensitive a speaker, the more output you will get for a given number of watts. If you have an amplifier feeding a pair of speakers with a sensitivity of say, 89dB, and then, keeping the volume level on the amplifier exactly the same, you change to pair with a sensitivity of 92dB, they will sound twice as loud as the other pair.

Our quoted figures are all taken under identical 'real life' conditions averaged across the main audio band, so genuine comparison is meaningful (unlike the fictional optimism of some manufacturer specs).

The catch is the impedance. A 4ohm load actually draws twice the amplifier current (and hence power) of an 8ohm model for the same volume control setting. So for true comparison subtract 3dB from the sensitivity of a 4ohm to reveal its real conversion efficiency compared with an 8ohm model.

tion to energise the air masses in the box and in a port or tube. This creates a tuned bass resonance which helps add some extra bottom end welly, usually at some expense in terms of the low frequency phase accuracy.

and Linn Ekos tonearms, with Linn Arkiv and Audio Note IO cartridges. CD replay came from Linn Karik/Numerik and Naim CDS players, most mounted on Mana tables.

Bookshelf models were mainly used on Linn Kan, Foundation Designer, Heybrook HBSI and Slate Audio stands, with others brought in for hands-on work. Most of the work was done with multi-strand Naim NACA5 cable.

My thanks go to Alan Sircom for all his hard work as operator on the blind listening tests, and also to panellists: Ken Weller (Tannoy), David Inman, Russell Kauffman, Mark Homer (Canon Audio), Andy Whittle (Rogers), John Mays (Dawn Audio), Tom Barron and Robert Price (Gamepath), Guy Sargeant (Audio Innovations), Alan Shaw (Harbeth) and Lars Christiansen (Dantak).



An invitation from Bill Wilson



Now you can cut the cost of your CD buying and listening enjoyment with **3** new and unique services only from

WILSON STEREO LIBRARY



CD ★ NEW SERVICE ★
WAREHOUSE

Save up to 50% off a wide and constantly updated range of new release and highly recommended CDs.



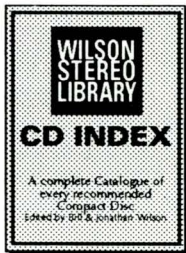
CD ★ NEW & IMPROVED ★
LIBRARY SERVICE

A unique Library 'try before you buy' service. Try out recordings in your own home without obligation to buy.

A NEW KIND OF PUBLICATION

CD INDEX

A complete and constantly updated catalogue of every recommended Compact Disc. Tells you at a glance what are the best classical and popular CDs.



If you want the kind of service no other CD Club can offer you, contact me *now* for full details of the Wilson Stereo Library CD service — I'll reply personally and make you a very special offer of membership.

OK Bill Wilson! Tell me about the Wilson Stereo Library CD Service and the benefits I can get from it. Including The CD Index and CD Warehouse. Without obligation (I enclose two first class stamps for a speedy reply).

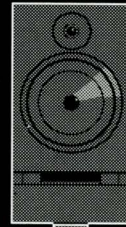
Name: _____

Address: _____

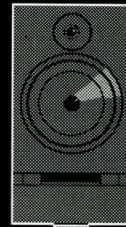
Postcode: _____



To: Bill Wilson Wilson Stereo Library PO Box 32
St. Leonards-on-Sea East Sussex TN38 0UZ
Telephone: (0424) 718254 Fax: (0424) 718262 5/93



WELL FANCY THAT



WHEN WE NAMED OUR SHOP WE KNEW WHERE WE WERE AND WHAT WE SOLD - THE BEST HI-FI IN THE WORLD.



WHEN YOU SELL THE MOST FANCIED HI-FI, YOU DONT NEED A FANCY NAME.

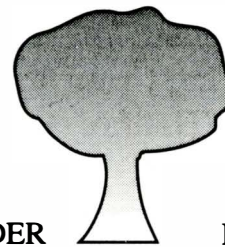
1/1A DUKE ST CONGLETON CHESHIRE CW12 1AP
TEL: 0260 297544

ACOUSTIC ENERGY • ARCAM • DENON • EPOS • LINN • ONIX • NAKAMICHI

WADIA DELTEC - TUBE TECHNOLOGY

NR PETERSFIELD HAMPSHIRE

AUDIO GALLERY



MAIL ORDER

HOME DEM

CABINETS SUPPLIED TO ORDER
IN ANY SIZE WOOD
& HAND PAINTED FINISHES
STONE - GRANITE - MARBLE - SHELVING

MICROMEGA,
TD3, TEAC, VRDS10, IMPULSE
H6 SPEAKERS, TDL,
SME VALVE SPECIALISTS.

FOR OPENING HOURS AND APPOINTMENTS
PLEASE RING ANYTIME

0730 - 895194

AMC - PROAC - JPW - MOTH - PINK TRIANGLE

AUDIO ALCHEMY - TEAC - NAD - ACOUSTIC ENERGY - PIONEER - DENON

MANA - CASTLE - ALCHEMIST - ALBARRY - AUDIO INNOVATIONS

Acoustic Energy Aegis Model 1



Best known for the cute but pricey little *AE1* (issue 102), Acoustic Energy is a pioneer of metal loudspeaker diaphragm, but hitherto the cost of going AE has been prohibitively high for all but the comfortable minority. But the company is not content to confine its activities to an upmarket niche, and is greatly reducing the entry price for metal fans, launching a new and more affordable range under the sub-brand Aegis.

Shielded by the high-end reputation Acoustic Energy has already established, the *Model 1* is a chunky bookshelf size model that sells for £452, with a tall and substantial matching stand at a further £139 (lead shot extra). This hardly warrants the adjective cheap, nor even par-

ticularly good material value for money, but stacked up against an *AE1* — or even the baby Rogers and Harbeth models included in this report — it's clearly a decent enough proposition.

It looks fairly standard, with two drivers on the front, two bi-wirable terminal pairs plus a damped port on the rear. With real wood all round, the cosmetics are classily understated, though the thick framed grille looks better ignored, and the tweeter has its own secondary mesh protection.

Taking one apart revealed that there's no skimping on the engineering under the skin either. Although Aegis models don't feature the ceramic lining of their upmarket stablemates, this is one very well braced

and strong MDF box, 19mm thick all round and foam lined. The main driver's 120mm metal cone/plug diaphragm with soft surround is held in a cast frame, driven by a massive magnet and tightly secured by woodscrews. The tweeter has a 25mm metal dome, and both are fed via heavy gauge wire from a complex crossover with massive high power components.

Sound quality

Sited on its own high stands well clear of room walls, the *Model 1* did well in the listening tests, one consequence of the rich balance being to fool listeners into believing it was a much larger loudspeaker than is actually the case — something of the same effect that has won the *LS3/5A* so many friends over the years.

Although there is a degree of timesmear and some lack of true dynamic freedom, and despite the rather heavy and distinctly laid back balance, the sound remains impressively coherent and attractively light on its feet.

Some lack of excitement and drama seems easy enough to forgive in the context of the lovely midrange and treble evenness, delicacy and transparency. And the *Model 1* soaks up amplifier power like a sponge, handling it with equanimity but not going particularly loud with a 70W power amp.

Conclusion

The laid back balance means this is not a loudspeaker for everybody or every system, but it does have an even and transparent balance in the classic monitoring tradition, and it makes good use of metal diaphragm drivers at a lower price premium than previously demanded. As long as loudness is not a very important factor, Recommendation for the *Model 1* is entirely appropriate.



Contact

ACOUSTIC ENERGY LTD.
3A ALEXANDRIA ROAD,
EALING, LONDON
W13 0NP.

081 840 6305

Verdict

+ Lovely even mid and treble balance and transparency.

- Rather rich and heavy laid back sound, doesn't go loud.

▶ £452.00 RRP

TEST REPORT

The Aegis turned up a rather unusual set of averaged in-room responses, and clearly doesn't react at all well to close-to-wall siting, which leaves the midbass dramatically over-exposed and is a sure recipe for boomy effects.

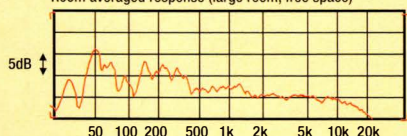
Even though it does compromise direct comparison with the other stand-mount speakers, the picture becomes much more positive if the speakers are placed well clear of walls and on their own, unusually high, stands. Under these conditions the bass balance evens out significantly, giving an average specific output of around 85dB across the range 30-300Hz. The response then steps down some 5dB, but thereafter delivers an impressively smooth result, holding within remarkably tight ± 2 dB limits all the way up to 10kHz.

The net result is a speaker with a far from neutral, 'rich' overall balance that's also distinctly insensitive — but also one with very impressive smoothness and evenness across what is arguably the most important part of the audio band.

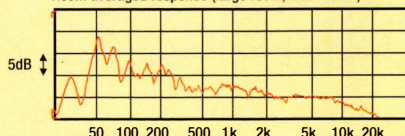
TEST RESULTS

Size (hwxwd)	39x21x26cm
Weight	9kg
Recommended amplifier power	25-100W
Recommended placement	high stand well clear of walls
In room averaged response limits	
50Hz-10kHz	± 6 dB
Large room/space LF rolloff (-6dB ref midband)	28Hz
Large room/wall LF rolloff (-6dB ref midband)	28Hz
Large room output at 20Hz (ref midband)	-13dB
Estimated midrange sensitivity (ref 2.83V, 1m)	84dB
Impedance characteristic (ease of drive)	very good
Typical price per pair (inc VAT)	£452 (stands £139)

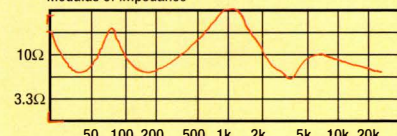
Room averaged response (large room, free space)



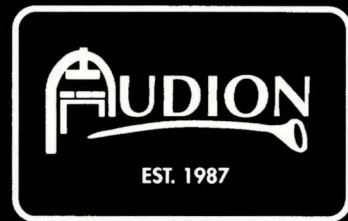
Room averaged response (large room, wall mount)



Modulus of impedance



For your pleasure we present the new
"SILVER NIGHT"



Audion 300B
 Push Pull
 "SUPER LINEAR"
 Direct heated triode
 Amplifier's
 Positively no feedback
 Pure Class "A"

"Probably the best amplifier in the world!" Under £2000, affordable high end!
 Now performing at the following selected dealers

Audio South
 Farnham
 0252-714555

Audiocraft
 Uxbridge
 0895-253340

Progressive Audio
 Kent
 0634-389004

English Audio
 Hereford
 0432-355081

Superior Sound
 Brighton
 0273-202637

**CREATIVE
 AUDIO**

Bringing the best to Shropshire



ARCAM : AUDIOLAB : CELESTION : CYRUS : DENON :
 EPOS : KEF : MERIDIAN : MISSION : NAIM : QUAD :
 REGA : ROKSAN : ROTEL : RUARK : TRIPOD

9 DOGPOLE, SHREWSBURY, SHROPSHIRE Tel(0743)241924 Fax(0743)271010 (Closed Mondays)

AR M2



I suppose Tannoy deserves some credit for starting a trend towards rather funnily shaped loudspeaker boxes, but in several senses the Holographic Imaging M-series from US East Coast manufacturer AR is even more unconventional, and certainly looks the more outrageous.

Our first experience came with the cute little M1 (issue 110), which gained a Best Buy rating for its lovely lack of boxiness, in spite of a rather bright balance. The even smaller M.5 (reviewed in issue 114) fared less well, being altogether too small for serious stereo hi-fi purposes (if interesting as a surround sound speaker). Which brings us naturally enough to the £269 M2 which is an altogether larger model, albeit

sharing the same unorthodoxes as the others.

Although the sides and the top/base remain conventionally parallel, the baffle has a pronounced double slant backwards, and the back is also slanted, thus ensuring that many of the internal standing wave paths are better than usually distributed, with only the lateral mode still concentrated. It's a shape that makes considerable acoustic sense, though it does take a little getting used to.

A two-way sealed box of medium bookshelf size supplied (unmarked) as mirror-image pairs, the 19mm fabric dome tweeter sits at the outside lower corner of the front, built into a protective plastic panel that makes up the lower section of

the baffle. The main driver sits at a slightly greater angle to the vertical, a largish 150mm plastic cone driven from a smallish magnet in a rather occlusive pressed frame, held by four reasonably tight woodscrews via a plastic trim ring that secures the simple and effective grille. The carcass is 14mm MDF with a textured (and quite slippery) surface finish, stuffed by a graduated light-to-medium fibre fill. A very simple hardwired crossover tag connects to the drivers and terminals.

Sound quality

The M2 did not repeat the success of the smaller M1 in the blind panel listening tests. The bright balance was again noted by all, offending and/or worrying some yet also welcomed by others, who found it obvious but also sweet, open and detailed. A refreshing lack of boxy effects is another characteristic of the Ms that again impressed the panel, which would seem to confirm the efficacy of the asymmetric shape.

But the larger box and driver used here does seem to have resulted in a less well controlled and dynamic bottom end. The M1 wasn't exactly muscular, but it was agile and by no means flabby, whereas the M2 seems distinctly short of punch, drive and authority, and an altogether lazier and less involving experience in consequence.

Conclusion

The AR M2 shares a number of positive characteristics with the highly rated M1, but at the end of the day it doesn't really seem to improve significantly upon the achievement of the smaller and less expensive model. It goes louder, to be sure, but doesn't have quite the same overall coherence, especially at low frequencies.

Contact

ENTEL LTD.
VIENNA COURT, LAMMAS
ROAD, GODALMING,
SURREY GU7 1JG

0483 425 702

Verdict

+ Bright but clean and refreshingly unboxy sound; interesting shape.

- Not necessarily an improvement over the M1, peculiar shape.

▶ £269.00 RRP

TEST REPORT

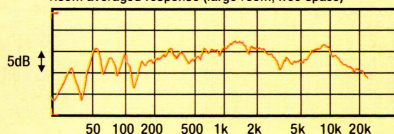
The basket of measurements clearly show that the M2 is basically a grown up M1, delivering worthwhile increases in sensitivity and bass extension and a slightly more even overall balance to boot. In fact the M2's outline parameters are rather impressive, achieving an 88-89dB average sensitivity with an impedance that stays above 5ohms throughout, and in-room 20Hz out at a respectable -13dB.

As with the M1 the tweeter output is rather detached and significantly brighter than the norm, especially in the middle of its range (6-10kHz), though the 7.5kHz maximum is slightly below the main midrange output which was not the case with the smaller model. However, the M2's bass alignment is a little more problematic, close-to-wall siting giving a little too much midbass output, as is often the case with largish bookshelf size models. A degree of wall reinforcement will be helpful in achieving the best net balance, but the upper bass and lower mid will always stay rather lean, resulting in a slightly 'cold' overall effect.

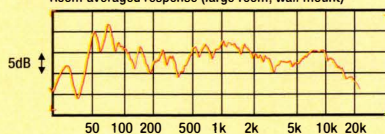
TEST RESULTS

Size (h x w x d)	41 x 23.5 x 35.5* cm (complex)
Weight	6kg
Recommended amplifier power	20-100W
Recommended placement	close to wall
In room averaged response limits	
50Hz-10kHz	±6dB
Large room/space LF rolloff (-6dB ref midband)	30Hz
Large room/wall LF rolloff (-6dB ref midband)	28Hz
Large room output at 20Hz (ref midband)	-13dB
Estimated midrange sensitivity (ref 2.83V, 1m)	88-89dB
Impedance characteristic (ease of drive)	a little demanding
Typical price per pair (inc VAT)	£269

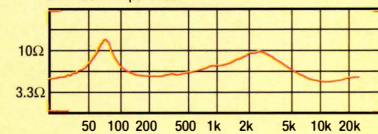
Room averaged response (large room, free space)



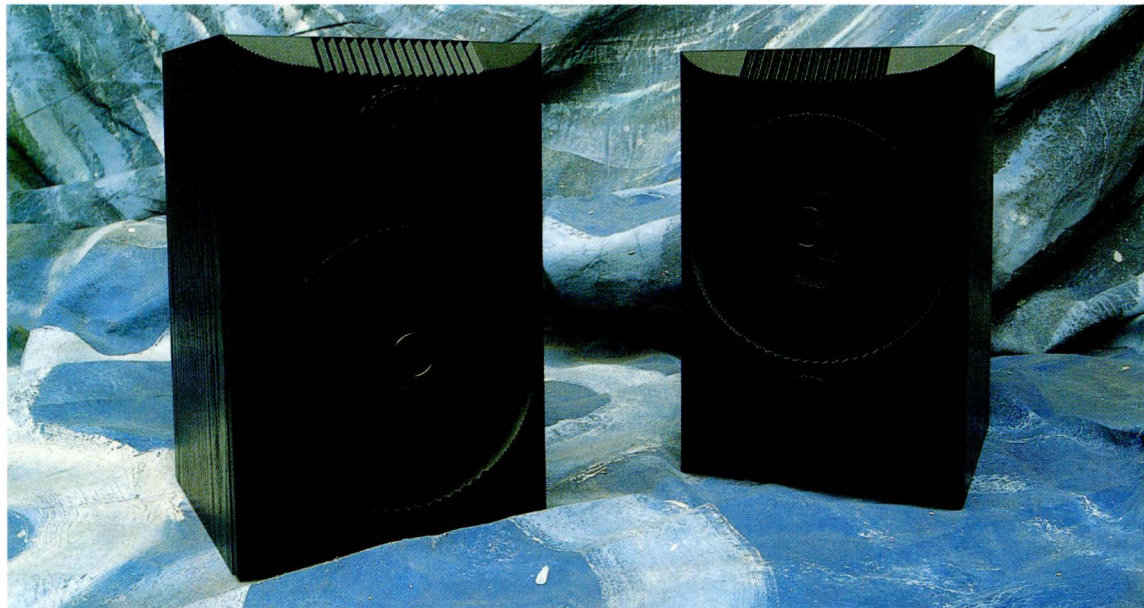
Room averaged response (large room, wall mount)



Modulus of impedance



B&W 2001



Almost unbelievably, this new baby B&W model is the only true budget miniature included in this test group, which does perhaps make evaluating the £120 2001 a little difficult. Such a competitive price means production corners are tightly shaved, but relatively high sales volumes justifies decent tooling investment in the injection-moulded front panel (baffle) and decorative trimwork.

This baffle is the important bit, the curved shape conferring extra stiffness and fine acoustic diffraction through its shape alone, while the external ribbing also makes both acoustic and mechanical good sense. The apparently fixed port-hole grilles give an assertive appearance with ghetto blaster overtones that's bound to have some youff appeal.

The rest is much more prosaic, typical enough of budget speaker practice, and

also much more sketchy since I couldn't find a way to get at the drivers without taking a can opener to the grilles. The five faced box is just 12mm chipboard, and the terminal block houses a quite simple low cost crossover, tagged wiring connecting up to what look like rather modest drivers.

The main driver uses a doped paper cone roughly 90mm across, in a pressed frame which certainly blocks a fair amount of the rear radiation path. The tweeter has a smallish magnet and a 19mm metal dome. The box is well stuffed, and reflex loaded by a short rear port.

Sound quality

In context, it's hardly surprising that the 2001 drew rather indifferent panel reactions. In fact it was presented twice to the same panel, received unusually consistent reactions, well liked by one member but

curtly dismissed by the others.

The real strength is an unusually even balance by any standards, which certainly helps keep a major source of coloration well out of the picture. But it's also depressingly lacking in speed and life, as well as distinctly time-smeared and rather small. The general midbass box roar can be pretty tedious, likewise the lack of dynamic contrast and excitement of what is, inevitably, something of a common denominator product.

Conclusion

This budget loudspeaker with its clever moulded front cunningly disguises driver and box limitations beneath an impressively smooth overall balance. On neutrality grounds alone it certainly deserves Recommendation, though it isn't the most fun sounding miniature around.

Contact

B&W LOUDSPEAKERS LTD,
MARLBOROUGH ROAD,
CHURCHILL INDEST, LANCING,
W SUSSEX BN15 8TR

0903 750750

Verdict

- +** Fine overall balance at a bargain price; sharp styling.
- A bit dour and unexciting, lacks fun factor; flashy styling.
- ▶** **£120.00** RRP

TEST REPORT

Sensitivity measures 86-87dB, which is very respectable for such a modest model, though against an 8ohm norm, the 2001 does pinch at least 2dB through its quite low impedance through the bass and midrange.

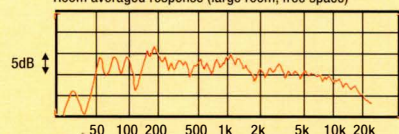
The overall frequency balance is very well tailored indeed, rolling off gently above 1kHz and with bass alignment optimised for siting about 1-2ft out from the nearest wall. Bass extension is pretty respectable for such a small box too, with at least some output visible below the 50Hz in-room cut-off which normally pertains with this class of loudspeaker. And although the response is held within impressively tight limits, it's not particularly smooth, suggesting there are several quite well disguised resonances just beneath the surface.

Bass extension is pretty limited, though rather less so than some of the competition, the port being tuned to 55Hz in order to make its major contribution comfortably below the inherent 95Hz driver/box resonance.

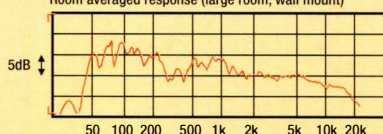
TEST RESULTS

Size (h x w x d)	29x18x21cm
Weight	3kg
Recommended amplifier power	20-60W
Recommended placement	1-2ft from wall
In room averaged response limits	
50Hz-10kHz	±4dB
Large room/space LF rolloff (-6dB ref midband)	48Hz
Large room/wall LF rolloff (-6dB ref midband)	48Hz
Large room output at 20Hz (ref midband)	below -15dB
Estimated midrange sensitivity (ref 2.83V, 1m)	86-87dB
Impedance characteristic (ease of drive)	quite demanding
Typical price per pair (inc VAT)	£120

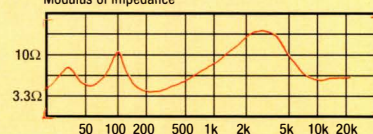
Room averaged response (large room, free space)



Room averaged response (large room, wall mount)



Modulus of impedance



Castle Durham



"I'll take those", said the man who'd come to service the central heating, pointing unequivocally at the decidedly cute little Castle Durhams, whose fabulous yew veneer more than turned an uninteresting cuboid into an object of some beauty. He wasn't in the least interested in what they might sound like, but knew just how pretty they'd look up on the shelf in his lounge.

It's not the way I would go about choosing loudspeakers, nor you if you've shelled out £2.95 to buy this magazine and find out a little more about them. But I can't help feeling some sympathy with his point of view. You do have to pay a 20 per cent loading on the £249 base price for the yew or rosewood veneer, but even

that seems a modest enough premium for something so mouth-wateringly beautiful. Indeed, Castle is well known for its classy cabinetwork, which is not only the equal of any but also less expensive than many of its competitors.

The Durham is a slightly smaller and less expensive variation upon the York theme (issue 110) — or you could see the York as a slightly larger Durham. Either way this is a classily finished and engineered but otherwise quite conventional reflex-ported two-way loudspeaker of compact bookshelf size. The foam-lined box is strongly built from MDF, with cross-braced 15mm sides and a 19mm baffle. The units are recessed or flush mounted, so the only things to spoil the appearance after the

horrid grille has been discarded are the nasty little plastic lugs that would have fixed it in place.

Tightly held by small woodscrews, the main driver uses a large magnet on a quite occlusive pressed steel frame to drive a 95mm plastic cone, while the tweeter is rather less conventional, with a central plug and annulus diaphragm. Bi-wire terminals feed a quite complex PCB crossover, solder connected to the drivers via some rather flimsy looking wire.

Sound quality

Following very much the example set by the York, the Durham was not very well received in the blind listening tests. Although the main midband shows decent grip, clarity and dynamics, deficiencies at both ends of the spectrum were consistently identified. A rather shut-in presence region adds a touch of nasal coloration and the top end is a little spitty and ragged too.

The bass attracted even stronger criticism, for sounding boxy in the upper part of the register — even to the point of making Joni Mitchell sound a little chesty! Lower down it simply sounds thick and muddled, with little in the way of authority, agility or drive.

Conclusion

Although I'm quite an admirer of Castle's larger floorstanding designs, notably the Chester and the Winchester, neither this pretty little Durham nor the slightly larger York seem to have managed to create anything like the same magic from a much smaller box. The exceptional presentation and fine standards of carpentry and joinery alone will be enough to tempt many potential purchasers, but do be sure to listen as well as look before making a final decision.

Contact

CASTLE ACOUSTICS LTD,
SHORTBANK ROAD,
SKIPTON, NORTH YORKS
BD23 2TT

0756 795 333

Verdict

+ Beautiful looking package, good midband grip and total build.

- Lacks grip outside midband; uninspiring sound.

▶ £250.00 RRP

TEST REPORT

The measurement procedures have changed so much since the original Durham review that no direct comparison is feasible. More relevant is the contrast between this Durham and the York examined last year.

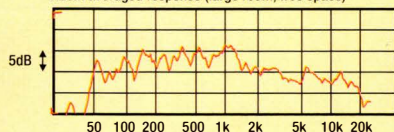
In fact the comparison doesn't really do the Durham many favours. Its sensitivity is a little higher, but bass is even less extended and the overall balance rather less smooth and even overall than its bigger brother.

Some wall reinforcement will help to fill out the midbass, but the lower midrange remains somewhat lean whatever the siting, and the upper midband rises steadily to a peak at around 900Hz-1kHz — a result typical of small drivers with large magnets. Output falls quite rapidly above that point, the 1.5-2.5kHz presence band registering -4dB and the treble tailing off slightly thereafter on far-field measurement. A worrying sign is the rather spikey and uneven character of the treble.

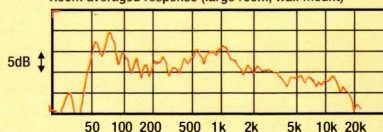
TEST RESULTS

Size (h x w x d)	40x21.5x23.5cm
Weight	7.5kg
Recommended amplifier power	15-70W
Recommended placement	1-2ft from wall
In room averaged response limits 50Hz-10kHz	±5dB
Large room/space LF rolloff (-6dB ref midband)	48Hz
Large room/wall LF rolloff (-6dB ref midband)	48Hz
Large room output at 20Hz (ref midband)	well below -16dB
Estimated midrange sensitivity (ref 2.83V, 1m)	88dB
Impedance characteristic (ease of drive)	very good
Typical price per pair (inc VAT)	from £250

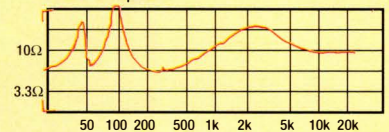
Room averaged response (large room, free space)



Room averaged response (large room, wall mount)



Modulus of impedance



Bryants

81 HIGH STREET, ALDERSHOT, HANTS. TEL: (0252) 20728, 314448

25 YEARS OF EXCELLENT SERVICE

BUYING FROM BRYANTS YOU CAN BUY WITH CONFIDENCE

With 25 years experience in Hi-Fi, we feel our service is second to none. All units are fully guaranteed and backed by our own workshops. We offer three demonstration rooms and knowledgeable staff to help you choose your system. We can also arrange fast mail order, with all normal credit facilities available.

AMPS

AMCCVT3030	£529.95
CYRUS THREE T.B.A.	
DENON PMA250III	149.95
DENON PMA350	189.95
DENON PMA450	249.95
MARANTZ PM32	139.95
MARANTZ PM305E	159.95
MARANTZ PM405E	249.95
NAD 302	159.95
NAD 304	209.95
NAD 306	299.95
PIONEER A119	99.95
PIONEER A201	129.95
PIONEER A300X	199.95
PIONEER A400	249.95
ROTEL RA920 AX	149.95
ROTEL RA930 AX	179.95
ROTEL RA935 BX	199.95
ROTEL RA940 BX	249.95
TECHNICS	STOCKED


AV AMPS

PIONEER VSA 701	449.95
YAMAHA DSPA500	449.95
YAMAHA DSPA1000899.95	

DIGITAL SOUND PROCESSORS

YAMAHA DSPE200	349.95
YAMAHA DSPE1000649.95	

TUNERS



DENON TU260L	119.95
DENON TU560L	159.95
DENON TU580RDS	199.95
MARANTZ ST40	109.95
MARANTZ ST50	159.95
NAD 402	149.95
PHILIPS FT930	159.95
PIONEER F201L	109.95
PIONEER F301 RDS	159.95
PIONEER F676	199.95
ROTEL RT 930	159.95
ROTEL RT 950	199.95

CASSETTE

CLAIM FREE TAPES WITH ALL DECKS marked *

*AIWA ADF 410	99.95
*AIWA ADWX828	169.95
*AIWA ADWX929	199.95
*AIWA ADF810	199.95
*AIWA ADF910	249.95
DENON DRM510	149.95
DENON DRS610	199.95
DENON DRW650	199.95
DENON DRW750	249.95
*MARANTZSD40	129.95
*MARANTZ SD52	159.95
*NAD 6340	149.95
*PIONEER CT-S210	129.95
*PIONEER CT-S310	169.95
*PIONEER CT-S510	219.95
*PIONEER CTW401R1	149.95
*PIONEER CTW601R1	199.95
*ROTEL RD945	159.95
*ROTEL RD955	199.95
*SONY TCK 390	129.95
*SONY TCK 590	199.95
TECHNICS	STOCKED
*YAMAHA KX260	149.95
*YAMAHA KX360	179.95

CD

CLAIM FREE RECORD VOUCHERS WITH EVERY CD marked *
(Please ask for details).

AMC CD6	349.95
*AIWA XC300	129.95
*AIWA XC750	179.95
DENON DCD 595	179.95
DENON DCD 890	269.95
DENON DCD 1290	329.95
*MARANTZ CD42II	199.95
*MARANTZ CD52II	229.95
*MARANTZ CD52SE	299.95
MISSION DAD 5	299.95
MISSION DAC 5	299.95
*NAD 502	199.95
*NAD 505	269.95
*PHILIPS CD920	159.95
*PHILIPS CD930	199.95
*PHILIPS CD940	229.95
*PHILIPS CD950	349.95
*PIONEER PD101	129.95
*PIONEER PD201	149.95
*PIONEER PDS501	189.95
*PIONEER PDS601	219.95
*PIONEER PDS701	249.95
*PIONEER PDS801	299.95
*PIONEER PDS901	349.95
*SONY CDP397	139.95
TECHNICS	
*SLPG320	139.95
*SLPG420	159.95
*SLPG520	199.95
*SLPG620	229.95
*YAMAHA CDX460	179.95

DCC & MINI DISC

CLAIM FREE TAPE/ DISCS WITH THESE MODELS

PHILIPS DCC 300	449.95
PHILIPS DCC 600	499.95
PHILIPS DCC 900	549.95
SONY MZ-2P	399.95
SONY MZ-1	499.95

TUNER/AMPS

NAD 7020I	149.95
NAD 701	249.95
NAD 705	299.95

CABLES

SPEAKER CABLES

QED 79	1.10 Mtr
QED F79	1.50 Mtr
CABLETALK 3	2.10 Mtr
CABLETALK CONCERT 2	5.95 Mtr

The original and still the best. We supply QED 79 strand as standard on all our systems. **BEWARE OF IMITATIONS**



INTERCONNECTS

CABLETALK ADVANCED	34.95
STUDIO	59.95
PURE SONIC 6010A	29.95
PURE SONIC 8010A	39.95
QED P1	17.95
QED P1 GOLD	22.50

PLUGS ETC.

ARCAM BANANA	1.25
RADIO SPARES BANANA	0.70
QED BANANA	0.80
MK 13 amp PLUG	2.45

TURNTABLES

DUAL CS 503-2	159.95
DUAL CS 505-4	199.95
NAD 5120	99.95
REVOLVER REBEL	169.95
SYSTEMDEK I + RB250	229.95
SYSTEMDEK IIX900 + RB250	329.95
SYSTEMDEK IIX900 + RB300	379.95

CLAIM FREE 16" SPIKED SPEAKER STANDS ON ALL SPEAKERS OVER £110 (Excluding System Building Systems).

SPEAKERS

CERWIN VEGA AT40	299.95
DALI 104	339.95
HEYBROOK SOLO	169.95
HEYBROOK HB1/3	249.95
JPW MINIM	79.95
JPW SONATA	114.95
JPW SONATA (V)	99.95
MISSION 760 I	129.95
MISSION 761 I	179.95
MISSION 762	249.95
MISSION CYRUS 780	199.95
MISSION CYRUS 781	249.95
MISSION CYRUS 782	349.95
MISSION CYRUS 753	599.95

WE WILL MATCH ANY GENUINE ADVERTISED PRICE

MORDAUNT-SHORT

HE STEREO	99.95
HE PRO LOGIC	179.95
SUB	149.95
MS 5-10	129.95
MS 5-20	159.95
MS 5-30	219.95
TANNOY 603	124.95
TANNOY 605	159.95
TANNOY 607	209.95
TANNOY 609	269.95
TANNOY 611	399.95

SPEAKER/EQUIPMENT STANDS

A COMPREHENSIVE RANGE STOCKED FROM APOLLO, SOUND ORGANISATION TANNOY, TARGET and TRIPOD

SPECIALS TO CLEAR

GREAT REDUCTIONS ON EX DISPLAY & NEW STOCK

AMPS

	WAS	NOW
AIWA XA007	179.95	109.95
DENON PMA250II	149.95	99.95
JVC AX435	169.95	99.95
NAD 1300 PRE	189.95	119.95
PIONEER A119	99.95	79.95

SPECIALS CONT...

CYRUS ONE	249.95	199.95
TWO (ex dem)	379.95	249.95
PSX (ex dem)	299.95	229.95
SONY TAF170	109.95	89.95
TUNERS		
PIONEER F737	279.95	169.95
F757	279.95	189.95
CYRUS	299.95	239.95

CASSETTE DECKS

AIWA ADF370	129.95	89.95
ADW 800	299.95	199.95
JVC TDX 341	139.95	89.95
NAD 6340	219.95	149.95
PIONEER CTS609	179.95	139.95
CT656	249.95	149.95
CT737	349.95	199.95

CD PLAYERS

DENON DCD 590	169.95	129.95
DCD 690	199.95	149.95
MARANTZ CD72	449.95	299.95
NAD 5420	169.95	119.95
NAD 5425	199.95	133.95
ONKYO DX130	199.95	99.95
DX230	249.95	129.95
PIONEER PD 4350	199.95	119.95
PDT 303	199.95	149.95
PD 5300	229.95	119.95
PD 8500	399.95	199.95

FAST MAIL ORDER OUR SPECIALITY 48 HOURS

ALL SYSTEMS SUPPLIED WITH:

All interconnects + 6 metres of QED 79 Strand professionally terminated with Radio Spares banana plugs, recognised by leading manufacturers as the best.

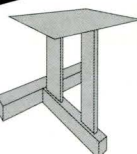
SYSTEM BUILDING

All the systems below include the excellent NAD 5120 turntable at extra cost (please see OPTIONS listed below).

AMPS	SPEAKERS	Alternative turntables or CD players are available at extra cost (please see OPTIONS listed below).	Options	Total Price
MARANTZ PM32	JPW Sonata Vinyl Advent Mini	Mission 760I	Tannoy 607 M-Short MS5-30	£364.95
MARANTZ PM30SE		Tannoy 605 M-Short MS5-20		£334.95
MARANTZ PM40SE		Mission 760I Tannoy 603 M-Short MS5-10		£349.95
NAD 302				£384.95
NAD 304				£379.95
PIONEER A300X				£389.95
ROTEL RA920AX				£399.95
ROTEL RA930 AX				£344.95
PIONEER A400				£444.95
				£474.95

This ad is valid until 31st May 1993 E&OE

FREE: 16" SPIKED STANDS with all speakers SOLD OVER £110.00. System Building excluded



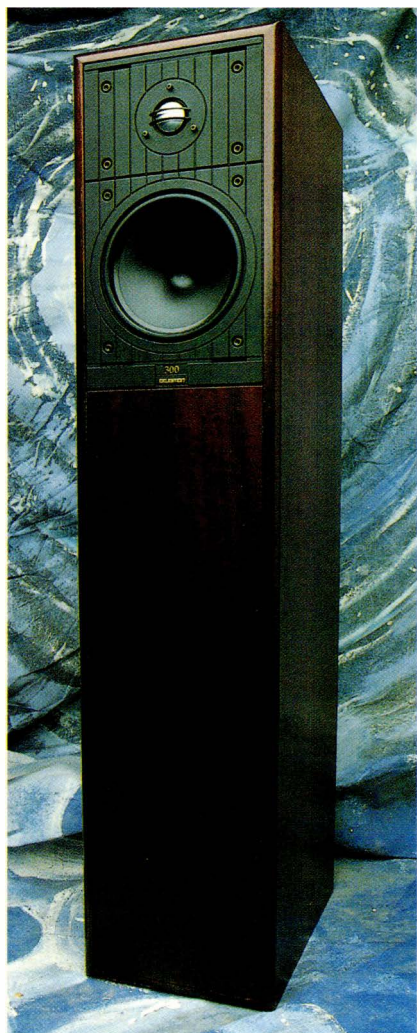
OPTIONS

CD PLAYERS	ADD £
AIWA XC300	29.00
AIWA XC750	69.00
DENON DCD590	69.00
DENON DCD690	89.00
DENON DCD890	159.95

DENON DCD1290	219.95
MARANTZ CD42II	89.95
MARANTZ CD52II	119.95
MARANTZ CD52SE	179.95
NAD 5420	10.00
NAD 502	99.95
NAD 505	159.95
PHILIPS CD920	39.00
PHILIPS CD930	69.00
PIONEER PAS601	109.95
PIONEER PDS701	149.95
PIONEER PDS801	179.95
PIONEER PDS901	229.95
ROTEL RCD955	139.95

TECHNICS SLPG320	39.00
TECHNICS SLPG420	59.00
TECHNICS SLPG520	89.00
TECHNICS SLPG620	119.00
SONY CDP397	39.00
YAMAHA CDX560	99.00
TURNTABLE UPGRADES	ADD £
REVOLVER REBEL	39.00
SYSTEMDEK I + RB250 + AT95	140.00
SYSTEMDEK IIX900 + RB250 + AT95	240.00
SYSTEMDEK IIX900 + RB300 + G1012	330.00

Celestion 300



Launched at roughly the same time as the budget floorstanding *15* that was Recommended in our last loudspeaker group test (issue 114), the luxury £1,100 *300* actually costs more

than three times the price of that value oriented vinyl-wrapped box, yet the two are almost exactly the same size. That any one company can produce such different designs within such a similar physical envelope is an interesting example of the sheer diversity of loudspeaker design.

Although the Celestion is undoubtedly a pricey loudspeaker, it's by no means unreasonable considering the combination of luxury real wood veneer, very attractive cabinet finish and classy engineering content, especially in the context of the asking prices for some luxury miniatures — and of course there's no need here to find an extra couple of hundred pounds or more for a quality matching stand.

And the box in this case is much more than merely a stand substitute with the option of adding mass loading. True, there is a smallish box at the top which acts as the immediate rear loading for the main driver, but that in turn couples into an extended three-fold transmission line that ends in a generous port at the base and rear — rather in the manner of the *Daline* (a popular home construction design from the Seventies) and the Seventh Veil (issue 86).

Such an arrangement sounds most promising, at least in theory, giving the main driver plenty of space in which to work, boosting the low bass by means of the complex driver/cavity/line resonances, while the folded line provides some worthwhile internal stiffening for the large side panels.

There is one Achilles heel, however, and for once the cliché is appropriate. I could forgive the *15* for using low-torque

thumbwheel locknuts to secure its spikes, because proper locknuts can easily strip the socket out of low-cost chipboard boxes. But what is acceptable in a £390 speaker is not good enough at £1,100, and the *300's* spike arrangements are frankly just not good enough.

The main driver has a 125mm plastic cone and firmly bolted cast frame driven from a large magnet, plus a glued and bolted 27mm metal dome tweeter. The heavily braced and foam-stuffed MDF box has 20mm front and 16mm sides, and the complex hardwired crossover has good quality components.

Sound quality

Despite scoring points for its fine scale and weight and very good sense of space and air, the Celestion *300* was consistently and on two separate presentations censured for obvious timesmear and dull, thick, almost muffled vocals, with an overall ranking that was rather disappointing for the price.

But I suspect that judgement was partly a matter of taste, and partly a reaction to the balance. Subsequent extended listening confirmed the rather lazy timing and dynamics, while at the same time reinforcing respect for a remarkable lack of boxiness with a transparency and delicacy that is somehow more like a panel than a cone loudspeaker.

Conclusion

The balance here is so different from the norm, a poor blind listening test result is hardly unexpected, even though the combination of the two suggests formal Recommendation is inappropriate. But that same very laid back effect, along with a seductive relaxed spaciousness, could also well be the factors that win the *300* its fair share of fans.

Contact

CELESTION INTERNATIONAL LTD, FOXHALL ROAD, IPSWICH, SUFFOLK IP3 8JP

0473 723 131

Verdict

- + Lovely mid coherence, openness and splendid bass.
- Lacks dynamic and timing precision, needs better spikes.

▶ **£1,100.00** RRP

TEST REPORT

The most noteworthy feature is the similarity of the response traces for the two transmission line designs in this report, and their dissimilarity to all the other models tested here in recent memory. The *300's* energetic line is tuned to a low 30Hz, conferring exceptional low frequency extension.

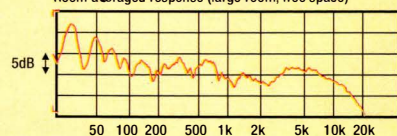
Sited well clear of walls, output in the bass register rises rather determinedly below 100Hz, giving an average output about 5dB above that for the midrange, but happily with no evidence of the isolated midbass boom that plagues so many large designs. The problem is that although the main midrange is 5dB below the bass, and the main treble some 6dB down, the vital presence band in between is suppressed some 3-4dB across a broad two-octave span, 700Hz-3kHz, which is bound to result in a decidedly recessed and laid back sound balance.

The midband sensitivity is a below average 85dB, and a couple more would have been most helpful in balancing up the frequency band extremes.

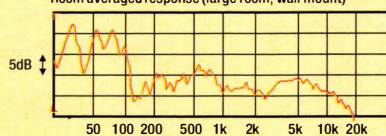
TEST RESULTS

Size (hxxwx d)	100x21x31cm (exc. plinth)
Weight	19kg (inc plinth)
Recommended amplifier power	20-120W
Recommended placement	well clear of walls
In room averaged response limits	
50Hz-10kHz	±6dB
Large room/space LF rolloff (-6dB ref midband)	below 20Hz
Large room/wall LF rolloff (-6dB ref midband)	below 20Hz
Large room output at 20Hz (ref midband)	-3dB
Estimated midrange sensitivity (ref 2.83V, 1m)	85dB
Impedance characteristic (ease of drive)	very good
Typical price per pair (inc VAT)	£1,100

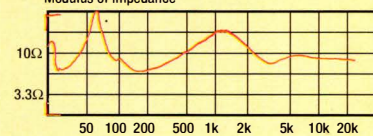
Room averaged response (large room, free space)



Room averaged response (large room, wall mount)



Modulus of impedance



MAIL ORDERS ACCESSORIES

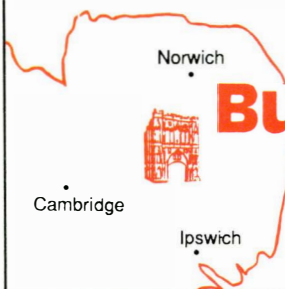
- Cables - Audioquest, Furukawa, Heybrook, Ixos, Ortofon, QED, Van den Hul
- Stands - Alphason, Goldring, Sound Organisation, Stands Unique, Target
- Cartridges - Arcam, A.T., Denon, Dynavector, Goldring, Lyra, Ortofon, Sumiko
- Headphones - Beyer, Sennheiser, Stax
- Accessories - Allsop, BIB, Discwasher, Hunt, Kontak Last, Michell, Milty, Nagoaka, Pixall, QED
- LP's/CD's - Audioquest, Klavier, Opus, Reference Recordings, Sheffield Labs.

TO ORDER OR FOR A FULL CATALOGUE
PHONE 0850 565693



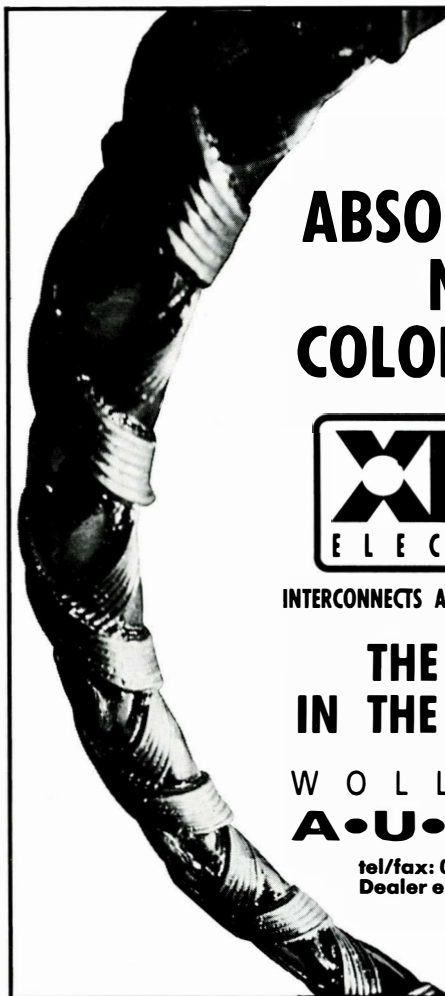
NOW ON PERMANENT DEMONSTRATION

REL Subwoofer System



Bury Audio

47 Churchgate Street
Bury St. Edmunds
Suffolk IP33 1RG
Telephone 0284 724337



**ABSOLUTELY
NO
COLORATION**

**XLOTM
ELECTRIC**

INTERCONNECTS AND SPEAKER CABLES

**THE BEST
IN THE WORLD.**

WOLLATON
A•U•D•I•O

tel/fax: 0602 284147
Dealer enquiries welcome.

"look, believe me, a good Hi-Fi shop is not that hard to find."



mike manning
the hi-fi specialists **audio**

- our wide range includes -

**Naim Audio - AVI - Audio Innovations - Arcam - Rega - Roksan
ATC - Rotel - Pink Triangle - Audio Alchemy - Mission - Heybrook
Marantz - Micromega - Epos - Shahinian - LYRA - Acoustic Energy
JPW - Nakamichi Denon - Aura - NAD - Pioneer**

Listening Lounge - Home Installations - 2 Year Guarantees - Full Servicing Facilities
110 Middle Street, Yeovil, Somerset. Telephone (0935) 79361

0% - INTEREST FREE CREDIT- PLEASE PHONE FOR DETAILS - 0%

Harbeth P3



Harbeth has been busy building the famous LS3/5A design under BBC licence for some years, and has no intention of stopping. But it has introduced an alternative miniature monitor design of its own, the £450 P3, which uses a near identical enclosure but with Harbeth's own choice of drivers, crossover and alignment. And one reason it's going down particularly well in Japan at the moment is because the magnets are both shielded or nulled, so it makes a tasty, tiny and prestigious AV speaker too.

The tiny sub-miniature sealed box enclosure is 3/5A in outline size, shape and appearance, but with some detail differences too. All is nicely real-wood veneered, the 13mm sides mass damped internally by bitumen pads. Battening around the inset front and back further stiffens the heavily foam-stuffed box. The

P3's screw-fixed baffle is 18mm MDF, reducing the inset but leaving enough for a thin foam grille, gripped by rather ugly plastic pads. Mounted from the behind, the cast frame main driver has a large screened magnet and 90mm plastic cone, the flush-mounted tweeter uses a 19mm metal dome, while the crossover is a big complex PCB affair, fed from bi-wire terminals.

Sound quality

By attempting to equalise the relative loudness between different loudspeakers, the panel test can flatter the insensitive tiny model by glossing over the fact that it is drawing considerably more amplifier power than an 'average' model. But that's not to decry the fact that the HL-P3 was very well received, especially for fine vocal band reproduction, which, for example,

highlighted subtleties like regional accents.

Two panellists actually identified the 'BBC connection', praising the smoothness, coherence and clarity. But there was also some criticism of a lack of dynamic life, of a degree of timesmear which left consonants less than convincing, and of some loss of resolution and analysis through the bass register — 'foggy' and 'soupy' were two adjectives used.

Conclusion

Loud may not be part of this speaker's accomplishments, but the rest of the package has a great deal going for it. A successful hi-fi-oriented update on the revered LS3/5A theme, with similar monitoring qualities and slightly greater smoothness, it's no great bargain, but deserves Recommendation for doing a specialised job remarkably well.

Contact

HARBETH ACOUSTICS LTD,
UNIT 1, BRIDGE ROAD,
HAYWARDS HEATH, W
SUSSEX RH16 1UA

0444440955

Verdict

- +** Classy AV-ready sub-miniature, splendid voice reproduction.
- Quite pricey and doesn't go loud, struggles a bit in the bass.

▶ £450.00 RRP

TEST REPORT

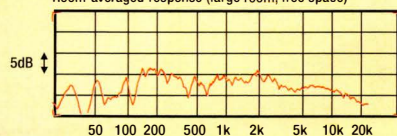
It's difficult to believe that something so tiny can nevertheless produce significant in-room output down to 20Hz. The key trade-offs are sensitivity, which registers a very low 82dB, and an impedance characteristic which demands plenty of amplifier current at low frequencies.

It's possible to place it close against a wall, but the best balance — and least coloration — should be found on high stands about a foot out, whereupon the P3 delivers a remarkably smooth overall balance, from below 30Hz to around 13kHz (far field measurement). There's some extra warmth in the lower midband and slight unevenness round about 500Hz, but the smooth and virtually seamless transition from main driver to tweeter through the crossover region is particularly noteworthy, and one definite improvement over the 3/5A, while the slight presence forwardness will itself help emphasise vocal clarity. The slightly suppressed treble is smooth and very well judged.

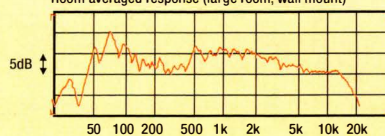
TEST RESULTS

Size (hwxwd)	30.5x19x17cm
Weight	5kg
Recommended amplifier power	25-70W
Recommended placement	1ft from wall
In room averaged response limits 50Hz-10kHz	±4dB
Large room/space LF rolloff (-6dB ref midband)	23Hz
Large room/wall LF rolloff (-6dB ref midband)	23Hz
Large room output at 20Hz (ref midband)	-8dB
Estimated midrange sensitivity (ref 2.83V, 1m)	82dB
Impedance characteristic (ease of drive)	current hungry
Typical price per pair (inc VAT)	from £450

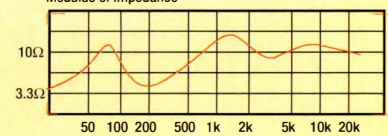
Room averaged response (large room, free space)



Room averaged response (large room, wall mount)



Modulus of impedance



Heybrook Trio



A large bookshelf size model designed for close-to-wall placement, Heybrook's *HBI* has become one of those evergreen designs that find themselves permanent entries on the Recommended lists, despite undergoing gentle update tweaking from time to time, the most recent *SIII* incarnation receiving a Best Buy rating in issue 98.

Good though it sounds, even ardent fans would admit that the rather bluff appearance is starting to look a little dated, so Heybrook's engineers came up with the wizard wheeze of dressing up the same two basic drive units in a somewhat prettier set of clothes. The *HBI SIII* is by no means dead, and is reportedly still as popular as ever, but now there's a much

prettier *Trio* derivation in a slimmer, real wood veneer cabinet variation on sale for £349, a £90 premium over the baser model.

It isn't quite as straightforward as it sounds, of course, and the organ transplant also involved some careful and subtle surgery on the crossover network, damping materials and so on. But the end result of a slightly smaller and significantly narrower box certainly does look prettier and more up to date than before.

The main driver uses a 160mm doped paper cone with foam surround, cast frame and modest magnet, not unlike that used in the *Snell JIII* on page 85, while the tweeter is a 25mm soft fabric dome. Both are held in place by pretty brass bolts that

should have been a lot tighter, and whose relative slackness here could well have compromised the sound quality obtained. The box has a 19mm chipboard front, 15mm MDF wrap, an internal stiffening figure-8 brace and bitumen damping pads, plus a light cocktail of fibrous fill.

Bi-wire terminals feed a high quality hardwired crossover with good gauge wire soldered to the drivers. The grille is better ignored.

Sound quality

The Heybrook did pretty well on the listening tests, more than justifying its relatively modest price, with the generally positive overall panellist reactions tempered by the feeling that the whole thing was not necessarily greater than the sum of the parts. Individually, the bass, midrange and treble all have good qualities, but they don't quite glue together and integrate properly as a coherent whole.

It is, nonetheless, something of a class act, with decent dynamic range, tolerable timesmear and fair scale. Bass is slightly thickened, treble a bit sparkly and voices a little hooded and shut in, but it's pretty brisk and lively, even if it could be firmer and more positive

Conclusion

There's a temptation to point out that pretty brass bolts can ruin a speaker if they're not done up properly, though that would overstate the situation. Loose bolts and all, the *Trio* certainly did well enough for Recommendation. It's not better than the *HBI*, and not such a committed audiophile product either, but it is rather kinder and more forgiving of less superb source components and programming, as well as prettier, and as such may fit more comfortably into a broader range of mid-priced systems.



Contact

HEYBROOK HI-FI LTD,
ESTOVER INDUSTRIAL
ESTATE, PLYMOUTH
PL6 7PL

0752 731313

Verdict

- + Familiar ingredients give an entertaining all-rounder.
- Sound could be more coherent; a bit easy-listening.
- ▶ **£349.00** RRP

TEST REPORT

The outline parameters are very impressive, combining high 88-89dB sensitivity with decent bass extension and a mild impedance characteristic that never drops below 60hms and therefore won't make serious demands on the amplifier.

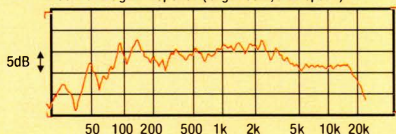
Previous Heybrooks have all benefitted from close-to-wall siting, and I remember the then-designer's dismissal of rivals which are neither free-space nor wall-mount aligned, but operate somewhere in between. It's therefore probably no coincidence that the personnel changes at Heybrook have resulted in such a model, which will probably work best when sited about one foot out from the wall.

The response holds within pretty close overall limits, though the trend therein is sufficiently pronounced to ensure the *Trio* will have its own rather distinctive character. Given the best bass alignment, the upper bass and lower mid are a little lean, the upper mid a slightly prominent plateau, while the treble rolls gently but inexorably above 2kHz, registering -5dB in the far field above 6kHz.

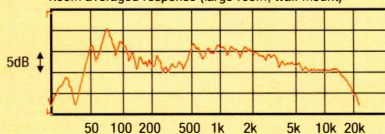
TEST RESULTS

Size (hwxwd)	47x24x25cm
Weight	8.5kg
Recommended amplifier power	15-90W
Recommended placement	about 1ft from wall
In room averaged response limits	
50Hz-10kHz	±5dB
Large room/space LF rolloff (-6dB ref midband)	48Hz
Large room/wall LF rolloff (-6dB ref midband)	45Hz
Large room output at 20Hz (ref midband)	-15dB
Estimated midrange sensitivity (ref 2.83V, 1m)	88-89dB
Impedance characteristic (ease of drive)	very good
Typical price per pair (inc VAT)	from £349

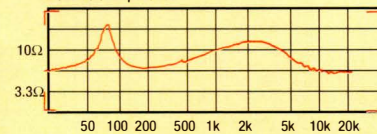
Room averaged response (large room, free space)



Room averaged response (large room, wall mount)



Modulus of impedance



JBL Ti1000



Leading American domestic and professional speaker builder JBL has such a vast range of models to cover every conceivable market niche, it's sometimes difficult to sort out the inter-relationships. I'd already come to conclusion that this gorgeously finished and more than substantially built bookshelf size model had been carefully tailored to match large open-plan American spaces when I was brusquely informed that it was designed and built by JBL's Danish operation, and intended for world markets.

I've seldom seen a more elaborate piece of propaganda than the *Ti* series brochure, which arrived just in time to explain that the 20mm and 30mm thick

sides and baffle/base are actually a laminate sandwich of lossy bituminous compound between two MDF panels which is designed to dissipate energy (helping account for the high mass). So too will the light fibre lining, while the tapering-in-two-planes shape will help distribute internal standing wave energy across a range of frequencies.

The driver and crossover engineering is all state-of-art stuff, with massive chokes and caps in a quite elaborate crossover, heavy internal wiring and tightly mounted drivers. A big magnet and cast frame hold the 118mm doped paper main cone, while the 25mm dome tweeter uses JBL's proprietary integral pleated surround, all in titanium. Chamfering inside the baffle helps

keep the area behind the cone free from obstruction.

Bi-wire/-amp terminals share the back panel with a huge port. The grille is a neat enough affair, but the baffle treatment below is very pretty too, with a nice decorative lacquered hardwood stripe forming one of two vertical edge chamfers, contrasting nicely with the dark stained real wood veneer elsewhere.

Sound quality

The *Ti1000* drew rather inconsistent judgements from the listening panellists, several of whom admitted they found themselves rather confused, often for different reasons. One was upset by the stereo imaging (or rather lack thereof), another by indifferent timing and fat bass, while a third wondered whether the whole thing was taking its time warming up. Three were pretty positive, however, recognising the fine mid-to-treble balance, fundamentally low coloration especially from the cabinet, delicate vocal rendition and decent dynamics.

Extended sighted listening again gave a measure of inconsistency, which might perhaps point towards significant stand sensitivity. I too found the timing somewhat suspect, even though cabinet coloration in the usual sense is impressively controlled, and am inclined to pin some of the blame on the midbass excess.

Conclusion

The very promising ingredients in this beautifully built package simply failed to gel into a coherent and consistent whole under our test conditions. It's difficult to say precisely why, but one finger of suspicion is pointed at an over-exuberant reflex port. However, in a very large room and on tall stands results might be a little more even overall.

Contact

HARMAN AUDIO UK LTD,
UNIT 1B, MILL STREET,
SLOUGH
SL2 5DD

0753 576911

Verdict

+ Very classy build and engineering, very low cabinet coloration.

- Bass tuning was a problem; results were a bit inconsistent.

▶ £1,500.00 RRP

TEST REPORT

The high 89dB sensitivity is always welcome, but is usually accompanied by constraints elsewhere, so it's not all that unexpected to discover that the *Ti1000* combines limited bass extension with a current hungry amplifier load.

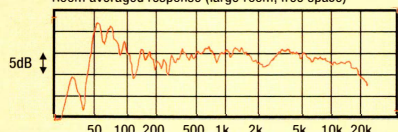
More seriously, this JBL shows a real low frequency matching problem in our test room, which is actually rather generously dimensioned by UK standards. Yet even here, placed at least a metre from the nearest walls, output 50-100Hz is about 5dB too strong. I actually got the best room balance by blocking the 50Hz-tuned port with some very large socks, which helped control the midbass and extend the low bass, but left the slight treble hot-spot around 3-3.5kHz a little exposed.

Above the troublesome bass region the *Ti1000* balances rather well, with a pretty smooth and even midband and treble, apart from a noticeable 4dB far-field energy dip through the crossover region.

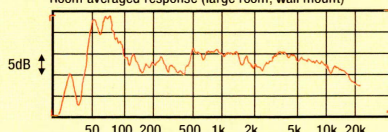
TEST RESULTS

Size (hwxwd)	44x29.5(max)x28(max)cm
Weight	13.5kg
Recommended amplifier power	15-120W
Recommended placement	well clear of walls
In room averaged response limits	
50Hz-10kHz	±7dB
Large room/space LF rolloff (-6dB ref midband)	45Hz
Large room/wall LF rolloff (-6dB ref midband)	45Hz
Large room output at 20Hz (ref midband)	below -17dB
Estimated midrange sensitivity (ref 2.83V, 1m)	89dB
Impedance characteristic (ease of drive)	current hungry
Typical price per pair (inc VAT)	£1,500

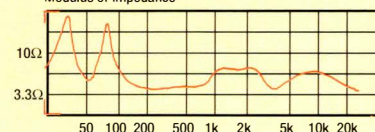
Room averaged response (large room, free space)



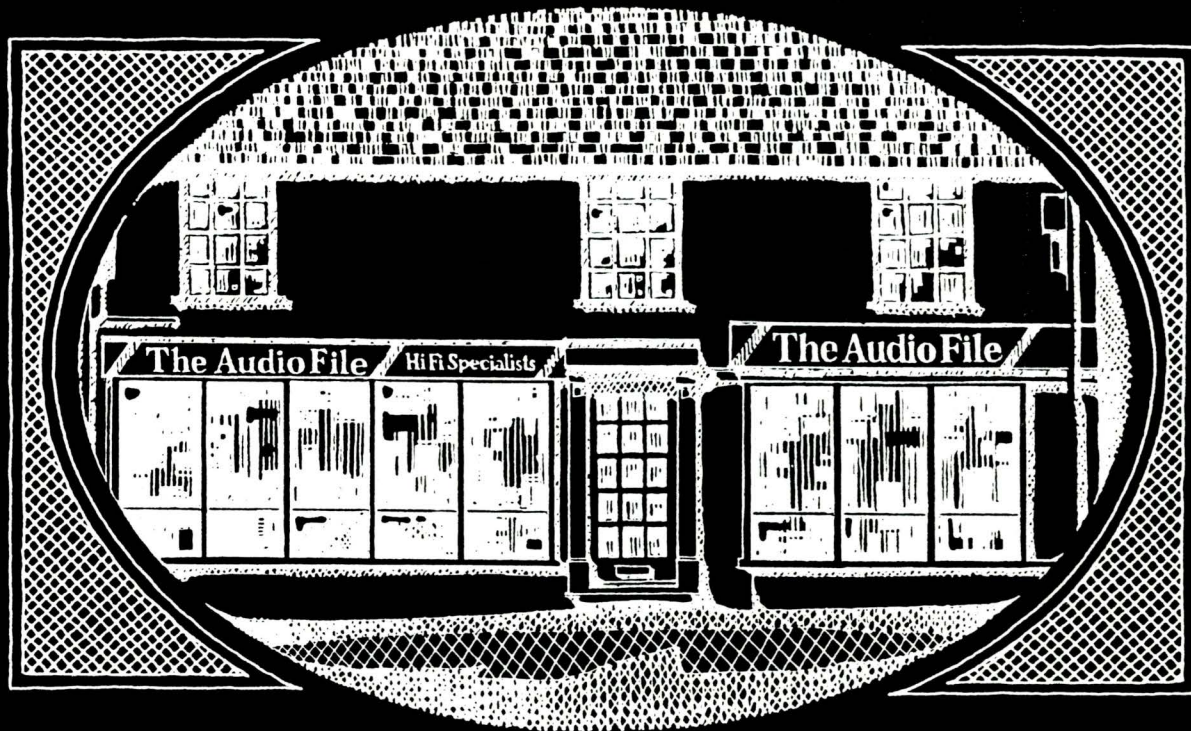
Room averaged response (large room, wall mount)



Modulus of impedance



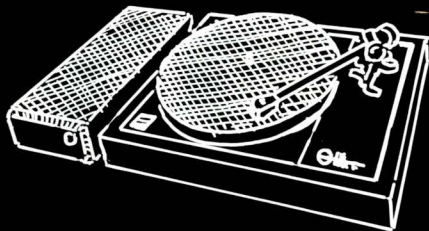
IF YOU WANT THE BEST HI-FI, COME TO THE BEST HI-FI SHOP



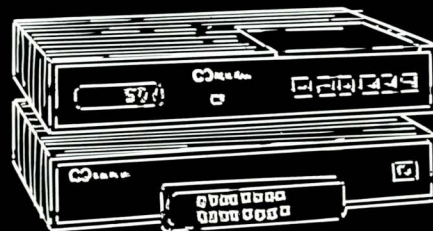
The best hi-fi shop? Quite a claim, but then a lot depends on your expectations.

How many dealers have large display areas where you can walk in and see products from all the major hi-fi manufacturers as well as having two, fully equipped demonstration rooms for private listening? We have!

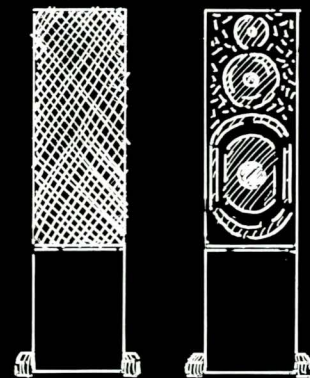
budget and also offer interest-free credit, a full installation service and a comprehensive two-year warranty? We will!



For instance, how many dealers offer both a friendly, unhurried atmosphere in which customers feel free to browse and chat as well as employing experienced staff with a keen interest in the products they sell? We do!



How many dealers will devote as much time to each customer as they require, irrespective of their



If all this sounds too good to be true, then perhaps it's time you let us raise your expectations.

Winners of the FBA Dealer of the Year Award for 1988 and 1989 and the Sony Hi-Fi Dealer Award for 1988/1989/1990

The Audio File

27 Hockerill Street, Bishop's Stortford, Herts. Telephone (0279) 506576

· Acoustic Energy · Arcam · Audiolab · Creek · Cyrus · Denon · Dual · Epos · Exposure · JPW · Kef · Linn · Marantz · Meridian · Mission · Monitor Audio · Musical Fidelity · Naim · Nakamichi · Neat · Pro Ac · Quad · Rega · Roksan · Rotel · Ruark · Sony · ES · Tannoy · Yamaha

KEF Q90



KEF may have had a hard time of it this past year, but the company has got its collective act together again, now under foreign ownership, and many links with the brand's illustrious history remain firmly in place. The £700 Q90 that is the subject of this review can trace its heritage back through several generations of competitively priced, gen-

erously dimensioned floorstanders like the C85 and C95 (reviewed in issues 90 and 78).

It also bears a close superficial resemblance to the Q80, one step below on the Q-series (issue 106). But in fact the Q90 is significantly larger, heavier and £200 more expensive than Q80, and rather than a reflex loaded two-way (via a drone cone in place of a port), it's actually a full three-way design with separate bass, mid and treble drivers, in the manner of C85.

The most unusual feature is perhaps KEF's Uni-Q driver, a dual concentric design which places the tweeter down the throat of what is in this case the midrange driver. Both this latest generation of KEF drivers also feature controlled magnet decoupling.

The large and relatively deep enclosure ensures a good stability footprint, supported on four corner spikes which might have been more robust. Constructed from 15mm and 19mm board, the interior is partitioned to separate the top quarter as a sealed and heavily damped enclosure for the midrange of the Uni-Q driver, while the lower three-quarters acts as a generous — and generously ported — braced and foam-lined and -stuffed enclosure for the bass unit. The port itself is flared at both ends to minimise distortion-creating turbulence.

The almost identical bass and midrange

drivers are fitted via plastic sub-baffles, which gives a slightly top heavy appearance (and fact), but integrates well and supports a neat moulded grille. Both bass and midrange use 155mm plastic cones, and pressed steel baskets which are carefully shaped to give good strength without too much occlusion at the rear of the cone. Six coarse-pitch self-tapping screws were all tight, but over-tightening seemed rather too easy. Bi-wire terminals feed a complex crossover that is hardwired to the drive units.

Sound quality

Slightly better received the second time it was presented to the listening panel, even so the Q90 did not prove a particular favourite, for although criticisms of the sound were relatively mild, enthusiasm was even more muted, and several comments regarding a detached quality and lack of involvement were recorded.

While the quantity and evenness of the bass is quite impressive, delivering fine weight and power, there's a certain synthetic quality that masks textures and blurs timing. Although the even balance is an important plus, the presence has a shut-in quality and the low-set tweeter also inhibits openness and airiness. Fine mid-to-treble coherence nonetheless gives plenty of inner detail, and the overall dynamic range is pretty good too, but dynamics themselves seem rather bland and squashed.

Conclusion

Whether by coincidence or as a by-product of some inherent complexity, large three-way loudspeakers have a habit of delivering a good measured performance but disappointing listening test results. And unfortunately that's precisely the situation with the Q90.

Contact

KEF AUDIO UK LTD.
ECCLESTON ROAD, TOVIL
MAIDSTONE, KENT
ME15 6QP

0622 672261

Verdict

- +** Decent balance, fine mid-to-treble coherence.
- Not very exciting, a rather dull and bland overall effect.

▶ £700.00 RRP

TEST REPORT

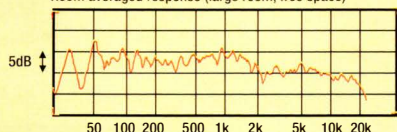
The Q90's measured performance is very impressive. It's clearly intended to be sited well away from walls, and is probably not ideally suited to the smaller room, but delivers a textbook-flat in-room response if placed a metre or so away from rear and side walls, from the low bass up to 1.5kHz, where the tweeter takes over. At which point the output drops nearly 4dB on our far field measuring technique, and becomes rather less even as well, although the treble response above 2kHz is nearly as flat as the bass/midrange, albeit stepped down 3-5dB.

Sensitivity is a generous enough 88dB, which is largely uncompromised by an impedance that hovers around 6ohms for much of the range, but which is also evidence of some network complexity. Bass extension is good (-11dB at 20Hz in-room) — and certainly considerably better than the rather disappointing result found with the Q80 — if not perhaps quite as good as might have been expected from the box size, due presumably to the tailoring in the bass driver feed.

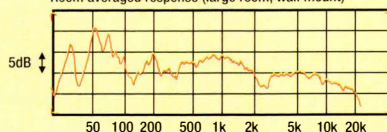
TEST RESULTS

Size (h x w x d)	90x24.5x32cm
Weight	18kg
Recommended amplifier power	15-150W
Recommended placement	clear of walls
In room averaged response limits 50Hz-10kHz	±5dB
Large room/space LF rolloff (-6dB ref midband)	25Hz
Large room/wall LF rolloff (-6dB ref midband)	24Hz
Large room output at 20Hz (ref midband)	-11dB
Estimated midrange sensitivity (ref 2.83V, 1m)	88dB
Impedance characteristic (ease of drive)	good
Typical price per pair (inc VAT)	£700

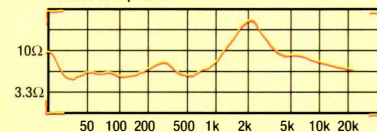
Room averaged response (large room, free space)

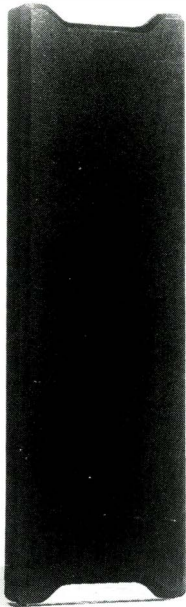


Room averaged response (large room, wall mount)



Modulus of impedance





Only 2 3/4" slim.
Sequence speakers
stand close to a wall.
or hang like pictures.

**"the answer to a prayer...
a bargain in the extreme".**

Hi-Fi News RR

"the speakers almost disappearing... a feeling of
naturalness unlike the normal listening to
loudspeakers' experience"

"admirable presence making vocal music and piano, for
example, come very much to life... all kinds of music, pop
and classical, benefit from this lively midrange clarity...
a genuine bargain"

Gramophone

"Wall mount winner?... they're not just room and user
friendly, they're ear friendly... a
real hoot: a brand new
company, a brand new design,
all British, and a bargain in the
extreme".

Hi-Fi News RR

FROM
£199⁹⁵ PER
PAIR
DARK OR LIGHT
GRILLE

S|E|Q|U|E|N|C|E

MAKING MUSIC SOUND REAL, AT REALISTIC PRICES
Sequence Design Ltd Tel: 081 941 6737 Fax: 081 783 1826
1 Orston Lodge, Old Farm Road Hampton TW12 3RQ



The Talisman II
another stroke of genius

from

RUARK



RUARK ACOUSTICS LTD

Annwood Lodge Industrial Estate
Arterial Road

Rayleigh, Essex SS6 7UA, U.K.

Tel: (0268) 728890 Fax: (0268) 590670

Please write or telephone for details of your nearest stockist

Kenwood LS-500G



One of the more successful purveyors of hi-fi electronics to what audiophiles disparagingly (and inaccurately) refer to as the mass market, Kenwood isn't the first brand to spring to mind when the topic of conversation turns to loudspeakers (as it does quite naturally and frequently of course).

I daresay several readers were probably quite surprised to find a well deserved Recommended flash on the £250 large bookshelf size LS770E tested a year ago in issue 106. Now Kenwood is bringing in another altogether more ambitious series of Japanese designed and built models, albeit aligned for European tastes, including this £500 LS-500G, which is not only twice the price and significantly heavier

than the 770, but also rather smaller too.

That's a lot of money for any medium bookshelf size two-way, but it's a pretty little box whose beauty turns out to be rather more than skin deep. Immensely solid for its size, at least one reason became clear when I started to take one apart. The sides are 20mm, the front baffle 30mm (chamfered behind the main cone), while the base of the box is no less than 60mm thick, all which takes a fair slice out of the internal volume, but certainly provides something for the drivers to work against. Said volume is reflexed by a generous slot port, and lightly damped with longhair wool.

A nice dark stain decorates the wood veneer, with heavily postformed verticals

and rebated drivers keeping the baffle itself acoustically smooth and visually neat, indicating that the rather thick-frame moulded grille should be discarded.

The main unit uses a 120mm doped paper cone and a large double magnet (perhaps implying magnetic screening, but I didn't check), a mechanically damped but acoustically quite occlusive pressed steel frame, given that freshly cast look by a pretty solid trim ring. The tweeter has a 25mm soft dome.

Both were held by pretty tight woodscrews, and connected via heavy soldered cable to a generous rating crossover that is mounted underneath what I presume to be a mumetal screen — a technique I've never met in any European speaker design, save arguably the external box used by the Roksan *Darius*.

Sound quality

Two separate presentations on the same day did lead to a certain confusion and inconsistency, but disregarding the (invariably unreliable) first-of-the-day left a very positive overall result, albeit with some criticism of a detail nature.

The limited bass extension does reduce the impression of scale somewhat, but this speaker has real bounce, drive and fine dynamic enthusiasm. It can be a bit fierce and edgy, at least two panelists describing the top as splashy, and a slightly darkened presence is also audible, but it's also quick and coherent with very little timesmear and decent tension.

Conclusion

This is not a cheap loudspeaker for its size, but it is very fair value considering the build solidity. The lively, dynamic and coherent sound provides tough competition for the British equivalents, and Recommendation is clearly in order.



Contact

TRIO KENWOOD,
KENWOOD HOUSE,
DWIGHT ROAD, WATFORD,
HERTS WD1 8EB

0923 816444

Verdict

- + Compact and pretty with a lively and coherent sound.
- Bass rather limited, top a bit edgy, quite pricey.

▶ **£500.00** RRP

TEST REPORT

The in-room averaged responses clearly show that the 500G is best kept well clear of walls, whereupon it delivers a very well balanced, if not entirely smooth response from 50Hz up to around 12kHz, enlivened by some uneven and slightly prominent peakiness in the upper midrange, around 1kHz, and a narrow but 6dB deep notch at the crossover point.

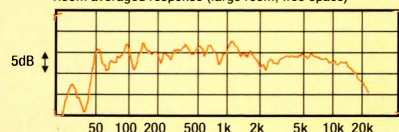
The treble consists mainly of a smooth broad plateau centred on 5kHz, with signs of premature rolloff above 10kHz. An extra resonance at around 12kHz helps extend the top end of the range a little, although the ultimate treble reach is a shade limited.

Sensitivity is a generous 89dB, but as usual there are trade-offs elsewhere, notably in a resolutely current hungry impedance characteristic. Low frequency extension is rather limited too. There's a certain amount of in-room output below 50Hz, but not a lot, as the port of this reflexed design is tuned to just above 50Hz.

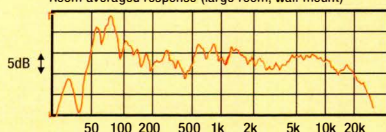
TEST RESULTS

Size (hwxwd)	44.5x22.5x26cm
Weight	12kg
Recommended amplifier power	20-80W
Recommended placement	clear of walls
In room averaged response limits	
50Hz-10kHz	±4dB
Large room/space LF rolloff (-6dB ref midband)	48Hz
Large room/wall LF rolloff (-6dB ref midband)	48Hz
Large room output at 20Hz (ref midband)	below -17dB
Estimated midrange sensitivity (ref 2.83V, 1m)	89dB
Impedance characteristic (ease of drive)	current hungry
Typical price per pair (inc VAT)	£500

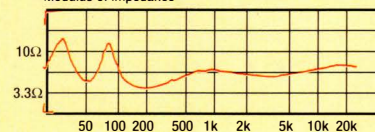
Room averaged response (large room, free space)



Room averaged response (large room, wall mount)



Modulus of impedance



Linn Kaber LS500



the stunning performance turned in by the slightly smaller and much less expensive *Keilidh* in the last project (issue 114), a reappraisal was clearly overdue.

My main criticism of the original *Kaber* lay in its rather exposed and unforgiving treble, but the original tweeter has been recently replaced by Linn's Tonagen-built 14mm ceramic dome, which has already shown great potential in both the *Keilidh* and the much larger *Keltik* (*The Collection 92*). The *Kaber* now also comes fitted with the same moulded ceramic plinth that proved such an effective option with the *Keilidh*, in place of the earlier reversible metal frame affair.

The rest remains as before: a slim, elegant, compact and very substantially built and braced floorstander that with hindsight was one of the trendsetters of this increasingly popular breed. Two similar and small 90mm plastic cone main drivers sit above and below the tweeter on a narrow baffle, the upper one handling bass and midrange duties, the lower one simply reinforcing the lowest octaves. A cocktail of wadding and Ku-Stone blocks damp the enclosures.

Three sets of rear terminals address each driver individually, facilitating bi-/tri-wiring/-amping, all the way up to full active drive. So a pair of *Kabers* could very easily remain at the end of a hi-fi system that goes on getting better through a whole succession of amplification upgrades. Apart from the charcoal grey baffle and plinth, and optional stockingmask grille, all is rather nicely finished in real wood veneer.

Sometimes a review threatens to turn into a saga. The £1,198 Linn *Kaber*, originally reviewed and Recommended three years ago (issue 82) has recently significantly changed. Given

However, the saga referred to at the beginning did prove disappointing, and exasperatingly ironic from a company that prides itself on manufacturing quality. Through some ghastly oversight, one of the bass/mid drivers was wired out of phase. The listening panel spotted it in seconds, the presentation was aborted and the errant pair replaced, amidst much embarrassment.

Sound quality

Despite being booed off the stage first time around, the *Kaber* replacements came back with a vengeance on the last day, generating uncharacteristically genuine enthusiasm among a sometimes cynical panel. One member was quite shocked to discover later that he had described a Linn design as: "No problems; an excellent speaker."

The upshot is that the *Kaber's* original virtues of fine, if dry, bass control, extended bandwidth and superb dynamic range now come with added sweetness at the brightly balanced top end. There may not be the relaxed sonic delicacy of, say, the transmission lines in this report, but the *Kaber* has a remarkability ability to convey coherent musical information, especially in the way secondary backing instruments continue to sound clear and consistent no matter what the lead may be doing.

Conclusion

Much improved by the recent revisions, the Linn *Kaber* is more capable, if less kuddly than the *Keilidh*, with a clinical presentation that emphasises its startling dynamic range and encourages multi-amp drive. Assuming the first sample was an isolated rogue, a much more positive Recommendation than that awarded to the original model is clearly deserved.



Contact

LINN PRODUCTS LTD.
FLOORS ROAD, WATERFOOT,
EAGLESHAM, GLASGOW
G76 0EP

041 644 5111

Verdict

- + Superb dynamic range and bass control, very informative.
- Dry balance can be unforgiving, some shut in boxiness.

▶ **£1,198.00 RRP**

TEST REPORT

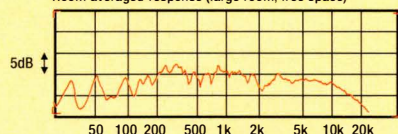
The measurements are very similar to those for the original *Kaber*, although the treble is now clearly both better integrated and less exposed than before. Bass extension is exceptionally good, though as usual the trade-off is seen in below average sensitivity and an amplifier load which demands plenty of current at low frequencies. The *Kaber's* two bass drivers each have sealed box enclosures of slightly different volumes, so that the two fundamental resonances don't coincide and reinforce each other. The consequence of this technique is seen in the all but disappearance of the low frequency resonance peak from the impedance trace.

Close-to-wall siting gives the best averaged in-room balance, at the expense of some slight over-enthusiasm in the midbass. The mid and treble looks very well judged and smoother than before, but there's still a fair amount of midband unevenness, and a downtilt of some 5dB from the upper midband into the crossover dip, followed by a 2dB recovery over the main treble itself.

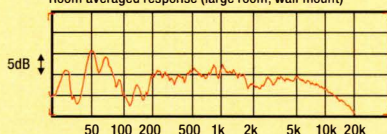
TEST RESULTS

Size (hwxwd)	93x19x28cm (exc. plinth)
Weight	24kg (inc plinth)
Recommended amplifier power	20-150W
Recommended placement	quite close to wall
In room averaged response limits	
50Hz-10kHz	±5dB
Large room/space LF rolloff (-6dB ref midband)	28Hz
Large room/wall LF rolloff (-6dB ref midband)	25Hz
Large room output at 20H (ref midband)	-9dB
Estimated midrange sensitivity (ref 2.83V, 1m)	84dB
Impedance characteristic (ease of drive)	current hungry
Typical price per pair (inc VAT)	£1,198

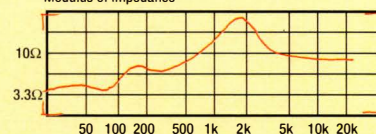
Room averaged response (large room, free space)



Room averaged response (large room, wall mount)



Modulus of impedance



Mission 764i



The 764 has been an established model in the Mission range for a number of years, making its original *Choice* appearance back in issue 71, then being updated, presumably by the acoustic equivalent of electronic fuel injection, as the 764i exactly two years ago (issue 94). Now it's back again, still codenamed 764i yet incorporating a

number of important revisions, including the fitting of the same tweeter that features in the very successful, much prettier and rather more expensive 753 reviewed and Recommended in issue 114.

Whereas the 753 came with lots of drivers dressed in a most beautiful real wood veneer cabinet of quite modest dimensions, the 764i is (and always has been) all about perceived value, providing a very generously proportioned vinyl woodgrain box with two-way driver line up at a £480 asking price that looks very sharp indeed compared with the competition (such as the £700 KEF Q90 on page 79).

Providing a lot of loudspeaker at a modest price may well make good commercial sense in a marketplace that all too often relies on visual rather than aural judgement, but may not necessarily give the best results from a sonic standpoint. Large boxes offer the promise of high sensitivity and extended bass, but only the latter is on offer here, and

there's no avoiding the inherent difficulty of mechanically controlling large panels and resonant drive units.

Plenty of work has gone into building the ported enclosure nonetheless, using 25mm MDF for the baffle, stiffening the 19mm sides with two horizontal braces and adding bituminous mass-damping and foam lining pads.

The box itself has a good fore-and-aft footprint, but the spikes are rather flimsy for the supported mass. A moulded frame grille offers little impediment, but the drivers are rebated and the baffle prettily decorated and fashionably grey, for those who prefer to go topless.

Borrowed from the 765i (issue 110), the main driver has a 150mm clear plastic cone, cast frame, reasonable size magnet and bolts which could have been tighter. The 25mm soft dome tweeter is aided by an elliptical horn flare, tag connected to a simple hardwired crossover fed from bi-wire terminals.

Sound quality

History seemed to be repeating itself with the generally indifferent panel reaction to this 764i, which started out positively enough but which had generally drifted into either ennui or impatience by the end of the session. There was some mention of chestiness and an untidy top end, but such criticisms were quite minor in degree.

It's not a bad loudspeaker, and in fact delivers a fine sense of scale and an impressively even balance when carefully positioned. But it's not a particularly involving or exciting experience either, lacking dynamics and tension, grip and authority, delivering an essentially gentle and rather laid back sound without much drama or sense of occasion.

Conclusion

Despite the changes, the Mission 764i remains an apparently fine value for money large floorstander that unfortunately doesn't quite manage to deliver the sonic goods. It does offer a good impression of scale at a modest price, but somehow lacks the agility and drama of more compact alternatives.

Contact

MISSION GROUP,
CENTRALFORCE LTD,
STONEHILL, HUNTINGDON,
CAMBS PE19 6ED

0480 451 777

Verdict

- + Good perceived value for money, fine sense of scale.
- Lacks dynamics, tension, agility and drama, very gentle sound.

▶ **£480.00** RRP

TEST REPORT

The low frequency behaviour of this model hasn't changed very much at all, and despite Mission's advice that it should be placed one foot from a wall, this new version is if anything even more of a free-space design, any nearby walls leaving the midbass distinctly too strong. Even well clear the bass is a shade rich, although the overall averaged bass energy actually matches the midband very well.

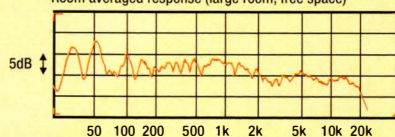
As before, sensitivity is a rather surprisingly below average 86-87dB, which is partly compensated by respectable bass extension (-8dB at 20Hz in-room) and an easy amplifier load at low frequencies. The impedance does dip to around 4ohms at high frequencies, though this is unlikely to trouble modern amplifiers.

The overall balance is generally good, although the response does start to fall gently away above 800Hz on our far-field measurement, and is down by about 5dB through the crossover notch 2-3kHz. The treble output recovers a little, with evidence of well damped resonances centred on 4.5kHz and 10kHz.

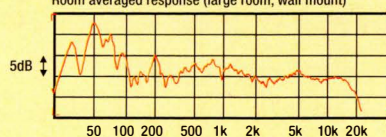
TEST RESULTS

Size (h x w x d)	89x25x32cm
Weight	17kg
Recommended amplifier power	20-90W
Recommended placement	well clear of walls
In room averaged response limits 50Hz-10kHz	±6dB
Large room/space LF rolloff (-6dB ref midband)	22Hz
Large room/wall LF rolloff (-6dB ref midband)	22Hz
Large room output at 20Hz (ref midband)	-8dB
Estimated midrange sensitivity (ref 2.83V, 1m)	86-87dB
Impedance characteristic (ease of drive)	good
Typical price per pair (inc VAT)	£480

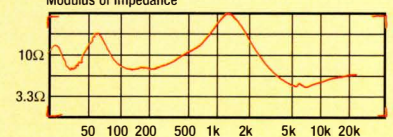
Room averaged response (large room, free space)



Room averaged response (large room, wall mount)



Modulus of impedance



Music never felt this good before.

You are alone with the music of your mood. Its sound takes you onto a higher plane, into another world. This is music as it's meant to be heard. The KEF experience. Superb loudspeakers; beautifully constructed for unerringly faithful reproduction. And the only colouration is of your feelings.

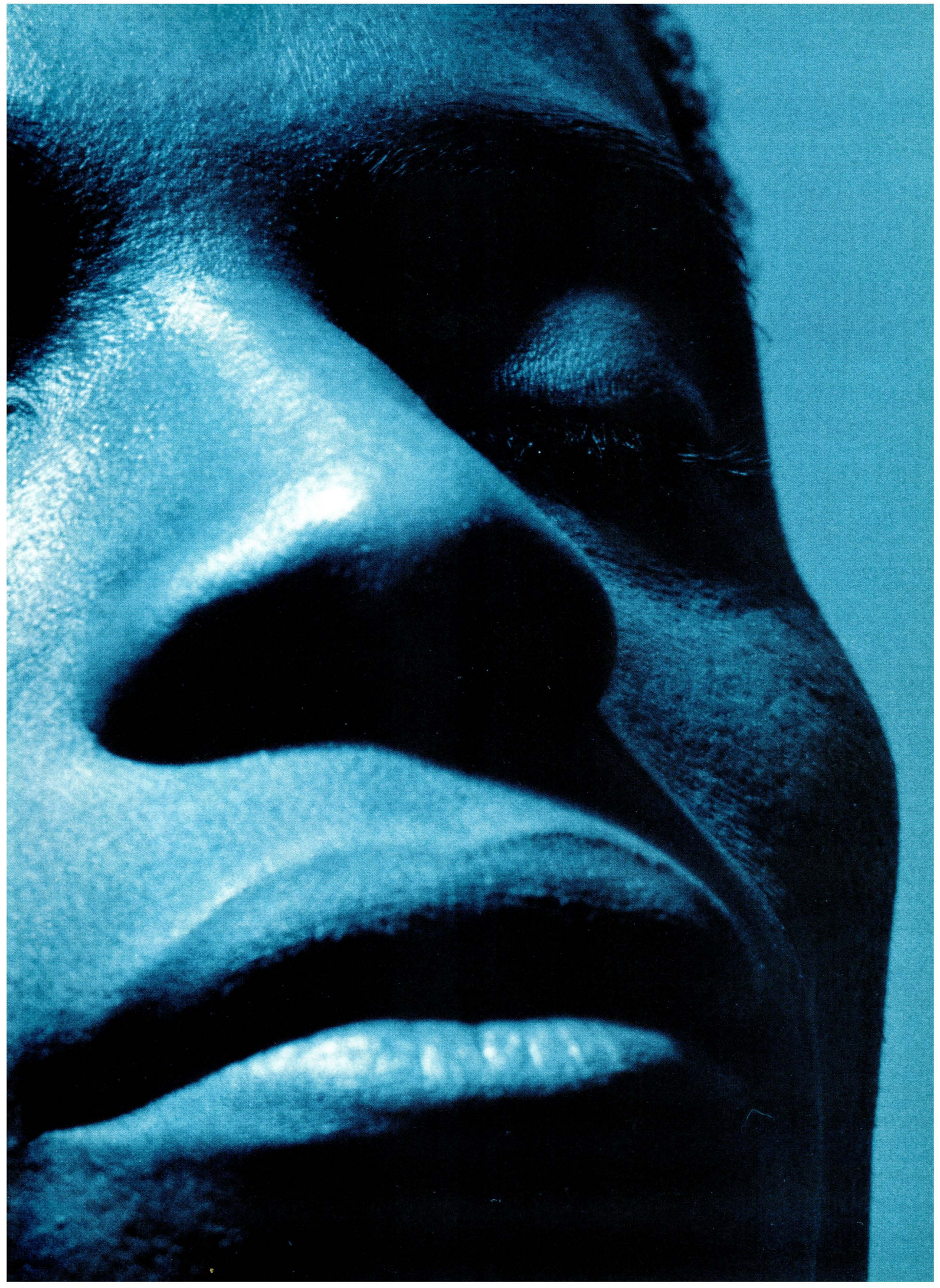


Featuring KEF Uni-Q technology the Reference Model 105/3 creates the perfect tonal balance, wherever you are in the room.

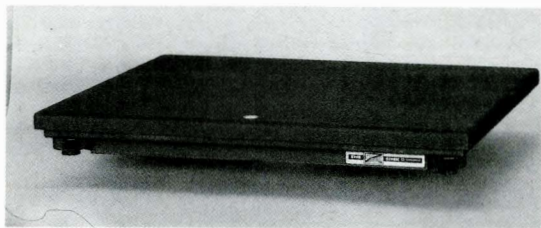


The experience of sound

KEF Audio (UK) Limited, Maidstone, Kent ME15 6QP.
For further information please telephone 0622 672261



THE SEISMIC SINK



"For £169 the Seismic Sink provides a more impressive upgrade to the sound of your CD player than adding an outboard D/A converter – even the award winning £700 Audiolab DAC!" (What Hi-Fi? December 1992).

"... improvements were nothing short of astonishing."

(Andy Benham, Hi-Fi Choice September 1992)

Suitable for valve pre/power, laserdisc, CD player, D/A converter or record player.

Standard size 43cm x 35 cm takes up to 7Kg.

Smaller, larger, heavy duty and specials available.

Please send for details, reviews and dealer information to:

Townshend Audio
Tim's Boatyard, Timsway
Staines, Middx TW18 3JY
Tel: 0784 455866
Fax: 0784 455044

L i s t e n i n n

HI-FI SPECIALISTS

Linn, Naim, Epos, Heybrook, Arcam,
Mission, Royd, Audiolab, Creek,
Cyrus, Quad, Denon, Rotel, NAD,
Marantz, Kef, Chord Company
(Naim and Epos Northampton only).

32 GOLD STREET, NORTHAMPTON
TEL: 0604 37871
6 HOTEL STREET, LEICESTER
TEL: 0533 623754

Make Beautiful Music

Even if you have a modest Hi Fi system, adding a pair of our 3-way SPHINX loudspeakers will enable you to attain its maximum potential.

Compatible with a wide range of amplification and sources, they will take you to the heart of every performance.

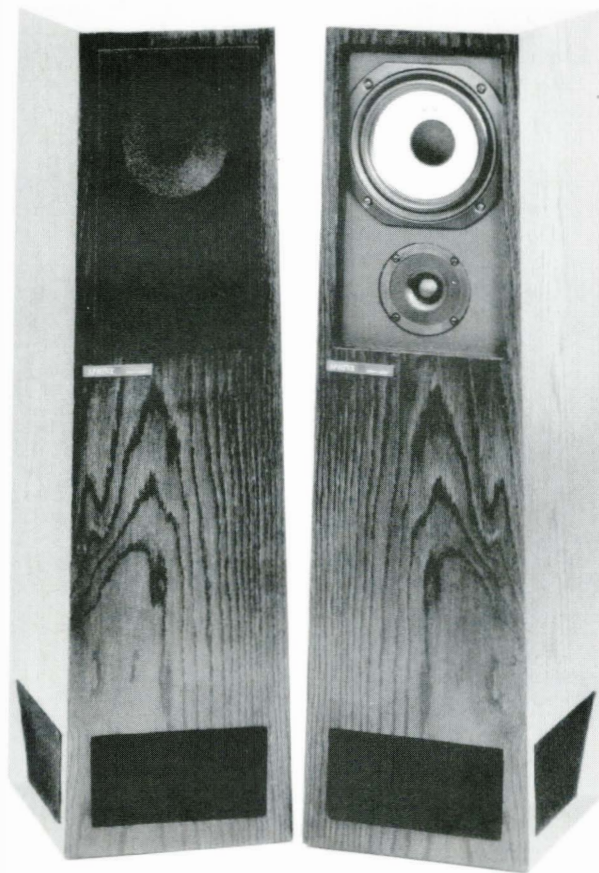
Just sit back and let the music flow.

For more information and a demonstration, visit your dealer or contact us direct.

fuller's audio

combining innovation with classic design

20 Tunbridge Road, Southend-on-Sea, Essex SS2 6LT
Telephone: (0702) 612116 VAT Reg No.: 583 3890 06



Monitor Audio Studio 6



Sitting at the pinnacle of Monitor Audio's very extensive range of loudspeakers, the Studio series of models uses metal diaphragms for both treble and main driver diaphragms, which is a hi-tech selling point that hitherto only a few other brands can match. Such a NUSP (near unique selling point) is the effective justification for charging a substantial price premium, and for building such exotic drive units into cabinets of unsurpassed beauty and considerable quality (and expense).

Such was the case with the *Studio 5*, 10 and 15 (issues 98, 90, 102 respectively), and this new and very compact *Studio 6* slots into the appropriate size and price gap while showing considerable family

resemblance. Which means a pricetag of £800 in just the ordinary high class finish, and a cool £1,000 for the piano lacquer super de luxe version that came in for review.

Certainly this high gloss rosewood looked absolutely gorgeous when I unpacked the carton. However, the rigours of multiple speaker reviewing, and the need to stack them in piles and keep moving them around had left its mark(s) by the end (sorry!). This lacquer is by no means scratch resistant, and should only be considered by those willing and able to take care of fine furniture.

I only received one grille, which shows how little importance is attached to this option — more's the pity that its mount-

ing lugs remain so visible on the naked baffle.

The compact and very solid twin frontported box is built from 19mm MDF, internally damped by bitumen pads and a thin foam lining. Bi-wire gold terminals feed a well spaced hardwired crossover. Both drivers are rebated and were really tightly bolted in place, the tweeter using a 25mm gold anodized metal dome and the main driver a 118mm metal cone, a cast frame, and a large magnet.

Sound quality

The *Studio 6* did so well on the first day of listening tests, I decided to install it for a weekend's relaxation, but have to admit I found it a frustrating longer term experience, finding the sound lacking life, coherence and sheer intelligibility. I can't explain this discrepancy, but did have the *S6* represented on the final day, with results much closer to my weekend exasperation, so have to treat the first day findings with some suspicion.

It does have an attractive mid coherence and transparency, but also some nasal congestion, and the bass comes as something of an afterthought, with no real freedom of expression.

Slate Audio stands proved to be the best match, helping to add sparkle and bring the treble into focus, but timing and dynamics remained rather average for the high asking price.

Conclusion

This is a nice enough loudspeaker in its way, but I can't see why it costs at least £800. In the context of the all-metal diaphragm models from Acoustic Energy and TDL which are also included in this report, the *Studio 6*'s strongest selling point would seem to be its decidedly cute appearance and beautiful finish.

Contact

MONITOR AUDIO LTD.
34, CLIFTON ROAD,
CAMBRIDGE,
CB1 4ZW

0223 242898

Verdict

➕ Beautifully built and finished metal diaphragm compact.

➖ Pricey, and difficult to see the justification for the price.

▶ **£800.00** RRP

TEST REPORT

Tuning the port to 45Hz, the natural driver/box resonance at 75Hz will not maximise the control of low frequency excursion, but does usefully help extend the bass of what is by any standards a very compact loudspeaker. It's not a full bandwidth design but manages to register some worthwhile output between 30Hz and 50Hz, which is good in the context of the box size.

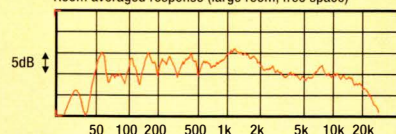
Placed clear of walls, the overall in-room balance is a trifle mid-forward, while close-to-wall placement leads to too much output 45-80Hz. The best position for the *Studio 6* is therefore likely to lie between these two extremes.

Despite the advanced metal diaphragm technology, the *6* is significantly less flat and smooth overall than the more conventional MA800 Gold covered in January (issue 114). In place of the latter's near perfect flatness, the *S6* peaks up a little around 900Hz, then drops gently and smoothly by some 6dB by 3-5kHz, with a mild 6kHz recovery and rather early ultimate HF rolloff.

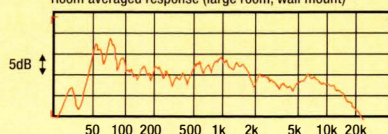
TEST RESULTS

Size (hwxwd)	35x22x25cm
Weight	8kg
Recommended amplifier power	20-100W
Recommended placement	1-2ft from wall
In room averaged response limits 50Hz-10kHz	±4dB
Large room/space LF rolloff (-6dB ref midband)	45Hz
Large room/wall LF rolloff (-6dB ref midband)	45Hz
Large room output at 20Hz (ref midband)	below -15dB
Estimated midrange sensitivity (ref 2.83V, 1m)	86dB
Impedance characteristic (ease of drive)	very good
Typical price per pair (inc VAT)	from £800

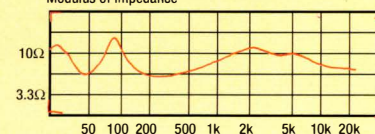
Room averaged response (large room, free space)



Room averaged response (large room, wall mount)



Modulus of impedance



VISA



Bill Hutchinson Ltd.

PIONEER
REFERENCE
POINT

HI-FI, AUDIO & CD CENTRES – MAIL ORDER AVAILABLE

When you purchase from Bill Hutchinson you're buying the best names in Hi-Fi from the best name for Hi-Fi. Our product guarantee and pricing policy ensure you obtain an excellent deal, my staff and I look forward to being of service to you.

Bill Hutchinson



PD-S801
Compact Disc Player

HEAR PIONEER'S CD PLAYERS WITH LEGATO LINK		<input checked="" type="checkbox"/>
PIONEER A 300X AMP	– Recommended Buy 1992	<input checked="" type="checkbox"/>
MISSION 760i SPEAKER	– Recommended Buy 1992	<input checked="" type="checkbox"/>
MARANTZ CD52 MkII CD Player	– Recommended Buy 1992	<input checked="" type="checkbox"/>
DENON D70 SYSTEM	– Recommended Buy 1992	<input checked="" type="checkbox"/>
KENWOOD KA-V8500 AV Product	– Recommended Buy 1992	<input checked="" type="checkbox"/>
ROTEL RT-950BX TUNER	– Recommended Buy 1992	<input checked="" type="checkbox"/>

Licensed credit broker Written details on request

ALL WITH 2 YEAR GUARANTEE

BEST PRICES GUARANTEED



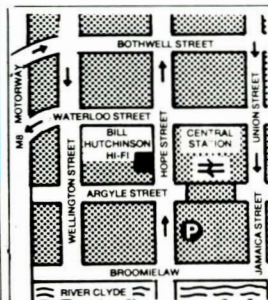
26-28 WOODHOUSE LANE
LEEDS
0532-427777



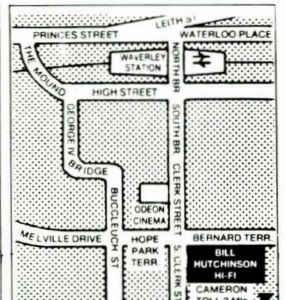
50/52 DEANSGATE
MANCHESTER
061-839 8800



87a CLAYTON STREET
NEWCASTLE NE1 5PY
091-230 3600



43 HOPE STREET
GLASGOW G2 6AE
041-248 2857



43 SOUTH CLERK STREET
EDINBURGH EH8 9NZ
031-667 2877

Musical Fidelity MC3



Not known primarily for its loudspeaker designs, Musical Fidelity sells an awful lot of amplifiers of various shapes and sizes, plus a number of other electronics components like tuners and CD players. It's therefore hardly surprising to find a couple of speakers also in the range to finish off the complete system package, even if MF doesn't promote them with quite the same enthusiasm as its amps.

In fact there are two MF speakers, both recently introduced, and as its name suggests the £400 MC3 actually belongs to at least the third generation. A number have come under *Choice* scrutiny in the past, though not for some years, so formal comparison with predecessors is rendered

difficult by interim changes in the test procedures.

It's the larger and more expensive of the two models, and is an unfashionably chunky large bookshelf size model designed for free space siting on good quality stands. The tweeter is slightly offset on the baffle, so as to spread edge diffraction effects, so to obtain high quality stereo imaging the speakers are built as mirror-imaged pairs. Discovering whether the tweeters should be on the inside (yes) or outside (no) of the pair, however, took a detailed manual search, so perhaps the speakers themselves could be labelled L and R?

The grille looks a pretty nasty affair, leaving one to admire the rebated drivers

and enjoy or endure the less than subtle blue graphics on the textured matt black front. The front panel is 19mm MDF, the vinyl wrap 19mm chipboard, stiffened by a crossbrace, and the front-ported enclosure lightly filled with damping. The tweeter uses a c28mm soft dome while the main driver has a 125mm paper cone/plug and thin surround in a cast frame, driven from a large magnet and secured by reasonably tight woodscrews. A generously rated hardwired crossover is fed from bi-wire terminals.

Sound quality

Despite rather impressive underlying qualities, the MC3's listening test performance was significantly hampered by the rather dull and shut-in balance, which just happens to correlate rather closely with the presence suckout visible on the far-field in-room response traces shown below. This was certainly a demerit in the context of our drive system, but could of course prove a useful palliative in taming a more aggressive sound.

Elsewhere it has a nice firm quality with decent fundamental timing and good communication skills. There's some excess midbass weight and slight grumble and thickening from the decent size box, but the MC3 has good scale and develops an impressively stable and solid stereo image, albeit with slight depth foreshortening perhaps.

Conclusion

A fine potential performance is marred by a lack of energy through the crossover region, which was clearly audible in the listening tests and is clearly visible in the in-room plots. Unacceptably dull under our conditions, such character could be beneficial on the end of a more aggressively balanced system.

Contact

15/16 OLYMPIC TRADING EST,
FULTON ROAD, WEMBLEY,
MIDDLESEX
HA9 0TF

081 900 2866

Verdict

+ Decent authority and timing give a generous sound.

- Sucked-out presence band makes sound shut-in.

▶ **£400.00** RRP

TEST REPORT

The MC3 delivers a usefully high 88dB sensitivity, while at the same time achieving fine bass extension (-12dB at 20Hz in-room), alongside a straightforward amplifier load which drops only briefly below 6ohms in the mid treble.

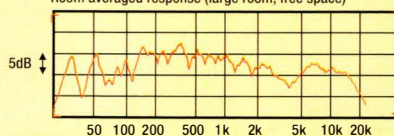
Admittedly these are the sort of outline parameters which a box of this size and price ought to be able to manage, but that doesn't lessen the achievement. One factor is that the port has been deliberately tuned to 38Hz, which is well below the natural driver/box resonance, sacrificing some excursion control in the interests of greater low frequency extension.

The low frequency alignment falls squarely between wall-mount and free-space extremes, suggesting that about two feet should be left behind the enclosure. This gives a good in-room balance through the bass and midrange up to around 900Hz, but output starts to fall above that, the presence band (1.5-2.5kHz) registering -4dB with the ultimate 3.5kHz crossover dip at -7dB.

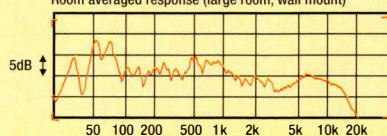
TEST RESULTS

Size (hwxwd)	47x26x28cm
Weight	11kg
Recommended amplifier power	15-90W
Recommended placement	2-3ft from wall
In room averaged response limits	
50Hz-10kHz	±5dB
Large room/space LF rolloff (-6dB ref midband)	25Hz
Large room/wall LF rolloff (-6dB ref midband)	25Hz
Large room output at 20Hz (ref midband)	-12dB
Estimated midrange sensitivity (ref 2.83V, 1m)	88dB
Impedance characteristic (ease of drive)	very good
Typical price per pair (inc VAT)	£400

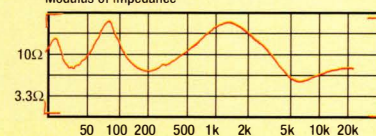
Room averaged response (large room, free space)



Room averaged response (large room, wall mount)



Modulus of impedance



Rogers Studio 3



In the beginning was the LS3/5A, a tiny BBC monitor loudspeaker which went on to become a cult, manufactured under BBC licence by a number of different British speaker builders and selling enthusiastically all round the world for the past two decades.

Of all those 3/5A producers Rogers is the best known, but after a hiatus in driver supply following KEF's temporary receivership last year, Rogers has decided to make a clean break, effectively replacing it with this £450 Studio 3.

From a distance you couldn't tell an S3 from a 3/5A, since the cabinet seems to have changed hardly at all, but the drive units come from quite different sources, offering Rogers real flexibility in tailoring and voicing the model to meet its perception of what the market wants. Front- and flush-mounted drivers include a 19mm

soft dome and a 90mm clear plastic cone, with large magnet and cast frame, well bolted to a recessed baffle which integrates with the chamfered grille. Real wood veneer covers the picture frame and the other five faces. The 12mm box has batten edge stiffening and a light foam lining, and houses a quite simple hardwired crossover which uses carefully selected and spaced components, fed from gold plated bi-wire terminals.

Sound quality

With one dissenter, the Studio 3 did well in the listening tests, well liked by the majority despite being presented immediately after a floorstanding model. It is a little squashed and small, but fine overall coherence and timing, coupled with an impressively even balance makes for a presentation which is both relaxing and

informative.

As is so often the case with tiny 'head-sized' loudspeakers, voices were very well reproduced, even though the close-to-wall siting needed to lift the midbass does create its fair share of midband coloration. Not surprisingly, the bass is not its best feature, and there was also some criticism that the balance is a touch too bright. But the bottom line is smooth, fundamentally accurate and above all pleasingly coherent.

Conclusion

A little less accurate than a 3/5A maybe, the Studio 3 is altogether faster, bouncier and in its way more fun. It's almost as though Rogers have managed to combine some of the better characteristics of the contrasting 3/5A and Linn Kan 2 designs in one single model.

Contact

SWISSTONE ELECTRONICS LTD, 310 COMMONSIDE EAST, MITCHAM, SURREY CR4 1HX

081 640 2172

Verdict

+ A lively and coherent luxury sub-miniature wall-mount.

- Pricey, doesn't go very loud; bass is not a strong point.

▶ £450.00 RRP

TEST REPORT

Small packages tend to give good overall balance at the expense of bass extension, and that's very much the case here. That there's any bass at all below 50Hz is impressive enough, and that the 30Hz room mode is only 6dB down when wall-mounted should ensure a remarkable impression of scale from something so small.

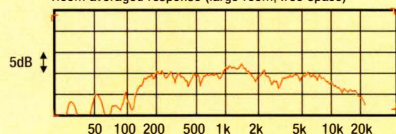
Perhaps surprisingly given the free-space LS3/5A ancestry, the Studio 3 is, like the Kan 2 (issue 78), unequivocally intended for close-to-wall siting, whereupon it delivers a very well balanced ± 3 dB in-room response from 50Hz up to 10kHz. There's some unevenness along the way, largely from the interaction of wide distribution with close wall proximity, plus a mild and narrow dip at the crossover point, but the overall envelope is so tight that criticism seems almost churlish.

The price comes in a very low sensitivity rating which will ensure that high levels are not on the agenda. However, mild impedance will ensure that the driving amplifier isn't being unduly stressed, even when the speaker is.

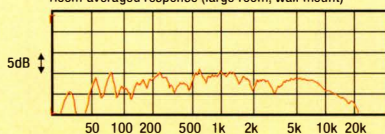
TEST RESULTS

Size (h x w x d)	30.5 x 19 x 17cm
Weight	4.5kg
Recommended amplifier power	20-70W
Recommended placement	close to wall
In room averaged response limits 50Hz-10kHz	± 3 dB
Large room/space LF rolloff (-6dB ref midband)	50Hz
Large room/wall LF rolloff (-6dB ref midband)	30Hz
Large room output at 20Hz (ref midband)	below -11dB
Estimated midrange sensitivity (ref 2.83V, 1m)	83dB
Impedance characteristic (ease of drive)	very good
Typical price per pair (inc VAT)	from £450

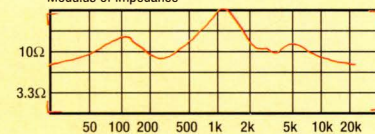
Room averaged response (large room, free space)



Room averaged response (large room, wall mount)



Modulus of impedance



Royd Abbot



A scant few days before the last post sounded, Royd informed us of some recent changes in the design. New samples were sent, measured and auditioned, and results correlated as far as possible with the original samples.

What used to be a transmission line enclosure (you can still see where the opening has been blocked up) is now a braced box with front panel reflex port, while the main driver has a significantly larger cone than before, and the whole design is riddled with intelligent and painstaking attention to fine detail which helps justify a not inconsiderable price.

The box is very slim and tapers quite strongly from base to top, creating a pronounced slant for the baffle which helps aim the drivers upwards, an arrangement which often assists in creating an 'open' sound, and also ensures a good fore-and-aft stability footprint. Chunky metal blocks fixed to the base add useful mass low down and are drilled to accept hefty spikes.

The 20mm MDF box is nicely real wood veneered except on the back. A crossbrace connects the sides and also links mechanically to the main driver magnet via two lossy bungs. The interior is lightly damped with a complex mixture of different fibres and densities, and a quite complex high quality hardwired crossover is used.

The tightly bolted main driver uses a cast frame and heavy magnet to drive a 120mm doped paper cone, while a closely woven fabric covers the back of the unit to add acoustic resistance and control excessive driver excursion. The 19mm soft dome tweeter nestles at the centre of a thin foam disc several centimetres across, which should help absorb secondary baffle radiation.

Sound quality

Based on the samples originally supplied, the *Abbot's* listening test result was a disappointment, largely I suspect in reaction to the distinctly uneven balance and the consequent colorations. Most found the sound quite communicative with plenty going on, but rather uncouth at the same time, with aggressive mid forwardness, some fierceness and hardness at the top end, and a rather hollow bass.

Sighted listening on the second samples started off enjoyably enough, the sound having an attractive agility with fine dynamics and transient coherence that is fundamentally entertaining. But the balance anomalies remain, and gradually become increasingly intrusive as one becomes aware of a lack of warmth, a somewhat inconsistent bass and a rather hyped and nasal midband. It's sweeter, clearer and more coherent than before, and can match the best in this regard, but there's no avoiding the consequences of the uneven balance.

Conclusion

Neutrality is not the be all and end all of loudspeaker evaluation by any means, but it is certainly an important factor nonetheless, and one that catches the *Abbot* out. It's still a highly enjoyable, dynamic and communicative loudspeaker, but a flawed one for all that.

The £666 *Abbot* is the smaller and less expensive of two new floorstanding models which Royd recently introduced to replace the longstanding *Apex* (reviewed in issue 78). The *Abbot* is really the direct replacement, featuring the same cabinet dimensions as the earlier model, but differing in almost every other detail.

Contact

ROYD LOUDSPEAKERS CO
LTD. UNIT B2. STAFFORD
PARK 15, TELFORD, SALOP.
TF3 3BB

0952 290700

Verdict

+ Pretty package with a good sense of rhythm and drive.

- Uneven balance is the cause of significant coloration.

▶ £666.00 RRP

TEST REPORT

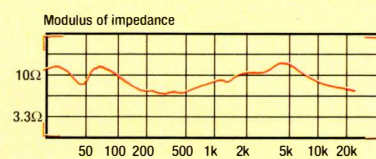
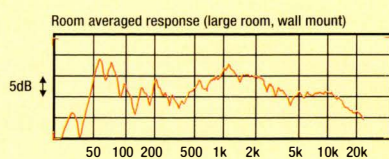
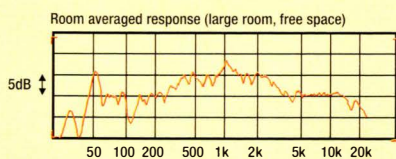
I measured the original pair, and then the current pair. There is a difference between them, but it's subtle, and nowhere near as obvious as the significant departures from a neutral in-room frequency balance which both pairs showed.

How important neutrality really is has been debated for years. For some it's the be-all and end-all; others consider it of little consequence, especially as the ear tends to make its own compensation after a little practice. And while I don't subscribe to the 'flatness uber alles' school of thought, it's still an important factor, and the *Abbot's* distinctly 'three-humped' character with its peaked up upper midband and lack of upper bass and lower mid energy is certainly less even than the earlier *Apex*, which doesn't get it off to a good start.

The positive side is a healthy c87dB sensitivity and a very easy amplifier load, but tuning the reflex port to 48Hz means little serious bass output below 50Hz, even though this does optimally control the driver/box resonance.

TEST RESULTS

Size (h x w x d)	83x20x31 (max) cm
Weight	15 kg
Recommended amplifier power	15-90 W
Recommended placement	quite close to wall
In room averaged response limits	
50Hz-10kHz	±7 dB
Large room/space LF rolloff (-6dB ref midband)	43 Hz
Large room/wall LF rolloff (-6dB ref midband)	43 Hz
Large room output at 20Hz (ref midband)	below -16 dB
Estimated midrange sensitivity (ref 2.83V, 1m)	88 dB
Impedance characteristic (ease of drive)	very good
Typical price per pair (inc VAT)	£666



Oxford Audio Consultants

HI-FI SPECIALISTS



Our superb service is the same,
regardless of price.

SONUS FABER MINIMA AMATOR

THE LATEST GEM!

NOW DEMONSTRATING

TEAC VRDS 10 CD PLAYER
SEQUENCE LOUDSPEAKERS
AUDIO ALCHEMY DTI - connect btn cd 9 d/a convertor for a big improvement
VAN DEN HUL THE FIRST CABLE
THETA DATA 2/DS Pro Prime
AUDIO RESEARCH LS3 PREAMP
AUDIO RESEARCH LS2B
COPLAND CTA 401
KRELL KSL preamp & KRELL KST 100 power amplifier
HEYBROOK SIGNATURE AMPLIFIERS & LOUDSPEAKERS
AUDIO RESEARCH V70 POWER AMPLIFIER
PROCEED SERIES 3 CD DIGITAL PROCESSOR & CD TRANSPORT
REVOX EVOLUTION AUDIO SYSTEM
WADIA - latest range on demonstration
LYRA LYDIAN CARTRIDGE - simply stunning!
SONUS FABER MINUETTO/ELECTA/AMATOR/EXTREMA
MICHELL GYRODECK - Still a Classic!
MUSICAL FIDELITY PREAMP & TYPHOON
MAGNUM PREAMP & MONOBLOCK POWER AMPS
MICHELL ISO/ARGO
REL STADIUM SUBWOOFERS
HARMONIX ACCESSORIES

NOW DEMONSTRATING

Ex Dem & P/ex Bargains

MERIDIAN 206 B CD PLAYER - MINT £895
CLASSE DR6 PREAMP - MINT £1995.00
CLASSE DR9 POWER AMPLIFIER - MINT £1995.00
BEARD BB1 BB100 11 £795.00
KRELL KSA 50 £895.00
REVOX H6 TUNER £595.00
AUDIO RESEARCH CLASSIC 60 new valves £2495.00
THETA DS PRO PRIME D/A as new £995.00
MARANTZ PM80 AMPLIFIER £299.00
PIONEER PD8700 £225
REVOX H11 cassette deck £595.00

Please ask for details or our current list

Agencies include: Audio Research, Apogee, Air Tangent, Koetsu, Krell, Magneplanar, PS Audio, Sonus Faber, Audio Technica, Goldring, Marantz, Micromega, Ortofon, Rogers, SD Acoustics, Stax, Thorens, Wharfedale, Kimber, Sennheiser, Slate Audio, Target, QED, van den Hul, NAD, Nakamichi, SME, JPV, Revox, Dual, Pioneer, Proceed, Onix, Teac, Rotel, T.D.L., Ruark, Acoustic Energy, Audio Alchemy, DPA, Musical Fidelity, Accuphase, Basis, Wadia, Theta, Sequerra, Castle, Heybrook, Copland, Denon Cartridges, ART Accessories, Harmonix, Lyra, Feismic Sink

TAX-FREE EXPORT SERVICE
MAIL-ORDER AVAILABLE ON MANY ITEMS.

Open Mon-Sat 10am-6pm.

Oxford Audio Consultants

Cantay House, Park End Street, Oxford OX1 1JE
Telephone: Oxford (0865) 790879
Facsimile: Oxford (0865) 791665

V'AUDIO

36 Druid Hill, Stoke Bishop, Bristol BS9 1EJ
0272 686005

AMPLIFIERS & SPEAKERS

It is reasonable to state that our main expertise is in the creation of symphathetic systems and in particular, in the mating of amps and speakers, which is of vital importance. That is why I regularly get annoyed when someone rings me up to enquire what speakers I would recommend to go with the amplifier he has just bought. That is not the way to do it!

Which is one reason why we only stock a limited range of speakers; that way we know them thoroughly and can get the best out of them. And they all have their own peculiarities. The **Ruark Tallisman**, for example, really needs a better amplifier than most people would use on a speaker in this price bracket, and the **AVI Preamp & 90 watt Stereo Amp** is ideal here (with the mono blocks if can afford the extra). However, the new little **Ruark Templars** and the **AEG15 Model 1**, are far easier to drive and sound amazing with the **Analogue Electronics Jupiter Amp & AMC CD6 Player**. An amazing bargain for £1100. The **Cadence Valve Mono Blocks** are great with the **ATC SCM 10 and 20** models, as an alternative to the **AVI's**, while **Quad ESL63** owners really should hear the **AVI Amps**.

The SPEAKER Company

For all your needs in DIY speaker and crossover construction

We offer a large range of speaker chassis and crossover components for hi fi, car audio, public address & studio uses. The Speaker Company also offers a range of specialist services.

Hi-Fi chassis speakers, crossover's, cabinet kits, cable, cabinet damping materials, spike kits etc

Car Audio chassis speakers, crossover's, sub bass cabinets and amplifiers.

Public Address chassis speakers, crossover's, mixers, amplifiers, cabinets, microphones and stands.

Plus a comprehensive range of accessories

Chassis speakers by

Audax, Seas, Morel, Rcf, Kef, Elac, Rcl, Richard Allan, Fane, McKenzie, Celestion, Eminence, Peerless, Volt, Altai, Soundlab, P.H.L. Please phone or post for a copy of our free comprehensive catalogue and price list which includes hints and tips on DIY loudspeaker construction.

Unit 9, Waterside Mill, Waterside
Macclesfield, Cheshire SK 11 7HG

Tel: 0625-500507

Fax: 0625-500508



All goods dispatched within 24 hours subject to availability

Open 9am to 6pm Monday to Friday & 9am to 4pm Saturday

Ruark Talisman 2



The original *Talisman* was one of the first of the currently very fashionable compact floorstanding loudspeakers to appear. The new £700 *Talisman 2* is a similar price and shape to its predecessor, but the aesthetics are dramatically different, with a rather more fussy Regency mahogany with scalloped edging that I somehow managed to get

into the house, staggering under the surprising weight.

Which highlights the mildly controversial issue of mass-loaded review samples. Quite a number of brands these days — Tannoy and Monitor Audio to name just two — make provision for the enthusiastic purchaser to add some sort of ballast in order to increase the mass loading of the cabinet as a whole. To my knowledge none actually supply said ballast or specify the type or amount to be used, leaving the latter up to personal taste and suggesting lead shot and/or sand, variously obtainable from gun or fishing tackle shops and builder's merchants.

Since this quite simple modification can improve a loudspeaker, there's some justification for applying it to review samples. Since the whole procedure is so very ad hoc, is unlikely to be carried out by the dealer, and since I'm not planning to mess around for hours with funnels, sandbags and what have you for those that arrive untreated, it might be seen as stealing a march on the competition. Certainly *T2* arrived with nearly 10kg of extra ballast added to its estimated and far from inconsiderable 17kg shipping weight, and you can make your own judgement as to whether this review is therefore entirely representative and valid.

A little plinth and a stout metal plate provide a good spike footprint for such a

compact enclosure, while a slight baffle slant should also aid acoustic projection. The grille is sensibly chamfered, but the speaker looks good with or without. Brass allen bolts were usefully tight, especially on the main driver, which has a very large magnet, cast frame and 120mm paper cone. Treble is handled by a 25mm soft dome device.

The enclosure is very strongly constructed, the front and back sections overlapping and stiffening the periphery, while all sorts of other braces play their part, and all is filled with light damping. The front baffle is 20mm MDF, accommodating a small damped port just below the main driver, and bi-wire terminals feed a quality crossover and classy drive wiring.

Sound quality

Well liked by the listening panel, the *T2* doesn't particularly excel in any single respect, but nevertheless makes a fine fist of all the various and often conflicting attributes of loudspeaker performance. One can criticise timing and transient coherence, but only mildly, and the slightly mid forward balance, likewise. The bass end is dry and solid, if a shade overhung, any or all of which might be attributable to the mass loading, while the treble is incisive if a touch sparkly.

But all these limitations are relatively minor and therefore quite tolerable, while the ultimate end result is both engaging and communicative, capable of generating convincing stereo with good focus.

Conclusion

The *Talisman 2* shows subtle but worthwhile improvements over the original, and continues to represent one of the prettier and better balanced examples of the compact floorstanding breed. Recommendation continues.



Contact

RUARK ACOUSTICS LTD.
ANNWOOD IND EST.
ARTERIAL ROAD, RAYLEIGH.
ESSEX SS6 7UA

0268 728890

Verdict

- +** Performance strong in most areas, lovely cosmetics.
- A bit pricey, and maybe needs mass damping to give its best.

▶ **£700.00 RRP**

TEST REPORT

Comparison with our original *Talisman* review shows that the technical changes between that model and this *Mk2* version are fairly subtle, and the basic outline performance parameters turn out to be much as before.

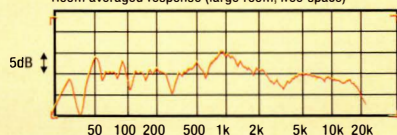
And fortunately, such changes that have been made would seem to be in a positive direction, and are at least partly successful in addressing the two main criticisms directed at *T1*, namely limited bass output and midband unevenness. The bass is still a little short of real extension and weight, but no longer needs as much wall reinforcement to balance the midband, while the midband itself remains a shade forward and isolated, but is certainly smoother than before.

The overall response shows a mild 'three-humped' tendency which will certainly be reflected in subjective character, while above 1kHz the balance tilts downwards, falling to -7dB at the 3kHz crossover notch, but recovering four of these decibels thereafter through the mid-treble.

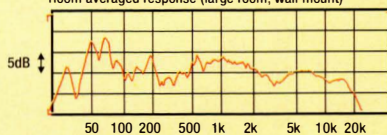
TEST RESULTS

Size (hwxwd)	86x25(max)x31(max)cm
Weight	26.5kg (inc. est. 9.5kg ballast)
Recommended amplifier power	20-80W
Recommended placement	1-2ft from wall
In room averaged response limits	
50Hz-10kHz	±5dB
Large room/space LF rolloff (-6dB ref midband)	30Hz
Large room/wall LF rolloff (-6dB ref midband)	28Hz
Large room output at 20Hz (ref midband)	-13dB
Estimated midrange sensitivity (ref 2.83V, 1m)	86dB
Impedance characteristic (ease of drive)	very good
Typical price per pair (inc VAT)	£700

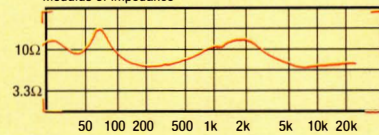
Room averaged response (large room, free space)



Room averaged response (large room, wall mount)



Modulus of impedance



Special Subscription Offer!



This month we are offering you an amazing deal on the next four issues of our sister mag, Home Entertainment. Launched back in December last year, Home Entertainment is the ultimate

While other magazines may give token coverage to matters audio-visual, Home Entertainment is Britain's only dedicated home cinema magazine. Packed with reviews of A/V amplifiers, videos, TVs and Laserdisc players, its the ideal entry into the wonderful world of home cinema. If you are interested in films, there is also a comprehensive film review section, covering both widescreen video releases and Laserdiscs.



For the measly amount of just £9.95 we'll send you the next four copies of Home Entertainment, tastefully encased in state of the art plastic wrappers. The subscription rate for Europe is a mere £19.95, while the rest of the world has to pay a paltry £24.95.

As Home Entertainment is published every three months it can be a bit of a problem remembering when the next issue is due. If you become a subscriber it will automatically drop onto your mat, thus saving those embarrassing moments when you walk into the local newsagent demanding a copy of Home Entertainment, only to discover that the next issue isn't due out 'till next month.



By taking advantage of this amazing offer you can be sure to receive every issue of Britain's favourite, and indeed only, dedicated Home Cinema magazine. Please don't delay as this offer closes on June 4th, 1993.

By taking advantage of this special offer you get:

- Every issue of Home Entertainment delivered to your door.
- A substantial saving over the newstand price.
- Something through your letter box that isn't either junk mail or a credit card bill.



Priority Subscription Form.

Yes please, rush me the next four issues of Home Entertainment

I enclose a cheque/postal order for £..... made payable to Dennis Publishing Ltd

Please charge my Access Visa Account number

Expiry Date

Signed Date

Address to which you wish your magazines to be sent

Mr/Mrs/Ms Surname First name

Address.....

Postcode.....Daytime telephone number

PLEASE TICK THE SUBSCRIPTION YOU REQUIRE:

UK, £9.95 Europe/Eire, £19.95 Rest of the world, £24.95

I want to start my subscription with issue 1 (Dec 92) 2 (March 93) 3 (June 93)

If you live in the UK, then please send your completed form to:

Home Entertainment, Subscription Department, Freepost WD7, Bristol, BS3 2BR

For subscribers outside the UK, please post your form to:

Home Entertainment, Subscription Department, Charnwood House, Marsh Road, Bristol, BS3 2NA

Subscriptions hotline - 0272 537711

You can also fax your forms to us on 0272 537722

SDHC305A

Snell Type J/III



The Snell Type J is something of a hi-fi legend, being one of a range of very successful designs conceived in the Seventies by the late Peter Snell. A few years back it looked likely to disappear forever, so the then UK importer decided to manufacture a replica from local components. This was — and is — sold as the AudioNote AN-J, has long been an office favourite, and was reviewed in issue 110.

But US manufactured Snell speakers are again available in the UK, and the Type J is available again as the £770 Type J/III. The samples which arrived were clearly well travelled demonstrators, with a diamond shaped Sixties style badge on the grille that reminded me of teak veneer and

Tygan grille cloth. Sadly, the grille itself is a pretty horrid thick frame affair. The shape is nostalgic too, a big, bluff baffle yet quite slim front to back, and distinctly larger than most of today's models intended for stand mounting.

But the laws of acoustics are not subject to the vagaries of fashion, and classic loudspeakers can often show more recent designs a thing or two (or three). Certainly the AN-J proved fully competitive less than a year ago, so this very similar official version is clearly in with a good chance.

The real wood veneered box is built up from decent 19mm panels, braced front to back, filled with a quite hefty asymmetrically placed lump of wadding, reflex loaded by a modest rear port and

connected via bi-wire terminals. There's also an adjustable tweeter level potentiometer — a rare feature these days, partly because many feel such a device compromises sound quality, but one which was (and maybe still is) especially popular in America.

The crossover itself is generously rated, hardwired and well distributed, but quite complex, and is connected to the drivers with heavy Monster cable. The drivers are rebated into the baffle, and their mounting screws could have been tighter. The main unit is actually European in origin, has a cast frame, a decent size magnet and a 150mm lightly doped paper cone, while the tweeter uses a 25mm soft dome.

Sound quality

Given the good overall balance, the J/III proved an unexpected disappointment in the listening test, despite experimenting with different stands. One panellist was so upset by "very frown provoking" stereo imaging that he declined to register a score at all. There was praise for the good scale and lively dynamics, but criticism that the bass was too full and poorly timed.

Even with the flexibility of hands-on listening, I never quite made this speaker swing the way I'd hoped. With careful placement it can use its size well, delivering a good measure of authority alongside a lovely expressive midband. But the bass is more relaxed than invigorating, and the treble is a little smeared and spitty too.

Conclusion

Pretty it's not, but this is a fine loudspeaker in a great many ways. The unusual combination of good sensitivity, easy load and extended bass is very well suited to valve amplifier drive, though the sound of our well used samples might have been tighter and more coherent.

Contact

SEYMORE AUDIO, SUITE 4,
1-3 HAYWRA CRESCENT,
HARROGATE, NORTH
YORKSHIRE HG1 5BG.

0423 528 537

Verdict

- + Fine bandwidth, and sensitivity, lovely midrange expression.
- Unattractive styling, could be tighter and more coherent.

▶ **£770.00** RRP

TEST REPORT

The similarity between this official J/III and the AN-J is remarkably close, differences being only fine details. The Snell port is tuned to a slightly lower — and very low — 25Hz, and the natural driver/box resonance also occurs a few Hz lower too. The in-room responses are slightly smoother too, especially through the midband.

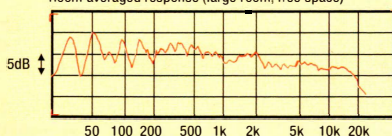
Whatever the comparative fine detail, the basic parameters are most impressive, combining high sensitivity with an impedance that only dips briefly below 6ohms and exceptionally good low frequency extension. In which context, the fact that the free-space in-room trace is as flat as any is most creditable.

The potentiometer fitted next to the terminals has a treble adjustment range of ± 5 dB, but only above 4kHz, so it cannot be used to trim out the mild crossover notch (measured at the nominally flat position). At which setting the bass and midrange decades are beautifully matched for average level, while the treble is stepped down a modest 3dB or thereabouts, and is similarly smooth and flat.

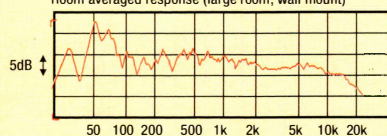
TEST RESULTS

Size (hwxwd)	58x33x25cm
Weight	13kg
Recommended amplifier power	15-100W
Recommended placement	clear of walls
In room averaged response limits 50Hz-10kHz	± 5 dB
Large room/space LF rolloff (-6dB ref midband)	22Hz
Large room/wall LF rolloff (-6dB ref midband)	22Hz
Large room output at 20Hz (ref midband)	-7dB
Estimated midrange sensitivity (ref 2.83V, 1m)	89dB
Impedance characteristic (ease of drive)	fairly good
Typical price per pair (inc VAT)	£770

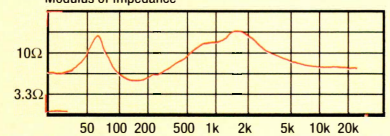
Room averaged response (large room, free space)



Room averaged response (large room, wall mount)



Modulus of impedance



Northwood



A U D I O
Hi-Fi Specialists

**10% FREE
ACCESSORIES WITH ANY
PURCHASE OVER £200**

*Can't separate the wood from
the trees?*

*Come and audition the very
best that Hi-Fi has to offer and
let your ears hear music like
they've never heard before!*

RUARK, ALBARRY, ROTEL, CELESTION, NAD,
TANNOY, MICROMEGA, GYRODEK, HEYBROOK,
MARANTZ D.C.C./A.V., PIONEER, EXPOSURE,
AUDIOLAB, MERIDIEN, AUDIO INNOVATIONS,
TDL, MISSION, HECO, THORENS, DENON, KEF,
TARGET, CREEK, CANON, AUDIO ALCHEMY,
SEQUENCE, plus many more
BOTH BRANCHES NOW HAVE 2 DEM ROOMS

126 Pinner Rd, Northwood
Middx HA6 1BP.
Tel: (0923) 820877.

NEW BRANCH NOW OPEN AT:-
98 Cambridge Street
Aylesbury, Bucks HP20 1BP
Tel: (0296) 28790.

ATACAMA AUDIO SUPPORTS

A New Innovation in Audio Furniture Design,
manufactured to the highest quality standards.

The "SE" range of speaker supports are designed to complement
your speakers, and more importantly, offer uncompromised
Audio performances.



Five models in the standard range: sizes 8", 12", 16", 20" & 24" high.

A further three specialist stands for "Tannoy Sixes"
loudspeaker models 603, 605, 607 & 609.

All stands can be filled with sand, shot or other suitable medium.
Each stand is supplied with adjustable carpet spikes, with top spikes
being available as an option.

Please ring for your nearest stockist or send a S.A.E. for
your free illustrated brochure.

Manufactured by: Sambell Engineering Ltd
Winston Avenue, Croft, Leicester LE9 6GQ
Telephone: (0455) 283251 Facsimile: (0455) 283908

Loudspeakers to live with . . .

Loudspeakers have always been one of the most difficult
items to get right in a system. They are the least accurate
component, create the most distortion and interact strongly
with the room, not surprisingly producing fierce likes and
dislikes among listeners. Something which is not always
recognised is that they also interact *both ways* with the
amplifier, feeding back a signal which can affect the
amplifier's performance. Matched with the right equipment
the following speakers can provide **long-term** musical
satisfaction, and they all thrive on valve amps.

NEAT Petites Under-rated little beauties, they deliver a wide,
deep, natural soundstage. Very revealing and perfectly at home in
systems up to 10 times their price. A "super" version soon . . . ?

Pentachords Another wide, natural soundstage and, with the
separate bass unit, they give deep bass which for once keeps pace
with the main drivers.

Diamond Acoustics Reference IIIs Recent improvements
have greatly tightened up the bass region of these beautifully
veneered, sensitive floorstanders to give a big, dynamic sound,
even on very few watts.

Diamond Acoustics Reference II Mk 2s These are killers in
looks and sound. Also recently improved, the IIIs' dynamics are
awe-inspiring, yet the speakers ultimately involve the listener even
more than they impress. Work wonderfully with **Lumley 120** amps.

Free system assessments and home demonstrations anywhere in the West
Country and Wales. Try new items in your own system before you buy.
Agencies: sources: Orelle CD, Transfiguration, Basis, Magnum Dynalab
tuners; *amps:* Cary, CAT, Concordant, Lumley, MAS, Michell;
speakers: Diamond Acoustics, NEAT, Pentachord; *cables:* Cogan Hall,
Silver Sounds, Sonic Link; *supports:* Mana Acoustics, Seismic Sink.

The Right Note Bath (0225) 424334

Tannoy 607



Sitting just below the middle of Tannoy's seven strong range of Sixes models, the £200 607 is just one step up from the 605 which was Recommended a year ago in issue 106. The 607 is, however, slightly larger in volume, since it shares the same cabinet-network as the Best Buy £250 609 (reviewed in issue 102), the £50 lower price here accounted for by the use of a conventional woofer and tweeter two-way driver line-up, rather than the dual-concentric unit which is found in the more expensive model.

All the Sixes share the same unique hexagonal enclosure, which is presumably a major reason for the considerable commercial success the whole range has been

enjoying since it was launched. As well as looking attractively different, the shape has positive acoustic and mechanical advantages too.

Inherent rigidity is high; the actual baffle quite narrow and the internal horizontal standing waves are better distributed than in a cuboid shape. The front, back and sides make up a 19mm chipboard wrap, while plastic mouldings fill in the top and base, the former with a decorative laminate, the latter allowing some mass loading to be added. A smart enough moulded frame grille should do little harm, but the tweeter has its own removable protection too.

The material content consists of a decent size magnet on a pressed steel

frame driving a 150mm moulded plastic cone, plus a 24mm metal dome tweeter, all secured by tight substantial woodscrews. Inside, a long brace links the top to the base, and presses against the main driver magnet along the way via a lump of evil looking damping gunk. The enclosure is reflex loaded using twin ports at top rear, and lightly filled with absorbent fibre. Bi-wire terminals can separately feed the direct-coupled, tag connected main driver and the simple hardwired network en route to the tweeter, and may be joined together via captive links.

Sound quality

Most of the Tannoy Sixes have auditioned rather well in our panel listening tests, and the 607 proved no exception, recording a top ten place in the rankings despite a pricetag that is right down in the bottom five.

It's not a great loudspeaker — the treble is altogether too dull and shut in for that, and there is a degree of overall timesmear to contend with — but it does have a measure of authority, drive and dynamic freedom at low and mid frequencies which can match many models at twice the price, and somehow manages (perhaps through the unorthodox cabinet) to sound distinctly less boxy than the majority of modestly priced large bookshelf size models.

Conclusion

The sound of the Tannoy Sixes range certainly lacks a degree of sparkle and will not be to every taste, but the 607's freedom from shut-in and boxy effects and its general willingness and enthusiasm makes a very refreshing change among today's budget price speakers, and so helps the company chalk up yet another Best Buy rating.



Contact

TANNOY LTD, ROSEHALL INDUSTRIAL ESTATE, COATBRIDGE, STRATHCLYDE ML5 4TF

0236 420 199

Verdict

- +** Freedom from boxiness, good low frequency dynamics.
- Lack of treble energy keeps sound a bit shut-in and coloured.

▶ £200.00 RRP

TEST REPORT

The similar drive unit and cabinet configurations inevitably result in close family resemblances between the measurements of the Sixes. The conventional two-way 607 is therefore very similar to the slightly smaller 605, the main difference being an increase in sensitivity of a very worthwhile 3dB.

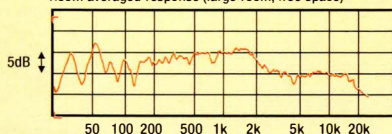
In context therefore it is hardly surprising that bass extension is very similar, although you do get a little extra here, the 607 following a similar pattern to the dual-concentric driven 609 which shares the same cabinet volume, and Tannoy's rather effective technique of deliberately tuning the port to a lowish 35Hz, gaining extra bass extension.

Low frequency alignment favours near free space conditions, about 2-3ft from the wall giving a very good overall balance from extreme bass right up to the point where the crossover starts to happen, around 1.5kHz. Above that point the treble starts to fade quite rapidly under far-field measurement.

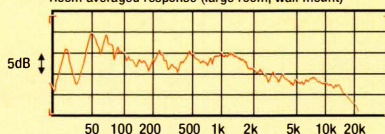
TEST RESULTS

Size (hwxwd)	50x32x23cm
Weight	7kg
Recommended amplifier power	15-90W
Recommended placement	2-3ft from wall
In room averaged response limits 50Hz-10kHz	±5dB
Large room/space LF rolloff (-6dB ref midband)	25Hz
Large room/wall LF rolloff (-6dB ref midband)	25Hz
Large room output at 20Hz (ref midband)	-9dB
Estimated midrange sensitivity (ref 2.83V, 1m)	88dB
Impedance characteristic (ease of drive)	very good
Typical price per pair (inc VAT)	£200

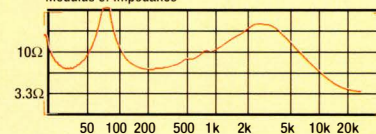
Room averaged response (large room, free space)



Room averaged response (large room, wall mount)



Modulus of impedance



TDL Studio 1M



floorstanding Studio 0.5 (reviewed in issue 94) up to devices of positively gargantuan dimensions and pricetags.

The *Studio 1M* examined here is actually several steps up the ladder from the 0.5, and not the direct replacement for the *Studio 1* (reviewed in issue 78) which the nomenclature first led me to suspect. The *Studio 1* now costs £649 (up from £549 three years ago), whereas this *1M* costs an altogether more substantial £900, accounted for by the use of metal diaphragm drivers throughout, a much more costly crossover, and an altogether larger and heavier enclosure.

There's also the matter of floor coupling to consider, since TDL doesn't provide the low cost solution of fitting adjustable spikes directly into the base of the speaker. Instead a metal frame stand is an elegant and effective £75 option which further extends the stability footprint.

The grille is a rather daft affair, but the all round real wood veneer is pretty enough and the delicate 28mm metal dome tweeter is well protected beneath its own mesh. Gold-plated bi-wire/amp terminals feed a complex (fourth order) high quality crossover and the drivers via high grade heavy cables.

The enclosure is built from 15mm MDF, mass-loaded and damped by bitu-

minous pads and stiffened by the three-fold line that snakes and tapers via a cocktail of damping material from behind the main driver to its exit at the floor. The well bolted main driver has a cast frame and generous magnet, driving a 125mm cone/plug diaphragm.

Sound quality

The *1M* did well, but not that well in the listening tests. The panellists identified its characteristics with unusual consistency and accuracy, but then each member reacted individually to the different strengths and weaknesses. The bass, for example, received praise for its quantity and extension, but not for its slightly slowed and 'rubbery' quality and a degree of detachment.

But the real strength of this design is its wonderful vocal band clarity and articulation, which drew unanimous praise. Somehow the line's very effective absorption of main driver rear radiation seems to provide an ideal environment for the mechanical coherence of the metal diaphragm. The balance is a little bright, lean and thumpy, and dynamics could have more life, but the whole thing somehow transcends the details to provide a lovely relaxed and unforced transparency, albeit one that demands plenty of driving power from the amplifier.

Conclusion

Arguably a little too characterful for its own good, this TDL combines transmission line bass loading techniques with the metal diaphragm main driver to very good effect indeed, deserving *Hi-Fi Choice* Recommendation for its vocal rendition alone. The bass character and lowish sensitivity may not suit committed rock listeners, but the easy openness up the band is a seductive proposition.



Contact

TDL ELECTRONICS,
PO BOX 98, HIGH WYCOMBE,
BUCKS
HP12 3AD

0494 441191

Verdict

+ Transmission line works well with metal diaphragm driver.

- Bass is rather detached, sound lacks warmth somewhat.

▶ £900.00 RRP

TEST REPORT

A brief glance at the in-room averaged response traces will be enough to show that the *1M* is very different from the loudspeaker norm. Even well out from any walls, output in the bass region below 100Hz is much stronger than usual — and output above 100Hz relatively weak.

Clearly wall mounting is entirely inappropriate here, but out in free space the balance from 60Hz upwards actually holds within very respectable ± 4 dB limits. The fact that the average level 20-60Hz is then elevated some 3-4dB is not necessarily a bad thing, since this is below most musical fundamentals and is far less likely to cause boomy effects than an obtrusive 50-150Hz band, for example.

Specifying the sensitivity is naturally difficult. The broad midrange and treble registers a mere 82-83dB, but is subjectively somewhat boosted by the heavier bass register. The response itself is rather uneven 100-700Hz but impressively smooth above that point.

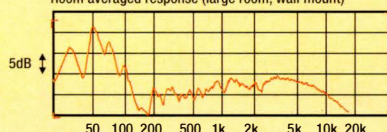
TEST RESULTS

Size (hxxwxd)	81x23x33cm
Weight	17kg
Recommended amplifier power	20-100W
Recommended placement	well clear of walls
In room averaged response limits	
50Hz-10kHz	± 7 dB
Large room/space LF rolloff (-6dB ref midband)	below 20Hz
Large room/wall LF rolloff (-6dB ref midband)	below 20Hz
Large room output at 20Hz (ref midband)	-2dB
Estimated midrange sensitivity (ref 2.83V, 1m)	84dB (est)
Impedance characteristic (ease of drive)	a bit tricky
Typical price per pair (inc VAT)	£900

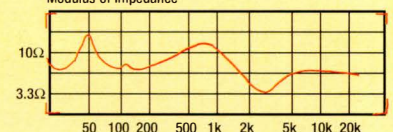
Room averaged response (large room, free space)



Room averaged response (large room, wall mount)



Modulus of impedance



Thiel CS1.2



My first close encounter with a Thiel loudspeaker was in the last group review (issue 114), wherein the cute little CS1 turned in a fine performance. The £1,219 CS1.2 is only a little more expensive, yet it's a full compact floorstander.

The 1.2 is unsurprisingly elegant and beautifully finished in real wood. It also has

a most exquisite acoustically streamlined integral grille — an artistic sculpture in MDF that should surely have been formally signed CNC Router. The whole thing is very slim front-to-back, especially at the top, thanks to a pronounced front baffle slant, which has all manner of positive acoustic and mechanical implications. It helps spread the standing wave frequencies formed inside the cabinet, helps a quite low enclosure project the sound upwards better, time-aligns the output from the drivers to the seated listener, and helps direct a component of the mechanical forces downwards into the floor.

The much fatter base of the enclosure gives a very firmly planted and stable impression, but this is slightly deceptive, because the actual fore-and-aft footprint between the three spikes is not that great, and the spikes themselves are also a trifle suspect in my view, since they slot rather than screw into place, with no lock-nut arrangement. Americans don't take spikes as seriously

as we Brits, but I suspect this rather feeble arrangement might well have compromised the CS1.2's sonic performance to some degree.

The box itself is wonderfully constructed for stiffness, with double thickness (c40mm) front driver mounting panel and four separate horizontal braces around the 25mm sides, light and carefully varied

damping, and a generous reflex port in the front. The cast frame and magnetically advantaged main driver has a 120mm plastic cone, the tweeter a c28mm metal dome, both held by tight woodscrews, and fed from a complex crossover with numerous special components sited just behind the main driver. The terminals are tucked underneath into the solid little plinth, which is good for concealment but a pain for the reviewer using stiff, heavy cables!

Sound quality

On first presentation the 1.2 polarised the panel quite strongly and evenly into those who liked it a lot and those that disliked it. This remains puzzling, especially since a second presentation to a different panel also led to some inconsistency.

Having also carried out extended hands-on work myself, I don't pretend to have the answer, but do suspect that the speaker itself is at least partly responsible for the paradox. It sounds wonderfully open and unboxy acoustically, and has a fine ability to reproduce a wide dynamic range. But this inherent transparency makes one somehow the more aware of a mild but intrusive time-smear and the slightly squashed upper range transient dynamics. The upshot is that a sound which is initially and cosmetically very inviting can turn out rather less satisfying on longer acquaintance.

Conclusion

I started out with great expectations, buoyed by the beautiful styling, superb build and fine balance. It's very good in a great many ways, and decent value for money besides. But the subjective doubts mitigate against formal recommendation, while encouraging those tempted by the delicious looks to try it for themselves.

Contact

MPI ELECTRONIC (UK) LTD.
WOOD LANE,
MANCHESTER
M31 4BP

061 777 8522

Verdict

- +** Beautiful and beautifully built, very open, even and clear sound.
- Not everybody's cup of tea, could be more communicative.

▶ £1,219.00 RRP

TEST REPORT

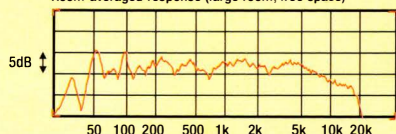
Despite the floorstanding configuration, this is not a large loudspeaker, the basic parameters showing a slightly below average sensitivity and fairly modest bass extension despite a resolutely current hungry amplifier load. The well-damped bass is assisted by a port tuned to 40Hz.

As the in-room traces show, by far the best low frequency alignment is achieved when the speaker is sited well clear of walls. Under such circumstances the in-room responses show a fine overall frequency balance, holding within close ± 3 dB limits across the most important part of the audio band (45Hz-8kHz). The bass is more even than most, although the lower mid could perhaps be a little smoother. The slightly forward upper midrange/lower treble (800Hz-6kHz) is particularly well handled, with almost seamless transition between mid and treble drivers, while the treble itself starts rolling off a little early from 6kHz, but very gently at first, before plunging rapidly above 15kHz.

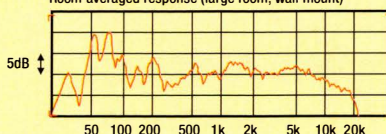
TEST RESULTS

Size (hwxwd)	94x26.5x26.5(max)cm
Weight	20.5kg
Recommended amplifier power	20-150W
Recommended placement	free space
In room averaged response limits 50Hz-10kHz	± 4 dB
Large room/space LF rolloff (-6dB ref midband)	30Hz
Large room/wall LF rolloff (-6dB ref midband)	28Hz
Large room output at 20Hz (ref midband)	-14dB
Estimated midrange sensitivity (ref 2.83V, 1m)	86dB
Impedance characteristic (ease of drive)	current hungry
Typical price per pair (inc VAT)	from £1,219

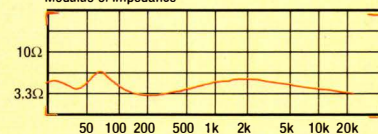
Room averaged response (large room, free space)



Room averaged response (large room, wall mount)



Modulus of impedance





SOUTH LONDON

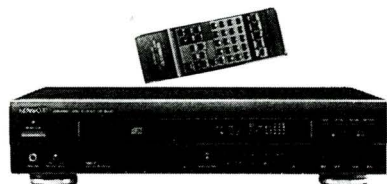


210 BRIXTON HILL · LONDON SW2 1HE
Tel: 081-674 4433/2033 · Fax: 081-674 1521

344 COLDHARBOUR LANE
LONDON SW9
Tel: 071-733 6893

161 CENTRAL ROAD
WORCESTER PARK, SURREY
Tel: 081-330 2018

- * Authorised Agents of many leading brands
- * Please call for the best prices of single items and system packages.
- * MAIL-ORDER & EXPORT facilities avail. (Mainland deliveries 24hrs)
- * Listen before you buy!! (Demo avail)
- * 0% CREDIT & EXTENDED FINANCE to personal callers.
- * For high quality and friendly service CALL US NOW!!!
- * OPEN 9.00AM-6.00PM Mon to Sat.



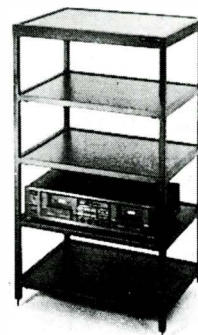
KENWOOD DP.5040 CD PLAYER

Dual 1-bit D/A converter; 8x Oversampling
Optical digital O/P; CD Pk. search, Random play
WAS £219.95 NOW £149.95



YAMAHA DSP-E200

Add on for 5-Channel Cinema DSP; Dolby Pro Logic, 4 DSP Modes,
3 Centre Modes; 25W RMS Centre, 25Wx2 Rear effect.



APOLLO/PREMIER HI-FI RACKS —
ALL REDUCED TO CLEAR FROM £49.95,
DELIVERY FOC

AMPLIFIERS	
Aiwa AX950	£229.99
Cerwin Vega HEB 60	£569.95
Denon PMA250 MkIII	£149.99
Denon PMA 450	£249.99
Kenwood KA3020	£159.95
Kenwood KA5040R	£299.95
Marantz PM72	£299.90
Marantz SC80	£499.90
Marantz SM80	£499.90
NAD302	£169.95
NAD2700 Monitor	£459.95
Pioneer A400	£269.95
Pioneer A300X	£219.95
Rotel RA920AX	£149.95
Rotel RA930AX	£179.95
Sony TAF440E	£199.99
Sony TAF540E	£249.99
Technics stacked	£259.95
Yamaha DSP CINEMA RANGE	

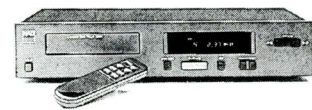
CD PLAYERS	
Aiwa XC750	£179.95
Denon DCD580	REDUCED TO CLEAR
Denon DCD590	£179.99
Denon DCD690	£199.99
Denon DCD1290	£329.99
Dual CD100	£149.95
Kenwood DP2030	£149.95
Marantz CD42II	£199.90
Marantz CD52mk2	REDUCED TO CLEAR
Marantz CD52SE	£299.90
Mission DAD5	£399.95
Mission DAD5 II	£399.95
Nakamichi CD4	£349.95
Pioneer PDS5801	£299.95
Rotel RC0955AX	£249.95
Rotel RCD965BX	£299.95
Rotel RCD965/LE	£379.95
Sony CDP797	£199.99
Yamaha CDX560	£299.95
Yamaha CDX660	£199.95

TURNTABLES	
CEC ST730 B/Drive, Disco	£89.95
Dual CS430	£119.95
Dual CS5054	£199.95
Dual CS5032	£149.95
Goodmans GSP600 auto return	£49.95
NAD5120	£99.95
Rotel RP830	£119.95
Systemdek 11X900 exc. T.A.	£239.00
Systemdek 11XE900	£329.00
Technics SL12001210	£325.00
Thorens TD166 Mk VI Rega	£279.90
Thorens TD180 inc. cart.	£159.90
Thorens TD280 MkIV	£219.90

Dual CV6030	£99.00
Denon PMA250 II	Was £139.95, Now £109.95
Denon PMA320	Was £159.95, Now £109.95
JVC FX311LB T	£89.95
Kenwood KT5020L T	Was £199.95, Now £129.95
Kenwood KR7030 AV	Was £299.95, Now £219.95
Kenwood KA7020	Was £349.95, Now £249.95
Marantz PM305E	Was £149.90, Now £99.95
Marantz PM80	Was £149.90, Now £99.95
NAD 1000 PRE	Was £179.95, Now £149.95
NAD 2100 AMP	Was £289.95, Now £209.95
NAD 2400 AMP	Was £389.95, Now £319.95
NAD 3225PE	Was £159.95, Now £119.95
NAD 3240PE	Was £199.95, Now £149.95
NAD4100 T	Was £209.95, Now £149.95
NAD 7020i	Was £209.95, Now £169.95
NAD 7250PE	Was £529.95, Now £399.95
Rotel RC8870BX	Was £219.95, Now £179.95
Rotel RA820BX4	Was £189.95, Now £129.95
Rotel RA840BX4	Was £249.95, Now £169.95
Rotel RT C850L	Was £309.95, Now £209.95
Rotel RT845AXL T	Was £149.95, Now £89.95
Rotel RT850AL T	Was £179.95, Now £109.95
Sony TAF170	Was £399.95, Now £279.00
Sumo Aurora T	Was £599.95, Now £439.95
Sugden A25	Was £179.00, Now £119.00
Technics ST5505 T (SLV)	Was £179.00, Now £119.00
Yamaha TX530L T	Was £149.95, Now £99.95
Yamaha AX330E	Was £99.95, Now £69.95
Yamaha AX430	£139.95
Yamaha CX50 PRE-AMP	Was £249.00, Now £193.00



KENWOOD KA7020: WAS £349.95 NOW £249.95



NAD5425: WAS £199.95 NOW £149.95



MARANTZ PM80: WAS £249.95 NOW £149.95
MARANTZ PM80. VERY SPECIAL.

CASSETTE DECKS	
Aiwa ADWX929 R/C	£199.99
Aiwa ADF810	£199.95
Aiwa ADF410	£99.95
Denon DRM510	£149.99
Denon DRM710A	£229.99
Denon DR810	£289.99
Denon DRW650	£199.99
Dual CC850 twin	£199.95
JVC TDW106 BK Twin-cass	£99.95
Kenwood KX1010	£199.95
Kenwood KX3050	£159.95
Kenwood KX7030	£299.95
Marantz SD40	£129.90
Marantz SD52	£199.90
Marantz SD415	£189.90
Marantz SD515	£349.90
NAD 6100	£299.95
Nakamichi 2	£289.95
Pioneer Stocked	£159.95
Rotel RD945AX	£249.95
Rotel RD965BX	£249.95
Sony TCK 620	£169.95
Sony TCK 590	£219.95
Technics RSBX626	£199.95
Yamaha KX260	£159.95
Yamaha KX360	£199.95
Yamaha KX650	£259.95

SPEAKERS	
Bose AM3 MK2. AMS MK2	
Boston HD Series Stocked	
B&W DM 6001	£169.95
B&W DM 6101	£219.95
B&W DM 6201	£369.95
Celestion III	£115.00
Celestion 5	£155.00
Celestion DL811	£185.00
Celestion DL811	£205.00
Celestion DL1211	£349.95
Celestion SL6005	£820.00
Cerwin Vega/DC RANGE AT 20.40.60.80.100	
Infinity RS Series	
Jamo Pro. 200/300/400	
JBL HP520	£109.95
JBL XE	£149.95
JBL XE 2	£149.95
Pro3	£199.95
JPW/Minim	£79.95
JPW Sonata (vinyl)	£99.95
Mission 760i	£119.90
Mission 761	£149.90
Mission 761i	£169.90
Mission 762i	£229.90
Mission 763i	£349.90
Mission 764i	£449.90
Cyrus 780	£199.95
KEF Series	
KEF Construction Series	
Monitor Audio 1	£149.95
Monitor Audio M1	£179.95
Monitor Audio M9	£219.95
Monitor Audio M14	£399.95
Mordaunt Short S5 Series	£119.95
Mordaunt Short MS5 10	£149.95
Mordaunt Short MS3 40	REDUCED TO CLEAR
Mordaunt Short MS5 50	£399.95
Rogers LS2A-1	£229.95
Rogers Studio 3	£449.00
Rogers LS4A-2	£289.00
Rogers LS6A-2	£399.00
Tannoy 603	£124.99
Tannoy 605	£159.99
Tannoy 607	£199.00
Wharfedale Diamond IV	REDUCED TO CLEAR

CD PLAYERS	
Denon DCD480	Was £149.99, Now £119.99
Denon DCD 580	Was £179.99, Now £129.99
Hitachi DA-009	£99.95
Kenwood DP5040	Was £219.95, Now £149.95
Marantz CD52	Was £199.90, Now £149.95
Marantz CD52SE	Was £279.90, Now £199.95
Marantz CD62	Was £299.90, Now £219.95
Marantz CD72	Was £399.95, Now £299.95
NAD 5425	Was £199.95, Now £149.95
NAD 5440	Was £299.95, Now £229.95
Nakamichi OMS1	Was £395.00, Now £259.95
Yamaha CDA450	Was £169.00, Now £119.95

RECEIVERS	
Denon DRA 345R	£249.99
Kenwood KR-V 7040	£299.95
Kenwood KR-V8040	£399.95
Marantz SR50L	£239.90
Marantz SR60L	£259.90
NAD 701	£259.95
NAD 705	£299.95
NAD 7020i	REDUCED TO CLEAR
Pioneer SX221R	£199.95
Rotel RX850	REDUCED TO CLEAR
Rotel RX-940AX	£279.95
Technics SA-GX530LK	£388.95
Yamaha RXV660P/LOGIC	£449.95

CLEARANCE COLUMN	
AR 152	REDUCED TO CLEAR
Boston HD5	Was £149.95, Now £119.95
Boston A60	Was £159.95, Now £99.95
Castle Windsor BK/TK	Was £639.95, Now £475.00
Castle Durham WNT/L OAK	Was £269.95, Now £199.95
KEF C30	£119.95
KEF C30	£119.95
Mission 761, 2, 3 and 4	ALL REDUCED TO CLEAR
Monitor Audio 352MD (inc. stands)	Now £249.95
Tannoy DC 100	Was £239.90, Now £139.95
Tannoy Venus II	£199.95
Rogers Studio 1ABK	Was £599.95, Now £499.95
Wharfedale Dia. 4	Was £119.90, Now £79.95

CASSETTE DECKS	
Kenwood KX68HX	Was £169.95, Now £109.95
Marantz SD45	£99.95
Marantz SD45 Mk2	£119.95
NAD 6100	Was £299.95, Now £219.95
Onkyo TAW450	£175.00
Pioneer CTW850	Was £249.95, Now £189.95
Pioneer CTW950R	Was £299.95, Now £229.95
Sony TCW9670	Was £179.95, Now £145.00
Sony TCK520	£169.95, Now £139.95
Sony FX110	£79.95
Yamaha KX260	Was £159.95, Now £129.95

TUNERS	
Aiwa XT950	£129.99
Denon TU260L	£119.99
Denon TU560	£149.95
Denon TU660L	£179.95
Kenwood KT1030	£109.95
Kenwood KT2030L	£139.95
Kenwood KT5020L	REDUCED TO CLEAR
Marantz ST40L	£119.90
Marantz ST50L	£149.95
NAD402	£149.95
NAD 4225	REDUCED TO CLEAR
NAD 4100 Monitor	REDUCED TO CLEAR
Pioneer F301 RDS	£189.95
Rotel RT930AX	£159.95
Rotel RT950BX	£199.95
Sony STS370L	£149.95
Sumo Aurora	REDUCED TO CLEAR
Teac TX3000	£99.95
Technics STG470	£155.95
Technics ST610	£99.95
Yamaha TX350L	£119.95
Yamaha TX550L	£199.95

MIDI/MINI SYSTEMS	
Aiwa NSX-330	£299.95
JVC UX-A3	£299.99
JVC UX1 Micro	£359.95
Kenwood M45 G	£729.95
Kenwood M58G/GPX	£699.95
Kenwood M85 G	£819.95
Kenwood M85 G	£1049.95
Kenwood UD500 M	£649.95
Kenwood UD700 M	£799.95
Kenwood UD900 M	£999.95
Pioneer J-5M	£1149.95
Technics SCH900	£888.95
Sony MFC-1700	£499.00

LOUDSPEAKERS	
Dual PA5030	£89.00
Dual CV 600	Was £149.95, Now £119.95
Dual CV 610	£89.00

CALL FOR COMPLETE LIST OF CLEARANCE ITEMS	
Ariston Pro Maxim Rega	Was £219.95, Now £189.95
Rotel RP830	£119.95

APOLLO CKD Column Stands	
14 inches	£59.00
18 inches	£59.00
24 inches	£70.00

SYSTEM RACKS APOLLO/PREMIER	
AT 1/R2	£49.95
AT 3/R3	£69.95
AT 4	£116.00
AT 5 R5	£99.95

ALPHASON-APOLLO-GOLDRING
SOUND ORGANISATION-TARGET
ALL AVAILABLE!!!

- * All systems include speaker cable
- * 5 Free cassettes with Cassette Decks
- * Please add £9.95 postage & packing on single item purchases

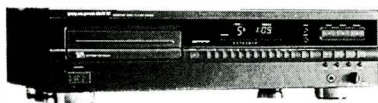
WE ARE ALWAYS COMPETITIVE - TELL US IF YOU CAN BUY CHEAPER. FREE STANDS WITH SELECTED SPEAKERS,
DELIVERY CHARGED ON CERTAIN PURCHASES. MAIL-ORDER ENQUIRIES PHONE BRIXTON HILL BRANCH FOR DETAILS



WHARFEDALE DIA IV

WAS £119.90
NOW £ 79.95

PREVIOUS WHAT HI-FI? -
BEST SPEAKER



MARANTZ CD52SE

WAS £299.90
NOW £199.95

BITSTREAM CONVERSION, DIGITAL O/P,
R/C. FTS1 & 2. DBus in-out



AR 152 VERY SPECIAL

WAS £499.95
NOW £159.95

HIGH QUALITY TWO WAY MONITOR,
8in POLY LF UNIT, BI-WIRE, 10-125W

Wharfedale 425



The grandad of British loudspeaker builders, Wharfedale has had more than its fair shares of ups and down in recent years, but if one single factor has helped the company through troubled times it's been the ability to build highly competitive large bookshelf size loudspeakers. The key model was the 505, which acted as the springboard for a number of variations on a similar size theme, including the current 515, whose price has crept up to £260.

Now that the 505 is no longer made, the 425 which is the subject of this review is in a very real sense its replacement, hitting the important £200 price point which makes such a generously proportioned package look like fine perceived

value for money.

The whole thing feels reassuringly solid, weighing in at a pretty substantial 7kg that has much less to do with the rather small main driver magnet than the substantial 25mm MDF baffle to which said driver is tightly woodscrewed. The box is sealed, which the technically sophisticated will realise allows a small magnet to be used, and filled with light wadding. The wrap is woodgrain vinyl covered 18mm chipboard, with extra stiffening supplied by an internal O-brace.

The main driver has a pressed steel frame and uses a 145mm textured plastic cone and wide, soft surround. The tweeter has a 25mm dome, metallic in appearance, and uses a plastic chassis. Bi-wire terminals

feed a simple PCB crossover with tag connections throughout.

The cosmetics have clearly received careful attention, reflected in the very neat end result. The drivers are rebated and mounting hardware concealed beneath trim rings, while the neatly chamfered and shaped moulded frame grille is held by slots created between the top and bottom of the baffle and two plastic trim strips which look a little odd (and fall off if you thump them on a doorway!). The baffle itself has postformed vertical edges, which always adds a touch of class.

Sound quality

The 425 did well in the listening tests, although more through its relative freedom from unwanted nasties than for any notably positive qualities it must be said. The sound is a little small and short of scale and weight, but the box itself is very well controlled and the balance very even throughout the bass and midband.

The adjective articulate appeared on several score sheets, and coloration is clearly well under control. A couple of panellists found the top end a little wispy and spitty, but others interpreted this as a sparkly openness. However, there is some overall time smear, and dynamics do sound rather squashed and flat, leading so some lack of drive, urgency and enthusiasm.

Conclusion

This is certainly a good loudspeaker for the money, though not a particularly exciting sounding one. It does just about everything reasonably well, is reasonably well designed and presented, and reasonably priced to boot. Clearly deserving confident Recommendation as the quintessential all-rounder for the price and size, I just wish it had a bit more fire in its belly and excitement in its soul.



Contact

WHARFEDALE
LOUDSPEAKERS LTD.
SANDLEAS WAY, CROSSGATE,
LEEDS LS15 8AL

0532 601222

Verdict

+ Very well controlled and nicely balanced all-rounder.

- Could have more fire and drive, a bit of a safe option.

▶ £200.00 RRP

TEST REPORT

As is so often the case with the larger bookshelf type models, the 425 should not be placed too close against the wall, for fear of inciting midbass boom. However, full free space siting leaves a rather lean balance, so somewhere between one and two foot away from a wall is likely to give the best net effect.

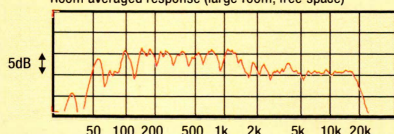
The in-room trends follow a familiar Wharfedale pattern, stepping down between the bass/mid and the treble unit through the presence region, some 3-5dB in this instance. The midband is quite flat and reasonably smooth, but the traverse through the crucial crossover region is rather less so.

Sensitivity is a generous 87-88dB, the more so because the amplifier sees a very mild impedance characteristic. However, bass extension is nothing special for a sealed box of this volume, thanks in part to network components which re-align the low frequency rolloff and limit the loudspeaker's response to very low frequency (sub-40Hz) signals.

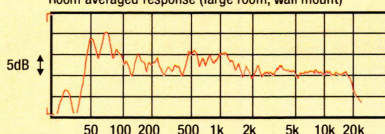
TEST RESULTS

Size (hwxwd)	40x26.5x26cm
Weight	7.5kg
Recommended amplifier power	20-80W
Recommended placement	1-2ft from wall
In room averaged response limits 50Hz-10kHz	±4dB
Large room/space LF rolloff (-6dB ref midband)	48Hz
Large room/wall LF rolloff (-6dB ref midband)	45Hz
Large room output at 20Hz (ref midband)	below -15dB
Estimated midrange sensitivity (ref 2.83V, 1m)	87dB
Impedance characteristic (ease of drive)	very good
Typical price per pair (inc VAT)	£200

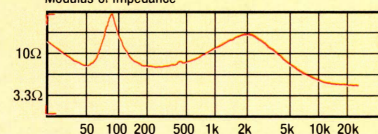
Room averaged response (large room, free space)



Room averaged response (large room, wall mount)



Modulus of impedance



Conclusions, Best Buys & Recommendations

This group of loudspeakers contained an unusual number of upmarket models, and relatively few cheapies, which certainly made the reviewing process itself entertaining. The skewed price perspective made comparative value judgements trickier than usual, but coincidentally the models themselves paired off to create several intriguing confrontations.

Half are formally Recommended, which represents a higher hit rate than the last couple of loudspeaker group tests, but a more natural Recommended rate for a component which offers far wider choice than any other in the hi-fi chain.

The recent decision to price-band the presentation of the reviews themselves is also much less appropriate to loudspeakers than electronics. Obviously price is an important factor in any selection process, but factors such as physical size, intended placement in (and size of) room, and indeed personal taste all loom much larger than when picking a CD player, for example.

One certain reason for the high average price is the rise and rise of interest in compact floorstanding models, a trend welcomed by manufacturers, dealers and the public alike, leaving just the speaker stand manufacturers sitting firmly on their hands.

Best Buys and Recommendations

With only five models priced below £300, there isn't the usual broad background against which to pick winners, but careful comparison back to previous group tests has enabled me to make what I believe are reliable and consistent judgements.

The only **Best Buy** is the £200 **Tannoy 607**, which is hardly unexpected as it (sort of) combines the bottom end of the 609 (BB) with the top of the 605 (R). It may be a little shut in and mid-projected for some tastes, but the bass and lower mid is definitely state of the budget price art.

Recommendations start with the only budget miniature in the report, the £120 **B&W 2001**, which is an unusually well balanced example of the breed, disguising its limitations very cunningly.

The £200 **Wharfedale 425** manages a similar trick on a rather larger scale, and this slightly cautious but very accomplished design could well match many budget systems even better than the Tannoy, since it's rather more neutral and a little less demanding.

Mid-price (£300+)

A rather arbitrarily chosen £300 price point will serve to divide the budget from the mid-price sector of the loudspeaker market, but only the **Heybrook Trio (£350)** is close to the cusp, and divided by it from its very similar BB **HB1S3** stablemate. The *Trio* packages the same drivers in a prettier enclosure, giving a more relaxed but slightly less committed sound.

Including both the **Harbeth HL-P3** and **Rogers Studio 3** (both £450) is a recognition that small is beautiful for both acoustic and lifestyle reasons, even if it means leaving the adjective 'loud' off the agenda. Both are included because both offer worthwhile improvement over their famous *LS3/5A* inspiration, but also because they're so very different from one another, despite sharing the same suit of clothes.

For much the same price you get a whole lot more speaker in the **Acoustic Energy Aegis Model 1**, but the high stand and necessary free space siting dictates that it will take up a lot more space in the room. Though not readily apparent, this too shows the influence of the *LS3/5A*, with low sensitivity and a very midrange and treble strong balance, albeit in an altogether richer sounding context.

No one could link the Japanese **Kenwood LS-500G (£500)** to the same BBC tradition. With highish sensitivity and dramatic dynamics, this is altogether much more of a party animal, if a bit edge-of-seat and lacking in deep bass by way of compensation.

The first floorstander to make the list is the latest version of an earlier favourite. The £700 **Ruark Talisman 2**, which came pre-loaded with ballast, succeeds because of the adroit way it steers between various, often conflicting, capabilities to give an all-round balanced result in a very pretty package.

The combination of a metal cone main driver with transmission line absorption makes the £900 **TDL Studio 1M** something rather special in midrange transparency and bass extension, though sensitivity is low so loudness is limited (or needs a massive amp).

Low sensitivity is also a feature of the £1,198 **Linn Kaber**, which has been much improved by its recent tweeter transplant (and new ceramic plinth). It can still sound a little boxy and indelicate, but the prodigious dynamic range and fine transient coherence give plenty of information.

Best Buy and Recommended Listing

The following chart summarises by price band the various Best Buy and Recommended loudspeakers tested over the past year. Selected alternatives from earlier review projects are also listed within each section.

Below £150

BEST BUYS

Celestion 1 (£109)

Performance and presentation are pretty basic but the sound is lively and entertaining, if a bit scrappy.
Also check out: Allison AL100, JPW Sonata (£115), JPW PIV (£135), Wharfedale Delta 30.2 (£100).

RECOMMENDED

B&W 2001 (£120)

Very evenly balanced for a miniature, but not the most dynamic or exciting sound around. Sharp looks. Cleverly engineered with attractively different shape 'wide' stereo and lively coherent sound; top end rough.

Canon S-30 (£150)

All round competence and a fine wall-mount balance plus a very keen price make up for some lack of drama.

Goodmans Maxim 3 (£110)

Fine overall coherence and timing lift the Prima ahead of the pack, though bass is not a strong point.

Heybrook Prima (£120)

Well presented and decent size box for the money, with lively sound that's a bit rough around the edge.

Jamo Cornet 50 (£150)

Cute and lively slimline tiny has good bass drive but a slightly shut in overall balance.

Mission 760i (£130)

Monitor Audio M1 (£150)

Not the best material value around, but this micro-miniature balances well within limited capabilities.

£150 – £250

BEST BUYS

Acoustic Research M1 (£199)

Unusual shape gives unusual spaciousness from stylish US miniature; balance is rather bright.

Rega Kyte (£198)

Superb timing and coherence but not much bass from pretty lightweight miniature; neat and cheap wall bracket.

Rogers LS2a/2 (£220)

Classy, traditional bookshelf size model has fine coherence and transparency with just a touch of richness.

Tannoy 607 (£200)

Pretty hexagonal cabinet helps keep bass uncongested, lively and free flowing; treble a bit shut in.

Also check out: Heybrook HBS1.

RECOMMENDED

Faraday FS1 (£225)

Rough and ready drivers and finish, but the concrete enclosure shows up the deficiencies of wooden rivals.

JPW AP2 (£180)

Real wood veneer and very classy build for the price plus a balanced performance that does most things well.

Tannoy 605 (£160)

Medium bookshelf size smart hexagonal box is a little shut in and stand sensitive but nicely unboxy too.

Wharfedale 425 (£200)

Solid and very well balanced traditional large bookshelf model is very well behaved but a little bland.

ZYP A1 (£199)

Metal-cased micro-miniature lacks bass welly and loudness, but dynamics are surprising and it's plenty of fun.

Also check out: Allison AL110, Castle Trent, Celestion 7, Heybrook Solo, Infinity 10, JPW P1 and AP3.

£250 – £450

RECOMMENDED

Celestion 15 (£389)

A big box at a modest (but recently increased) price; a bit rough in presentation and sound, but lively enough.

Harbeth HL-P3 (£450)

Smooth and very well voiced variation on the LS3/5A theme; doesn't go loud but surprisingly deep bass for size.

Heybrook Trio (£349)

The drivers from the BB HBS1 housed in a slimmer prettier box give well balanced all round capabilities.

Infinity Reference 30 (£330)

Budget price floorstander is a lot of speaker for the money, with good overall balance and bass extension.

Kenwood LS-770E (£260)

Large bookshelf size model has good communication skills with good dynamics; could be smoother.

Mordaunt-Short 5.40 (£299)

Elegant near-floorstander has even balance and is very easy on the ears, if a bit laid back for some tastes.

Rega ELA (£405)

Lively, dynamic and coherent floorstanding transmission line, lots of vim and vigour but needs a good system.

Rogers Studio 3 (£450)

Lively wall-mount based on LS3/5A style ultra-miniature box; fun but bass shy and lacks loudness.

SD Acoustics SD3 MkII (£399)

Classy compact works best with port blocked, marks a worthwhile step up from miniature standards.

Wharfedale 515 (£260)

Large bookshelf size stand-mount has relaxed and expansive sound with smooth treble and decent bass.

Also check out Epos ES11, Arcam Delta 2, Bose 305, Linn Index, Monitor Audio M11, Tannoy 609.

Over £450

RECOMMENDED

AE Aegis 1 (£452)

Rich and laid back, transparent and coherent metal cone compact; low sensitivity so needs a big amp.

Audio Note AN-E (£1,300)

Ugly large box works very well; dynamic sound and high sensitivity makes an obvious valve partner.

Audio Note AN-J/B (£799)

Some coloration but the lively and dynamic sound has good sensitivity for valve users; could be prettier.

Cabasse Bisquine (£600)

Magnificent main driver gives French large bookshelf model high sensitivity and a lively, driving sound.

Diamond Acoustics III (£895)

Classily finished package has lovely informative mid and treble, but bass is less impressive.

Jordan-Watts JH400 (£504)

Beautiful piano lacquer single metal driver miniature is unbalanced and coloured but voices have real magic.

Kenwood LS-500G (£500)

Upfront and lively near miniature has bags of coherence and excitement, but not much real bass welly.

Linn Keilidh LS300 (£579)

Cute and compact floorstander has stunning timing and coherence with fine bass slam; tough on amplifiers.

Linn Kaber LS500 (£1,198)

Pretty wall mount floorstander has superb dynamic range and is kinder than before; dry balance.

Mission 753 (£700)

Gorgeous presentation and loads of drivers, has engaging dynamics, bright balance and fine transparency.

Pro Monitor Co LBI (£998)

Pretty compact monitor needs plenty of air around it; lovely delicate transparent neutrality.

Ruark Talisman 2 (£700)

Well rounded and beautifully finished compact floorstander steers neatly between design extremes.

TDL Studio 1M (£900)

Metal cone achieves great transparency with transmission line loading; loads of bass could have better control.

Thiel SCS (£1,069)

Pricy but very pretty, this solid compact has engaging coherence but can sound a shade shut in.

Also check out: Castle Chester; see Directory for others.










SEVENOAKS SUPERFI

This advertisement is valid until at least 30th April 1993.

THE AWARD WINNERS NOW ON SHOW AT SEVENOAKS SUPERFI

So Good to be True!

The moment you step through the door of any one of our branches, you'll be better looked after at Sevenoaks Superfi.

-  An outstanding selection of products from leading manufacturers – all on display.
-  Friendly helpful staff that are there to help you choose the hi-fi that's right for you, without pushing you to buy.
-  Dedicated listening rooms allow you to appreciate the quality before you make your decision.
-  Comprehensive after sales service. We can, where appropriate, deliver and install your equipment and we have our own service department at Sevenoaks.
-  Real value for money. Our prices are highly competitive and our 'Added Value Offers' famous throughout the industry.

0% Finance

We offer 0% finance on selected manufacturer's products where there is no cash discount available. These are:-

- Audiolab, Quad, Kef Reference, Exposure, Ruark, Cyrus, Denon,**
- Musical Fidelity, Rogers, Yamaha A/V and Arcam.**

- Option 1:** 10% deposit followed by 6 equal monthly payments. Example. Cost £600. Deposit £60 plus 6 payments of £90.
- Option 2:** 25% deposit followed by 9 equal monthly payments. Example. Cost £600. Deposit £150 plus 9 payments of £50.

Both options: minimum balance £400. Subject to status. 0% APR. Personal shoppers only. Written details on request.

and 3 Year Warranty

Our prices on the above products also include our no quibble 3 Year Warranty. And virtually all warranty work is carried out by fully trained staff in our own service department. 5 Year Extended Warranty is also available on selected purchases at extra cost.

Avoid the Saturday Crowds

Visit us Monday to Friday to choose your new Hi Fi, TV or Video.

Getting it Together

Once you've chosen your new hi-fi, a small additional expenditure on a quality interconnect, stand or other accessory can enhance its performance. In fact, if you buy a quality interconnect or stand from us and you don't think your sound has improved, just return it in 'as new' condition and we'll refund your money in full.

Interconnects

We carry a comprehensive range of superb interconnects. Choose from **Audioquest, Monster, IXOS** and **Furukawa**. There's one ideally suited to your system. We also stock a complete selection of Speaker Cables.



Loudspeaker Stands

You need a strong stable platform if your speakers are to sound their best. Our extensive range includes **Partington, Target** and **Apollo**.



Consoles and Racks

Our extensive range includes **Alphason** universal and expandable variable height units in smoked glass and Nextel coated MDF, **Partington** and **Target** rigid steel.



Headphones

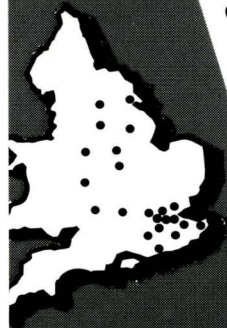


Keep the sound in and the neighbours happy. We have a range of headphones to suit all budgets. Choose from leading names; **Sennheiser, Audio Technica** and **Beyer**.

Too Numerous to Mention

We sell a huge number of essential and useful accessories; audio and video tape – switching boxes – leads – record, tape, CD and stylus cleaners. All too numerous to mention. If you have a particular requirement, ask us, we probably have the solution.

22
Branches
Nationwide



BUY WITH CONFIDENCE

IN STORE & MAIL ORDER - You can buy with confidence from **Sevensoaks Hi-Fi**. We've been in business for 21 years and have lots of experience with personal callers and Mail Order customers. All goods are **BRAND NEW, FULLY GUARANTEED** and maintained by our own service department. For personal attention and demonstration call into any of our branches. If you live too far away, simply post or phone your order through and our efficient Mail Order department at Sevensoaks head office should have your equipment safely delivered within 2 or 3 days, subject to availability. Carriage is only £7 per order and generally **FREE** if total exceeds £300 (UK mainland only). All goods are insured against loss or damage in transit. Payment may be made by cash, cheque, Access or Visa (Barclaycard). Prices include VAT.

PLEASE CALL US BEFORE TRAVELLING TO VERIFY PRICE AND AVAILABILITY

Some branches closed on Wednesdays. Please ring before travelling to avoid disappointment.

Amplifiers

- Albany PPI £429.95
- Albany S508 £499.95
- Albany AP4 £349.95
- Alchemist Kraken £399.95
- AMC CVT3030 (valve) £529.95
- Arcam Alpha III £199.95
- Arcam Delta 60 £549.95
- Arcam Delta 120.2 £179.95
- Arcam Delta 110S £449.95
- Arcam Delta 110 £219.95
- Arcam Delta 290 £299.95
- Aura V450 Black £429.95
- Aura V4100 Black £429.95
- Audiolab 8000A(II) £399.95
- Audiolab 8000C(II) £369.95
- Audiolab 8000M (each) £569.95
- Audiolab 8000P(II) £249.95
- Cyrus One II £299.95
- Cyrus PSX II £379.95
- Cyrus Two II £399.95
- Denon PMA250 III £149.95
- Denon PMA350 £189.95
- Denon PMA480R £199.95
- Denon PMA450 £249.95
- Denon PMA450 £249.95
- Exposure EXP2 £299.95
- Exposure EXP7 £379.95
- Exposure EXP15 MM £399.95
- Exposure EXP85TD £149.95
- Exposure EXP85TD £189.95
- Harman Kardon HK250 £159.95
- Harman Kardon HK6150 £139.95
- Kenwood KA3020 £249.95
- Kenwood KA3020 £249.95
- Marantz PM37 £229.95
- Marantz PM40SE £429.95
- Marantz PM52 £299.95
- Marantz PM52SE £299.95
- Marantz PM62 £299.95
- Marantz PM72 £299.95
- Marantz FID A1, Mk II £299.95
- Musical FID The pre £299.95
- Musical FID Pre 8 £874.95
- Musical FID Tyronson £159.95
- Musical FID M465 (Pair) £159.95
- Musical FID Tempest £209.95
- Musical FID Bridging cable £299.95
- Nad 302 £219.95
- Nad 304 £269.95
- Nad 306 £199.95
- Pioneer A300X £341.95
- Pioneer A400 £388.95
- Philips FA930 £388.95
- Quad 66 inc R1 £429.95
- Quad 34 £149.95
- Quad 306 £179.95
- Quad 606 £199.95
- Rotel RA920AX £249.95
- Rotel RA930AX £299.95
- Rotel RA935BX £399.95
- Rotel RA940BX £199.95
- Rotel RA960BX £149.95
- Rotel RA980BX £149.95
- Rotel RB960BX £299.95
- Rotel RB960BX £299.95
- Rotel RC960BX £299.95
- Rotel RC980BX £299.95
- Sony Technics

Cassette/DCC Decks

- Present this ad to claim Free Tapes with these models (FT)
- Aiwa ADF410 £599.95 (FT)
 - Aiwa ADF810 £199.95 (FT)
 - Aiwa ADF910 £249.95 (FT)
 - Aiwa ADF928 £179.95 (FT)
 - Aiwa ADW929 £199.95 (FT)
 - Arcam Delta 100 £849.95 (FT)
 - Arcam Delta 100 £149.95
 - Denon DRM510 £249.95
 - Denon DRM710 £199.95
 - Denon DR8610 £299.95
 - Denon DR8610 £199.95 (FT)
 - Denon DRW650 £649.95 (FT)
 - Marantz DD82 £129.95 (FT)
 - Marantz DD92 £129.95 (FT)
 - Marantz SD40 £249.95 (FT)
 - Marantz SD52 £189.95 (FT)
 - Marantz SD62 £699.95 (FT)
 - Marantz SD415 £299.95 (FT)
 - Nakamichi DR1 £179.95 (FT)
 - Nakamichi DR2 £199.95 (FT)
 - Nakamichi DR3 £199.95 (FT)
 - Philips DCC 900 £159.95 (FT)
 - Philips FC920 £199.95 (FT)
 - Pioneer CT5410 £249.95 (FT)
 - Rotel RD945AX £179.95 (FT)
 - Rotel RD955AX £219.95 (FT)
 - Rotel RD965AX £159.95 (FT)
 - Sony TCK950 £259.95 (FT)
 - Technics RSX404K £139.95 (FT)
 - Technics RSX626K £159.95 (FT)
 - Technics RSTR232K £189.95 (FT)
 - Technics RSTR333K £149.95 (FT)
 - Yamaha KK260 £199.95 (FT)
 - Yamaha KK360 £199.95 (FT)

Speakers

- Present this ad to claim Free Stands & Cable (80 Strand) with loudspeakers over £115/pair (excluding S Systems & XD)
- Acoustic Research 0.5 £129.95
 - Acoustic Research M1 £199.95
 - Arcam Delta 2 Black (Vinyl) £159.95
 - B & W DM600 £199.95
 - B & W DM610 £349.95
 - B & W DM620 £795.95
 - B & W 804 £1225.95
 - B & W 804 £649.95
 - Castle Chester £249.95
 - Castle Durham II £109.95
 - Castle York £129.95
 - Celestion 1 £169.95
 - Celestion 1 £219.95
 - Celestion 3 £299.95
 - Celestion 5 £299.95
 - Cerwin Vega AT20 £69.95
 - Cerwin Vega AT40 £249.95
 - Dynaudio £119.95
 - Gale GS210 £169.95
 - Heybrook HB173 £169.95
 - Heybrook Prima £169.95
 - Heybrook Solo £169.95

FINAL REDUCTIONS Up to 30% OFF Selected Products

Compact Disc Players

- Present this Ad to claim Free Discs with these models (FD) (ex s system)
- Aiwa XC300 £129.95 (FD)
 - Aiwa XC750 £179.95 (FD)
 - AMC CD6 £349.95 (FD)
 - Audiolab 8000 DAC £699.95 (FD)
 - Aura CD50 £399.95 (FD)
 - Arcam Delta 70.3 £699.95 (FD)
 - Arcam Delta 170.3 £449.95 (FD)
 - Arcam Alpha Plus £179.95
 - Arcam Black Box V £199.95
 - Denon DCD590 £269.95
 - Denon DCD690 £199.95 (FD)
 - Denon DCD890 £299.95 (FD)
 - Denon DCD1290 £229.95 (FD)
 - Denon DCD211 £199.95 (FD)
 - Marantz CD42 II £449.95 (FD)
 - Marantz CD52 II SE £299.95 (FD)
 - Marantz CD62 £499.95 (FD)
 - Marantz CD72 £299.95 (FD)
 - Marantz CD72SE £549.95 (FD)
 - Mission DAC £349.95 (FD)
 - Mission DAD5 £499.95 (FD)
 - Mission Fidelity DAC £269.95 (FD)
 - Musical Fidelity CD2 £119.95 (FD)
 - Nad 502 £119.95 (FD)
 - Nad 505 £199.95 (FD)
 - Philips CD624 £149.95 (FD)
 - Philips CD692 £199.95 (FD)
 - Philips CD850 II £179.95 (FD)
 - Philips CD920 £199.95 (FD)
 - Philips CD930 £349.95 (FD)
 - Philips CD940 £299.95 (FD)
 - Philips CD950 £124.95
 - Pioneer PDS801 £577.95 (FD)
 - QED DIGIT P.O.A. (FD)
 - Quad 66 £249.95 (FD)
 - Quad 67 £299.95 (FD)
 - Roksan Transport/DAC £379.95 (FD)
 - Rotel RCD955AX £139.95
 - Rotel RCD965BX £789.95 (FD)
 - Rotel RCD965LE £179.95 (FD)
 - Sony £199.95 (FD)
 - Teac CD200 £139.95 (FD)
 - Teac VFD510 £199.95 (FD)
 - Technics SLPG320AK £199.95 (FD)
 - Technics SLPG420AK £229.95 (FD)
 - Technics SLPG620AK £199.95 (FD)
 - Technics SLPS620AK £249.95 (FD)
 - Yamaha CDX560 £299.95 (FD)
 - Yamaha CDX660 £299.95 (FD)
 - Yamaha CDX860 £299.95 (FD)

Tuner Amps/Receivers

- Denon DR4345R £249.95
- Denon DR4545RD £299.95
- Nad 701 £249.95
- Nad 705 £299.95

Audio Visual

- Celestion HT1 System £299.95
- Celestion HT3 System £699.95
- Denon AVC 3020 P.O.A.
- JAMO £299.95
- Kenwood KR7040 £399.95
- Kenwood KR8040 £299.95
- Kenwood KR9500 £209.95
- Marantz PM700 II £399.95
- Mordaunt Short Stereo or £299.95
- Mordaunt Short Pro logic £229.95
- Mordaunt Short Dialogue £399.95
- Mordaunt Short Sub Woofer £199.95
- Mordaunt Short Sub Woofer £394.95
- Mordaunt Wall bracket £149.95
- Philips CD1205 £29.95
- Yamaha DSPA1000 £449.95
- Yamaha DSPA2070 £899.95
- Yamaha DSPA2070 £1099.95
- Yamaha DSPA2070 £349.95
- Yamaha DSPA2070 £449.95
- Yamaha RRV660 £449.95

Turntables

- Dual CS503-2 £159.95
- Dual CS505-4 £199.95
- Nad 5120 £69.95
- Pink Audio Export/LPT P.O.A.
- Roksan Radius/Xerxes £324.95
- Systemdek IIX 900 (ex) £419.95
- Systemdek IIX 900 + Tabnz £369.95
- Systemdek SL1200 II £149.95
- Technics SL1210 II £199.95
- Thorens TD180 £279.95
- Thorens TD280 Mk IV £279.95
- Thorens TD166/RB250 £279.95

Tuners

- Aura TU50 £259.95
- Arcam Alpha 3 £199.95
- Arcam Delta 280 £349.95
- Audiolab 8000T £599.95
- Cyrus Tuner £199.95
- Denon TU260L £159.95
- Denon TU560L £199.95
- Denon TU580RD £269.95
- Denon TU660L £119.95
- Harman Kardon TU9400 £169.95
- Marantz ST40L £269.95
- Marantz ST50L £149.95
- Musical Fidelity T1 II P.O.A.
- Nad 402 £149.95
- Pioneer £149.95
- Philips FT930 £159.95
- Quad 66FM £424.95
- Quad FM4 £159.95
- Rotel RT930AX £199.95
- Rotel RT950BX £199.95
- Sony STS370RDS £249.95
- Technics £349.95

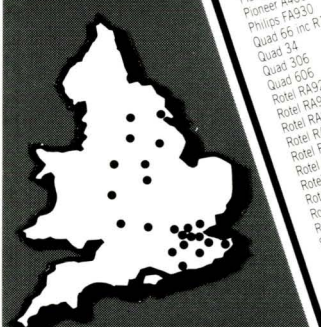
Midi/Mini Systems

- Aiwa Denon, JVC, Kenwood £273
- Sony, Technics and Yamaha P.O.A. £733338

- 109-113 London Road SEVENOAKS 0732 459555
- 24 Pittville Street CHELTENHAM 0242 241171
- 162 Powis Street WOOLWICH 081 855 8016
- 4 Dock Street HULL 0482 24051
- 67 Smallbrook, Queensway BIRMINGHAM 021 631 2675
- 55 Preston Street BRIGHTON 0376 733338
- 1 Grove Centre Witham ESSEX 0483 501733
- 73b North Street GUILDFORD 0892 531543
- 34 Mount Ephraim TUN. WELLS 0532 449075
- 7 King Edward Street LEEDS 0522 520265
- 271a High Street LINCOLN 0483 501733

- 20a Lower Bridge Street CANTERBURY 0227 462787
- 369-373 London Road CROYDON 081 665 1203
- 94 Granby Street LEICESTER 0533 557518
- 478 St. Albans Road WATFORD 0923 212736
- 2-4 Camden High Street LONDON 071 388 1300
- 15 Market Street NOTTINGHAM 0602 412137
- 4 Railway Street CHATHAM 0634 846859
- 7 Genotin Road ENFIELD 081 342 1973
- 41 St. Clements OXFORD 0865 241773
- Sevensoaks Branch only MAIL ORDER 0732 458985
- 1 Rockingham Gate, The Moor SHEFFIELD 0742 723768
- 51 Picadilly, Hanley STOKE ON TRENT 0782 265010

Most but not all of the offers displayed above are also available from our associates Superfi, whose addresses appear above. Please always phone first to check price & availability before travelling. State finish required. Please send me I enclose a cheque/cash/card No. + Expiry Date Name Address Daytime Tel No: (0732) 458985.



22 Branches Nationwide

Choice accessories

Let our fine range of accessories help boost your system performance

Isolation cones

Supplied in packs of four, these cones are ideal for supporting just about any item of hi-fi, from sub-woofers through to amplifiers and CD players. The cones provide effective isolation and decoupling, thereby increasing the stereo image and fidelity. Available in precision turned brass or black anodized aluminium, some experimentation will reward the listener with improved sound quality, at a minimal cost.

Order ref: JE12A £14.00

4 Isolation cones (brass)

Order ref: JE11A £14.00

4 Isolating cones (black coated aluminium)

Goldring Magic Record Cleaner

Kit consisting of a double-sided velvet brush and spray on Goldring Magic record rejuvenating fluid.

Order ref: JE13A £11.95

Technics Auto CD Cleaner

A powered wet/dry CD cleaner that can be run off batteries or the mains. It works by rotating the disc and applying the wet cleaner first (cleaning solution is supplied, then reversing direction and dry cleaning it. The whole process takes just 40 seconds and a set of batteries should clean 80 discs.

Order ref: JE20A £39.95

Kontak Cleaning Solution

A two stage contact cleaner for all audio and mains connections. All connections are susceptible to oxidation and contamination which impairs electron flow and thus affects sound quality.



Here's what Paul Messenger had to say when he tried some on his system:

"The effect on the power amps alone was so astonishing I had to carry on and cover the whole system. By the time I was finished the system was utterly transformed. Timing and coherence were back with a vengeance; surface noise and coloration were both much less audible and the soundstage had liberated itself from the boxes".

Order ref: JE17A £19.90

The Purifier

A ferrite cable clamp designed to reduce RF induced noise in audio, video and computer systems. The clamps will accept single or multiple cables of up to half an inch in diameter and can be used on both signal and mains cables. Can be particularly beneficial for digital interconnects.

Order ref: JE14A £16.90 per pair

Nagaoka Anti-Static Record Sleeves No102

Packs of 50 plastic record sleeves that can be used on their own or inserted into an existing card or paper sleeve. The sleeves keep records dust free and eliminate static.

Order ref: JE15A £6.99

Gold Plated 4mm Banana Plugs

Top quality solderless gold plated banana plugs for use with speaker cables. Simply push the speaker cable into the body of the plug and tighten for a perfect connection. This Furukawa plug accepts cables up to 4mm in diameter. Sold in packs of four.

Order ref: JE24A £7.95

Audio Technica CD Lens Cleaner AT-6078

The focusing assembly for the laser head of a CD player is a very delicate affair and yet it requires cleaning from time to time to give of its best. Rather than fumbling about with cotton buds, we would suggest you employ an Audio Technica AT-6978 CD lens cleaner.

This is a standard size disc with a set of eight tiny brushes set into it. To clean your laser, just apply a drop of cleaning fluid on to one of the brushes, place the cleaning disc in to your player and press play.

Ten seconds later, a clean laser assembly and a cleaner sound from your Compact Discs.

Order ref: JE21A £16.95

CD Jewel Case (Five Pack)

Everyone has them, now replace broken CD jewel cases and ensure your discs are properly protected.

Order ref: JE33A £5.00

DISC CLEANING AND MAINTENANCE

Last SF-100 Extra Strength Record Cleaner

Designed to remove the stubborn mould release compounds present in every LP from the pressing process. Use to deep clean new records as well as to revitalise older vinyl.

Order ref: JE25A £22.50

Last SF-200 Record Preservative

Last SF-200 interfaces with the vinyl and prevents gouging, fracturing and wear of the groove wall. A single application will maintain LPs in 'brand new' condition for 200 plays or more. The use of Last 100 and 200 improves fidelity and maintains precious LPs.

Order ref: JE26A £25.00

Last SF-300 Record Cleaner

SF-300 is the cleaner to use on a day-to-day basis on LPs which have been treated with SF-100 and SF-200.

Order ref: JE27A £18.50

Last SF-600 CD Clean And Protect

Yes CDs do need cleaning and Last have introduced a specially formulated cleaner and polish for CDs which removes grease, dirt and finger marks. The kit provides vinyl covers for the continued protection of cleaned CDs. Clean CDs sound better.

Order ref: JE29A £20.00

Last SF-601 CD Cleaner

Exactly the same as CD-600, but without the vinyl protective covers.

Order ref: JE30A £16.00

Last RCM Record Cleaning Machine Fluid

Last Record Cleaning machine fluid is formulated for use in conjunction with proprietary record cleaning machines, for the removal of grease, dirt and grime from Vinyl LP's.

Order ref: JE35A £18.00

In order to introduce vinyl users to a meaningful protection and maintenance system, we have negotiated a special price on a full size bottle of SF-100 and SF-200 (SC012) complete with applicators for just £38.50.

Trial Pack, SF-100 And 200 (Full Size) Order ref: JE31A

£38.50

We've also secured trial samples of all three products, SL-123 and these are available at only £26.00. We sincerely recommend the use of these products to all who wish to maintain their record collections in pristine condition.

Trial Pack, SF-100, 200 and 300 Order ref: JE32A £26.00

HI-FI CHOICE SWEATSHIRTS

Improve the sound of your system for a mere £15

Ever wondered why some people get taken seriously in hi-fi shops while others get the runaround? Wonder no more. The answer to all your hi-fi problems is the ALL NEW Hi-Fi Choice Sweatshirt.



These gloriously hip garments are tastefully printed in white and red on navy blue. As well as being this year's most crucial fashion accessory, a Hi-Fi Choice sweatshirt will readily identify you as a reader of Britain's fastest growing hi-fi magazine.

As a result you'll almost certainly be taken more seriously and end up with a better system - and all for a mere £15.

We can supply the shirts in two sizes - large and extra large.

Order ref: JE22A

Best seller!

Special offer

Choice sounds

Choose from our superb selection of specialist label recordings.

SHEFFIELD LABS

The Power of Seven: "Up-Front"
"The Power of Seven" are seven of the most sought after and talented female vocalists in the recording industry. This recording showcases their versatility with songs ranging from 90's urban contemporary, to stylish ballads. High energy variation on "Dancin' In The Streets", "When Something Is Wrong With My Baby", "Will It Go Round In Circles" and many others make this CD a must.

Order ref: CD-33 £21.50



Thelma Houston & Pressure Cooker: "I've Got The Music In Me"

This blend of R&B and rock featuring the extraordinary powerhouse vocals of Thelma Houston is the biggest selling audiophile recording of all time. The Pressure Cooker band is still cited as one of the greatest ensembles ever. Tracks include: "To Know You Is To Love You", "Don't Misunderstand", "Got To Get You Into My Life" and many more.

Order ref: CD-2 (CD) £21.50
Order ref: ST-200 HQ (180 gm Vinyl) £30.00

The Usual Suspects: "The Usual Suspects"

For this project Jeff Weber employed 37 outstanding musicians. "The Usual Suspects" is a unique musical review of jazz/rock instruments and pop vocals. Tracks include: "Life Is What You Make It", "Come On In", "Good Friends" and many more.

Order ref: CD-32 (CD) £21.50

KLAVIER JAZZ

Si Zentner & His Orchestra: "Alive in Las Vegas"

This is a rarity, Big Band Jazz from another famous Audiophile label. Si Zentner thrills audiences of all ages with the great sounds of the 30's and 40's. Twenty great standards recorded live to two track include: "Up The Lazy River", "Take The 'A' Train", "Caravan" and "Cherokee" among others.

Order ref: KCD-77002 £13.99

Remembering Fats Waller: Lytle & Floutnoy, Duo Pianists

Fats Waller had a gargantuan capacity for life, and it's captured in his music. Waller's music in this live to two track recording, really comes to life. Tracks include: "Vipers Drag", "Alligator Crawl", "C Fats Blues" and more. Buy it for the sound of great "cooking" piano play. Your loudspeakers will get a great treat, if they're fast enough to cope, and so will you.

Order ref: KCD-77003 £13.99

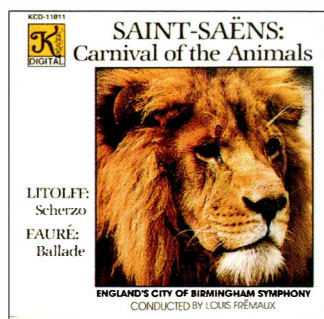
KLAVIER CLASSICAL

From Baroque to Mozart: Academy of St Martin-In-The-Field

The Academy of St. Martins-In-The Fields, directed by Neville Marriner, with Josef Suk,

Violin. Introduction to Klavier's live to two track, audiophile recording techniques, beautiful and selected pieces from Albinoni, Vivaldi, Mozart and Corelli.

Order ref: KCD-11006 £13.99



Saint-Saens: Carnival of Animals. Birmingham Symphony Orchestra, Louis Fremaux conducting

This is Saint-Saens best known work, the 'Grande Fantasie Zoologique' is written for a modest orchestra, consisting of flute, clarinet, two pianos, xylophone, glass harmonica and strings. The fourteen amusing sections contain, Hens & Cocks, Wild Asses, The Elephant, Kangaroos, Persons with Long Ears etc.

Order ref: KCD-11011 £13.99

Saint-Saens 'Organ' Symphony: Birmingham Symphony Orchestra, Louis Fremaux conducting

The unique combination of organ and orchestra creates special problems of balance between musical forces, problems involving timbre, pitch and dynamics. Klavier's controlled recording conditions have not only met the challenge but have also done much to keep this symphony most deservedly alive. Buy this superb recording and give your hi-fi a real treat.

Order ref: KCD-11010 £13.99



Bizet: 'Roma'/Symphony in C Major Birmingham Symphony Orchestra, Louis Fremaux conducting.

'Roma' is a fascinating work by a master of orchestration with a genius for vivid expression and the deliciously unexpected turn of phrase. In this piece, Bizet lives on, in Saint-Saens words, as "the embodiment of youth, vigour, gaily and good nature!"

Order ref: KCD-11012 £13.99

Britten's War Requiem/Stravinsky's Symphony of Psalms: The William Hall Chorale and Orchestra. (Double CD)

The 'War Requiem' could be conceived as being a dissonant work speaking able for the

times in which we live. There is however, no denying that the work has a profundity and awesomeness in its statement of the non-reconciliation of man with man, and man with his Creator. Buy this for the big sound of an orchestra, organ and choirs.

Order ref: KCD-11017 £26.00

REFERENCE RECORDINGS

Eileen Farrell: It's Over

Arranged and conducted by Robert Farnon, this album gives Farrell the opportunity to demonstrate her considerable skills, in touching songs of lost love. Contains 'I get the blues when it rains', 'How about me?', 'Easy to remember', 'Gone With The Wind', 'I remember April'. (1993 Grammy nominee for "Best Instrumental Arrangement Accompanying Vocal(s)")

Order ref: RR-46CD (CD format) £13.99

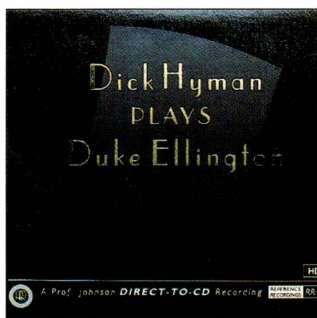


The Turtle Creek Chorale: Testament*

A stirring programme of American music with words by Thomas Jefferson, Walt Whitman and Robert Frost introduces the magnificent sound of the Dallas Wind Symphony. This is the world's first HDCD (High Definition Compatible Digital) recording. The quality improvement over conventional CDs is immediately apparent and the process represents a mile-stone in digital recording techniques. Buy it for its quality and be amazed at the depth, width and definition.

Order ref: RR-49 (LP format- 2 LP set) £28.50

HDCD™ Process
Order ref: RR-49CD (CD format) £13.99



Dick Hyman: Dick Hyman plays Duke Ellington*

Not only is this the world's Second Direct-to-CD Recording, it's also the world's second HDCD, and it's supplied on a gold CD, a first for Reference Recordings and a true collector's item.

The piano sound from the Bosendorfer can only be described as awesomely realistic. The rise and fall of transients will test any hi-fi system to its absolute limits, but buy it for its unforgettable tunes. It contains such greats as: "Jubilee Stomp", "Sophisticated

Lady", "I Let A Song Go Out Of My Heart", "Prelude To A Kiss" and many more.

Order ref: RR-50DCD (CD format HDCD) £35.50

*HDCD discs.

Albert Fuller: Albert Fuller plays Rameau

Required listening for those who consider the harpsichord 'unexpressive'. Albert Fuller was the first to record the complete keyboard works of Rameau and he welcomed the opportunity to record his re-thinking of these epochal pieces. Audiophile journals have declared this to be the most vivid, realistic recording of the harpsichord yet made.

Order ref: RR-27LP (LP format) £19.00

Order ref: RR-27CD (CD format) £13.99

Nojima: Nojima Plays Liszt

Sonata in B minor - Mephisto Waltz - La Campanella - Harmonies du Soir
The recipient of more rave reviews than any piano recording in recent memory, this is truly one for the history books.

Order ref: RR-25LP (LP format) £19.00

Order ref: RR-25CD (CD format) £13.99

Stravinsky: L'Histoire du Soldat suite. Blackwood: Capriccio Espagnol. Chicago Pro Musica

Stravinsky's landmark composition for a mixed ensemble of seven. Grammy winning performances.

Order ref: RR-17LP (LP format) £19.00

Order ref: RR-17CD (CD format) £13.99

Respighi: Church Windows Keith Clark, Pacific Symphony Orchestra

This grandiose work, scored for full symphony orchestra, pipe organ and tam-tam, has at last been given its due, musically and sonically, in this celebrated recording.

Order ref: RR-15LP (LP format) £19.00

Order ref: RR-15CD (CD format) £13.99

Berlioz: Fantastique. Symphonie Fantastique. Varujan Kohian, The Utah Symphony Orchestra

This is widely considered to be the recording of this magical work. The Utah Symphony Orchestra, playing in Salt Lake City's Symphonic Hall, gives a world class performance.

Order ref: RR-11LP (LP format-2 LP set) £28.50

Order ref: RR-11CD (CD format) £13.99

Walton: Facade Suite, - Strauss/Hasnrohr: Till Eulenspiegel - Scriabin/Elliott: Waltz in A-flat - Nielsen: Serenata in Vano. Chicago Pro Musica

An instrumental from Walton's whimsical Facade in the composer's original scoring makes a perfect vehicle for these brilliant musicians.

Order ref: RR-16LP (LP format) £19.00

Order ref: RR-16CD (CD format) £13.99

Copland: Appalachian Spring Suite, Eight poems by Emily Dickinson, Keith Clark/Pacific Symphony Orchestra, Marni

Nixon, Soprano (in the poems).

Music by America's best loved composer, The Appalachian Spring Suite is presented in its original version for 13 instruments. Grammy Award nominee in 1987.

Order ref: RR-22LP (LP format) £19.00
Order ref: RR-22CD (CD format) £13.99

Holst: Dallas Wind Symphony, Howard Dunn conducting

Suite #1 in E-flat - A Moorside Suite - Suite #2 in F - Hammersmith
 Seminal band works, together on one disc, all played in the exact instrumentation specified by the composer.

Order ref: RR-39LP (LP format) £19.00
Order ref: RR-39CD (CD format) £13.99

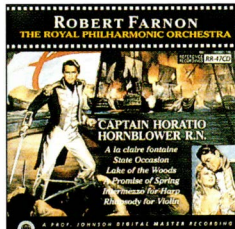
Nojima: Nojima Plays Ravel. Miroirs:

Noctuelles - Oiseaux tristes - Une baroque sur l'océan - Alborada del gracioso - La valse des cloches - Gaspard de la Nuit: Odine - Le gilet - Scarbo

Here is the eagerly awaited sequel to Nojima's first American recording, featuring some of his most renowned specialities.

Gaspard de la Nuit is the pianist's Everest, attempted by only a few. The Nojima performances are simply incandescent.

Order ref: RR-35LP (LP format) £19.00
Order ref: RR-35CD (CD format) £13.99



Robert Farnon: Captain Horatio Hornblower R.N.

Widely known as 'Arranger to the Stars', Robert Farnon has written for Frank Sinatra, Tony Bennett, Lena Horne, Eileen Farrell, and many more. He has scored feature films by the dozen, and composed an impressive array of concert works. This album features the debut on RR of the Royal Philharmonic Orchestra, recorded in Watford Town Hall.

Order ref: RR-47LP (LP format-2 LP set) £28.50
Order ref: RR-47CD (CD format) £13.99

Malcolm Arnold: Conducts the London Philharmonic Orchestra

A Sussex overture - Bechus - Dandi Pratt - The smoke - Anniversary overture - The fair field - Flourish for orchestra - The Commonwealth Christmas Overture

On this very latest Reference recording the London Philharmonic Orchestra is conducted by the composer, Malcolm Arnold, at the Town Hall, Watford. This Keith Johnson production includes first recordings of Britain's leading living composer's lesser known works.

Order ref: RR-48LP (LP format-2 LP set) £28.50
Order ref: RR-48CD (CD format) £13.99

HI-FI CHOICE BACK ISSUES

All the issues you wish you'd never missed. Here's how to order back numbers and binders for your copies of Hi-Fi Choice.

Back issues are priced at £4.00 each (UK) £6.95 each (Overseas) This includes postage and packing.

Available back issues:



January 1993 - Issue 114 LOUDSPEAKERS and MiniDisc plus a free pocket guide to buying blank tapes

Order ref: AE14B



February 1993 - Issue 115

ONE BRAND SEPARATES SYSTEMS and turntables on test plus a DCC software offer

Order ref: AE15B



March 1993 - Issue 116 AMPLIFIERS power tested and Britain's biggest review based Hi-Fi Buyers' Guide

Order ref: AE16B

April 1993 - Issue 117 Ten of the latest cassette decks take on four of the new breed of DCC machines and eight CD multi-players are put through the blind listening lab tests. All this plus a free Edelweiss classical CD, specially put together for Hi-Fi Choice.

Order ref: AE17B

PRIORITY ORDERING

Just enter on the coupon the items you require from both Choice Accessories and Choice Sounds using the correct code. Then clip out and send with the correct payment to: DENNIS DIRECT, PO BOX 2505, ALCESTER B50 4JU. Prices shown include VAT and fulfilment in the UK. Please add postage as detailed at the bottom of this form. Be aware that all items on offer are subject to availability and a maximum of 28 days should be allowed for delivery.

OVERSEAS ORDERS: Please add £10.00 (Europe) or £12.00 (Rest of the World) to your order total to cover the additional postage. Please note that we can only accept Visa/MasterCard and EuroCheques in £s sterling and sterling cheques drawn on a London bank.

Important: To prevent any delay with processing your order, please enter the correct codes clearly! If necessary, please use a separate sheet.

CHOICE ACCESSORIES

Code	Description	Price	Quantity
JE__A	£.....
JE__A	£.....
JE__A	£.....
JE__A	£.....
JE__A	£.....

BACK ISSUES

AE14B	Hi Fi Choice Jan 93	£.....
AE15B	Hi Fi Choice Feb 93	£.....
AE16B	Hi Fi Choice Mar 93	£.....
AE17B	Hi Fi Choice April 93	£.....
AV01A	Home Entertainment Issue 1	£.....
AV02A	Home Entertainment Issue 2	£.....
HiFi Choice binders	LE01A	£.....

HI-FI CHOICE SWEATSHIRTS

JE22A/L	Hi Fi Choice Sweatshirt - Large	£.....
JE22A/XL	Hi Fi Choice Sweatshirt - X Large	£.....

CHOICE SOUNDS

Order reference	Description	price	qty
.....	£.....
.....	£.....
.....	£.....
.....	£.....
.....	£.....
.....	£.....
.....	£.....
.....	£.....
.....	£.....
.....	£.....

Total number of items ordered **Order total** £.....
 For UK add £2.00 per order for postage **Order Total** £.....
 For Europe add £10.00 per order for postage **Order Total** £.....
 For Rest of World add £12.00 per order for postage **Order Total** £.....

I enclose a cheque made payable to Dennis Direct for £.....

Please charge my Visa MasterCard (Access) for £.....

Credit Card number

Expiry date Signature

Mr/Mrs/Ms Surname.....Initials.....

Address.....

.....Postcode.....

Daytime telephone number.....

Please send me a VAT receipt
 The above information may be added to our mailing list. Please tick the box if you would prefer not to receive details of special offers. Dennis Direct is a division of Dennis Publishing Ltd. 05-93-05

SAVE TIME...USE THE FAX!
 You can now speed your order along by faxing it to us on 0789 490878. (Only available for customers ordering by credit card).

Dealer Guide

AVON

V'AUDIO 36 Druid Hill
Stoke Bishop
Bristol BS9 1EJ
Tel: 0272 686005

ATC, AVI, Acoustic Energy, Audio Innovations, Audio Plan, Jamo, Micromega, Ortofon, Pink Triangle, SD Acoustics, Threshold, Ruark, SME, Exposure, Mitchell.

Demos by appointment only. Home trial facilities.
Free installations. Servicing facilities.
We are not a shop.

BERKSHIRE

B&B Hi-Fi
Berkshire's Leading Specialist

Aiwa, Akai, Bang & Olufsen, Bose, B+W, Cambridge, Celestion, Denon, Dual, Heco, Heybrook, JPW, Kef, Kenwood, Marantz, Mission, Mitsubishi, Monitor Audio, Monster, Mordaunt/Short, NAD, Nagaoka, Nakamichi, Ortofon, Panasonic, Philips, Pioneer, QED, Quad, Revolver, Rogers, Rotel, Sennheiser, Sony, Tannoy, Target, Technics, TDK, Thorens, Wessex, Wharfedale, Yamaha.

Ask about FREE delivery & FREE installation

11-12 Market Place, Reading* Tel: 0734 583730
18 King Street, Maidenhead* Tel: 0628 73420
4 Priory Road, High Wycombe Tel: 0494 535910
62 North Brook Street, Newbury Tel: 0635 32474
Princess Square, Bracknell* Tel: 0344 424556

*DEMONSTRATION ROOMS

BUCKINGHAMSHIRE

THE SOUND GALLERY

BUCKINGHAMSHIRES PREMIER HI-FI DEALER

Arcam, Denon, Linn Products, Naim Audio, Meridian, Rotel, Yamaha, NAD, Quad, Tripod, Nakamichi, Rega, Creek, Epos, Mordaunt Short, Celestion, Marantz, Mission, Cyrus, etc . . .

65 Castle Street, High Wycombe,
Buckinghamshire.
Open Monday - Saturday
0494 531682 / 464670

CAMBRIDGESHIRE

Cam Audio

ARCAM, CASTLE ACOUSTICS, CREEK, DENON, EPOS, EXPOSURE ELECTRONICS, JPW, MARANTZ, MICROMEGA, MISSION, MORDAUNT SHORT, NAIM AUDIO, NAKAMICHI, REGA RESEARCH

SPECIALIST AUDIO RETAILERS (0223) 60442
110 MILL ROAD, CAMBRIDGE

University Audio

Marantz Liquid Gold SC22
MA 24 Mono Blocks

Now on permanent demonstration
at

1 & 2 PEAS HILL
CAMBRIDGE CB2 3PP
TEL: 0223 354237 FAX: 0223 322079

CHESHIRE



ASTON AUDIO HI-FI SPECIALISTS

SPRING SALE

4 WEST STREET,
ALDERLEY EDGE,
CHESHIRE

TEL: 0625 582704



DISCOUNT CD & TAPE
EXTENDED GUARANTEE
INTEREST FREE CREDIT

NOW ON

**FREE DELIVERY
ON MAIL ORDER**

CUMBRIA



**LEADING
HI-FI
SPECIALIST**

Demos and Part Exchange Welcome
6 ABBEY STREET, CARLISLE 46756

DERBY

Active Audio

ARCAM, AUDIO INNOVATIONS, CELESTION, CYRUS, DENON, KEF REFERENCE, MERIDIAN, MARANTZ, MICROMEGA, NAKAMICHI, PIONEER, QUAD, MUSICAL FIDELITY, REVOLVER, ROKSAN, ROGERS, ROTEL, RUARK, TANNOY, YAMAHA, ETC.

Active Audio
12 Osmaston Road,
The Spot, Derby
Tel: (0232) 380385/385185



DUBLIN



67 Mountjoy Street, Dublin 7.
Tel: 305633 Fax: 305839

CLEARANCE OF DEMO STOCK - CALL FOR DETAILS
Impulse, Heybrook, Ruark, JPW, Aura, Marantz, TDL, Brinkman, Proac, Sonographe, VLS, AVI, Straightwire, Prossel, Audiostatic, Albarray, AMC, Eagle.
Listening Rooms. Philips now available! Open Mon-Fri 9-6. Sat 10-6pm.
Demonstration after 6pm by appointment.

**CLONEY
Audio**

55 MAIN STREET,
BLACKROCK, DUBLIN
TEL: 01-2889449
2888477
FAX: 2834887

MAGNEPLANAR	TECHNICS
MUSICAL FIDELITY	SPENDOR
NAKAMICHI	APOGEE
ARCAM	ROGERS
PHILIPS	CLASSE
LINN	DELTEC
NAIM	CREEK
REGA	SONY

AND THE BEST OF THE REST!!
CLOSED MONDAY - OPEN LATE TILL 9PM THURSDAY/FRIDAY

EDINBURGH

RUSS ANDREWS HI-FI

34 Northumberland Street, Edinburgh.
Telephone: 031 557 1672

Linn, Naim, Rega, Arcam, Rotel,
Marantz, Nakamichi, Quad,
MS, MA, Yamaha.
Demonstrations.



Open 10.5.30. Mon-Fri. 10-5pm Sat.



ESSEX



Akai • Alphason • Arcam* • B&W • Bang & Olufsen • Bose • Celestion • Dual • Harman Kardon • Kenwood • Quad* • Marantz • Mordaunt-Short • NAD • Nakamichi* • Pioneer • Ruark • Sony • Wharfedale • Yamaha •
* Epping and Saffron Walden only

148 HIGH STREET • EPPING • TEL: (0992) 574242
26 KING STREET • SAFFRON WALDEN • ESSEX • TEL: (0799) 523728
70 SOUTH STREET BISHOP'S STORTFORD • HERTS • TEL: (0279) 656401

GLOUCESTERSHIRE

Hutchinsons
TV • VIDEO • HI-FI

295 High Street, Cheltenham GL50 3HL
Telephone: 0242 573 012

AIWA, CELESTION, DUAL, KENWOOD, MARANTZ, PIONEER, REFERENCE POINT, SENNHEISER, TECHNICS, WHARFDALE.
FREE INSTALLATION SERVICE Dept

GRAMPIAN

HARMON KARDON • KRELL • AUDIO RESEARCH

Audio Suite

THE PROVEN HI-FI SHOP

Demonstration on
Audio Visual systems
42 St. Andrew Street, Aberdeen AB1 1JA
Telephone (0224) 625635

AUDIO INNOVATIONS • SNELL • MAGNEPLANAR

HAMPSHIRE

Main agents for



naim audio

- ✓ 0% Interest Free Credit
- ✓ Three year guarantee
- ✓ Home trial
- ✓ All Hi-Fi installed in home
- ✓ Friendly ordinary guys

2 Kingsgate Cr, St Marys St, Southampton 0703 233323

MANA • CASTLE • ALCHEMIST • ALBARRAY • AUDIO INNOVATIONS

AUDIO GALLERY

NR PETERSFIELD

MAIL ORDER
CABINETS
SUITED TO
ORDER IN ANY SIZE
WOOD & HAND PAINTED
FINISHES

STONE • GRANITE •
MARBLE • SHELVING



HAMPSHIRE

FOR OPENING
HOURS AND
APPOINTMENTS
PLEASE RING
ANYTIME

HOME DEM
ON DEM
WADIA & MICROMEGA
CD3, TDL, SA, E, TEAC,
VRDS 10, IMPULSE
0730 - 895194

VALVE SPECIALISTS ON A SUPERIOR LEVEL
AUDIO ALCHEMY • TEAC • NAD • TRIPOD • ALPHASON • PIONEER • DENON

Dealer Guide

HERTFORDSHIRE

Hertford Music

Stockists of High Quality British Hi-Fi including:

REL Acoustics sub-woofers
- the only ones that really work

A.C. Magnum Amplifiers

- mosfet amplification currently receiving critical acclaim

Lumley valve amplification

- probably the best valve amplifiers in the world.

Also Rotel, Diamond Acoustics

Home demonstrations arranged

Telephone: (0992) 700900

Fax: (0992) 788271

KENT



B&W, Bose, Dual, Kenwood, Marantz, Pioneer, Philips, Sony, Tannoy, Technics.

*Dem Room facilities * 0% credit
* Service Department * Free Installation

PIONEER REFERENCE POINT DEALER
83B High Street Gillingham (0634) 573141
117 Weak Street Maidstone (0622) 661488

LONDON



ZEBRA

081 688 2093/2491
18 BRIGHTON ROAD
SOUTH CROYDON



350 Edgware Road
London W2
Tel: 071-402 2100
Fax: 071-724 7750

AIWA, AUDIO INNOVATIONS, AUDIO QUEST, ARCAM, ALPHASON, B&W, CASTLE, CELEF, DALI, DENON, DUAL, FURUKAWA, HARMAN KARDON, INFINITY, JBL, JPW, KENWOOD, HEYBROOK, MARANTZ, MISSION, MONITOR-AUDIO, MUSICAL FIDELITY, NAKAMICHI, ORTOFON, PIONEER, QED, REVOLVER, ROGERS, ROTEL, SERWIN VEGA, SONY, TANNOY, TARGET, TEAC, TECHNICS, THORENS, WHARFEDALE, VAN DEN HUL, YAMAHA.

LANCASHIRE



HI-FI SPECIALIST

■ TECHNICS ■ SONY ■ PIONEER
■ PANASONIC ■ KENWOOD ■ DUAL
■ ARISTON ■ CREEK ■ CASTLE

■ QUAD ■ B&W ■ MARANTZ ■ SPENDOR ■ THORENS
■ ARCAM ■ ROTEL ■ WHARFEDALE ■ DENON ■ YAMAHA
■ TANNOY ■ PHILIPS CD ■ CELESTION ■ ROGERS
■ MORDAUNT SHORT ■ FOUNDATION ■ MONITOR AUDIO
■ AND MANY MORE

BIG DISCOUNT • TWO YEAR GUARANTEE ON HI-FI
EXCELLENT COMPARATOR DEMONSTRATIONS
PRIVATE LISTENING ROOM • FREE HOME INSTALLATION
CHORLEY (0257) 271935

54 Chapel Street, Chorley

MANCHESTER



30-32 SHUDEHILL,
MANCHESTER M4 1EY
TELEPHONE 061 834 6700

Main Agents for:

JBL, Mission, B & W, Wharfedale, Aiwa, Teac, Dual, Thorens, Panasonic, Pioneer, Technics, Sony, Bose, Trio-Kenwood.

HUMBERSIDE

Lend us your ears and we'll blow your mind . . .

Audio Innovations, B & W, Celestion, Cyrus, Denon, Inca Tech, Kenwood, Kef, Marantz, Michell, Mission, Meridian, Mordaunt-Short, NAD, Nakamichi, Philips, Pioneer, Panasonic, Quad, Revox, Rotel, Sony, Tannoy, Technics and more.

Audition the very best at South Humberside's premier Hi-Fi dealer . . .



2-4 EDWARD STREET (Off Pasture St.)
GRIMSBY. TEL: (0472) 351391

LEICESTERSHIRE

SOUND ADVICE

THE MIDLANDS LEADING
BRITISH EQUIPMENT
SPECIALISTS,
FOR OVER A DECADE

NAIM • LINN • MICROMEGA • MISSION
CYRUS • ROYD AUDIO • REVOX
• SENNHEISER • ROTEL • YAMAHA
• NAKAMICHI • EPOS • CREEK • REGA • JPW
• ARCAM • MERIDION • MORDAUNT-SHORT

EXCLUSIVE REGA AGENT:
LEICESTERSHIRE & NOTTINGHAMSHIRE
TEL LOUGHBOROUGH : 0509 218254

WEST MIDLANDS

BRIDGE HI FI

3 Tudor House, Bridge Street, Walsall.
Telephone (0922) 640456.

NAD, Dual, Yamaha, Sennheiser, Wharfedale, Bowers & Wilkins, Kenwood, Technics, Pioneer, Mission, Celestion, Denon, Mordaunt Short, Aiwa, Akai.

Demonstrations, Home trial and free installations. Access, Visa, Diners, Amex. Credit to £1,000. 9.15 - 5.30, Mon-Sat. Service Dept.



KENT

KIMBERLEY HI FI

A Sound Investment

SEPARATE DEMONSTRATION ROOM

BRANDS STOCKED DENON TECHNICS KENWOOD
AIWA NAD DUAL WHARFEDALE MISSION MARANTZ
SPKS TANNOY CASTLE MONITOR AUDIO HECO JAMO
CERWIN VEGA CELESTION

SOUTH LONDON'S AND NORTH KENT ONLY



193 BROADWAY, BENLEYHEATH, KENT TEL: 081 304 3272

LARGE RANGE OF
ICE INC PIONEER
PANASONIC & JVC

analog audio

Canon, Cerwin Vega, Harman Kardon, Marantz, Pioneer, Rotel, Tannoy, Yamaha.



Can install and deliver
Full demonstration facilities



849 High Road, London N12 (North Finchley)
Tel 081 4453267 Fax 081 4451443

ELECTRO CENTRE

244 SOHO ROAD, HANDSWORTH, BIRMINGHAM
TEL 021 554 1878 & 523 2426

FULL RANGE OF H-FI.

PIONEER, TECHNICS, KENWOOD,
JVC, SONY, AIWA, AKAI
Guaranteed the lowest price in the UK.
24 Hour Mail Order Facility Available

HORNTON ELECTRONICS (1987) LTD

8-9 Lower Temple Street, Birmingham B2 4JD
Telephone: 021 643 0972

Aiwa • Denon • Marantz • Mission • Cyrus •
Monitor Audio • Rotel • Canon • Infinity •
Mordaunt Short • Sony • Technics • Wharfedale

Open 9-5.30 Mon-Sat. Service Dept.



Credit to £1000



JVC



**ELECTRICAL
DISCOUNT
CENTRE**

PIONEER

AKAI

Technics

Jamo

PLUS MANY MORE MAKES

138 Pelham Rd, Gravesend, Kent. (0474) 326600/569601
SALES AND SERVICE

**BOOK YOUR
ADVERTISEMENT
IN HI-FI CHOICE TODAY.
PHONE (071) 631 1433**

Classified

Dealer Guide

WEST MIDLANDS

HI-FI VISION

HI-FI SPECIALISTS IN SEPARATES AND SYSTEMS, PORTABLE AUDIO SPECIALISTS, NICAM TV AND VIDEO SPECIALISTS.

Aiwa, Akai 101 Dealer of Distinction, AR, Bose, Canon, Hitachi, Kef, Kenwood Centre Dealer Panasonic, Pioneer Reference Point Dealer, Philips Collection Dealer (DCC & CDI available), Sony, Toshiba, Wharfedale, Yamaha.

Open 6 days a week.

10 MONTHS INTEREST FREE ON SELECTED ITEMS SUBJECT TO STATUS

122-123 NEW STREET, BIRMINGHAM B2 4JU TEL: 021 633 4944

Norman H. Field Hi-Fi

Consultants for Home High Fidelity

- B & W
- Denon
- Castle
- Dual
- Mordaunt-Short
- Technics
- Thorens
- Tannoy
- Yamaha
- Kenwood

NAD

Two-year guarantee
Private Listening Rooms

HURST STREET
BIRMINGHAM B5 4BJ
Telephone: 021-622 2323

NORFOLK



Near Norwich
Norfolk.
Tel: (0508) 70829

Basically Sound of Norfolk

STOCKISTS OF LEADING HI-FI

Arcam, Linn, Naim, Rega, Dichi, Audiolab, Creek, Epos, Denon, Nakamichi, Acoustic Energy.

NOTTINGHAMSHIRE

NOTTINGHAM ANALOGUE STUDIO

Here we can offer you what we consider the ultimate in domestic musical reproduction.

CROFT • ALBANY • EAR • TUBE TECHNOLOGY • MENTOR • ETC
0773 762947

OXFORD

o v e s t u r e

arcam	jpw
acoustic energy	linn products
audio alchemy	meridian
audio technica	mission
cyrus	naim audio
denon	quad
epos	rotel
heybrook	yamaha

3 Church Lane, Banbury, Oxon
(0295) 272158

SHROPSHIRE

SHROPSHIRE HI-FI THE HI-FI SPECIALIST

ARISTON, AUDIO TECHNICA, DELTEC, DENON, DUAL, INFINITY, KENWOOD, MARANTZ, MORDAUNT SHORT, MUSICAL FIDELITY, MONITOR AUDIO, ORTOFON, PIONEER, PROAC, QED, ROKSAN, RUARK, ROTEL, SONY, E S, TANNOY, TARGET, TEAC, THORENS, TOWNSHEND, WHARFEDALE, ETC.

2 Demonstration Rooms, Free Parking,
Free installation, Repairs, Credit Available.

SHROPSHIRE HI-FI, ST. MICHAEL'S STREET,
SHREWSBURY 0743 232065
SMC GROUP

STAFFORDSHIRE

Active Audio

ARCAM, AUDIO INNOVATIONS, CELESTION, CYRUS, DENON, KEF REFERENCE, MERIDIAN, MARANTZ, NAKAMICHI, PIONEER, MUSICAL FIDELITY, REVOLVER, ROKSAN, ROGERS, ROTEL, RUARK, TANNOY, YAMAHA, ETC.

Active Audio  Active Audio
29 Market Street Tamworth, Staffs Tel: (0827) 53355
29 Stafford Street Hanley, Stoke-On-Trent Tel: (0782) 214994

Car Parking

SURREY

Stockists of: EPOS • HEYBROOK
MICROMEGA • NAIM AUDIO
NEAT • REGA • ROKSAN
ROTEL • ROYD • YAMAHA

9 High Street, Hampton Wick,
Kingston upon Thames,
Surrey KT1 4DA
Tel: 081-943 3530

Infidelity

indecently good hi-fi

Open
Tues
to Sat
10.30am
to
7.00pm.

All the very best equipment plus the world-famous Custom Cable service. Surround sound demo rooms. Free local delivery and installation.
Phone for our unbeatable price list.

UNILET HI-FI 081-942 9567
SOUND ADVICE AT A BETTER PRICE
35 High St, New Maiden, Surrey

SUSSEX

WORTHING AUDIO

20 Teville Gate, W. Sussex. BN11 1UA Tel: (0903) 212133

The friendly shop with the best sound systems in the South.
Friendly advice • 3 yr guarantees • easy parking
Open Mon-Sat 10am-6pm Late night Wed 7:30pm

Agencies include: Arcam, Exposure, Naim Audio, Marantz, Ruark, Mordaunt-Short, Audio Technica, Target, Tripod, Sennheiser, AR, and many more.

NORTH WALES

ACTON GATE AUDIO

THE HI-FI CENTRE IN
WREXHAM

Albarry, Aiwa, ARCAM, Audio Technica, B&W, Cambridge, Celestion, Cyrus, Halfer, Marantz, Michell, Mission, NAD, Nakamichi, Ortofon, Proton, Quad, Radford, Rega, Rogers, Rotel, Sansui, Spondor, Teac, Tannoy, Thorens, Wharfedale, Yamaha, etc . . .

4 RUABON ROAD, WREXHAM
TEL: 0978 364500

MIDDLESEX

Northwood AUDIO

126 Pinner Road, Northwood, Middlesex
HA6 1BP. Tel: 0923 820877

STOCKISTS OF
AUDIO INNOVATIONS,
CASTLE ACOUSTICS, CYRUS, DIAMOND
ACOUSTICS, EXPOSURE, HECO, HEYBROOK,
INFINITY, MARANTZ, MISSION, NAD, ROTEL,
SNELL, THORENS. PLUS MORE.

10% WORTH OF FREE ACCESSORIES
WITH ANY ITEM OVER £200.

• 2 DEM ROOMS • INSTANT CREDIT •

Now also at:
98 Cambridge Street, Aylesbury, Bucks.

HI-FI CHOICE

The
World's
No.1
Buying
Guide



THE MOST EXCLUSIVE INDEPENDENT HI-FI STUDIO

The internal atmosphere and easy access makes it so much more exciting choosing your hi-fi from the finest audio products available.

Just off the High Street, Bloxwich,
Walsall, West Midlands.
(Ample free parking)
(OFF M6 JUNCTION 10)

Tel: (0922) 493499-473499
Just call in or phone Richard or Dorian
for a demonstration.

EST 1981

ALBARRY • ACOUSTIC ENERGY • ARCAM • ART AUDIO • AUDIOLAB • AUDIO ALCHEMY
• AUDIO QUEST • B&W • BOSE • CABLE TALK • CHORD • CYRUS • DPA • ENSEMBLE
EPOS • INFINITY • JPW • KEF REFERENCE • MARANTZ • MERIDIAN • MICROMEGA
MISSION • MOTH • MUSICAL FIDELITY • NAKAMICHI • ORTOFON • PROJECT • QUAD
ROKSAN • ROGERS • ROTEL • SPENDOR • SUMIKO • SYSTEM DEK • TDL • THORENS
TRIANGLE • TUBE TECHNOLOGY • VAN DEN HUL • VANDERSTEEN • YBA • SONIC LINK
• TRIANGLE • INFINITY • SPENDOR

Dealer Guide

NORTH WALES

ELECTRO-TRADER HI-FI

Phone John Hodkinson for expert advice, personal service & keen prices

PRODUCT LIST:

ROTEL, YAMAHA, TEAC, ALPHASON, HECO, INFINITY, JBL, MUSICAL FIDELITY, ROTEL MICH, TANNOY, TDL, INFINITY RENAISSANCE, ION SYSTEMS & MORE!

19 COLWYN CRESCENT, RHOS-ON-SEA, COLWYN BAY, NORTH WALES.

PHONE: 0492 548932

To attract more Hi Fi buyers, call Julian O'Kelly on (071) 631 1433 ext. 7643. Today.

WARWICKSHIRE

HI-FI VISION

COVENTRY'S BIGGEST & BRIGHTEST DEALS
Akai 101 Dealer of Distinction. Aiwa, AR, AKG, Kenwood Centre, Mordaunt Short, Panasonic, Philips, (DCC & CDI available), Pioneer Reference Point Dealer, Rotel, Technics, Wharfedale, Marantz and Yamaha available
10 MONTHS FREE INTEREST ON SELECTED ITEMS SUBJECT TO STATUS.


78 LOWER PRECINCT, COVENTRY CV1 1DX
TEL: 0203 632086
Located near to C&A

WORCESTERSHIRE

HI-FI VISION

FORMERLY THE SONY CENTRE)
WORCESTER'S SONY SPECIALIST
Akai, AR, AKG, Canon, Denon, Fuji and Sony Tape Specialists, Harman Kardon, Jamo, Kef, Marantz, Mission, NAD, Philips Collection Dealer (DCC and CDI available), Panasonic (Portable Audio only), Technics, TV & Video Stockists, Camcorders
Open 9am - 5:30pm, 6 days a week.
10 MONTHS INTEREST FREE ON SELECTED ITEMS SUBJECT TO STATUS
27 THE CROSS, WORCESTER WR1 3PZ
TEL: 0905 726375

YORKSHIRE



ARE YOU MAD?

IF YOU LIVE IN YORKSHIRE AND YOU'RE LOOKING FOR SERIOUS HI-FI AT SENSIBLE PRICES FROM AS LITTLE AS £100, YOU'D BE STARK RAVING MAD NOT TO PAY US A VISIT!

LINN • NAIM • REGA • ARCAM

284 GLOSSOP RD, SHEFFIELD S10 2HS TEL: (0742) 737893

SOUND WITH STYLE

81 NETHER HALL RD, DONCASTER DN1 2QA TEL: (0302) 321421

Specialist Services & Manufacturers

SPECIALIST DEALERS

HEATHERDALE AUDIO

TEL: 0903 261213 or 0860 660001

Ex demo and used equipment:

Audio Innovations 800 Stereo Power Amp	£395
Audio Innovations 1st Audio Stereo Power Amp	£895
Audio Innovations 200 Stereo Power Amp	£295
Audio Innovations 300 INT Amplifier	£295
Audio Innovations 500 INT Amplifier	£595
Audio Innovations 800 mc Transformer	£120
Audio Innovations 1000 mc Transformer	£295
Quad 606 Stereo Power Amplifier	£395
Q.E.D. Stereo Pre-Amplifier	£175
Audio Note OTO Stereo INT Amp (new)	£1299
Full range of Audionote Speakers - please phone	
VOYD Turntable, new, cancelled order	£1195
Audio Innovations 500 INT Amps (new)	£695
Audionote IO, cartridge, low hours	£795
Audio Research D400 Amp ex demo	£4250
Audionote mc Transformer ANS1	£249
Audionote mc Transformer ANS2	£399
Lumley Reference Amps on demo	
Silver Sounds Cable - please phone	
Transfiguration Cartridge - please phone	
Graham Tonearm - please phone	

Open 9am to 9pm 7 days a week

Main Dealer for: VOYD-Audionote and Reference Imports
DEMONSTRATIONS A PLEASURE

Audiophile Cartridges, Ortofon MC3000II, MC2000II, Quasar, Audio Technica AT-ART1, ATOC30.

I also supply: Denon, Shure & Goldring.

Phone/write for exchange/discount prices, details & reviews.
Ian Harrison, 7 Mill Hill, Repton, Derby. Telephone: (0283) 702 875

SECOND HAND & NEW

• SOUNDS AROUND •

Used and new Hi Fi specialists In house Service & Repairs. Demonstration facilities.
Agents for: Audio Technica, Wharfedale, Teac, Dual, Thorens, Mordaunt Short, Tannoy, Celestion.

146 Clarendon Park Road, Leicester
Telephone: Leicester 702442

AERIALS

QUALITY FM AERIALS

If you've spent a lot of money on your hi-fi gear, give your system the final touch with one of our Triax 3 element antennas. These are simply the "bee's knees" in terms of construction and performance and feature heavy-duty seamless aluminium tube, anodised metal fittings, PCB connector and heavy duty clamp (with chunky wing nuts for easy installation). For information on these superb Danish aerials, send for a spec. sheet or to order, send a cheque for £34.95 (inclusive of P&P) to the address below or use your credit card.

TV Masters, 52 St Andrews Street,
Northampton, NN1 2HY Tel: 0604 37769

SPEAKER KITS

FARADAY SOUND

Hi-Fi Choice recommended January 1993
loudspeakers in concrete
Build your own concrete enclosure Faraday FS1, siren FS5 or a design of your own choice. Stunning sound. Good reviews - see e.g. buying guide here. Simple D.I.Y. skills only - full instructions for only £10 (incl. reviews, photos, etc).

"The music has your insides beating in time with the bass, but the cabinets aren't even vibrating." What Hi-Fi? November 1990.
Sonic revelation.

"Matchless dynamics and lack of colourations". What Hi-Fi? September 1991.
248 Hall Road, Norwich NR1 2PW

DISTRIBUTOR

KLIPSCH
HORN LOUDSPEAKERS
(021) 430 7817
UK DISTRIBUTOR

EUROPEAN PRODUCT SPECIALISTS

D I V A
audio fidelity

D I V A evening demonstrations, home demonstrations and installations arranged to suit you, please phone. The shop is open on Saturday to the casual visitor, from 10am, for coffee and music, please call in. A selection of equipment from Audio Innovations • Audio Note • Audiostatic Aura • Conrad Johnson • Cord • Impulse Lectron • Micromega • Michell • Ortofon Pierre Lurine • Primare • Pro-Ject • SD Acoustics Shearne Audio • Teac • Tesserac • Audio Triangle • Tube Technology • YBA is available.

7 Webbs Road, London SW11 1XJ
0 7 1 9 2 4 5 2 8 6

CABLES

SPEAKER'S CORNER HI FI

TELEPHONE 0603 743457



SPECIALISTS IN SONIC
LINK CABLES
AND AMPLIFIERS



Choosing a good hi-fi dealer is the most vital step in acquiring the system that is right for you. This unique directory gives full information on dealers in your area

DEALER Directory



AVON

AUDIO EXCELLENCE, 65 Park Street, Bristol, (0272) 264975. Great hi-fi carefully selected and demonstrated by friendly enthusiastic staff. Closed Mon.

BADA

PAUL GREEN HI-FI LTD, Kensington Showrooms, London Road, Bath, (0225) 316197. Musical Fidelity, Krell, Creek, Rogers, Quad, Yamaha, Rotel, Aiwa, Marantz, AVI. Cust. car park. Best selection in the West.

V AUDIO, 36 Druid Hill, Stoke Bishop, Bristol B59 1EJ. (0272) 686005 ATC, Acoustic Energy, Audio Alchemy, Boulder, Impulse, Micromega, Sound Pipes, SME, Ruark, AVI, Exposure, Dahlquist, Threshold, Pink Triangle, Wadia. Demos by appt only, home trial facilities, free installation, service facilities.

BERKSHIRE

ARC AUDIO, 9 Dukes Ride, Crowthorne, Berks. (0344) 762201. Denon, Harman Kardon, JPW, Marantz, Monitor Audio, Onix, Rogers, Tannoy, Thorens, Yamaha. Demo facilities, no appt necessary, home trial facilities, free install. Access, Visa, Diners. Open 9-5.30 Tues-Sat.

B&B HI-FI, 11-12 Market Place, Reading, Berkshire, RG1 2EG. (0734) 583730. Aiwa, Denon, Kenwood, Mission, NAD, Panasonic, Pioneer, Rotel, Sony, Technics. Free installation, Service dept. Access, Visa, Credit Facilities including interest free credit subject to status. 9.30-5.30, Sat 9-5.30. Also at: Bracknell, Maidenhead, High Wycombe, Newbury. READING HI-FI CENTRE, 4 Queen's Walk, Reading RG1 7QF. (0734) 585463. 'The best equipment, advice and service from Berkshire's premier Hi-Fi emporium'.

BADA

BUCKINGHAMSHIRE

AUDIO INSIGHT LTD, 53 Wolverton Rd, Stony Stratford, Milton Keynes. (0908) 561551. Arcam, Audioblab, Heybrook, Ion, Linn, Meridian, Quad and more. Access, Visa, Finance, Dem. Room etc. DEJAC HI-FI CONSULTANTS, 21 The Broadway, Old Amersham, Bucks, HP7 0HL. Tel 0494 433173. AMC, Arcam, Bose, Meridian, Quad, Rotel, Denon, NAD, Tannoy, Mission, TDL 2 Dem Rooms. Appts Necess. Free Installation. Tricity Finance, Instant Credit, Open 9:30-5:30pm including Sat.

D.L. CHITTENDEN LIMITED, 59-61 The Broadway, Chesham, Bucks, HP5 1BX. (Opposite Boots). Philips, Aiwa, Denon, Kenwood, Canon Audio, Koss, Wharfedale, Nicam, TV & Video, Surround Sound, AV Systems. Showroom Demonstrations from expert and friendly staff. No appts nec. Service Department. Credit facilities available. Open 8.30 to 17.30 Mon-Sat.

TECHNOSOUND, 7 Granville Square, Willen Centre, Milton Keynes. (0908) 604949. Also at Luton and Dunstable.

CAMBRIDGESHIRE

AUDIO FLEET, 2 Foundry Walk, Market St, Ives, Cambridgeshire. (0480) 66123. Naim, Rega, Quad, Yamaha, Mission, Arcsm, Denon, Audio Lab, Meredion, JPW. Musical Fidelity. 9.30am-6pm 6 days. 0% Credit.

BADA

HI-FI COMPANY, 42 Cowgate, Peterborough, Cams. PE1 1NA. (0733) 341755. Pioneer, Technics, Yamaha, Rotel, NAD, Denon, Arcam,

Audioblab, Mission, Kef. No appts necessary, home trial facilities, free install (if necessary), service dept. Access, Visa, Amex, Switch. Open 6 days 10-5.30.

STEVE BOXSHALL AUDIO, 41 Victoria Rd, Cambridge CB4 3BW. (0223) 68305. 10-6 - 6 days. 3 dem rooms, home trial, appts. preferred. Free installation and service dept. Access, Visa & credit.

BADA

UNIVERSITY AUDIO, 1-2 Peas Hill, Cambridge. (0223) 354237. Roksan, Quads, Meridian, Arcam, Musical Fidelity, Marantz, ATC, Pioneer, Yamaha, Infinity. 2 dems, 1 single speaker. Home trial, free install, Service Dept. Visa, Access, Amex, Credit. 9-5.30.

CHESHIRE

ASTON AUDIO, 4 West St, Alderley Edge. (0625) 582704. Wide range of specialist audio, interest free credit. Visa, Access. Home trial.

BADA

DOUG BRADY HI-FI, Kingsway Studios, Kingsway North, Warrington. (Padgate 0925) 828009. 'Largest choice of specialist Hi-Fi in N.W.' All credit cards. 3 Dem rooms. Open 6 days.

BADA

CHRIS BROOKS HI-FI, 29 Gaskell St, Stockton Heath, Warrington. (0925) 261212. Tues-Sat 10-6. 2 dem rooms. Credit facilities. All credit cards. Total absence of bull****.

BADA

CONGLETON HI-FI, 1/1a Duke St, Congleton, Cheshire, CW12 1AP. (0260) 297544. Acoustic Energy, Arcam, B&W, Denon, Epos, Linn, NAD, Nakamichi, Onix, Royd, Target, etc. Superbly appointed single speaker demo facilities. No appts nec, home trial facilities, free installation. 2 year guarantee on all equipment. Access, Visa. Mon-Fri 9.30-5.30 closed Weds.

NORMAN AUDIO, 106 Victoria Str, Crewe. (0270) 211091 Fx (0270) 211795. For full details see our Lancashire entry.

BADA

PETERSHI-FI, 4 St Michaels Sq, Grosvenor Precinct, Chester. (0244) 322063/319392. Arcam, Technics, Sony, Marantz, Dual, Denon, Tannoy, Wharfedale, Quad. 2 Single speaker Dem rooms, no appts nec, free installation service dept. Access, Visa, Amex. Peters credit chargecard. Mon-Sat 9-5.30.

PETER MARTIN HI-FI, 4 Duke St, Congleton (0260 273206), 1 Stanley St, Leek (0533 383780), Celestion, Creek, Exposure, Musical Fidelity, Pink Triangle, Rotel, Ruark, Sony, Systemdek, Tannoy, Technics. 2 Demo Rooms, No appts nec, Home trial, Free install, Service dept.. Access, Visa, Lombard Tricity. Open 4-5.30, 6 days a week. SWIFT HI-FI, St Annes Parade, Wilmslow. (0625) 526213. Aura, B&W, Denon, Kenwood, Marantz, NAD, Pioneer, Rotel, Systemdek, Tannoy, Revolver, JPW. Open 9:30am-6:00pm dem room. No pressure!

BADA

CLEVELAND

ACTIONACOUSTICS, 155-157 High Street, Redcar, Cleveland TS10 3AN. 0642 480723. Audio Innovations, Cambridge, Harman-Kardon, JBL, Michell, Musical Fidelity, Pink Triangle, Revox, Rogers, Thorens, etc. Dem Room. Appts nec. Home trial facilities, free installation, service dept. Access, Visa & H.P. Open 9.15-5.30.

GILSON AUDIO LTD, 172 Borough Road, Middlesbrough. (0642) 248793. Linn, Exposure, Arcam, Mission, Cyrus, Denon, Marantz, Rotel, Pioneer, Audioblab, Tannoy. Demonstration facilities

in main shop and 1 dem. room, appt nec, home trial facilities, free install. on request, service department. Access, Visa, HP. 10-5 - 6 days.

CORNWALL

ART OF MUSIC, Near Launceston, Cornwall. (0566) 86649. AC Magnum, Basis, CAT, Cogan Hall, Diambone Acoustics, Graham, Lumley Reference, Magnum Dynalab, Moth, REL, Silver Sounds, Sonic Link, Transfiguration. Dem studio appointments necessary, home trial facilities, & free installation. Open 7 days.

DEFINITIVE AUDIO, Cornwall, Near St Austell, PL266R7 (0726) 844039. For Audio Components/ Systems which actually work! Impulse, Micromega, Perception, Audio Innovations, Audio Note, Voyd, Systemdek, JPW, Silver Custom Design, D.N.M. Demonstration by appointment only. Demonstrations throughout Cornwall, Free Installation. Service Facilities.

RJF Audio Visual, 84 Pendarves Str, Tucking Mill, Camborne, Cornwall TR14 8NJ. (0209) 710777/ 612260. Exposure, TDL, Michell, Musical Fidelity, Nakamichi, Bower & Wilkins, SME, Micromega, Pink Triangle, Pro-jekt, Perception, Harman Kardon. Integral Demo room/ showroom and special home dems. Appts nec, home trial, free install, service dept. All cards, switch and transax. Open Mon-Sat 9.30-5.30.

CUMBRIA

MISONS SOUND & VISION, 11 Warwick Road, Carlisle CA1 1DH. Tel (0228) 22620. Bang & Olufsen, Arcam, Quad, NAD, Yamaha, Sony. Demo Suite. No appts nec, Home trial facilities, Free Installation, Service Department. 9-5:30 Mon-Fri. Thurs 9-1. Sat 9-5.

PETER TYSON, 6 Abbey St, Carlisle, Cumbria, CA3 8TX. "Cumbria's premiere hi-fi centre". Part exchange welcome. (0228) 46756. Linn, Musical Fidelity, Cyrus, Marantz, Denon, Philips, Nakamichi, Technics, Pioneer, Creek & more. Dem room. Demos without obligation. Home trial, Free install. In-house service dept. Access & Visa. HP 9-5.30pm.

DEVONSHIRE

CHELSTON HI-FI, 38 Walnut Road, Chelston, Torquay, Devon TQ2 6HS. Tel: (0803) 606863. Denon, Marantz, Rotel, Musical Fidelity, Acoustic Energy, NAD, Castle, Heybrook, Celestion, JPW etc. 2 dem rooms. Home trial. Free installation. Access, Visa, Amex, Diners, Hi-Fi Markets Chargecard. Credit facilities. 9.30-7.30 Mon-Fri, 9.30-6 Sat.

THE HI-FI ATTIC, 58 New George St, Plymouth, Devon PL1 1PJ. (0752) 669511. One of the South West's oldest hi-fi shops. We stock all leading manufacturers & if out of the ordinary, we'll get it for you. We are about to be completely re-furnished to give a large demo room with free coffee!! (& whiskey to console the big spenders!!) We have a genuine interest in hi-fi & believe the customer always comes first. Single speaker comparators & a (hopefully) relaxed atmosphere. Bring your own equipment/dics etc. along to have a listen. We have been completely re-furnished to give a large demo room with free coffee. Home demonstrations & installations & interest free credit over £700.

Open 9.30-5.30 & demos can be by appt. STUDIO ACOUSTICS. (0626) 67060. OCM Technology, Shahinian Acoustics, Superplan amplifiers, Nobis loudspeakers & amplifiers, Mirror Image Audio, J.A. Michell, plus other fine equipment. home trial, free install, in-house service dept. Mon-Fri 9-4.30, appointments only.

DORSET

SUTTONS HI-FI, 18 Westover Road, Bournemouth. 0202 555512. Linn, Arcam, Mission, Quad, Audioblab, Rotel, Yamaha, Denon, etc. 2 Single Speaker Listening Rooms, Home Demonstrations, Free Installations. Mon-Sat 9-5.30. Call for details.

BADA

ESSEX

AUDIO T, Gants Hill, 442-444 Cranbrook Rd, Gants Hill, Ilford, Essex 1G2 6LL. Tel: 081 518 0915 Fax 081 554 8463. Arcam, Audioblab, Cyrus, Denon, Kef, Meridian, Rotel, Micromega, Yamaha & many more. Mon-Sat 10-6. 3 yr gntee on Hi-Fi. Free del & instal. 30 day upgrade scheme. Home dems. PX. 2 dem rooms 2 single spker dem rooms.

BADA

1ST AND FOREMOST HI-FI CENTRE, 49-55 North Station Road, Colchester, Essex CO1 1RQ. Tel: (0206) 549842. Fax: (0206) 762900. Tlx: 987873 SAIDG. Trio Kenwood, JVC, Akai, Aiwa, Sony, Pioneer, Technics, Nakamichi, Panasonic, Revox, etc. Home trial, free installation. Service dept. Instant credit available + all credit cards accepted. Mon to Sat 9am-6pm.

BRENTWOOD MUSIC & HI-FI CENTRE, 2 Ingrave Rd, Brentwood. (0277) 221210. Alphason, Denon, Marantz, Quad, DNM, Rock/Glastonbury, E.A.R., Exposure, Kelvin Labs, Rotel, plus many more. Dem facilities, home trial, evening appts, (high end). Home installations. System problem diagnosis. Mon-Sat 9.30-5.30 (Thurs from 10am, Sat from 9am). Credit facilities, Access, Visa, Hi-Fi Markets Chargecard. Service facilities.

LYON AUDIO, 16 Peartree Business Centre, Peartree Road, Stanway, Colchester, Essex CO3 5JN. (0206) 560259. Mission, Cyrus, Arcam, Denon, Rotel, KEF, Rogers, Marantz, NAD, Tannoy. Dem facilities. Mon-Sat 9-6. Installations. Access, Visa. Instant credit. Service dept.

RAYLEIGH HI-FI, 44a High Street, Rayleigh, Essex. (0268) 779762/747571. 216 Moulsham St, On-the-Parkway, Chelmsford. (0245) 265245. 132-134 London Road, Southend-on-Sea. (0702) 432525. A&R, Creek, Cyrus, Denon, Epos, Ion, Linn, Mission, Naim, Quad, Rega, Roksan, Rotel, Royd. 0% finance.

BADA

THOMSONS, 2 High Street, Great Baddow, Chelmsford, Essex. Tel: (0245) 71465, Fax 0245 77528. JVC, Kenwood, Mitsubishi, Toshiba, Tannoy, Mordaunt-Short, Wharfedale, Philips, Audio-Visual dealer. Home trial. Free installation. Service dept. Access, Visa, HP. Open 9-1, 25.30 Mon-Sat. Open 9-1 Wed.

GLOUCESTERSHIRE

AUDIO EXCELLENCE, 58 Bristol Road, Gloucester. (0452) 300046. Great Hi-Fi carefully selected and demonstrated by friendly and enthusiastic staff. Closed Mon.

BADA

AUDIO T, 40-42 Albion St, Cheltenham, Glos. GL52 2RQ. (0242) 583960. Fax (0242) 226435.

Great hi-fi from Arcam, Audiolab, Cyrus, Denon, Linn, Meridian, Mission, Rogers, Rotel, Yamaha and many more. Mon-Fri 10-6pm. Sat 9.30-5.30. 3 yr gntee on Hi-Fi. 30 day upgrade scheme. Home dems. PX. Single speaker dem room Free del. and instal. **BADA**
HUTCHINSONS, 295-297 High Str, Cheltenham, Glos. GL50 3HL. (0242) 573012. Pioneer reference point, Technics, Dual, NAD, JWharfedale, Celestion, Marantz, Aiwa, Kenwood, Sennheiser. No appts necessary, free install, service dept. Instant credit up to £1000. Open Mon-Sat 9.15-5.30.
R LEWIS & CO Ltd, 45 High Str, Stroud, Gloucestershire GL5 1AW. (0453) 762485/9. Bang & Olufsen, Denon, Dual, Mission, Mordaunt-Short, Pioneer, Sony, Technics, Yamaha, Celestion etc. In store dems, free install, service dept. Access, visa. Open 8.30-5pm 6 days.

HAMPSHIRE

AUDIO SOUTH for further details see the Surrey entry.
AUDIO T, 4 Feathers Lane, Basingstoke, Hants. RG21 1AS. (0256) 24311, Fax (0256) 24430. Great hi-fi from Linn, Arcam, Audiolab, Cyrus, Denon, Linn, Meridian, Mission, Rotel, Yamaha and many more. Mon-Sat 9.30-5.30pm. 3 yr gntee on Hi-Fi. Free del & instal. 30 day upgrade scheme. Home dems. PX. Single speaker dem room. Free del. and instal. **BADA**
HAMPSHIRE AUDIO LTD, 2-12 Hursley Rd, Chandlers Ford. (0703) 252827/265232. Quality CD and analogue equipment. 5 dem studios. Large free car park. Thurs late eve. **BADA**
JEFFERIES HI-FI (Portsmouth) 29 London Road, Portsmouth PO2 0BH
Tel: 0705 663604. 2 Dem Rooms, closed Mondays. Late night Wed. Free Parking Bus route. Credit facilities. **BADA**

HEREFORDSHIRE

ENGLISH AUDIO, 95 Whitecross Road, Hereford HR4 0DG. (0432) 355081. Musical Fidelity, Arcam, Pink Triangle, Denon, Marantz, Mission-Cyrus, Tannoy, Rotel, NAD, Nakamichi, TDL, and others. Single Speaker Dem room. Home trial. Free install. Service Dept. Access, Visa, Credit arranged. Open Mon-Sat 10am-6pm.
GOSPEL MUSIC AUDIO, 32A High St Kington, Herefordshire. (0544) 230254. New Shop open: Castle Video, 1 Spa Centre, Station Crescent, Llandrindod Wells (0587 824 0200) Alphason, Alison, Revolver, Luxman, Yamaha, QED, Audio Systemline, Wharfedale, Jamo, Micromega. No appts nec., home trial facilities, service dept. - 5.30 + evening dems.

HERTFORDSHIRE

ACOUSTIC ARTS LTD, 101 St Albans Rd, Watford, Herts. (0923) 245250. Fax (0923) 230798 Absolute Sounds, Acoustic Energy, Audiolab, Chord, Denon, Marantz, Meridian, SME, TDL, Teac, Tues-Sat 9.30-6.00. **BADA**
AUDIO FILE, 27 Hockerill St, Bishops Stortford, Herts CM23 2DW. (0279) 506576. 9.30-5.30 open 6 days. Dealer of the Year 1988/89. Linn, Naim, Quad, Cyrus, Arcam, Roksan, Denon, Epos, Rotel, KEF, ProAc. 0% credit. **BADA**
RADLETT AUDIO, 141 Watling Street, Radlett, Hertfordshire, WD7 7NQ. (0923) 856497. Mark Levinson, Proceed, PRO AC, Magnepan, Martin Logan, Tube Technology, Teac, Roksan, Audiolab, Rotel. Home trial facilities, Free Install, Service Dept. Visa, Access 9-5:30 Mon-Fri 10-5:30 Sat STUDIO 99, 82 High Street, Harpenden. (0582) 764246. Linn, Naim, Meridian, QED, Nakamichi, Mission/Cyrus, Quad, Creek, KEF, Bang & Olufsen, Yamaha etc. Quiet single speaker dem room. Appts nec. Home trial, free install. Service Dept. Visa/c, Access/c & finance terms. 9-5.30pm (Mon/Sat). Closed Weds. **BADA**

NORTH HUMBERSIDE

JUST AUDIO, 2A Foston Lane, North Frodingham, Driffield. Tel 0262 488700, call for details.
SUPERFI, 4 Dock Str, Queens Gardens Hull, HU1 3DL. (0482) 24051. See main entry under Nottinghamshire for full details.

KENT

CANTERBURY HI FI, 50 Burgate, Canterbury, Kent. (0227) 765 315 B&W, Denon, Kenwood, Cerwin-Vega, Yamaha, Technica, Rogers, Musical Fidelity, Sony, NAD. No appointments necessary. Free Installation. Service Dept. Access and Visa

Mon-Sat 9-5:30
JOHN MARLEY HI-FI CENTRES, 2 Station Rd, West Canterbury. (0227) 769329. Also at Dover - (0304) 207562. Arcam, Aura, B&W, Heybrook, JPW, Pro-Ac, Pioneer, Rotel, Ruark, Tannoy, Technics. Dem and home trail fac. Mon-Sat 9-5.30 closed Thurs. Free install. Credit to £1,000. Access, Visa, Credit charge. Service dept.
KIMBERLEY HI-FI, 193 Broadway, Bexleyheath, Kent. (081) 3043272. Pioneer, Technics, Kenwood, Denon, NAD, Aiwa, Tannoy, Mission, Wharfedale, B&W. Separate dem room, no appt nec. Free installation. Service Dept. Instant credit facilities. 9.30-5.30. No early closing.
PANATEC SOUND & VISION CENTRE, 83b High Str, Gillingham. (0634) 573141. B&W, Bose, Cambridge, Dual, Kenwood, Marantz, Pioneer, Philips, Sony, Tannoy, Technics, Wharfedale. Dem room facilities. 0% credit, Service Dept. Free installation. Pioneer Reference Point Dealer.
PANATEC SOUND & VISION, 17 Week Str, Maidstone. (0622) 661488. See above for details.
SOUND CRAFT HI-FI, 40 High St, Ashford (0233) 624441. No. 1 in Kent for Linn, Naim, Rega, Roksan, Exposure, Onix, Epos, Royd, Creek. But before you choose equipment choose where to buy it. Dem room, appts necessary. Home trial and free installation. Visa, Access, Bada Chargecard. 9-5.30 Mon-Fri (Wed & Sat to 5 only). Service Dept. **BADA**

VOLUME ONE, 41 Upper Wickham Lane, Welling, DA16 3AD. 081 304 4622. Arcam, Dual, Epos, Exposure, Mordaunt Short, Monitor Audio, JPW, Marantz, Micromega, Nakamichi, Pink Triangle, Rotel, Royd, Ruark, Sony, Systemdek. Large demo room, no appt nec. Evening dems in shop by appt. Home trial & demo, free delivery & installation. Access & Visa, 10.00-6.00 Mon-Sat.
V J HI-FI, 29 Guildhall St, Folkestone. (0303) 56860. Mon-Sat 9-6. NAD, Yamaha, Marantz, Sony, Tannoy, Denon, Kenwood, Rogers, Musical Fidelity, Quad, Dem and home trial facilities, free install, credit to £1000. Amex, Diners, Visa, Access. Service dept.
V JHI-FI, 119 High Street Margate. (0843) 226977. For full details see our above entry.

LANCASHIRE

NORMAN AUDIO, 131 Friargate, Preston, Lancs. PR1 2EE. Tel 0772 53057. Fax 0772 562731. Marantz, Pioneer, Yamaha, Audiolab, Arcam, Mission, Cyrus, B&W, KEF, Sender Catalogue. Home Cinema Dem room. No appt nec, Home trial facilities, free installation. Instant credit subject to status. Open 9.30-5.30, late night Wed till 8.00pm. **BADA**
NORMAN AUDIO, also at 216 Church Str, Blackpool, (0253) 295661, Fax (0253) 295722. **BADA**
ROMERS HI-FI CENTRE, 94-96 High Street, Rishton, Blackburn, Lancs, BB1 4LQ. Tel: 0254 887799. Musical Fidelity, Technics, Pioneer, Marantz, Revox, Tannoy, Celestion, Sony, Panasonic, Mission. Single Speaker Dem Room. Also wired for pro logic. No appts nec. Home trial fac by arrangement. Free Install, Service Dept. Access, Visa, Switch, Interest free on selected products. Open 9-5:30 Wed 9-1:00

LEICESTERSHIRE

MAYS HI-FI, 27/33 Churchgate, Leicester. LE1 3AL. (0533) 625625. Sony, Technics, Denon, Kenwood, Pioneer (Reference Point) Philips, B&W, Tannoy, Mission/Cyrus, Dual, Listening room, free install, service dept. Full range of credit facilities. Open Mon-Sat 9-5:30 Thurs 9-1:30
LEICESTER HI-FI CO, 6 Silver Walk, St Martins Square, Leicester LE1 5EW. Tel: (0533) 539753. Fax (0533) 626097. Acoustic Energy, Arcam, Marantz, Micromega, Mission/Cyrus, Musical Fidelity, Nakamichi, Meridian, Rogers, Roksan, "and oodles more". 2 Dem rooms, home trial arranged, free install, service dept. Credit facilities, Access, Visa, Diners, Amex, 6 days 9.30-5.30. Bada Member **BADA**
LISTEN INN, 6 Hotel Street, Leicester. (0533) 623754 (Fax) 0533 623758. Linn, Arcam, Royd, Heybrook, Creek, Neat, Mission, Cyrus, Audiolab, Quad, Denon, etc. 2 Dem Rooms. **BADA**
SOUND ADVICE, The Factory, Duke St, Loughborough LE11 1ED. (0509) 218254. Shahinian, Rega, Naim, Linn, Royd, Yamaha, Rotel, Arcam, Nakamichi, JPW. 3 demonstration areas, no appts necessary, free installation, service department. Lombard credit charge, Access, Visa. Mon-Fri 9.30-6.00, Sat 9.30-5.30.

STEREO SHACK, 1-3 Guildhall Lane, Leicester. Tel 0533 530330. Aiwa, A.R., Denon, Kenwood, Jamo, Mission, NAD, Philips, Pioneer, Rotel, AV Speciality. Free Install Open 9.30 - 5.30 6 days. Credit available.

LINCOLNSHIRE

BOSTON HI FI CENTRE, 65a Wide Bargate, John Adams Way, Boston, Lincs PE21 6SG. (0205) 365477. Quad, Nakamichi, Arcam, Marantz, NAD, Castle, JPW, Rogers, etc. Separate demo studio. Home trial. Free installation. Access, Visa. Tues-Sat 9-5 pm.
STAMFORD HI-FI CENTRE, 9 Red Lion Square, Stamford, Lincs PE9 2AJ. (0780) 62128. Pioneer, Technics, Cyrus-Mission, Rotel, NAD, Yamaha, Kenwood, Marantz, Quad, plus all major speaker manufacturers. Expert advice, comparator demonstrations, on two floors, part exchange Hi-Fi purchased for cash. No appointments necessary, home trial facilities, free installation, service department. Mastercard, Visa & credit charge, finance available. Mon-Sat 9-5.30pm, closed Thursdays.
SUPERFI, 271A High Str, Lincoln LN2 1JG. (0522) 520265. See main entry under Nottinghamshire for full details.

LONDON

ANALOG AUDIO, 849 High Road, London N12. (081) 445 3267. Cambridge, Denon, Rotel, Yamaha, Marantz, Wharfedale, Teac, Mordaunt-Short, Cerwin Vega, Nad. Free install. Service dept. Instant credit up to £1000. Visa & Access. 9.30-6.6 days.
AUDIO T, 190 West End Lane, West Hampstead, London NW6 1SQ. (071) 794 7848, Fax (071) 431 3570. Great hi-fi from Linn, Arcam, Audiolab, Cyrus, Denon, Meridian, Mission, Philips, Rotel, Proac, Micromega, Yamaha, and many more. Mon-Sat 10-6pm. 3yr gntee on Hi-Fi. Free del & instal. 30 day upgrade scheme. Home dems. PX. 2 dem rooms. AV Dept. **BADA**
BILLY VEE SOUND SYSTEMS, 248 Lee High Road, London SE13. (081) 318 5755. Arcam, Linn, Naim, Quad, etc. 2 dem rooms. Int. free credit. Access, Visa. Closed Thurs. **BADA**
CORNFLAKE SHOP, 37 Windmill St (just off Tottenham Court Rd), London W1. (071) 631 0472 (domestic). (071) 323 4554 (multiroom). Fax. (071) 323 4554 Fax. (071) 436 7165. Tues-Sat 10-7 Rega, Roksan, Naim, Monitor Audio, Arcam, Nakamichi, Rotel, Epos etc. 3 dem rooms. (incl. home cinema) Friendly, professional service. Home trial facilities. Appointments preferred. Full delivery and repair service. Multiroom specialists. Access & Visa.
COVENT GARDEN RECORDS, 84 Charing Cross Road, London WC2 (071) 379 7635, Fax (071) 836 1345. London's premier digital audio centre, PhotoCD, DCC, CD, & 16X9 TV'S. Audiolab, B&O, Marantz, Mission, Cyrus, Philips, Pioneer, Rotel, Rogers, Quad, Sony, Technics, single speaker dem rooms, appointments suggested, installation service available. All major credit cards accepted. Mon-Sat 10am-7.30pm.
DOUG BRADY HI-FI, 14-18 Monmouth St. London WC2H 9HB. (071) 379 4010. Wide range of top specialist hi-fi from Britain, America and Japan. 3 dem rooms. Closed Monday. **BADA**
GRAHAMSHI-FI, Canonbury Yard, 190a New North Rd, London N1 7BS. (071) 226 5500. Winner Sony/HFN Greater London Dealer Award 1986-1989-1990. Linn, Naim, Rega, etc. £400-£3000-£13,000. Open Tues-Sat **BADA**
HI-FI COMPONENTS, 84 Battersea Rise, London, SW11 1EH. Tel: 071 2231110. Tannoy, Kenwood, Rotel, NAD, QED < Wharfedale, Dual, Shure, Ortofon, Celestion. Appts nec, Service Dept. Access, Visa, Diners, Amex, Open 10-6 Closed Wed.
MUSICAL IMAGES LTD. See under Middlesex & full page advert in the Product Directory.
SOUND ORGANISATION LONDON, 4 Pickfords Wharf, Clink Street, London, SE1 9DG. Tel 071 403 2255. Audio Research, Aura, Creek, Epos, Exposure, Heybrook, Koetsu, LFD, Lyra, Martin Logan, Micromega, Naim, Nakamichi, Rega, Rotel, Roksan, Royd, SME, Sonus Faber. Interesting new equipment always under evaluation. 2xsingle speaker listening rooms. Appts preferred. Free Installation. Service Department. Open Tues-Sat 10-6. Late dem by appointment.
SOUND SENSE, 350 Edgeware Road, London W2

1DX. (071) 402 2100. Alphason, B&W, Kenwood, Nakamichi, Celestion, Denon, Monitor Audio, Marantz, NVA, Sony ES, Yamaha. Appts preferred. Installations available. Access, Visa, Standard credit facilities. Mon-Sat 9.30-6.30.
STUDIO 99, 79-81 Fairfax Road, Swiss Cottage, London NW6. (071) 624 8855. Naim, Rega Quad, Meridian, Mission/Cyrus, ATC, Nakamichi, KEF, Yamaha, Arcam, Epos, Acoustic Energy, Bang & Olufsen, etc. 2 single speaker dem rooms. Service dept. Visa/c, Access/c & finance terms. 10-7 Mon-Fri, 10-6 Sat. **BADA**
SUPERFI, 2-4 Camden High Street, Camden, NW1 0JH (071) 388 1300. See main entry under Notts for full details.
UXBRIDGE AUDIO - CHISWICK, 109 Chiswick High Road, Chiswick, W4 2ED (081) 742 3444 Fax (081) 742 3295. 2 Demo Rooms, Installations, 2 Year Guarantee, 7 day exchange. Major credit cards, Tues - Sat 10 - 6, See Middx entry for brands stocked. **BADA**
VOLUME ONE, 41 Upper Wickham Lane, Welling. (081) 304 4622. For full details see entry under Kent.
ZEBRA, 18-24 Brighton Road, South Croydon CR2 6AA. 081 688 2093. Audio lab, Arcam, KEF Reference, Marantz, Mission, Micromega, Pioneer, Rotel, Sony, Tannoy, and large range of AV equipment. S2 Air Conditioned Demo Rooms. in a more casual environment. Service department. Mon-Sat 9.30-6.00. Access, Visa & instant credit up to £1000 subject to status.

GREATER MANCHESTER

CENTRAL RADIO, 30-32 Shudehill, Manchester M4 1EY. Tel 061 834 6700. JBL, Mission, B&W, Wharfedale, Aiwa, Teac, Harman Kardon, Dual, Thorens, Pioneer. Service Dept. Free installation. Access, Visa, Switch. Interest Free and standard. Credit available. Mon-Sat 9-5.30.

THE AUDIO COUNSEL, 12 Shaw Road, Oldham, Manchester OL1 3LQ. (061) 633 2602. Linn, Yamaha, Rega, Rotel, Arcam, Micromega, EPOS, Creek, Nakamichi, Denon. 2 dem rooms. Free install. Visa, Access, Licenced credit brokers up to £1000 instant credit. 10.00-5.30 Tues, Weds, Sat; 10.00-7 Thurs & Fri. Closed Mon.

MURRAY HI-FI, 19 Middle Hillgate, Stockport. (061) 429 7666. Linn, Naim, Rega, Arcam, Yamaha, Royd, Epos, Creek, Nakamichi, Rotel. Full demo facilities, free installation & delivery, service dept. Full 2yr guarantee on all products. Access, Visa, Lombard Tricity, licensed credit broker. 10-6 Tue-Sat.
SWIFT OF WILMSLOW, 4-8 St Annes Parade, Wilmslow. (0625) 526213. Aura, B&W, Denon, Kenwood, Marantz, NAD, Pioneer, Rotel, Tannoy, Revolver, JPW. Open 9:30am-6:00pm 2 dem rooms. No pressure! **BADA**

MIDDLESEX

AUDIO T, 159a Chase Side, Enfield, Middx EN2 0PW. (081) 367 3132, Fax (081) 367 1638. Great hi-fi from Arcam, Audiolab, Cyrus, Denon, Meridian, Micromega, Mission, Philips, Rotel, Yamaha and many more. Mon-Fri 10-6pm. Sat 9.30 - 5.30 3 yr gntee on Hi-Fi. Free del & instal. 30 day upgrade scheme. Home dems. PX. 3 dem rooms. AV Dept. **BADA**
HARROW AUDIO, 27 Springfield Rd, Harrow. (081) 863 0938. Mon-Sat 9.30-5.30. A&R, Audiolab, Cyrus, Denon, Epos, Monitor Audio, Musical Fidelity, Nakamichi, Quad, Rotel, Tannoy, Thorens, Yamaha, etc. **BADA**
MUSICAL IMAGES LTD. 173 Station Rd, Edgeware (081) 952 5535, fax (081) 951 5864 and 45 High St, Hounslow. Tel (081) 569 5802, fax (081) 569 6353. Most brands available - see full page advert in Product Directory. Interest free credit available, ask for details. Demo Room, Repairs & Service, Mail Order facilities.
RIVERSIDE HI-FI LTD, 422 Richmond Road, East Twickenham, Middlesex TW1 2EB. Tel. (081) 892 7613. Fax (081) 892 7749. A.R., Arcam, Audio Innovations, Castle, Dual, Denon, KEF, Luxman, Michell, Musical Fidelity, Micromega, Marantz, Nakamichi, Rotel, Spenhdor, Systemdek, Tannoy, Yamaha. One demo room, in-car demo for car hi-fi systems. Appts not always necessary. Home trial facilities. Free installation, service dept. Lombard Tricity, Access, Visa, Amex, Diners Club. Mon-Sat 9.30-6, Thurs, Fri 9.30-7.

DEALER Directory

SIGHT N SOUND, The Treaty Centre, Hounslow, Middlesex TW3 1ES. 081 572 5418, fax 081 572 5417. Sony, Kenwood, Finlux, Toshiba, Philips, Sanyo, Grundig, Pioneer, Technics, Akai. No appts nec, free intall, service dept. Access & Visa, financing available. 9-6pm Mon-Sat.

MERSEYSIDE

W.A. BRADY & SON, 401 Smithdown Rd, Liverpool L15 3JJ. (051) 733 6859. 'Largest choice of specialist Hi-Fi in N.W. £100-£20K'. All credit cards. 3 dem rooms. Closed Monday. **BADA**
P & A AUDIO (BIRKDALE) LTD 31 Liverpool Road, Birkdale, Southport (0704) 68373. Arcam, Cambridge, Creek, Denon, Michell, Mission/Cyrus, Mordaunt-Short, NAD, Pink Triangle, QED, Revolver, Rogers, Rotel, Royd, Tannoy. 3 Single speaker demo rooms and Nicam surround sound dem room. Free delivery, installation (Merseyside) Service dept, Mon-Sat 9-5.30 Half day Tues, Access, Visa, Lombard.

PETERS HI-FI 11 Werburgh Sq, Grange Precinct, Berkenhead. (051) 647 5626. 9-5.30 closed Thurs. See Cheshire entry for full details.
PETERS HI-FI, 8 High Street, Bromburgh, Wirral. (051) 334 1874/2825. Open 9-5.30 6 days a week. See Cheshire entry for details.

WEST MIDLANDS

AMADAEUS SOUND & VISION, 10 Boldmere Road, Sutton Coldfield, West Midlands Tel (021) 354 2311. Arcam, Audio Innovations, B&O, Carver, Castle, QED, Wharfedale, Yamaha, Cambridge Audio, Hafler. Single Speaker demo, appts preferred, service available, installations. B&O link install, home trials. Access, Visa, interest free credit available subject to status. 9.30-6pm 6 days.

FRANK HARVEY HI-FI EXCELLENCE, 163 Medieval Spon Street, Coventry. (0203) 525200. All major agencies. Free inst. Service dept. Part ex. 3 dem rooms. Mon-Sat 9.30-5.30. Wed til 8pm. **BADA**

GRIFFIN AUDIO LTD, 94 Bristol Street, Birmingham. (021) 692 1359/(021) 622 2230. Arcam, Castle, Cyrus, Denon, Linn, Marantz, Naim, Quad, Rega, Rotel. Tues-Sat 10-6. **BADA**

MUSICAL APPROACH, 37 High Street, Aldridge, Walsall, W. Mids. (0922) 57926. Linn products, Arcam, Creek, NVA, Revolver, Onix, Epos, Marantz, Rotel, Quad & more. Dem facts. Home trial. Service dept. Credit facts available. Access, Visa. 9.30-5.30 Mon-Sat. 9.30-1 on Thurs.

MUSIC MATTERS, 351 Hagley Road, Edgbaston, Birmingham B17 8DL. (021) 429 2811. Roksan, Nakamichi, Arcam, Audiolab, Musical Fidelity, Mission/Cyrus, Meridian, KEF, Monitor Audio, Pink Triangle. 2 single speaker luxury demo rooms. Appts nec, home trial facilities, free installation, service dept. Access, Visa, instant credit up to £1000, interest free credit available. Tue-Thur 10.30-6, Fri 10.30-8, Sat 10-5.30.

NAAM HI-FI VISION, 122-123 New Street, Birmingham. (021) 633 4944. Pioneer, Akai, Aiwa, Panasonic, Yamaha, Toshiba, Hitachi, Bose, Wharfedale, Sony. Demo facilities available, appointments preferred. Access, Visa, 10 month interest free credit. Amex, Lombard Tricity Creditcharge. Mon-Sat 9-6.00.

NORFOLK

BASICALLY SOUND, The Old School, School Rd, Bracon Ash, Norwich NR14 8HE. (0508) 70829. Arcam, Linn, Naim, Denon, Spondor, Exposure, Audio Technica, Creek, Rega, Epos, etc. 2 comprehensive dem rooms. Home trial. Free installation. Visa, Access, HP facilities. Tues-Sat 9.30-1, 2-5.30.

MARTINS HI-FI, 5 High Street, Kings Lynn. (0553) 761683. Est. 1968. Making good vibrations for 20 years **BADA**

MARTINS HI-FI, 85/91 Ber Street, Norwich. (0603) 627010. Est. 1968. Making good vibrations for 20 years **BADA**

NORTHAMPTONSHIRE

AUDIO CRAFT 23-25 Derngate, Northampton, NN1 1TY. Tel: 0604 36291 Bang & Olufsen, Kenwood, Technics, Marantz, Celestion, Mordaunt-Short. No appts nec, Free Install, Service Dept. Open Mon-Sat 9-5.30pm
CLASSIC HI-FI + VIDEO, School Lane, Kettering, Northants. (0536) 515766. Rotel, Musical Fidelity, Wharfedale, Yamaha, JBL, Cyrus, Nad, Pioneer, Marantz, Kenwood, Kef, Celestion, and many more. Home trial, free instal., service dept. Access, Visa, credit facs. 9.30-5.30pm.
LISTEN INN, 32 Gold Street, Northampton. (0604) 37871 (Fax) (0604) 601430. Linn, Naim, Epos, Royd, Mission, Cyrus, Arcam, Audiolab, Neat, Creek, Quad, Denon etc. 2 Dem Rooms **BADA**

NOTTINGHAMSHIRE

CHANTRY AUDIO, Chantry Walk, 18-18a Eldon Street, Tuxford, Nr Newark, Notts NG22 0LH. (0777) 870372. Pink Triangle, DPA, Rotel/Michi, Micromega, NVA, Alchemist, Michell, Monitor Audio, Lumley, SME and much more! 3 dem rooms. Home trial, free installation, service dept. Access, Visa & credit facilities and mail order. Mon-Sat 9:30-6pm Sun & evenings home dem by appt.

DEFINITIVE AUDIO, (0602) 813562. For a carefully considered approach to building a true hi-fidelity audio system with components derived from the following manufacturers; Audio Innovations, Snell, Wadia, Micromega, Deltec, Voyd, Systemdek, SME, Revox, Ortofon, Pioneer. Demos by appt. Please phone for further details. Installation free of charge. Mon-Sat 10-7pm, closed Wed a.m.

NOTTINGHAM HI-FI CENTRE, 120-122 Alfreton Road, Nottingham. (0602) 786919. Over 25 years experience, superb demo rooms, extensive range, free parking. Mon-Sat 9-5.30. **BADA**

PETER ELLIS AUDIO, 29 Kirkgate Newark, Nottingham, NG24 1AD (0636 704571) Quad, Castle, Arcam, QED, Sugden, Tannoy, Thorens, Marantz, Denon, Teac. Demo Room, Free Install, Service Department. Access, Visa. Mon-Sat 9-5:30 Close at 1:00pm on Thursday.

SUPERFI, 15 Market Str, Nottingham NG1 6HY. (0602) 412137. Kenwood, Technics, Denon, Aiwa, Rotel, Wharfedale, Mission, Marantz, NAD < Celestion, and many more. 2 single speaker dem rooms. Free install on systems, service dept. Access & Visa, Amex. Open 9-5.30, 6 days.

OXFORDSHIRE

ASTLEY AUDIO LTD, 3 Marketplace, Wallingford. (0491) 839305. Aura, B&W, Technics, Panasonic, Pioneer, Kenwood, Sony, Yamaha, Denon, Dual, Mission, Tannoy. Home trial, free installation. Service dept. Access, Visa, Amex, Diners. Instant credit. Tue-Fri 9-5.30, Sat 9-5. Records & CDs stocked.

AUDIOT, 19 Old High St, Headington, Oxford OX3 9HS. (0865) 65961, Fax (0865) 60415. Great hi-fi from Arcam, Audiolab, B&O, Cyrus, Denon, KEF, Meridian, Mission, Rotel, Sony, Yamaha and many more. Open Mon Fri 10-6pm, Sat 9.30-5.30. 3 yr gntee on Hi-Fi. Free del & instal. 30 day upgrade scheme. Home dems. PX. 2 dem rooms. AV Dept. **BADA**

OXFORD AUDIO CONSULTANTS LTD, Cantay Hse, Park End Street, Oxford OX1 1JE. (0865) 790879 fax (0865) 791665. NAD, Rotel, Musical Fidelity, Pioneer, Marantz, Rogers, TDL, Thorens, Audio Research, Proceed. 2 Demo rooms. Service Dept. Home trial and free installation. Instant credit, Access, Amex, Visa. 10-6 Mon-Sat.
WESTWOOD AND MASON, 46 George Street, Oxford. Tel: 0865 247783 Arcam, Rotel, Rega, Epos, Tanoy, Royd, JPW, Mission, Nakamichi,

Denon, Aiwa, Naim, Quad, Aura, Teac. Open 9:30-5:00pm. Dem room. Closed Thursdays. **BADA**

SHROPSHIRE

AVON HI-FI, 12 Barker Street, Shrewsbury, Shropshire SY1 1QJ. (0743) 55166. NAD, Quad, B&W, Arcam, Kenwood, Aiwa, Bose, Nakamichi, Revolver, Onkyo. Dem room. Home trial. Free install. Service dept. Access, Visa. £1000 instant credit. Mon, Tues, Wed, Fri, Sat 9-5.30.

CREATIVE AUDIO, 9 Dogpole, Shrewsbury. (0743) 241924. Linn, Naim, Roksan, Mission, Arcam, Rogers, Denon, Marantz, Rotel, Celestion, etc. Dem room. Home trial and free installation. Credit to £1000. Access, Visa. Tues-Sat 9.30-5.30. Service dept.

MID-SHROPSHIRE AUDIO, 4 Holland Court, Dawley, Telford TF4 2EX. (0952) 630172. Audio Innovations, Marantz (inc Music Link), Denon, Tannoy, Ortofon, Pink Triangle, Ion Systems, Systemdek, Ruark, Monitor Audio etc. 2 dem rooms. Home trial, service dept. Instant credit up to £1000 Access, Vsa, Amex.

SOMERSET

MIKE MANNING AUDIO, 110 Middle Street, Yeovil, Somerset BA20 1NE. (0935) 79361, Fax (0935) 32923, Mobile(0850) 325965. Naim, Roksan, Pink Triangle, A+R (Arcam), iON, NAD, Pioneer, Rotel, Denon, etc. Dedicated listening lounge, for relaxed and unpressured demonstrations. Appts not usually nec. but best to phone first. Home trial facilities on request, free installation, service department. Instant credit, Access & Visa, etc. 9-5.30 closed Mondays.

STAFFORDSHIRE

GRANGE HI-FI LTD, 153 Branston Rd, Burton-on-Trent, Staffordshire DE14 3DQ. (0283) 33655. Albany, Audio Innovations, Arcam, Castle, Denon, Pink Triangle, Marantz, Rotel, Rogers, Systemdek, SME, Tannoy, TDL. Dem fac, appts nec on Sat, Free Install. Service dept Access, Visa. 9.00-5.30pm. Closed Mon & Wed afts. Closed for lunch 12.00-12.30.

SUFFOLK

BURY AUDIO, 47 Churchgate Street, Bury St Edmunds, Suffolk, IP 33 1RG. Tel 0284 724337. Arcam, Furukawa, Heybrook, Infinity, Marantz, Meridian, Michell, Pink Triangle, Proac, Rotel, Target, Roksan, Shahinian, Quad, etc. Single Speaker Room. No appointments necessary. Home trial facilities. Free Installation. Service Department. Access, Visa, Switch. Open 6 days a week. Mon/Tues/Sat 9.30-5.30 Thurs/Fri 9.30-7.00. Closed Wed

EASTERN AUDIO, 41 Bramford Rd, Ipswich. (0473) 217217. Quad Audio Lab, Denon, Dual, Marantz, Mission, NAD, Nakamichi, Technics, Arcam. Mon-Sat 9.30-6. **BADA**

SURREY

AUDIO SOUTH, 24 (The Woolmead) East Str, Farnham, Surrey GU9 7TT. (0252) 714555. Audio Note, Deltec, JPW, Marantz, Rotel, Teac, etc. AV specialist. Dem room and evening appointments available. Home trial facilities. Free installation. Access, Visa. 10.30-6 Mon-Sat.

COSMIC, 244/256 Station Road, Addlestone, Surrey, KT15 2PS. (0932) 854522/851753/843769. Fax (0932) 841615. Most brands stocked, including Aiwa, Arcam, Denon, Mission Cyrus, NAD, Nakamichi, Pioneer, Quad, Rotel, Yamaha, etc. Open 7 days 9-6pm. Part exchange, large free car park, service dept, instant credit available, Access, Visa, Switch.

DATASOUND, 23 South Street, Dorking, Surrey RH4 2JZ. (0306) 882897. Arcam, Celestion, Denon, Dual, Marantz, Mission, Musical Fidelity, NAD, Rotel, Tannoy. Dedicated listening room.

Free install. Service dept. Up to £1000 instant credit subject to status. 9.30-5.30 6 days.

PJHI-FI - the Hi-Fi Shop, 3 Bridge Street, Guildford, Surrey GU1 4RY. Tel: (0483) 504801. 9-6 Mon-Sat. Linn, Meridian, Creek, Arcam, Quad, Revox, Musical Fidelity, Rotel, NAD, Nakamichi, Marantz. **BADA**

RIVERSIDE HI-FI, 422 Richmond Road, East Twickenham, TW1 2EB. Tel: (081) 892 7613. Fax: (081) 892 7749. See main entry under Middlesex.

ROGERS HI-FI, 13 Bridge Street, Guildford, Surrey. (0483) 61049. Aiwa, Creek, Denon, Dual, JPW, Marantz, Philips, Pioneer, Systemdek, Tannoy. Demonstration facilities available, no appointment necessary. Free installation. Service department. Access/Visa. Instant credit up to £,000 subject to status. Monday-Saturday 9.30-6pm, later by appointment.

SOUNDS EXCLUSIVE, 1 Kent House, High Str, Cranleigh GU6 8AU. (0483) 268185. Michell (amplification & decks), Marantz, Ariston, Ortofon, AME, Sumo, Proac, Jamo, Origin Live, Kiseki. Demo room, appts preferred, home trial facilities, free install, service dept. Access, Visa. Open 9-5.30 Mon-Sat.

SPALDINGS HI-FI, 352-4 Lower Addiscombe Rd, Croydon, Surrey. (081) 654 1231/2040. 3 dem rooms and home dem. Free installation, credit. Mon-Sat 9-6. Tues to 8. Closed Wed. Service dept. **BADA**

SURBITONPARK RADIO, 48 Surbiton Rd, Kingston-Upon-Thames, Surrey. (081) 546 5549. Quad, Castle, Dual, Denon, Kenwood, Rotel, Pioneer, QED, B&W, Tannoy. Demo facilities. Access, Visa. 9.30-5.00 Tues-Sat. Service dept.

SURREY HI-FI, 45 High Street, Godstone, Surrey RH9 8LS. (0883) 744755. Parking, easy access - just 2 mins off junction 6, M25. Tube Technologies, REF Acoustics, Audio Lab, Quad, TDL, Nakamichi, KEF, Thorens, Rotel, Marantz, Denon, Michell, Tannoy, Top Line, Rel Acoustics. Single speaker demo room. Demonstration by appointment, free installation, service dept. Access, Visa, Mastercard. 0% Credit. Open 9-6, closed Wed.

TRU-FI SOUND & VISION, 10 Church Street, Leatherhead, Surrey. (0372) 378780. Sony, Technics, Panasonic, Mitsubishi, Ferguson, Aiwa, Pioneer, Sanyo, B&W, Mission. Free installation. Credit facilities. Access, Visa. 9.15-5.30 Mon-Sat. Closed Wed. Service dept.

ZEBRA 18-24 Brighton Road, South Croydon CR2 6AA. 081 688 2093. See main entry under London.

SUSSEX (EAST)

DEFINITIVE AUDIO, Brighton. (0273) 208649. Audio Innovations, Impulse, Voyd, Snell, SME, Audionote, Micromega, Goldring, JPW, Pioneer. Demonstration by appointment, home demonstration a pleasure. Free installation, Access, Visa. Mon-Sat 9.30-6.00pm.

JEFFRIES HI-FI, 69 London Road, Brighton, East Sussex, Tel 0273 609431. 2 Dem Rooms, closed Mon. Late night Wed. Free parking. Bus route. Credit Facilities. **BADA**

JEFFRIES HI-FI, (Poutrsmouth), 29 London Road, Portsmouth, PO2 0BH Tel: 0705 663604. 2 Dem Rooms, Closed Mondays. Late night Wednesday. Free parking. Bus route. Credit facilities. **BADA**

JEFFRIES HI-FI, 4 Albert Parade, Green Street, Eastbourne, East Sussex. Tel: 0323 31336. 2 Dem Rooms. Closed Mon. Late night Wed. Free Parking. Bus Route. Credit Facilities. **BADA**

THE POWERPLANT, 66 Upper North Street, Brighton BN1 3FL. (0273) 775978. Roksan, Musical Fidelity, Marantz, Rotel, Yamaha, Tannoy, Audiolab, B&W, Micromega, Epos. JPW, etc. Comfortable single speaker facilities. No appts. nec. Home trial facilities, free install. Late night dems by request. Service dept. Credit facilities available on request. Tue-Sat 10-6pm.

SUSSEX (WEST)

AUDIO DESIGNS, 26 High Street, East Grinstead, W. Sussex RH19 3AS. 0342 314569. Linn, Naim, Alphason, Arcam, Rotel, NAD, B&W, Quad, Tannoy, Thorens, TEAC, etc. Very comfortable listening room. No appts nec., Home trial facilities, free installation, service dept. Access/Visa. 9.30-6.00 Mon-Sat, late Tue till 8pm.

BOWERS & WILKINS LTD, 1 Becket Buildings, Little Hampton Rd, Worthing. (0903) 2 64141. B&W, Nakamichi, Castle, Denon, Dual, JVC, Mordaunt Short, Philips, Quad, Sony, Technics. 3 dem rooms. Mon-Sat 9-5.30, Wed 9-1pm. Home trial facilities, free install. Credit to £1000, Access, Visa. Service dept.*

CHICHESTER HI FI, 7 St. Pancras, Chichester, W. Sussex PO19 1SJ. Tel: (0243) 776402. Linn, Naim, Rega, Creek, Nakamichi, A&R, Denon, Roksan etc. Tues-Sat, 10-1, 2-5.15 (closed Mon).

TYNE & WEAR

BILL HUTCHINSON LTD, 87A Clayton Street, Newcastle-Upon Tyne. Tel: (091) 230 3600. A.R. Aiwa, Denon, Dual, JVC, Mission, Mordaunt Short, Omar, Technics, Yamaha, etc. Demo facilities. Free Install, Service Department, Instant Credit, Access, Visa, Mon-Sat Late Tue till 8pm

RED RADIO SHOP AND HI-FI CENTRE, 11 Olive Street, (Off Park Lane), Sunderland. Tyne & Wear SR1 3PE (091) 567 2087. Castle, Denon, JVC, Kenwood, Mordaunt-Short, Michell, Pioneer, Teac, Tannoy, Monitor Audio etc. AV Dem room, large with comparator facility. No appts nec, Free install. Service dept. Interest free credit and no deposit 9am-5.30pm daily.

WARWICKSHIRE

CASTLE HI-FI, 59 Smith Street, Warwick. CV 34 4HCE. Tel (0926) 499963. A.R. B&W, LPW, Jenson in car, Marantz, usical Fidelity, NAD, Pioneer, Rogers, TDL, Yamaha, Dolby Pro Logic. Dem Room. No appt nec, Home trial facilities, Free Installation, Service Department. Interest free credit, Access, Visa, Chartered Trust. Open 10-6 6days a week.

FRANK HARVEY HI-FI, 163 Spon Street, Coventry, Warwickshire, CV1 3BD. Tel (0203) 525200. Arcam, Mission, Cyrus, Musical Fidelity, Marantz, Rotel, NAD, Tannoy, Yamaha, KEF. Open 9.30-5.30 closed Thursday.

NAAM HI-FI VISION, 78 Lower Precinct, Coventry CV1 1DX. (0203) 632086. NAD, Yamaha, Marantz, Pioneer, Kenwood, AR, Akai, Aiwa, Panasonic, Toshiba, Wharfedale, KEF. Demo facilities. Access, Visa, Amex, Lombard Tricity credit charge. 9.00-6.00 Mon-Sat. Closed Thurs.

STRATFORD HI-FI, 25 Henley Street, Stratford Upon Avon, CV39QW. Tel (0789) 414533. Please call for further details.

WILTSHIRE

AUDIO T, 60 Fleet St, Swindon, Wiltshire. SN1 1RA. (0793) 538222, Fax (0793) 487260. Great hi-fi from Arcam, Audiolab, Cyrus, Denon, Linn, Meridian, Mission, Rotel, Sony, Yamaha, and many more. Tue-Sat 9.30-5.30. 3 yr gntee on Hi-Fi. Free del & instal. 30 day upgrade scheme. Home dems. PX. 2 dem rooms. AV Dept. PR SOUNDS, 58 Castle Street, Trowbridge, BA14 8AU. Tel 0225 777799. Also at Melksham & Devizes. Pioneer, Technics, Kenwood, Denon, Marantz, B&W, Tannoy, JPW, Dual. Where music is a pleasure, personal service, no appointments necessary. Installations & much much more. Access/Visa £1000 instant credit. Open 9-6, 6 days.

WORCESTERSHIRE

NAAM HI-FI VISION, 27 The Cross, Worcester, WR1 3PZ. Tel 0905 726375. Denon, Marantz, NAD, Musical Fidelity, Acoustic Research, Harman Kardon, Sony, Technics, Akai. Appts nec for demonstrations. Installation 7 days a week up till 9

pm. Interest Free credit over £400. Open 9-5:30 Mon-Sat.

WEST MIDLANDS AUDIO, 158 Ombersley Road, Worcester WR3 7HA. (0905) 58046. Nakamichi, Naim, Rega, Absolute Sounds, Meridian, Arcam, Ion Systems, Roksan. 3 dem rooms for budget & high end audio. Appointments necessary. Free installation. Service Dept. Access, Visa, Amex, Diners, Lombard/Hitachi. Mon-Fri 9.30-8.30 by appt Sat 9-5.30.

YORKSHIRE (NORTH)

THE AUDIO CLINIC, 22 Lord Mayors Walk, York, Yorkshire, Y3 7HA. Tel: 0904 646309. Mission, Revox, Yamaha, JVC, Audio Innovations, Celestion, NAD, Musical Fidelity, Allison, Thorens. No appts nec, Home trial facilities, Free Installation. Service Department Access/Visa, Credit. Open 10-5:30 Mon-Sat.

SCARBOROUGH HI-FI CENTRE, 14 Northway, Scarborough, N. Yorks YO11 1JL. (0723) 374547. Aura, Albarry, B&W Matrix, Cyrus, Denon, Pioneer, Marantz, Cabasse, Tannoy, Laser vision and wide screen TV. Dem room, appointment preferred. Home trial facilities. Free installation. Service dept. Access/Visa/Credit charge/£1,000 instant credit/Amex/Diners. 10-6 Mon to Sat.

SOUND ORGANISATION YORK, 2b Gillygate, York YO3 7EQ. Tel: (0904) 627108. Linn, Meridian, Micromega, Naim, Rega, Arcam, Mission, Denon, Epos, Rotel. 3 single speaker dem rooms. Appts. preferred. Home trial. Free installation. Service dept. Credit fac on request. Access, Visa. 10am-5:30pm Tues-Sat. Sony Dealer Award nominated '86,' 87,' 88.

VICKERS HI-FI, 24 Gillygate, York. (0904) 629659. Audiolab, Harman-Kardon, Marantz, Musical Fidelity, Pink Triangle, Quad, Systemdek, Tannoy, Technics, & lots more. 3 demonstration studios (2 by appointment) superb showrooms, 2 year guarantee on all hi-fi products. Appts as above, home trial facilities, free installation, service department. Qualified and experienced staff, over 25 years experience. 12 months interest free credit. 10.30-5.30 Mon-Sat.

YORKSHIRE (SOUTH)

BARNSELY HI-FI CENTRE, 40-42 Sheffield Road, Barnsley, S. Yorks. S70 1HP. (0226) 205549 Fax (0742) 467207. Arcam, Quad, Audiolab, Mission Cyrus, Technics, Denon, Tannoy, Nakamichi, Dual, Rotel. Purpose built demo room, no appts necessary, free install, service dept, Access, Visa, varying finance packages. Open 9.30-5.30, 5 days (closed Thurs).

HI-FI STUDIO, Sunnyfields, Doncaster. (0302) 781387. Sugden, ProAc, Impulse, Teac, Ruark, Michell, AMC valve, Art Audio valves, Heybrook, Monitor Audio, Albarry. Listening room demos. Home trial. Free installation. 2 yr guarantee on all equipment. Service available. Access, Visa. 10-8pm 6 days. Phone for further info. & FREE fact pack.

YORKSHIRE (WEST)

AUDIO PROJECTS, 45 Headingley Lane, Leeds. (0532) 304565. A&R, Audiolab, Creek, Heybrook, Linn, Musical Fidelity, Naim, Quad, Rega, etc. Free installation, home trial, 2 year warranty, appts preferred. Tues-Fri 9.30-6, Sat 2.30-5.30. AUDIOVISION (BRIGHOUSE) LTD, 5 Bethel Street, Brighouse, (1 mile from junction 25, M62) W. Yorks. HD6 1JR. Tel 0484 713996 Largest range of Technics Hi-Fi in Yorkshire. Aiwa separates, Castle, Cerwin Vega, Mordaunt Short speakers. Panasonic Nicaam TV's, VCR's and camcorders. Yamaha, Philips widescreen TV's, CD-Interactive Players. Dolby Pro-Logic AV Surround Systems. Reproduction Furniture. Telarc, CD- Audio, CDI and DCC. Demo's. Free expert install. Panaservice in-store service dept. Access, Visa, credit charge. Mon-Sat 9-5.30.

CLEARTONE (Formerly Erricks), Rawson Square, Bradford, (Near John St Market). (0274) 309266.

A&R, Linn, Quad, Exposure, Nakamichi, Mission, Denon, Kenwood. Private demo rooms, no appt nec, home trial facilities, free installation, service dept. Access, Visa, licenced credit broker. MonSat 9-5.30 (Tue 10-5.30).

DOUG BRADY HI-FI, The Forge Cottage, 19 Crossgate, Otley, Leeds, West Yorkshire LS21 1AA. (0943) 467689. Naim, Arcam, Rotel, Pink Triangle, Meridian, Epos, Castle. Two dem rooms, free install, service. Access/Visa. Open 10-6pm Tues-Sat.

HUDDERSFIELD HI-FI CENTRE, 4 Cross Church St, Huddersfield. (0484) 544668. B&W, Kenwood, Denon, Dual, Arcam, Musical Fidelity, Quad, Audio Lab, Philips, Mission, etc. Dem facilities - appointment reqd. Mon-Sat 9-5.30, Thurs 9-8. Closed Wed. Free installation, credit facilities. Access, Visa.

IMAGE HI-FI, 17 The Springs, Wakefield, WF1 1QE. (0924) 200272. Arcam, Linn, Meridian, Mission, Quad, Rotel, Etc. 2 Listening Rooms - Free Parking, Del & Instal Mon-Sat 9:30 5:30 pm

IMAGE HI-FI, 8-10 St Annes Road, Headingley, Leeds, LS6 3NK (0532 789374) Arcam, Linn, Meridian, Mission, Quad, Rotel, Etc. 3 Listening Rooms. Free Dem & Instal. Mon-Sat 9:30 - 6:00pm

NORTHERN IRELAND

BELFAST

LYRIC HI-FI, 163 Stranmills Road, Belfast. (0232) 381 296. Linn, Naim, Rega, Arcam, Denon, Rotel, Musical Fidelity, Revox, Mission etc. Mon-Sat 10-6, Late night Thurs.

ZEUS AUDIO, 6 Hope Street, Belfast, (0232) 332522 Audio Innovations, Pink Triangle, Roksan, Marantz, Celestion, Linn, Meridian, Mission Cyrus, Ortofon, etc. Mon-Sat 10.00-5.30. Late night Thursday.

COUNTY DOWN

ASTONAUDIO, Unit 8, Kings Road Shopping Centre, Kings Road, Belfast. Tel: 0232 402220. Akai, Technics, JVC, Mitsubishi, Samsung, Toshiba, Panasonic, and many more. Demos available, Open Mon-Fri 10-8pm Sat 10-5pm

IRELAND

DUBLIN

LAFAYETTE HI-FI, 50 Wellington Quay, Dublin, Tel: 353177 0443. Technics, Denon, Marantz, Sony, Pioneer, Aiwa, Cyrus, Mission, Cerwin Vega. No appts nec, Free Install. Unique trade in service. Credit Cards welcome. Open 10-6 6 days a week.

SCOTLAND

AYRSHIRE

LASER AUDIO 9 West George Street, Kilmarnock, Ayrshire, KA11DH. Tel 0563 40292. Audiolab, Aiwa, Celestion, Cyrus, Denon, Dual, Mission, Philips, Pioneer, Rotel, Ruark, Systemdek and Tannoy. Dem Room, AV on Dem. Appts Preferred, home trial facilities, Free installation, service facilities. Access, Visa and written credit. Open Tues-Fri 10-5.30 Sat 9.30-5.30.

EDINBURGH

BILL HUTCHINSON LTD, 43 Clarke St, Edinburgh. (031) 667 2877. AR, Aiwa, Denon, Dual, JVC, Mission, Mordaunt-Short, Omar, Technics, Yamaha etc. Dem facilities. Mon-Sat 10-6. Free installation, instant credit. Access, Visa. Service dept.

GLASGOW

BILL HUTCHINSON LTD, 43 Hope Street, Glasgow. (041) 248 2857. A.R., Aiwa, Denon, Dual, JVC, Mission, Mordaunt-Short, Omar, Technics, Yamaha etc. Dem facilities. Mon-Sat 10-6. Free installation, instant credit, Access, Visa.

STEREO STEREO, 278 St. Vincent St, Glasgow G2 5RL. (041) 248 4079. Linn, Naim, Rega, Arcam, Creek, Epos, Castle, Shahinian, Denon and Sehring etc. Closed Tuesdays Mon-Sat 10-6.

GRAMPIAN

HI-FI EXCELLENCE 293 Union Grove, Aberdeen, AB1 6TD. Tel 0224 322520. Aiwa, Audio Innovations, Denon, Impulse, Infinity, Musical Fidelity, Rotel, Roksan, TDL. 2 large single speaker dem rooms. Appts necessary after 6.00pm. Home trial facilities, Free Installation, Service Department. Various offers. 3 Yr guarantee. Open 10-6.00pm 6 days.

HOLBURN HI FI Ltd, 441 Holburn St, Aberdeen (0224) 585713. Arcam, Audiolab, B&W, Celestion, Denon, Dual, Epos, Heybrook, ION, Kenwood, Linn, Creek, Marantz, Meridian, Mission Cyrus, M.S., NAD, Nakamichi, Pioneer, QED, Quad, Revox, Rogers, Rotel, Ruark, Tannoy, Technics, Wharfedale, Yamaha. 9.30-5.30 Mon-Sat.

TAYSIDE

J.D. BROWN, 28-36 Castle St, Dundee DD1 9NZ. (0382) 26591. Rotel, Denon, Pioneer, Technics, Aiwa, Mission, Castle, Mordaunt-Short, Monitor Audio, Bose, Infinity. All equipment ready for demonstration. No appt nec, free installation, service dept. Mon-Sat 9.30-6pm Wed 9.30-4pm. Access, Visa.

WALES

CLWYD

ELECTRO TRADER, 19 Colwyn Crescent, Rhos On Sea, Colwyn Bay, Clwyd. North Wales LL28 4RN. (0492) 548932. Rotel, Yamaha, Harman Kardon, Teac, Alphason, Heco, Infinity, JBL, Musical Fidelity, Tannoy, Rotel, Michi etc. Dem room. Appts preferred. Home trial. Free installation. Access, Visa. Open 9.30-1.00, 2.00-5.30 Mon-Sat.

ACTON GATE AUDIO, 4 Ruabon Rd, Wrexham, North Wales, Tel: 0978 364 500, Arcam, B&W, Marantz, Mission, NAD, Quad, Rega, Rotel, Tannoy, Yamaha, etc. Dem Facilities, A.V. on dem, Mail Order. No appts nec, home trial fac, Free install, Service Dept. Access, Visa. 9.30-5:30 closed Weds PM

SOUTH GLAMORGAN

AUDIO EXCELLENCE, 134 Crwys Road, Cardiff. (0222) 228565. Great Hi-Fi carefully selected and demonstrated by friendly, enthusiastic staff. Closed Mon.

WEST GLAMORGAN

AUDIO EXCELLENCE, 9 High St, Swansea. (0792) 474608. Great Hi-Fi carefully selected and demonstrated by friendly, enthusiastic staff. Closed Mon.

GWYNEDD

I&H GRIFFITHS & SONS, 313 High St, Bangor LL57 1YA. (0248) 370655. Yamaha, Tannoy, Teac, Goodmans, Wharfedale. Demos available, no appts nec, home trial facilities, free installation, service dept. Access, Visa, Lombard credit charge. Mon-Sat 9-5.30, Wed 9-1. Audio Visual Specialists.

PETERS HI-FI Victoria Buildings, Mostyn Avenue, Craigh-y-don, Landudno. (0492) 876788. 1 Single speaker dem room. Open 9-5.30. Closed Wed. See Cheshire branch for details.

* FREE GIFT GIVEAWAY — THESE ARE REDEEMABLE AT TIME OF PURCHASE. MOST ARE NEGOTIABLE AND CAN BE PURCHASED BACK AT AN AGREEABLE RATE DURING TRANSACTION. PLEASE ASK FOR FURTHER DETAILS.
 MOST FORMS OF PAYMENT ACCEPTED — ACCESS, VISA, SWITCH, CREDIT CHARGE, CHEQUES, CASH. FINANCE AVAILABLE WRITTEN QUOTATIONS UPON REQUEST. MANY OTHER FORMS OF PAYMENT CONSIDERED BUT NOT NECESSARILY ACCEPTED. MAIL ORDER SERVICE TO YOUR DOOR, SIMPLY ADD £8.99 TO YOUR ORDER AND SECURIOR DELIVERY CAN BE ARRANGED. SMALLER ITEMS BY POST ADD £4.99. (ONLY APPLIES TO UK MAINLAND & I.O.W. OUTSIDE P.O.A.)
 GOODS INSURED IN TRANSIT. ALL PRICES ARE OPEN TO NEGOTIATION SO DON'T WASTE YOUR TIME — RING POA DATS

DAT		
MODEL	PRICE	FREE GIFT GIVEAWAY
SONY		
DTC750	499.99	10 DAT 120 min tapes
DTCP7	399.99	7 DAT 120 min tapes
TCDD3	499.99	10 DAT 120 min tapes
DTCT7ES	999.99	(Limited offer) 12 months 0% finance 20% deposit

M.D. (Mini Disc)		
SONY		
MZ1, Record/ Playback	499.99	FREE 10 60min MINI-DISCS
MZ2, Playback	399.99	FREE £50 worth pre-recorded discs

D.C.C		
TECHNICS		
RSDC10	699.99	FREE 10 DCC 90min TAPES

LOUDSPEAKERS		
B&W		
DM6001*	If you can buy better elsewhere tell us and we will beat your price	169.99
DM6101*		177.99
DM6201*		177.99
SOLIDS		169.99
SOLID Bass Station		199.99
OVALE		239.99
VERTICALE		299.99
TWIN BASS		169.99
SOLID TEAM*		99.99

MISSION		
760i*	If you can buy better elsewhere tell us and we will beat your price	129.99
761*		179.99
780*		199.99
781*	and that's a promise	249.99
762*		379.99
763*		479.99
764*		679.99
765i*		679.99

WHARFEDALE		
515*		259.99
517*		299.99
DIAMOND*		129.99
DIAMOND V WALNUT		99.99
415*		149.99
425*		199.99
435*		249.99

PRICES CORRECT AT TIME OF GOING TO PRESS. DUE TO EXCHANGE RATES SOME PRICES MAY BE SUBJECT TO VARIATION

CASSETTE DECKS		
SONY		
TCK420	99.99	
TCK490*	149.99	
TCK520*	129.99	
TCK570	169.99	
TCK590 free pair HD45011 h/phones	219.99	
TCWR770	219.99	
TCWR870	259.99	
TCK870ES free 25 Maxell MX90 metal tapes	349.99	

TECHNICS		
RSBX404	125.99	
RSBX626	159.99	
RSBX727	189.99	
RSBX828	259.99	
RSTR232	129.99	
RSTR333	159.99	
RSTR515	215.99	
RSTR555	259.99	

PIONEER		
CTS210, free 10 Maxell XLIIS90	129.99	
CTS310, free 12 Maxell XLIIS90	179.99	
CTS410, free 12 Maxell XLIIS90	199.99	
CTS610, free 15 Maxell XLIIS90	279.99	
CTS710, free Beyer DT311 h/phones	379.99	
CTS810-S, free Mission 760i spks	429.99	
CTS910, free Beyer DT511 h/phones	499.99	
CT93, free B&W DM610i spks	849.99	

* PRICES STATED QUOTE ONLY, IF YOU CAN GET BETTER ELSEWHERE TELL US AND WE WILL BEAT YOUR PRICE

CD PLAYERS		
MODEL	PRICE	FREE GIFT GIVEAWAY
AIWA		
XC750	179.99	£30.00 worth of CD's of your choice
XC300	139.99	free £30 worth of CD's of your choice
PIONEER		
PD501	189.99	ALL PRICES ARE OPEN TO NEGOTIATION TO ENSURE THAT WE WILL BEAT ANY GENUINE PRICE
PD5601	219.99	
PD5701	249.99	
PD5801	299.99	
PD5901	399.99	

QED		
Digit DAC unit	109.99	—

SONY		
CDP397	139.99	£20 worth of CD's of your choice
CDP497	159.99	£25 worth of CD's of your choice
CDP597	179.99	£30 worth of CD's of your choice
CDP797	199.99	£30 worth of CD's of your choice
CDPZ29ES	279.99	Sennheiser HD 450 Classic Headphone

TEAC		
CDP200	99.99	—
CDP3100	119.99	—
CDP4500	249.99	Sennheiser HD480 Classic headphones
CDP700	249.99	Free pair HD45011 h/phones
P500	649.99	With D500 together. 14" Sony colour TV
D500	329.99	See P500

TECHNICS		
SLPG320	129.99	—
SLPG420	159.99	£15 worth of CD's of your choice
SLPG520	199.99	£20 worth of CD's of your choice

*WHILST STOCKS LAST — THIS OFFER VOIDS ANY PREVIOUS OFFER

PRICES CORRECT AT TIME OF GOING TO PRESS. DUE TO EXCHANGE RATES SOME PRICES MAY BE SUBJECT TO VARIATION

AMPLIFIERS

MODEL	PRICE	FREE GIFT GIVEAWAY
PIONEER		
A300	109.99	
A300X	199.99	
A400	249.99	
A676	279.99	ALL PRICES ARE OPEN TO NEGOTIATION TO ENSURE WE WILL BEAT ANY GENUINE PRICE. Sennheiser HD480 Classic headphones

SONY		
TAF540	199.99	Free HD450II headphones
TAF730ES	299.99	—
TA6V670	649.99	Mission 760i loudspeakers
TAE1000ESD	1299.99	2 x pairs of B&W solid loudspeakers
2 x TA155S		
Surround kit		

CAMBRIDGE AUDIO		
Linx Vega Pre-Amp	299.99	—
Linx Vega Power Amp	299.99	—
Pulsar Vega Power Amp	499.99	—

TEAC		
AX1000	99.99	—
AX5000	229.99	Sennheiser HD480 Classic headphones

TECHNICS		
SUZ220	89.99	—
SUZ320	125.99	—
SUVX600	159.99	—
SUVX600	189.99	—
SUVX720	239.99	—
SUVX800	419.99	—
SUVX820	289.99	—
SUVX920	429.99	—

TUNERS

MODEL	PRICE	FREE GIFT GIVEAWAY
SONY		
STS170	99.99	—
STS370	149.99	ATHL1A headphones
STS570ES	229.99	FREE Sennheiser HD480II headphones

TEAC		
TX3000	69.99	—

TECHNICS		
STS610	99.99	—
STG470	129.99	—
STG1630RDS	159.99	—
STG700	199.99	—
STG90	279.99	—

PIONEER		
F201L	109.99	FREE ATHL1A headphones
F301RDS	169.99	FREE ATH309 headphones
F401L	169.99	FREE ATH309 headphones
F501RDS	229.99	FREE ATH910 headphones
F701	299.99	Beyer DT411 headphones

DISCOUNT ACCESSORIES

AUDIO-TECHNICA				
Cartridges New	Exchange*	Headphones	Interconnect	
AT&T1	849.99**	459.99	ATH555	19.99
ATOC30	529.99**	289.99	ATHL1A	15.99
ATOC10	319.99**	179.99	ATH308	19.99
ATOC5	129.99**	69.99	ATH309	26.99
ATOC3	94.99**	52.99	ATH611	39.99
			ATH910 54.99	39.99
			ATH911	62.99
			ATH9000	189.99
			Microphones	Record Cleaner
AT95E	16.99		PRO1A	17.99
AT110E	19.99		PRO22A	32.99
AT101P	14.99		AT6012	18.99
			AT625HE	8.99

AUDIO QUEST		BEYER DYNAMIC	
Speaker Cable		Headphones	
F14 SOLID, per m	1.59	DT211	22.99
F18 SOLID, per m	2.59	DT311	34.99
Interlink		DT411	49.99
OPTILINK X DIGITAL, 1.0m	32.99	DT511	72.11
OPTILINK Z QUARTZ, 1.0m	64.99	DT811	129.99
OPTILINK PRO AT&T, 1.0m	129.99	DT911	164.99

GOLDRING		QED	
Cartridges		Interconnects	
G1042	69.99	PIG	17.99
G1022	59.99	DIGIFLEX DIGITAL	16.99
G1012	39.99	INCON, per m	1.69
		Speaker Cable	
		42 STRAND, per m	0.45
		79 STRAND, per m	0.85
		79 STRAND FLAT, per m	1.15
		79 BI WIRE, per m	2.79
		200 STRAND FLAT, per m	1.89
		Switching Units	
		MA15 2 WAY SPK SWITCH	22.99
		MA17 2 WAY SPK SWITCH	18.99
		MA19 Hi fi/TV SWITCH	23.99
		MA28 CD SWITCH	22.99
		MA29 2 WAY TAPE SWITCH	31.99
		MA30 HEADPHONE/SPK SWITCH	39.99
		MA31 TURNTABLE/CD SWITCH	23.99
		MA33 3 WAY SPK SWITCH	28.99
		MB42 4 WAY SPK SWITCH	33.99

SENNHEISER	
HD5	22.99
HD450-II	35.99
HD480-II	45.99
HD480 CLASSIC-II	54.99
HD520-II	72.99
HD530-II	79.99
HD540 REFERENCE-II	89.99
HD560 V/A/TION-II	109.99
HD250 LINEAR-II	99.99

* If you can beat any of our prices we will be very surprised... but we will beat any genuine price non grey import

TARGET	
System Racks/Speaker Stands	
MOST IN STOCK PLEASE RING	

SONY	
MDRCD250	15.99
MDRCD350	25.99
MDRCD550	39.99
MDRCD750	59.99
MDRCD950	79.99
MDRCD1000	119.99
MDRCD3000	249.99

SUGGESTED SYSTEMS ONLY PLEASE RING FOR VARIATIONS

SYSTEM TMCD 1 TEACA X1000 AMP, TEAC CD2900 CD, MISSION 760i SPKS, MSDS INSTALLATION KIT	399.99 0% finance 12 months 10% deposit	SYSTEM PMCD 1 PIONEER A300X AMP, PIONEER PDS801 CD, MISSION 760i SPKS, MSDS INSTALLATION KIT	529.99 0% finance 12 months 10% deposit
SYSTEM TMCD 2 TEACA X5000 AMP, TEAC CD4500 CD, MISSION 761i SPKS, MSDS INSTALLATION KIT	529.99 0% finance 12 months 10% deposit	SYSTEM PMCD 2 PIONEER A400 AMP, PIONEER PDS801 CD, MISSION 760i SPKS, MSDS INSTALLATION KIT	579.99 0% finance 12 months 10% deposit
SYSTEM TMCD 3 TEACA X1000 AMP, TEAC CD3100 CD, TEAC TX3000 TUNER, TEAC V3000 CASSETTE DECK, MISSION 760i SPKS, MSDS INSTALLATION KIT	629.99 0% finance 18 months 10% deposit	SYSTEM PMCD 3 PIONEER A300 AMP, PIONEER PDS701 CD, MISSION 760i SPKS, MSDS INSTALLATION KIT	449.99 0% finance 12 months 10% deposit

MAIL ORDER & SHOWROOMS: 10/12 GROSVENOR RD, ALDERSHOT, HANTS. OR 2 CENTRAL PARADE, REDHILL, SURREY

TRUFF

ALDERSHOT
 (0252) 26390
 332424
 FAX 331907

(0737)
 766128
 767404
 FAX 778967
 REDHILL

FINANCE AVAILABLE
 Written quotations on request. APR variable.

THIS MONTH'S SUPER VALUE SYSTEM Price
MARANTZ N.A.D. MISSION Only £439
CD 52/2 NAD 302 760i (Save
C.D.Player Amplifier Loudspeakers £87.00)
INCLUDES 8 METRES OF 79 STRAND SPKR LEAD, MAIL ORDER WITH ACCESS/VISA. FREE DELIVERY U.K.

Superb Value

INTEREST FREE CREDIT

10% Dep.6 - 9 Months
Please call for details

Arcam Delta 70.3 C.D. Player
(Inc Free Ruby interconnect lead worth £52 or Interest Free Credit)

Arcam Delta 70.3	£699.00
Arcam Delta Black Box 3 (F/L)...	£299.00
Mission DAD5/DAC5*	£499.00
(*Inc Free Isoplat - Save Over £129.00)	
Mission 760i Speakers	£129.00
Cyrus 780 (Free Cable)	£199.00
Quad 66 C.D. (F/L).....	£544.00
Rotel RCD 965 LE (F/L).....	£379.00
NAD 8100 Spkrs (E/D).....	£219.00
Nakamichi DR 3 (NEW).....	£299.00
Nakamichi DR 2 (NEW).....	£499.00
Nakamichi DR1 (NEW).....	£699.00
Rotel RA 930AX	£159.00
Rotel RCD 955AX	£229.00
Aiwa ADF 810 (F/T).....	£199.00
Arcam Delta 100 Cas/Dk (F/T)...	£849.00
Yamaha KX 260 Cas/Dk (F/T)...	£159.00
Yamaha KX 360 Cas/Dk (F/T)...	£189.00

(F/L) Free high quality interconnect lead.
(E/D) Ex-Display items,Boxed,Full G/tee.
(F/T) Free high quality cassette tapes.



THE CHOICE IS YOURS

We demonstrate everything we sell so you can be sure that any of the products you see advertised here are on display and available for audition.

Our helpful and experienced staff are on hand every day (except Thursday and Sunday) to help explore the possibilities open to you. We welcome your visit.

- Two listening rooms
- Two year minimum guarantee
- Free 24hr delivery service
- 0% Finance available, see below
- Part exchange service available
- Outstanding product range from:

AIWA * ARCAM * AUDIO TECHNICA * CYRUS * DENON * HEYBROOK * JPW MARANTZ * LINN PRODUCTS * MISSION * MICROMEGA * NAD * NAIM AUDIO * NAKAMICHI * QUAD ROTEL * REGA * ROGERS * SOUND ORG * SPENDOR * TARGET * TANNOY * YAMAHA

Firm Favourites

FREE 24HR DELIVERY

For current stock items.
Please call for details.

Source.

Arcam Alpha Plus	£449.00
Denon DCD 890	£269.00
Marantz CD 52/2	£229.00
Marantz CD 52/2se (NEW)	£299.00
Micromega Leader	£849.00
Rotel RCD 965BX	£299.00
Rega Planar 2	£185.00
Rega Planar 3	£249.00

Amplifier.

Arcam Alpha	£199.00
Creek 4040s3	£219.00
NAD 302 (NEW)	£169.00
Rega Bno	£198.00
Linn Intek	£449.00
Naim Nait	£419.00

Tuner.

Arcam Alpha 3 Digital (NEW)	£199.00
Denon TU260L	£119.00
Rotel RT930AX	£159.00

Loudspeaker.

Heybrook Prima	£119.00
Linn lKeilidh (NEW)	£579.00
Mission 753 (NEW)	£599.00
Rega Kyte (NEW)	£198.00
Roger LS2a/2 (Free Cable)	£219.00
Tannoy 605	£159.00

BARGAIN BASEMENT

We have a small selection of quality Ex-Demonstration and Shop soiled goods available many items boxed as new with Full Warranty. Delivery £5 up to 3 items (U.K. Mainland)

	Was	Now		Was	Now
Exposure 9 Pro Power Supply	£1299	£549	Mission Cyrus 1 Amplifier	£249	£179
AMC 3030 Amplifier	£449	£319	Mission Cyrus 2 Amplifier	£379	£269
Heybrook Sextet Speakers	£1079	£795	Mission PSX Power Supply	£299	£219
Heybrook HB1/3 Speakers	£249	£195	Mission 753 Speakers	£599	£509
Linn Intek Amplifier	£449	£329	Marantz CD 72 CD Player	£449	£309
Linn LK1/280 pre-power	£1497	£895	Nakamichi CDP4 CD Player	£349	£219
Linn LK 280 Power Amp	£899	£595	Rogers Studio 1a Speakers	£679	£329
Linn LK280/Spark Power Amp	£1295	£895	Rotel Michi RHC 10 passive pre	£725	£475
Linn Ekos Tone arm	£1098	£759	Rotel Michi RHB 10 Power Amp	£1550	£929
Linn Nexus Speakers(Blk/Ash)	£549	£369	TDL Studio 0.5 Speakers	£449	£299
Micromega Leader	£849	£595	TDL Suudio 1 Speakers (Wal)	£649	£429



➔ Tel: 081 318 5755 or 081 852 1321 ➔
Opening times : Monday to Saturday 10.00 am to 6.30 pm (Closed Thursday)



The Directory



This is the legendary Hi-Fi Choice Directory, the only audio buying guide that is entirely based on comprehensive technical and subjective reviews. Each and every entry carries the weight of our exhaustive test procedures with regularly updated prices and specifications.

The *Hi-Fi Choice Directory* was conceived as a reference guide to all the audio products reviewed by *Choice* that are currently available. The products are split into categories, each with its own introduction containing information about the product type and its applications. They are particularly relevant to the uninitiated first time buyer and help sort out the order of priorities when buying a piece of equipment.

Each product along with its current retail price is placed in its respective category in alphabetical order. The prices of the products are updated on a regular basis, although it should be noted that our value ratings are based on the product's price at the time of review.

▲ Recommendations and Best Buys

Perhaps the most influential symbols in the *Directory* are the little red triangles ▲ found in the value column at the beginning of each entry where appropriate.

Products that make the grade are awarded the Best Buy or Recommended accolade.

▲ A product carrying the Best Buy swingtag is of excellent quality and good value for money in its price category.

▲▲ Recommended products are runners up, but still definitely worth considering within their price bands.

Please note however, that an expensive Recommended product will nearly always sound better than an inexpensive Best Buy. An ideal situation would be to choose suitably priced ▲▲ Best Buy or ▲ Recommended products from relevant categories and create a Best Buy system. But, due to the variety in tonal balance that exists in much audio equipment,

system building is unfortunately not that simple.

These ratings make a useful guideline for shortlisting components, but only experiencing the actual combination will tell you whether it works for you.

Which of course is where a competent dealer is crucial. A good dealer, such as you might find in our *Dealer Directory*, will be skilled in art of putting components together so that their sonic sum is greater than the individual components in the system.

Sound quality

This column contains the ratings for the standard achieved in our listening tests. The sound quality ratings range from Poor to Excellent. Their meaning and order as follows;

P	Poor
A-	Average-
A	Average
A+	Average+
G-	Good-
G	Good
G+	Good+
VG	Very Good
E	Excellent

Finding that component

Before you shop, follow our top eight tips for better buying:

1. Check out the components' recommended retail prices in the *Directory*.
2. Find out as much as you can about the products you want by reading *Hi-Fi Choice's* reviews and lab tests.
3. Visit local dealers that stock some of the brands you want to hear and try to find one that seems sympathetic to your needs.
4. Don't discount a dealer's suggestions just because the products don't have rave reviews.
5. Take your own software (records, CDs, tapes) along for a demonstration of the equipment that the dealer recommends.
6. Listen at the sort of volume you would normally use at home — systems often sound more impressive when played loud.
7. If you are unsure about something or want to hear an alternative, just ask.
8. Audition a system for a reasonable amount of time, say three quarters of an hour or so before making a decision.

ble or CD player. Unless you have first generation masters of course.

Comments

The Comments column contains a potted summary based on the original review, emphasising the salient points of a product's character and sonic performance. The space available doesn't allow for great detail but we have attempted to put across the essence of the review. Obviously, important information on compatibility or auxiliary equipment used in the test cannot be included, and we would advise you to refer to the original review for this.

Please note that these comments are those of our own re-

viewers and not, as is the case with some magazines, those of the manufacturer.

Features

Product features are shown with a combination of figures and blob charts, with headings at the top of each column indicating the appropriate category, a blob indicating the existence of a particular feature on the product.

There are different headings for each section of course and the more complicated categories are explained in the individual introductions. Where figures are used the unit of measurement is shown in the heading.

Back issues

The final column contains a reference to the issue of *Hi-Fi Choice* which featured the complete review. If you wish to get a better idea of a product by reading the complete review it is possible to order a copy through our back issues department.

Index

Amplifiers	111
Cassette Decks	113
CD Players	114
CD Transports	117
DACs	117
DATs	118
Headphones	118
Loudspeakers	119
Loudspeakers -	
Satellites and Subwoofers	123
Tuners	123
Turntables - Cartridges	124
Turntables - Integrated	125
Turntables - Motor Units	127
Turntables - Tonearms	127

Amplifiers

The Directory entry for the AMC CVT3030 integrated amplifier, a 35 watt model with MM phono and five line inputs and average sound.

Product	EPrice	Comments	Line inputs	MM/DC	Integrated	Power amp	Remote control	Headphone socket	Issue No.
AMC CVT3030	460	A well meaning and affordable attempt to mix transistors with valves, albeit one that only really shines with simple musical styles.	35	5	•	•	•	•	116



Amplifiers

The amplifier sits at the heart of the system, processing the outputs from all the various music sources as necessary and then driving the loudspeakers. These two (quite separate) functions are integrated into a single box at the low-to-middle price points; separated pre- and power amplifiers, even separate power supplies, become increasingly common as one moves upmarket. At the upper end of the specialist market, valve amplifiers provide a popular alternative to the transistor types amongst enthusiasts.

There is a substantial difference between specialist (sound quality oriented) amplifiers and the consumer electronics style models. The former

are bleakly simple, avoiding all unnecessary features to provide the most direct signal path in the interests of best sound quality. The latter range from models with just basic tone controls and tape recorder switching, to those with elaborate facilities such as graphic equalisers, remote control (including volume), surround sound options etc. etc.

We include our measured power output (RMS, 8ohm load, 1 channel driven) – but again, paradoxically, this doesn't necessarily correspond to the loudness capability of the amplifier, which has as much to do with the elegance of the over-load characteristics within a given system (valve

amplifiers invariably sound more powerful than their rating would suggest).

Apart from output the facilities listing shows how many line (that is inputs besides those for phono cartridges) inputs a product has and includes tape inputs. The MM and MC blobs indicate which types of cartridge can be accommodated. Integrated, preamp and power amp indicate the type of amplifier reviewed, and in some instances that a pre/power combination has been tested. In such instances the price given is for both components. The remote control and headphone socket blobs indicate the existence of these facilities.

Amplifiers

Product	EPrice	Comments	Output W/8Ω	Line inputs	MM	MC	Integrated Preamp	Power amp	Headphone socket	Remote control	Issue No.
AMC CVT3030	460	A A well meaning and affordable attempt to mix transistors with valves, albeit one that only really shines with simple musical styles.	35	5	•	•					116
Aiwa XA-006	150	A Competent enough performer with plenty of facilities. A gutsy sound though one that's rougher via CD than MM.	67	5	•	•					92
▲ Akai AM-47	230	G+ Plenty of widgets and an unexpectedly sharp, open and detailed sound. Looks ghastly but sounds strain free.	104	4	•	•					104
Akai AM-95	630	A- A revamped version of the older AM-93 with newer onboard bitstream DACs. Its sound is just too eager, however	110	6	•	•					109
Albany AP4/S508	850	A- A disappointing sound from a pre/power amp that's hamstrung by a variety of technical oversights. Albany has done better.	46	4	•		•	•			116
▲ Albany PP1	400	G+ Available with or without various MM/MC options, the 'basic' PP1 has an attractively warm, earthy sound.	48	4			•				104
Alchemist Kraken	444	A Class-A objet d'art that's far too sensitive to RF interference. Can sound cold and fierce as a result.	54	5	•	•	•				116
Arcam Alpha 3	200	A Generally lacklustre and bland sound offered on this occasion met with (unexpected) disapproval.	53	3	•		•				104
▲ Arcam Delta 110/120	1300	G Performance is limited by power amp - in isolation the PDM-preamp offers a remarkably open and detailed sound	112	4	•	•		•	•		92
▲ Arcam Delta 290	450	VG Combines the dryness and restraint of Arcam's older models with a refreshing sense of detail, dynamics and musical colour.	99	5	•	•	•			•	116
▲ Arcam Delta 60	300	G+ Very refined and highly detailed sound via MM and CD without any of the hardness ted via the MC stage	59	4	•	•	•				68
▲ Art Audio Quintet	950	VG Switchable triode/ultralinear output stage. In triode mode these are 15 of the sweetest watts around. Surprisingly gutsy	15/25							•	109
Audio Innovations Series 200	850	G Turns in a fuller and more substantial performance via MM rather than CD. Otherwise its sound can seem slightly bleached.	10	5	•			•	•		109
▲ Audio Innovations Series 300II	500	G+ Under-powered and over-distorted yet capable of realising an open and captivatingly expressive sound. Sensitive speakers are a must	9	4	•		•				97
▲ Audio Innovations Series 700	999	G+ Valve amp that can turn the roughest of digital sounds into music, both understated and graceful. Sensitive speakers are a must	24	5			•				116
▲ Audio Note Ongaku	43125	E A single ended, zero negative feedback, triode, line level integrated amp and a half. Probably the best amplifier in the world!	27	6			•				Col
▲ Audiogram MB1	500	G+ It'll successfully tackle the most difficult of speakers and still provide a very warm, rich and euphonic sound.	46		•		•			•	116
▲ Audiolab 8000A	430	VG Recent mods have cured the slightly glassy treble, replacing it with a smoother and more solid style of music making	81	7	•	•	•				97
Audiolab 8000C/8000P	970	G Very distinctive, almost stark neutrality that will not appeal to all listeners. Good value engineering, nevertheless	157	7	•	•		•	•		97
▲ Aura VA-100 Evolution	300	G+ Might overheat when driving insensitive, low-impedance speakers but was applauded for its sense of scale and drama via CD	81	5	•		•				109
▲ Aura VA-50	220	VG Superficially similar to the cheaper VA-40 but with much more of the old MA-80's magic! Great sound from a slimline package	65	5	•		•				97
▲ Beard Audio CA35/P35mkl	1790	VG Good build quality and finish and a characteristic valve sound make a first class amplifier capable of great musical enjoyment	35	4	•	•		•	•		63
Beard CA506	1295	G+ A versatile valve preamp, the bass sounded lively if a touch softened, while the treble was detailed but lacked a little sparkle	4		•	•		•			50
Beard M70	1995	G+ A substantial British monoblok power amplifier, but not a great deal more impressive than the P35	70					•			50
▲ Concordant Excelsior	1040	E Styling might not inspire confidence, but sonically this preamp is tremendously vivid and detailed. Real high-end performance		3	•			•			77
▲ Conrad-Johnson PV-10	1250	E Fabulous preamplifier. Beautiful imaging, superb detail, plenty of gain on the phono stage; classy build quality too.		4	•			•			78
▲ Conrad-Johnson Premier 7	11000	E The 'Seven is designed without compromise, and is clearly one of the finest (valve) preamplifiers money can buy.		4	•	•		•			Col
▲ Creek CAS 4040 S3	220	G Now in mk3 guise the '4040 offers a dry but tidy sound via disc and one that's slightly leaner and better focussed on CD.	41	3	•		•				92
Creek CAS 4140 S2	250	A+ Running production changes inspired us to re-review this amp which now sounds thicker and 'blurred' compared to the original	41	3	•	•					109
Creek CAS 6060	500	G Looks like the old '5050 but employs the sort of big, meaty-sounding electronics used in the earlier '4040. Dynamic and impressive.	81	5	•	•					104
▲ Cyclone Catalyst	1995	VG Exceptionally load tolerant and very refined in delivery. Extra options available in future	74								80
▲ Denon PMA-350	190	G Bold claims were made at its launch but the sweet and inoffensive sound, though very pleasant, is not mould-breaking	88	5	•		•				92
▲ Denon PMA-450	250	G+ Denon's latest integrated amp swept the board with its big, brassy if somewhat extravagant sound.	99	5	•		•				116
▲ Dual CV600RC	160	G A very lively, open and vibrant sound. Slightly sanitised via CD perhaps, but still damn good for a features-first integrated amp!	63	5	•		•		•		104
E.A.R. 549	5400	VG Valves imitating trannies give exceptional power delivery but not the delicacy and transparency one expects	200						•		60
▲ E.A.R. 802/509mkl	4200	VG Extremely well made and combining the sonic strengths of both transistors and valves this EAR combo warrants attention	100	6	•			•	•		63
EMF Audio Sequel	349	G+ A fresh start for Mike Creek has resulted in the Sequel, a minimalist amp with a very refined but mildly restrained sound	47	4	•						109
▲ Exposure XI/XII/VIII Super	1650	VG New preamp and improved power amp led to a smooth and refined sound, MM/MC less transparent than CD	61	5	•	•		•	•		80
▲ Grant G60AMS	1300	G+ Neat and compact valve monoblok gave good sound on the 8ohm tap, better still on 4ohms. The midrange was particularly natural	60						•		57
▲ Harman Kardon HK6150	190	G+ Based on the older HK6100 but with a more solid, punchy and expressive performance that attracted considerable praise	44	5	•		•				109
▲ Harman Kardon HK6250	250	G+ Heavily based on the cheaper HK6150, this version offers slightly more power with a similarly gutsy and expressive sound	51	5	•		•				116
Harman Kardon HK6850	800	G This monster is derived from the HK6800 with a similarly deep and powerful sound but a rather steep price tag	101	6	•	•					109
Heybrook C3/P3	1379	A Heybrook has improved the manufacture of its power amp though flaws in the preamp's disc input remain	146	4	•	•		•	•		104
▲ Heybrook Signature	2014	G+ A stunningly powerful and vivid-sounding combination which is equally impressive via vinyl or CD	148	4	•	•		•	•		109
JVC AX-A342	170	A A value-conscious budget amp offering plenty of power but a slightly untidy and inconsistent sound	77	5	•		•				109
▲ JVC AX-Z1010	650	G+ One of the best behemoths: a big amp with a big, boppy and unmuddled sound and a couple of ancient 16-bit DACs for good measure!	124	6	•	•		•	•		109
▲ Jadis JP30/JA30	10750	E French tubes. Beautiful build, nostalgic styling and delightful sounding midrange transcend limitations at frequency extremes	30	4	•			•	•		60

Amplifiers continued

Product	EPrice	Comments	Output WBS2	Line inputs	MM	MC	Integrated	Preamp	Power amp	Remote control	Headphone socket	Issue No.
Kelvin AZI	700	A This latest Absolute Zero still sounds animated but also rather more synthetic and crude. It's also rather more expensive.	100	6								116
▲ Kenwood KA-3020	160	G+ An unassuming little amplifier that turns in a remarkably balanced and entertaining sound. Lively, detailed and engaging	66	5								97
Kenwood KA-4020	200	A+ On paper this a beefier version of the '3020 yet our listeners thought it sounded weaker, lacking richness and detail	103	5								97
Kenwood KA-4040R	250	A+ A 'digitised' version of the KA-4020 with full remote control. Unusual looks but can seem insubstantial via CD.	82	5								104
▲ Kenwood KA-5020	250	G+ This powerhouse on the cheap can keep pace with the most challenging of dynamics. Sound is vibrant but some fine detail is lost	115	6								92
Kenwood KA-5040R	300	A A flexible amp that uses the old KA-5020 as a building-block. Unfortunately it lacks dynamics, sounding stifled and uninteresting	100	5								109
▲ Lecson Quattra	370	G Underpowered but with the flexibility of four independent power amps. Very deep, captivating sound with 3D soundstaging.	40	5								92
Lecson Stereo	230	G+ Can reflect the full weight of a classical performance. Genuinely deep, detailed and enthralling sound	76	6								104
Linn Intek	448	A+ Linn's no-nonsense Intek still lacks the authority and confidence to support its forward balance.	55	5								104
▲ Magnum A-Class	599	G+ Lashings of rich and compelling music, trading a hint of lushness for stark accuracy. An unexpected find. Phono stage option	55	7								116
▲ Marantz PM-40SE	250	G+ The improved version of the basic PM-40 model has itself been updated to provide a bigger and more exciting sound	61	4								97
Marantz PM-62	270	A Attempt to introduce remote control that has failed if the rather flat and uninteresting sound of this amp is any guide.	101	6								116
Marantz PM-72	350	A This is a very neutral, pleasantly detailed and even-handed performer but one that lacks a sense of emotion or expression	155	5								109
▲ Meridian 201/205	1285	G+ A fine preamp with option of full system remote, plus competent monoblok power amplifiers with generally good performance	100	6								62
▲ Moth Series 30	587	G+ A modular system capable of cracking results. The passive preamp and power amp combination warrant a Best Buy in their own right.	35	4								109
▲ Musical Fidelity Preamp/Typhoon	500	G+ A combination that plays everything close to its chest but bridge the power amp and you'll witness an explosion of detail.	62	6								116
Musical Fidelity Tempest	200	P+ Basic but lusty amp has a disturbingly bright and forward sound, accentuating strings and percussive detail above all else.	62	6								116
▲ NAD 302	160	G+ A spritely and uplifting performance. Sounds loud but never intrusive or fatiguing.	39	5								116
▲ NVA AP20	260	G+ Utilitarian amplifier sounds gentle and restrained but is euphonic and utterly engaging. Optional phono stage	35	4								109
Onix OA-21S/SOAP	730	G- Via MM disc this amp comes alive with a fresh and vibrant sound though its CD input sounds utterly dead by comparison.	60	4								97
Onix OA22L	300	A+ Nothing genuinely unpleasant about this amplifier, simply that its hurried and lacklustre sound fails to spark the imagination.	39	5								116
▲ Philips FA-930	200	A+ Radical styling hides a digital switching facility plus full remote control over what is Philips' best effort to date	99	5								109
Philips FA890	230	G- Based on the FA880 model but tarted-up with a remote control facility. Inoffensive, civilised but unexciting sound is retained	120	6								97
Pioneer A-300X	200	A+ This revamped version of the A-300 was also more confident sounding via CD than MM, yet our panel were still left unmoved.	55	5								116
▲ Pioneer A-400	280	G+ Pioneer's design concept snaps into focus with an amp that seems to bubble with musical detail. A budget bench-mark	71	5								92
Pioneer A-676	300	A- A lusty amplifier at a modest price yet one that failed to inspire our listeners with its bland, indifferent sound	98	7								109
Pioneer A-777	450	A- A larger version (!) of the A-676 that offers more power but an equally sluggish and uninspiring sound	121	7								109
▲ QED A270CD/PA	370	G+ Recent updates have bolstered the output of the A270 without adding to its colorations. The PA phono option is a touch expensive	61	5								97
▲ QED C300/P300	630	G A cost-effective combo, limited in its resolution but less beguiling as a result. Disc stage is sweeter but samey	58	3								85
Quad 34	388	A Well-built durable preamp, filtering and above average tone controls but was found lacking in sound quality (viz: detail/dynamics)	4									44
Rational Audio	175	A+ Wacky Czechoslovakian amp offers a very open and fluid sound via CD but its MM performance depends on cartridge load impedance.	129	3								92
Ray Lumley Model 75	1995	G+ Valve monobloks represent good value. What they lack in musical subtlety they make up for in sheer muscle.	75									78
Rega Elex	298	A Minimalist amplifier that sounds too forward, hard and unforgiving for its own good. Shows plenty of promise, however.	51	4								116
▲ Rose RV-23	425	G+ Beautifully built British 'hybrid'. You can spend more to get a more transparent sound but it's hard to criticise at the price	3									77
▲ Rotel RA-930AX	180	G+ This budget wonder captivated our listeners with its clean, vibrant and thoroughly involving sound	53	3								104
▲ Rotel RA-940BX	250	G Rotel's cheapest 'BX' amp prompted a mixed reaction, some finding it muddled while others thought it 'exceedingly musical'	53	5								109
▲ Rotel RA-960BX	275	G+ If you like music to harbour a latent rather than blatant sense of power this amp's confident restraint could be just the ticket.	88	5								116
▲ Rotel RC-960BX/RB-960BX	350	G- Excellent standards of construction, flexibility and plenty of power under the bonnet, an ideal choice for the first-time buyer.	80	5								104
Rotel RC-980BX/RB-980BX	700	A Plenty of watts per pound, sound is expansive but lacks a sense of poise, of control and fine detail - a disappointment	143	5								109
Sansui AU-X111	100	A An amp that's both solid and flexible for the price, but its sound is rather bland compared to competition in the £110 sector	52	5								92
▲ Sansui AU-X911DG	800	G+ At its best when used with the on-board MASH/PWM DAC where it sounds technically neutral but still emotionally charged	112	7								85
▲ Sony TA-F440E	200	G A new budget amp based on tried-and-tested circuits. A fresh and up-beat sound with plenty of detail, can sound smeared via CD	109	5								104
Sony TA-F540E	250	G- An MC input but little else over the TA-F440E. Sounds more consistent from input to input but is still rather superficial	108	5								104

Do you live in GUILDFORD?...

...or Addlestone, Aldershot, Ashford (Middx), Bagshot, Basingstoke, Bracknell, Camberley, Chertsey, Cranleigh, Dorking, Epsom, Esher, Farnborough, Farnham, Frimley, Godalming, Haslemere, Hook, Horsham, Liphook, Leatherhead, Odiham, Petersfield, Reading, Reigate, Redhill, Shepperton, Virginia Water, West Byfleet, Weybridge, Windsor, Woking?

Nobody else in these areas stocks all the following major brands: Acoustic Energy, Arcam, Audio Innovations, Audiolab, Aura, B&W, Celestion, Creek, Cyrus, Dali, Epos, Deltec, Finestra/Lectern, Furukawa, Harman Kardon, Heybrook, Infinity, JPW, KEF (Reference), Linn Products (including records), Marantz, Meridian, Mission, Musical Fidelity, NAD, Nakamichi, Onix, QED (Systemline), Quad, Revox, Rogers, Rotel, Sony, Supra, Sound Org, Target, Yamaha & Top Tape. Target, Yamaha & Top Tape. Rega products now in stock!

Visit us first and you won't need to go anywhere else, we have superb demonstration rooms, where you can decide in comfort, and we will deliver and install free of charge (and part exchange is possible).

Complete service - We are the only outlet in the area to offer the *complete* service. As well as stocking selected items from the above manufacturers we are able to service and/or repair *on the premises* all the above brands (and others also).

The **Hi-Fi** Shop

Guildford's only **REAL** Hi-Fi shop

We are at:-

3 BRIDGE STREET, GUILDFORD

(by the traffic lights - next door to Alfred Marks)

0483 504801 • 0483 304756

Access • Visa • Switch. Open Monday-Saturday 9am-6pm (later by appointment)



Amplifiers continued

Product	£Price	Comments	Output W/8Ω	Line inputs	MM	MC	Integrated Preamp	Power amp	Headphone socket	Remote control	Issue No.		
Sugden A21a	469	G The modern-day relative of Sugden's original Class A amp and one that offers a smooth, easy-going sound.	25							•	92		
TEAC A-X5000	230	A- This amplifier is compromised by a grey and muddled sound that taxed the concentration of our listeners. Better via MM disc	107	6	•	•	•				•	97	
▲ Technics SU-VX600	220	G The first 'tweaked' amp from Technics, its solid and sharply focused sound a taste of things to come.	90	5	•	•	•				•	104	
Technics SU-VX720	250	A+ Big and spacious sound either appears rough and blustery or impressively grand depending on the music at hand.	84	5	•	•	•				•	116	
Technics SU-VZ220	100	A- Cheap, cheerful and pretty flexible to boot the SU-VZ220 quickly sounds thin, splashy and relentless when the going gets tough	50	4	•	•						•	109
Threshold FET 10e/SA-4	11852	G+ Almost valve-like limpidity and excellent soundstaging are star qualities of the Threshold amps	100	7	•	•		•	•			Col	
Woodside ISA230	900	A Smooth and inoffensive valve amplifier if one that lacks the sparkle and euphony required for a truly entertaining sound.	27	5	•		•					116	
Woodside SC26/STA35	2743	G+ Synergistic pairing with a cool, controlled sound, good focus and transparency. More about poise than grunt	35	5				•	•			100	
▲ YBA 1 power amp	3999	E Well finished power amp offers front rank stereo staging and transparency, and is capable of driving the most difficult loads	85							•		62	
▲ YBA 1 preamp	3650	E A front line French audiophile product. Great stereo and a fine Krell style finish		5	•	•				•		62	
▲ YBA 2	3624	G+ Superbly finished with very good space and transparency, slightly softened bass. Needs transformer for MC cartridges	70	5	•	•			•	•		56	
YBA 3	2350	G This duo produced see-through, ethereal stereo images that were more convincing towards the centre of the soundstage	56	4	•				•	•		72	
Yamaha AX-550	260	G Neutral yet lacks the ability to involve on an emotional level	131	5	•	•	•				•	•	97
Yamaha AX-750	400	A Impressive handling, but two samples split the opinion of our listeners, one sounded squashed the other fast and articulate	149	5	•	•	•				•	•	104



Cassette decks

The bad odour of copyright theft hangs around the compact cassette, but there is no doubt it is the world's most versatile and ubiquitous music storage medium. Buffs may wrinkle their noses, but are happy to use cassette decks to make up tapes for the car or personal.

There is no problem in connecting a cassette deck to any normal amplifier, but some care needs to be taken in choosing the best tapes for a specific machine. (Trial and error is one effective technique, but many decks have manual bias adjustment and some match up to the tape auto-

matically.) Lab performance and sound quality often go hand in hand, and are frequently somewhat dependent upon factory alignment. The mechanical integrity of the mechanism is another crucial factor, that is reflected in the price.

The columns on the right indicate when the facilities shown in the headings are available on a deck. Dolby B and C offer varying degrees of noise reduction and the HX Pro system gives significant treble improvements with ferric (Type I) tapes. Dolby S increases the level of noise reduction with less signal degradation than B or C.

Three-head recorders allow you to listen to a recording as it's being made, a useful quality control function. Bias adjustment allows you to fine tune the deck to suit different types of tape when recording. Auto calibration is an automatic system for setting bias and Dolby levels. Twin deck offers the option to dub tapes or to play two cassettes simultaneously. Autoreverse is a useful convenience feature, but usually with some mechanical compromise. In the case of twin decks a blob is inserted in this column even if only one transport autoreverses.

Cassette decks

Product	£Price	Comments	Dolby B	Dolby C	Dolby HX Pro	Dolby S	Auto calibration Bias adjust	Twin deck	Autoreverse	Issue No.
▲▲ Aiwa AD-F410	100	A Comparable to AD-F500 but cheaper: Good all round performance, well adjusted, useful basic and not so basic features	•	•	•					99
▲ Aiwa AD-F500	160	G Noise levels are a little higher than usual, but sound quality is otherwise very good - open, explicit and very neutral tonally.	•	•	•					93
▲▲ Aiwa AD-F810	200	G First class budget 3-head machine with a dual capstan transport that really works at reducing the 'fudge' factor	•	•	•					99
▲▲ Aiwa AD-WX929	200	A Superbly equipped twin deck that works and works well - remote control	•	•	•	•			•	117
▲ Aiwa XK-S9000	700	G+ Fabulous build, clunky transport and sharp, refined sound quality with Dolby S or B and metal tapes	•	•	•	•		•	•	105
Akai DX-57	220	G Eschews fancy gadgets for a good transport and decent electronics. Sound quality is firm and tidy but avoid Dolby C.	•	•	•	•			•	105
Akai GX-65	300	A Fine ungimmicky middle ranking deck with simple, purposeful controls, works best with metal tapes. Performance fair to good	•	•	•	•				87
▲ Akai GX-95II	440	G+ Sharp, clear and articulate sounding deck, with superb performance extending to frequency extremes	•	•	•	•			•	99
Akai GX-R35	220	A Middling sound quality at best with Dolby B; deteriorates with Dolby C	•	•	•	•				99
▲ Akai GX-W45	320	A Costly but musical high-spec dual deck, doesn't like modern high energy Type IIs and IVs. Good stability and clarity	•	•	•				•	111
▲ Arcam Delta 100	850	E Superb transport and a ripe, spacious sound. The Dolby S installation more successful than most. Some replay incompatibility	•	•	•			•		111
▲ Denon DRM-510	150	A+ An amnesic Dolby switch and lack of timer standby detract from an otherwise strikingly successful deck with a good performance	•	•	•					99
Denon DRM-710	250	A Although this is a fair performing model, the design has lost some of the competitive edge of its predecessor, the DRM-700.	•	•	•					105
▲ Denon DRS-610	180	G Unique loading mechanism provides stability, and the deck has a crisp, clean quality. Occasionally anaemic bass.	•	•	•				•	111
Denon DRS-810	300	A Basically good deck with non-stressful material let down by an inability to deal with high energy tapes properly.	•	•	•	•			•	105
▲ Denon DRW-650	200	A This simply equipped model is a little fiddly to operate at times, but sound quality is generally workmanlike - good value	•	•	•				•	93
Dual CC800RS	170	A- Low(ish) cost auto-reverse deck. Delivers a punchy but ultimately rather crude impersonation of source material, thin, lightweight bass.	•	•	•					105
Harman Kardon DC5500	500	A Workmanlike sound quality offset by high price and inexplicable shortcomings like 'forgetful' Dolby switching and no timer support.	•	•	•				•	117
Harman Kardon TD4600	600	A Original Dolby S deck has improved over the years and now sounds very acceptable. A strong, solid sounding deck - but expensive.	•	•	•	•				117
JVC TD-R452	180	A- Tidy, stable but ultimately rather soul-less experience. Auto-reverse is useful though.	•	•	•					117
▲ JVC TD-V1010	400	E Very high grade enthusiasts deck with almost CD-like resolution and stability, especially with Type IV tapes	•	•	•	•				111
JVC TD-X352	150	A- Disappointingly amorphous sound despite decent measured results.	•	•	•					117
▲ Kenwood KX-3050	160	A Acceptable sound quality marred only by a loss of midband analysis and slightly edgy treble.	•	•	•					117
Kenwood KX-5030	200	A Confusing mishmash of listening impressions caused by poor set-up afflicting metal tapes and Dolby C in particular. Promising otherwise	•	•	•				•	99
Kenwood KX-5530	190	A- Neat looking, well equipped deck, adequately engineered but somewhat lacking musically. Worth considering if auto-reverse is a must	•	•	•				•	105
▲ Kenwood KX-7030	260	G Fine, articulate middle price cassette deck whose only (mild) failing with some programme material is a just perceptibly synthetic glaze	•	•	•	•				99
▲ Marantz CP230	330	A This is a competitively priced portable recorder though not suited to replay of musicassettes	•						•	52
▲ Marantz CP430	400	A Uniquely flexible and compact package for outside work which at a pinch can double as a domestic cassette deck	•						•	87
Memorex SCT-5	150	P Poor example of a twin cassette deck where everything has been sacrificed on the altar of flexibility	•	•						87
▲ Nakamichi DR-1	780	VG Typically idiosyncratic Nakamichi with manual everything, Good azimuth adjustment and dynamic, authoritative sound.	•	•						117

Cassette decks continued

Product	£Price	Comments	Dolby B	Dolby C	Dolby HX Pro	Dolby S	3 Head	Bias adjust	Auto calibration	Twin deck	Autoreverse	Issue No.
▲ Nakamichi RX-202E	600	G+ Fine, clear and articulate sounding player. Excellent with prerecorded material, but idiosyncratic and sometimes obstructive control	•	•							•	63
▲ Pioneer CT-339	150	A Auto BLE tape alignment is the most interesting feature. Sound quality is a little flaky.	•	•	•						•	105
Pioneer CT-676	250	P Dull, compressed and hard sounding deck, which is hamstrung by high measured transport flutter.	•	•	•						•	99
Pioneer CT-900S	500	A High spec and well built derivative of CT-93, but disappointingly lacklustre sound	•	•	•	•					•	99
▲ Pioneer CT-91a	550	G+ Superb, near state of the art deck with excellent dual capstan transport and capable electronics. At the price, this one is a mould breaker	•	•	•						•	75
▲ Pioneer CT-93	800	E State of the art deck, built like something out of NASA's shuttle, with superb all round performance	•	•	•	•						99
▲▲ Pioneer CT-S410	200	A+ Powerful selection of features, excellent ergonomics and the fine, explicit sound with metals, though some instability was noted.	•	•	•						•	111
▲▲ Pioneer CT-S510	240	A- Slightly highlighted balance, but open and detailed, and backed by a basic but excellent set of features	•	•	•						•	117
▲ Pioneer CT-S610	270	G+ Exactly engineered and highly articulate up-market cassette deck. Imagery and dynamics are finely resolved	•	•	•						•	111
Pioneer CT-S910	500	G+ Refined and able performer, strong detail and excellent imagery, but slightly laid back.	•	•	•						•	117
Pioneer CT-W601R	200	A- Mediocre performance attributable to flimsy build and less than stable transport. Frequency responses not wholly accurate.	•	•	•						•	111
▲ Pioneer CT-W650R	200	A There were some intermittent problems with the tape alignment system on the test sample, but the deck was otherwise good.	•	•	•						•	105
▲ Revox B215	1322	G+ Fine, consistent and solid sound, excellent under the skin engineering and many useful features — but you're also paying for it	•	•	•	•					•	87
▲ Revox B215-S	1697	G+ This is a superbly engineered deck with a classically fine performance that almost transcends the stereotypes.	•	•	•	•					•	75
Revox Professional Series C115	1083	G Not for the numbers freaks, it's unobtrusively musical, with a slightly wayward top and a very clean, extended bass	•	•	•	•					•	111
Sansui D-X111E	120	P Very high levels of flutter, and a shabby, hollow sound with metallic colorations and a severe loss of detail - is it necessary to go on?	•	•	•						•	105
Sansui D-X117WR	220	P Bass is thin and coloured, and the sound lacks dynamics, pitch accuracy and overall stability - the sound is neither stable nor solid.	•	•	•						•	111
▲▲ Sansui D-X211HXR	170	G+ Clean, stable and open sounding recording quality distinguishes this player, - and auto-reverse too. Excellent value.	•	•	•						•	93
Sansui D-X311WR	250	A- Not wholly successful auto-reverse deck which suffers because it has tried to be all things to all people. Lack of clarity is main limitation	•	•	•						•	99
Sherwood DD-3010C	150	P Good range of features, let down by poor transport and iffy electronics.	•	•	•						•	117
▲▲ Sony (WMD6C) Pro Walkman	280	G+ One of the finest sounding cassette decks on the market today. A mandatory Best Buy, which also fits in your pocket	•	•							•	60
▲▲ Sony TC-K520	180	G Fine, assured and detailed performer with a very well designed and straightforward user interface	•	•	•						•	87
Sony TC-K870ES	350	A+ Good but not outstanding deck which proved slightly disappointing on audition. This model is no standard setter	•	•	•	•					•	99
TEAC R-9000	500	G Much better than average auto-reverse deck, well worth considering. Nicely engineered too.	•	•	•	•					•	105
TEAC V-7000	480	G Intrinsically sharp, clear and solid sound spoiled by exaggerated detail with prerecorded material and losses imposed by Dolby circuits	•	•	•						•	99
▲ TEAC V-8000S	700	G Superb stability and real subtlety, this must be the best TEAC yet. The only disappointment was the Dolby C	•	•	•	•					•	105
▲▲ Technics RS-BX626 II	180	G First rate deck at a bargain price. Losses when recording are low and mostly benign, an all-round achiever	•	•	•						•	111
Technics RS-BX828 II	300	G Fine deck, with explicit detail and stability, but in the final analysis it doesn't go much further musically than the cheaper RS-BX626	•	•	•	•					•	111
▲▲ Yamaha KX-260	160	A Lively, entertaining deck that trades gadgets for a convincing performance at an attractive price point	•	•	•						•	111
Yamaha KX-360	200	A Performance has both dryness and precision. Good - but doesn't 'breathe,' and occasionally sounds unstable	•	•	•						•	111
▲ Yamaha KX-650	260	G Fine audio manners, especially in the midband and treble, mark this high class deck out from the crowd	•	•	•						•	99
Yamaha KX-W362	250	A- Almost a good deck, it is let down by audible levels of wow & flutter, apparent even with prerecorded material, audio circuits are good	•	•	•						•	111



CD Players

Now over a decade old, this all digital music source is well established despite high disc prices and the opposition of some hi-fi enthusiasts. Compact Disc's strengths over conventional vinyl are complete freedom from surface noise, ease of use, and more robust software.

However, many vinyl enthusiasts still find CDs sound less involving than top quality vinyl. But, with the dominance of CD in the high street, even vinyl die-hards need a CD player today.

The columns on the right indicate when the facilities shown in the headings are available on a CD player: DAC type indicates the specific converter chip used in each player, multi-bit is used for the standard 16-bit, four times oversampling rate. In much the same way that an amp's output is not indicative of its sound quality, the chip used in a DAC isn't the only determining factor in a CD player's sound, but it is an important one. Remote control is not yet universal, and we have included a tick box, more to show which

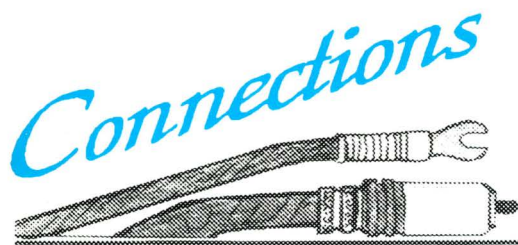
machines don't have one than which do. The existence of electrical and/or optical digital outputs is important for future upgrading with an outboard DAC, as a rule electrical outputs are the most desirable. Phase inversion in the digital domain is rare on one box players but can make quite a big difference if you've got golden ears. Headphone sockets are useful but beware of those without volume controls. Track entry keypads are those with calculator style buttons which makes track access much quicker.

CD Players

Product	£Price	Comments	DAC type	Optical digital output	Electrical digital output	Remote control	Track entry keypad	Headphone socket	Phase invert	Issue No.
▲ Acoustic Research CD-07	300	G AR's first Bit Stream CD player relies heavily on Rotel know-how to produce a smooth, detailed but undemanding sound	SAA7321	•	•	•				100
▲ Aiwa XC-300	130	A+ Cheap, cheerful and gratifyingly free of digital 'nasties', well-equipped but safe rather than thrilling on the sonic front.	Toshiba BS	•	•					107
▲ Akai CD-57	180	A+ A very flexible machine with a slightly lumpy but fullsome bass, model of clarity but very entertaining!	PWM	•	•	•				107
▲ Arcam Alpha Plus	420	G+ As its name suggests, this is the 1992-version of a classic 16-bit player with an all-round smoother sound!	multi-bit	•	•					112
Arcam Delta 70.3	650	G+ A distinctly rugged, beefy sound. Plenty of power behind individual instruments but lacks a feeling of involvement	7350 PDM	•	•					95
Cary Audio Design CAD-955	899	A+ Rotel with add-on valve processor to filter-out any RF. Nice idea but sounds very dry and taut, lacking warmth and body.	multi-bit	•	•					107
Creek CD60	500	G A big and confident sound from a player that's 'into' green. So it looks ghastly even if the internal design is very thoughtful.	multi-bit	•	•					107
Denon DCD-1290	319	G- Looks the business but sound is a real five-minute wonder. Its compelling fizz lasts about as long as a firework.	18-bit	•	•	•				107
Denon DCD-2560	570	G Beautifully built but decidedly sluggish, particularly through the bass. Vocals are more forward but can sound a little glassy	20-bit	•	•	•				95
Denon DCD-890	270	G- Similar to the DCD-1290 in its execution, sounds lively and powerful but lacks subtlety.	18-bit	•	•	•				112
Dual CD1080RC	200	A- Strange-sounding player with a top-heavy treble that does little to redress its lack of vibrancy and emotion	MASH/PWM	•	•					107
Harman Kardon HD7450	260	A+ Dominated by a budget decoder/oversampling IC. Good bass nevertheless but pop tracks can sound fizzy and tiring.	18-bit	•	•					107

CD Players continued

Product	Price	Comments	DAC type	Optical digital output	Electrical digital output	Remote control	Track entry keypad	Headphone socket	Phase invert	Issue No.
▲ Harman Kardon HD7500II	300	G+ Tonal integration is very good, packed with detail that's expressed with enthusiasm.	MASH	•	•		•	•		95
Harman Kardon HD7600II	400	A+ HD7500II with a motorised volume control and extra-heavy casework. Lacks the transparency and sparkle of the cheaper machine	MASH/PWM	•	•					100
Harman Kardon HK7300	200	A- Budget low bit technology, does not deliver enough for a recommendation	bitstream				•			83
JVC XL-V152	130	A Based on earlier budget designs but minus a remote control. The voluminous but vague sound is equally familiar.	PEM BS							112
▲ JVC XL-Z452	180	G+ Another lightweight player but graced with a surprisingly bold and detailed sound. Impressive stuff for the money.	PEM BS	•			•	•		112
▲ Kenwood DP-3040	180	G+ The sophisticated sound of this budget player could teach Kenwood's costlier offerings a thing or two!	NPC BS	•						112
Kenwood DP-5040	200	A Better built and technically superior to the older DP-5030 but its untidy, detached treble quality proved a real disappointment	PLM	•	•		•	•		107
▲ Kenwood DP-7040	300	G A classy, polished sound from a decidedly refined piece of engineering	PLM	•	•		•	•		107
Kenwood L-1000D	830	G A beautifully constructed and very stylish player that really only gives off its best when used in balanced	multi-bit	•	•	•	•	•		100
Marantz CD-72	400	G+ A heavily-constructed player. This implementation sounds astonishingly solid and immediate but also rather too 'clean'.	bitstream	•	•		•	•		107
Marantz CD-72SE	500	G+ A recommendation just eluded the grasp of this superbly built player thanks to its very polished but restrained sound.	bitstream	•	•					112
▲ Meridian 208	1550	E State of the art CD sound combined with a decent preamp and full remote control	bitstream	•	•	•	•	•		83
Micro Seiki CD-M100	5541	G Extravagantly styled, finished and built. The good lab performance led to an only 'good' sonic display	multi-bit	•	•					72
Micromega Logic	500	G A version of Philips CD624 with new op-amps and CD tray. Still, it sounds rather meatier, better integrated and more purposeful	SAA7321	•	•					100
Mission DAD5	300	A+ Similar to Philips' 600-series: lively, plenty of space and full of 'bounce' but a little too eager to impress in the short term	bitstream	•	•					107
▲ Musical Fidelity CDT	500	G+ Oddball player with a cheap top-loading transport and appalling digital gubbins yet saved by the euphony of its valves!	hybrid							112
▲ Philips CD604	130	A+ Slightly ponderous but weighty-sounding player is the older CD610mkII minus remote control. Good sound at a daft price	multi-bit		•			•		107
Philips CD930	180	G- Featuring digital circuitry similar to Marantz's players but a sound that's a little too ripe and soft.	bitstream	•	•		•	•		112
▲ Philips CD950	350	G+ Philips' top 900-series player is the first to employ its advanced DAC7 chipset. Sounds very crisp, clear and confident.	DAC7	•	•		•	•		112
▲ Pioneer PD-201	150	G A budget player with a genuinely fizzy and exciting sound. Hardly neutral but audacious and entertaining nevertheless.	PDM BS	•			•	•		112
Pioneer PD-75	800	G+ A confident yet beautifully poised and relaxing sound from an equally luxurious package. Oodles of refinement	PDM BS	•	•					107
Pioneer PD-S501	190	A+ The cheapest player to be equipped with a Stable Platter mechanism, but compromises elsewhere have suffocated its flair	bitstream	•			•	•		112
Pioneer PD-S801	300	G Pioneer's Legato Link digital filtering provides an unpredictable sound. Capable of poor or superb results, depending on system	bitstream	•	•					112
Revox B226S	840	A Top quality build and finish for the Revox system enthusiast. For high value sound look elsewhere	multi-bit	•			•	•		76
Rotel RCD-955AX	260	A Repackaged version of the evergreen RCD-855. Our sample disappointed, lacking the clean, cohesive quality of the original	multi-bit	•	•					107
▲▲ Rotel RCD-965BX	320	E An exceptionally refined bitstreamer: transparent, exquisitely detailed and powerfully emotive. A landmark player	SAA7323	•	•					100
Sansui CD-X317	300	A t in the same class as older CD-X311mkII. Same technology but the sound is neither as responsive or engaging	MASH	•	•		•	•		107
Sansui CD-X617	300	A This 'double-DAC' version of the CD-X317 is more impressive, sounding light and tizzy with pop but dull with classical CD's	MASH	•			•	•		112
▲ Sansui CD-X711	600	G+ Luxury features, finish and sound from this classy Sansui; excuses required here	bitstream	•	•		•	•		83
▲▲ Sony CDP-397	140	G The first CD player to be almost entirely composed of miniature surface-mount components. Unsophisticated but enthusiastic sound	PLM	•			•			112
▲ Sony CDP-797	200	G- Succeeds with its taut imaging, clean and impressive soundstaging. Can seem a little too lean or dry, however.	PLM	•	•		•	•		107
Sony CDP-X229ES	300	G- Built to the same standards as the CDP-X339ES but with a colder and less forgiving sound. Lacks a sense of integration	PLM	•	•		•	•		112
TEAC CD-P3500	170	A A well-meaning attempt to pare-down the CD-P4500 results in a similar looking player with a thoroughly uninspiring sound	bitstream	•	•		•	•		112
▲ TEAC CD-P4500	250	G TEAC's first genuine 1-bit player its sound described as having a certain 'organic warmth', very composed and easy-going.	SAA7350	•	•		•	•		107
▲ Technics SL-PG320A	140	G+ A cheaper and remote-less version of the '420A with an equally dry but vivid, spacious and astringent sound. A good 'un	MASH	•			•	•		112
▲ Technics SL-PG420A	160	G+ Offers an open, transparent and uncommonly fresh sound but a little of the 'magic' is missing.	MASH	•			•	•		107
▲▲ Technics SL-PG520A	200	G+ A cracking player. Superb clarity and dynamics, thrilling but musically involving too	MASH	•	•		•	•		107
▲▲ Technics SL-PS620A	230	G+ A costlier, tarted-up version of the SL-PG520A that loses very little in the way of clarity, sparkle or in compelling dynamics	MASH	•	•		•	•		112
Technics SL-PS900	350	G- Just about the quietest transport in existence and a sound that is equally unobtrusive, polite and refined	MASH	•	•		•	•		100
Wadia WT-2000/DM 2000	12690	G+ Very high grade transport and DAC which provides state of the art in believable music making from CD	multi-bit	•	•	•	•			Col
Woodside WS2	1095	G+ Responded well to our jazz and classical selection but sounding bright and grainy with the pop CD's	multi-bit	•	•					95
Yamaha CDX-560	180	G An advance on the CDX-450 the light, up-front if t entirely welcoming sound of this newcomer could shock the timid listener	18-bit	•			•			112
▲ Yamaha CDX-860	280	G+ Probably Yamaha's best player to date: powerful and confident yet delicate and nimble when the occasion demands	PDM	•	•					112



Tel: 081 348 5676 (2.00-7.00 pm)
Fax: 081 341 9368

Esoteric High Fidelity CABLES

Dealers in: Absolute, Audio Note, Audioquest, Deltec, Harmonix, Kimber, Mandrake, MIT, Siltech, Symo, Van den Hul, WBT and others

... the **RIGHT** cables
... in **YOUR** system
... for **YOUR** ears
... in **YOUR** home

Contact us by phone, fax, or letter and we'll do our best to help you achieve your goal.

(Auditions may be subject to a handling charge)

CONNECTIONS 11 Archer St, London W1V 7HG (A division of Connection 90' Travel Ltd.)

**173 STATION ROAD
EDGWARE
MIDDLESEX HA8 7JX
TEL: (081) 952 5535
FAX: (081) 951 5864**



**45 HIGH STREET
HOUNSLOW
MIDDLESEX TW3 1RH
10 MINUTES FROM HEATHROW
TEL: (081) 569 5802
FAX: (081) 569 6353**

MAIN DEALERS FOR:

- ACOUSTIC ENERGY
- ADCOM
- AIWA
- AKAI
- AKG/AR
- ALBARRY
- ALPHASON
- ARCAM
- AUDIO ALCHEMY
- AUDIO INNOVATIONS
- AUDIOQUEST
- AUDIO TECHNICA
- AURA
- B & W
- BANBRIDGE ACCESSORIES
- BANG & OLUFSEN
- BEYER DYNAMIC
- BOSE
- BOSTON
- CABLE TALK
- CANON
- CASTLE
- CELESTON
- CERWIN VEGA
- CREEK
- CYRUS
- DENON
- DUAL
- GOLDRING
- HARMAN KARDON
- HECO
- HEYBROOK
- INFINITY
- JAMO
- JPW
- JBL
- KEF
- KENWOOD
- LUXMAN
- MARANTZ
- MAXELL
- MICHELL
- MICROMEGA
- MISSION
- MITSUBISHI
- MONITOR AUDIO

PART EXCHANGE

081-952 5535
Nth/NW LONDON

END OF YEAR

SALE

SUNDAY OPENING

081-569 5802
10 mins from Heathrow
081-570 7512

MAIN DEALERS FOR:

- MONSTOR CABLE
- MORDAUNT-SHORT
- MUSICAL FIDELITY
- NAD
- NAGAOKA
- NAKAMICHI
- ORTOFON
- PANASONIC
- PHILIPS
- PINK TRIANGLE
- PIONEER
- PROJECT TURNTABLES
- PROTON
- QED
- QUAD
- REVOLVER
- REVOX
- ROGERS
- ROKSAN
- ROTEL
- RUARK
- SANSUI
- SCOTCH/3M
- SENNHEISER
- SHURE
- SOUND
- ORGANISATION
- SME
- SONY
- SPENDOR
- STAX
- SYSTEMDEK
- TARGET
- TANNOY
- TDK
- TEAC
- TECHNICS
- THORENS
- TOSHIBA
- TRIPOD
- VAN DER HUL
- WHARFEDALE
- YAMAHA
- AND MANY MORE

**S
A
L
E**

SPEND

£2000

CLAIM GOODS WORTH

£350 →

£1500

CLAIM GOODS WORTH

£225 →

£1000

CLAIM GOODS WORTH

£140 →

£750

CLAIM GOODS WORTH

£95 →

£500

CLAIM GOODS WORTH

£60 →

£300

CLAIM GOODS WORTH

£30 →

£100

CLAIM GOODS WORTH

£10 →

**F
R
E
E**

MAIL ORDER

AUDIO VISUAL DEMOS

INTEREST FREE CREDIT?

ASK FOR DETAILS

Promotion valid until 31/5/93, and not with any other offer, nor with interest free credit, nor with special offers, nor with part exchange



CD Transports and DACs

A CD player can be split into two basic components, the mechanism which reads the information from the disc, called the transport, and an electronic device which turns the digital bitstream coming off the disc into an analogue audio signal, this is called a digital to analogue convertor or DAC. Although at the lower end of the market both of these are contained in a single box, the best CD players are usually two box affairs.

Although many of these units will be purchased as matching pairs, a DAC can also be used to upgrade an existing CD player. For instance an early machine with a satisfactory transport but a dated convertor can be rejuvenated by adding an outboard DAC.

nated by adding an outboard DAC.

The columns on the right indicate when the facilities shown in the headings are available on a transport or DAC. Remote control is not yet universal, and we have included a tick box, more to show which machines don't have them than which do. The existence of electrical and/or optical digital in and outputs is pretty fundamental to transports and DACs, as a rule electrical outputs are the most desirable. Class 1 transports are those with an output whose crystal clock accuracy is better than ± 50ppm (parts per million), certain DACs won't lock onto (and thus can't be used with) transports with a lower clock accuracy. DAC type shows the specific convertor chip

employed, multi-bit indicates the use of a 16-bit, four times oversampling chip. In much the same way that an amp's output is not indicative of its sound quality, the chip used in a DAC isn't the only determining factor in a CD player's sound, but it is an important one. Phase inversion in the digital domain can make quite a big difference if you've got a high resolution system and golden ears to go with it, and is worth having.

The choice of interconnect used to link drives and DACs is also important. Despite the fact that you are conveying a digital bitstream differences can be heard between interconnects and conventional interconnects, a dedicated 75ohm digital cable will give the best results.

CD Transports

Product	£Price	Comments	Remote control	Electrical digital output	Optical digital output	Class 1	Issue No.
Kenwood DP-X9010	500	A+ Compromised by jitter, RF noise and poor clock selection it encourages a dynamic but bright and edgy sound with most DACs	•	•	•		96
▲ Meridian 200	895	G+ Broadly compatible and offering a light, fresh and very bubbly sound that is both natural, engaging and unflagging	•	•	•	•	96
Meridian 602	1750	G This dedicated CD transport teams-up most successfully with the 606 DAC. Otherwise it lacks the life and pizzazz of the 200	•	•	•	•	96
▲ TEAC P-10	1499	G+ A chunkier and altogether more successful transport than the P-500 with an especially beefy and compelling sound. TEAC's best	•	•	•	•	96
TEAC P-2	3300	G Beautifully styled and constructed but sound is bleached and generally less inspiring than that of the P-10	•	•	•	•	96
▲ TEAC P-500	649	G+ Provides a smooth and very sympathetic sound yet is also rather vague, lacking the crispness and resolution of its peers	•	•	•		96
Technics SL-PA10	470	G Has the unusual limitation of only optical output. Reassuringly solid and more immune to vibration than most			•	•	88
Wadia WT2000	5614	G+ Active digital output and alloy casework. Dynamic and crisp sound best realised with Wadia DACs, otherwise less impressive.	•	•	•	•	96
▲ Wadia WT3200	1800	VG Based on Marantz CD-95DR with new casework and active output. Very clean, clear and authoritative with Wadia and Philips based DACs	•	•	•	•	96

DACs

Product	£Price	Comments	DAC type	Electrical digital input	Optical digital input	Phase invert	Issue No.
▲ Arcam Black Box 3	300	G+ Top of a series of three decoders it can offer a high sonic standard with top class transports	Bitstream	•	•		88
Arcam Black Box 5	450	G Equipped with Sync Lock for D170.3. It gives off its best with a standard 75ohm transport like the TEAC P-10.	hybrid	•	•	•	113
▲▲ Audio Alchemy DDE v1.0	420	VG A very sweet and seductive sounding unit that gives good results with a wide range of CD players/transports	Bitstream	•	•	•	101
Audio Synthesis DSM-M	1234	G+ A weighty but neutral and highly calculated performer, best suited to transports like the P-10, despite Sync Lock facility.	20-bit	•	•		113
Audiolab 8000DAC	700	G Needs Class 1 transport. At its best with Wadia WT3200 where it sounds vivid and alive. Otherwise can sound a little antiseptic	Bitstream	•	•	•	103
Beard DAP-1	975	A- Clad in a wooden case this marriage of digital technology and valves has hit the rocks, a disappointingly flat sound	multi-bit	•	•	•	113
▲ DPA Digital Bigger Bit	700	G With either P-10 or Meridian 200 transports it delivers a very taut and dynamic sound, bathed in an open acoustic	DAC7	•	•		103
DPA Digital Little Bit (Optical)	400	VG Works especially well with Meridian's 200 transport but does require the services of Deltec's 'Power' mains filter	SAA7350	•			101
DPA Digital PDM1 Series 3	1280	G+ Bears technical comparison with both PDM2 and Bigger Bit but - in terms of sound quality - is great advance on the latter	DAC7	•	•		103
▲ ds/d Decode-1	495	G Elegantly designed bitstreamer with plenty of inputs, can sound too bright, immediate or artificial for its own good.	Bitstream	•	•	•	113
▲ Forte Audio Model 50	950	VG A typically big and full-blooded sound, infiltrated by a slightly euphonic quality but never hard or gritty.	DAC7	•	•		103
▲ Meridian 203 DAC7	560	VG A broadly compatible DAC that's free of fatiguing nasties yet remains bubbly and exciting	DAC7	•	•		101
Meridian 606 DAC7	1350	G By refining the 203's sound further Meridian have also tempered its vibrancy and 'life'. Fickle with other transports	DAC7	•	•	•	101
Micromega Duo BSII	550	G Has a tendency to sound light, airy and 'fast' but it can also become a little hard or - fatiguing with some digital outputs	SAA7321	•	•	•	101
Micromega Microdac	300	A+ Described as a modest but entertaining performer, achieving its sweetest balance with Arcam's D170.3 transport.	SAA7321	•	•		113
▲ Mission DAC5	299	G+ Another modest DAC but one capable of a lean but clean and detailed sound that's typical of the DAC7 breed.	DAC7	•	•	•	113
▲ NVA DAC-ON	730	G+ DAC-ON actually turns out to be a QED Digit linked to substantial external supplies. A ruse that undoubtedly improves its sound	SAA7323	•			113
PS Audio Superlink	1498	G- Does the business with Meridian's 200 but can sound bloated, smeared and even vaguely electronic other transports	18-bit	•	•	•	103
▲▲ QED Digit	139	G+ Bearing in mind its expressive but very forgiving performance the Digit is almost embarrassingly cheap	SAA7323	•			113
Roksan ROK-DA1/ROK-DS4	995	G+ A creditable affair, both expansive and expressive in character but rather also lean in balance.	Crystal	•	•		113
Stax DAC-Talent	1400	G+ Natural, refined and never over-zealous, its also capable of sounding very spicy and dynamic. Can be a maturing influence	20-bit	•	•	•	101
▲ Sugden SDA-1	749	G+ A pleasant surprise from the fuddy-duddies of audio, judging by its 'masses of high resolution detail and tremendous dynamics'	TDA1541it	•			113
Sugden Stemfoort PDA-10	1200	G+ Unfortunately this 'upgraded' SDA-1 is less impressive than the original, losing out on dynamics, airiness and subtle detailing	multi-bit	•	•	•	113
Sugden Stemfoort PDA-10	1750	G+ Unfortunately this 'upgraded' SDA-1 is less impressive than the original, losing out on dynamics, airiness and subtle detailing	multi-bit	•			113
▲ TEAC D-500	400	G+ Combination of NPC O/S filter and two Philips' DACs. Its broadly compatible. A dynamic and 'interesting' sound	multi-bit	•	•		103
Threshold DAC 1/e	3150	G+ Can sound beautifully detailed with a marvellous sense of scale and sharp, solid images. Compatibility is unpredictable	MASH	•	•	•	103
Wadia DigiMaster X-32	2000	G It can sound bold, dynamic and crisp but lacks the warmth to bind its music together	18-bit	•	•		101
Wadia DigiMaster X-64.4	5000	G+ The X-64.4 positively buzzed with vibrant, sharply-etched detail. An exciting sound	18-bit	•	•	•	101
Woodside DAC1	909	G Fine but slightly dated and costly package in performance terms - but flexible, musical and t well built	multi-bit	•	•		87
▲ Woodside DAC2	510	G+ Offering a sharp and dynamic sound, all the more captivating for its lack of graininess and 'tizz'. A reliable upgrade	multi-bit	•			101



DAT

DAT, or digital audio tape, has been on the market for quite some time now but has never really 'made it' as a consumer medium, probably due to the fact that very little prerecorded software has been made available.

In the last year or so it has begun to carve itself a niche at the top end of the market replacing reel to reel tape recorders as the audiophile's

tape based medium.

The DAT standard specifies a 48kHz sampling rate, which is higher than CD, so direct copying in the digital domain is only possible on those machines with dual sampling frequencies, ie 48kHz and 44.1kHz. Some machines also record at 32kHz to give a longer recording time for a given length of tape, this is shown in the LP

mode column.

The optical and electrical in/outputs in the column headings are for digital signals, analogue in/outputs are universal. The AES/EBU and S/PDIF socketry is for connection to professional components and typically DAT machines with this facility have been made for the pro and semi-pro markets.

DAT

Product	£Price	Comments	Remote control	Optical in/outputs	Electrical in/outputs	AES/EBU in/outputs	S/PDIF in/outputs	Issue No.
JVC XD-Z1010TN	1050	A+ Ambitious but ultimately disappointing deck with an opaque musical delivery and more features than you can shake a stick at	•	•	•	•		111
▲ JVC XD-Z505	620	G Competent middle market DAT with uncomplicated (but still flawed) user interface, but good basic sound quality	•	•		•		105
Kenwood DX-7	500	A Sound quality is pretty fair, but a little rougher than the best of the breed. Controls are good, the display however is poor	•		•			94
Kenwood DX-7030	700	A- Bland sounding deck that lacks low level clarity and imaging. Build quality is good however and ease of use ranks highly			•	•	•	99
Luxman KD-117	1499	G Slightly soggy, earth-bound sound quality, this model trails the other DAT decks tested so far						63
Panasonic SV-3700	1111	A Slick, powerfully equipped, this pro DAT has a clear, quick and colourful sound somewhat lacking in weight and substance			•		•	111
▲ Sony DTC-55ES	550	G Broadly comparable to a middle ranking CD player sonically, the Sony is particularly well equipped and well priced.						93
Sony DTC-77ES	1000	A Superb engineering, many nice features (including off tape monitoring) but perceptibly slowed, thickened sound	•	•	•	•		105
▲ Sony DTC-M100	799	G+ Clean clear sounding second generation model with most of the features and sound of the DTC-1000ES						63
▲▲ Sony TCD-D3	500	G+ At the time of writing, this model represents the state of the art, and beats all comers.	•			•		94
Tascam DA-30	1199	A+ Interesting pro DAT deck with solid, tangible sound quality which is nevertheless lacking in analysis			•		•	111



Headphones

There are a variety of different approaches to headphone design. Amongst the more expensive models, electrostatic drivers are used in square open-backed phones. The majority of these come with some form of transformer which takes the signal initially from the speaker terminals on the amplifier.

The more down to earth models feature dynamic, or moving coil, drivers in circular open or closed backed designs. The advantage of open backs seems to be a correspondingly open sound, but one can also of course hear external noises.

The third category are closed-back designs,

which are useful in situations where it is necessary to block out background noise.

Another means of distinguishing different types is the way they sit on your head.

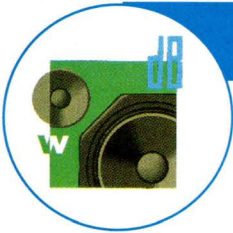
There are three styles: circumaural models enclose the ear and rest on the side of the head; supra-aural designs press on the outer ear

Headphones

Product	£Price	Comments	Type	Open back	Closed back	Dynamic	Electrostatic	Issue No.
▲ AKG K1000	500	E One of the best dynamics on the market, hooks directly to speaker outputs and makes much of the competition sound lame	Extra-aural		•	•	•	99
AKG K135	33	A The K135s don't live up to the usual AKG standards, though they do have the ability to reproduce rhythm well	Supra-aural		•		•	63
▲ AKG K240 Monitor	60	G Something of a classic, these AKGs are very user friendly in all respects; sonically on the warm side of neutral	Circumaural		•		•	63
▲ AKG K280 Parabolic	90	G+ A very revealing and unusual twin driver design that uses the same principle as a satellite dish to beam sound into the ear	Circumaural		•		•	63
▲ AKG K340	140	E Heavyweight cans in most respects, the K340 with its electrostatic tweeter is a very revealing headphone	Circumaural			•	•	75
AKG K44	40	A Good quality personal oriented phone, could have a better sense of space but is musically quite communicative	Supra-aural		•		•	99
▲ AKG K500	119	G+ Open and clear, they reproduced music with impressive definition, balance is on the light side but transparency is high	Circumaural		•		•	111
Aiwa HP-X30	31	G- A flashy personal stereo phone which alternatively could be used at home. A slight LF tonal preference colours the response	Supra-aural			•	•	75
▲ Audio-Technica ATH-308	26	A- Small cans with a fairly forward balance which helps perceived clarity but can become wearing over time, good for personals	Supra-aural		•		•	111
▲ Audio-Technica ATH-609	31	A- Warm feeling and sounding with impressive physical substance for the price, could be more relaxed and open	Circumaural		•		•	99
Audio-Technica ATH-611	51	G Same basic design as 609 but bigger thinner diaphragm makes this a more relaxed and informative headphone	Circumaural		•		•	99
Audio-Technica ATH-9000	246	G Electrets which connect to the amps speaker outputs, it sounds a little too smooth but would suit aggressive amps	Circumaural		•			111
▲ Audio-Technica ATH-910	70	G The closed-back 910s are an improvement on the 909s with a nice rhythmic quality rarely found with headphones	Circumaural			•	•	55
▲ Audio-Technica ATH-911	80	VG Nicely finished dynamic headphones with all the trimmings, plus a very clean and subtle sound	Circumaural		•		•	63
Beyer DT411	49	G A reasonable but not very thrilling headphone that doesn't really offer enough at the price	Supra-aural		•		•	111
▲ Beyer DT911	179	VG Probably too revealing for many headphone amps these are very subtle and fine if expensive cans	Circumaural		•		•	111
▲ Beyer DT990	102	VG A significant pair of dynamic headphones; they have a smooth and yet revealing neutral sound that is hard to criticise	Circumaural		•		•	55
▲ Beyer IRS690	203	VG High quality infra-red headphones with soft comfy earpads and mellow but informative sound quality which is hard to dislike	Circumaural		•		•	75
JVC HA-D690	40	A Competent but rather undistinctive cans, a bit middle of the road and well suited to aggressive sources	Supra-aural			•	•	111
▲ Jecklin Float Electrostatic	399	E These electrostatics have an openness of sound rarely found in the breed, with good dynamic range to boot	Circumaural		•		•	55
▲▲ Jecklin Float Model One	79	G+ Whilst very unusual in appearance, the Floats give remarkable sound quality and openness at a reasonable price	Circumaural		•		•	55
▲ Jecklin Float Model Two	99	G+ Helmet shaped and pretty unflattering but open sounding and comfortable in the long term. te lack of adjustment	Circumaural		•		•	63
Koss TD/60	20	A Devoid of channel identification with a decidedly Stateside approach to sound, these are very listenable phones for the price	Supra-aural			•	•	75
Pioneer SE-72	30	A- Neat, very nicely made personal stereo phones. Sound is on the veiled side, good for aggressive sources	Supra-aural			•	•	75

Headphones continued

Product	£Price	Comments	Type	Open back	Closed back	Dynamic	Electrostatic	Issue No.
Quart Phone 30 X	40	A Slightly dark character makes these more suitable for some material than others, specifically music that needs bass weight	Supra-aural	•			•	99
▲ Quart Phone 95 X	100	G+ Can sound even handed, relaxed and open with a good drive system but may be a bit too transparent for lesser headphone outputs	Circumaural	•			•	99
Realistic Pro-X	25	A- Robust, unanimously uncomfortable and heavily veiled in sonic terms. Not a great success	Supra-aural			•	•	75
▲ Sony MDR-CD750	73	G+ Reasonably comfortable and eminently listenable these Sonys have characteristically good bass power and relaxed hf	Circumaural			•	•	111
▲▲ Sennheiser HD 480II	50	G t the most accurate cans on the market but amongst the most enjoyable	Supra-aural	•			•	111
Sennheiser HD 540II	100	G+ A good but not great headphone that due to its high impedance and efficiency should work well with most sources	Circumaural	•			•	111
▲▲ Sennheiser HD40	20	G- Very light and comfortable headphones with an even sonic balance that will suit most sources. 6.3mm jack	Supra-aural	•			•	75
Sennheiser HD450II	60	G- Makes quite acceptable noises with a variety of outputs, could sound more spacious but is pleasantly relaxed	Supra-aural	•			•	99
▲ Sennheiser HD480 Classic II	40	G Same basic design as the 450 but improved sound quality as a result of aluminium coil and extra damping, natural with good bass	Supra-aural	•			•	99
▲ Sennheiser HD520	65	G+ A very comfortable and musically capable headphone. If you've got this sort of bread to blow on cans, give 'em a blast	Circumaural	•			•	75
▲ Sennheiser HD530	75	G+ One of the better dynamics in its group, the 530s create a sense of space that eludes most sub £100 cans, and they're dead comfy	Circumaural	•			•	75
Sennheiser HD560 Ovation II	120	G+ A comfortable and nicely styled headphone that could be more natural sounding at HF, but is detailed and open with good power	Circumaural	•			•	99
▲ Sony MDR-CD1000	150	G+ A fine sounding and comfortable headphone that's likely to work well with most sources	Circumaural			•	•	111
▲ Sony MDR-CD3000	300	G+ Better than most of the headphone outputs around so hard to make the most of, potentially up there with the electrostatics	Circumaural			•	•	99
▲▲ Sony MDR-CD350	32	G Very impressive, possibly the most open sounding cheap closed back can around, lightweight in balance but transparent	Circumaural			•	•	99
▲▲ Sony MDR-CD550	50	G+ A very competent headphone, creates a remarkable sense of space for a closed back design and sounds natural to boot	Circumaural			•	•	99
▲ Sony MDR-R10	2500	E State of the art design built to the highest standards. Sound quality reflects this care, being big, clear, sweet and refined	Circumaural			•	•	72
▲ Stax Gamma pro/SRD-X pro	583	E The Gamma pros are like a stethoscope for your hi-fi, revealing subtleties that many loudspeakers fail to resolve	Circumaural	•			•	63
▲ Stax Lambda Signature/SRM-T1	1370	E The Signature when combined with the SRM-T1 valve driver must be the most transparent headphone available	Circumaural	•			•	72
▲ Stax SR Gamma	219	G+ The next model down the Stax range from the Lambda, the Gamma is an excellent headphone with little to criticise but the price	Circumaural	•			•	55
▲ Stax SR Lambda Pro/SRD-7SB	559	G+ An industry reference, frighteningly revealing, bringing across more information than loudspeakers costing twice as much	Circumaural	•			•	55
▲ Stax SR Lambda Pro/SRM-1	1020	E Extracts layers of information that other headphones only hint at. The SRM-1 has more edge than the SRM-T1	Circumaural	•			•	75
Stax SR34	140	G+ The electret driven SR34s are lively and rhythmic with good tight bass and a sweet midrange	Supra-aural	•				55
▲ Stax SR84	210	G+ The stepping stone between dynamics and full electrostatics, these electret phones are revealing, open and highly enjoyable	Supra-aural	•				63
Technics RP-F3	100	A Robocop styling coupled with a turbo bass switch and an uncomfortable fit, rhythmically OK but not up to the price	Supra-aural			•	•	111
Yamaha YHD-1	46	G Stylish semi-folding design with a slightly forward balance that very nearly scraped a recommendation	Supra-aural	•			•	111



Loudspeakers

Last item in the hi-fi chain, to some extent the loudspeaker is merely the slave of what has gone before, capable only of reproducing a signal as good as it is fed. Nevertheless the distortions (colorations and stereo effects) introduced by loudspeakers (and rooms) tend to be more immediately obvious than those anywhere else in the chain, so careful choosing according to taste is very important.

The average loudspeaker consists of a small-

ish enclosure, much of which may have begun life as part of a tree, plus a couple of drive units hidden behind a removable grille. Inside the box lurks a simple electrical circuit known as a crossover, which divides the incoming (full range) signal into the right bits for the drivers to handle. Variations on the above formula are specifically identified in the entries. The designer's primary task is to balance the 'sensitivity' of the loudspeaker (how loud it goes for a given electrical

input) against the bass extension (how low does it go), shown as 'bass from', for the given box size. After that such subtleties as coloration (or lack of it) and dispersion come into the equation.

Careful placement of the loudspeakers within the room is as important as the initial choice of model. See siting columns for guidance. For good stereo they need to be more or less the same distance from nearby walls. Models not ticked as 'floorstanding' will require rigid stands.

Loudspeakers

Product	£Price	Comments	Size: HxWxD (cm)	Bass from (Hz)	Site close to wall	Site in free space	Floorstanding	Issue No.
ATC SCM20	1461	G+ Massively built, invariably informative but the rather forward presentation can be uncomfortable	44x24x31	28	82		•	86
▲ Acoustic Energy Aegis 1	452	G Rich and slightly heavy balance doesn't mask fine mid/treble coherence and transparency. Entry level for all-metal drivers	39x21x26	28	84		•	118
Acoustic Energy AE1	764	G Amongst the best miniatures around, shows exceptional mid focus and coherence, but is pricey and could be more agile.	29.5x18x25	48	84		•	102
▲ Acoustic Energy AE3	1650	G+ Solid, authoritative and impressively accurate – if a shade ponderous and slow	63x26.5x37	23	85		•	86
Acoustic Research Pi 3	219	A Lively good value box has extra bass driver to give plenty of thump, but lacks refinement and extension	51.5x21x23	50	88	•		110
Acoustic Research AR M.5	129	A- Pretty enough but a bit too tiny for its own good, it's better suited to auxiliary surround sound duties	22x16x23	50	88	•		114
▲▲ Acoustic Research AR M1	199	G Cutely shaped miniature delivers splendidly unboxy bass and midrange, but is a little marred by a rather bright treble	27x20x26	30	85	•		110
Acoustic Research AR M2	269	A Not necessarily as agile or well balanced as the cute little M1, M2 is larger, louder and still attractively unboxy	41x24x36	28	89	•		118
▲▲ Allison AL100	100	A Loud and lively budget wall-mount is bigger and beefier than most of the competition, if lacking some subtlety and refinement	33.5x24x21.5	30	87	•		94
Allison AL105	170	A- Pretty enough in appearance, sonically the AL105 doesn't really make the grade at the £150 asking price	37x24x21	45	87	•		78
▲ Allison AL110	220	G- Compact bookshelf model is a little dry and mid forward, but bass is extended and solid	40x24.5x22.5	28	86		•	102
Allison AL120	420	A Pretty well balanced if slightly mid forward, but sound quality is a little disappointing for the price	63x28x27	30	88		•	98
Allison MS 200	220	A- Small and solid as a brick, this micro-miniature has limited bass and bright balance, but sounds agile and communicative	25.5x14.5x15	50	85	•		106
▲ Apogee Caliper Signature	3998	G+ Power hungry full range ribbon panels have remarkable transparency and delicacy, loudness and 'grunt' are a bit lacking	122x70x6.5	30	81		•	81
▲ Arcam Delta Two	340	G Pretty luxury compact sounds a shade forward and coloured but has dynamic and lively bass for its size	37.5x22.5x27.5	40	87		•	94
▲ Audio Note AN-E	1300	G+ Lovely coherence, great midband dynamics and transparency, extended bass and high sensitivity — pity it's so darn ugly!	80x36x28	20	91		•	106
▲ Audio Note AN-J	799	G+ Light damping and local unevenness adds some coloration, but doesn't spoil the very lively, dynamic and coherent sound	58.5x33x24.5	25	90		•	110
▲ Audioplan Kontrapunkt	899	G+ Sounds as sweet as it looks, dressed expensively in real wood with matching stands. not for bass or loudness freaks	31x24x13	48	83		•	86
▲ B&W 2001	120	A Cunningly concealing its (very real) limitations, this is just about the smoothest and best balanced miniature around	29x18x21	48	87		•	118

Loudspeakers continued

Product	£Price	Comments	Size: HxWxD (cm)	Site close to wall Bass from (Hz)	Site in free space Sensitivity (dB)	Floorstanding	Issue No.
B&W 610	220	A Bass extension and impressive loudness credentials, but rather indifferent integration and coherence	49x23.5x30	25	89	•	102
▲▲ B&W 620	370	G Has well balanced, laid back and slightly lazy sound that is pleasantly easy on the ears; could do with its own spikes	74x23.5x30	25	89	• •	94
▲ B&W DM600	170	A+ An impressively smooth overall balance, but sound is a touch bland with it	35x20.5x25	30	85	•	98
▲ B&W Matrix 801	3495	G+ Lacks the transparency of the best panels, and the drama of the best dynamics, but is something of an acoustic tour de force	77/99x56x43	<20	86	• •	81
B&W Matrix 805	845	G Stylish, with remarkable imaging properties, good balance and low coloration, though less successful at musical communication	42x26x22.5	30	87	•	98
▲ Bose 305	390	G- A bit of an oddball, fine dynamic liveliness and a good room match more than make up for the strange stereo imaging and treble	28x45x23	40	88	•	78
Bose 401	456	A Cheaply built but distinctively styled semi-omni floorstander suffers from heavy midbass but still sounds lively and open	78.5x30x28.5	28	89	• •	110
Bose 901 MK6	1496	A The pre-equalised multi-driver 901 is cleverly engineered to deliver exceptional loudness	33x54x32	28	89	•	86
Bose Interaudio 3000XL	170	A- Lots of perceived value and well enough balanced, but low cost engineering results in a crude and unsubtle sound	46.5x29x23	45	89	•	71
Boston HD5	130	A Tiny and prettily shaped miniature has an attractive lack of boxiness, but is a little short of drama and dynamic drive	25x16x18.5	30	86	•	110
Brinkmann Endymion	395	A+ Omnidirectional design with rococo styled urn-shaped ceramic enclosure. Distinctly bass light, but impressively coherent	48x29 (diam)	50	85	•	106
▲ Cabasse Bisquine	600	G+ Classy French large bookshelf speaker has great coherence and dynamic grip, but a rather mid-forward overall character	48x26x30.5	30	91	•	110
▲ Canon S-30	150	A+ Clever and unusual moulded design has attractive lively coherence, along with 'wide imaging stereo' effect	27x22.5x23.5	50	88	•	114
▲ Canon S-50	350	A+ Only a small cone miniature at heart, the fascinating styling and extended sweet spot feature make it utterly original.	30x24(diam)	48	84	•	102
▲▲ Castle Chester	650	G+ A brilliant throwback, using horn-type approach to provide startling midrange dynamics and coherence.	94x23x27	45	87	•	98
Castle Durham	250	A Like the slightly larger York, the very pretty presentation is not reflected in a similarly sweet sound	40x22x24	48	88	•	118
▲ Castle Pembroke	400	A+ Comfortably recommended, a sweet smooth sound with good overall balance of engineering-based performance	55x37.5x30.5	46	88	•	31
▲ Castle Trent	169	A This miniature wall-mount sounds lively and engaging, if a bit rough at the top.	33.5x18x20	50	88	•	102
▲ Castle Winchester	1499	G+ Unconventional and beautifully crafted, large for its bass extension but engagingly agile and attractively open and airy	114x24x47	25	87	• •	90
Castle York	340	A+ Pretty little real wood compact has an engaging transparency, good balance and fine timing, could do with more authority	43x22x26	30	86	•	110
▲▲ Celestion 1	109	A Pretty basic performance but at a very basic price — it all sounds a bit scrappy and untidy, but its heart's in the right place	27.5x16x21	50	87	•	114
▲ Celestion 15	389	G Big box and bang for your bucks, short on subtlety and control, but long on both enthusiasm and perceived vinyl wood grain	103x20.5x25.5	28	90	• •	114
▲ Celestion 3	129	A Good balance and stereo imagery, with a character which leans more towards offensiveness than excitement	31x18.5x21	55	86	•	78
Celestion 5	169	A Cunningly conceived and balanced, the 5 may be a little slow for some tastes, but is well suited to CD-oriented budget systems	35x20.5x26	30	89	•	90
▲ Celestion 6000	1510	G+ A genuine full range audiophile quality speaker system — with Star Wars styling to suit a high tech environment	Two box system	30	82	•	C92
▲ Celestion 7	219	A+ Good looking large bookshelf size wall-mount has lively up front presentation. Can sound a bit coarse, stand is critical	45x24.5x32	30	87	•	98
Celestion 9	269	A Nicely presented and fair material value, with impressively flat bass-to-mid balance	49.5x20.5x24	30	89	•	102
Celestion SL12Si	629	A Elements of fine sound quality, but this 'grown up' SL6 variation has a lumpy response alongside its improved power handling	53x20x27	50	85	•	66
Celestion SL600Si	820	G Has certain remarkable qualities that some will find irresistible, but needs careful system and room matching	27x20x23	52	82	•	68
Celestion SL6Si	429	A+ This stereotype luxury compact can sound a bit dull and congested, but really opens up on Slate Audio stands; favours CD	37.5x20x25	30	86	•	94
Celestion 300	1100	G Splendid bass extension and fine panel-like openness and transparency, but dynamics and timing are suspect, balance very laid back.	100x21x31	<20	86	• •	118
Creek CLS 10	119	A Almost identical to the Goodmans Maxim 3, this neat miniature is very competently engineered, but not desperately exciting	26x17x21	50	85	•	114
Dali 102	230	A Attractive bookshelf model has fine midband focus and bass extension, but treble's a bit restrained and bass a bit detached	37x21x25	30	86	•	114
Dawn Chorus FS	698	G Compact floorstander with superb coherence but rather forward midband. Would suit smaller rooms best	91x26x21	30	86	• •	114
▲ Diamond Acoustics Reference III	895	G+ Lovely free stander suffers from indifferent bass alignment, but is fast, coherent, solid and very informative indeed.	87x27.5x28	30	90	•	106
▲▲ Epos ES11	350	G+ Integral baffle/driver to give a remarkable combination of low coloration, transparency and speed; bass is a bit shy	37.5x20x25	45	86	•	94
▲ Epos ES14	515	G+ Substantial stand mount delivers delightful midrange focus and delicacy with good bass control. System sensitive	49x22.5x29	25	85	•	98
▲ Faraday FS1	225	A+ Concrete box on a budget, works surprisingly well despite cheap drivers, wood veneers here Direct sale only	47x27x28	45	86	•	114
Faraday FSS	389	G Pricey and ugly, but with its own sonic charm, thanks to substantial influence of the concrete enclosure has upon the sound	46x27x26	28	90	•	102
Faraday Siren	530	A- Interesting if ugly high mass concrete cabinet is let down by imbalance of ageing driver combination	46x27x27	48	87	•	94
Genexxa SE100	150	A Tandy-stocked miniature is attractively lively, coherent and communicative, could do with more grunt and lower coloration	28x15.5x19	50	84	•	110
▲ Goodmans Maxim 3	110	A Smooth and accomplished wall-mount miniature makes a worthy replacement for the bestselling Maxim 2	26x17x21	50	85	•	106
Harbeth HL Compact	584	A Clean, neutral sound lacks resolution and gives rather unsubtle though well differentiated stereo.	52x27.2x28.1	65	87	•	59
Harbeth LS3/5A	379	A Still a classic miniature, though not to every taste, and none the better for the recent update under our listening conditions	30.5x19x16	60	81	•	66
▲ Harbeth HL-P3	400	G Very limited loudness but impressive full-range scale from uncoloured and very well balanced but time-smearing sub-miniature	31x19x17	23	82	•	118
Heco Presto Superior 750	650	A Tall slim and attractive floorstander delivers a fine, even in-room balance but lacks transparency, coherence and dynamic drive	95x24x27	22	87	•	106
Heco Reflex 10	160	A Nicely balanced small bookshelf is a competent rather than exceptional package for the price, thanks to indifferent build.	32x21x23	30	90	•	102
▲▲ Heybrook HB1 S3	250	G Latest version of long established favourite delivers good liveliness and fine coherence for the price	47x29x24	30	88	•	98
▲ Heybrook Prima	120	A+ Neat and discreet miniature delivers fine coherence, pace and timing, though balance is a trifle forward and bass a bit light	29x19.5x18	50	86	•	110
▲ Heybrook Sextet	1079	G+ Engagingly coherent and a highly analytical, partly due to distinct and t always comfortable upper-mid forwardness	96x27x20	25	85	• •	102
▲ Heybrook Solo	170	A+ Discreetly styled, sounds a little untidy in both bass and treble but handles complex rhythmic material much better than most	36x23x22	28	87	•	90
▲ Heybrook Trio	349	G Same drivers as HBS1 in prettier real wood enclosure give a sweeter and more forgiving if less committed sound	47x24x25	45	89	•	118
Infinity Modulus	795	A+ Carefully conceived and beautifully built. Undeniably attractive in the mid and treble, it failed to handle the bass as well	30x18x26	45	84	•	86
▲ Infinity Reference 10	180	A An engaging and lively sound from a prettily finished and substantial small bookshelf size model	36x23x23	50	87	•	98
Infinity Reference 20	230	A Well presented and balanced with good bass control, but somehow lacks convincing cohesion and agility.	46x27x24	27	88	•	102
▲ Infinity Reference 30	330	G Drivers from Ref 20 in box from Ref 50 creates a well balanced and extended floorstander at a very competitive price	85x26.5x25	25	87	• •	106
Infinity Reference 50	550	A- Despite hi-tech drivers, good bass extension and sensitivity, this three-way suffers from a forward, coloured sound	86x26.5x25	25	89	• •	98
JBL Control 1 Plus	250	A Sub-miniature with forward midrange and real bass; highish price partly justified by near-indestructible Pro build	23x15.5x14	50	89	•	90
JBL ti1000	1500	G Ultra-engineered, beautifully crafted bookshelf model. Performance compromised by over enthusiastic midbass output from port	44x30x28	45	89	•	118
▲ JPW AP2	180	A Offers real wood veneer at a bargain price; performance is cleaner but broadly comparable to P1 Vinyl overall	43.5x25.5x26	45	86	•	106
▲ JPW AP3	225	A+ Pretty good stereo and well balanced overall it had its own character which is well suited to vinyl replay	52x25x29.5	57	90	•	46
▲ JPW Minim	79	A- Very civilised but dynamically limited, the Minim is well suited to the smaller room and where limited loudness is acceptable	27.5x18x19.5	28	85	•	82
▲ JPW P1	155	A+ Honest and basically articulate if not very sophisticated, resolution is good but can sound a little wearing in bright systems	44x25.9x26.1	60	89	•	59
▲▲ JPW P1 Vinyl	135	A A lot of highly competent loudspeaker for the price, with a safe sound that's unlikely to disappoint.	43.5x25.5x26	32	87	•	102
▲▲ JPW Sonata	115	A+ Well balanced and integrated, offers fine sound if limited bass and dynamic range, plus real tree wood at a nearly silly price	32x23x20	55	86	•	71

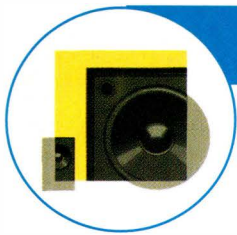
Loudspeakers continued

Product	EPrice	Comments	Size: HxWxD (cm)	Site in free space Sensitivity (dB)	Site close to wall Bass from (Hz)	Floorstanding	Issue No.
JPW Sonata Plus	135	A- This luxury variation on the redoubtable Sonata theme features a metal dome tweeter, and isn't the better for it	32x23x21	30	87	•	90
▲ JRT AD1	500	G+ A fair share of cosmetic deficiencies do little to spoil the impressive coherence and timing	59.5x28x36	28	86	•	86
▲ JRT AD1 Micro	389	G Delightful life and coherence, gives surprising impression of scale; some aggressive tendencies but very open to system tuning	28x17x21	50	87	•	94
Jamo Concert II	330	A- A respectable 'bookshelf' performer that needs free space siting but includes attractive cabinetwork and a neat grille	41x24x25	48	85	•	66
Jamo Concert V	500	A Compact, solid, nicely finished delivers unusually extended bass at the expense of lowish sensitivity; midband is laid back.	86x24x28	20	85	•	102
Jamo Concert VII	800	A Beautifully built, uses unusual double reflex bass system, unsuccessfully as far as low frequency resolution is concerned	96x28x31.5	25	87	•	94
▲ Jamo Cornet 50	150	A+ Good value bookshelf size speaker has a rough and ready sound but good heart, engaging liveliness and fair timing	42x23x22.5	28	87	•	110
Jamo Silhouette	400	A+ Tall, slim and rather elegant in its way, doesn't sound bad for a styling exercise, just a bit rich and polite	122x24.7x17	45	88	•	114
▲ Jordan JH400	504	A+ Plano finish hexagon has single full range driver and controversial sound, with uneven balance but delightful mid coherence	33x24x30.5	50	83	•	106
KEF 101/2	549	G- Small high class wall-mount has a beautifully even, slightly dull balance, fine freedom from boxiness, but not much bass drive	33x26.5x26	50	86	•	114
▲ KEF 104/2	1495	G+ A reference point for dynamics, preferred without KUBE, suited to many rooms. Good stereo, high sound level	90x28x41.5	50	92	•	60
KEF K120	169	A Physically pretty and sonically competent but undistinguished bookshelf size model has good sensitivity but limited extension	34x20.5x26	45	87	•	106
▲ KEF Q80	549	A+ Uni-Q floorstander has good stereo and fine midband coherence, but bass lacks extension, drive and resolution	85x24.5x26.5	45	87	•	106
KEF Q90	700	A Generous floorstander has even balance and decent extension but fails to communicate excitement and involvement effectively	90x25x32	25	88	•	118
Kammerzelt Ref Mini Monitor	545	G A beguilingly sweet sound with good pace and drive, but scale is restricted and presence a little dulled considering the price	27x17x24	50	85	•	94
▲ Kenwood LS-770E	260	G Impressively communicative bookshelf model has fine vigour, scale and dynamics, if not the smoothest sound around	48x27x25	25	89	•	106
▲ Kenwood LS-500G	500	G Japanese designed and built luxury compact delivers an invigorating and exciting sound; an interesting contrast to some lazier models	45x23x26	48	89	•	118
▲ Linn Index II/KuStone	374	G Stand and speaker looks and sounds very good, good bass extension and control, fine dynamic range. Clean, clear if a shade slow	44x21x23.5	28	86	•	90
▲ Linn Kaber	1198	G+ Dry, bright balance emphasises superb dynamic range and transient precision, but can sound unforgiving	89x19x29	25	85	•	118
· Linn Kan II	530	A+ Niche product for those prepared to tolerate its strong character for the sake of fine bass performance and near invisibility	30.5x18.5x16.5	35	82	•	78
▲ Linn Keilidh	579	G+ Stunning timing and coherence and awesome bass drive, especially with ceramic plinth; sounds a bit shut in	83x20x27.5	22	87	•	114
▲ Mordaunt-Short 5.40	299	G Elegant near-floorstander has an even balance that makes it very easy on the ears, yet also inviting and informative	64x21.5x26.5	28	85	•	110
▲ Magneplanar MG1.4	1090	G+ Offers a very crisp and articulate sound, particularly revealing of upper mid vocal details	155x8x57	40	88	•	72
Magneplanar SMGa	688	A Tonally 'rich', in the right room it proved a satisfactory musical experience	122x48x4.5	56	85	•	46
Marantz DS110	200	A+ Pretty near-miniature trades bass extension for sensitivity, delivering fine midband dynamics but little grunt	33x19.5x20.5	55	88	•	114
▲ Martin Logan CLS II	4200	G+ High resolution design, fussy about system set-up, demanding of ancillaries and software alike. It rewards the efforts though	60x28x7.5	45	86	•	72
Meridian Argent 1	995	G+ Beautifully built, finished and shaped, has fine bass extension and virtual absence of 'boxiness'; needs a big amplifier	33x27x27	28	83	•	98
Meridian Argent 2	875	G Beautiful high-tech 'large compact' delivers extended, smooth and neutral sound with fair speed. Slate Audio stands essential	48.5x21x29.5	23	85	•	94
Meridian M30	950	A Pricey active speaker, easy on the ears and worth considering especially where space is at a premium	38.5x18x32	40	NA	•	46
▲ Mission 753	700	G+ Gorgeous presentation and potential for open transparency. Floorstander with lots of drivers that gives lots of loudness	90x22x30.5	45	88	•	114
▲ Mission 760i	130	A+ Attractive little wall-mount miniature has livelier dynamics and bass drive than most of its type, but sounds as little shut in	29.5x18x20	48	87	•	110
Mission 761i	180	A 760 theme adds an extra driver for easier amp loading and power handling. Slightly inferior to simpler, cheaper 760i	38x19x24	48	88	•	102
Mission 764i	480	A Generous and handsome floorstander looks fine material value for money, but good scale sound has lazy tendencies	89x25x32	22	86	•	118
Mission 765i	680	A+ Big heavyweight floorstander has good sensitivity and bandwidth, but somehow lacks agility, authority and dynamic grip	102x25x33	22	91	•	110
▲ Mission Cyrus 780	200	A+ Pretty miniature based on Mission 760 but with beefed up box and crossover network to enhance sound quality still further	29x18x26	50	88	•	90
▲ Mission Cyrus 781	250	G Properly run in, the pretty little 781 delivers a fast, dynamic and informative sound which more than justifies its price.	43x22.5x28	28	88	•	86
Monitor Audio MA1800	1350	A+ Even when ballasted with lead shot the 1800 inclines towards upper bass richness and lacks genuine extension	106x22x32	30	88	•	81
Monitor Audio MA700 Gold	400	A Luxury compact does a good job of voice reproduction, but sounds a bit lazy and off the tempo with faster, busier material	35x21.5x25	50	85	•	110
Monitor Audio MA800	600	G Beautifully finished compact has a delightfully even and uncoloured midband transparency, sensitivity and bandwidth are limited	51.5x20x27.5	45	85	•	114
▲ Monitor Audio Monitor 11	330	G Tall, slim and attractive compact has an extra driver to help out in the bass, giving extra urge at some price in delicacy	52x20x24	48	87	•	94
Monitor Audio Monitor 14	400	A Suffers from excess upper bass, giving a thick, chesty coloration beneath a quite lively and well focused mid and treble	78x20x24	30	86	•	98
Monitor Audio Monitor 7	180	A Lively and punchy, looks pretty enough and is good value but is let down by an unruly and indifferently integrated tweeter	34x16.5x17	70	84	•	74
Monitor Audio Monitor 9	210	A Despite a much better treble balance than the 7, the 9 is less engaging and lively at low frequencies than its smaller sibling	37x20x21	30	85	•	78
▲ Monitor Audio Monitor One	150	A+ Pricey but cute micro-miniature just about gets away with it sonically, though performance envelope is inevitably limited	24x15x16	55	85	•	106
Monitor Audio Studio 10	1200	A+ All-metal driver diaphragms provide engagingly transparent midrange and treble, spoilt by over-strong mid-bass.	40x20x25	45	87	•	90
▲ Monitor Audio Studio 15	1600	G A little slow and lazy but better balanced than the smaller Studio models, the midband coherence and focus is superb	51x20x26	45	87	•	102
Monitor Audio Studio 5	650	A+ All metal diaphragm luxury miniature has splendid presence coherence but sound can be aggressive and lacks welly.	32x18x20	28	83	•	98
Monitor Audio Studio 6	800	A+ Pretty but pricey metal diaphragm compact has clear and transparent midband but is ultimately lacking in vim, vigour and drive.	35x22x25	45	86	•	118
Mordaunt-Short 5.10	130	A Plenty of well engineered speaker for the money, and smoother than most of the competition, but lacks timing and enthusiasm	30.5x18.5x21.5	50	85	•	110
Mordaunt-Short 5.20	150	A Lots of speaker for your money, but not as smooth or well balanced as other M-S 5-series models	36x21.5x21.5	45	87	•	114
Mordaunt-Short 5.30	220	A- Good hi-tech material value for money, but a disappointingly dull and rather bland sound. Safe but uninspiring.	42.5x25x28	28	86	•	106
Mordaunt-Short Classic 20	395	A+ Luxuriously finished, beguiling mid transparency, bass is altogether less convincing	37x22x27	45	86	•	102
Morel Bassmaster 602	1200	G+ Superbly built compact stand-mount, did well in listening tests but suffers (enjoys?) upper midband peak	24.5x40x22.5	25	84	•	114
Musical Fidelity MC-3	400	A+ Solid and authoritative large bookshelf model gives fine stereo and decent dynamic drive but balance is rather shut in	47x26x28	25	88	•	118
▲ NVA Cube 1	720	G+ Attractive, semi-omni is very sturdily built, and gives an idiosyncratic but unusually open, spacious and Informative sound	33x32x32	52	85	•	71
▲ NVA Cube 2	480	G A rude but exciting miniature, with unusually accomplished bass capabilities for its size	28.5x27x28.5	48	85	•	82
NVA Cubix	1400	G Too idiosyncratic for recommendation, the Cubix possesses remarkable bass extension for its size, but is tricky to optimise	60x32.5x32.5	28	84	•	78
Naim NA IBL	823	G This tiny floorstanding wall mount delivers outstanding dynamics, speed and detail, marred by pronounced upper mid forwardness	80x18x15-20	30	84	•	94
▲ Naim SBL	1584	G+ Impressive scale, full bandwidth, coherent, attractively discrete, coloured midband, very well balanced and agile	88x26.5x17-27	25	86	•	102
▲ Neat Petite	525	G+ Far from perfect, but one of the most entertaining and enjoyable speakers around, colorations notwithstanding.	30.5x20x18	33	86	•	102
Nobis DM7	560	G Pretty US bookshelf model has more than enough speed, timing and coherence to make up for a measure of coloration	38x21.5x28.5	25	85	•	110
Origin Live OL1	499	G Luxury miniature has very good overall balance, sacrificing sensitivity to achieve remarkable bass extension for the box size	30.5x19x21	25	82	•	106
Philips FB820	470	A Big-but-less-than-beautiful three-way is well enough balanced but lacks communication skills in the time domain	86x27x35	28	87	•	98
▲ Philips FB825	700	G Generous sounding and impressively uncongested, loudness and bass extension don't quite match plasticky looks	110x29x41	25	88	•	90
▲ Pro Mon Co LB1	998	G+ Delightful smoothness and transparency, though bass extension and sensitivity are both limited	53.5x18x26	33	86	•	110

Loudspeakers continued

Product	£Price	Comments	Size: HxWxD (cm)	Site close to wall Sensitivity (dB)	Site in free space Sensitivity (dB)	Floorstanding	Issue No.
Professional Monitor Co AB1	1600	G Bulky stand-mount transmission line has lovely panel-like transparency, slightly shut in balance, and needs a big room	79x27x43	22	89	•	114
QLN Model One	700	A Model One exaggerates the Signature's rich and heavy midbass and lacks its velvet smoothness	35x25x27	28	85	•	82
QLN Signature	1100	G Luxury compact has a rather laid back and 'heavy' sound, but coloration is low and stereo imaging very good	37x18x36	30	83	•	78
▲ Quad ESL-63	2384	G+ This classic electrostatic may not be punchy in the bass, but has strengths that some can't live without	92x66x27	34	84	• •	60
▲ Rega ELA	405	G Very compact floorstander with integral stand has serious coherence and dynamics, but a measure of brightness and untidiness	84.5x20x30	30	86	•	110
▲▲ Rega Kyte	198	G Has splendid timing and coherence, sounds very explicit and informative, if a bit bright and short of grunt	31x19x20	50	87	•	114
Richard Allan CD5	176	A- Neatly presented small reflex design can sound engagingly communicative, but is flawed sonically and technically	38x19x23	80	88	•	68
▲ Rogers LS2a/2	220	G Balance is a bit warm and rich but 2a/2 has delightful mid-to-treble coherence and transparency, and more welly than Mk1	35.5x23x22	30	84	•	106
Rogers LS4a/2	300	A+ Civilised but a trifle lazy, this large bookshelf model hasn't quite the timing or agility to be particularly engrossing	43x25.5x25.5	25	86	•	110
Rogers LS6a/2	350	G Largish stand-mount is well built, measures well, good material value, but sounds a bit heavy and lacklustre	51x28x29.5	22	87	•	114
Rogers LS8a	450	A+ A mixed bag, with plenty of scale and welly but lacking the subtlety, clarity and agility delivered by some rivals	89x25.5x25	48	91	•	102
▲ Rogers Studio 3	450	G Pricey LS3/5A-derived wall-mount sub-miniature is excitingly coherent if a bit lightweight; no real loudness capabilities	31x19x17	30	83	•	118
▲ Rogers Studio 1a	599	G- Classic BBC monitor sound sensitively updated – transparent and natural with fine stereo, but a touch 'heavy' in balance	63.5x30.5x30.5	36	87	•	66
▲ Roksan Darius	1895	G+ Provides an exceptionally impressive combination of transparency and delicacy with fine information retrieval and speed	47x27x40	20	82	•	86
Royd Topaz	173	A+ Cheerful, articulate and essentially communicative miniature can also sound a trifle scrappy and shut in; well worth trying	30.5x20.5x19	50	87	•	114
Royd Abbot	666	A+ Engaging and dramatic dynamics and fine transient coherence are hampered by a rather coloured mid-forward balance	83x20x34	43	88	• •	118
Ruark Swordsman Plus	299	A Real wood variation on the Swordsman theme looks and measures rather better than it sounds	38x20x28	27	84	•	98
▲ Ruark Tallman 2	700	G Less ideologically committed than some compact floorstanding rivals, its key strength lies in fine all round compromise	86x25x31	30	86	• •	118
SD Acoustics Ribbon	2295	G+ Amplifier sensitive, Ribbon is a lively and loud hybrid marred by some colorations; some like it, others don't	152x30x(15-30)	30	91	• •	81
▲ SD Acoustics SD1	1650	G+ A large scale, airy and unusually detailed system with excellent dynamics. A warmer balance than original model	123.5x38.2x32	50	90	• •	60
▲ SD Acoustics SD3	399	G Port firmly blocked, the new SD3 has the agility and charm of a quality miniature, with good bass extension but low sensitivity	38x19.5x29	25	83	•	106
SD Acoustics SD4	699	G Tall slim floorstander has fine balance, good bass extension and lovely open midband transparency	100.5x20x30.5	25	85	• •	114
Sequence 30	200	A Radical slimline hang-it-on-the-wall design has performance comparable to a typical miniature, with reasonable overall balance	87x25x7	50	85	•	114
Shahinian Arc	1062	G Unusual and occasionally wonderful small floorstanding omni; too bright but exceptionally coherent and revealing	69x35x25	24	85	• •	110
Snell JIII	770	G Dated styling belied by fine sensitivity and bass extension, and a lively if slightly untidy and not quite coherent sound	58x33x25	30	89	•	118
▲ Sony APM-101ES	120	A Big hearted sound from small bookshelf model, sounds a little untidy at frequency extremes, so suits CD better than vinyl	39.5x22.5x23.5	52	86	•	71
Sony APM-121ES	170	A- Good perceived value, but balance has an artificial 'loudness', too rich in the bass and too strong in the treble	43x25x28	25	86	•	86
Sony APM-181ES	350	A Big, beefy, fat and bass heavy, has table strengths but lacks transparency and sounds better at lower levels	57.5x29x36	40	87	•	71
▲ Spendor S20	535	G Maintains Spendor's tradition for peerless mid-to-treble coherence and perspectives. Bass is rather unconvincing.	38x22x26	25	83	•	102
Spica Angelus	1295	A A little bass shy and soft in the bass and lower mid, otherwise tidy, extremely lively and fluid, if uneven overall	116.8x53.3x26	50	86	• •	60
Spica TC50	599	G This triangular-profile 'grown up' miniature is a shade boxy and laid back but has good rhythmic and musical integrity	40.5x33x29	55	88	•	71
Spica TC50SE	799	G A heavily UK-modified TC50, the SE sounds less boxy and more spacious, but lacks some of the urgency of the standard model	40.5x33x29	55	88	•	71
▲ TDL Monitor	1999	G+ Fine solidity and good accuracy, with great bass extension. Needs a big room and can sound a bit lazy and a shade tinkly	118.5x30x47	28	85	• •	66
TDL Studio 0.5	450	G Tiny floorstanding transmission line has good agility but doesn't provide the coherence or even balance of Studio 1	55x20x30	40	85	•	94
▲ TDL Studio 1	650	G Genuinely extended bass from a compact enclosure, very detailed but a shade clinical and detached in presentation	76x23x33	25	84	• •	78
▲ TDL Studio 1M	900	G+ Transmission line helps bring the best from metal cone driver: lovely transparency and fine bass extension	81x23x33	<20	84	• •	118
▲ Tannoy 603	125	A+ Pretty hexagonal cabinet delivers fine imaging with little boxiness, but little in the way of welly and power either.	33.5x22x16	45	85	•	102
▲ Tannoy 605	160	A+ Largish bookshelf size hexagon is potentially fine performer, though unusual stand sensitivity makes optimisation difficult	40x27.5x18	25	85	•	106
Tannoy 605LE	189	G Mass-loaded audiophile variation of 605 sounds lively, with decent weight and timing	40x27.5x18	30	87	•	114
▲▲ Tannoy 607	200	A+ Modest and pretty hexagonal box helps give fine bass and mid performance, but treble is rather shut in	50x32x23	25	88	•	118
▲▲ Tannoy 609	270	G Hexagonal cabinet and dual concentric driver is sweeter than its predecessors, making this one very superior speaker	50x32x22	25	90	•	102
Tannoy 611	399	A This compact floorstander would seem to have plenty going for it, but somehow failed to gel musically	72x32x24	25	92	• •	110
▲ Tannoy Westminster	6000	G+ These awesome horn loaded speakers are remarkably controlled and impressive, if only suited to a few pockets and rooms	Huge	38	96	•	Col
Technics SB-EX2	180	A Nicely presented, well built and decent size enclosure sounds solid but somewhat dull	48x23.5x27	20	86	•	98
▲ Technics SB-RX50	650	A+ A smooth and well balanced loudspeaker, its minor weakness being a mildly excessive low bass	48x30x26	40	86	•	46
▲ Thiel SCS	1069	G+ Luxury piano-gloss compact sets class-leading standards for coherence and communication, can sound a shade dark and shut in	40x22x23	45	87	•	114
Thiel CS1.2	1219	G Elegant compact floorstander has fine balance and dynamic range, but transient timing and dynamics are less convincing	94x27x27	30	86	• •	118
Vandersteen Model One	1395	G+ This compact American floorstander's elegant staggered baffle arrangement contributes to a refreshing freedom from boxiness	100x30.7x25.6	23	87	• •	86
Visonik David 6001	173	P Sharp styling but the complex grillework worsens a sound which starts off with too much top and not enough bottom	20x12x13	130	87	•	74
▲ Wharfedale 425	200	A+ Large bookshelf size 505 heir shows fine control and a conservative balance ideally suited to quality systems on a budget	40x27x26	45	87	•	118
▲ Wharfedale 515	260	G An update on the 505 theme, this is still more evenhanded, with better bass extension and smoother treble.	40x25.5x30	28	85	•	106
Wharfedale 517	400	A Half as big again as the 515, should offer an improvement, but somehow has a less effective overall subjective balance	53x26.5x34	25	86	•	110
▲▲ Wharfedale Delta 30.2	100	A Has a bigger main driver than many, and so packs a bit more welly and loudness. Coloration is rather obvious, but timing is good	38x22x17	48	88	•	98
Wharfedale Diamond V	130	A This miniature is smoother than most, but rather stodgy with it, inspiring little enthusiasm among our listeners	27x18x20	50	86	•	114
▲ Yamaha NS 1000M	1100	G+ Living up to its monitor label, and tonally well suited to digital material, it's superbly crafted and capable of high levels	67.5x37.5x32.5	40	90	•	46
▲ Zyp A1	199	A+ Cute metal cased micro-miniature is quite coloured but great fun, with surprising dynamics and fine wall-loaded room balance	22.5x14.5x13	30	85	•	110

TO READ THE FULL REVIEW, ORDER THE APPROPRIATE BACK ISSUE ON PAGE 98



Satellites and subwoofers

Satellite and subwoofer systems, sometimes referred to as three way systems, consist of a small pair of speakers (the satellites) and an extra box (or two) to handle the low frequencies (bass).

By freeing the main speakers of the necessity of generating deep bass they can be made much smaller than a standard design and as a result sat and sub systems are usually visually unobtrusive.

Positioning of the sub-woofer is usually not as critical as the positioning of a conventional speaker and as a result the largest part of the sys-

tem can be hidden away entirely. Although this inevitably does not apply universally, and best results will be achieved with experimentation.

In general the sonic performance of these systems will fall below the performance of a good, comparably priced, conventional speaker. The value ratings given below are judged in the context of sat and sub woofer systems only and are not judged by the same criteria as the main speakers, thus a Recommended sat and sub system probably won't sound as good as a Recommended traditional speaker:

If you are prepared to compromise slightly in terms of sound quality then these systems might represent a good solution for situations where the loudspeaker need to be heard but not seen.

N.B. This section only includes dedicated satellites and subwoofer systems. Aftermarket subwoofers designed to operate with specific loudspeakers, or those designed to add bass to any existing speaker are too specialised to be included in this category. See the introduction to the Loudspeakers section for an explanation of the Bass from and Sensitivity headings.

Satellites and subwoofers

Product	£Price	Comments	Sat. Size: HxWxD (cm)	Sub. Size: HxWxD (cm)	Bass from (Hz)	Sensitivity (dB)	Issue No.
▲ Allison MS 205	420	G- Tasty high quality satellites give this quite pricey 3-box system a touch of class. Subwoofer is very compact and only slightly boomy.	25.5x14.5x15	29x29x36	30	86	104
Bose Acoustimass AM3	289	A Ultra compact 3-box is well balanced though limited in loudness and bass. Tiny satellites are a bit fierce, and grilles unhelpful	9x11x11	20x37x19	48	85	104
▲ Bose Acoustimass AM5	596	A+ Pricey but cleverly engineered 3-box system is well balanced and uses tiny twin-driver satellites to good effect	16x7.7x12	36x19x48	40	85	104
Heco Libero	375	A Attractive 3-box package uses neat metal satellites with versatile mounting accessories, but subwoofer is boomy in the midbass	18x11x12	21x55x32	45	85	104
▲ Jamo SW/SAT300	300	A Attractively finished 3-box package has 'tunable' subwoofer that allows boom to be minimised and a good balance achieved	21x15x8	21x48x35	40	85	104
RSS Solid/Bass Station	550	A Multi-driver macho subwoofer adds mucho muscle to Solid satellites, but it's much more midbass than serious extension	24x12x12	47x48x20	45	91	104
▲ Wharfedale 2130	300	A+ Marred by indifferent boomy sub not rescued by novel wide dispersion satellites that give an open sound	14x24x11	19x32x50	48	86	104



Tuners

The radio medium operates at a much lower profile than TV, but in areas outside pop music the BBC service is the envy of the world. Live Prom concerts can rival all other sources from a hi-fi perspective.

Only the FM (VHF) bands give stereo hi-fi sound, though AM (MW & LW) are useful for certain transmissions in the UK.

Something of a hi-fi afterthought, tuners are often selected merely to match a chosen ampli-

er cosmetically. However, the task they carry out is far from simple, combining the skills of RF (reception) and audio (signal processing) engineering. The importance of the former will depend on local reception conditions, but money invested in a high quality outside aerial system is well spent.

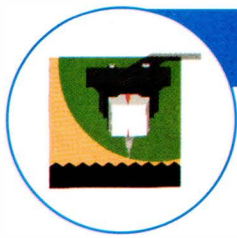
Tuners come in two basic types. Analogue models tune gradually (and usually manually) across the bands, and can have analogue or digi-

tal displays; they are often preferred for sound quality, and are certainly best for AM bands. Digital tuners offer convenient automatic tune facilities and pre-set memories.

The 'Presets' column heading shows how many different frequencies a tuner can memorise for instant access. FM, LW and MW show which wavebands it can access. 'Signal strength meters' are useful for aerial alignment. 'Automatic tuning' means that a tuner can seek out signals for you.

Tuners

Product	£Price	Comments	Presets	FM	LW	MW	Signal strength meter	Automatic tuning	Manual tuning	Issue No.
Aiwa XT-003	110	A- Economically designed and built in the UK, but trade-offs have a marked influence on FM and AM sound quality.	30	•	•	•	•	•	•	93
▲ Akai AT-93L	280	G+ By AM standards presentable (good) while FM delivers the goods	20	•	•	•	•	•	•	65
▲ Arcam Alpha 2	185	A+ Arcam's cheapest tuner makes up for its lack of features with a sensitive front-end and mellow sound.		•		•		•		93
Aura TU-50	260	G Tonally neutral, but with rather poor imaging and a certain woodenness to the sound.	16	•				•		109
Creek T40S3	250	A Analogue tuner. Sample was hampered by an obvious bass 'hump', production units are said to be cured		•						93
▲ Denon TU-260L	120	G+ Bare minimum of features. Careful designwork promises a surprisingly open and vivacious sound, so don't overlook it!	20	•		•		•	•	93
▲ Denon TU-660L	200	G Not so successful under 'ideal' conditions, made a fair fist of real reception if a little muddled and lacking life.	30	•	•	•		•	•	108
Harman Kardon TU9200	200	A The listening panel appreciated its liveliness, but found it a little muddled.	32	•		•		•	•	109
▲ Harman Kardon TU9400	270	G+ Striking in appearance and with a sound to match, it comfortably exceeded our expectations. On stereo FM it's HK's best yet.	24	•		•		•	•	93
Harman Kardon TU9600	380	G Good bass and detail, and good - perhaps slightly enhanced dynamics	24	•		•		•	•	109
▲ Magnum Dynalab FT101	795	G+ Although expensive for its fairly minimum set of facilities, its excellent sound makes up for what it lacks elsewhere		•				•	•	72
▲ Marantz ST-40L	120	G Slow to tune but provides a meaty and dynamic sound on FM. AM too has a little extra bite to its performance	30	•	•	•		•	•	93
Meridian 204	660	G Pleasant sounding with a fine finish but does not make the grade at this price		•				•	•	55
▲ Naim NAT 01	1425	E There may be better sounding tuners in the world, but we have yet to hear one		•				•		50
Nakamichi ST-7E	765	G+ Exceptionally good for weak-signal areas, and good all round	16	•	•	•		•	•	55
▲ Pioneer F-676	200	VG A tuner that's detailed and clean-sounding. Perhaps a little bright, but not unpleasant.	36	•		•		•	•	108
▲ Quad FM4	424	G+ Fine sound, excellent ease of use, good build and finish and a more than satisfactory technical performance	7	•				•	•	50
▲ Rotel RT-930AX	160	G- A competent rather than exciting performer, with low audible interference though slightly compressed and muddled sound.	20	•	•	•			•	108
Sony ST-S670ES	230	A A host of features, but the sound is muddled, compressed and lacking in frequency extremes.	30	•	•	•		•	•	109
▲ Technics ST-G70L	200	G+ Another very polite and refined-sounding tuner but one that does retain just enough sparkle to keep your interest. Plenty of widgets	39	•		•		•	•	93
▲ Yamaha TX-950	260	G+ Very clean and civilised, tonal balance, detail and clarity are all very good, lots of useful features	40	•		•		•	•	108



Turntables – cartridges

Cartridges fall into two groups: high output models, capable of working directly into most amplifiers and categorised as having a normal (N) output, and more expensive low and very low output models (L, VL). Stereotypically, low output cartridges use the moving coil principle of operation, have better mechanical integrity and tighter tolerances, and

give better performance but at much higher cost. With CD now the dominant medium many amplifiers are no longer equipped with the necessary phono input for a cartridge and a separate phono stage is necessary. Valve designs need either an extra head amp or transformer to cope with the low output of moving coil cartridges. Cartridge/amplifier interfacing can be very

subtle, but even basic high output MM designs benefit in overall balance from optimised amplifier capacitance loading. The mechanical characteristic of cantilever compliance ('springiness') needs to be considered in the light of the effective mass of the tonearm, and to achieve a good match compare the effective mass requirements figures with the actual effective mass of specific tonearms

Turtables – cartridges

Product	£Price	Comments	Arm effective mass (g)	Output	MM	MC	Issue No.
▲▲ Arcam C77	30	A+ A sensible moving magnet package with good bounce at a competitive price	6-16	N	•		48
▲▲ Arcam C77Mg	40	A Punchy sound quality with plenty of extra energy to liven things up. The solid body seems well worth the extra £10	4-8	N	•		67
▲ Arcam E77Mg	60	A Our sample had a disappointing stylus, but gave a coherent, rich and laid back sound, with good 'scale'	3-8	N	•		48
▲ Arcam P77Mg	73	A+ Preferred to its cheaper partner by virtue of a better tip. Channel balance could have been better	4-9	N	•		48
▲ Audio Note IO IIV	1395	E One of the best, giving 'an extraordinarily relaxing midrange clarity', needs a transformer	8-18	VL		•	100
▲ Audio-Technica ART1	850	VG This is a delicate and very fluid-sounding MC that tracks well, offers very low distortion and exceptionally good separation	9-18	L		•	72
▲ Audio-Technica AT-420E	36	A Better suited to pop recordings, this MM bears some of the sonic hallmarks of the Linn K5	7-14	N	•		67
▲▲ Audio-Technica AT-95E	20	A Clear, dynamic if richly balanced, the magnetic '95E is a definite Best Buy	8-14	N	•		48
▲ Audio-Technica OC-10	320	G+ Good treble and good detail too, but some congestion and coloration reduces its informativeness.	4-12	L		•	103
▲ Audio-Technica OC-5	130	G For the price, it's unusually effortless and detailed, but it tends to become rather relentless and tiring after a while.	5-14	L		•	103
▲ Audioquest AQ 404i-L	500	G+ Slight harshness detracted from the performance of this otherwise clear-sounding and detailed cartridge	8-16	L		•	84
▲ Audioquest AQ 7000	1300	G+ Stunning stereo imaging and good detail at low levels are spoiled by less-than-perfect tracking and high sensitivity to arms.	6-20	L		•	91
▲ Audioquest MC5	250	A Offers high-output benefits but the drooping frequency response and severe VTA error preclude recommendation	10-20	N		•	54
▲ Denon DL103	99	A+ Good performance in bass and general 'life' is seriously let down by its spherical stylus which kills subtle details.	9-22	L		•	103
▲▲ Denon DL110	69	G Firmly recommended as a fine all-rounder, this high-output MC model is likely to perform well in nearly all circumstances	6-16	N		•	48
▲ Denon DL160	90	G Although listeners just preferred the 110, its brother here proved a twin in lab tests and is still "thoroughly competent"	6-16	N		•	43
▲ Denon DL304	200	VG Uncolored, detailed, neutral, superb tracking; top notch altogether, and a top notch bargain too.	4-12	L		•	103
▲ Dynavector 17D2	298	VG Clear, detailed, neutral and generally very informative - excellent.	6-18	L		•	91
▲ Dynavector DV-50X	110	A A high-output MC model with impressive lab performance, but whose tip and sound quality both disappointed	6-14	N		•	48
▲ Dynavector DV10X IV	138	A+ Fine sounding and realistically priced, damping is recommended to ensure successful tracking ability	8-18	N		•	48
▲ Dynavector DV23RS	245	G Sound quality was described as "shut-in", lacking energy and sparkle but with some "edginess" in high frequencies	10-22	L		•	28
▲ Dynavector XX-1	698	G+ Good, but not immensely competitive at the price, and not helped by comparison with the low output version	7-15	N		•	84
▲ Dynavector XX-1L	698	VG Very clear, very detailed, no troubles with tracking; response lift around 20kHz seems to do no harm	7-13	L		•	84
▲ Empire Benz Micro MC-Gold	150	G Nothing is obviously wrong, but nothing is stunningly right either. Safe, but perhaps a little too safe	7-17	L		•	103
▲ Empire Benz Micro MC-Silver	150	G Ultimately not the peer of the MC Gold is more appropriate to the sort of equipment it's likely to be partnered with	8-18	N		•	103
▲ Empire Benz-Micro MC-3	800	G+ Offers a warmer and very transparent account of the music. Its tracking prowess is slightly limited	5-12	L		•	72
▲ Glanz GMC-10LX	80	A+ Bearing some of the hallmarks of the '10EH, the '10LX is still less competitive in the sonic stakes	7-15	L		•	67
▲ Glanz GMC-20E	129	G+ Very good tracking, smooth sound and good detail. Very slight surface noise enhancement	5-10	L		•	91
▲ Goldring 1012	50	G Slightly harsh sound but plenty of life and quite good detail. Some very high frequency coloration apparent	6-12	N	•		85
▲ Goldring 1022	70	G As with 1012, a touch harsh; detail and transient purity improved, though, and it goes well with electric guitar!	5-11	N	•		85
▲ Goldring 1042	90	G Not terribly subtle, and not such good value alongside 1012 and 1022. Quite lively, though	7-12	N	•		91
▲ Goldring Elan	20	A A lightweight and frisky-sounding MM that appears to be based upon the same body as the Nagaoka mm4	7-15	N	•		67
▲ Goldring Elite	200	G The basics are right, and it will cheerfully tackle any source material, but its sound possesses a certain dirtiness	8-18	L		•	103
▲ Goldring Epic II	30	A+ An excellent budget choice though the limitations of the stylus are rather obvious at higher frequencies	5-12	N	•		67
▲ Goldring Eroica H	100	G- More confused and coloured than low-output LX, high output less of an issue these days	8-15	N		•	84
▲ Goldring Eroica LX	100	G Not the most subtle cartridge in the world; can sound edgy at times, but lively and informative	8-14	L		•	84
▲ Goldring Excel	549	G Errs on the warm and heavy side of neutral. Strong bass lines are its forte, but resolution of subtle treble details is weak	6-13	L		•	72
▲ Goldring Excel GS	600	G+ True high end quality in its lack of colorations, but tracking seems indifferent and high levels tend to sound rough and edgy.	9-20	L		•	103
▲ Grado ZTE +1	27	A Bass and treble are a trifle coloured but the midband proved highly enjoyable. Ideal for budget systems	6-13	N	•		54
▲ Kiseki Blackheart	1995	G Demonstrated refined poise and a delicate but at once potent security, however, the price did seem a little on the high side	6-16	L		•	60
▲ Kiseki Blue Goldspot	499	G+ Good bass and imaging, but hints of spit and coloration let the side down slightly	8-15	L		•	84
▲ Kiseki Lapis Lazuli	5000	G+ Combining very sensible design concepts at a silly price, combines the detail of the MC3000 and the fluidity of the Clearaudios	4-12	L		•	60
▲ Kiseki Purpleheart Sapphire	899	G+ Rare, beautiful to look at and sweet to listen to, our review of this high-flyer conjured up images of Japanese art	5-14	L		•	48
▲ Linn K5	49	A+ Not as crisply focused as the costlier Linn magnetics, the K5 offers a smoother presentation	7-16	N	•		67
▲▲ Linn K9	98	G Linn threw this model into the leading pack by beefing up the Basik's bodywork and adding a super stylus	6-15	N	•		Col
▲ London Maroon	199	A+ Now manufactured under the London brand name this Decca cartridge is as iconoclastic as ever	9-20	N	•		67
▲ London Super Gold	339	A- Immediate and detailed, but very coloured, very nonlinear and questionable effect on records. Devotees swear by it	9-15	N	•		84
▲ Milltek Aurora	299	G+ An overall feeling of relaxed ease characterised this clear and atmospheric Kiseki-built cartridge	8-16	N		•	Col
▲ Milltek Olympia	349	G+ Warm and detailed sound packs the punch of the best MCs with high output as a bonus	12-20	N		•	54
▲ Nagaoka MM4	9	A- Clear punchy sound that delivers the rudiments of a good performance	6-16	N	•		54
▲ Nagaoka MP10	19	A High frequencies sounded "shut-in" with this spherical-stylus model, but mid and mass were energetic, bouncy and punchy	5-13	N	•		48
▲▲ Ortofon 510	30	G+ For the price, a good blend of virtues weight, clarity and neutrality.	3-11	N	•		85

Turntables – cartridges continued

Product	£Price	Comments	Arm effective mass (g)	Output	MM	MC	Issue No.
▲ Ortofon 520	50	A+ Very sensitive to load capacitance this new Ortofon maintains the company tradition for a lively, effervescent SQ	7-16	N	•		67
▲ Ortofon 530	80	G+ Very clean and assured sound; transients not quite perfectly pure but plenty of detail.	4-11	N	•		85
Ortofon 540	100	A Graced with FGII stylus but possessed of too high a compliance for broad arm matching. It could also sound a little unforgiving	3-8	N	•		67
▲▲ Ortofon MC10 Super	80	G "What a delightfully sweet-sounding cartridge this is..." we said	5-15	L		•	48
▲▲ Ortofon MC15 Super	100	G+ A good all-rounder, with outstanding performance in detail retrieval, even if it can be very slightly bright and close-up	10-24	L		•	103
▲ Ortofon MC3 Turbo	110	G Not terribly subtle, but it obviously doesn't aim at that. The 3 Turbo is bright, cheerful and bouncy - take it as it comes!	10-24	N		•	103
▲ Ortofon MC3000 MkII	900	E Low levels of body resonance are a real ear-opener. Nothing to criticise elsewhere; one of the very best	9-16	VL		•	84
Ortofon MC5000	1500	G Review sample could not be fully run-in, limited tracking ability, bright and forward sound, though imaging is excellent	12-20	VL		•	91
▲ Ortofon Quartz	140	G Lively, quite detailed, and a touch bright, the Quartz has many qualities of the much dearer Quasar	3-12	L		•	91
▲ Ortofon Quasar	350	G+ Many of the qualities of the MC3000, although a touch bright. Good detail and delicacy	8-15	L		•	84
Ortofon Quattro	210	G+ Undoubtedly a competent performer. Generally neutral, but can be edgy and bright in loud passages.	6-18	L		•	103
Rega Bias	34	A+ Difficult to mount in some arms due to its shallow build, the bias offers a gentile, refined SQ	4-10	N	•		67
▲ Rega Elys	74	G Clearly superior to the Bias, despite their common heritage, the Elys is both more detailed, accurate and musically convincing	8-15	N	•		67
▲▲ Revolver	20	A This modified AT-95E enjoys a very lively mid and treble even if the bass is somewhat 'slower' in comparison. A firm budget buy	8-16	N	•		67
▲ Roksan Corus Black	130	G Recognisably related to Corus Blue, but distinctly more civilised and smoother.	7-12	N	•		91
Roksan Corus Blue	75	G Roksan-specified modified Goldring 1012; slight harshness detracts from otherwise good sound.	7-12	N	•		91
Shure M110HE	67	A Sound quality was thought eminently presentable, but not exciting; smooth clear high frequencies, but a loss of bass definition	5-10	N	•		38
Shure M92E	20	A Though lacking depth, the overall sound quality was competent, but treble was not its forte	10-15	N	•		43
Shure ME75ED	27	A- Rather bright and splashy in the high frequencies but nevertheless a competent model	5-10	N	•		38
▲ Shure ME97HE	55	A+ It won't turn a sow's ear of a turntable into a silk purse, but will at least keep going and produce an acceptable result	8-20	N	•		48
Shure V15 VMR	220	A+ Initial listening gave promising results, but extended familiarity gave the feeling of a lack of energy and a "shut-in" sound	5-12	N	•		38
▲ van den Hul MC One	849	G+ This extended all the positive qualities of the '10 but added greater authority and scale worth it for the extra money	6-12	L		•	60
van den Hul MC One Super	949	G+ Slight softening on transients was the only real flaw, but it didn't quite seem to have that special touch one expects	8-15	L		•	84
▲ van den Hul MC Two	1099	G+ Connected directly to any standard MM input it rewards with a highly detailed yet fluid and musically convincing portrayal	6-13	N		•	72
▲ van den Hul MC10	699	G+ A neutral balanced performer giving transparent midrange, fine depth and focus with firm extended bass. Gosh!	5-10	L		•	60
▲ van den Hul MM1	250	G+ If woody midrange coloration could be tamed, the excellent imaging and admirable security would make it excellent	7-15	L		•	103



Turntables

Specialist turntables offer big sound quality improvements, but lack so-called convenience features (that practiced users often find irksome). Such turntables at the cheaper end of the market (sub-£350) tend to be supplied with matching tonearm, and often include a 'starter' cartridge.

Still better quality is found at higher prices amongst the separate motor units and tonearms.

Careful partnering and set-up is essential for these components, but 'naturally sympathetic' combinations exist, and a good dealer can help.

Listed separately as integrated players and as motor units and tonearms, our sound quality rating is based on results achieved using a high quality system – but in point of fact the deck is usually the limiting factor soundwise in any system.

The columns show from left to right, 'arm

effective mass' which relates to cartridge compliance and is explained in the 'Cartridges' intro. 'Suspended subchassis' - decks which have some form of internal isolation, generally in the form of springs. 'Manual' and 'Automatic' refer to the operational tendencies of the deck/arm combination. 'Cartridge' - if one is supplied. 'Belt drive' as opposed to direct drive. An 'Electronic PSU' offers switchable speed change and a 'smoother'

Turntables – integrated

Product	£Price	Comments	Arm effective mass (g)	Suspended subchassis	Manual	Automatic	Cartridge	Electronic PSU	Belt drive	Issue No.
▲ Alphason Sonata/HR100S MCS	1785	G+ Good sound in all areas - bass, clarity and neutrality all in the top class and bettered by very few decks at price	13	•	•			•	•	79
▲ Dual CS-503-2	160	A Not wholly inspiring; generally coarse and woolly sound is at least not offensive, but easily bettered by the CS505-4	10			•	•	•		91
▲ Dual CS-505-4	200	A Consistent sounding and well isolated turntable. It is slightly lacking in balls, compensates with a consistently unmuddled presentation	10			•	•	•		103
Dual CS-750	330	A- Attractive but lazy performance from a deck with many good ideas and which is a pleasure to use. 78rpm facility				•	•	•		103
▲ Dual CS430	120	A- Ragged, sometimes unpleasant cartridge mixes with a modest pleasing player in a very sharply priced package	5			•	•	•		67
▲ Kuzma Stabi/Stogi Reference	2000	G+ Beautifully made solid oak plinth, the Stabi also sounds very clear, detailed and extended. Stogi Reference is very capable.	12	•	•			•		91
Linn Axis/Akito	535	A+ A neat, attractive and well-made package which delivers a rather harsh sound with a 'one-note' effect in the bass	10	•	•			•	•	79
▲ Linn Basik	299	A+ Strong midband analysis and imagery, clean if sharp treble is matched to a good if occasionally wooden bass	10	•				•		103
▲ Linn LP12 Basik/Akito	855	G Trails the full LP12 significantly, but pace, rhythm, timing etc. still in top class, and bass tauter than of old	10	•	•			•	•	103
▲ Linn LP12-Lingo/Ekos	2642	G+ The classic reference is improved by the Lingo but charming character remains. Ekos is well made and suited to many decks	9	•	•			•	•	91
▲ Rational Audio Aura 01	180	G Poor lab results but midrange and treble are very pure and clean; idiosyncratic sound and styling should be tried!	10	•				•		91
▲▲ Rega Planar 2	185	G A remarkable product at the price, surprisingly articulate and confident	11.5	•				•		48
▲▲ Rega Planar 3	250	G A long time leader in its category, the '3 (with excellent RB300 arm) sounded nicely 'musical' in a balanced and coherent manner	11.5	•				•		48
▲ Revolver Rebel	185	G- Quite lively and detailed but not the strongest on subtlety, with slightly lumpy bass. Motor breakthrough audible	12	•	•			•		91
Revox B291	1003	A- Subjective bandwidth is narrow and the music lacks grace and energy. Ease of use however is unrivalled				•				55
▲ Roksan Radius/Tabriz zi	740	G Design is subtle, refined and easy on the eye. Musically it offers exceptional performance with a minimum of fuss	9	•				•		103
Roksan Xerxes 33/Tabriz zi	990	G At its optimum with a relatively inexpensive arm/cartridge unless upgrade to full Xerxes is contemplated. XPSII PSU	9	•				•	•	103
▲ Roksan Xerxes/Artemis/Artaxerxes	2114	E Superb, highly integrated and synergistic in nature, suitable for use with any good MC. Will not suit all tastes, however	8	•				•	•	103
▲ Systemdek 1.920	235	A- The motor unit is derivative of the Rega Planar 2 with a Moth arm. Up tempo even bright at times but never lacks enthusiasm	12	•				•		115
▲▲ Technics SL-DD33	150	A As with the QD33 though better value. P-mount cartridge	7.5			•	•			48

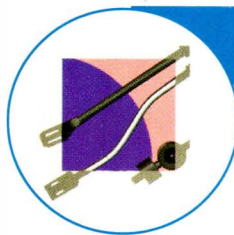
Turntables – integrated continued

Product	£Price	Comments	Arm effective mass (g)	Suspended subchassis	Manual	Cartridge	Belt drive	Electronic PSU	Issue No.
▲ Technics SL-QD33	180	A Quartz controlled version of the DD is short on sound quality but not features. But it did have fair focus and some depth	7.5			•	•	•	48
▲ Technics SLBD-22	130	A- Not bad for the price and a great improvement on the L20, it performs reasonably when not stretched	6g			•	•		48
▲ Thorens TD-3001/TP90SF	760	G Excellent middle ranking esoterica, with strong all round abilities rather than excellence in particular areas		•	•			•	103
▲▲ Thorens TD166 VV/JK/RB250	280	A- Refined and articulate sound with well focused imagery, suitable for use with good MM and budget MC cartridges	11.5	•	•			•	103
Thorens TD2001	650	G- Similar to TD320 but much dearer - why? Sound is comfortable but not very detailed	15	•		•		•	91
▲ Voyd Reference	5950	E Voyd's flagship, equipped with three substantial motors, a Lexan platter and brute PS. A strong contender for world's best		•	•			•	C91
▲ Well Tempered WTAT	1690	G+ Intriguing/challenging design. Musically it is not ideal, but has a limpid quality and a lack of artificiality that sets standards	7.5		•			•	67

Motor units

Product	£Price	Comments	Suspended subchassis	Solid plinth	Belt drive	Electronic PSU	Issue No.	
▲ Michell Gyrodec	697	G Sweet and natural sounding player, well suited to Rega RB300. Aesthetics, and the acres of clear acrylic are very distinctive		•		•	•	55
▲ Michell Syncro	325	G A happy blend of qualities endows the stylish Syncro with a blend of subtlety and force - the mailed fist in the velvet glove		•		•		67
Origin Live Oasis A	495	G- Rather coarse sound lacking resolving power - but lively sound may appeal. Industrial appearance		•		•		79
Origin Live Oasis B	199	A+ Not very beautiful but lively and articulate, if idiosyncratic, sound will please some. Sensitive to feedback. 33 only			•	•		79
▲ Pink Triangle Anniversary	1495	E Possibly the most detailed, clear and neutral deck around. Likeness to master tape is uncanny		•		•	•	91
▲ Pink Triangle Export	890	E The PT T00 with built in PS. Retains features of great transparency and neutrality. Review sample had highish motor noise		•		•	•	91
▲ Pink Triangle Little Pink Thing	500	G+ Semi suspended, leads the field for clarity and neutrality at the price. It also looks good. Excellent value				•		79
Revolver	200	A Nicely balanced, but unimpressive timing and lightweight bass made this deck rather average for the price			•	•		48
▲▲ Systemdek IIX/900	230	G A high performance budget turntable which is particularly strong at fine detail resolution and imagery		•		•		103
▲ Systemdek IIXE/900AP	388	G+ The acrylic platter'd IIXE is one of the most capable budget decks on the market, good resolution, dynamics and timing		•		•	•	103
▲ Voyd 0.5	3368	E Halfway between standard and Reference Voyds with the latter's platter and bearing. Superb finish, colourful and dynamic sound		•		•	•	72
▲ Voyd Valdi	955	VG Acrylic plattered twin motor deck is remarkably capable, revealing and neutral, for dynamics it's hard to beat at the price		•		•	•	79

Tonearms



Of all the components in the hi-fi chain, only the tonearm offers the enthusiast hands-on adjustment that can dramatically alter the sound of the system. It is also the part of the system that benefits most from good engineering — something that is increasingly costly in our mass-produced world.

There are a number of different tonearm types, but all fall into two basic categories. The vast majority are hinged at a single pivot, but a handful of upmarket models feature parallel tracking bearings (sometimes called radial or tangential).

Pivoted designs fall into two sub-divisions: those with 'rigid' (force-loaded) bearings and

mass-loaded unipivots, both of which involve some compromise in lateral tracking angle geometry and require bias (sidethrust) compensation.

Parallel tracking arms avoid this effect, but the shifting bearing can pose problems for softly sprung subchassis turntables, and air bearing types need a supply of air pressure, usually from a fish-tank pump in another room.

In the past, most tonearms used detachable headshells, but this has fallen from grace as arm manufacturers began to understand the importance of structural integrity.

The 'effective mass' of the tonearm is an important guide to how well an arm will match-

with a given cartridge, and is designed to avoid combinations with limited tracking ability. High compliance cartridges (many MM types) need low mass arms, and low compliance cartridges (many MC models) prefer more rigid higher effective mass arms. See the Cartridge section for more information.

Height adjustment is very useful when it comes to accurately setting the VTA (vertical tracking angle) of a cartridge.

Unfortunately, the Comments cannot list which tonearms and turntables match one another. It is crucial to get specialist advice in finding an arm that suits the turntable.

Tonearms

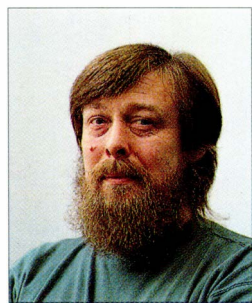
Product	£Price	Comments	Effective mass (g)	Height adjustment	Parallel tracking	Pivoted	Issue No.
▲ Airtangent 1B	3000	E A complex but superbly built arm for high quality systems, giving excellent stereo and resolution	7.5	•		•	60
▲ Alphason HR100S	490	VG S-shaped arm sounds smooth, but nevertheless reproduces transients with fine attack	10	•	•		C86
▲ Alphason Xenon	286	G+ Trimmed down HR100S, has inferior bearings and a simpler finish. Sounds crisp and coherent	12.8	•	•		55
▲ Audio Technica AT-1130	141	G Well suited to most cartridges. Smooth and tonally neutral, if slightly lacking 'balls'	8.5	•	•		67
▲ Kuzma Stogi Reference	1000	VG Large, solid and well made arm, gives exceptionally clear sound with just a hint of brightness	12	•	•		79
▲ Linn Ekos	1297	VG Superb, state of the art design which builds significantly on predecessor Ittok's strengths	9	•	•		67
▲▲ Moth arm	95	G+ The ultimate budget arm? Refined, detailed, sweet and natural	12		•		60
Naim Aro	780	G Unipivot designed for Linn LP12 and Troika, a little bright and congested but has a strong following	10.5	•			91
▲ Rega RB300	139	VG Despite its modest price it sets exceptional performance standards and could be used on many high end turntables	11.5		•		60
Roksan Artemiz	690	G Interesting design which worked a treat on the Xerxes deck. Fits Rega cut out	8	•	•		67
▲ Roksan Tabriz	190	G+ Targetted at the Xerxes, this is a good alternative to the Rega arms in many cases - a trifle bright	9	•	•		91
SME 3009 Series III	319	A+ Comprehensively adjustable and very well made - suited to higher compliance carts	5	•	•		48
SME 3009 Series IIIS	230	A+ A simplified less flexible (adjustment-wise) Series III with a similar 'soft' character	5	•	•		48
SME 3009R	424	A+ A higher mass version of the Series III designed for lower compliance carts	12	•	•		48
▲ SME 309	568	VG Beautifully made and finished, fully adjustable, a highly neutral performer	10	•	•		79
▲ SME Series IV	828	VG Superb engineering and finish with a finely balanced sound, impressive stereo focus and low coloration	10.5	•	•		60
▲ SME Series V	1232	E Excellent in all respects, this arm arguably sets the standard for pivoted arms regardless of price	10.5	•	•		60

In search of living presence

Manufacturer newsletters are rarely worth more than a passing glance, but while passing a glance over a leaflet circulated by loudspeaker specialist Harbeth, a discussion about the importance of the presence band caught my eye.

This sounds a pretty abstruse, even arcane topic to use as the basis for a whole page of writing, but Alan Shaw's discussion sparked off several echoes in my own recent experience, and I too am beginning to believe that this is aurally much more important than its unassuming name suggests.

Just what is a presence band, and why does it matter? In my understanding anyway, it's the part of the frequency band that lies between the top of the midband and the bottom of the treble. It's called presence because it coincides with the upper end of the human voice range, especially the harder, sharper consonant sounds, so emphasising or de-emphasising it over the rest of the band can actually make a voice sound nearer or further away.



This month, Paul Messenger has been busy pondering the presence band. Why is it so important to hi-fi?

It's also vital to appreciating the subtleties and intonations in human vocal communication, so millennia of evolution has made the human ear particularly sensitive and

acute in the particular part of the spectrum.

Trouble is, this is also coincidentally the sector where the vast majority of speakers, to put it bluntly, screw up. This is because every speaker that chooses to use more than one drive unit (which is well into the 99 per cents) chooses to cross over from the larger to the smaller at around 2-3kHz. Which means that the area where the ear is most sensitive, and which contains the most important information, is where the loudspeaker is usually at its most inept. Squirting the sound out of both drivers at once, with all sorts of inevitable phase and directivity anomalies between the two ensures that the generated sound wave-front is less coherent than practically anywhere else in the band.

The evidence is all too clear, if you take the trouble to look. Over the past several years I've put literally hundreds of speakers through precisely the same test programme. It's a very simple test which doesn't involve any fancy computer trickery or three-dimen-

sional 'waterfall' displays. But it does replicate the real-life situation very closely, putting a stereo pair of speakers where they will normally be placed, and the microphone where the listeners will be sitting. Its very simplicity provides only the big picture, and makes it all but impossible to get bogged down in the fine detail of questionable relevance.

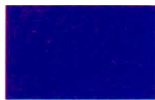
And the big picture is that rather more than 90 per cent of the speakers I measure in this way fail quite obviously to provide a seamless (equal loudness) transition through the region where the drive units are crossing over. And even though this factor probably only accounts for ten or 20 per cent of total loudspeaker performance, the few that do manage the trick certainly do start with one important edge over their rivals.

To give some concrete examples, when I first started experimenting with these room-averaged responses (having picked up a few useful pointers from Martin Colloms and Chris Bryant), I established a few benchmarks by measuring some long and widely recognised reference standards. And it wasn't really that much of a surprise to discover that the two which really stood out for their superb presence band transition were those two acknowledged masters of voice band reproduction, the Spondor *BC1* and the (original) Quad *Electrostatic*, while the *LS3/5A* did pretty well here too.

More recently, the Harbeth *HL-P3* tested in this issue manages to improve somewhat on the *3/5A*, but the Acoustic Energy *Aegis 1* and the Monitor Audio *MA800 Gold* (issue 114) are perhaps even more impressive.

I also recently tried a revised version of the Mordaunt-Short *MS5.30*, in direct comparison with the original, disappointingly dull review samples (issue 106). The modifications certainly opened up the sound to a very worthwhile degree, but the measurement difference was entirely concentrated on the presence region, where the new samples had reduced a 6dB presence deficit by about 1.5dB, while also smoothing out the transition. I was frankly surprised that such a small change sounded quite so obvious.

My final example is the exception that proves the rule. A year or so back I encountered a Jordan speaker which used just a single full range driver (*JH400*, issue 106). It wasn't too successful at covering the frequency extremes, and wasn't exceptionally flat through the presence region either. But it does maintain pretty good measured coherence from 500Hz up to around 3kHz, and there's no way such output is muddled by coming from more than one source. And for all its limitations elsewhere, and a fair share of coloration besides, the *JH400* was quite exceptional at reproducing voices with a measure of realism that few two-way systems can approach.



Thorens TD280/IV

Portfolio Marketing, 67 New Road, Little Kingshill,
Great Missenden, Bucks HP16 0EU. Tel: (0494) 890 277



The ever popular turntable manufacturer Thorens has redesigned the *TD280/UK/II* and given it an ingenious new name, the *TD280/IV*. I have no idea what happened to the *TD280/III* nor to the UK part of the name — perhaps in a unified Europe, a turntable that is country specific is no longer politically correct. I'm now waiting for the *TD280/Maastricht/V*.

Cynicism aside, the £200 *TD280* capitalises upon the success of the *MkII* by improving the arm fitted to the turntable. The new *TP35* arm sports an improved geometry over its predecessor, together with a considerably more rigid metal bearing block and tonearm base. Aside from all the conventional movements common to such arms, this one is capable of adjustments to the cartridge in the horizontal plane as well as the vertical, by physically shifting the counterweight assembly.

In the rather Germanic English of the manual, it suggests that turntables supplied fitted with cartridges will be set up beforehand. In this country at least, the *TD280/IV* is supplied with an Audio Technica *AT-95E* as an optional extra. I would suggest that if you are feeling particularly tweaky, resetting the tonearm is a worthwhile exercise, as it makes a great difference to the sound quality. The addition of the new arm gives the Thorens more potential for fine tuning, yet without compromising its convenience.

There are also substantial improvements to the turntable itself. Aside from the thicker lid, Thorens has radically modified the *TD280/IV* by changing over to an inverted main bearing, in the style of the up-market manufacturers Roksan and Pink Triangle among others. The split phase power supply provided with the *TD280/IV* is normally seen in

turntables far beyond this price band, and shows an attention to quality rare at this level.

Although in hi-fi circles, the *TD280/IV* could be considered a budget design, its build quality never discloses this fact and is beyond criticism. The standard of finish is very high, bettering many more expensive 'audiophile' designs. Thorens has attempted to keep the automatic arm lift as noiseless as possible.

Automatic arm lift arrangements have fallen from grace in purist hi-fi circles, yet outside of the cognoscenti, this is often a major selling point in budget tables — finding one that makes no clunking noises is an obvious plus point.

Sound quality

Following the trend set by its predecessor, the *TD280/IV* is an expressive beastie. It communicates detail, especially treble detail, with plenty of drive and speed. Performances are always hewn into 'edge of the seat' stuff and this is the Thorens' greatest asset, yet at the same time its major downfall. While the fast, punchy presentation is very impressive — reminiscent of the Roksan *Xerxes* — the compromises made in a low cost turntable manifest themselves in a rather scratchy top end.

I feel that the overall balance of the turntable suits those who like their music lively and exciting, rather than mellow and laid back. The unrelenting nature of the turntable is, well, unrelenting. And although this means that it can make sense of surprisingly difficult music, the *TD280/IV* can also be hard to sit in front of for long periods of time.

Also, the standard choice of cartridge, an Audio Technica *AT-95E*, capitalises on this

sheer detail. With the wrong disc (Zodiac Mindwarp's *Prime Mover* sticks in my mind here), the combination of *TD280/AT-95E* falls into strident brightness.

Changing from the Audio Technica to other cartridges showed up the tweakability of the turntable, as well as the ultimate limitations of the arm in particular. It is not the sort of arm that can readily support a decent moving coil cartridge, as it wasn't exactly over the moon with a Denon *DL-304*, but then only fools and reviewers use £200 cartridges on £200 turntables. I wouldn't look any further than a Roksan *Corus Black* or a Goldring *1042* to use in the *TD280*. With judicious arm adjustment, such cartridges go a good way towards ameliorating the brightness inherent in the turntable.

It was suggested that in the past, *TD280s* have suffered from instability of pitch. The latest Thorens appears remarkably pitch stable by comparison. It will not stand up to the likes of a Linn *LP12* with *Lingo* power supply, or even that of the cheaper Linn *Basik*, but the *TD280's* rhythmic abilities are up there with the best in its class. In my system, I detected a static crackle each time a record was removed from the platter which could well be a fault of my system, but I have encountered this on very few occasions before.

Looking back at the review of the previous *TD280/UK/II*, in issue 103, it was suggested that the improvements to the previous turntable helped lighten the sound while maximising the imaging and detailing properties, although it still lacked authority, stereo depth and focus. I feel that the inclusion of the inverted bearing does much to address the imaging properties, as the soundstage has tangible image depth and good stereo focus. It still lacks some ultimate solidity and weight to the sound, but the lightweight character will go unnoticed on a small loudspeaker.

What does not go unnoticed is the way in which the bass notes can blur together into an amorphous whole, but this is still small beer, when compared to the overall performance.

Conclusion

The *TD280* was a Best Buy in its previous guise and the *Mk IV* version does nothing to countermand that label. Although there are a few turntables that are as well built for the price I can think of no other that is as complete.

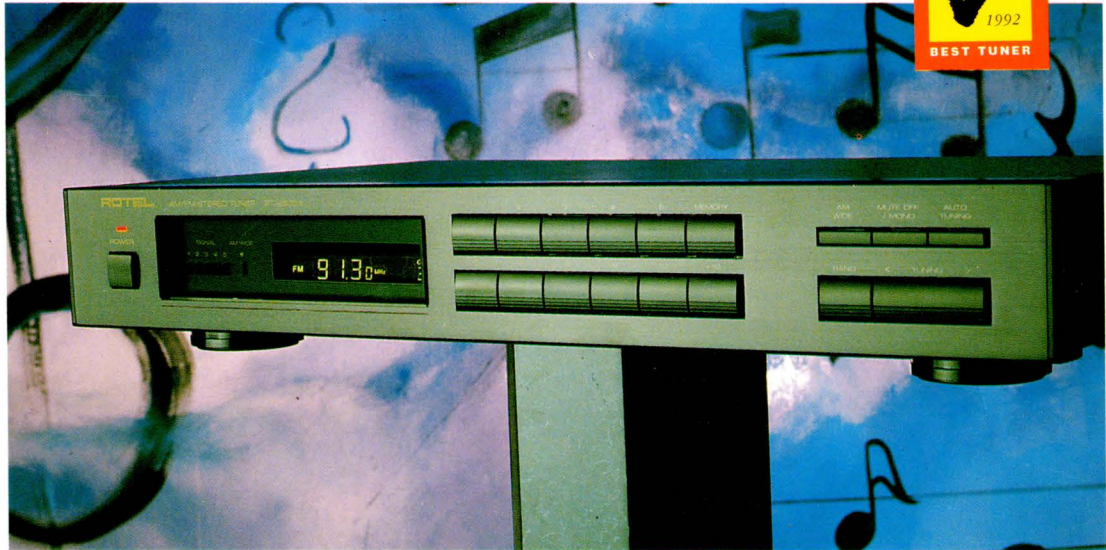
Perhaps a little rough edged and relentless, its clarity and excitement makes music full of sound and fury. I'm still not convinced by the new arm, but it offers a level of tweakability not normally associated with semi automatic arms. Besides, at £200 for the package, who's complaining?

The Critic's Choice

WHAT HI-FI?

AWARDS 92 TUNERS

Rotel RT-950BX



Is radio real hi-fi? Try one of our recommended tuners and we're sure you'll be convinced it is – from Denon's bargain-basement TU260L to the Award winning Rotel RT-950BX, our winner, and the no-compromise Naim NAT02.

One of a duo of new Rotel tuners launched just too late for inclusion in last year's Awards, the stylish RT-950BX pitches straight into one of the most fiercely competitive areas of the tuner market — the £200 price level — and comes up a conclusive winner.

What sets the Rotel apart from the rest of the bunch is a natural, expressive quality in the way it relays broadcasts. Other tuners at this kind of price tend to have a slightly artificial sound which can set them apart from other sources in your system. But the Rotel has a sound quality that's sure to mean it won't come out sounding second-best.

In fact, when we reviewed the Rotel in our July 1992 issue, we commented on the fact that it sounds less like normal tuner, and more like a good budget CD player — it really is that good. The fact that the tuner has a marked lack of background noise plays a major part in this, since speech or music is allowed to stand out in a manner that's most impressive. It's all too easy to forget that what you're listening to has been sent to a transmitter, consigned to the ether, and then grabbed again by a lump of metal on your roof.

The Rotel isn't the most sensitive tuner we've ever tested, and it will need a pretty good aerial to perform at its best — don't expect it to shine if you only have a piece of wire

pinned to the picture-rail to feed it a signal. The outlay needn't be huge - you certainly won't have to spend more than £100 to get a proper outdoor aerial supplied, installed and aligned by a professional.

And the expenditure is worthwhile, since the performance of the Rotel when all five bars of its signal strength meter are lit is something a bit special. The signal strength readout is worth commenting on, too - it has a usefully wide range, so that when all five bars are lit you know you're getting a strong enough signal.

Listen to a live concert relay on Radio 3 and the Rotel makes a solid case for radio being a part of your system, creating a confident, three-dimensional "picture" of the orchestra while retaining masses of instrumental detail. The experience of the BBC engineers who produce these world-class broadcasts becomes clear - strings are rich and full-bodied, and brass has a lifelike bite and rasp to it which helps build drama. Add to that the ability of the tuner to relay the ambience of the concert hall, and it all adds up to a real "you are there" experience that only the best live concert CDs can match.

On speech programmes, the Rotel portrays voices and ambience entirely naturally, with none of either the thickening or thinness which can afflict some of its price rivals. Listen to a discussion or a panel game and you get a very real view of where the participants are sitting and the size of the venue, while outdoor location recordings have a similarly real sense of ambience and atmosphere.

Listen to rock music, and the open, powerful delivery of the Rotel is immediately impressive, even with fairly heavily compressed stations, which get opened up and made more palatable by the RT-950BX. The bass is solid and forceful, while vocals and lead instruments are projected in a vibrant, but controlled, fashion.

Using the RT-950BX is easy, too, thanks to the autosearch tuning and bank of 20 presets, and the tuner looks and feels stylish, reliable and well-built. All in all, the Rotel tuner comes across a clear winner — it's really just a bit too good for the money!

"The Rotel sounds less like a tuner and more like a budget CD player - it really is that good"

Awards 1992 WHAT HI-FI? 71

Phone or fax
Rotel UK for
brochures and
a nationwide
dealer list.

ROTEL UK, Gamepath Ltd.
25 Heathfield, Stacey Bushes, Milton Keynes, MK12 6HR
Tel (0908) 317707 Fax (0908) 322704

Reprinted with kind permission of Haymarket Publishing Ltd

ROTEL hi-fi
Ask some...