

# HI-FI CHOICE

**E2 OFF!**  
**SCOTCH CD**  
**LENS CLEANER!**

**THE FINEST HI-FI MAGAZINE IN THE WORLD**



## BEST CD PLAYERS EVER!

**High-tech models offer stunning sound and great value!**



**PLUS SUPER TEST!**  
**OUR PICK OF THE TOP TUNERS**



**REVEALED!** GO DIGITAL  
**FOR SUPERB RECORDINGS**



**SCOOP!** MCLAREN AUDIO  
**CD PLAYER AND AMPS RATED**



**COMPETITION!**  
**WIN! THE NEW ROGERS REVELATION SPEAKERS**

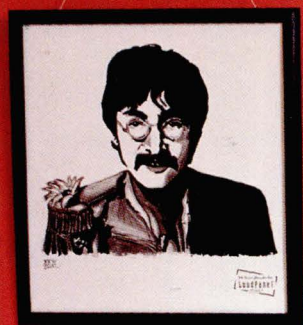


**BUYER'S GUIDE**

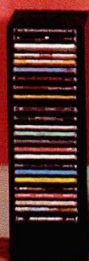
**Our experts name the best hi-fi 3,500 Products ★ 400 Star Buys**

ISSUE 184  
 DECEMBER  
 1998 £2.99  
 BEF 160





YOU CAN SEE  
THE MUSIC NOW



## Look into the face of music

**W**harfedale's new LoudPanel™ creates sound from a flat panel only millimetres thick.

The Wharfedale LoudPanel™ uses state-of-the-art technology to reproduce music everywhere in the room with clarity and naturalness.

The Wharfedale LoudPanel™ can be mounted almost flush to the wall surface or hung in attractive picture frames.

The Wharfedale LoudPanel™ can be painted or covered with favourite picture print - whatever you choose to make it part of your room.

The Wharfedale LoudPanel™  
**SEE the music now**

Wharfedale  
**LoudPanel™**

Wharfedale International Ltd.,  
Sovereign Court, Ermine Business Park, Huntingdon,  
Cams, PE18 6WA, England  
Tel: 01480 431737 Fax: 01480 431767

## EDITORIAL

● **Editor-in-Chief** ATW "Stan" Vincent  
☎ 0171-917 7747 § e-mail: stan.vincent@pobox.com  
Regrettably we cannot speak with readers or answer queries on the telephone. Please send a letter, fax or e-mail instead.

● **Deputy Editor** Jason Kennedy  
☎ 0171-917 7746 § e-mail: deputy\_ed.hifichoice@dennis.co.uk  
● **Art Editor** Del Gentleman  
☎ 0171-917 7748 § e-mail: art.hifichoice@dennis.co.uk  
● **Production Editor** Christina Bunce  
☎ 0171-917 7745 § e-mail: edprod.hifichoice@dennis.co.uk  
● **Editorial Assistant** Charlotte Ricca  
☎ 0171-917 5523 § e-mail: editorial.hifichoice@dennis.co.uk  
● **Consultant Editor** Paul Messenger • **Technical Editor** Paul Miller • **Contributors** Richard Black • Phil Clark • Darren Gentleman • Alvin Gold • Jimmy Hughes • Ann Jones • Dave McCormack • David Vivian • Mark Wagstaff • **Photography** Chris Foster

## ADVERTISING

● **Group Ad Manager** Rob Debenham  
☎ 0171-917 3834 § e-mail: ads.hifichoice@dennis.co.uk  
● **Senior Sales Executive** Louise Irwin ☎ 0171-917 3932  
● **Sales Executive** Clare Smith ☎ 0171-917 3935  
● **Advertising Fax** 0171-917 5555

## PRODUCTION

● **Group Production Manager** Simon Maggs ☎ 0171-917 7676  
● **Production Controller** Robin Ryan ☎ 0171-917 3885  
● **Production Manager** Lucy Farmer ☎ 0171-917 5664  
● **Production Fax** 0171-580 6430

## CIRCULATION & MARKETING

● **Director** Sean Farmer ☎ 0171-917 7654  
● **Manager** James Burnay ☎ 0171-917 7810  
● **Marketing Director** Alison Townsend ☎ 0171-917 7675  
● **Manager** Elisabeth Coles ☎ 0171-917 5589  
● **Circulation & Marketing Fax** 0171-917 7677

## MANAGEMENT

● **Publisher** Simon Davies ☎ 0171-917 7718  
§ e-mail: publisher.hifichoice@dennis.co.uk  
● **Advertising Director** Ian Westwood ☎ 0171-917 7618  
● **Publishing Director** Eric Fuller ☎ 0171-917 7686  
● **Managing Director** Alistair Ramsay ☎ 0171-917 7661  
● **Chairman** Felix Dennis

Pre-Press Bureau Elements, London W1 Printing St Ves (Plymouth) Ltd.  
Distribution USM Distribution Ltd, 86 Newnham Street, London W1P 3LD  
☎ 0171-396 8000 Fax 0171-396 8002 • Published by  
Dennis Publishing Ltd, 19 Bolsover Street, London  
W1P 7JH • Company registered in England, number 1138891 • Entire contents of this issue © 1998  
Felden Productions ISSN 09551115



## ● BACK ISSUES – SEE PAGE 145 FOR DETAILS.

Selected back issues are available at £4.00 each (£6.95 overseas) inc. p&p. Call (01789) 490215 to order – all major credit cards accepted.

## ● SUBSCRIPTIONS – SEE PAGE 28 FOR DETAILS

If you have problems with existing subscriptions, contact our fulfilment company on (01454) 620070, (01454) 620080 (fax), or e-mail 'cihotline@aol.com'. Quote your Subscriber Number, which is printed at the top of your subscription address label.

## ● NEW PRODUCT INFORMATION

We welcome information on all new and upgraded products – please send all press releases to the Editor-in-Chief. The magazine is obliged neither to review nor return unsolicited products, and does not accept responsibility for unsolicited copy.

## ● REVIEW REPRINTS

Please use our FactsBack service (p145).

## ● COPYRIGHTS & REPRINTS

Material in *Hi-Fi Choice* is copyright and may not be reproduced in any form without written permission from the Publisher. Address requests for re-use of copyright material to Zuzana Korda, Marketing Executive, Dennis Publishing Ltd, 19 Bolsover Street, London W1P 7JH. ☎ 0171-917 5591.  
§ e-mail 'leisure\_assistant@dennis.co.uk'.

## ● DISCLAIMER

Every care has been taken in the preparation of this journal, but the publishers cannot be held responsible for the accuracy of the information contained herein, nor for any consequence arising. All judgements have been made in the context of equipment available to *Hi-Fi Choice* at the time of review. 'Value for money' comments are based on UK prices at press time (which are subject to fluctuation) and only apply to the UK market.

## ● OVERSEAS LICENSING ENQUIRIES

*Hi-Fi Choice* is available for licensing overseas. For details contact Bruce Sawford, International Licensing Director, on +44 171-917 7658; by fax on +44 171-917 7655; or by e-mail at 'licensdir@dennis.co.uk'.

## EDITOR'S NOTEBOOK

Stan Vincent introduces this month's special gift!  
Plus: has hi-fi shopping changed forever?



This month with *Hi-Fi Choice* you'll find a fantastic free gift: *Car Hi-Fi Choice*. This 12-page guide to car hi-fi has been produced in association with our friends at Sony, and is crammed full of essential information about the latest kit, how to buy it, and how to get the ultimate sound in your vehicle. If your idea of in-car entertainment is demisting the rear screen, you need to read this supplement. It'll be well worth your while if you enter and win the exclusive competition! (We regret that *Car Hi-Fi Choice* is only available with UK copies of *Hi-Fi Choice*.)

## CONSUMER MADNESS

Since my column in *HFC* 182, the Monopolies & Mergers Commissions' Domestic Electrical Goods Order has come into effect. In case this is news to you, the Order aims to ensure that retailers are free to price certain electrical goods as they see fit. This concerns *Hi-Fi Choice* readers because one specified goods category in the Order is 'hi-fi systems'. (Others include TVs, VCRs, and camcorders, but exclude portable and car systems.) There are numerous legal complications, but the bottom line is simple. If you ring up Sony, Sharp, Kenwood or any other company which makes 'hi-fi systems', no longer can you obtain a Recommended Retail Price (RRP) from them, and nor can we, for publication.

In fact, hi-fi separates are exempt from the Order. But its terms are being applied by the big Far Eastern companies to all of their products, across the board.

From September 1, affected manufacturers are likely only to give retailers a trade price list. The retailers are free to set as high or as low a price as they desire. Shopping on the basis of a preset budget just got a whole lot more difficult.

For example, suppose there was a retail chain with branches all over the country. Suppose it took a CD player which would have had an RRP of £300 prior to September 1. Suppose it sold this player for two weeks only, in its remotest branch up in the Scottish Highlands, for £600. Suppose then that it opened up national distribution on this line, and dropped the price to £400.

It would be perfectly legal for the retailer to promote this as a discount bargain, £200 off. But it would still cost £100 more than the old RRP, and the consumer's only way of knowing would be to conduct an extensive programme of market research among competing retailers.

Is this progress? I think not. It goes without saying, now more than ever, to heed that old warning 'buyer beware'. Still, per-

haps it'll force people to trust their instinct, not just follow the herd mentality, when choosing what to buy.

## MEASURED PERFORMANCE

As you will read in our CD Player Megatest (p74 onwards), we experienced problems with two samples of the Arcam Alpha 9 during our formal group test review. I hasten to add that Arcam had independently discovered the same problem at the same time, and has since changed the production-line manufacturing technique responsible. However, I would just like to explain why our Lab Report found no trace of the artefacts heard by Alvin and his listening panel. The explanation is that for administrative reasons, we did not lab-test the self-same unit which served for listening, but another from the same batch. However, Technical Editor Paul Miller is now investigating the auditioned amp, and will report next month.

Stan Vincent

## THIS MONTH'S EDITOR'S CHOICE

Editor's Choice is a new *HFC* award conceived to recognise the achievements of unusual or expensive hi-fi components.



## LAVARDIN IT £3,200 p33

It's not often that our Consultant Editor Paul Messenger gets all worked up about an amplifier. It would be even more extraordinary if he threatened to abandon the trusty stack of Naim amps that have kept him in Watts for most of his long and illustrious career. However, like his saintly Biblical namesake, Paul has had a Road to Damascus experience. Listening to the Lavardin IT integrated amp has caused scales to fall off his ears. But what on earth can a 40-Watt, four-input integrated amp offer, that Naim's finest cannot match?

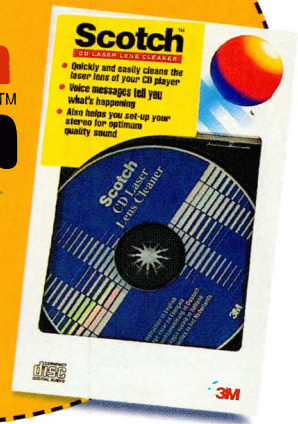
According to Paul, the secret lies in Lavardin's claim that so-called 'memory distortion' is the problem with many audio components. Lavardin claims that as electrons pass through solid-state silicon components, the latter retain a trace of their passing. Valve amps avoid this because they use electrons passing through a vacuum.

Whatever the explanation, the valve-meets-transistor sound of the IT has knocked Paul for six. This is news indeed, and merely for the shock-factor alone, the Lavardin IT has been selected as this month's Editor's Choice.



Hi-Fi Choice is the UK hi-fi magazine representative of the European Imaging & Sound Association (EISA). Every year EISA honours the finest hi-fi and home cinema products throughout Europe.

Save £2 on  
**Scotch™**  
 CD LASER  
 LENS  
 CLEANER  
**p67**



Look at the draws on that!  
 CD player test starts on p74.



# CONTENTS

DECEMBER 1998 ISSUE 184

## REVIEWS

### 33 LAVARDIN IT

A French amp re-kindles Paul Messenger's love affair with hi-fi. It's all about forgotten electrons, allegedly.

### 34 TAG MCLAREN CD20R/60iRv

They've got it all. Looks, money, style... But what we're all dying to know is: how do they sound?

### 36 TAG MCLAREN PA20R/125M

Jason Kennedy finally gets his hands on some TAG gear, and asks: should you believe the hype?

### 40 TUNERS £100-£600

In a world that has gone digital crazy, let us not forget the humble tuner. They still rock.

### 59 HOME RECORDERS

Richard Black compares cassette, recordable CD and MiniDisc, seeking the ultimate home-recording kit.

### 74 CD PLAYERS PRICED £200-£800

We put budget in with mid-price, and let them fight between themselves. The results are surprising.

## OPINION

### 3 EDITOR'S NOTEBOOK

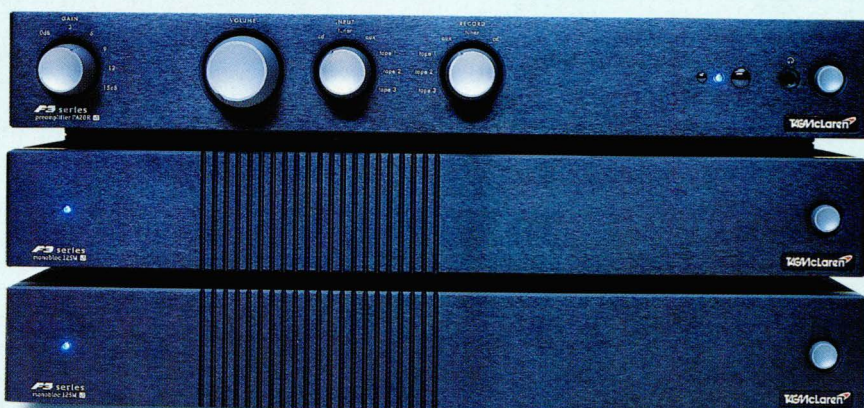
Stan Vincent criticises the new MMC Order on consumer electronics product pricing.

### 8 PHIL STRONGMAN

Once again, rare and classic tracks are found on new and shiny CDs. Shop and bop till you drop.



No more excuses for poorly recorded audio! p59  
 Has TAG McLaren got its formula right? p36





Can you name that tuner in one? p40



Allez avec nous à la pays de Lavardin. p33



## 9 PAUL MESSENGER

Committed airwave fondlers beware. Digital radio is well and truly on its way, and Paul Messenger is far from impressed.

## 11 JIMMY HUGHES

Home is where the hi-fi heart is, and with wooden floorboards, it'll be a lovely home at that.

## 12 PAUL MILLER'S OASIS OF SANITY

Never one to turn down a challenge, Paul Miller investigates the allegedly 'unmeasurable' differences between TAG McLaren and Audiolab.

## 146 DAVID VIVIAN

Secret potions and Swiss nutters? Just what is he thinking of? This is life on planet Vivian.

### FEATURES

## 6 NEWS & VIEWS

The very latest technology and hot gear is brought to you, along with the experts' thoughts of the day.

## 10 SHOW REPORT

Jason Kennedy tell us what rocked his world at this year's biggest high-end Heathrow Hi-Fi Show.

## 55 DIGITAL RADIO

Is digital radio set to change the future of wireless, or is it all mouth and no trousers?

### READER PAGES

## 15 LETTERS

Thoughts, questions, complaints and much, much more from *HFC* readers.

## 23 HELP

Is JK a limitless fountain of hi-fi knowledge? Keep sending in your queries and we'll soon find out!

### BUYING GUIDES

## 110 PRICE GUIDE

*Choice's* definitive guide to every hi-fi component currently available in the UK.

## 122 DIRECTORY

A complete listing of all current hi-fi components reviewed by *Choice* over the years.

## 138 MANUFACTURER CONTACTS

Need a number? Try our comprehensive listing of manufacturers and distributors.

### READER SERVICES

## 28 SUBSCRIPTIONS

Subscribe to the finest hi-fi magazine in the world, and receive a free gift for your efforts.

## 108 READER CLASSIFIED

A whole plethora of lovingly pre-owned hi-fi kit is waiting for you to give it a good home.

## 145 THE HI-FI CHOICE ARCHIVE

How to access our archive of old reviews and features via back issues, Factsback service, photocopies and our fantastic Web site.

### COMPETITION

YOU CAN WIN FOUR PAIRS OF ROGERS SPEAKERS, WORTH OVER £1,000. THEY'RE A REVELATION!



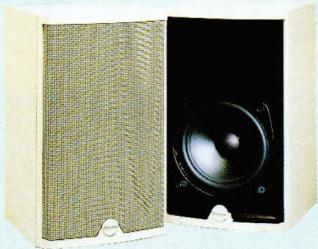
### PRODUCTS IN THIS ISSUE

Arcam Alpha 9	93
Denon DCD-835	77
Denon DMD-1000	63
Denon TU-1500RD	41
Lavardin Model IT	33
Magnum Dynalab FT-11	42
Marantz CD-67IIIOSE	79
Marantz SD-455	61
Marantz ST-48	43
Musical Fidelity X-RAY	95
Myryad MT100	44
Myryad T-10	85
Parasound C/DP-1000	87
Philips CDR880	66
Pioneer F-504RDS Precision	47
Pioneer PD-S707	81
Pioneer PDR-555RW	69
Roksan Caspian	49
Rotel RCD-971	89
Russ Andrew Relees	146
Sharp MD-R3H	64
Sony CDP-XB720	83
Sony MDS-JB920	65
Sony ST-SB920S	51
TAG McLaren CD20R	34
TAG McLaren 60iRv	34
TAG McLaren PA20R	36
TAG McLaren 125M	36
Teac V-1050	62
Teac VRDS-8	97
Yamaha CDX-993	91

# NEWS & VIEWS

What's new and hot? Catch up on the top stories with Charlotte Ricca and Jason Kennedy.

## NEWS IN BRIEF



■ **BOSTON ACOUSTICS** has announced details of the CR4 and CR5 Compact Reference Series loudspeakers. No taller than a hardback book they retail at £99.99 and £129.99. The CR4 (above) uses a 4.5" full-range driver, while the CR5 adds a 3/4" dome tweeter mounted within a 4.5" woofer.

☎ (01767) 641171

■ **WHARFEDALE** has launched a range of Topaz subwoofers for home theatre. There are three models: the SW-10, £299.95; SW-12, £399.95; and SW-15, £499.95. In the same order these comprise a 25-litre enclosure housing a 250mm woofer, a 35-litre enclosure with a 300mm woofer and 60-litre enclosure with a 375mm woofer. All three are built within MDF cabinets and finished in black.

☎ (01480) 431737



■ **TITAN** has moved into the AV sector with its £400 Midi T4 centre speaker. This 53x36x28cm design has a power handling of 100 Watts, and comes in oak, cherry and mahogany finishes. Also available is the rather unusual Cotton Reel CR2 (above) speaker at £400.

☎ (01702) 206870

■ **TDK** has a new line-up of audio tape cassettes. The range includes the SuperD, a chrome position tape. The new packaging is designed to aid the consumer, with a graph illustrating the style of music best suited to each tape, and the equipment to use.

☎ (01737) 773773



■ **PIONEER** has announced some intriguing new products. For example the transparent Loopmaster (above), a personal CD player at around £100. You can wear it around your neck.

## Quad's waiting game



As first unveiled in *HFC 176*, Quad has finally released its 99 Series electronics and two new models of electrostatic speaker — the first new transducers from Quad for 15 years.



The 99 Series is a fully-integrated system, which is an evolution of the 77 Series.



Comprising a preamp control unit, CD player, a choice of three power amps and optional FM tuner, the rig is priced at between £1,799 and £2,499, depending on amp. The CD player and preamp at the heart of the system are not available separately.

Virtually all of its facilities can be operated via remote control, and additional 99 Series products can be attached through the unique Quadlink bus connection.

The new ESL988 and ESL989 speakers draw heavily on the existing ESL-63's technology. However, many improvements have been made, including a more rigid construction, higher-power audio transformers, new power-supply assembly and new coils and board layout.

The ESL-988, priced at £2,999, is a replacement for

the ESL-63, although the electrostatic diaphragm has been re-aligned. The £3,999 ESL-989, however, claims to have a greater diaphragm area, offering "dynamism, space and a complete 'being there' experience".

Quad ☎ (01480) 447700



○ Quad 99: providing separates quality with system integration.

## Holier than thou



Wilson benesch has launched its most ambitious product yet, in the form of the Bishop loudspeaker. Priced at a ground-shaking £20,000, the Bishop features eight of Wb's Tactic drive units operating in isobaric fashion, one facing another for maximum bass control. A ninth Tactic produces midrange while a soft dome tweeter takes on the high frequencies.

As with many of Wilson benesch's products, carbon fibre/Nomex composites play a large part in the construction of this five-foot, six-inch design, but the baffles are made of aluminium and the base of solid wood. The Tactic driver breaks a few moulds by its use of a neodymium magnet, which allows a very compact profile complementing the minimalist basket. Combined these elements give maximum ventilation to the isotactic polymer diaphragm — a new material developed by Professor Ian Ward at Leeds University, and first used on the Orator model which we reviewed in *HFC 179*.

Wilson benesch's new flagship uses the isobaric principle to create claimed low bass without having to use large-diameter or large-excursion drive units.

Wilson benesch

☎ (0114) 285 2656

○ Bishop power: eight cylinder bass.



## QED's cables for all

QED has two new additions to its range of cables, with models that should appeal to both the audiophile and music-lovers just starting out in hi-fi.

The flagship interconnect, Silver Spiral, claims to offer levels of transparency and information retrieval not previously heard at this price. Its four silver-plated oxygen-free (SPOFC) conductors have dual co-axial spiral geometry, while the new Reference plugs incorporate a split centre pin and locking mechanism.

Silver Spiral interconnect is available in three sizes, 0.5m, 0.74m and 1m, and these are priced at £78, £84 and £90 respectively.

Alternatively there is the Qnect 1 at £20 for a 1m pair — this "guarantees signal integrity by using a low loss polyethylene dielectric and 99.999 per cent oxygen free copper." That's told you. It also comes complete with high-grade phono plugs.

QED Audio Products Ltd ☎ (01276) 451166

## MS bats on at oval

Mordaunt-Short has added two new floorstanding models to its radical, oval-drive-unit equipped MS800 range. The MS816 at £600 and MS817 at £900 are three-way designs with home cinema as their primary application. Both feature twin oval bass drivers (240x160mm), oval midrange (190x130mm) and a metal-dome tweeter (25mm). Separating the two is an extra 130mm of height and a tri-wiring facility on the dearer model.

These are joined by the MS821C centre channel (£150), MS824D surround dipoles (£400) and the MS826S 150 Watt subwoofer (£500).

Mordaunt-Short ☎ (01705) 498866



## Cambridge Audio names its tune



Cambridge Audio claims to have been working for years on the T500 Double Superheterodyne tuner, priced at £179.95.

It is able to preset up to 29 FM, 29 MW and nine LW stations via its digital rotary-encoder control. Other features include a glass-fibre printed circuit board which enables a "high level of interference suppression and the ability to lay very short signal paths for maximum performance". It also has the latest-generation RF coils and a single master-clock generator.

Finally, software has been written to drive all controls via a two-wire digital bus, which, thanks to automatic frequency control, may be turned off when not in use. This is said to reduce interference. Cambridge Audio claims this also allows the T500 to discriminate a weak distant signal from a strong local one, while maintaining low noise and high fidelity.

Cambridge Audio ☎ (0171) 940 2240

☛ Cambridge is hoping to re-ignite FM with its new T500 tuner.

## AVI pulls its weight



AVI launched its Graviton speakers at the Hi-Fi Show, Heathrow. Priced at a high-end £3,995, the company claims they have sound to match, with "substantial dynamic range and clarity."

The low-frequency enclosure comprises a sealed MDF cabinet braced with a tulip-wood frame and bitumastic damping pads. The two, 254mm drive-units handle up to 600 Watts and provide an output down to 20Hz.

Unusually, the mid and treble unit drivers sit in a separate 'topped pyramid' enclosure and consists of 127mm doped paper midrange and 28mm hand made tweeter.

The crossovers are housed in a separate compartment in the bass cabinet and each has its own PCB, positioned at a distance from one another. AVI used second order Linkwitz Riley filters modelled on a circuit analyser for total accuracy. AVI ☎ (01453) 752656



☛ Graviton proves AVI can play loud.



## Number cruncher



Path Premier is the new UK distributor for Entech products, a new division of Monster Cable Products Inc.

The first products to debut are two DACs: the Number Cruncher 205.2 and the Number Cruncher 203.2, along with the Director AV 4.1 Input Source Selector.

The two DACs, priced at £489.95 and £299.95 respectively, utilise 20-bit Sigma Delta processing, and offer a choice between coaxial RCA and Toslink optical inputs. The NC205.2 provides nine independent voltage regulators which allegedly give better separation of the digital and analogue stages than normally found, while the NC203.2 comes with five.

The DAV 4.1 is a professional grade audio-video switcher for the home which allows switching of S-video, composite video and stereo audio. It is priced at £379.95 and features high-speed, high-performance audio and video buffers.

Path Premier ☎ (01494) 440360

## Good vibrations



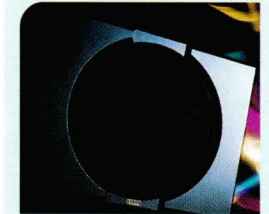
Avid has just launched the stunning Acutus turntable priced between £3,995 and £4,995. It is a belt-driven, sprung-subchassis design, which is nothing unusual by itself. However, rather uniquely, the vibration caused by the stylus during playback is dissipated by a patented mechanism in the subchassis while external vibrations are isolated by a suspension system. In addition the power supply is coupled to a hand-made motor which, Avid claims, is ten times more powerful than normal, and drives a 10kg platter.

Avid ☎ (01525) 717487



☛ and create psychedelic patterns via an effects disc placed on top of the CD being played. Also available are three headphones, in a range called Streetmasters.

☎ (01753) 789500



■ **ACOUSTIC ENERGY** has launched the AE101. This is a two-way speaker, designed for surround/effects using a 130mm mid/bass driver with a 19mm soft-dome tweeter. Finished in black ash it costs £140, or with optional centre channel speaker for £200. Also available is the updated AE108S sub-woofer (above) at £300.

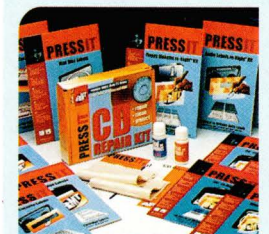
☎ (01285) 654432

■ **REGA** has confirmed that its new Planar turntable, as mentioned in HFC 183 will be called the P25, and will be supplied with an RB600 tonearm – a modified version of the RB300.

☎ (01702) 333071

■ **LORICRAFT** has moved its Garrard production facility back to Wiltshire, not far from where Garrard originally produced turntables in Swindon. It has also set up a distribution arm, Loricraft Audio International. Its roster includes Art Audio and Quad-Musicwiedergabe GmbH – the only company which still manufactures and repairs Quad ELS 57 speakers.

☎ (01488) 72267



■ **RMT** (above) has come up with a solution for repairing damaged CDs. The PressIT kit, priced at £29.95, can be used on any CD format and repairs up to 25 discs. Also available are CD re-writable labels at £9.95. The re-Right Label kits contain five sheets of both white base and clear plastic labels, along with black/red markers and an eraser tool.

☎ (01483) 277711

■ **FREEPLAY** has created a self-powered lantern that doubles as a power source for personal stereos. Utilising the Baygen wind-up generator to charge rechargeable batteries, this £49.95 (below) torch can power other small appliances (up to 3V). Twenty seconds of winding gives you four minutes of torch light.

☎ 0800 731 3052



## PREVIOUSLY UNHEARD

**Phil Strongman** digs out rare and classic tracks appearing on CD or virgin vinyl for the first time. Turn on, tune in, bliss out....



### THE KINKS (Above)

#### **Everybody's In Showbiz (Konk Velvel)**

Like many Kinks albums, *Everybody's...* is a bit of a Curate's egg, but it grows on you. The Lola-like calypso of *Supersonic Rocket Ship*, the brisk *Here Comes Another Day* and the touching *Celluloid Heroes* are all great (a verse from the latter obviously helping Bernie Taupin with *Candle In The Wind*). Bonuses include a live version of *Til The End of The Day*. Mixed by chief Kink Ray Davies, just after he'd stopped being stepfather to one Sid Vicious.

★★★★☆

### SIMON AND GARFUNKEL

#### **Bookends (MFSL)**

These two were once cutting edge – witness the surreal backing vocals and brooding synths on *Save The Life of My Child*, brilliantly reproduced here, as well as the samples of OAP chat leading into the searing *Old Friends*. Plus *America* and *Mrs Robinson*. An Original Master Recording disc.

★★★★☆

### SARAH VAUGHAN (Below)

#### **Crazy And Mixed Up (JVC XRCD2)**

We finally get to hear the full timbre of

jazz-queen Vaughan's unique voice, dazzlingly real on this self-produced 1982 set. The casual scat of *Autumn Leaves* and the moving *Love Dance* are the two stand-outs from an outstanding set. Repeat-play for the mellowest of weekends. ★★★★★

### SHEP & THE LIMELITES

#### **Daddy's Home To Stay (Westside)**

A harmony act who were just a trio, Shep and co worked without overdubs but made a big beautiful sound. This has *Daddy's Home*, a US Number Two in 1961, and 13 unreleased cuts. 44 gems from the age of the 45. ★★★★★

### VARIOUS *Bumpin' On Denmark Street – Acid Jazz (Westside)* (Below)

The rare groovy sound that shook Soho from JTQ, Snowboy, Mother Earth and the Brand New Heavies. Cut in the same smokey AJ Studios at No. 22 used by the young Stones. ★★★★★

### MENTIONED IN DISPATCHES AL GREEN

**Greatest Hits (DCC)** Every deck should have one – 180 grams of pure emotion on virgin vinyl. Vivante London ☎ (0181) 977 600. ★★★★★

### MARIANNE FAITHFUL

**A Perfect Stranger:** Island Anthology (Island) Bittersweet broken English from the girl from Mars. ★★★★★

### TEARS FOR FEARS (Below)

#### **Songs From The Big Chair (MFSL)**

With moody eight-minute mixes of *Everybody Wants To Rule The World* and 'Shout'. ★★★★★

### 10CC

#### **The Original Soundtrack (MFSL UDCC)**

*I'm Not In Love* with this but *Life Is A Minestrone* still sparkles brightly.

★★★★☆

Sony PBD-V30: our own personal cinema.



## DVD goes mobile



Sony has introduced its first DVD Discman, the PBD-V30. Like the Panasonic DVD-L10 (reviewed in *HFC* 182) the V30 offers jet-setting movie lovers the luxury of taking digital cinema entertainment with them wherever they go.

Andrew Warren, Sony's Product Manager, explained: "Initial sales of DVD-Video players have been very promising. Hundreds of DVD titles are expected in Europe on DVD-Video by the end of this year."

Weighing just 570g, the PBD-V30 can be connected to most screens, including laptop PCs. It also doubles up as a CD player, and comes with a remote control.

It has 96 kHz sampling and 20-bit resolution as well as a one-bit audio DAC for music replay. With its horizontal resolution of 500 lines, Dolby Digital and MPEG-2 multichannel surround-sound compatibility, Sony claims the "experience will be outstanding." Watch this space! Sony ☎ (0990) 111999

## THX sets ultra new standards

LUCASFILM



California based Lucasfilm THX has introduced a new set of standards for mid-priced receivers and speakers, based on the same values as the original Home THX specification (now called THX Ultra).

THX Select, as it's been dubbed, has been designed to ensure that "consumers shopping for mid-priced components will be able to enjoy the superior performance of THX certified products," explained Marc Spector, Director of Marketing for the company.

The THX Select Standard has been designed to reflect a 2,000 cubic foot room, and handle the most demanding 5.1 channel material. New products bearing the THX Select mark include Pioneer's DV-05 DVD player.

Newly available are THX controllers including the SSP-24 from Classé (a new THX licensee), Lexicon DC-2, Parasond's AV/C-2500 and the McIntosh MX1 32 Decoder/Preamp. New five-channel amplifiers include the Bryston 9BTHX, Lexicon 512, NAD 925 and Madrigal's Proceed AMP5.

Several speaker manufacturers also plan to unveil THX products in the US, which among others, include Triad and Atlantic Technology.

Lucasfilm Ltd ☎ +415 492 3900







Go free range with Sennheiser's RS 400.

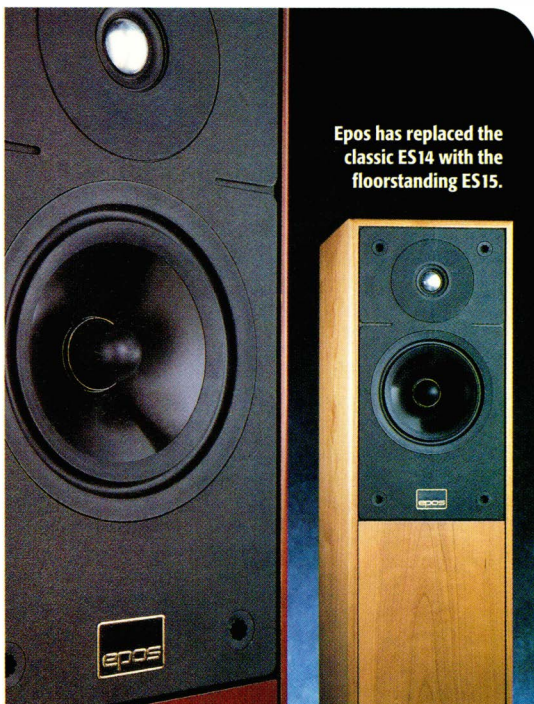
## Look no wires

Sennheiser is bolstering its headphone range with a high-performance cordless-radio design. Sennheiser claims that the RS 400 is the first radio headphone to comply with tough European (ETSI) requirements. These govern the performance of radio transmitters and receivers operating at 86.3MHz.

Each kit comprises two parts: a lightweight headphone with FM receiver, audio electronics and rechargeable battery pack; plus a transmitter/charger that plugs into any audio source.

With a range of up to 50m their transmitters work through walls and floors. They also have filtration against amateur radio transmissions and TV interference.

Sennheiser ☎ (01494) 551532



Epos has replaced the classic ES14 with the floorstanding ES15.

## A whole new Epos!

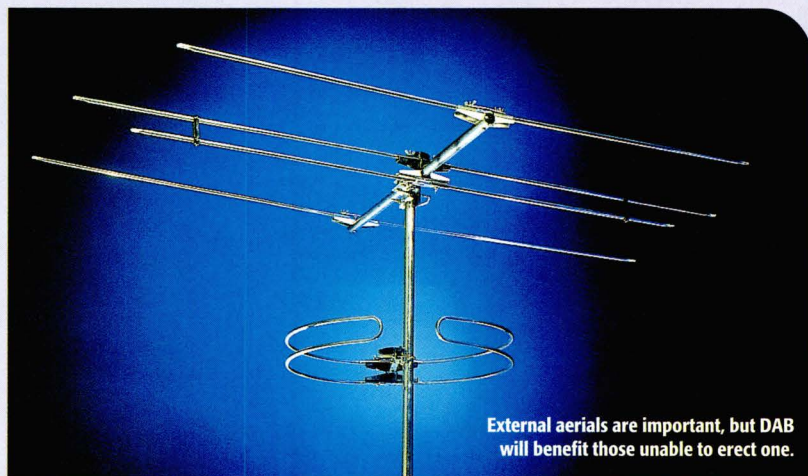
The ES15 is Epos Acoustics' latest floorstanding loudspeaker. This two-way, reflex-loaded model is encased in real-wood veneer and priced at £890. The bass driver comprises a 150mm injection-moulded polymer cone with 32mm voice-coil, while the crossover is a minimalist, mechanical design. The 25mm aluminium-dome tweeter is the same as used by the award-winning ES12 bookshelf design, although the larger cabinet provides a new bass alignment that allegedly delivers an "extensive and fulsome low frequency" performance.

Epos ☎ (01705) 498866



## PAUL MESSENGER

The DAB thing – is it up to the task?



External aerials are important, but DAB will benefit those unable to erect one.

Call me a cynical Luddite, but the more I ponder the digital radio/DAB scenario, the more sceptical I become. Kevin Hilton provides the broad overview of this new technology on p55, so I'll avoid covering similar ground and confine myself to playing Devil's Advocate. Digital radio seems poorly conceived, badly timed, and could well spell the end of radio's long-standing reputation as a serious source of high-fidelity music.

Granted, DAB has some advantages over analogue FM, though these tend to

“...I'd be most surprised if DAB proved able to provide the sort of transparency that hi-fi enthusiasts have come to expect from top-quality analogue FM...”

be of much more benefit to in-car users than fixed/domestic installations. It is true to say that DAB's effective immunity from co-channel interference will be good for everyone, while the avoidance of multi-path distortions will benefit those unable to put up a good external aerial clear of reflections.

So much for the good news. The bit that worries me most is the 'digital compression' system (known as MPEG-2 Layer II) which DAB is locked into, for two main reasons. First, it's a standard that was set way back in 1994, sufficiently long ago, in this fast changing field, that a Second Edition – MPEG-2

AAC (Advanced Audio Coding) – has evolved, promising twice the conversion efficiency.

While I've yet to try a DAB receiver, and am quite certain there will be no problems over basic intelligibility, I'd be most surprised if it proved able to provide the sort of transparency that hi-fi enthusiasts have come to expect from top-quality analogue FM – or even from Nicam stereo TV sound.

The BBC transmits its four main stereo networks on DAB using MPEG-2 at a bit rate of 192kb/s. When I asked whether the same bit-rate would be used for the similarly MPEG-2-coded sound which will accompany its imminent Digital TV transmissions, I was told that the latter would operate at 256kb/s, because 192kb/s gave insufficient phase accuracy for good-quality Dolby Pro-Logic decoding.

The implications look pretty horrendous for anyone who takes hi-fi sound quality seriously. Digital radio is obviously likely to sound inferior to digital TV sound, which isn't the case with our present systems. However, the real worry is that it seems very probable neither of them will sound as good as what we have at the moment.

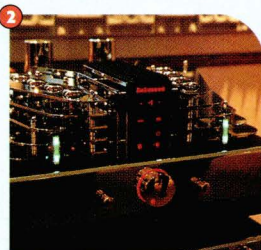
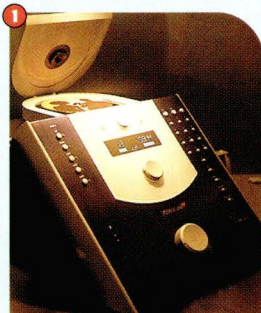
By comparison, the Nicam TV stereo sound signal (which uses a very simple and non-intrusive 'comparer' form of compression) runs at 728kb/s, whereas CD's full 16-bit PCM stereo signal runs at a bit rate of around 1.4Mb/s. Chucking away enough of the information to run digital stereo audio signals at 192 or 256kb/s requires much more elaborate processing – so-called 'perceptual coding' techniques. This approach, in my opinion, is entirely incompatible with the ideals of high fidelity.

## ROOM SERVICE

**Jason Kennedy pounds holes in his soles at the Hi-Fi Show.**

### GALLERY

- 1) TAG McLaren prototype
- 2) ELAC LA Tube 1
- 3) Electrocompaniet prototype
- 4) ART-M
- 5) Orchid Natural Force
- 6) Monitor Audio Silver Series
- 7) Cymbol DAB tuner
- 8) Beard BB30-60MkII
- 9) Densen B200
- 10) Living Voice Rude Boy
- 11) Alema AMP



As ever, new loudspeakers were abundant at the 1998 Hi-Fi Show, with at least 16 brands showing their latest creations. There have been a few mergers too. JPW has joined forces with Heybrook, Quale Audio and DC cabinets — Quale showed a complete range while Heybrook had the £799 Duet and £1,199 Quintet on display. Castle has been using noted industrial designer Allen Boothroyd to style its Project Theta speakers. These are decidedly upmarket designs for a company with a very 'sensible' reputation. But in a shock move, Castle is abandoning black finishes.

Some less conventional but attractive styling could be found on the Pininfarina Aliante range, as well as on German Elac's extensive metal-domed selection, that is lined up for UK distribution via Sennheiser. AVI seems to have discovered the joy of the big box with its Gravitron (see p7), a £3,995 three-way that dwarfs its existing models and sounded rather interesting. ATC, on the other hand, has delved into bass with the SCM0.1/15, a 1,000-Watt subwoofer that should do bass properly.

There were some new brands on the scene as well. Cura, for example, showed three models priced from £699 to £1,799; while Systemdek's Derek Dunlop unveiled the ART range, also three strong, featuring the £10-£12,000 ART-M — a three-way with a unique midrange unit that claims piston operation over a 250Hz to 10kHz range.

Not brand-new, but new to me, was the Innersound hybrid electrostatic which comes complete with active crossover and bass amplification at a competitive £3,995. While one product that I had sneak-previewed was the Living Voice Avatar, a £2,100 refinement of its Auditorium floorstander on a higher plinth. Lurking elsewhere in the same room was a prototype three-way with the working name of Rude Boy, a self-toeing-in



design produced to give horn-style dynamics from a reflex-loaded enclosure.

Another hybrid specialist, Cadence, unveiled its least expensive 'static/dynamic so far, the £2,300 Anina. Less than a metre tall, it features the brand's distinctive curved mid-treble panel. Epos has finally replaced the product which launched the company, the ES14, with the floorstanding ES15 — founder Robin Marshall's legacy is no more (see page 9 for details).

A blast from a more distant past was heard from Octave Audio's recreations of classic '50s Tannoy horn cabinets, including the GRF corner and Autograph models into which buyers can fit Tannoy's dual concentric drive units. Funny, I thought it was the drive units that were sought after!

### THE DIGITAL DOMAIN

High-end and mass-market brands alike are vigorously pursuing the new 24-bit/96kHz digital music format. Ayre Acoustics, Muse and Resolution Audio had DAD players, while Proceed, Theta, Kenwood and Pioneer showed new DVD-Video players. The latter is a rather nice decoder-free machine at £550 called DV-717. No DVD-Audio was evident; we'll have to wait for that until next month. There were a couple of SACD dems from prototype machines, however, by Sony and Marantz. The former had brought in specially-tweaked US Sony speakers, and used one of many Seismic Sinks for support purposes. Marantz, on the other hand, used Tannoy's new Turnberry speaker, a £2,800 dual-concentric design in the old-school mould. It also made some good noises with the £3.5K CD7 CD player.

DAB made its debut with models from Arcam and Cymbol, which had products at £799 and £999 that we're eager to try, even though their computerised ergonomics will be unfamiliar at first. There were, of course, miles of wire, but Kimber gave me a dem so it would be churlish not to mention its new Select range of interconnects and speaker cables priced from £300. And finally, Carfrae, the big horn builder, played a cartridge that requires no RIAA eq. That's a prototype to look out for.

### PUMP UP THE VOLUME

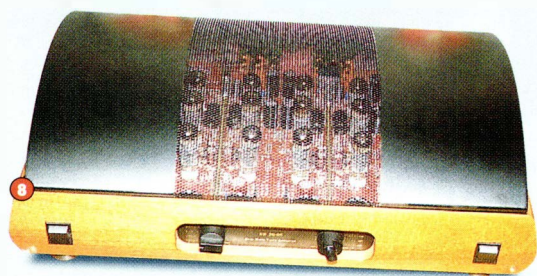
Of course there's more to life than speakers — there was a good showing on the amplifier front as well. Witness demonstrations of the Tact digital amp and more mega-bucks offerings from Krell, Audio Research and Mark Levinson to name but a few. Tube designs are still very popular with the keen audiophile and there's no shortage of models to choose from. One, Tube Technology, had the entry-level Syrinx H50i integrated at £1,000 alongside the M45 monoblock, and CD players starting at £1,100 designed by John Westlake (ex PT, Cambridge). Orchid Precision Audio had managed to install several examples of its huge Natural Force 220-Watt power amps, at £13,000. They pack eight KT90s per channel and too many kilos. It was good to see Bill Beard back on the scene with his BB 30-60 mkII integrated at £1,495, an attractive wood-faced design which operates in either stereo or monoblock configuration.





## JIMMY HUGHES

Jimmy has been down to IKEA for his latest upgrade!



Gate added a nice little SE300 monoblock design to its range of stainless-steel clad units, with a price of around £3,000. It was one of many tube brands to have taken advantage of Western Electric's blanket dispersal of megabucks 300B tubes, a reborn classic still earning respect. On the tranny side, Densen showed



the B-200 microprocessor-based preamp. This is a multi-room-ready remote-control design at £1,000. Priced likewise was the Beat -

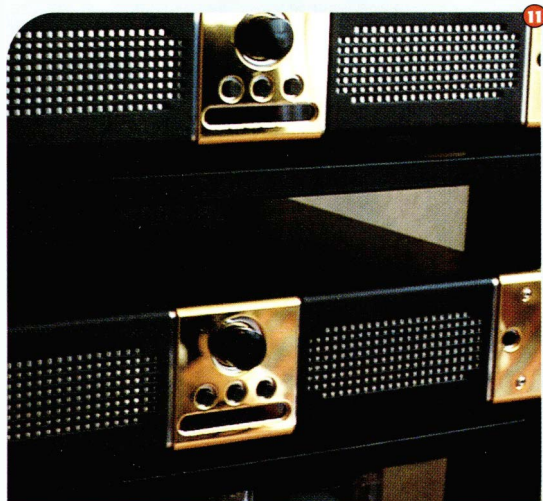
B400 CD player due out this

December. Tube specialist Alema played its trans-impedance design, the AMP. At £1,700 in stereo form, this 50-Watter uses output transformers and claims to be a technological first.

Elsewhere, Exposure, now teamed with Monitor Audio, showed its £500 Super X integrated, and Nagra previewed power amps to match the lovely PL-P preamp.

### THE SOURCE OF IT ALL

CD players were less abundant, but one brand deserves more attention. Audio Synthesis now has its own Transcend CD transport and Decode A/D converter to match the DAX Decade DAC/preamp. And Bow Tech showed a beautiful three grand player whose name looks set to change from Wizz to Wookie, but anything's possible. Naim brought along the finalised CDS II, now with XPS power supply, while Mark Levinson launched the No 32 Reference processor. ■



**T**ips for improving the sound of your hi-fi usually concentrate on the equipment itself, and how it's put together. But the listening room also plays a big part in determining the final sound. Recently, I replaced the carpet in the lower part of my split-level listening room. Not with more carpet, but with wood flooring panels from Ikea.

Swapping a soft absorptive floor-covering for one that's hard and reflective is bound to alter the sound of the room. I had a gut feeling that the change would be beneficial, and by listening after quickly laying a few temporary panels over the old carpet, my hopes seemed to be confirmed. But would it still sound good with the whole surface covered?

It took the best part of a day to lay the new floor surface, and I couldn't wait to reconnect the system and listen. I expected the sound to be slightly tonally brighter and a shade livelier, but feared the bass would boom if the floor vibrated in sympathy with the music. Choosing a Mozart piano concerto, which was not too demanding sonically, I sat and listened apprehensively. No question: the sound was very different.

It was sharper and more solidly focused, more immediate and articulate. Tonally, the upper midband seemed more prominent, giving greater presence and fine detail. The bass seemed deeper too, and firmer; it certainly didn't boom as I feared it might. I felt that the music was filling the room more easily, subjectively making it possible to reduce volume levels slightly without losing presence.

On the debit side the tonal balance

### ◉ Floorboards can make a big difference!

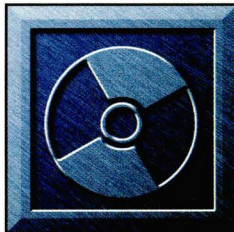
was slightly harder, and leaner. But that wasn't a drawback, as most systems I've used in this room have had a tendency to sound slightly 'thick' tonally unless everything was working well.

The new floor cost about £200 in materials, giving an improvement greater than I'd have got by spending this amount on the system itself. Whether the same flooring in another room with another system would be an equal suc-

**“ ...The new floor cost about £200 in materials, giving an improvement greater than I'd have got spending this amount on the system itself... ”**

cess is hard to say. But if you wanted a keener, more immediate and articulate sound, replacing carpet with wood flooring will give you that. If the change is excessive, a few carefully placed rugs should help – I did eventually add a rug.

Wood flooring has some practical drawbacks for the hi-fi enthusiast. Spiked feet are an obvious no-no, though some sort of intermediate support could be used under the spike to stop scratching. There's also a possibility of resonance at high volume levels, though provided you glue the panels together and everything fits snugly, there shouldn't be a problem. I'm certainly pleased with the change, and it looks great too!



# PAUL MILLER'S OASIS OF SANITY

Technical Editor **Paul Miller** compares the new TAG McLaren Audio CD20R (reviewed on p34) with its Audiolab forebear. The differences, it appears, are measurable!

Unless they'd been living on Mars for the past few months, no hi-fi enthusiasts could have failed to notice the roar from TAG McLaren's corporate engine as it extends its operations into domestic audio. No less than 12 separates have been launched, all evolutions of the 12 components in Audiolab's range prior to it being absorbed by the motor-sport giant.

Thanks largely to the determination of Dr. Udo Zucker, TAG McLaren Audio's CEO, improvements to the core circuit design, the physical appearance and manufacturing quality of familiar products (including the 8000CD and 8000S) were implemented at breakneck speed. The aforementioned CD player and integrated amplifier have now evolved into the CD20R and 60iRv s1 (straight line), respectively, thanks to a two-tiered approach involving teams of in-house design engineers and so-called "golden-eared" listeners.

### THE F3 CHALLENGE

All of which brings us to the subject of this month's *Oasis*.

You see, while happy to pronounce a uniform improvement in the sound-quality of these hi-fi separates, Dr. Zucker tells me that his engineers "can find no measurable difference" between the Audiolab and 'equivalent' F3-branded products. "Even the German reviewers," I was informed "could find no distinction". I could not understand quite what he meant by this, but felt sure that British test and measurement practice would not be found wanting, even by the most stringent Continental standards. TAG McLaren Audio's CD20R was the subject for our investigation.

So to the challenge. By general consensus, Audiolab's original 8000CD was at least mildly compromised by a sense of muddling, manifest as a pervading 'greyness', a lack of stereo depth and loss in transparency. I last tested the 8000CD as part of a huge group back in HFC 163, where it was described as "not so much laid back as laid out". This referred to its neutral but overly smooth, fettered and generally undramatic performance. TAG McLaren's CD20R

seeks to shake free of these subjective chains, offering a fresher, cleaner and more invigorating musical perspective.

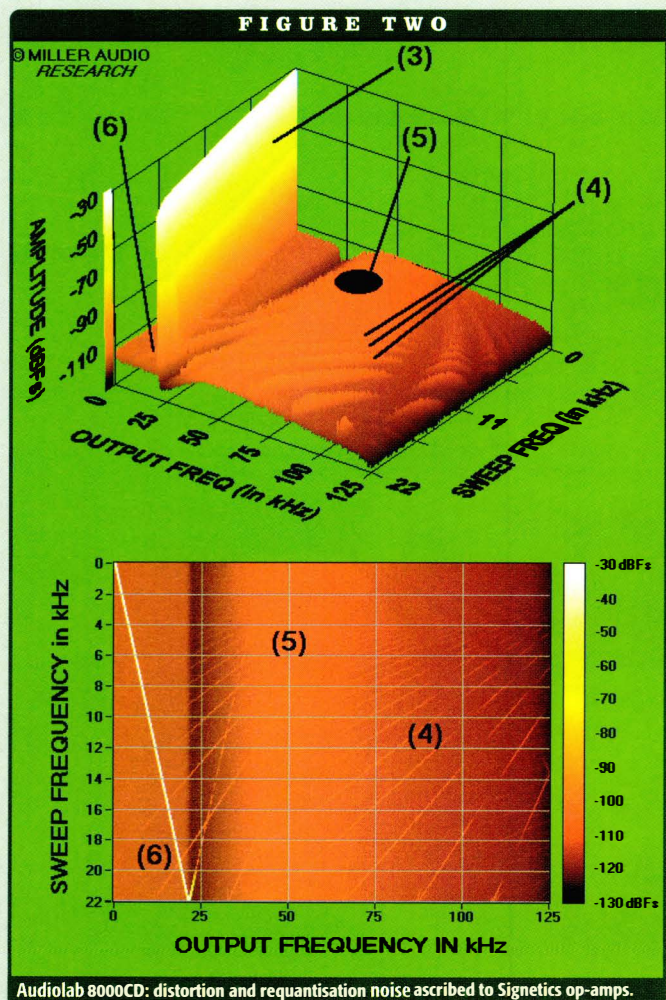
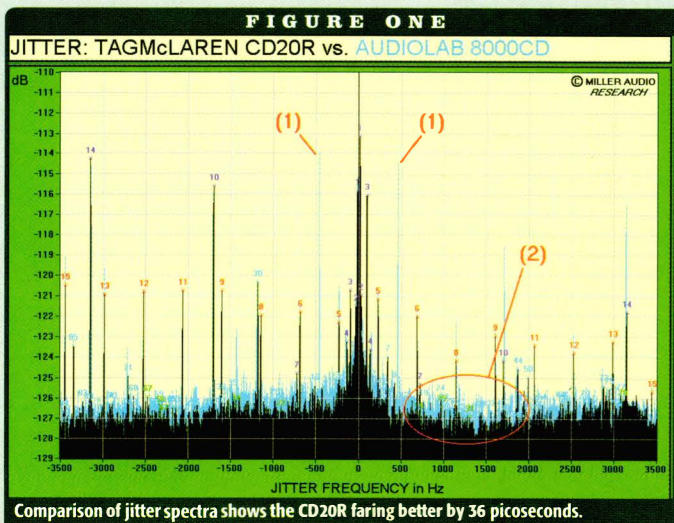
We had linked this by-now-familiar 'Audiolab sound' to the Signetics-based analogue stages used in all its digital products. Interestingly, these chips are replaced by Burr-Brown's OPA134 op-amps in the latest CD20R. A two-channel version of this op-amp is also found in the player's DC-servo circuit alongside upgraded WIMA polyester capacitors. Generous use of Vishay's metal-film resistors in the analogue stage completes TAG McLaren's list of component substitutions. Otherwise, the use of Philips' CDM12.4 transport and SAA7345 decoder, with Crystal's older '20-bit' CS4329 bitstream DAC, remains quite unchanged.

“...the assertion that there are no measurable differences between the 8000CD and CD20R is borne out, provided we only skim the objective surface...”

### THE SOUND OF CORRELATION...

For this feature, I re-tested a sample of Audiolab's 8000CD from the final production batch together with a CD20R from its first batch. The assertion that there are no measurable differences between the 8000CD and CD20R is borne out, provided we only skim the objective surface. Both players show a gentle

THE MEASUREMENTS





treble roll-off of around  $-0.5\text{dB}$  at  $20\text{kHz}$ , for example, while both benefit from a supremely low  $0.0003$  per cent midband distortion at  $0\text{dBfs}$  ( $0.0025$  per cent at  $-30\text{dBfs}$ ), a low  $100\ \Omega$  output impedance, and a wide  $104.5\text{dB}$  S/N ratio. They even show exactly the same errors in de-emphasis accuracy when replaying pre-emphasised CDs!

But let's look a little closer. Fig. 1 shows the jitter spectrum for the new CD20R overlaid atop that of the 8000CD (in light blue). The latter totals  $258\text{psec}$  with key sidebands at  $462\text{Hz}$ ,  $1.7\text{kHz}$  (purple mkr 10) and  $3.14\text{kHz}$  (purple mkr 14). The CD20R mirrors the 8000CD, minus the components at  $462\text{Hz}$  (1) and benefits from a universal reduction in random noise (2). This represents an overall improvement of  $36\text{psec}$ .

Channel separation, particularly at high frequencies, is influenced by subtle changes in the CD20R's board layout and here we see a  $14\text{dB}$  difference between both players at  $20\text{kHz}$ . Distortion is also changed quite significantly at  $20\text{kHz}$  (by a factor of  $20\text{dB}$  or  $\times 10$ ) as the original Signetics op-amps hold up better than the new Burr-Browns. Nevertheless, at the more important  $-30\text{dBfs}$  level, the BBs take over with an improvement of  $10\text{dB}$  over the Signetics-based filter.

All of this will exert some subjective impact, but the improved quality of the new op-amps — especially in response to ultrasonic noise — is most clearly revealed by the two 3D plots (Figs. 2 and 3). Here we see the entire spectrum of distortion and requantisation noise

ejected by both players in response to a full  $0\text{--}22\text{kHz}$  sweep (3) at  $-30\text{dBfs}$ . The characteristic stopband pattern from Crystal's CS4329 is evident from both players (4) as the analogue filters are *mathematically* identical. However, in practice we can also see a higher release of ultrasonic noise around  $50\text{kHz}$  from the Audiolab player (5) together with very high-order IM distortions (6) that track directly into the audioband. Both phenomena would have compromised the 8000CD's transparency and are notably improved in the CD20R, despite the fact it uses precisely the same digital building blocks.

Finally, and perhaps most importantly of all, is the huge difference in modulation noise between the Audiolab and TAG McLaren players (see Fig. 4). This unique test (first introduced way back in *HFC 100*) provides a measure of the accumulated errors from dissimilar-sized Least Significant Bits (LSBs) during conversion. Ideally, CD's 16-bit code allows for  $2\text{-to-the-power-}16$  ( $65,536$ ) successive digital numbers, all one LSB apart. In practice not all the 'steps' are identical and the errors manifest as a modulation — or 'beating' — of the residual noise. The significant decrease in modulation noise through the CD20R's midrange (black bar-chart) is a principal factor in its

**○ TAG McLaren Audio CD20R: its enhanced sound is not hard to quantify.**

improved transparency over the older Audiolab 8000CD.

On this evidence, improvements in sound quality are manifestly quantifiable, and justify TAG McLaren's speedily-executed modifications to the stalwart components of the former Audiolab range.

**Do you have a subject matter for the Oasis? Please contact P.Miller via e-mail on MILLER\_AUDIO\_RESEARCH@compuserve.com**

**GLOSSARY**

**OP-AMP,** or Operational Amplifier: provides (typically) two or more stages of gain but is not necessarily an integrated circuit.

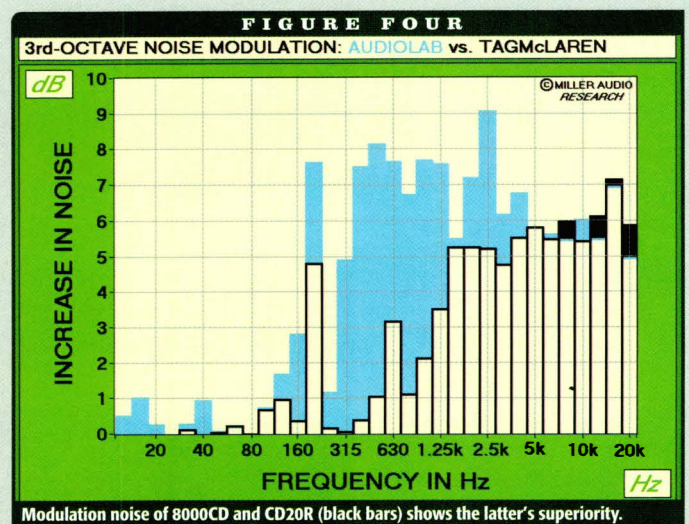
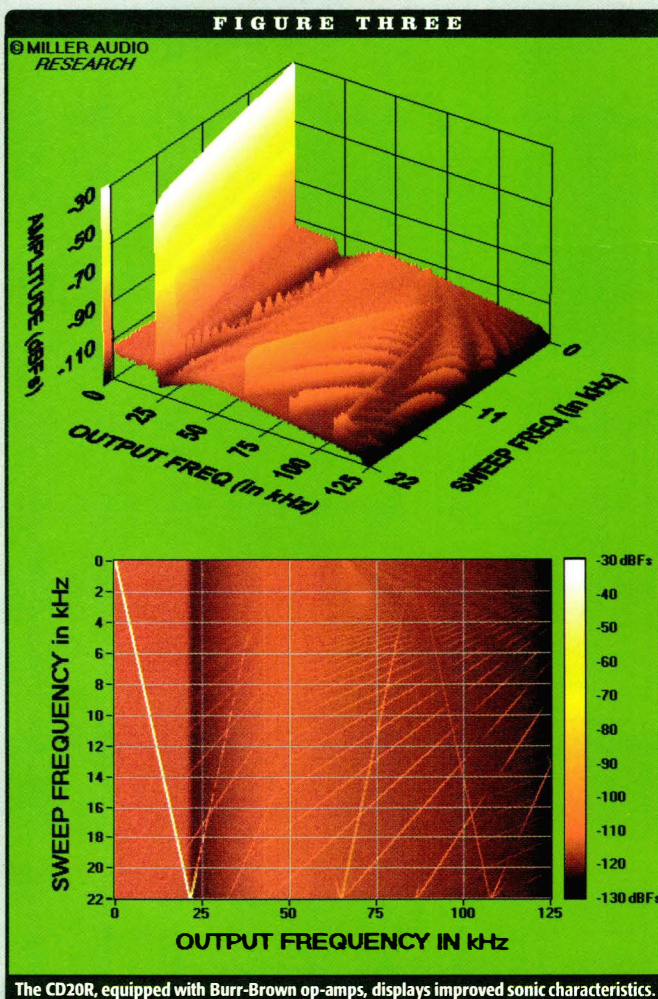
**LSB:** or Least Significant Bit is the smallest step available to a digital code. CD's 16-bit data would total 2-to-the-power-16 ( $65,536$ ) LSBs.

**JITTER:** Any variation in the timing of digital data. During conversion to analogue (music), jitter manifests as distortion sidebands.

**REQUANTISATION NOISE:** Errors that result from a re-shaping of the digital data (such as the truncation from 16 to 4 bits, for example) are realised as distortion and requantisation noise.

**MODULATION NOISE,** or Noise Modulation: represents a dynamic fluctuation in noise due to discrepancies in the 'size' of the LSB during Digital-to-Analogue conversion.

THE MEASUREMENTS



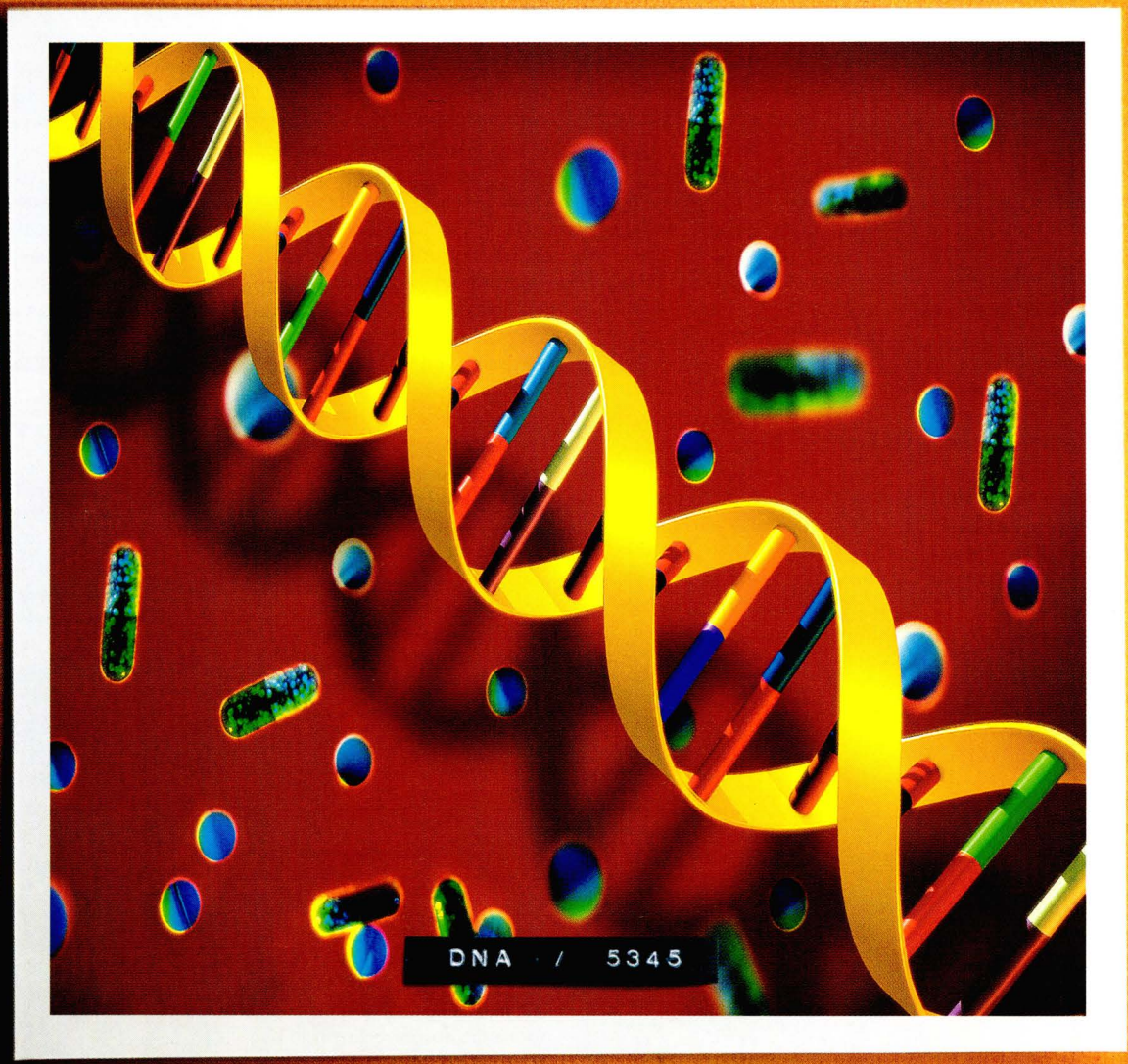


“MAKE A CD  
AS UNIQUE AS  
YOURSELF...”

PHILIPS CELEBRATE  
THE RELEASE OF



When you buy selected Philips  
products you can save up to £290  
and relive the magic of Mulan  
at Disneyland® Paris, plus Kids Go Free.  
©Disney



IMPORTANT: It is a civil infringement and a criminal offence, under applicable copyright law, to make unauthorised copies of copyright protected materials, including computer programmes, films, broadcasts and sound recordings. Purchasing this equipment does not permit you to make such copies.

**NEW CD  
RECORDER**

**CDR880**  
**WHAT HI FI?**  
**JULY 1998**  
**5 STAR AWARD**

**ALSO AWARDED  
BEST AUDIO  
PRODUCT 1998 BY**

**T3** **MAGAZINE**

Using the CD Record Once Digital Audio Disc and Philips CD Recorder deck, you can now make your own unique recordings. You can use as many different sources of your favourite music as you like and play back your recordings using any CD audio system. Now your CD collection can truly reflect your own personality through the music you love best. For further information and a list of CD Recorder stockists please contact the Philips Consumer Information Centre on 0181 665 6350.

[www.sv.philips.com](http://www.sv.philips.com)



**PHILIPS**

*Let's make things better.*



# LETTERS

Hi-Fi Choice's very own 'points of view' page, where you, the reader, can express your opinions!

## LETTER OF THE MONTH

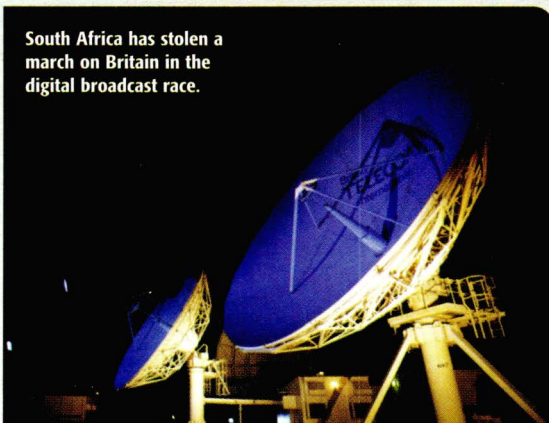
### DIGITAL GOES SOUTH

I've only just read your May '98 issue (you heard correctly) and it's interesting to know that maybe for once, South Africa is ahead of Britain in one respect. Although your great magazine takes ages to get here — and then costs a fortune, too — we've had digital satellite for quite a while now, so I thought I'd let you know my honest opinion.

Yes, digital signals are far better than their analogue counterparts. This may be especially true in Cape Town, with its mountains on every street corner (lovely to look at, but absolutely sadistic signal blockers) and dubious land-based transmission technology.

Sound is close to CD quality (in my opinion) and the picture quality seems as good as its source. However, satellite signals are affected by climate. Heavy cloud cover means some picture noise, and a thunderstorm could cause a complete loss of signal. Also, Pro-Logic surround-sound doesn't seem to work very well on

South Africa has stolen a march on Britain in the digital broadcast race.



encoded movies. My Yamaha gets very confused in surround mode — I don't know why.

Finally, there are about 60 channels covering almost any musical genre, broadcasting 24 hours a day, with no DJs.

Hope that you enjoy it when it arrives!

Chris McEvoy, via the internet

### DVD AS EASY AS 1,2,3

I write in reply to Karl Todd's letter ('As Clear As Mud') published in HFC 182. I, too, have a Yamaha DSP-E1000 processor and wondered how to get DVD incorporated into my system. However, through the HFC Website chat forum, I heard about a firm called Videotec ([www.videotec.co.uk](http://www.videotec.co.uk)).

This company is able to modify equipment for various purposes, and one of their current specialities is the addition of a six-channel input to existing processors/ surround amps that cannot take the output from a DVD player. In a nutshell, it adds a small control board inside the processor, a discreet LED on the front panel, and a multi-pin D-type connector on the rear panel. It also supplies a one-metre Ixos cable with six phonos on one end and D-connector on the other. Total cost for this upgrade is £300.

Switching to the DVD input is by a time-latch function on one

of the existing front-panel buttons. Merely holding the button down for a few seconds does the trick. Essentially, the modification takes the six-channel signal and routes it straight to the power amps in the processor and the main output sockets, bypassing the Yamaha processor circuits, although leaving them intact.

Colin Hickson, Reading, Berkshire

*The Editor adds... Remember that any third-party modification can invalidate manufacturer warranties still in force.*

### OLDIES, BUT GOODIES

Is the future of technology going to be like computer hardware?

For example, MiniDisc. Loads of companies are making their own machines, which are purchased by customers thinking it will be a few years before the next version is out. But they then discover that within a month or two there's another version, then another.

industry, always rushing to get the next chip out, so that as soon as you buy it, it's out of date.

Where will all of this end?

D Murphy via e-mail

### NEXT TO GODLINESS

As someone who buys second-hand CDs on a regular basis, I read with interest Jimmy Hughes's *Hints & Tips* (HFC 182).

One method I find particularly effective for cleaning CDs is to rinse them under a running tap with copious amounts of washing up liquid. Any surface marks can be lightly wiped off with a finger, and the flow of water prevents any scratching and carries debris away from the surface as soon as it is dislodged. To dry, simply pat between two sheets of kitchen roll. The CD should be lifted straight up from the lower sheet (not wiped across) to avoid scratching.

This method is the only way I have found of cleaning my CDs without scratching the surface, a problem with the several commercial cleaners I've tried. It leaves them clean and in an ideal state for applying a restoration polish.

Jimmy Hughes's idea of using a sticky label is useful in a hurry — Post-It notes seem pretty effective.

Ben Irvin, Dore, Sheffield

Why is it that companies feel they have to rush to produce hardware, sell it, find flaws, and then produce the next one ASAP and sell that instead?

Where does this leave the consumer? It's just like the computer

MiniDiscs decks, like all digital equipment, are developing rapidly. At least recorders like this Denon (p63) are built to last.

DENON PCM AND D TECHNOLOGY / MINIDISC RECORDER DMD-1300

POWER LOADING MECHANISM

ASLc 18BIT 8TIMES OVER SAMPLING DIGITAL FILTER

EJECT



The experience of sound.

☎ 01622 672261

✉ Freepost ME15 6BR

🌐 <http://www.kef.com>



# WE KNOW ABOUT VOICE COILS



To achieve the lowest possible moving mass, all advanced Dynaudio Magnum voice coils are made from pure aluminum wire wound in our patented Hexacoil technique that uses many windings on a long coil in a short gap. The large diameter voice coil provides maximum efficiency, optimum drive of the diaphragm and plenty of headroom with regard to power rating to ensure total control of even the most minute membrane displacement. That's why only a Dynaudio can touch you up to fifty-thousand times per second. **We know. Do you?**



**DYNAUDIO**



The Roksan Xerxes 10 turntable – absent from our turntable feature, but not forgotten!



### THE MISSING LINK

I read with interest your article on Essential Turntables (*HFC* 182).

To my surprise and disappointment, I did not see a mention of Roksan's Xerxes 10 turntable, which I have owned for years and from which I have derived many hours of pleasure, listening to my vast vinyl collection. To date I haven't found a better, more reliable turntable than the Xerxes 10, XPS5 and DSU combination with Roksan's tonearm and cartridge.

I hope that your omission was a mistake rather than a statement.

*Rangzeb Hussain, Bradford*

*Jason Kennedy replies... This wasn't intended to be the definitive list, simply a selection of recommended turntables. For more details you should refer to our Directory, which starts on p122.*

### RELUCTANT PLAYERS

I am writing in response to the letter from M Austin (*HFC* 181) regarding his Philips CDR870. I run a small studio and use two of these machines, both of which refuse to play many discs – mostly

older ones, but even some which are not visibly damaged.

A friend has a newer CDR880, which also refuses to play the same discs without glitching, sometimes not even recognising them at all. It seems they are only

**“...In my studio I use two machines, both of which refuse to play many discs — so much for robust CD technology!...”**

happy when replaying a new disc. So much for 'robust' CD technology – our 11-year-old Sony DAT recorder is much more reliable.

Speaking of which, how about a test of the latest generation DAT recorders? Also Paul Miller's article on the quality of pre-recorded CDs makes me wonder about the quality of pre-recorded MDs. Could you do an article on how near to overload they are mastered, and what version of ATRAC is used?

*T Stapel, Dorset*

### THE NAKED TRUTH

I am writing in response to the outrageous Acoustic Energy advert in *HFC* 183.

For your information, yes I am a woman, and yes I do love music and hi-fi. Therefore I find it infuriating that an already male-dominated, malecontrolled industry is using blatantly gratuitous naked women to flog their products.

I understand fully the idea behind the concept; but come on, let's be honest, it's a fairly feeble excuse to get tits (I don't suppose you'll print this word, although it's fine to show them in your magazine) on the page in the hope of enticing men to buy hi-fi. If it is simply about being 'natural' then why not have a man

in the picture with her?

I expected more from *Hi-Fi Choice*, a magazine I respect and which I have bought for many years. It now seems that no media is immune to the adage that 'sex sells' – or is it just that advertisers' money talks?

*Louise Bond, Surrey*

*Neil Truckle, Marketing Manager of Acoustic Energy, replies... There are a number of marketing reasons behind our advert. First, research into this 95-per-cent male-oriented market has proved that using human (often female) elements can increase brand recall. Also, the message and theme of the advert follows through from the headline, the photograph and the body copy and, as stated in Louise's letter, is fully understood.*

*Countries such as the Netherlands, France, Germany and Italy make our campaign look tame by comparison.*

*Finally, research is also proving that there is extensive cross-readership between hi-fi titles and the men's style mags.*

### LOOPY INDUSTRY

As a long-time audiophile and ex-contributing editor to two Slovenian hi-fi magazines, I would like to address a very specific problem rarely mentioned in the audio press. It goes like this: WE WANT MORE TAPE LOOPS, THANK YOU!

We have seen an explosion in

home-recording equipment like DAT, MD, CD-R/RW and analogue cassette, while there are still recording maniacs who want to own a good old open-reel deck.

Would someone please tell me how the industry expects a collector of home-recording equipment, or just a user of the incoming crop of recording decks, to opt for a high-end integrated or pre-amp with only one tape loop?

As far as I know, input and output connectors are not expensive. Even so, a few pounds won't stop us buying otherwise well-designed and good-sounding equipment. Au contraire, I am not willing to pay even a penny for a high-end amp with only one tape loop.

*Andrej Balaban, Slovenia*

*The Editor replies... If that's what you want, then look no further than page 36 for our review of the new TAG McLaren PA20R pre-amp, which features three tape loops. Fantastic!*

### WRITE TO US

- The Editor-in-Chief, *Hi-Fi Choice*, 19 Bolsover Street, London W1P 7HJ
- f 0171-917 5512.
- e editorial.hifichoice@dennis.co.uk
- We reserve the right to edit all letters. Concise correspondence preferred!
- All letters must include address and daytime telephone numbers.

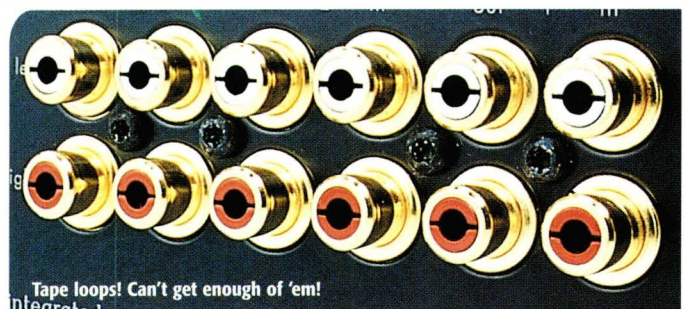
### WIN A T-SHIRT AND PEN!

Every letter published on these pages wins a KEF pen while the best letter every month wins a stylish KEF polo-shirt.



### INTERNET USERS

Why not catch up with the latest gossip on the *Hi-Fi Choice* web site, [www.hifichoice.co.uk](http://www.hifichoice.co.uk)?



Tape loops! Can't get enough of 'em!



For the bigger picture

on the new product range

from Quad, please write to:

Quad Electroacoustics Ltd.,

IAG House, Sovereign Court,

Ermine Business Park,

Huntingdon, Cambs, PE18 6WA,

or telephone:

01480 447714/433777

  
QUAD

for the closest approach to the original sound

# COMPETITION

## REVELATIONS FROM ROGERS

Four pairs of new Rogers Revelation speakers, comprising the Revelation Compact and Compact Tower – worth over £1,000 – must be won!

**D**escribed as the most stylish product ever to emerge from Mitcham, Rogers' new Revelation range refines the bookshelf speaker aesthetic. Its most distinctive visual feature is the curved mesh grille, which dispenses with the usual pegs and sockets approach by simply clipping into the speaker baffle. This has the sonic advantage of minimising diffraction and thus improving stereo

imaging in the process. Another neat touch is the contouring of the baffle edges, a rare feature in speakers at these price points.

Both Revelations use a fully-shielded woofer (making them TV safe) with a polymer chassis and a 125mm Aerogel matrix cone, the latter being made from a mixture of Kevlar and carbon fibre. It has a soft polymer phase-plug to equalise the response, and the tweeter is matched to the woofer by using a low-mass, phase-corrected polymer diaphragm. Tweeters are also magnetically shielded for AV use.

The two drive units are integrated by a second-order crossover that has been designed to ensure

even dispersion for optimum stereo imaging. Cable connections are made via a pair of heavy-duty, gold-plated terminals, bi-wirable for maximum control.

Priced at £200, the Revelation Compact measures 295x180x250mm (HxWxD) while its brother, the £350 Revelation Compact Tower, weighs in at 860x180x275mm. The first two lucky readers to have their entry forms pulled out of the hat will each win a pair of Rogers Revelation Compact Tower speakers, while the second two successful entrants will each receive a pair of Rogers Revelation Compact speakers. The winners can choose from the following finishes: rosewood, white ash, light walnut, cherry and black.

### HOW TO ENTER

Answer the questions below by circling the correct answers, then fill in your name, address and daytime telephone number in the spaces given below.

#### The Questions

1) What is the Revelation's cone made of?

- a) Cheese and onion
- b) Paper and Kevlar
- c) Carbon fibre and Kevlar
- d) Titanium

2) What type of crossover is used in the Revelation?

- a) Second nature
- b) Second order
- c) Third order
- d) Second helping

Post this entry form to:

Hi-Fi Choice Competition (CHFC812A)

Bradley Pavilions, Bradley Stoke North, Bristol BS12 0BQ

All entries must arrive by First Post, Thursday December 3rd, 1998. Please remember to tell us whether you are over 18 years of age.

Name \_\_\_\_\_

Job Title \_\_\_\_\_

Company Name \_\_\_\_\_

Address (inc. postcode) \_\_\_\_\_

Day-time Telephone Number \_\_\_\_\_

- Please tick here if you are under 18.  
 Please tick here if you do not wish to receive further information on other products or services.

Please tick one only of the following:

- Are you a current subscriber? OR
- Are you a regular reader? OR
- Are you an occasional reader?

#### COMPETITION RULES

- 1) The Closing Date for the Rogers competition is First Post, Thursday 3rd December 1998.
- 2) Winners of the Rogers Competition will be judged from all correct entries submitted, and drawn at random after the Closing Date given in 1) above.
- 3) All winners will be notified by post.
- 4) The Editor's decision is final and no correspondence will be entered into.
- 5) The Rogers Competition is not open to employees of Dennis Publishing Ltd, Rogers International (UK) Ltd, nor their suppliers, agents or associates.
- 6) We regret this competition is open to UK residents only.
- 7) No cash alternatives will be offered.
- 8) We reserve the right to substitute alternative prizes with equal value to those shown, in the unlikely event of stock being temporarily unavailable.
- 9) By entering the competition, you agree to be bound by the rules.
- 10) All entries must be on this official entry coupon. If you do not wish to cut your magazine, you may send a photocopy of the page instead. Please note: only one entry form per household.

CHFC 812A

#### THE PRIZES

**ROGERS REVELATION COMPACT**

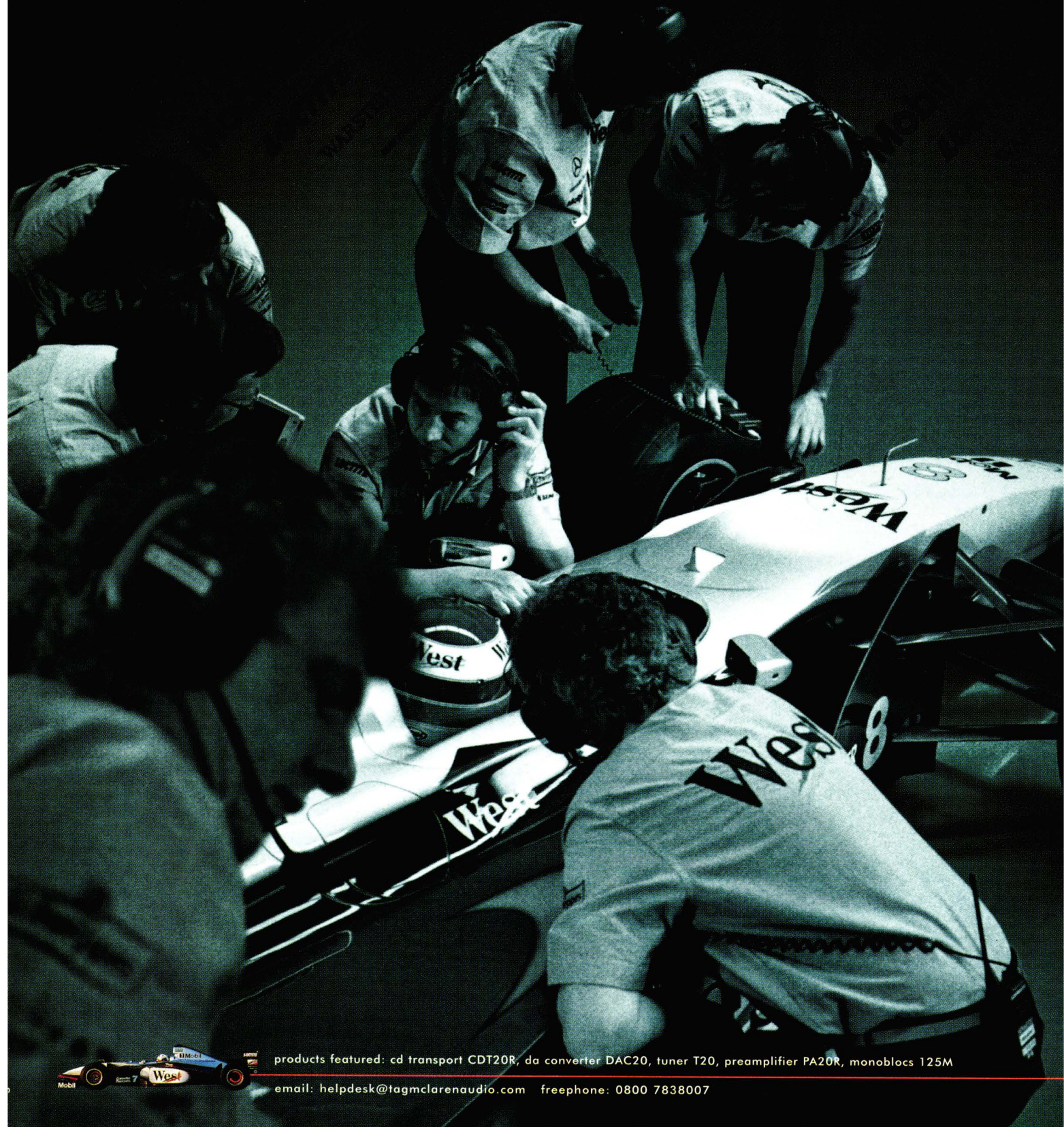
Cute, capable new bookshelf speakers.

**ROGERS REVELATION COMPACT TOWER**

Floorstanders with an eye to domestic bliss.



*these people produce one of the world's most*



products featured: cd transport CDT20R, da converter DAC20, tuner T20, preamplifier PA20R, monoblocs 125M

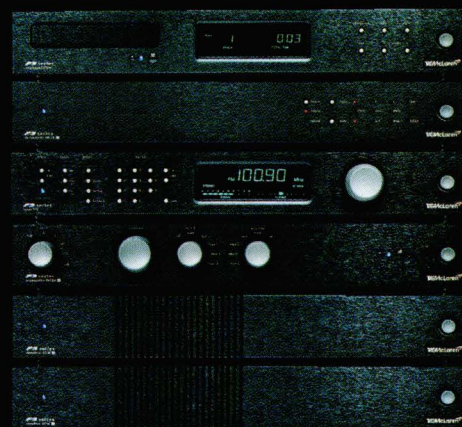
email: [helpdesk@tagmclarenaudio.com](mailto:helpdesk@tagmclarenaudio.com) freephone: 0800 7838007

*powerful, advanced pieces of electronic equipment.  
they also build our racing cars.*

Much of TAG McLaren's experience in developing specialist electronics for the cramped and electrically noisy environment of a Formula 1 racing car is directly applicable to the development of hi-fi equipment. Just as our racing division strives to build world beating racing cars, TAG McLaren Audio aims to make the best audio and audio visual equipment money can buy.

The **F3 series**, the first fruit of our merger with Audiolab, one of Britain's most respected audio companies, is a range of audio components which represents unparalleled levels of technology and engineering. Throughout the range, from the definitive entry-level integrated amplifier or single-chassis cd player, to preamplifier and monoblocs coupled with separate cd transport, da converter and tuner, the **F3 series** delivers controlled power and superior sonic reproduction. In short, hi-performance hi-fidelity.

Call 0800 7838007 to arrange a test drive.



**TAG McLaren**  
audio

hi-performance hi-fidelity

# Absolute Sounds...has an unbeatable track record

## 1996

DIGITAL SOURCE DESIGN  
**Krell KPS 20i/I**  
Theta Data III

DIGITAL CONVERTOR DESIGN  
**Krell Reference 64**  
Theta Generation V

SIGNAL PROCESSOR DESIGN  
**Angstrom 200**  
Audio Research SDP1

TUBE ELECTRONICS DESIGN  
**Audio Research Reference One**  
Audio Research VT60SE

CABLE DESIGN  
**Transparent Music Link**

BEST LOUDSPEAKER DESIGN  
**Wilson WATTS/Puppy**  
Sonus Faber Guarneri

BEST LOUDSPEAKER VALUE  
**Martin Logan Aerius**  
Sonus Faber Concertino

BEST NEW COMPANY  
**Angstrom**

## 1997

DIGITAL SOURCE DESIGN  
Audio Research CD2  
Krell KPS 20i

DIGITAL CONVERTOR DESIGN  
**Theta DS Pro Generation Va**

SIGNAL PROCESSOR DESIGN  
**Krell AV Standard**  
Theta Casablanca

TUBE ELECTRONICS DESIGN  
**Audio Research Reference One**

SOLID STATE ELECTRONIC DESIGN  
**Krell FPB600**

CABLE DESIGN  
**Transparent Reference XL**

BEST LOUDSPEAKER DESIGN  
**Sonus Faber Concerto**

BEST LOUDSPEAKER VALUE  
Sonus Faber Concertino

BEST AESTHETIC DESIGN  
**Martin Logan Statement**

## 1998

AUDIO DIGITAL SOURCE DESIGN  
**Krell KPS25s**  
Krell KAV 300CD

VIDEO SOURCE DESIGN  
Theta Data III

DIGITAL CONVERTOR DESIGN  
Theta DS Pro Generation Va

AUDIO PROCESSOR DESIGN  
**Z-systems rdp-1**

SURROUND SOUND CONTROLLER  
DESIGN  
**Theta Casablanca**

VIDEO PROCESSOR DESIGN  
Krell AV Standard  
Theta Casablanca

TUBE ELECTRONICS DESIGN  
Audio Research VT200

SOLID STATE ELECTRONIC DESIGN  
**Krell FPB650M**

BEST VIDEO PROJECTOR  
Vidikron Vision One

BEST LOUDSPEAKER DESIGN  
**Wilson X1 Grand Slam II**

BEST LOUDSPEAKER VALUE  
Sonus Faber Concerto

BEST AESTHETIC DESIGN  
**Vidikron Vision One**

BEST NEW AUDIO COMPANY  
Z-systems

**Absolute Sounds** has enjoyed 20 years backing the winners in a world of high-end audio and video equipment crowded with questionable components. Our expertise is to spot the winning brands and products as they emerge and bring them to the ears of our discerning customers. Absolute Sounds searches the world for components without equal and tests them for excellence—their performance in the prestigious **Golden Note Awards** proves our claim. We are International Distributors and Consultants for specialised audio and home cinema equipment.

We offer full-range and hybrid electrostatic loudspeakers from American technologists **Martin Logan** and the ultimate in monitoring speakers from **Wilson Audio**. **Sonus Faber** loudspeakers from Italy are handsome high performance/high value products. Outstanding home cinema system components, amplifiers and Compact Disc replay products come from **Angstrom**, **Audio Research**, **Theta** and **Krell** while **Vidikron** offers the ultimate in performance and aesthetics from projection television. Cables are by **Transparent**.

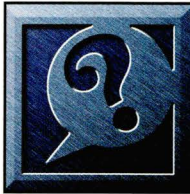
Contact us now for details of all our products, prices and your nearest dealers where you can experience the Absolute best in audio and home cinema equipment. Back the winners.



The prestigious Golden Note Awards are made each year by The Academy for The Advancement of High-End Audio. Winners are shown in bold type.



**Absolute Sounds**  
58 Durham Road  
London SW20 0DE  
Telephone 0181-971 3909  
Facsimile 0181-879 7962  
Email info@absolute-sounds.com



# HELP!

Having trouble reaching audio Nirvana? Worry no more, Choice has the answers!

## QUERY OF THE MONTH

### SHAKEN AND SLURRED



Congratulations on the new format – it's so much more informative than the competition. I've recently added a pair of superb Celestion A3 to my kit (Marantz 17KIS on a Seismic Sink, AQ Quartz 3 i/connects, Audiolab 8000S and PX bi-amping via AQ Crystal). They sound fabulous but I think they're highlighting a problem further back in the chain. There's some slight slurred sibilance on some vocals – a kind of Sean Connery effect, which might be a trait of the Crystal cable. There's also a steely, vibrating edge to operatic sopranos.

I need to upgrade the cables to accommodate a change of listening room in any case, so your suggestions for a warm, detailed bi-amp cable (or two runs of different treble/bass cables) would be very welcome. Over the longer term I will probably move towards preamp plus four monoblocks: with an eye to the new TAG McLaren range if they offer an upgrade deal to old Audiolab customers; or to a good deal on 8000Q plus MXs if they don't. I look forward to your reviews of the new range.  
*Roger Flory, Ipswich*

*JK Replies...* You're the second reader with cable conundrums and the 8000S/PX combo this month – is there something we haven't been told? However, you have been rather more explicit in your requirements, which helps. It's likely that some of your problems stem from the AQ Crystal – we found some graininess when it was reviewed. The cables to consider are much the same as those suggested in Nicola's letter (right) with the addition of van den Hul's The Wind and Audio Note's AN-L. We don't recommend mixing speaker cables for treble and bass, because although this can be used as a subtle tone control, you are introducing variations in timing and dynamics that will mess things



### GET A JAMO LEATHER CD WALLET!

Every issue, the reader whose letter is our Query of the Month, will receive one of these stylish, leather CD wallets, courtesy of those lovely people at Jamo Loudspeakers.

## THE GODFATHER OF VINYL



I would like to ask you a simple question about vinyl. Some days ago I discovered a box of old Italian 78rpm records in my house.

The problem is that they're full of dust and mildew. How can I clean them without spending money on special liquids? Is this possible, or would I be better off putting the records back in the dusty corner of my house?  
*Daniele Lorenzon via e-mail*

*JK Replies...* We have to admit that 78s are rather beyond our day-to-day experience here at HFC

Towers. We have heard fantastic results on occasions, but mildew removal is not something we've tackled lately. Shellac, however, is pretty hardy stuff and as good a place as any to start would be with warm, slightly soapy water and a soft cloth. This is the same approach recommended for particularly soiled vinyl. That should get rid of the worst of it, then when they're dry, use isopropyl alcohol heavily diluted in distilled water to remove any remaining residue.

We presume that you have something suitable to play them on, hidden away somewhere!

## MAKING THE CONNECTION



Could you please advise me on the best interconnects and speaker cables to use with my separates? I have the following set-up: Marantz CD-63 SE CD player, Audiolab 8000S on the treble and 8000PX for the bass with B&W CDM1 speakers.

Can you recommend interconnects for the 8000S and 8000PX? I am currently using one metre Chord Cobra. Can you also recommend speaker cable for bi-amping with the 8000S and PX? I am currently using Audioquest Indigo 2.  
*Nicola Morris, Gowerton, Swansea*

*JK Replies...* Cable upgrades are tricky things, as interactions between components can often affect the perceived balance of the cable. There is also the question of what you wish to achieve – exactly what is it about the current set-up that you feel is lacking?

Looking at your system, it seems pretty well balanced, albeit

that the amp and speakers are capable of supporting a better front end – an area we suggest you concentrate funds on at some point in the future. However, if you are keen to get re-wired, there are a couple of courses open to you. The first would be to continue mixing and matching brands with the aid of your dealer; the second would be to go for single brand connections throughout – an approach that works well in many instances. Try combining Kimber Hero with twin runs of its 4TC speaker cable, or DNM's insubstantial (but very effective) cables if great timing is your goal. One ideological (if not brand) match that we enjoy is Acoustic Precision Interconnect with Electrofluidics Monolith 20/20 speaker cable, although the speaker cable may prove a little expensive if you need long runs. Goertz M1 would be a good alternative.

♥ Kimber 4TC – match with Hero.



## "THE SOUND OF EXCELLENCE"

For 30 years Jamo, Europe's largest loudspeaker manufacturer, has been offering creative solutions for hi-fi and surround sound. Millions of people around the world have chosen Jamo products for their combination of technical excellence and the best in Scandinavian design. To find out why you should be choosing Jamo, call free on 0321 300316 for a free information pack. Lines are open 24 hours a day, every day of the week. All callers will be entered for our free draw to win one of 10 exclusive leather CD wallets every month. Don't forget to mention Hi-Fi Choice when you call.

# Jamo®

Call Free 0321 300316 and WIN

<http://www.jamo.co.uk>

**CHANGING ROOMS**



**My system at present is: Arcam Alpha 8 CD player and amp, B&W DM601s on Sound Organisation stands, Yamaha KX580 tape deck and Denon TU-260L tuner. It's linked up with Audioquest Ruby II and Indigo II.**

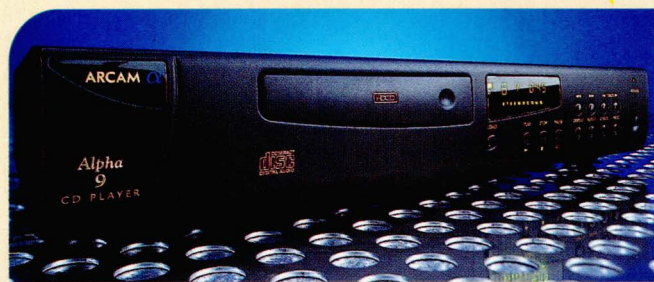
I would like to get more focus and detail, while keeping the sound on the warm side of neutral. As my room will shortly be changing, I would much rather hang on to the speakers for now and change the amp for something in the £600 to £700 range. Would the 601s cope with this?

Soundstaging is of less importance than tonal accuracy and remote control is essential. My musical tastes are wide, ranging from acoustic blues to Portishead. *Carlton Fry, Port Talbot, South Wales*

*JK Replies...* To take your latter point first, the DM601 will revel in a better amplifier; whether they will be able to make the most of one is another matter. To achieve your aims, a speaker upgrade needs to follow the amp change in short succession — at least as soon as you have moved. As for suitable candidates, you seem satisfied with the balance of the current set-up so it makes sense to move up the Arcam range for your new amp.

There are two obvious options: you could either bi-amp with an Alpha 8P or trade in your amp for an Alpha 9. The latter option will give you more detail and focus, while the former will beef up the sound some. We recommend the remote control 9.

● **Move up the range with Arcam.**



**HINTS & TIPS**

In theory, the more power an amplifier has, the louder it will go. However, sound quality plays a part, and some costly low-powered valve amplifiers can sound powerful despite lack of paper Watts. More important than high power is an amplifier with sufficient drive to partner the loudspeakers of your choice.

Most modern loudspeakers are fairly efficient (sensitive) and easy to



drive, so this makes the amplifier's job easier. But if your choice falls on a speaker that's insensitive with a complex crossover, you may need a very big amplifier to maintain sound quality. Don't forget that the relationship between volume level and power isn't linear. Every time you double amplifier power, the sound level increases by just 3dB. To subjectively double loudness, you need to increase output power by a factor of about ten.

**UNE ALLIANCE DE DÉTAIL**



*Je cherche un mariage fructueux avec mes Zephyr mk2 dont le maitre mot serait l'EMOTION: une alliance de détail, vivacité, dynamique, texture, avec une image stéréophonique précise.*

Mes écoutes sont éclectiques: jazz, trip-hop, pop, classique...

Mon budget est de +/- £1100 pour le CD et amp. Le choix pour le lecteur CD se concrétise pour le Marantz CD-63MKII KI Signature, mais pou: i'ampli, mes envies se tournent vers: Audio Analogue Puccini (SE ou non), Musical Fidelity A2, Thule Spirit Serie, Magnum IA170. *Neira Qoqua, Biez, Belgium*

*JK Replies...* Un mariage fructueux, eh! Le Triangle Zephyr est un speaker sensitive et dynamique, je suppose, et le Marantz est un lively little CD player avec aplomb et spirit. So un amplificateur avec un

**TWO FOR THE PRICE OF ONE**



● **The solution could be Pioneer.**



**I have been using a Denon AVC-2800 AV amp for listening to music with a Pioneer PD-8700 CD player and Musical Fidelity X-DAC. Now I am planning to get an integrated amp — probably Musical Fidelity's X-A1. The size of my living room, which is about 11' x 14', is not quite enough for two pairs of speakers. I am using KEF Q70s at present.**

Is it OK to have two pairs of speaker cables and plug in either of them whenever I listen to music or enjoy movies, or plug in both of them to the Q70s and only switch on one amp at time?

I know that there are integrated amps which provide an AV by-pass function, such as the Krell KAV 300i, but that's a bit expensive — are there any other suggestions? *Edmund Cheung via e-mail*

*JK Replies...* It seems likely that the integration of multi-channel AV and stereo hi-fi set-ups could become an important topic for manufacturers to address in the near future. Few affordable AV amps give decent stereo performance, but who wants two pairs of main speakers in their living room?

At present, there are no easy and reasonably-priced answers. All you can do is swap speaker cables between amps, or purchase a switching box to save the inconvenience but deteriorate the sound (though not grotesquely). I suspect that this may be your only option in the short term: buy a decent budget amp such as a Cyrus SL, Pioneer A-300R Precision or a Magnum IA170, and get a QED MA19 system switching unit (£30) to split your speaker cables at the amp end.

**IS LESS MORE?**



**My system comprises a Marantz CD-72II SE CD player, Musical Fidelity E-20 preamp, Sherwood AM7040 power amp (seven-year-old MOSFET design) and a pair of Totem Model One loudspeakers. I listen to baroque and chamber music as well as jazz and rock.**

I want to replace the Sherwood and have a budget of £1,000. I have considered a pair of Musical Fidelity X-A200s or a NAD 218, or a pair of NAD 216s bridged for big power! Alternatively I could go for less power but more refinement, from the likes of Electrocompaniet's AW60B, Audio Analogue Donizetti etc. *Zoltán Gerencsér, Kemece, Hungary*

*JK Replies...* The Totem Model 1 is a power hungry little brick, but subtle and effective, too, and we would recoil at the thought of throwing THX-style power at it. Rather we would encourage a quality and power route that, though expensive, should get the results required. To this end, the Musical Fidelity X-A200 and Sumo Polaris seem to be among the most suitable choices. Both offer decent power output, combined with the sort of finesse that your speakers deserve.



**INSALATA TRICOLORE**

I currently own the following set-up: Sonus Faber Concertinos, REL Storm sub and an Analogue Audio Puccini amp.

I was thinking of buying Arcam's Alpha 8SE CD player or Musical Fidelity's new 24-bit X-RAY. Which of them do you think would combine best with my set-up?

Please feel free to make any other suggestions as long as they are in the same price bracket  
*Shrikesh Pattni via e-mail*

**JK Replies...**It's a pity we haven't come across any fine-sounding yet affordable Italian CD players for you to complete the system with style. However, there are a few very nice options to consider.

Although, as of this month, we wouldn't include the X-RAY among them, the Alpha 8SE is, as ever, a contender, as are the Alchemist Nexus, Marantz CD-17, Mission Cyrus dAD3 and Musical Fidelity A2. There is also the Helios Model Three — we haven't yet formally

tested this French model, but reports have been favourable and its stablemates most impressive.

Another option might be a DVD Video player giving the option of playing the new media as well as CDs. But if the results of our latest budget CD player tests (p74) are any indication, for the meantime you'd be best served by a dedicated machine. Matters might change when DVD Audio players come on line, but as that won't be until later next year, and bearing in mind that early versions are always expensive, you're best off with a test-proven CD player for now.

**“ ...There are a few very nice options which you could consider within your budget — and the Alpha 8SE is, as ever, one of the strongest contenders... ”**



◉ Arcam's Alpha 8SE is a contender.

**REGGAE TO BAROQUE**

My system is a NAD 705 receiver, Marantz CD-40 CD and Mordaunt-Short MS-20i speakers.

I want to improve the sound and think the best way is upgrading the CD. As it's old and I can't find it in any reviews, I am unsure what to spend. I listen to all types of music from reggae to baroque, so I need a good all-rounder. Vocal quality and realism is important. As I am in Israel, I may not be able to obtain specialist makes, although there is no problem with Marantz, Sony, Kenwood or larger firms' models.  
*Steve Rogers, Israel*

**JK Replies...**The issue here is what standard of player will represent a significant upgrade, yet not unbalance the rest of the system. Given the progress of digital audio technology, modern players are more than a match for five-year-old ones twice their price and, in the context of your speakers and amp, a budget of £250 to £300 will bring rewards. Denon's £180 DCD-635 would be worthwhile; also listen to the Kenwood DP-4090 and the Rotel RC-D971 (see CD player review this issue, p89).



◉ Kenwood DP-4090

**MATCH THAT TUNE**

I've got a bit of a problem with choosing the right tuner to go with my existing system. I've shopped around and have been trying to educate myself by reading articles in *Hi Fi Choice*. My existing system comprises Yamaha DSP-A780 amp, Marantz CD-63SE CD player, Tannoy 633 speakers and Yamaha NSE80 sparklers, to provide the rear sound effects, with a KEF Model 90 Reference Series centre speaker.

I am not quite sure which tuner would be best suited as I am looking for something that would

blend in perfectly with my existing system. My budget is £200-300.

Could you please also advise the colour of the tuner, as all the separates are black and any other colour would spoil the décor.

I'm not aware of what RDS stands for — please explain.  
*Jason Masand, London SW16*

**JK Replies...**Let's take this one from the end. RDS stands for Radio Data System, a tuner-feature primarily designed for in-car use, but which serves to display the name of the radio station on domestic radios. In terms of finish, it's difficult to buy a tuner which isn't black, so you

shouldn't have any trouble there.

As for selecting a tuner, there is the spectre of DAB (see pages 9 and 55) looming, with the long-term prospect of FM broadcasting (as we know it) being switched off eventually. However, as this isn't likely to happen for up to ten or 15 years yet, an FM tuner is still the cheapest way to listen to free music. Allocate half your budget to a decent aerial installation and go for this month's winning tuner, the Marantz ST-48 — it'll match your CD player a treat.

◉ Marantz ST-48 is the budget superstar in this month's test (p43)

**HINTS & TIPS**

Source components — turntables, CD players, radio tuners — play a vital part in determining the final quality of sound. If the source is badly flawed, it's very hard to get a good sound from your system. But what can go wrong? Assume a poor CD player that sounds edgy and tonally thin with subjectively compressed dynamic range.

On such a CD player, all discs (to a greater or lesser degree) would exhibit the characteristics outlined. Any recording that already sounded thin or edgy would have its faults emphasised by the complimentary faults of the player. If the ideal system lets you play most CDs and enjoy the music, you'll have to go a long way to improve upon it.

Of course, it's possible for weaknesses in other parts of the chain to highlight small shortcomings in the source. So if your system is unusually source-critical, it's possible the fault lies with the amp and speakers!



**RETURN OF THE MINI**



I am very interested in the TEAC AV-500 mini system, retailing at £900. This appears to be a fabulous little set-up, comprising a strong set of components.

The problem is that it doesn't come with speakers and the choice in the marketplace is so wide! Also, this is an obvious way to spoil everything by choosing the wrong ones.

To further complicate things, I cannot decide if bookshelf speakers would be more appropriate than floorstanders.

What's more, TEAC doesn't make any recommendations of its

own. Any advice from you would be gratefully received.

*Alex Knell, Sandy, Beds*

**JK Replies...**When we reviewed this system in its stereo guise (issue 174) we got fine results with Mission's 731 Pro speakers, a model that has recently been replaced with the 770 but may still be around in the shops. If you need a surround system on the other hand, Alan Sircom from *Home Entertainment* suggests the Tannoy Mercury range. These are fine speakers which offer the sort of easy load that your amp will be able to cope with.



◉ Mission 731 PRO – now supplanted by 770.

**CRAMPED CONDITIONS**



My system includes a Musical Fidelity X-A1 amp, Denon DCM460 CD multi-player and Monster cables. I'm looking for a pair of bookshelf speakers with deep and controlled bass, sweet and detailed treble.

My room measures 3.5x4.5m and there is no floor-space. My musical tastes are mainly rock, blues and jazz. I have been considering the Monitor Audio Monitor 2 Gold, B&W DM601 or CDM1SE.

Can you recommend the best match?

*Fernando Cappucci, São Paulo, Brazil*

**JK Replies...**Another 'moon on a stick' type request, we fear. With a real world amplifier like the X-A1 there will be a limit to the extent of deep, controlled bass on offer, but hopefully not too obvious a limit. In fact, if you really intend to mount the speakers on a bookshelf, it would pay to be fairly cautious with regard to deep bass. This can be difficult to control with bookshelf mounting.

The models we would suggest you audition would be as follows: Castle Isis, Mission 750LE, Musical Technology PM15,

Ruark Epilogue, Neat Critique 2 and B&W DM602. The latter has greater bass extension than the alternatives, yet represents an easier amp load than the CDM1SE and provides better sound quality than the DM601.

◉ The Castle Isis may be just the space-saver you need.



**HINTS & TIPS**



No component in a hi-fi system is more sensitive to positioning and placement than the loudspeakers. Where you place the speakers in a room, what you sit them on, how far apart they're placed, where you sit in relation to them – all of these things can profoundly influence the sound you get.

It helps clarity and bass tightness and control if the speakers are mounted solidly, and most enthusiasts use carpet-piercing steel spikes to couple the speaker firmly to the floor. Small speakers should be mounted on rigid spiked stands with the high frequency unit at ear level.

The further apart the speakers are, the wider the stereo soundstage. But beware the 'hole in the middle' effect, which creates weak central images. Angling the speakers so that their axes cross in front of the listener, helps to give a more solid centre image and also reduces treble brightness.

**YESTERDAY'S SPEAKER**



I have an ageing hi-fi, the newest part of which is a Pioneer A-400 amp. The CD player is a Philips that was a Best Buy at around £100 when I bought it around 10 years ago. The Dynaco bookshelf speakers are even older. I am looking to shell out around £500 on some new compact loudspeakers.

I see the Tannoy M1 is very highly rated, but maybe I could do even better in my price range. I guess you are going to tell me to throw out the entire system, but any recommendations you make will be welcome.

Actually, I was thinking about changing the CD player as well, which I had provisionally put around £300 aside for.

*Peter Mapleston, Milan, Italy*

◉ Try PMC TBI or TB1S speakers.

**JK Replies...** Not being familiar with Dynaco speakers, we'll have to take your word that they are the weakest link. The CD player would undoubtedly benefit from replacement but can wait until you've got your speakers and the need becomes more dramatically apparent.

The A-400 was a popular amp in the early '90s, its strength being the ability to

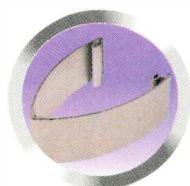
work with more expensive speakers quite happily. You should aim higher than Tannoy Mercurys, as good as they are. Instead, go for something that will make the most of the amp without overloading it like a PMC TB1 (or its cheaper non veneered TB1S brother), B&W DM603 or a Heybrook Heylios. Spend the rest of the budget on decent stands and cable.



# DON'T BUY IT JUST BECAUSE IT'S BEAUTIFUL



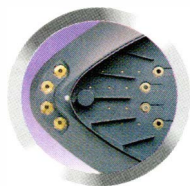
**Titanium dome tweeter.**



**Extruded aluminium cabinet.**



**Die-cast aluminium top cap.**



**Gold plated bi-wire terminals.**



**Audiophile crossover components.**

These may be the best looking speakers ever made - but our engineers hope you'll ignore their stunning appearance.

They admit that the extruded aluminium cabinets are undeniably elegant. But they want you to appreciate how their shape and rigidity reduces internal resonance.

And they can understand how you might be seduced by the gorgeous titanium dome tweeter. But they'll ask you to close your eyes and enjoy its remarkable clarity instead. After all, it's thanks to their pioneering work in Finite Element Analysis that the HF response is so uncannily accurate and smooth.

Of course, they acknowledge that people are impressed by the sight of dual sets of gold plated binding posts and massive bus bar connections between the terminals and the crossover. But they respectfully point out that uncompromised signal transfer is what really counts.

At Celestion, we've always been quietly proud of our loudspeaker technology. But sometimes, design genius is just impossible to hide.



# “Your FREE Yello Power Cable”

## Guarantee improved hi-fi sound

Subscribe to Hi-Fi Choice and you'll receive the Russ Andrews Yello Power Cable, absolutely FREE. This high quality power cable is a simple and effective pollution filter which will give you superior sound quality and make listening to music a more pleasurable experience. Retailing at £19.95 it's yours FREE when you subscribe to Hi-Fi Choice within the next 7 days.

## How to claim your FREE Yello Power Cable

Simply complete the form below and return it with your subscription payment before the 7 day deadline.

**EXPERT TIP** - connect it to your TV and you'll even improve your picture.

# FREE

- BETTER BASS
- SWEETER TREBLE
- LESS DISTORTION



## HI-FI CHOICE FREE YELLO POWER CABLE SUBSCRIPTION

For a FREE copy of the Russ Andrews brochure FREEPHONE 0800 373467 (UK only)

Please start my Hi-Fi Choice subscription from the next available issue and send me my FREE Yello Power Cable.

**OR**  I am already a subscriber, please extend my Hi-Fi Choice subscription and send me my FREE Yello Power Cable.

### YOUR DETAILS

Mr/Mrs/Miss	Forename	Surname
Address		
		Postcode
Daytime phone		
E-mail		

### YOUR CHOICE OF PAYMENT

1 Cheque or 2 Credit/Debit Card payment

12 issues  UK £29.97  Europe £43.99  World £56.99

1  I enclose a cheque made payable to: Dennis Publishing Limited

2  Please charge my

Visa  Access/Mastercard  AMEX  Switch (Issue No. )

Card Number

Expiry date

Signed  Today's date

Please indicate here if you do not wish to receive details of further special offers or new products. All gifts subject to availability. Dennis Publishing reserves the right to exchange this gift for one of equal or higher value.

**IN A HURRY? CALL THE CREDIT CARD HOTLINE NOW ON 01454 620070**

**UNKNOWN QUANTITY**

I am in the process of purchasing a CD player, amp, and speakers. After initially listening to Copland CSA 28, CDA 266, and Sonus Faber Concerto speakers – which I liked very much, especially the build quality – the only reservation was that the sound did not appear as open or sweet as a Meracus Intrare and Tanto. We preferred this sound but the units do not appear to have the weight or build quality, and I've never heard of this hi-fi manufacturer.

Whilst I appreciate many systems are good and choice is down to personal preference, since this is a big purchase, I would appreciate some advice. Would different cables make a significant difference to the Copland's openness? Is the Meracus an obscure make, and is it of comparable quality?

Our room size is about 15x12ft, but I expect to move into a larger listening room. Listening is varied,

from chart music to some classical and jazz.

*Richard Hyde, Woking, Surrey*

**JK Replies...**Meracus is a German brand, from the same company that makes the glamorous Pyramid range (not available over here). We looked at the Tanto last year, and found it to sound very good; less positive comments however, were levelled at finish and styling. So we would seem to agree thus far.

As for cables, yes they do make a difference, especially to aspects such as openness, and it always pays to buy cables at the same time as the rest of the system. That way you can listen to the dealer's recommendations and make your own comparisons with ease.

I would recommend you do this with regard to the whole system, at least a couple more times, thus acquainting yourself with the variety of options available. And make sure you play both your quiet and loud music through them.



◉ Copland CDA 266 – as sweet as a Meracus Tanto?

**SPOILT FOR CHOICE**

I intend to buy a CD player, amplifier and a pair of speakers and am able to spend around £600-£900 per item.

My room size is 5 x 3 meters with a ceiling height of 2.7 meters. I would have to place the speakers relatively close (about a foot) to the rear wall (but far enough from the corners) for reasons of practicality. I would prefer floorstanders.

If you can't recommend suitable floorstanders, a pair of good quality bookshelf types (for close-to-wall placement), with matching stands, may be an alternative.

My taste is mainly electrical and acoustical jazz with some classical and rock.

I would like an open (but not over-bright), detailed sound, with weight, attack, and 'bite', plus fair bass extension. Unfortunately, Linn and Naim equipment is not available in this country.

*Zoltan Pentek via e-mail*

**JK Replies...**With the exception of the Linn Keilidh, there is only one floor-standing wall mount speaker that both fits your budget and warrants Recommendation. This is Castle's £500 Kendal – however, it may not meet your criteria for bass extension. We would suggest a decent stand-mount instead. The models that come to mind are the

◉ Acurus ADC11: a CD to consider.



Audio Note AN-J/B or Acoustic Precision's Eikos FR1. Although the latter doesn't really plumb depths either, it tends to make up for it with sheer verve.

So, working around the Audio Note, try and hear some of the following amplifiers: Audio Analogue Puccini, Copland CSA8, Densen Beat B-100mkII, Musical Fidelity A2, Roksan Caspian and Sony TA-F3000ES. You should be able to find some of these, and a comparative listen through the AN-J/Bs will quickly reveal which has the best balance for you.

As for a source component, favourites in your price band include the Acurus ACD11, Arcam Alpha 8SE, Helios Model 2, Cyrus dAD 3Q and Pioneer's PD-S505 Precision. Again you'll find a broad range of styles here but each should have something to tempt you – all you have to do is listen and enjoy.

**A GIFT HORSE**

I'm taking the first steps towards a new upgrade and require your Help!

I've just purchased some KEF Q35s to replace my ageing Wharfedale 801s, and have also purchased a Soundstyle HC100 rack to put my (soon to be replaced) Technics separates on. One of the drawbacks (!?) of living in Cyprus is the lack of direct choice, even though mail order is a possibility, with Marantz, Audiolab, Rotel and Mission being the only makes on offer.

I have a Technics SL-P420 CD and a SU-V55A amp connected by some vdH 'The Source'. Both are 12 years old now, and don't really do the KEFs justice. I have been offered a new Audiolab 8000CD and 8000S integrated amp for £1,000 but is this offer really too good to be true, should I put this money on something else? I listen to a wide range of music (classical

◉ Marantz PA-66KI amp.

to rock) and, as I often move service quarters, the room size varies. *Alan Cook, BFPO, Cyprus*

**JK Replies...**Yes, the Audiolabs do look like a bargain, but there is a reason for this. The Audiolab brand is no more – it has been replaced by slick new TAG McLaren products in the recently-launched F3 series (see pages 33 to 37). However, this doesn't make Audiolab stuff any less desirable at those prices.

Alternative options from your rather tight shortlist should include the Rotel RCD-971 CD player and Mission Cyrus SL amplifier or Marantz's budget KI Signature kit, the CD-63mkII and PM-66. The latter is the more proven option of the two.

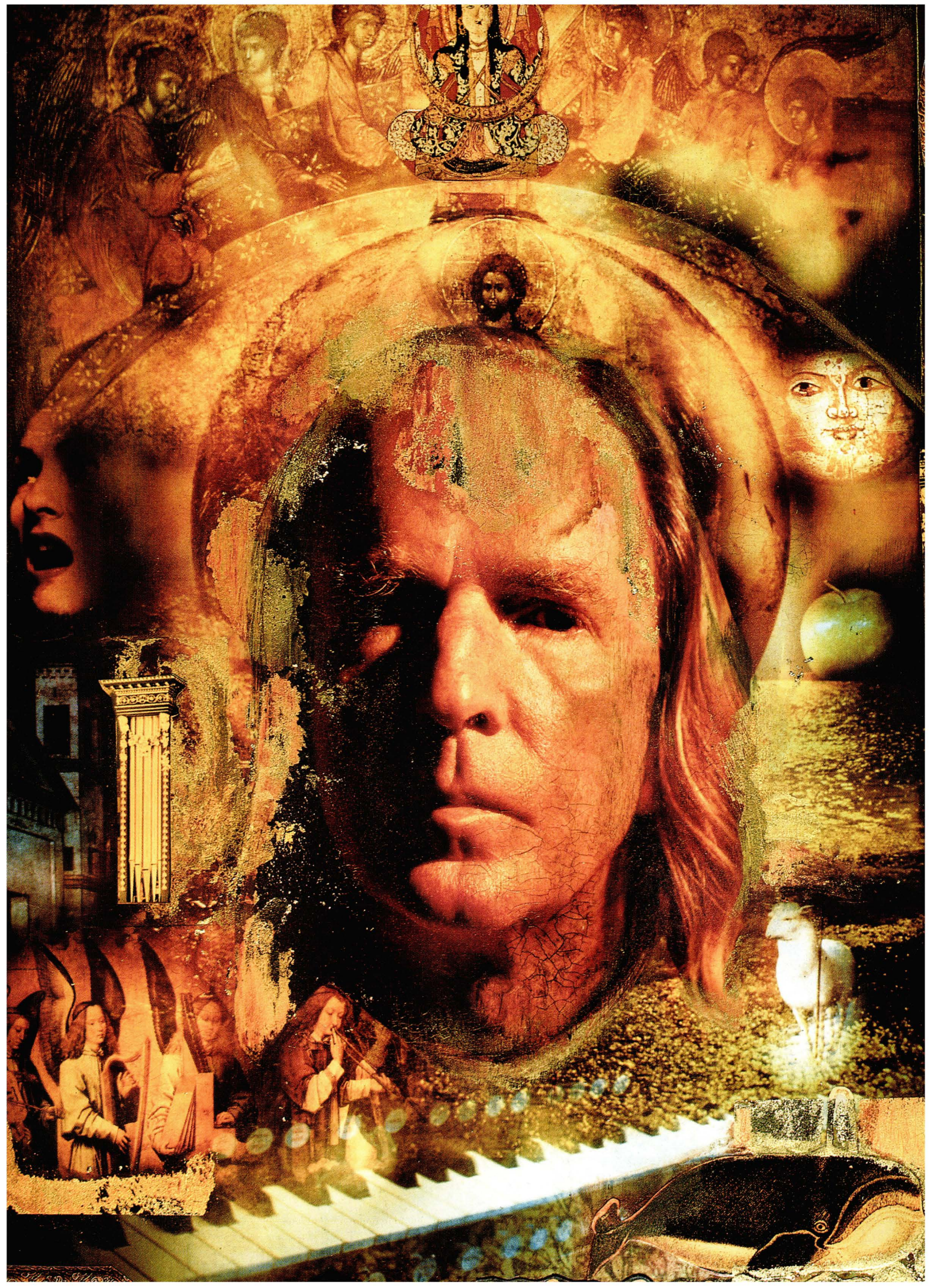
◉ TAG McLaren 60iRV replaces 8000s.

**HINTS & TIPS**

Although it's possible to buy a complete separates hi-fi system from a single maker, most people prefer to assemble their set-up from different manufacturers, cherry-picking the best items from each range. By doing the latter, you should end up with a combination that gives the best sound possible for a given price. Sadly, it might not work out that way.

Although magazines do their best to give authoritative and impartial advice about which components sound best, a system put together from 'best buys' won't necessarily produce stunning results. When selecting a system, you're building a team that (hopefully) will produce results greater than the sum of the parts.

So take care to listen to the various combinations before you buy, and take advice from your dealer as to what goes best with what. Careful choice of interconnect cables will help to fine-tune the sound to your exact taste, but won't save a mis-matched system.



TECHNICS. THE CLOSEST YOU'LL GET TO THE SOUND IN HIS HEAD



If there is evil in complexity, then surely simplicity will provide us with the divine. That's what John Tavener's music aspires to. A sound soars heavenwards on wings of pure devotion. And for that you need devoted Technology. Like the Technics PS 770D CD Player that can lift the veil and put you face to face with the conceiving mind. It takes a miracle of invention to make this happen. A miracle like Silence Technology. Wherein the Technics 'Take' Capacitors stay faithful to all the ambience of the original recording. And the virtual battery operation dissolves all obscuring noise, revealing every facet of the performance. The illumination is there for all to hear. The mystery of every note, every pause revealed. Music so powerful that even the silence is not the silence in which music dies, but in which it lives forever. Indelibly marked on the soul. For a brochure and your nearest authorised dealer call 0990 357 357. **Technics**



# ROKSAN *Caspian* at Musical Images

*Classic Design. Timeless Audio.*

**ROKSAN** Caspian is now on permanent demonstration at all four branches of Musical Images. Experience the finest in audio at London's premier Hi-Fi and Audio Visual dealer.

An attractive, stylish amp. Caspian is a big, warm-sounding amplifier with real-world ability to perform with tricky speakers. Roksan Caspian is a cracker.

REVIEW CASPIAN AMPLIFIER  
WHAT HI-FI MARCH 97

A £700 bargain. Mixes the best of solid state and valve worlds to produce a seductive sound.

The Caspian CD impresses like the Caspian integrated did. This is a very capable player and well worth £900.

REVIEW CASPIAN CD PLAYER  
HI-FI WORLD JUNE 97

Hi-fi rarely sounds as good as this.

Sounds absolutely great.

Very difficult to fault.

REVIEW CASPIAN AMPLIFIER & CD PLAYER  
T3 MAGAZINE JUNE 97

Clearly ranks as Best Buy material thanks to its combination of musical excellence and fine build quality.

REVIEW CASPIAN AMPLIFIER & CD PLAYER  
HI-FI CHOICE JUNE 97

With four branches around the M25, twelve demonstration suites, the widest choice of top products, professional staff that can advise on every requirement and a dedicated installation and interior design team, at Musical Images we offer the complete service.



MUSICAL IMAGES:  
BEST INSTALLATION  
OF THE YEAR  
HOME CINEMA CHOICE  
AWARD WINNER 1998



e-mail: [sales@musical-images.co.uk](mailto:sales@musical-images.co.uk)



Open Sundays

MUSICAL IMAGES IS AN AUTHORISED MAIN DEALER FOR OVER 100 LEADING MANUFACTURERS



# Have cake, will eat it

Lavardin's Model IT has amnesia, but apparently this is a good thing! Paul Messenger finds out more.

Integrated amplifiers don't often make it into *Statements*, but integrated amplifiers don't often cost £3,200. And if that sounds like a lot of money to pay for a stripped-down, two-by-40 Watter – even one as chunkily built as this – don't be fooled. Lavardin's IT is actually one of hi-fi's great bargains. £3,000 is not a lot of money by serious high-end standards, yet this unassuming-looking black box is a genuine high-end contender, no question.

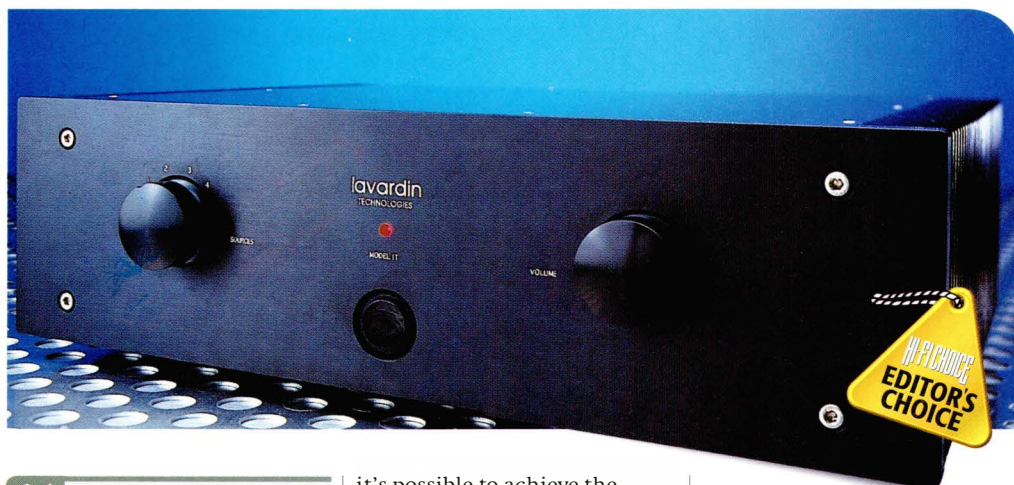
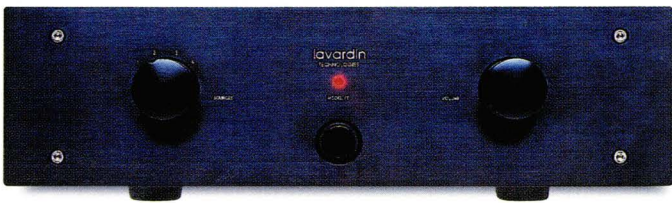
You've probably never heard of Lavardin Technologies. Neither had I until last summer, when I visited speaker manufacturer JMLab in France, which used amplification from Lavardin to demonstrate its top-of-the-line Utopia models. I liked what I heard so much, I arranged to borrow one via UK distributor Absolute Analogue.

Now I'm even more impressed. It took only a few seconds after switch-on to realise that this amplifier was something very special. The midband has the delicacy and transparency normally associated with valve-driven designs, while the bottom end has the sort of power and authority attributed to solid-state electronics. In a very real sense, you can have your cake and eat it.

Ever since then I have been trying to find any significant chinks in its all-round performance. I don't fall in love with amplifiers very often, but



- The IT doesn't major on features, with only four inputs and 40 Watts.
- Simple lines and rather nice knobs give the Lavardin high-end appeal.



“...£3,000 is not a lot of money by serious high-end standards, yet this unassuming-looking black box is a genuine high-end contender, no question.”

Lavardin's IT has inspired some unexpected passions. I even find myself prepared to suffer the loss of remote-control idleness for the sake of the glorious sound quality.

## A DISTORTED MEMORY

According to the company, the technical basis of the IT arose from identification of a new form of distortion, called 'memory distortion'. For example, in valve amps, the electrons pass through a vacuum, which retains no memory, whereas solid-state silicon components retain a trace of flux after the passage of electrons. By choosing engineering components to avoid this 'memory distortion', the company claims

SPECIFICATIONS	
■ Dimensions	43x13x38cm
■ Power	40W/8 Ohms
■ Inputs	4 line

it's possible to achieve the transparency of the best valve amps, alongside the low distortion and wide bandwidth of a high-feedback transistorised design. (See [www.lavardin.com](http://www.lavardin.com) for more details.)

This concept is difficult to prove objectively, if only because current test equipment is naturally subject to the same effect, and it's also the sort of claim that immediately raises the hackles of any long-in-the-tooth reviewer. Happily, Lavardin's IT does live up to its billing. I can't prove the 'memory effect', and don't have the know-how to analyse the internal circuitry, but it does carry a ring of truth, both philosophically and subjectively. If many components tend to show an unwanted 'memory effect', for example, this would tend to explain why reducing the number of components tends to enhance sound quality.

It would also go some way towards explaining why the IT sounds so astonishingly 'clean' and free from hash and artifice. I found this extraordinary 'cleanliness' almost disconcerting at first, as it seemed to leave the music understated almost to the point of malnourishment. But the more time I spend exploring the high points of my very extensive record collection, the more I'm becoming convinced that this amplifier is actually more accurate than the competition.

Its music making is not only uncommonly 'tidy' and delicate, but also unusually informative. Previously

● The Lavardin IT proves that 'high-end integrated amplifier' is no oxymoron.

undeciphered lyrics on 'parental advisory' rap albums became intelligible, while the usual unwanted intrusion of vinyl surface noise was notably diminished. Timing is right on the button, the bottom end is deep, firm and even, while tonal colours sound uncannily 'right', and the balance is reassuringly neutral. All these factors were further enhanced by using Lavardin's own partnering interconnects.

The outline price-versus-power equation might not look too promising, the feature count is sparse in the extreme, and I'd certainly suggest that partnering loudspeakers ought to have above-average sensitivity. But in every important sonic respect the Model IT is a revelational experience, and I strongly recommend that all audiophiles should make the effort to give it a hearing.

## VERDICT

SOUND	★★★★★
BUILD	★★★★★
VALUE	★★★★★
PRICE	£3,200.00

■ Lavardin's discovery and banishment of 'memory distortion' has created an amp which combines the best of valve and transistor sound quality.

■ TWO YEAR GUARANTEE

✉ Absolute Analogue, PO Box 1532, Fordingbridge, Hants SP6 1SB  
☎ (01425) 654488

# Designs in the key of life

**TAG McLaren Audio draws upon motor racing heritage. But can its amp and CD combo go the distance? David Vivian investigates?**



**E**xcellence and desirability are not the same. Beautifully engineered as a TAG Heuer watch is, not everyone wants one for Christmas. What works for David Coulthard wannabees might seem vulgar and pretentious to, say, a member of the London Symphony Orchestra.

McLaren's image is even more uncompromising: smooth, state-of-the-art Formula One technology, the world's fastest and most expensive road car, science sharp enough to slice salami. "Efficient", "clinical", "winner" are key words. And yet you'll always see more Ferrari flags at a Grand Prix.

It seems to be a question of precision versus passion. McLaren and its associated companies may be at the cutting edge, but are perceived as being rather slick and cold-blooded. Ferrari is flawed but its fans detect heart and soul. So which company would you rather have making your hi-fi?

Perhaps that's a little unfair. TAG boss, Dr Udo Zucker, is a hi-fi buff who happened to be in a position to buy his own hi-fi company (Audiolab).

◊ Note dual speaker outlets and plentiful socketry on the 60iRv (above). Couch accessory! (right).

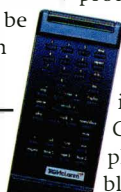
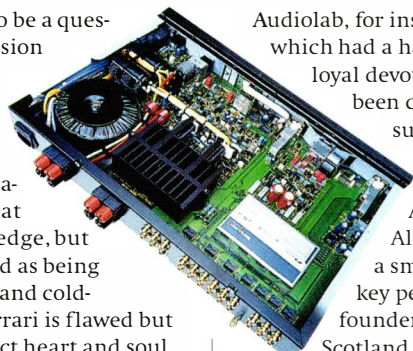
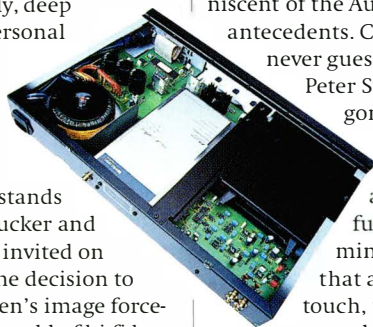
His ambition, he says, is to create a line of TAG McLaren hi-fi that outperforms the Krell/Apogee set-up he listens to at home — so far the best he's heard. So really, deep down, it's a personal thing.

However, the question, "do you actually like what TAG McLaren stands for?" is one Zucker and his team have invited on themselves. The decision to project McLaren's image forcefully into the world of hi-fi has been pro-active and glory seeking. It comes with a fully formed set of consequences.

Audiolab, for instance, which had a hard core of loyal devotees, has been completely subsumed by the TAG McLaren Audio hype. All that's left is a smattering of key personnel — founder Derek Scotland is Technical Director in the new régime — and the base architecture of Audiolab's 8000-series products, which are now TMA's entry-level F3 range.

If you squint from a distance at the £999 60iRv integrated amp and £1,248 CD20R stand-alone CD player, their size, shape and blackness are vaguely remi-

- ◊ The charm of grey: both CD20R and 60iRv have 4mm aluminium front panels.
- ◊ The high mass of the CD20R is no surprise with its crammed component bay.



niscent of the Audiolab antecedents. Close up, you'd never guess. Car designer Peter Stevens has gone for ultra clean surfaces and, on the amp, beautifully tactile aluminium knobs that are so good to touch, the remote powered volume hardly gets a look in. The casing has been re-engineered to exclude exposed screw heads and build quality is of a greater magni-

**"...If you get off on close-tolerance cardboard, sculpted black polystyrene and instruction manuals in CD jewel cases, TAG McLaren's lavish approach can't fail to impress..."**

tude than Audiolab ever attempted. All this has a direct correlation with TAG McLaren's expertise with metalwork and machining. The neon-blue LEDs, which look stunning against the black casework, were apparently chosen in pref-

erence to the more usual red or green items by a clinic of customers — obviously fans of Chord's latest amps.

Although the basic 8000 layout remains inside, all the PCBs have been redesigned and all the old components — that's right, all of them — auditioned against higher-grade items. If found wanting, they've been swapped for new components. TAG McLaren claims there have been thousands of changes and a considerable investment in man hours. Upgrades include premium-grade metal film resistors, high-spec servo op-amps, special power-supply capacitors and PTFE-shielded, silver-clad OFC wiring.

Beyond the sound, a word about the packaging and presentation. It's the best I've ever seen at the price (and some way above). If you get off on close-tolerance cardboard, sculpted black polystyrene and instruction manuals that come in CD jewel cases — so you can store them with your CDs — TAG McLaren's lavish approach can't fail to impress. You even get a discreet "F3" lapel badge.

Presumably by now, you won't need persuading that TAG McLaren's approach to designing, building and selling hi-fi is thoroughly professional. But you might be a little surprised by the way this gear sounds. Despite the deeply suggestive badges on their smooth black facias, 'racy' isn't the first word that springs to mind. Nor



Signature electronics: the micro-processor 'brain' of the 60iRv amplifier.

the second for that matter.

In sound, the TAG McLaren CD/amp ensemble is characterised by its transparency, lightness of touch and a lovely delicate treble. It's a lucid, undemonstrative, easy-breathing delivery, notable for its smoothness and absence of fatiguing effects. A wealth of information is present in the music but it's well integrated and weighted; you're not overtly 'aware' of it.

Of the two components it's the CD player that has the sharper focus and snappier timing. The CD20R can sound wonderfully incisive, clean and quick, but not muscular. Hard rock lacks grit and grunt, while big orchestral works never really let rip. They are always beautifully coherent and well resolved.

It isn't exactly hi-fi at 200mph but it is rather good. Think Audiolab but more refined. And more expensive. Seriously, now, what did you expect?

### CD20R VERDICT

**SOUND** ★★★★★

**BUILD** ★★★★★

**VALUE** ★★★★★

**PRICE** £1,248

Fabulous build and remote operation, but transparent, highly-detailed sound lacks meat and is bettered at the price.

■ 2 YEAR GUARANTEE

### 60iRv VERDICT

**SOUND** ★★★★★

**BUILD** ★★★★★

**VALUE** ★★★★★

**PRICE** £999

Looks, feels and sounds better than the Audiolab amp it supersedes. Smooth, open, refined, but lacks body and drive.

■ 2 YEAR GUARANTEE

Tag McLaren Audio (0800) 783 8007

## LAB REPORT

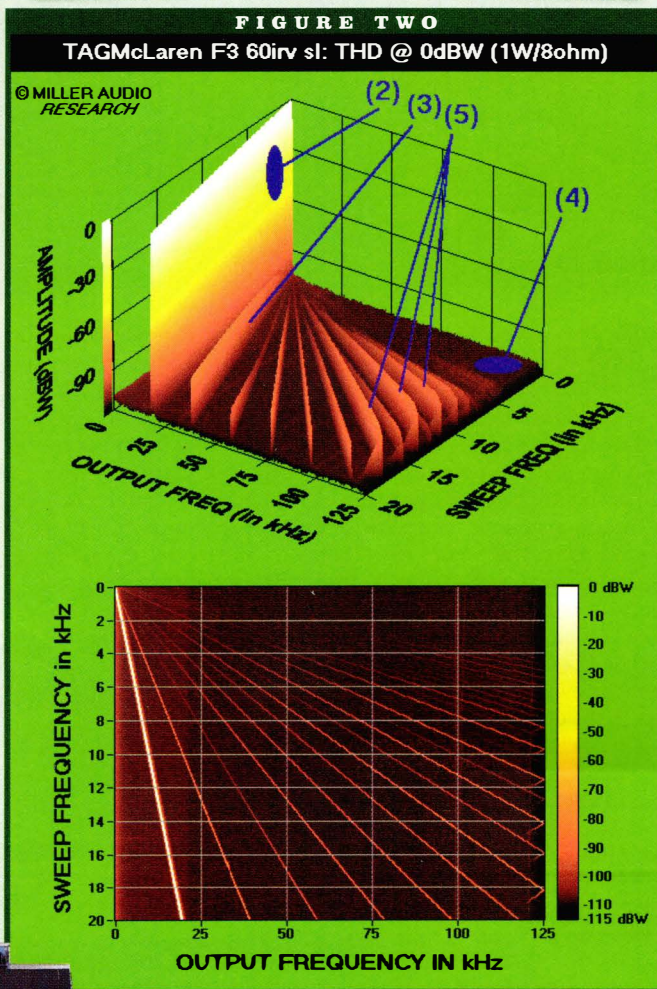
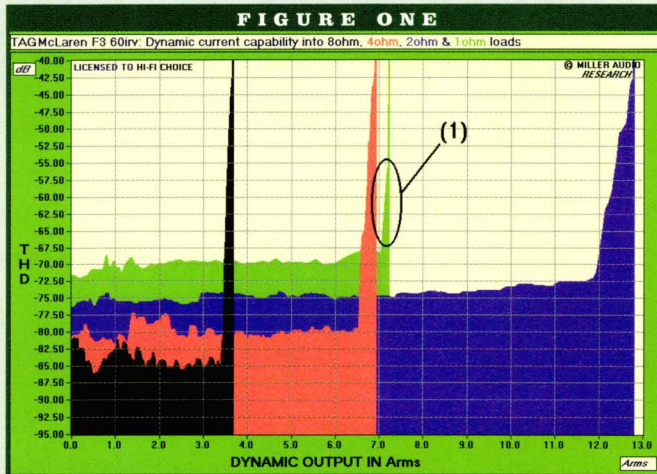
This is a combined Lab Report for both the 60iRv integrated amplifier and CD20R CD player, the latter being covered in more depth on p12 where it's compared to Audiolab's 8000CD. In brief then, the CD20R still uses the familiar combination of Philips CDM12.4 transport mechanism and Crystal's older CS4329 bitstream DAC. This is the 20-bit forerunner of the so-called '24-bit' CS4390.

Distortion is kept to vanishingly low levels (<0.0003 per cent) across the midband but increases by a factor of 100x through the far treble as the new analogue stage becomes stretched at peak outputs. Nevertheless, at more realistic levels (-5dBfs to -30dBfs), distortion actually falls back closer to 0.006 per cent to ensure a smooth-sounding treble. Low-level linearity remains true to within tight +0.0/-0.3dB limits over a full 100dB range and jitter is very low – if not state-of-the-art – at just 222psec. The 104.6dB S/N ratio is pretty typical for Crystal's DAC but it's the low +1.8dB noise modulation that really propels the CD20R forward.

The 60iRv amplifier is an evolution of the Audiolab 8000S. TAG rates this unit at 60W/8 Ohms but, in practice, it'll achieve around 80W/8 Ohms across the board, increasing to 108W under dynamic conditions (102W for 20msec). You might like to compare the dynamic current profile for the 60iRv with that for the 125M monoblocks (p36). These amplifiers use similar output stages and very similar protection circuitry, so the steady increase in current delivery to 12.8A into 2 Ohms (blue trace) followed by muting at levels above 7.2A into 1 Ohm loads (green trace) (1), is familiar. This trend is equivalent to a dynamic power output of 108W, 192W, 329W and 52W into 8, 4, 2 and 1 Ohm loads, respectively.

I've used the same vertical axis on both plots with -40dB (=1 per cent THD) at the top and -95dB (=0.0018 per cent) at the bottom. Note how the levels of distortion remain pretty much unchanged at both low and high power outputs, despite increasing uniformly as the amplifier drives tougher 8 then 4 then 2 Ohm loads, etc. By contrast, the 125M monoblocks have 5-10dB lower levels of distortion at low power.

The 3D plot allows us to visualise these patterns of distortion in response to a full 20Hz-20kHz sweep (2) at 1W/8 Ohms. Once again, a dominant second harmonic (3) accounts for much of the 0.025 per cent total, while the low (high



frequency) noise (4) allows an extended fan of high-order crossover distortions to thrust upward and outward.

Once again, note how the stronger 7th, 9th and 11th harmonics (5) – visible as brighter tracks on the 'overhead plot' – differ from those of the 125M. This is all part and parcel of the 60iRv's subjective 'flavour' which, with its healthy delivery, low 0.05 Ohm output impedance and

excellent immunity from RFI, should ensure reasonably consistent, if unexciting, behaviour.

PMi

### CD20R SPECIFICATIONS

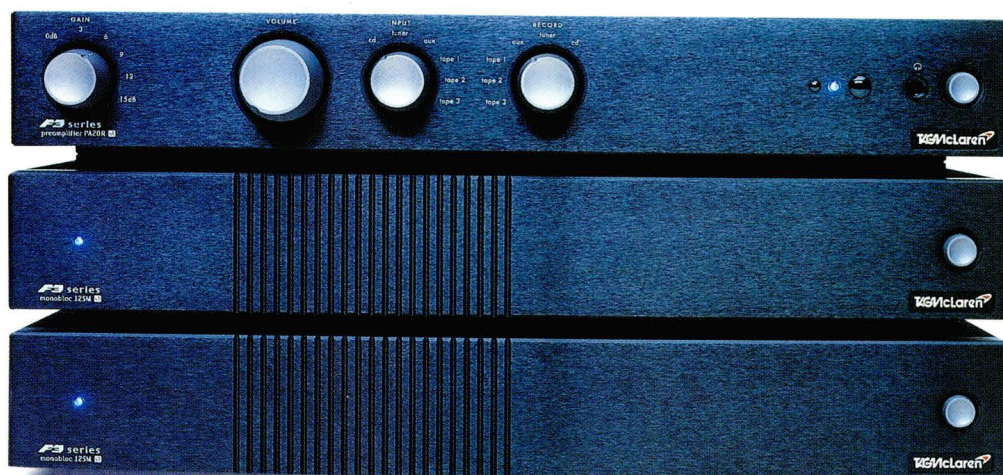
■ Dimensions 45x7.5x31 cm  
■ Analogue Outputs 2x RCA phono  
■ Digital Outputs RCA phono electrical  
■ DAC Type 1-bit

### 60iRv SPECIFICATIONS

■ Dimensions 45x7.5x35cm  
■ Power Output 60 Watts  
■ Inputs 6

# Top gear!

**Jason Kennedy** trials TAG McLaren's new preamp and monoblock threesome. They look superb, but can they offer sound to match?



We've been waiting for this moment since last autumn's surprise announcement: that one of the country's best-established brands, Audiolab, had been purchased by one of the most prestigious names in motor racing, TAG McLaren. In fact, it was acquired by the company because the guy who runs TAG Electronics, Dr Udo Zucker, is a hi-fi nut when not being an award-winning physicist. His audio qualifications run to a Krell/Apogee system, which infers a fair degree of commitment from a man who works too long and too hard. In fact, I don't think Udo was ever the sort to sit at home and build a tube and horn rig.

It has taken just over nine months for Udo and the team to revise and rebuild Audiolab's 8000 series, which is pretty good going considering it took nearly 15 years to come up with the originals. But now, of course, the company has access to the prototyping facilities used by the Formula 1 team, and it doesn't like to hang around. What TAG McLaren Audio has created in the F3 series, as it's known, is not merely a selection of restyled 8000 compo-

ponents, but re-engineered designs with all-new circuit layouts and a re-evaluated selection of components. So even though TAG McLaren has succeeded in emulating (while refining) the Audiolab case-work, enabling existing users to mix and match, the sonic performance, or so we're told, has been improved.

One thing's for certain: the packaging has been upgraded quite dramatically. All three of these products came equipped with two CD jewel-cased booklets: one a general guide to the product-type in question, written by HFC's illustrious Consultant Editor; the other, a comprehensive manual for the specific component. As well as this there's a *Test Tracks* CD of audiophile recordings, and an enamel F3 label badge. These, in a large, shiny box, make powerful first impressions.

Front-panel finish and styling are very good. From the bright-blue LED to the carved-from-solid, anodised-aluminium knobs, you can tell this is a

thoroughly-engineered product. Operation is gratifying, too, with microprocessor-operated relays making little clicks just after you move the input knob. The preamp mutes between input selections, for sound-quality reasons.

Around the back, things appear largely unchanged since the Audiolab days, or at least as far as I remember those com-

ponents. On the PA20R preamp, for instance, you have three standard-line inputs and three tape loops. This will be a boon for all home recordists, if we're to judge from our readers' letters this month (see p15). In addition, there is a pair of phono outputs, and alternative balanced XLR sockets. The latter seem logical enough until you notice that there are no matching XLR inputs on the power amps. It would have been nice if this had resulted from the F3 makeover.

◉ Slickly-executed innards of the PA20R (above); remote handset (left).

Underneath, the 'rocket red' company flash is echoed in stylish crimson Sorbothane feet anchored in aluminium retainers — a nice touch.

Both PA20R and 125M monoblock power amps feature what is now being dubbed 'sl' (straight line) technology. In essence this refers to direct-signal coupling without the use of capacitors at the output, but feedback to offset DC. The power amps claim a comfortable 145 Watts into eight Ohms, and deliver it via two pairs of BFA output sockets.

BFA plugs are not provided, so if you don't have spade terminals or (skinny) bare wire, you'll need adaptors. The 125Ms also feature input and output phono

“...From the bright-blue LEDs to the carved-from-solid anodised knobs, you can tell that this is a thoroughly-engineered product...”

sockets, the latter for daisy-chaining amps or loading the input impedance. They also allow bi-amping with single interconnect runs.

The most significant difference between F3 and 8000 is in price. The PA20R is £1,499.95 and the 125Ms £1,199.95 each, making this almost a four-gang package — nearly £1,000 more than the equivalent predecessors combined.

## SOUND QUALITY

In my system, the F3 kit had two unenviable tasks: replacing the Sirius pre/power amps reviewed last month, and driving the mighty B&W Nautilus 802. The N802 didn't respond favourably, with its presumably tough amplifier load making the 125Ms' efforts seem dynamically challenged. But these boxes did reveal the extremely



## LAB REPORT

clean, muddle-free nature of the F3s. Even the most chaotic material didn't faze them. This wasn't due to skimmed-over information: resolution was equally strong. Expressiveness, however, was lacking after the Sirius 200 Watter; and alternative speakers were a necessity.

Swapping speakers from the N802s was always going to be a revelation. Indeed, the subsequent Eikos FR1 and Audio Note AN-J/B suffered in contrast. But under less trying circumstances, the F3 range-toppers are agile devices. They offer strong imagery, in particular when highlighting differences between alternative recordings. The soundstage contracted and expanded both front-to-back and left-to-right with different productions. Timing was competent, speed impressive.

While using the Audio Notes, I substituted a DNM PA-3 power amp of similar price to the 125M, which revealed the latter's Achilles heel — a lack of musical coherence. With the DNM, one got a stronger impression of musicians playing together in a way that makes sense, while perspective and balance was a lot more natural and tone more finely rendered.

## CONCLUSION

TAG McLaren's makeover of Audiolab's flagships has been largely successful. I used 8000MXs earlier this year, and they weren't as clean as the 125Ms. Build, finish and styling are exemplary and the remote preamp is a dream to use. Sonically these components represent a refinement over their predecessors rather than a quantum leap. This means that if the Audiolab sound appealed to you, then this combination (or the non-remote-control PA10 preamp and 100P stereo power amp) should represent a worthy step up the ladder towards audio Nirvana.

## VERDICT

SOUND ★★★★★

BUILD ★★★★★

VALUE ★★★★★

PRICE £3,899.85

Refinement on the Audiolab model, very clean sound with good imaging, but undeniably short on thrill power.

TWO YEAR GUARANTEE  
TAG McLaren Audio (0800) 783 8007

This is a slick and powerful combo.

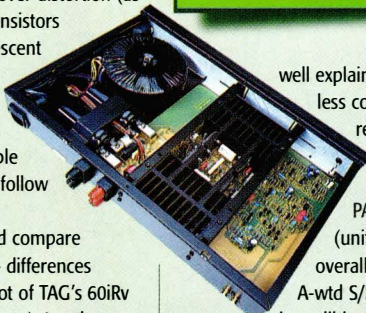
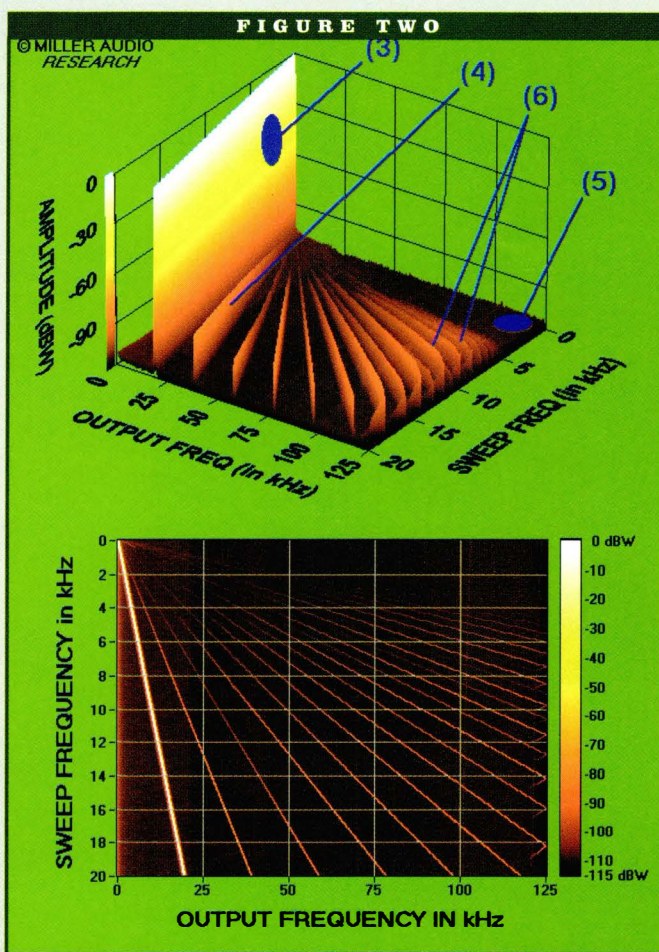
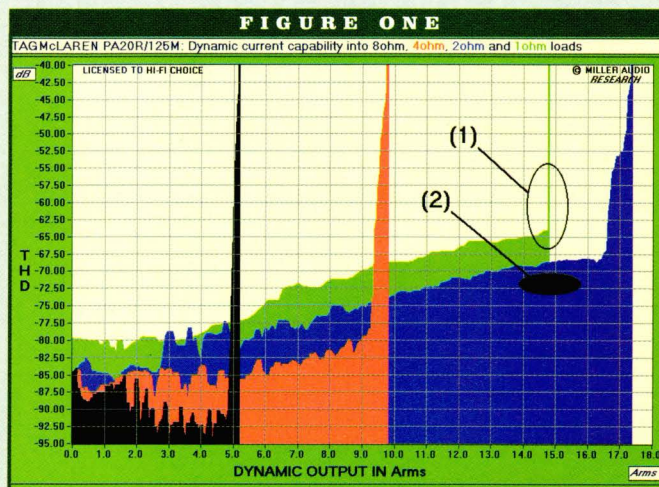
TAG rates its 125M monoblocks at 125W/8 Ohms but they'll actually achieve a minimum of 155W across the audio range. Read the literature and it soon becomes clear that the power amplifiers are designed to drive speaker loads down to 2 Ohms, with protection against shorts being invoked thereafter. We can see this from the profile of its dynamic current output into 8, 4, 2 and 1 Ohm loads (black, red, blue and green traces in Fig. 1).

In practice, voltage clipping limits the perceived 'maximum' current to 5.2A and 9.8A into 8 and 4 Ohm loads, while a full 17.3A is available to sustain momentary power outputs of 600W into 2 Ohm loads. This should be more than sufficient for most conventional loudspeakers! Into 1 Ohm, however, protection cuts in (1) at 14.8A (or 16.7A over 5msec), thereby limiting the maximum power to 218W. The dynamic power available over 10msec into 8, 4, 2 and 1 Ohm loads is 216W, 385W, 600W and 218W, respectively.

Throughout the 8 Ohm profile (black trace) distortion never rises above 0.006 per cent, and even when wrestling with a 2 Ohm load, never exceeds 0.04 per cent as far as 550W (2). So, though TAG's protection may seem rather brutal, it will mute the amplifier rather than allow it to output a potentially damaging signal. You may notice a 'swishing' sound and increase in distortion as the preamp's volume control is adjusted, but this is a side-effect of the DC-servo as it tracks changes in volume and kills any harmful DC offset. The same circuit was called 'Zq Servo' in the 'equivalent' Audiolabs.

The 3D plot (Fig. 2) gives us a more detailed view of distortion at low power in response to a full audioband sweep from 20Hz-20kHz (3). A strong second-harmonic (4) reaches 0.03 per cent at high frequencies but, because of the amplifier's exceptionally low noise (5), a 'fan' of high-order distortions is also revealed (6). These extended harmonics are typically caused by a combination of crossover distortion (as the 125M's power transistors rouse from their quiescent state) and a gradual reduction in the effect of negative feedback at high, treble frequencies. You can follow these patterns in the 'overhead' image, and compare subtle — but visible — differences between the same plot of TAG's 60iRv integrated amplifier (p34). In other amplifiers, such distortions might be buried, but their exposure here may

well explain some of the less complimentary remarks of our listeners.



PA20R set to 0dB (unity) gain, the overall (pre/power) A-wtd S/N ratio is an incredible -91.4dB (re. 1W/8 Ohms), deteriorating to -83.9dB at the full (+15dB) preamp gain setting. Bearing in mind that the 125M power amplifier requires just 1.3V for full

output, this means the preamp can be left at 0dB gain and not run out of steam. If you do select a higher gain value, the masking effect of the extra noise may ultimately influence the sound quality.

PMi

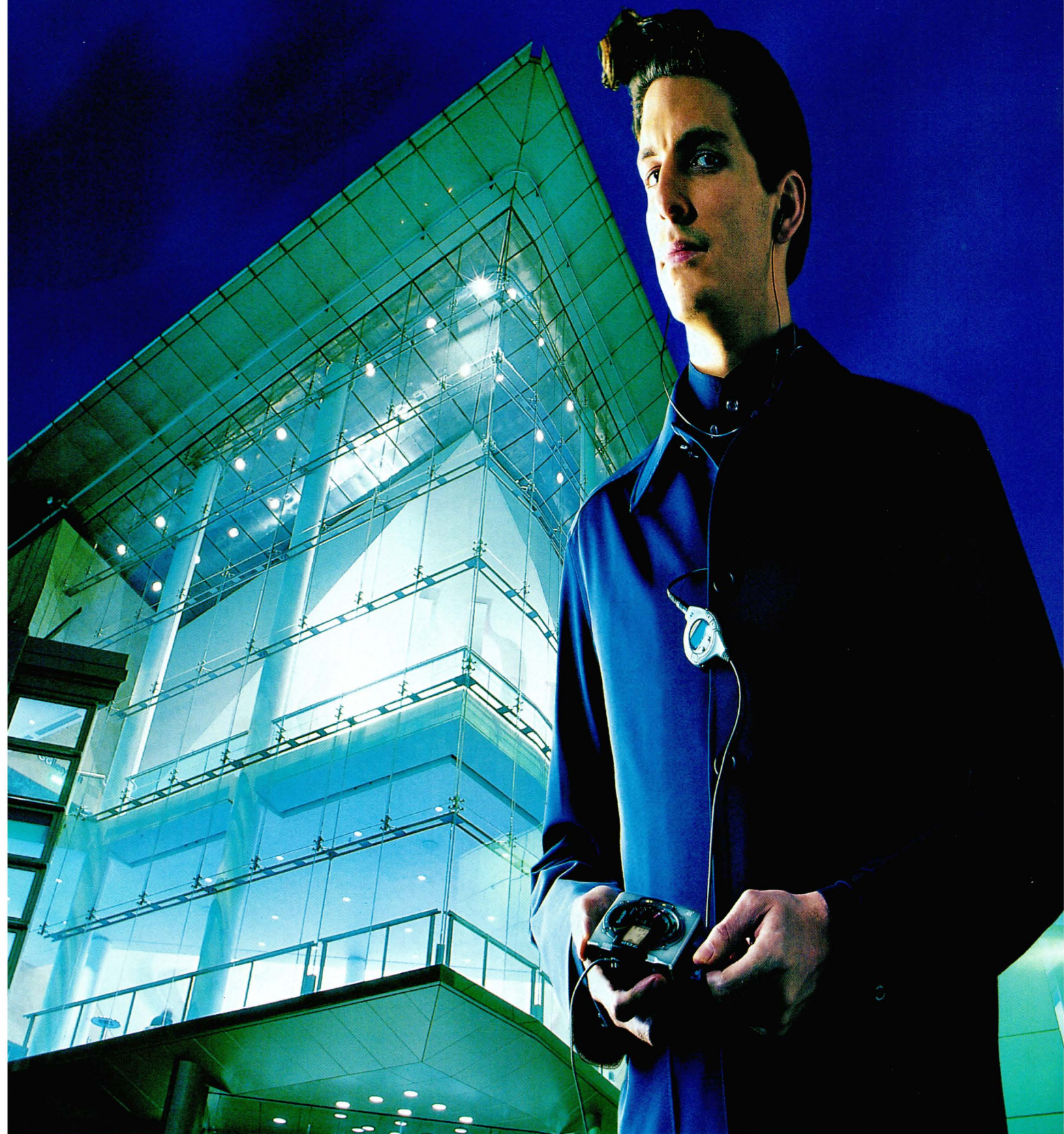
## 125R SPECIFICATIONS

- Dimensions 75x445x325mm HxWxD
- Rated power output 145 Watts/8 Ohms
- Inputs/outputs Phono RCA/BFA speaker

## PA20R SPECIFICATIONS

- Dimensions 75x445x325mm HxWxD
- MM/MC phono no
- Inputs 6

# LISTEN HOW INCREDIBLE LIFE IS IN THE SHARP DIGITAL AGE



MD-MS722H  
Portable MiniDisc  
Recorder/Player



MD-ZV30H  
MD-STUDIO



MD-R1H MKII  
MD-DECK



April 1998



MD-R2H  
MD-DECK

Listen, a new creativity is changing the world, and its source is **MiniDisc by Sharp, Digital recording,**

Sharp. Innovation and leadership in digital technology is bringing **editing and playback**

new concepts. Concepts like Sharp MiniDisc. Providing digital recordings of excellent clarity for enjoyment anywhere.



As you'd expect from a company at the forefront of MiniDisc

**WHAT HI-FI?**  
★★★★★  
Sept 1998



MD-R3H MD-DECK

technology, our latest range is simply breathtaking. For those on the move, there's

the coolest in high-tech street fashion with ultra-compact and lightweight personals and portables. Or, for those taking it easy at

home, the choice is as wide as anyone's musical tastes. From Internet ready 'Network Audio' systems that can download the

hottest digital sounds from cyber space, through to full and mini size MD decks. This is audio entering a whole new age.



**WHAT HI-FI?** T3 ★★★★★  
June 1998 March 1998

MD-MS702H(2) Portable MiniDisc Recorder/Player

The Digital Age, where Sharp is shaping the future.



MD-X5H MD/CD  
Micro System  
'Network Audio'



MD-X60H MD/CD  
Mini System  
'Network Audio'

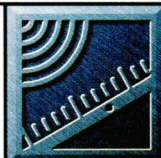


**INNOVATION T3** Feb 1998  
MD-X8H MD/CD  
Mini System  
'Network Audio'

**SHARP**  
digital

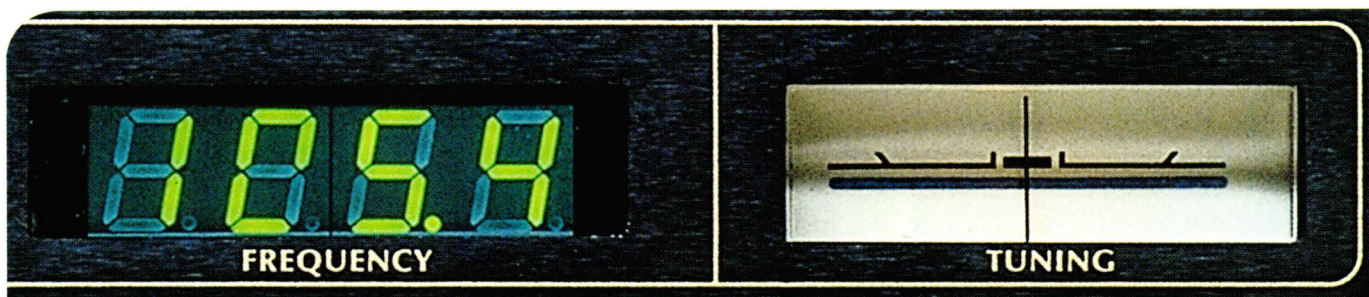
FOR FURTHER INFORMATION  
AND NEAREST STOCKIST  
FREEPHONE 0800 262958

# SUPER TEST!



# TUNERS

Now that digital audio broadcasting is just round the corner, is it still worth investing in a good tuner? **Richard Black** puts seven new radios on test in an attempt to find the answer



## THE CAST LIST

Denon TU-1500RD	£250	p41
Magnum Dynalab FT-11	£499	p42
Marantz ST-48	£120	p43
Myryad MT100	£530	p44
Pioneer F-504RDS	£300	p47
Roksan Caspian Tuner	£595	p49
Sony ST-SB 920	£180	p51

FM radio is now in a sense the 'senior' source in a modern hi-fi system — it's certainly a lot older than CD and cassette, and as such has had a lot of effort put into its perfection over the years. Its perfection and, sadly, its demise, too, as broadcasters struggle to get more stations on air and to play louder than the next — which has led to the widespread use of heavy compression.

So is radio still a legitimate hi-fi source? I think the answer is yes,

as long as you want to hear what they're broadcasting, and want to hear it as clearly as possible, you are in the market for a good tuner. Next question: is an FM tuner still worth buying, given that digital audio broadcasting (DAB) is just round the corner? Again, yes, unless you're the kind of person who has to be first with everything, in which case you may like to know

**“...as long as you want to hear what the stations are broadcasting and to hear it as clearly as possible, then you are clearly still in the market for a good tuner...”**

that Arcam and Cymbol have just announced the forthcoming release of the first hi-fi DAB tuners. But it will take ages to get everyone from FM on to DAB, so FM will be around for a few years yet.

The important thing to remember about a radio is that it's not one component but two — the tuner and aerial. With a piece of damp string for an aerial, even the best tuner in the world won't hold a candle to a good budget model fed from an external aerial — at least not unless you're near, and have line of sight from, a powerful transmitter.

If you're in a building where an external aerial isn't permitted or practicable, you'll have to do the best you can with an indoor type — but, if at all possible, get a good rooftop aerial fitted. This shouldn't cost over £80, unless you are in a

⊙ Unless you must be first with DAB, FM tuners are still excellent value.

'fringe' area and need a particularly big one. Your hi-fi dealer may be able to recommend an aerial installer — but beware of sharks, as I found out recently when one bodged an aerial on a friend's house by bending it round the chimney pot! However, it's the only trouble I've come across.

Radio is cheap. The software, after all, is free, and good tuners start at little over £100. For the good news, read on...

## GLOSSARY

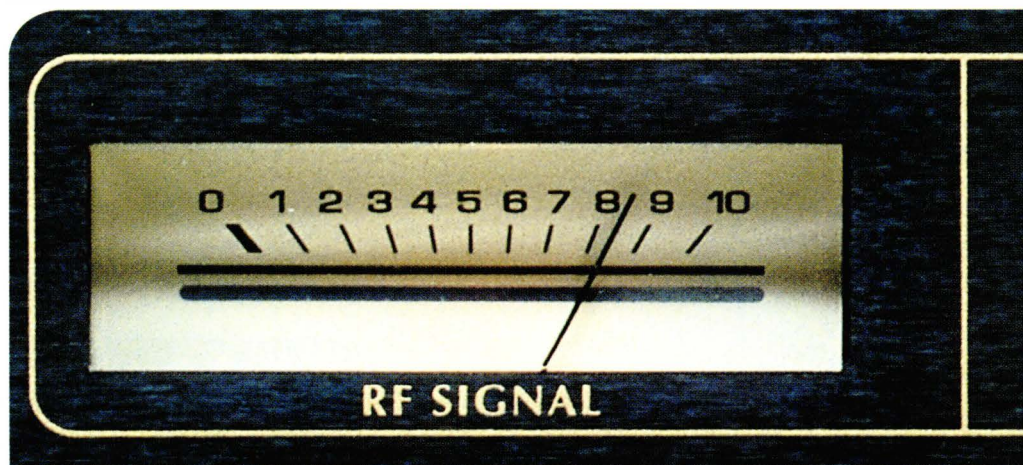
**AERIAL (ALSO ANTENNA):** The bit that actually picks up the radio signal. Think of it as analogous to the cartridge in an LP player — yes, it's that important.

**AMPLITUDE MODULATION (AM):** A way of encoding audio, but it usually just refers to the old Medium Wave and Long Wave bands.

**FREQUENCY MODULATION (FM):** Another way of encoding audio — usually refers to the VHF band.

**MULTIPATH DISTORTION:** If the radio signal from the transmitter has bounced off a lot of objects before it reaches you, a rather objectionable kind of distortion can arise, sounding a bit like a miss-tracking LP. Solutions include a better (longer) aerial, a higher aerial, or a better tuner.

**RADIO DATA SYSTEM (RDS):** A system for transmitting auxiliary data, including station name and programme type (PTY), along with the audio.





## DENON TU-1500RD



This smart, slimline unit comes from the maker of the near-legendary TU260, the budget tuner which, for years, everyone else's model had to beat – not that many of them got anywhere near. And although not in the super-budget league, this one certainly looks as if it packs a lot in at its price. Not that it's got many automated features, but it does have full RDS, complete with traffic announcement mode, and it has a switchable RF attenuator (a lot of tuners have this, though usually you'll only need it if you're living within a couple of miles of a major transmitter) and switchable IF bands. The normal 'Wide' mode gives best sound if the RF signal is good, but if you have trouble with breakthrough from nearby stations – 'pirates' can be a nuisance in urban areas – the 'Narrow' setting helps reject them at the expense of slightly worse distortion and channel separation.

A single rotary knob serves for manual tuning and also preset selection – there are 40 presets – but the control logic has been arranged so that true manual tuning is only possible while in mono; a bit of a bore for those of us who prefer to do things manually. Inside the unit is the usual mix'n'-match selection of ICs – I don't

❶ The Denon's station ID locks onto the big brick in Chris Evans' empire.

“...bass seemed to extend down effortlessly to the bottom reaches of hearing while treble suffered no more restriction than any other tuner.”

wish to sound cynical about this as there's no viable alternative if you're going to make a tuner for less than an arm and a leg, but the majority of modern tuners are pretty much permutations of a surprisingly small pool of generally-available ICs and tuner heads.

#### SOUND QUALITY

This tuner might have done a lot better on the main listening tests (to real-live radio – mostly Proms, the summer being a good time to review tuners!) if it had been correctly aligned. This only came to light at a late stage while doing some quick checks in the lab, and performance was soon brought into line with the claims in the manual by a swift tweak to an adjuster (don't try this at home unless you have a room full of test gear). All very well, but for one thing the tuner should have been

aligned in the first place, and for another the tweak required was amazingly small, only a few degrees of rotation for an improvement in distortion by a factor of three, making me wonder just how stable the alignment is.

So, slightly off-colour, the TU-1500 nevertheless proved itself highly listenable. It was not as quiet as the reference Revox A76 but came close and was certainly quiet enough to allow one to hear studio noise fade down and up as Radio 3 handed over between announcers. Its main drawback was some congestion in the sound which collapsed images towards the centre and made details just slightly harder to follow than on some of the others.

Once realigned on the bench and auditioned via the stereo generator, however, this tuner really sang. In direct comparisons with the source CD it was possible to hear some compromising of the sound, and after a long period listening to the tuner the extra clarity of the source was clearly apparent. But in terms of freedom from obvious nasties – noise modulation, crunching, tonal imbalance or serious congestion – the sound was remarkably fine. Bass seemed to extend down effortlessly to the bottom reaches of hearing while treble suffered no more restriction than any other tuner – remember that FM stereo loses half an octave of treble as a direct consequence of its specifi-

❷ Fully featured and solidly built, the TU-1500RD has RDS and remote control.

cation. Under these 'ideal' conditions noise also nearly vanished, suggesting that the RF stages are not the most immune to the vagaries of real reception conditions. Indeed, performance does seem to benefit noticeably from a really strong RF signal, so as usual, buy a good aerial! Even AM performance is well above average, if a touch bassy and for some reason louder than FM.

#### CONCLUSION

This is potentially an exceptionally fine tuner for the money, but that alignment problem is slightly worrying. Assuming Denon can address that, a strong Recommendation is in order.

#### VERDICT

SOUND	★★★★☆
BUILD	★★★★★
VALUE	★★★★☆
PRICE	£250.00

❸ Review sample not perfectly aligned, but still managed to achieve a well-balanced and clean sound with good bass and treble extension.

#### TWO YEAR GUARANTEE

Denon UK Ltd, Hayden Labs, Hayden House, Chiltern Hill, Chalfont St Peter SL9 9UG  
(01753) 888447

#### FEATURES

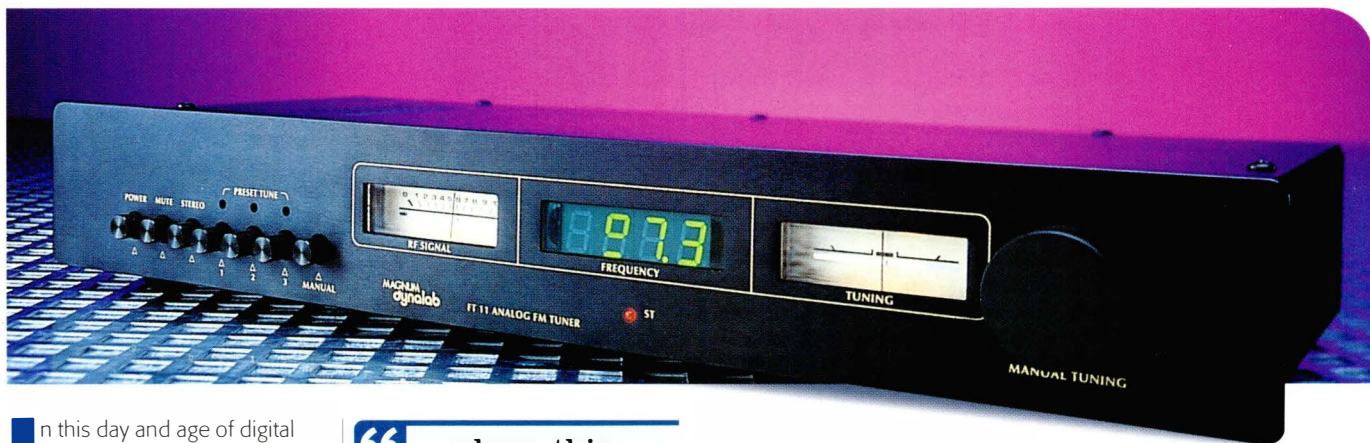
Presets	40
Bands	FM, MW
RDS	Yes



# MAGNUM Dynalab FT-11

MAGNUM DYNALAB FT-11

Visit Our Website: www.hifichoice.co.uk



In this day and age of digital everything, Magnum Dynalab makes great play of this being an analogue — sorry, 'analog' — tuner. This possibly needs some explanation. Almost all modern tuners are 'digital' in that the local oscillator signal (the reference frequency generated internally which is modulated with the incoming RF to produce the audio) is generated by a digital multiplier circuit called a 'phase-locked loop' or PLL from a crystal oscillator. The actual audio path is (usually) purely analogue. However, the pros and cons of digital versus analogue local oscillators are much debated in radio circles. In general, if you want to produce a really stable and accurate frequency at a low cost, a crystal oscillator plus PLL is the way to go. For really cheap stuff such as clock radios a basic analogue oscillator does perfectly well, and in analogue tuners like the FT-11 a rather more sophisticated version of the same thing is claimed to offer advantages including lower noise and lower RF distortion.

A further advantage of analogue tuning is that it is continuously variable, rather than moving in the steps that characterise digital tuners (usually 50kHz or 25kHz). In fact, since the FT-11 uses a wirewound potentiometer to set frequency it still moves in steps, but small ones of approximately

**“...where this tuner does definitely score is under less-than-optimum signal conditions. Especially with very weak signals, where the stereo blend is a real life-saver”**

3kHz. This is mostly useful as another way of sidestepping any interfering stations on a nearby frequency.

This is a relatively hair-shirt product, and gone are the multiple presets and RDS functions of typical digital tuners. However, there are three presets which can be set with a screwdriver and accessed via good old-fashioned pushbuttons. There's the usual stereo/mono switch, and in addition the FT-11 features automatic stereo blend at low RF signal levels, so that performance degrades slowly towards mono as the signal fades. In practice it's a clever idea and works well allowing listenable stereo of only moderately compromised separation at levels where most tuners are either unbearably noisy or mono.

Two traditional meters indicate signal strength (as so often, it could do with a bit less indicated sensitivity) and centre tune, and there's a digital frequency readout generated by a circuit apart from the RF and audio but just 'sniffing'

the local oscillator. That's about the lot. Inside the unit is a single well-made printed circuit board with two ICs (plus one for the frequency readout) and a discrete transistor RF front end. Components are generally of normal commercial quality.

### SOUND QUALITY

Despite the great things claimed for its analogue technology, this turned out to be the noisiest tuner in the test. Not by a great margin, and on paper by barely a whisker, but subjectively it had a rather intrusive noise quality. This was probably due to its spectrum being more concentrated in the middle of the audio band rather than in the 'high treble, as in most tuners. Why this should be is not obvious, and the FT-11 met its published specs without trouble — all except channel separation for which a rather optimistic-looking figure of 50dB was quoted. It nearly managed it, too. In mono it's very quiet indeed.

Due to at least in part to the noise, the sound of the FT-11 is generally somewhat veiled and unclear, and in passages of music with a lot of instruments playing independent lines it's quite hard to hear what they're all doing. There's also some slight muffling and coloration of very high treble sounds such as struck cymbal, which is reduced to a rather unexciting 'ping' sound. Solo voice sounds fairly clean, but when gathered en masse in choirs, voices can become quite confused.

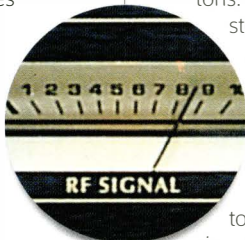
Where this tuner does definitely

◉ The FT-11 wears its 'analog' colours on its brushed aluminium sleeve.

score is under less-than-optimum signal conditions. Especially with very weak signals, where the stereo blend is a real life-saver, and also with breakthrough from nearby stations or distortion due to severe multipath, it maintains its cool longer than most others. With careful tweaking of the tuning knob it can often provide clear reception of stations which other tuners struggle with.

### CONCLUSION

A very mixed result, then, but a useful tuner to bear in mind for the radiophonically challenged. However, if you have a strong signal in your area it may not look so competitive.



◉ Basic facilities are complemented by signal strength and tuning gauges.

VERDICT	
SOUND	★★★★☆
BUILD	★★★★☆
VALUE	★★★★☆
PRICE	£499.00
■ All-analogue tuner which offers benefits in receiving weak or tightly-packed stations but loses out on noise and sonic neutrality.	
■ FIVE YEAR GUARANTEE	
☒ Audiofreaks, 15 Link Way, Ham, Surrey TW10 7QT	
☎ (0181) 948 4153	
FEATURES	
■ Presets	3
■ Bands	FM
■ RDS	No



## MARANTZ ST48



Although this is by some margin the cheapest tuner in this survey, and admittedly looks it, its list of features is quite impressive. Like most modern tuners it has RDS which displays information about the transmitting station and the type of music broadcast, although it doesn't display quite the full range of information. The user can also assign a title to a preset station, though with the basic key array it's a bit tiresome to do. The ST48 has a real-time clock built in, and in addition to a 'sleep' function which sets it to turn off automatically after a given time (from 10 to 120 minutes). It can be set to turn on every day at a certain time — a sort of hi-fi version of the old clock radio, though of course you'll also need an amplifier on as well.

As I hinted above, it's not the smartest front panel around but it's perfectly functional and reasonably easy to follow. At this price it would be too much to ask for a rotary tuning dial — these things cost money, while the ubiquitous membrane switches cost next to nothing. Manual tuning is pretty slow, but fortunately there are 30 presets for each of the FM and AM (MW) bands and even an automatic tuning mode which will search out and store available stations. There's a signal strength

It looks like Denon's TU-260L budget wonder finally has some competition.

“...it was a surprisingly good match for most of the other tuners in terms of receiving distant stations or those affected by multipath...”

meter which, as usual, is hopelessly optimistic, indicating full signal strength at levels barely adequate for quiet mono reception, never mind stereo.

Internally there's little enough to look at. Apart from the tuner 'head' there are five ICs — mostly Sanyo parts, the firm having almost a monopoly on radio ICs, apparently — and half a dozen transistors doing the audio work, plus another IC handling display and control functions. The FM aerial input is on a male coaxial connector and the AM on screw-down clamps.

#### SOUND QUALITY

Given the proliferation of Sanyo parts, maybe that company should take most of the credit for this tuner's fine performance: and make no mistake, at the price it's more than respectable. It's not amazingly quiet but with the amount of compression applied to most broadcasts that's not such a great problem (compression, after

all, tends to boost hiss in quiet passages, to a high enough level to mask that of most tuners), and if it's a little hard to listen 'through' to hear what is happening in the inner parts of an ensemble, the information one seeks is still there. Connected to the outdoor aerial it was a surprisingly good match for most of the other tuners in terms of receiving distant stations or those affected by multipath, and with strong stations it turned in a good, clean performance.

With the indoor aerial performance was less good, which is rather ironic since people who have only £120 to spend on a tuner may well not stretch too much in the way of an aerial, but it was still not far behind the others in terms of listenability. Still, it does reinforce the message about the importance of a good aerial, and in fact on most stations this tuner with the outdoor aerial (estimated current cost including fitting less than £100) comprehensively outperformed all the other tuners — including the reference Revox — with a giveaway indoor wire aerial.

Listening to CDs via the FM generator system, the tuner's limits became more apparent, particularly the noise which showed up more strongly with an uncompressed source. It also clearly lacked the last few ounces of bass weight, but went down cheerfully enough to within a few notes of the bottom. Apart from that its sound was generally clean, with just a little congestion in the stereo image and some coarseness

Marantz's ST48 David looks set to slay a few Goliaths in the tuner market.

when the music got loud. Lab tests showed clearly that the Marantz's measurements aren't up to the standards of the dearer tuners, but not in any alarming ways — slightly higher distortion and worse channel separation, but still adequate for the task. AM reception is OK — pretty good on spoken voice, in fact.

#### CONCLUSION

This tuner would not have looked silly at a price some 50 per cent higher and as it seems to offer a very good combination of features and performance at its modest price. A clear Best Buy.

#### VERDICT

SOUND	★★★★☆
BUILD	★★★★☆
VALUE	★★★★☆
PRICE	£119.90

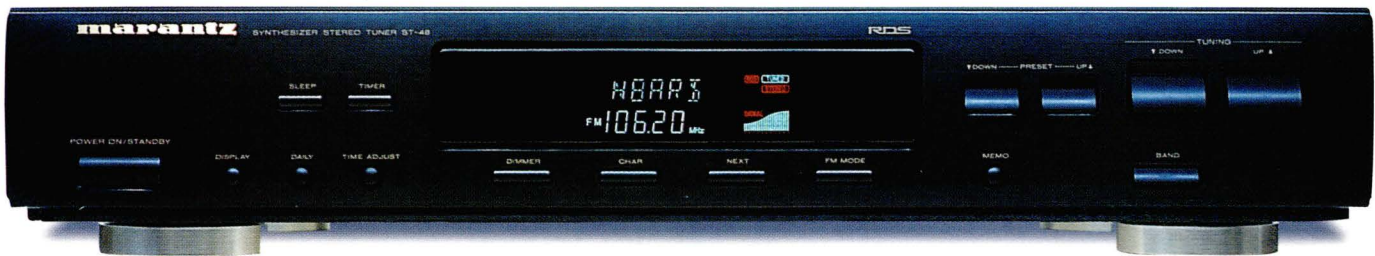
A classic budget star which manages a performance only just behind much more expensive models. Highly listenable.

#### TWO YEAR GUARANTEE

Marantz Hi-Fi, Kingsbridge House, Padbury Oaks, 575-583 Bath Road, Longford, Middx UB7 0EH  
(01753) 680868

#### FEATURES

Presets	60
Bands	FM, MW
RDS	Yes



# MYRYAD MT100

MYRYAD MT100  
Visit Our Website: www.hifichoice.co.uk



Isn't it a beauty? No doubt some will hate it, but I think this is one of the more attractive hi-fi products to come my way in a while. The colours on the display, and their relative brightness, are well chosen and the red 'stereo' and 'on tune' legends almost appear to stand proud of the display. The front panel is a substantial chunk of brushed alloy and the whole affair is very well made and assembled.

This is a classic specialist hi-fi product, not quite minimalist but with absolutely no more features than necessary. Yes, it has presets (20) but no RDS, no AM and no switchable IF bandwidth. It can search for stations, though, and it has that rare commodity — a really useful signal strength meter. Strength is given as simply 'SI1' to 'SI8', but 8 doesn't light until the incoming signal is several millivolts of RF, plenty enough for optimum performance. Most tuners, if they have a meter, claim to be receiving full signal when in fact it is just barely strong enough for reasonably noise-free stereo. In practice, a good deal more is required for subjectively lowest noise and clearest sound, but I suppose manufacturers are worried that people might think their tuner is 'deaf' if it doesn't indicate full strength when a competitor's does. A pair of phono sockets at

the MT100 does it audiophile style with an honest meter and no fripperies.

“...with piano the sound is for the most part full-bodied with excellent bass, only becoming a little synthetic high up the keyboard...”

the rear allow this tuner to be linked to other Myryad products for remote-control purposes. Specialist British product this may be, but inside most of the functional parts are Far Eastern — good ol' Sanyo ICs again and a front end from Mitsumi. The intermediate frequency (IF) amplifier is a discrete-transistor design, though, and there are a few more high-quality parts than most Japanese tuners can boast. You won't find a toroidal transformer, especially one this big, inside a 'big-name-brand' tuner either.

**SOUND QUALITY**  
In common with one or two others in this test, the MT100 was somewhat hampered by the character of its noise. No FM tuner is infinitely quiet. In fact, among the better examples, the specs on paper don't vary much, but quite large subjective differences can arise due to different frequency distribution of the noise. This one has a relatively 'warm' noise character but unfortunately that means

that proportionally more of the noise is in the region where the ear is most sensitive, and it therefore intrudes more. Whether this will bother you depends not least on what radio stations you listen to — Radio 1 and most commercial stations are so compressed that noise is not even an issue, but Radio 3 at best, and occasionally Radios 2 and 4, can broadcast quite a wide dynamic range. It's becoming clear as people research the psychoacoustics of digital systems that really low noise is more important than anyone used to think, and it's a shame to waste even a dB of what dynamic range is broadcast.

Hence the MT100 shows off its best with loud music, especially when there's not too much treble in evidence. A good strong orchestral fortissimo has no terrors for it, although if a cymbal crash is added the result is not always entirely convincing. Likewise, with piano the sound is for the most part full-bodied with excellent bass, only becoming a little synthetic high up the keyboard, and slightly muffled by the noise in very quiet passages. In non-classical music of the vigorous persuasion it was one of the best in the group, maintaining a good driving bass line with aplomb, conceding only a little grain and lack of clarity on percussion instruments. Voices generally come over well.

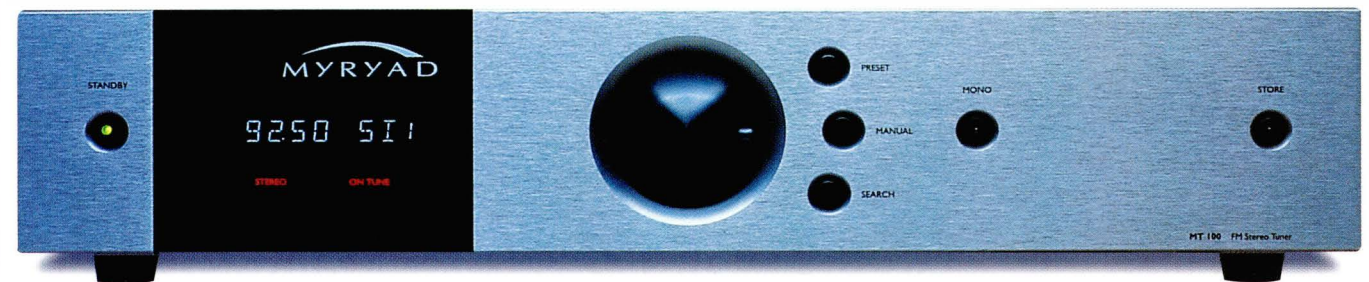
Under poor reception conditions performance is about average, noise starting to rise as the signal

Myryad proves that tuners can have style and need not be boring and black.

dips substantially below 1mV (about SI6 on the indicator) and with moderate resistance to multipath distortion. Myryad clearly assumes that people who buy this tuner will have a good aerial, which is probably fair enough.

**CONCLUSION**  
This is undoubtedly an attractive product and it has no major flaws, but it is hard to avoid the conclusion that its performance is bettered overall by several cheaper tuners — a lot cheaper — which share the generic technology and also add more features. Worth a listen, though, especially for Myryad system owners.

VERDICT	
<b>SOUND</b>	★★★★☆
<b>BUILD</b>	★★★★★
<b>VALUE</b>	★★★★☆
<b>PRICE</b>	<b>£529.95</b>
<p>■ A very smart unit which works well and offers good rhythmic drive and vitality, albeit at a price.</p> <p>■ THREE YEAR GUARANTEE</p> <p>✉ Myryad Systems Ltd, 2 Pipers Wood, Waterberry Drive, Waterlooville, Hants PO7 7XU</p> <p>☎ (01705) 265508</p>	
FEATURES	
■ Presets	20
■ Bands	FM
■ RDS	No

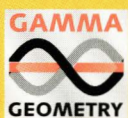




improved  
circulation

like your body,  
your home entertainment system  
benefits from improved circulation

No matter how good or expensive your system components may be, correct quality cabling or *signal circulation system* - is critical to peak performance.



IXOS high technology cables are superb quality with exciting new innovations in design. Such as Gamma Geometry™, a unique patent pending technology which actually improves signal flow to give a more natural and dynamic sound.

*“And boy does it work, bringing resolute dynamics and awesome bandwidth within reach of virtually anyone buying a separates system ... it does seriously well against cables costing three and even four times its price.”*

WHAT HI-FI ★★★★★ 10/97.

Let IXOS cables improve your signal circulation. Then you'll see what your Hi Fi system is really made of.



**IXOS™**

IXOS Limited, Unit 2,  
Desborough Industrial Park,  
Desborough Park Road,  
High Wycombe, Buckinghamshire  
HP12 3BG UK

Tel: (44) (0) 1494 441736  
Fax: (44) (0) 1494 440360

[www.ixos.co.uk](http://www.ixos.co.uk)

# STRAIGHT WIRE

**When it comes down to the wire**

*for tighter bass smoother highs & clearer vocals*



Chorus

Chorus

Quartet

*you need the right*

**music conductor**

*The most cost effective performance upgrade you're likely to make*

*For more information on the range of Straight Wire audio interconnects, video interconnects and loudspeaker cables, contact your local dealer or call CSE on 01423 359054.*

[www.straightwire.com](http://www.straightwire.com)

<b>ABERDEEN</b> Sevenoaks Hifi	01224 587070	<b>ISLE OF WIGHT</b> (continued) Island Photo Hifi Centre, Newport	01983 525105
<b>BARNSELY</b> Barnsley Hifi	01226 205549	<b>KIDDERMINSTER</b> Midland Audio Exchange	01562 822236
<b>BATH</b> Paul Greens Hifi	01225 316197	<b>LANCASTER</b> Practical Hifi	01524 39657
<b>BEDFORD</b> Sevenoaks Hifi	01234 272779	<b>LEEDS</b> Bill Hutchinson Hifi	01132 427777
<b>BECKENHAM</b> Musical Images	0181 663 3777	<b>LONDON</b> Kamla Electronics	0171 323 2747
<b>BIRMINGHAM</b> Music Matters, Solihull	0121 742 0254	Spatial Audio	0171 637 8702
Music Matters, Sutton Coldfield	0121 354 2311	Soundzone, Tooting	0171 672 7369
<b>BLACKBURN</b> Romers Hifi	01254 887799	Hifi Experience	0171 580 3535
<b>BLACKPOOL</b> Practical Hifi	01253 300599	Francis of Streatham	0181 769 0466
<b>BLOXWICH</b> Sound Academy	01922 473499	Kimberley Hifi, Bexley Heath	0181 304 3272
<b>BOURNEMOUTH</b> Dawsons Radio	01202 764965	<b>LUTON</b> Hobbs Components	01582 720907
Movement Audio, Winton	01202 529988	<b>MACCLESFIELD</b> Dooley's	01625 264666
<b>BRENTWOOD</b> Hispek Electronics	01277 226303	<b>MANCHESTER</b> Practical Hifi	0161 839 8869
<b>BRIGHOUSE</b> Audiovision	01484 713996	The Hifi Rooms, Bridge St	0161 832 0888
<b>BRISTOL</b> Laservision, Totterdown	0117 972 0149	Central Radio	0161 832 6700
Paul Roberts	0117 942 9370	Serious Kit	0161 798 9649
<b>BURY ST EDMUNDS</b> B G Audio	01284 755227	<b>MARGATE</b> LMD Audio	01843 220092
<b>CAMBOURNE</b> RJF Audio Visual	01209 612260	<b>MONTROSE</b> Robert Richie	01674 673765
<b>CAMBRIDGE</b> The Audio File	01223 368305	<b>NELSON</b> Wilkinsons Hifi	01282 612901
<b>CANTERBURY</b> Canterbury Hifi	01227 765315	<b>NEWCASTLE</b> Sevenoaks Hifi	0191 221 2320
<b>CARDIFF</b> Sevenoaks Hifi	01222 472899	Bill Hutchinson Hifi	0191 230 3600
<b>CARLISLE</b> Peter Tyson	01228 546756	<b>NEW MALDEN</b> Custom Cable	0181 942 9124
Practical Hifi	01228 544792	<b>NORTHAMPTON</b> H G Rapkins	01604 637515
<b>CONGLETON</b> Hifi Showrooms	01260 280017	<b>NORWICH</b> Sevenoaks Hifi	01603 767605
<b>COVENT GARDEN</b> Musical Images	0171 497 1346	Martins of Norwich	01603 627010
<b>CRAWLEY</b> L C Down	01293 520150	<b>NOTTINGHAM</b> Lazerline	0115 952 2716
<b>CREWE</b> Sound of Music	01270 214143	<b>PAIGNTON</b> Upton Electronics	01803 551329
<b>CROYDON</b> Sevenoaks Hifi	0181 665 1203	<b>PLYMOUTH</b> Plymouth Acoustics	01752 609144
<b>DARLINGTON</b> Hifi Experience	01325 481418	<b>POOLE</b> Movement Audio, Parkstone	01202 730865
<b>EALING</b> Audio Concept	0181 567 8703	<b>PORTSMOUTH</b> Now Thats Hifi	01705 811230
<b>EDGWARE</b> Musical Images	0181 952 5535	<b>PRESTON</b> Practical Hifi	01772 883958
<b>ENFIELD</b> Sevenoaks Hifi	0181 886 2777	Sevenoaks Hifi	01772 825777
A & W Pounds, Ponders End	0181 804 3000	<b>RICHMOND</b> Riverside Hifi	0181 892 7613
<b>FINCHLEY</b> Hispek Electronics	0181 349 1166	<b>SALISBURY</b> Salisbury Hifi	01722 322169
<b>GATESHEAD</b> Lintone Audio	0191 477 4167	<b>SEVENOAKS</b> Sevenoaks Hifi	01732 459555
<b>GLASGOW</b> Glasgow Audio	0141 332 4707	<b>SHEFFIELD</b> Moorgate Acoustics	0114 275 6048
Bill Hutchinson Hifi	0141 248 2857	Sevenoaks Hifi	0114 255 5861
<b>GRIMSBY</b> Manders Hifi	01472 351391	<b>SOUTHAMPTON</b> Southampton Hifi	01703 228434
<b>HELSTON</b> Sounds Perfection	01326 221372	<b>SWANSEA</b> Quinns TV & Hifi	01792 773644
<b>HEREFORD</b> English Audio	01432 355081	<b>TUNBRIDGE WELLS</b> Sevenoaks Hifi	01892 531543
<b>HOUNSLOW</b> Musical Images	0181 569 5802	<b>WARRINGTON</b> Doug Brady Hifi	01925 828009
<b>HOVE</b> Churchers	01273 324616	Practical Hifi	01925 632179
<b>HUDDERSFIELD</b> Huddersfield Hifi	01484 544668	<b>WATFORD</b> Sevenoaks Hifi	01923 213533
<b>HULL</b> A. Fanthorpe Ltd	01482 223096	<b>WEYMOUTH</b> Weymouth Hifi	01305 785729
Sevenoaks Hifi	01482 825449	<b>WHITHAM</b> Sevenoaks Hifi	01376 501733
Zen Audio	01482 587397	<b>WICKFORD</b> Cinema World	01268 572775
<b>ISLE OF WIGHT</b> Island Photo Hifi Centre, Ryde	01983 812542	<b>WIGAN</b> AJ's Sound & Light	01942 495847
		<b>WORCESTER</b> Sevenoaks Hifi	01905 612929
		<b>WORTHING</b> Phase 3 Hifi	01903 245577

# PIONEER F-504RDS Precision



The Precision range of separates from Pioneer consists of souped-up versions of the 'standard' originals, the relevant audio witchcraft being conjured up by UK audio maverick Tom Evans. In this case the souping-up has been fairly subtle and the basic guts are clearly pretty much standard Pioneer fare, but as often as not it's the subtle details which can really pull a product up from the serried ranks of the ordinary and make it special. The basic F-504 was reviewed back in *HFC* 166 and didn't entirely blow Paul Messenger away: let's see if the tweaked one does any better.

There are plenty of features in evidence. Two aerial inputs cater for those folks with both an external aerial and a connection to a cable system. 40 presets should cope with enough FM and AM stations for anybody's taste, and there's full RDS on the FM band. Never having lived with RDS I didn't realise what I was missing, but I can definitely see the point of a system which will automatically search for a given programme type for you. Many's the time I have fruitlessly searched the bands for a news bulletin, doubtless just missing several on the way — an RDS radio will find one in seconds. Like e-mail, this seems to be a genuinely useful

● Full RDS means you can search by program type on the Pioneer F-504RDS.

“...the Pioneer seems to make the most of the radio signal and to an extent compensates for the relative weakness of its audio section...”

application of technology!

Other features include, on the reception side, switchable IF bandwidth, an RF attenuator, fine tuning (in 25kHz steps rather than the usual 50kHz) and a choice of direct frequency entry, rotary knob or automatic search tuning, while on the control side it's also possible to add title to preset stations. The F-504 will receive AM broadcasts, on the MW band only. There's a useful signal strength meter, that needs a healthy 1mV or so to peak.

Pioneer is one of the very few tuner manufacturers to buck the general trend of using standard IC parts for most of the work, preferring instead to design its own, for some jobs at least. The largest IC on the well-filled circuit board has Pioneer's trademark piece of copper plate glued to it, presumably to cut electromagnetic radiation and pickup. Really, specialist hi-fi manufacturers must look at this kind of product and weep — there's absolutely no way a small company could offer this much compo-

nentry inside a £300 box and there's only so much you can do in radio design with a small component budget. No wonder there are no budget tuners from specialists.

## SOUND QUALITY

All the busy circuit boards in the world are wasted if they don't do the business, however, and this tuner does seem to justify its existence well. It was actually the only tuner in the test that definitely made a better impression when receiving real broadcasts than when connected via cable to an FM generator. In the latter instance, although its amazingly low level of hiss (subjectively the lowest in the group) was a clear advantage, it gave rise to mixed feelings. On the one hand it is clearly very accurate tonally, while on the other it seems rather dull and shut in. Switching directly from source CD to tuner it was easy to hear the percussion section lose a good deal of its sparkle and brilliance and the sound became a little mechanical, but the lack of coloration and distortion made the result quite listenable nevertheless.

Off-air the results were very good. The Pioneer seems to make the most of the radio signal and to an extent compensates for the relative weakness of its audio section. It's not that it performed stunningly with very weak stations, but even a 'good' off-air signal is seldom as clean as that from a generator only a yard of cable away, and that's everyday reality in

● The Precision treatment has turned the F-504RDS into a regular giant killer.

tuner world. Bass is good, treble in these circumstances no more restricted than on any other tuner, and the only disappointment was a slight lack of depth to the image, which barely detracted from a good overall performance. AM performance is considerably above average.

## CONCLUSION

Whether due to the 'Precision' mods, local reception conditions or simply better alignment, this does seem to be something of an upgrade on the standard F-504, and as such offers good sound for a fair price. Recommended.

## VERDICT

SOUND	★★★★☆
BUILD	★★★★★
VALUE	★★★★☆
PRICE	£300.00

● Lots of features, plus a sound that's low on noise and high on communication, adds up to a good value package barely marred by slight congestion.

### ONE YEAR GUARANTEE

✉ Pioneer Hi-Fidelity, Pioneer House, Hollybush Hill, Stoke Poges, SL2 4PQ  
☎ (01753) 789789

## FEATURES

Presets	40
Bands	FM, MW
RDS	Yes



# THE REAL THING

Adding extra speakers to your audio system will never give you real home theatre and could spoil your music.

Meridian Theatre systems based around our award winning 565 and 541 Surround sound controllers have been designed from the start to provide the best music and a real home theatre experience. Starting from our 541 analogue controller you can build towards a Meridian DSP Theatre system, now recognised as the finest in the world.

All Meridian products from our CD players and FM Tuner to the new 586 DVD player work as a matched system controlled from one handset using our own software so you can always be sure to keep pace with new formats as they appear.



BOOTHROYD STUART  
**MERIDIAN**

**Meridian Audio Limited**

Stonehill, Stukeley Meadows, Huntingdon, PE18 6ED

Tel (0) 1480 434334 Fax (0) 1480 432948

<http://www.meridian-audio.com>

## Our starter system



**GRAHAMS HI-FI**

“One of the five best  
hi-fi shops in the world”

**Hi-Fi · Home Cinema · Custom Installations**

Grahams Hi-Fi, Canonbury Yard, 190a New North Road, London N1 7BS,

Tel: 0171 226 5500, Fax: 0171 359 7620

E-mail: [choice@grahams.co.uk](mailto:choice@grahams.co.uk), Web site: <http://www.grahams.co.uk>

**DVD mibbix ferkit  
AC3 wibble wibble  
THX snarkle blarby  
DTS flootleby snark  
bi-wire flertyboop  
bi-amp digit nonny  
nonny !!!**

If Hi-Fi and Home Cinema makes as much sense to you as the above – we can help. We sell great Hi-Fi and Home Cinema and won't add to our confusion.

**moorgate acoustics**



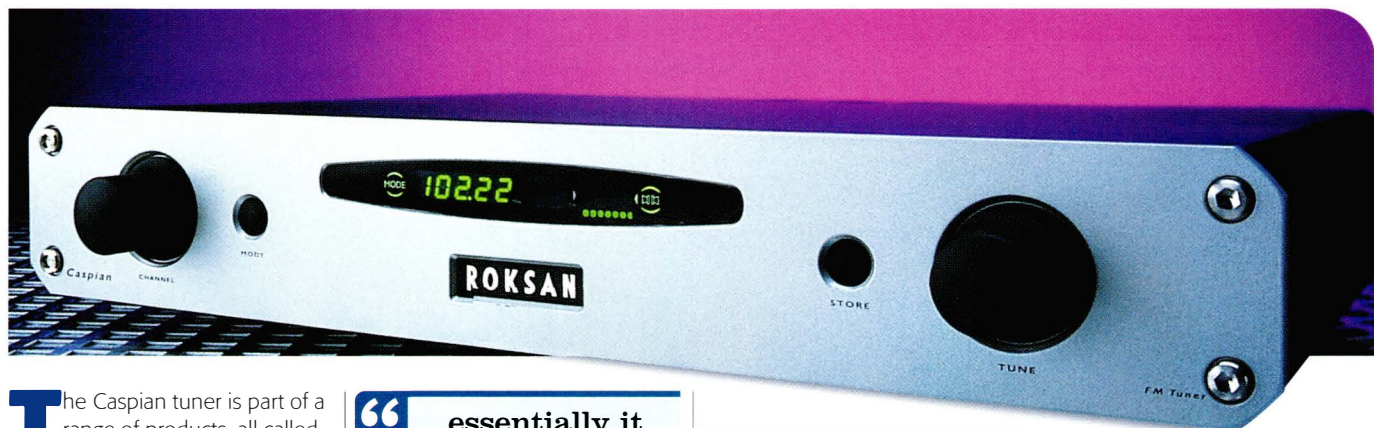
184 Fitzwilliam Street,  
Sheffield,

Tel: (0114) 2756048

[www.demon.co.uk/moorgate](http://www.demon.co.uk/moorgate)



# ROKSAN Caspian



**T**he Caspian tuner is part of a range of products, all called Caspian. Confused? Well, only the tuner has a digital frequency display. After all the buttons and lights of the Japanese tuners in this test, Roksan's neat and restrained front panel comes as something of a rest for the eyes. It's a very attractive panel too, the only feature one might wish for in some circumstances being a way of dimming the display which can be just a shade too bright in a dimly-lit room.

Operation is about as simple as could be. The left-hand rotary knob selects the preset channel, scanning up or down the available 50. The 'Mode' button selects mono, stereo or standby, 'Store' does what it says and the right-hand knob is for manual tuning, in 10kHz steps. That's really useful, actually: many tuners have 'fine' tuning in 25kHz steps which is handy for sidestepping interference from strong nearby stations, but quite often 10 or 20kHz is required; in fact, the less the better for optimum sound. As well as manual tuning the Caspian offers automatic tuning, activated by a really quick flick of the wrist on the tuning knob, and if you want the tuner to scan the entire band and memorise all the stations strong enough to listen to, it can do that too.

Roksan has produced a rather natty signal strength meter consisting of an array of seven by five

❖ No RDS but good fine tuning and signal strength display.

**“...essentially it has a pleasingly neutral tonal character with particularly good bass extension, and hiss is on the low side of average...”**

LEDs. A vertical line of these lights 'up' when tuned to a station, the height of the line indicating signal strength (the indicated maximum is just a bit below the subjectively optimum level) and its horizontal position centre tune, just like an old-style meter. Ingenious and easy to use. At the rear of the unit are only aerial and audio connections, but if you have a Caspian system remote that can be used to control the tuner too.

Inside the very solid and well-made case, the radio and audio circuits are on a very compact board a little over six inches square. As usual, most of the ICs used are fairly common parts from the Far East, and the RF front end is from Mitsumi (far and away the world's biggest supplier), but the immaculately finished double-sided circuit board, with a mixture of surface-mount and through-hole components, is a dead ringer for the hi-fi specialist manufacturer. Roksan has

also treated this tuner to a huge toroidal transformer of several times the required capacity.

## SOUND QUALITY

Any manufacturer getting into the tuner market at this sort of price is going to end up head-to-head with mass-market manufacturers who are basically using much the same parts to do the same job, but applying economies of scale in a big way. So it's unfortunate but true that although this tuner sounds very decent, it doesn't see off the models from, for instance, Denon and Pioneer in this review in the way that one might hope given the higher price.

Essentially it has a pleasingly neutral tonal character with particularly good bass extension, and hiss is on the low side of average. But the treble suffers from the congestion so common to FM tuners: it's not so much a lack of treble (as it happens the Caspian does roll off its response a fraction earlier than the others, but only by a little over a semi-tone) but a lack of precision in the top couple of octaves, which casts a veil over any treble-rich sounds and tends to collapse the stereo image when there's a lot of treble around.

Subjective results tallied closely between off-air and FM generator listening, suggesting that the RF section is well set up and doing its job effectively, and indeed reception of 'diffi-

❖ One knob good – two knobs better, Roksan has an eye for symmetry.

cult' stations is average to good. It seems cruel to complain harshly, as the overall result is, as with most of the tuners here, quite listenable – but in the area where most tuners are weak, this one is simply not any better than models costing a good deal less.

## CONCLUSION

That said, it's a lot smarter and arguably better made than cheaper models, and that surely counts for something. It will certainly appeal to Caspian system owners, and others who are not feeling too penny-pinched should certainly give it a spin.

## VERDICT

<b>SOUND</b>	★★★★☆
<b>BUILD</b>	★★★★★
<b>VALUE</b>	★★★★☆
<b>PRICE</b>	<b>£595.00</b>

Smart and neat fascia with intelligently-designed controls and displays, but sound is not really any better than models at half the price.

### THREE YEAR GUARANTEE

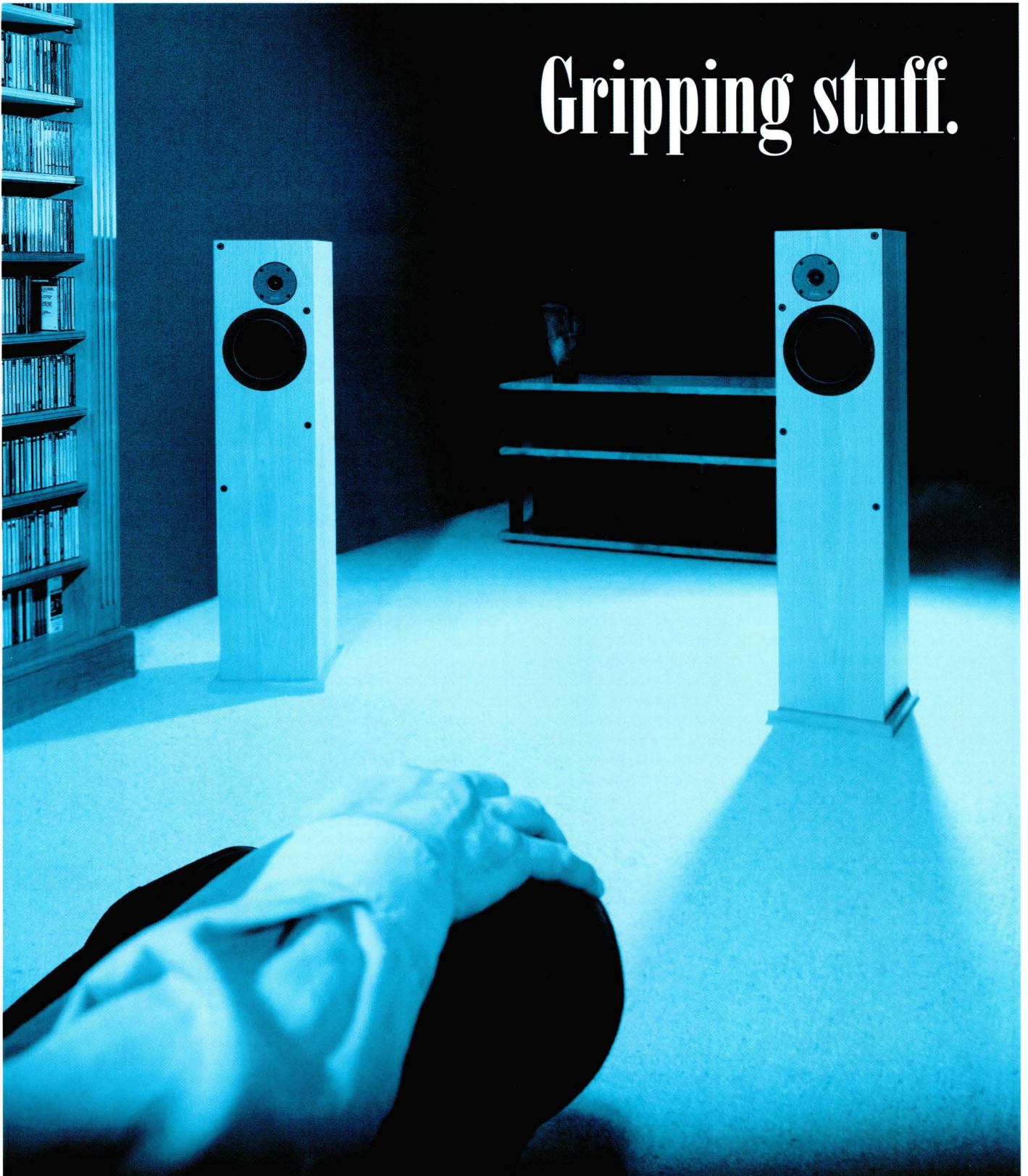
✉ Roksan, Unit 15B, Atlas Business Centre, Oxgate Lane, London NW2 7HJ  
☎ (0181) 830 7733

## FEATURES

■ Presets	50
■ Bands	FM
■ RDS	No



# Gripping stuff.



HIGH FIDELITY LOUDSPEAKERS

 **ProAc**  
*perfectly natural*

Highpoint House, Riding Road, Buckingham Road Industrial Estate, Brackley, Northamptonshire NN13 7BE

Tel: 01280 700147 Fax: 01280 700148

HFC12.98

## SONY ST-SB920



**T**rust Sony to come decisively first in the features race. For a start, it's the only tuner here with Long Wave, handy for polyglot listeners as it gives access, in southern parts of the UK, to several European stations. At first glance, the front panel seems to be quite bare, with only numeric buttons for access to presets (30) or direct frequency entry, plus a lovely weighted tuning knob which can traverse over 4MHz in one deft flick of the wrist. Lower the flap beneath the display, however, and there are a further 14 buttons for controlling the various RDS functions, station titling and reception control features.

As you would expect, a full set of RDS features is included, and station name is stored in the preset along with frequency. Non-RDS stations can be given a name, and you can even sort previously-stored stations. On the reception front, there are two aerial inputs, an aerial attenuator, wide (normal) or narrow IF band and a really useful signal strength meter which gives a digital readout in dB (0dB=1 uV). Sony recommends a signal of at least 50dB for optimum performance, but as with most tuners a few dB more than that gives just the minutest edge in noise performance and general sonic sweetness. Manufacturers tend to quote

❖ The ST-SB920 looks clean but a fold down flap hides a plethora of controls.

“...this tuner keeps up the generally very positive tone, with a sound that is clear and communicative, with particularly good bass and low hiss...”

'full quieting' (maximum signal-to-noise) for quite low signal strengths, but subjectively one continues to get a small improvement as the signal improves. Signal attenuators are really only required when the signal is really huge, which can result in overloading of the RF input and all sorts of bizarre distortions.

This tuner has an 'Active Selection Mode' which automatically sets the attenuator and IF band according to conditions, but it seems a little too keen to engage the attenuator and can be manually overridden. You can even dim the display and/or minimise the amount of information shown. All this is reasonably easy to use, a lot of it via a simple menu-driven system.

Inside the tuner, the only noteworthy feature is Sony's own RF front end, the rest being a selection of parts already familiar from other tuners in this test. There's one additional connector, an EON

port which allows the tuner to control a compatible Sony amplifier and override whatever frequency is selected when a traffic announcement or news bulletin comes on the air.

### SOUND QUALITY

Getting back to the nuts and bolts of what hi-fi is really about, this tuner keeps up the generally very positive tone of this group of reviews with a sound that is clear and communicative, with particularly good bass and low hiss. That said, the hiss has an unusually strong bias towards the high frequencies, which may prove more irritating to some folks than others and won't suit systems with speakers that are already a bit bright, so do check for that when auditioning this tuner. Against the reference Revox tuner, the '920 had slightly less detail and a smaller soundstage, but it was still possible to hear clearly what was going on and to place instruments in the stereo image, given a decent broadcast.

Listening with the FM generator setup the good bass remained a strong impression, and there was very little tonal coloration. Very high frequency sounds suffered some congestion, as so often with tuners, and this made piano sound a little artificial while a well-recorded high-hat sounded more like a battered small cymbal from a well-bashed drum kit, but that's not so disastrous — so many recordings sound like that already and one soon comes to adjust.

❖ A very high feature count and nicely weighted tuning knob mark this Sony.

More importantly, there are no attention-grabbing nasties in the '920's sound and it is possible to listen for long periods without fatigue setting in.

AM reception, at best hardly a hi-fi medium, is pretty rough — very chesty and interference-prone. Hi-fi, no, but listenable speech would have been nice.

### CONCLUSION

With its combination of decent sound and a multitude of features, this tuner looks like a good deal for the money. It doesn't quite make the sound quality running for a Best Buy, but it is certainly Recommended.

### VERDICT

SOUND	★★★★☆
BUILD	★★★★☆
VALUE	★★★★☆
PRICE	£179.99

ⓘ A little hiss and image compression do little to detract from the generally clean performance of this feature-packed tuner.

#### ■ ONE YEAR GUARANTEE

✉ Sony UK Ltd, The Heights, Brooklands, Weybridge KT13 0XW  
☎ (0990) 111999

### FEATURES

■ Presets	30
■ Bands	FM, MW, LW
■ RDS	Yes



# the AUDIO CONSULTANTS



**conrad-johnson PV-10A** pre-amplifier and **MV-55** power amplifier. An exceptional duo; true high end sound at an affordable cost.



**Bravura Virtuoso Horns**  
– a great looking horn speaker. Warm and natural sound with no hint of “shout”. An excellent combination with single-end amplifiers. Three versions available from £2995 a pair.



**Audiostatic DCI** – a full range electrostatic speaker with a modern appearance. Exceptional bass and imaging without any tight “hot spot”. £2500 a pair.



**Unison-Research Simply 845** – the latest integrated amplifier from Unison-Research. Very 3-dimensional sound imaging with tremendous looks £2950.

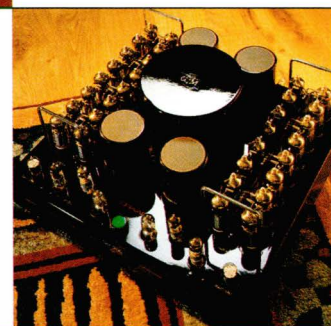
**With our large selection** of valve pre and power amplifiers we can tune a system to provide you with exactly the sound you wish, within your budget. We install all purchases to ensure you achieve the best sound it is capable of in your own home. Our aftersales policy is second to none.



**Audio Analogue** – remarkable new solid state amplification from Italy with a most valve like sound. Exceptional value and all include phono stages for MM and MC. Puccini SE integrated amplifier 50 wpc £595  
Bellini pre-amplifier £475  
Donizetti dual mono amplifier 60 wpc £575.



**Graaf GM200 OTL amplifier**  
A bench mark in sound quality at its price. If you have not heard what an output transformerless design can do in terms of transparency, imaging and speed, we would be pleased to offer you that pleasure. Extraordinary at £8000. Look out for the new GM20. OTL performance and Italian build quality at £2750.



**Golden Tube S1-50**  
An integrated amplifier with a sweet, pure sound normally associated with products above this class. With full remote control £999.



**Benz-Micro Glider** (not shown)

A true highend cartridge at an amazing price. Swiss hand-built quality resulting in exceptional tracking ability and a huge, 3D sound stage. 0.9mv output usually means that step-up devices can be avoided with most decently designed pre-amplifiers, with no loss of speed.

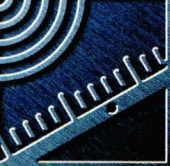
Benz-Micro and Clearaudio MC cartridges at very special prices for a limited period only. Please phone for details.

*Demonstrations by appointment only*

**0171 380 0866** Camden town, London NW1

FAX: 0171 383 5028

E-MAIL: 101650,2424@compuserve.com



# TUNERS

## CONCLUSIONS

**O**ur conclusion here is decidedly upbeat: the tuners of the moment are good. You'll hear a few people bemoaning the loss of a valve or early transistor wonder, and certainly some of the tuners of the '60s and '70s were pretty stunning.

For a long time the majority of synthesised tuners were disappointing. In recent years, however, new chipsets have become available to manufacturers, allowing them to make tuners with better specifications, better sound, more features, and all for less money.

As a die-hard FM fan I have a few classic tuners hanging around at home, and I find a lot less difference between the best of those and some of the budget tuners around today, than I did even five years ago.

The only parties for whom this

is not good news are the small manufacturers, who can't help but struggle to make tuners which compete on sound and price (let alone features) with mass-marketed products. There isn't much they can do to be different, never mind substantially better, without spending more on parts than the retail cost of a complete Far Eastern tuner. None of the three specialist manufacturers came out of this review with a Recommendation, which is no criticism, but merely reflects that if half the money buys equivalent performance, why pay more? Only appearance and a longer guarantee justify the extra expenditure. That said, if you can stretch to more money there are definitely better products out there, and although the Magnum Dynalab FT-11 scored no accolades this time, for example, its bigger brothers have been very well received at HFC and by many audiophiles. ■

### HOW THE TESTS WERE DONE

I listened to radio broadcasts mostly on Radio 3, taking as reference a Revox A76 which compares well with many modern high-end tuners. I also listened to CDs played through an EAR stereo encoder and Sound Technology FM generator. Other equipment included EAR pre- and power amps and ATC speakers. Checks were also made on reception of weak FM stations, and basic lab performance, and AM reception (using a proper tuned loop antenna. E-mail for details at 100115.3701@compuserve.com).

### HINTS & TIPS

To ensure good FM reception, get a good aerial.

This will provide a stronger signal, but it won't necessarily improve rejection of interference from external sources such as cars with faulty ignition, and mobile phones. A ferrite sleeve over the aerial cable, just as it connects to the tuner, can help. Decent interconnects are a good idea as with any hi-fi source, and most tuners are slightly microphonic so it's often worth experimenting with supports, especially those of the isolating kind, such as the Townshend Seismic Sink. And do make sure you're tuned to the right station – sounds stupid, but for instance in London I can pick up two Radio 3 transmitters with plenty of signal, but one often suffers badly from multipath.

### THE BEST IN THE TEST



#### MARANTZ ST-48

The £120 Marantz ST-48 may have been the cheapest in the group, but by no means did it trail the field in sound quality. It has limited RDS features and slightly cheesy build, but make no mistake: if you're after sound quality on a budget it's a mighty fine place to start. An easy Best Buy.



#### DENON TU-1500RD

The Denon TU-1500RD offers more polish than the Sony and Marantz models, although there's a slight question mark over consistency given that the alignment of the review sample was less than perfect. (As was that of at least three others, though not so markedly.) At its best it was perhaps the most promising tuner in the test, and even though our sample was slightly compromised, it made a good enough impression for Recommendation to be assured.



#### PIONEER F-504 Precision

For an extra £50 more than the Denon TU-1500RD, Pioneer adds another Recommendation to its long list with the F-504 Precision. Though still not the perfect tuner, it pips the Sony, and in some ways the Denon. It manages to persuade the listener that its flaws are outweighed by its good points. One of the best choices below at least £600.



#### SONY ST-SB920

Sony's ST-SB920 looks, frankly, a lot more expensive than £180. It's loaded down with features but these are obviously not at the expense of sound – quite the opposite. Had its price been £50 more it would still have been Recommendable.

### AMPLIFIER COMPARISON TABLE

MAKE	DENON	MAGNUM DYNALAB	MARANTZ	MYRYAD	PIONEER	ROKSAN	SONY
MODEL	TU-1500RD	FT-11	ST-48	MT-100	F-504RDS	CASPIAN TUNER	ST-SB920
PRICE	£250.00	£499.00	£119.90	£529.95	£300.00	£595.00	£179.99
SOUND	★★★★☆	★★★★☆	★★★★☆	★★★★☆	★★★★☆	★★★★☆	★★★★☆
BUILD	★★★★☆	★★★★☆	★★★★☆	★★★★☆	★★★★☆	★★★★☆	★★★★☆
VALUE	★★★★☆	★★★★☆	★★★★☆	★★★★☆	★★★★☆	★★★★☆	★★★★☆
GUARANTEE	2 years	2 years	2 years	3 years	1 year	3 years	1 year
PRESETS	40 presets	3 presets	60 presets	20 presets	40 presets	50 presets	30 presets
BANDS	FM, MW	FM	FM, MW	FM	FM, MW	FM	FM, MW, LW
RDS	YES	NO	YES	NO	YES	NO	YES

# CAPTURE THE ESSENCE

...the essence of a live performance, the mood... the rhythm... the soul. You just can't beat it!

But you can come close, that's why you own a hi-fi system. That's also why you need to use the very best cables you can afford, because only then, can you be sure that your system is being allowed to work to it's full potential.

We at QED recognise that the only way to ensure the best results, is to **insist on an unparalleled level of signal accuracy**. To prove this, we undertook one of the most comprehensive studies ever undertaken, on how and why cables effect system performance\*. Not that you need to worry about the technicalities, all you have to do is enjoy the results!

\* A summary of this research "The Genesis Report" is available on request.

For a colour brochure on the full product range call us now on (01276) 451166

## QED

QED Audio Products Ltd,  
Ridgeway House, Ridgeway Close,  
Lightwater, Surrey GU18 5XU  
Fax: (01276) 452211  
Email: panic@qed.co.uk  
Internet: http://www.qed.co.uk



The very best in Hi-Fi Cables and Accessories for over 25 years

Qnect Silver Spiral Price from £78.00/pair



"Music is presented in a natural and unforced manner... Silver Spiral excels in detail and dynamics...If your looking for an interconnect...Silver Spiral deserves to be at the top of your shopping list."

Qnect 2 Price from £27.00/pair



"Qnect 2 was one of the best-liked cables in the test. Qnect 2 fully deserves a Best Buy."

"Great price, great cable, well made. Nifty name, neat plugs. Five stars. Next..."

WHAT HI-FI 5 star review MARCH 98

Qudos Silver Price around £4.95/m

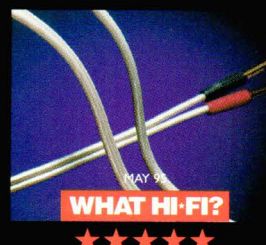


"...what a fabulous little cable this is! Insightful, involving and able to dredge out even the smallest of details, ...In a sensibly-priced system (say, £1000 or so) it's a bargain."

Qudos Original

"Sensational sound... You won't find a better cable at this price."

Price around £2.50/m

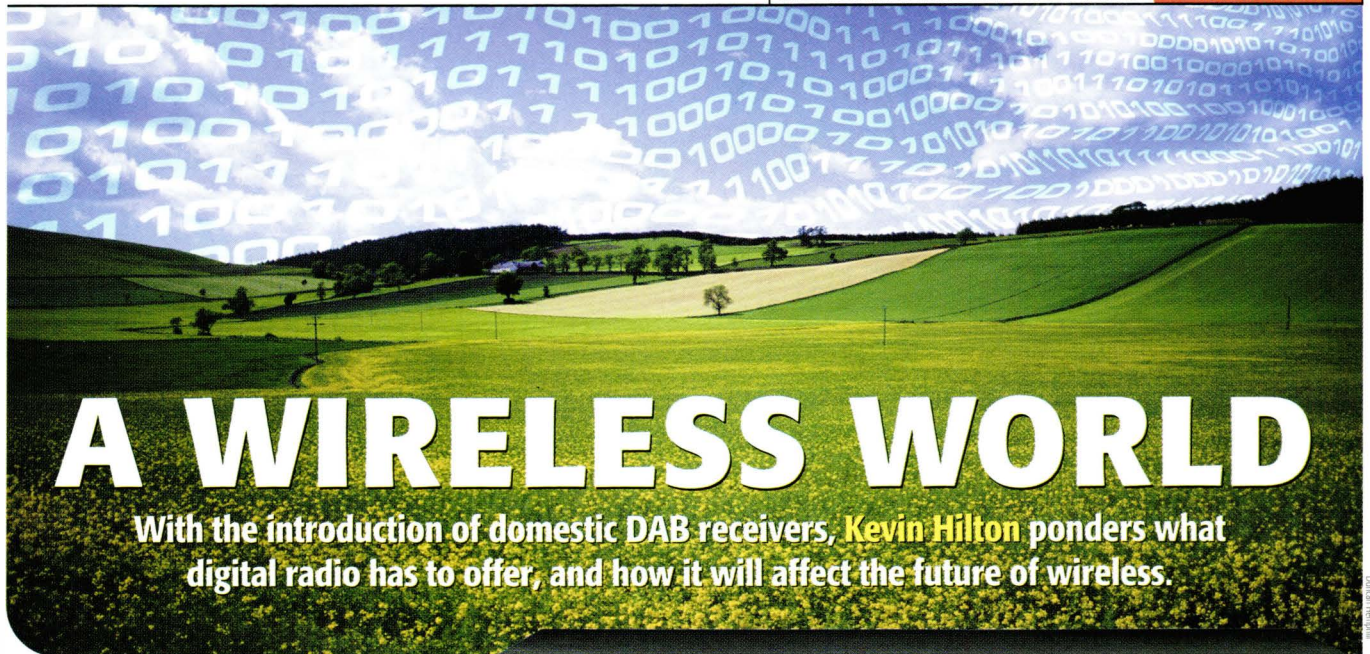


Profile 4 x 4

"This is incredibly good value cable, revealing clarity and depth of image that is downright stunning. We recommend the QED unreservedly."

Price around £9.00/m





# A WIRELESS WORLD

With the introduction of domestic DAB receivers, **Kevin Hilton** ponders what digital radio has to offer, and how it will affect the future of wireless.

**D**igital technology has changed so many aspects of modern life, it was inevitable that it would come to affect the much-loved old 'steam' wireless. The BBC's current promo campaign for new digital services highlights their ability to let you "see radio", and while this is true in principle, it is only a small part of how developing technology will change a pictureless medium.

Everything started with a system known as digital audio broadcasting (DAB), but broadcasters and equipment manufacturers now prefer the term 'digital radio', for the reason that it is services which will sell, rather than the technology. The latter permits broadcasters to offer more choice within existing radio bands: whereas one radio station currently occupies the whole of a frequency slot (for example BBC Radio 4 FM on 92.4-94.6MHz), DAB can have a group (or bouquet) of stations on one digital frequency. This collection of services is known as a multiplex, and can encompass existing and new radio stations, data services, text pages and still pictures.

The BBC has been a DAB pioneer, starting a pilot service in September 1995 with digital transmissions of BBCs Radio 1, 2, 3, 4 and 5 Live, simultaneously transmitted with conventional analogue broadcasts. The service was augmented by additional Parliamentary and sports coverage. In July the Corporation announced plans for further programming: a pilot scheme based on the BBC's extensive rock and pop archive, a travel data service, and a nation-wide version of the BBC Asian network.

In the commercial sector there is only one bidder for the single national commercial multiplex. Digital One is a consortium owned by GWR Digital Radio, NTL Digital Radio and Talk Radio UK. It is proposing a variety of niche services including 24-hour classic rock, rolling news, a sports channel, teenage programming, a books/drama/comedy strand and club dance music.

Regional pilot services have been running in London and other metropolitan



areas since 1996, and full local licences will be advertised once details of the national bid have been settled.

While broadcasters have been working hard on programming, few listeners have heard it. After fanfares at the Berlin IFA consumer electronics show last year, only in July 1998 did DAB receivers arrive for the domestic market. These have been mostly for in-car use, since this area stands to benefit most from the new technology.

**“ ...while analogue fans hang onto their turntables, radio users may not enjoy the luxury... analogue services are due to cease in 10 to 15 years time... ”**

Models already introduced on the in-car market include: Blaupunkt's D-FIRE (Digital Fully Integrated Receiver Engine); Clarion's DAB9475R which handles both FM and digital reception automatically; Grundig's DCR200 which is compatible with many of the company's radio head-units; Kenwood's KTC 959 offering a 16-segment text read-out; and Pioneer's GEX-P900DAB which will convert any existing P-Series head unit into a digital receiver. Sony has now entered the field with the CDX-C90R and the XT-100DAB, expanding a line-up ranging in price from £499 to £1099.

In-car receivers encapsulate the advantages of digital radio: better reception, little or no interference, easier tuning and the extra information offered by text and data services. However, just as old-school vinyl LP

**◉ Arcam has stolen a march on competitors with its Alpha 10DRT, the UK's first digital-radio tuner.**

has proved itself ultimately sonically superior to the more youthful CD, it is true that a high-end FM receiver (with a proper aerial) will probably sound better than DAB. Nonetheless, the new format has consistency and in theory the services will not be compressed in the way of many commercial FM stations today. (This process limits a signal's dynamic range to make it sound louder than other stations).

However, while analogue equipment fans can at least hang onto their turntable and LPs, radio users may not enjoy the same luxury, as analogue services are due to cease transmission in 10 to 15 years time.

Hence there's an imperative to develop digital radio products for domestic and portable applications. Arcam recently launched its Alpha 10 DRT tuner (News & Views, HFC 183), which will retail for £799.90 and was due in production during October. This receiver is based on the Roke Manor Gold Card DAB module; Roke has also formed an alliance with software company RadioScape to produce digital radio products that can plug into PCs. Bosch, too, is developing PC units, alongside a portable 'miniDAB' radio which is currently in prototype form. Meanwhile the BBC has shown design studies for a two-button digital radio that could come to market in due course.

This last unit looks like the spook trap from *Ghostbusters*, perhaps underlining how high-tech radio has become. Forget turn-wheel tuning and waggling a funny pink aerial: this is the wireless for the 21st Century, whether you like it or not.

# "It's a rare combination of superb sound, and terrific value"

**WHAT HI-FI?**

and only available from these authorised dealers...

<b>ABERDEEN</b> Sevenoaks Hi-Fi 01224 587070	<b>BOURNEMOUTH</b> Movement Audio 01202 529988	<b>CHANDLERS FORD</b> Hampshire Audio 01703 252827	<b>EDINBURGH</b> Hi-Fi Corner 0131 2201535	<b>Huddersfield Hi-Fi</b> 01484 544668	<b>LONDON</b> A&M Electronics 0171 580 1577	<b>MANCHESTER</b> Bill Hutchinson 0161 832 1600	<b>OXFORD</b> Audio T 01865 765961	<b>SEVENOAKS</b> Richer Sounds 01732 456573	<b>TAUNTON</b> Mike Manning Audio 01823 326688
<b>ACCRINGTON</b> Cryers 01254 391440	<b>BRACKNELL</b> Suttons 01202 555512	<b>CHELtenham</b> Audio T 01242 583960	<b>HULL</b> Hi-Fi Corner 0131 556 7901	<b>HULL</b> The Audio Room 01482 896166	<b>OXFORD</b> Central Radio 0161 834 6700	<b>OXFORD</b> Oxford Audio 01865 790679	<b>SEVENOAKS</b> Sevenoaks Hi-Fi 01732 459555	<b>TEWKESBURY</b> Sight & Sound 01684 298109	
<b>AYLESBURY</b> Northwood Audio 01296 428790	<b>BRADFORD</b> B&B Hi-Fi 01344 424556	<b>CHESTER</b> Richer Sounds 01242 241171	<b>ENFIELD</b> Audio T 0181 367 3132	<b>ENFIELD</b> Electra etc 01482 324051	<b>OXFORD</b> Practical Hi-Fi 0161 839 8869	<b>SEVENOAKS</b> Superfi 0161 835 1156	<b>THAMES</b> Thame Audio 0114 273 7893	<b>THORNTON HEATH</b> AWE 01841 215431	
<b>BANBURY</b> Blinkhorns 01295 259859	<b>BRENTWOOD</b> Audio T 01277 264730	<b>CHESTER</b> Audio Excellence 01244 345576	<b>EPING</b> Chew & Osborne 01902 574242	<b>EXETER</b> Audio Excellence 01392 491194	<b>OXFORD</b> The Hi-Fi Room 0161 832 0888	<b>THAMES</b> E.T.S. 01736 64274	<b>TORQUAY</b> Moorgate Acoustics 0114 275 6048	<b>TRURO</b> E.T.S. 0181 653 3657	
<b>BANGOR</b> I & H Griffiths 01248 370655	<b>BRIGHTON</b> Hills Sound & Vision 01273 418006	<b>CHORLEY</b> Monitor Sound 01257 271985	<b>EPSOM</b> Electra etc 01372 720720	<b>EXETER</b> Audio Excellence 01392 491194	<b>OXFORD</b> Techniques 01623 26315	<b>TRURO</b> W.M. Coupar 01738 634809	<b>TUNBRIDGE WELLS</b> Sevenoaks Hi-Fi 01892 531543	<b>WARRINGTON</b> Sounds of Music 01892 547003	
<b>BARNSTAPLE</b> J & A Video Centre 01271 324384	<b>BRISTOL</b> Audio Excellence 0117 926 4975	<b>CONGLETON</b> Hi-Fi Showrooms 01260 280017	<b>EXETER</b> Laws 01395 272838	<b>EXMOUTH</b> Hi-Fi Corner 01324 629011	<b>OXFORD</b> MARKET 0181 855 8016	<b>TUNBRIDGE WELLS</b> Creative Audio 01738 634809	<b>TRURO</b> E.T.S. 01872 79809	<b>TUXFORD</b> nr. Newark Chantry Audio 01777 870372	
<b>BASINGSTOKE</b> Audio T 01256 324311	<b>BRISTOL</b> Paul Roberts Hi-Fi 0117 942 9370	<b>COVENTRY</b> Frank Harvey Hi-Fi 01203 525200	<b>FALKIRK</b> Hi-Fi Corner 01324 629011	<b>GLASGOW</b> Bill Hutchinson 0141 248 2857	<b>OXFORD</b> HARBOROUGH 01733 352752	<b>TUNBRIDGE WELLS</b> Shropshire Hi-Fi 01743 232317	<b>TRURO</b> E.T.S. 01872 79809	<b>TUXFORD</b> nr. Newark Chantry Audio 01777 870372	
<b>BATH</b> Moss of Bath 01225 465085	<b>BRISTOL</b> Richer Sounds 01273 673333	<b>CROVEDON</b> Audio Tech 0181 680 1177	<b>GATESHEAD</b> Lintone Audio 0191 460 0999	<b>GLASGOW</b> Glasgow Audio 0141 332 4707	<b>OXFORD</b> MANSFIELD 01623 26315	<b>TUNBRIDGE WELLS</b> Richer Sounds 01703 231311	<b>TRURO</b> E.T.S. 01872 79809	<b>TUXFORD</b> nr. Newark Chantry Audio 01777 870372	
<b>BIRMINGHAM</b> Music Matters 0121 429 2811	<b>BRISTOL</b> Paul Roberts Hi-Fi 0117 942 9370	<b>DARLINGTON</b> Hi-Fi Experience 01235 481418	<b>GATESHEAD</b> Lintone Audio 0191 477 4167	<b>GLASGOW</b> Bill Hutchinson 0141 248 2857	<b>OXFORD</b> NEWCASTLE 0191 230 3600	<b>TUNBRIDGE WELLS</b> Richer Sounds 01703 231311	<b>TRURO</b> E.T.S. 01872 79809	<b>TUXFORD</b> nr. Newark Chantry Audio 01777 870372	
<b>BIRMINGHAM</b> Music Matters 0121 429 2811	<b>BRISTOL</b> Paul Roberts Hi-Fi 0117 942 9370	<b>DARLINGTON</b> Hi-Fi Experience 01235 481418	<b>GATESHEAD</b> Lintone Audio 0191 477 4167	<b>GLASGOW</b> Bill Hutchinson 0141 248 2857	<b>OXFORD</b> NEWCASTLE 0191 230 3600	<b>TUNBRIDGE WELLS</b> Richer Sounds 01703 231311	<b>TRURO</b> E.T.S. 01872 79809	<b>TUXFORD</b> nr. Newark Chantry Audio 01777 870372	
<b>BIRMINGHAM</b> Music Matters 0121 429 2811	<b>BRISTOL</b> Paul Roberts Hi-Fi 0117 942 9370	<b>DARLINGTON</b> Hi-Fi Experience 01235 481418	<b>GATESHEAD</b> Lintone Audio 0191 477 4167	<b>GLASGOW</b> Bill Hutchinson 0141 248 2857	<b>OXFORD</b> NEWCASTLE 0191 230 3600	<b>TUNBRIDGE WELLS</b> Richer Sounds 01703 231311	<b>TRURO</b> E.T.S. 01872 79809	<b>TUXFORD</b> nr. Newark Chantry Audio 01777 870372	
<b>BIRMINGHAM</b> Music Matters 0121 429 2811	<b>BRISTOL</b> Paul Roberts Hi-Fi 0117 942 9370	<b>DARLINGTON</b> Hi-Fi Experience 01235 481418	<b>GATESHEAD</b> Lintone Audio 0191 477 4167	<b>GLASGOW</b> Bill Hutchinson 0141 248 2857	<b>OXFORD</b> NEWCASTLE 0191 230 3600	<b>TUNBRIDGE WELLS</b> Richer Sounds 01703 231311	<b>TRURO</b> E.T.S. 01872 79809	<b>TUXFORD</b> nr. Newark Chantry Audio 01777 870372	
<b>BIRMINGHAM</b> Music Matters 0121 429 2811	<b>BRISTOL</b> Paul Roberts Hi-Fi 0117 942 9370	<b>DARLINGTON</b> Hi-Fi Experience 01235 481418	<b>GATESHEAD</b> Lintone Audio 0191 477 4167	<b>GLASGOW</b> Bill Hutchinson 0141 248 2857	<b>OXFORD</b> NEWCASTLE 0191 230 3600	<b>TUNBRIDGE WELLS</b> Richer Sounds 01703 231311	<b>TRURO</b> E.T.S. 01872 79809	<b>TUXFORD</b> nr. Newark Chantry Audio 01777 870372	

1994

Best Speaker Cable



Best Interconnect & Highly Recommended Speaker Cable

1995



Best Interconnect & Best Speaker Cable

1996



Best Speaker & Highly Recommended Interconnect

1997



Best Speaker & Highly Recommended Interconnect



# One of Life's affordable luxuries . . .



## Hi-Fi Choice

(December '96)

Cable Talk Studio 2  
Sound \*\*\*\*\*

## THE VERDICT

▲ Tonally, dynamically and rhythmically a truly first-class cable

▼ Very little to criticise.

Price: £65 (1m pair)

## Home Entertainment

(August '98)

Cable Talk Studio 2  
Verdict \*\*\*\*\*

▲ . . . handles music & video sound with equal aplomb . . .

▼ . . . the cable is excellent & can be used almost anywhere.



# Cable Talk

Interconnects & Speakers Cables

For further information please write, telephone or fax to

Cable Talk, Unit J, Albany Park, Camberley, Surrey GU15 2PL

Tel (UK only): FREEPHONE 0800 100 6868 or Tel : (+44) (0)1276 686717 Fax : (+44) (0)1276 686353

Quoting HFC 12/98

The advertisement features a central stack of four Kenwood audio components (tuner, CD player, amplifier, and cassette deck) on a black and white checkered floor. The scene is framed by several tall, grey, telescope-like structures with brass-colored joints, set against a bright blue sky with scattered white clouds. The Kenwood logo is in the top right corner.

KENWOOD

## Foresight by Kenwood

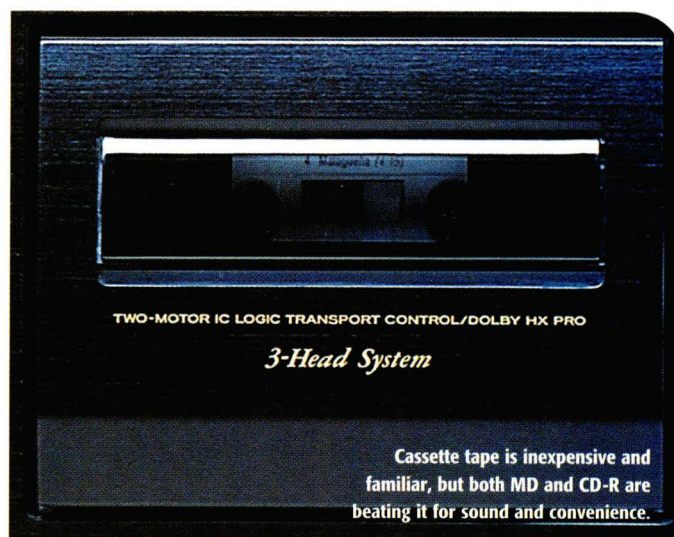
Kenwood's Series 21. Programmed for the new music formats of the 21st century. But it can play your CDs and cassettes, too.  
(While you wait for the future to come into focus.)

Visit your Kenwood dealer for a demo.

# HOME RECORDERS

## SUPER TEST!

Recording mediums are so plentiful, it's hard to know where to start. But **Richard Black** has been trying all the options, and he has the answers to your dubbing dilemmas.



### THE CAST LIST

Denon DMD-1000	£299.99	p63
Marantz SD455	£169.90	p61
Philips CDR880	£499	p67
Pioneer PDR-555RW	£480	p69
Sharp MD-R3	£300	p64
Sony MDS-JB920	£300	p65
Teac V-1050	£179.95	p62

Oh, for the days when the only home recording format was cassette! It all seemed so simple — more money bought a better deck and that was an end to it. Now we've got to choose between at least three formats, with the prospect of more to come. What is one to do?

Of course, it all depends on what you want your recording machine to do. For instance, if you have a vast collection of cassettes recorded over the years, you may not be very interested in MiniDisc. If your main wish is to make CD compilations to play in the car or in your bedroom, a CD or MiniDisc recorder will do equally well, assuming you have the relevant player. If you wish to be a bit creative and do some off-air recording, MiniDisc offers unique editing

MiniDisc is flexible, friendly and robust. Ideal for music on the move.

possibilities. However, if you're starting completely from scratch and have no particular need to be equipment-compatible, the world is your oyster and you can choose between the flexibility of MD and the sound quality of CD. When the cassette format eventually bites the dust, I won't spend too long mourning its passing.

The ultimate system is probably a combination of DAT and CD — the former for original recordings, with limited editing abilities, and the latter for the final copy. But DAT starts at about £700, so you need to be pretty flush. In fact, for only about that much, if you already have a Pentium-class PC, you can get a digital input card and editing software. Just add an external CD recorder to gear up for full professional editing. A bit specialised maybe, but it adds possibilities to home recording.

And before you ask, we're prob-

“...the choice won't get any easier... ask yourself exactly what you want to do with a recording machine, and take it from there...”

ably not going to see the ideal system, one which combines the 'bit-perfect' copying of CD with the editing convenience of MiniDisc. It's just too hot politically, and don't forget that some of the really big hardware players are also record companies, and don't want to encourage piracy. So the choice won't get any easier if you leave it longer. Ask yourself exactly what you want to do with a recording machine, and then take it from there.



### GLOSSARY

**ATRAC (ADAPTIVE TRANSFORM ACOUSTIC CODING):** the system used to compress the audio bitstream to about one quarter of its original size to fit on a MiniDisc. Current software version is 4.5 or 5 depending on make. **DATA REDUCED:** a system such as ATRAC, which guesses which bits of the sound are audible, and saves space by ignoring the rest.

**DOLBY:** The Dolby company licenses its cassette noise-reduction system to all manufacturers. Tapes recorded with Dolby must be played back the same way or sound will suffer. Three types, B, C and S, provide different levels of performance. S is restricted to high-end machines. Dolby HX Pro is a record-only enhancement that operates automatically on playback.

**FINALISING:** Normal CD players can't play CD-Rs until they have been 'finalised', at which point the table of contents is written and further recording becomes impossible.

**SAMPLE-RATE CONVERTER (SRC):** CDs and MDs store audio, sampled digitally, at a rate of 44.1kHz. DAT and some other systems sample at 48 or 32kHz. An SRC converts from one rate to another digitally, with a small loss of quality, allowing direct digital copying to MiniDisc or CD.

# TEAC

Do not be deceived by its size. Because the new Reference 300 Micro System from Teac is deceptively big on performance.

The natural follow on to the Award winning and critically acclaimed Reference 500 Series, it's everything you would expect.

Except smaller.  
And less expensive.

Separates performance from a Micro System?

Only TEAC could do it.

T-H300  
TUNER



A-H300  
AMP



R-H300  
CASSETTE DECK



PD-H300  
CD PLAYER



MD-H300  
MINI DISC



"The best little hi-fi in the world? You bet your boots it is"

T3 Magazine, May 1998

Visit your TEAC Stockist for a demonstration or call TEAC on 01923 819630 for more information

# TEAC



BEWARE. OBJECTS IN MIRROR  
MAY APPEAR SMALLER

## So What!



### The Reference 300 Micro System



DUE TO TECHNICAL DIFFICULTIES BEYOND THEIR CONTROL, OTHER MICRO SYSTEMS WILL NOT BE DELIVERING THIS LEVEL OF PERFORMANCE

Chief Musical Officers' Warning

## MARANTZ SD-455



**H**i-Fi Choice tends not to review equipment at the cheapest end of the market and though this Marantz is not the least expensive deck available, neither does it look like a million bucks. The front and back of the case are undisguised plastic, while the top cover is so thin, you could almost use it to wrap your sandwiches. However, in terms of material value for money, there are few grounds for complaint. When you tally up the components inside this recorder, it's hard to see how Marantz had any budget left to assemble it, never mind package, ship and sell it.

Twin decks don't vary much in terms of features. Usually one deck only plays; the other plays and records. In this case, both can play in both directions, automatically changing direction at the end of a side. Of course, the whole point of having two decks in one machine is to ensure easy cassette-to-cassette dubbing, so there's a single button for 'synchro dubbing', which starts the replay deck and the record deck simultaneously. Dubbing can be accomplished at single or double speed and there's no need — or option — to alter the record level and Dolby settings, which are carried over

intact from tape to tape.

Apart from level and Dolby (B, C or off), there's nothing to adjust — no bias set or the like — and as with almost all modern decks, tape-type selection is automatic so you don't need to know if you're using chrome, metal or ferric. Although if you're dubbing, it's preferable not to mix and match, especially if the original tape was recorded with Dolby.

#### SOUND QUALITY

If you're one of those who think all cassette decks below £300 sound terrible, and especially twin decks, you'll be pleasantly surprised by the SD-455. I began by playing pre-recorded tapes on either deck, where it made a good fist of various material. Even that real bugbear of cassette, pitch instability (wow and flutter) wasn't really noticeable on demanding programmes such as piano or organ, and the sound was steady overall, and solid, with commendable treble extension and good dynamics. Both Dolby B and C seem well-aligned and, generally, the music was lifelike and clear.

Next up was a test of material recorded from an external source and played back. Again, good results, not giving much away to

pre-recorded tapes (in fact, as a general rule home-made recordings on the analogue tape are often more successful than pre-recorded material). Using good quality tapes (mostly Maxell XL-IIIS, an excellent chrome tape), it was possible to push levels quite hard with most music, even a solo

**“ ...If you think all cassette decks below £300 sound terrible, and especially twin decks, you'll be pleasantly surprised... ”**

female voice tolerating up to +5 on the meters before crunching. This allowed fairly noise-free recordings with Dolby B. Dolby C, as so often on all but the best decks, led to slightly audible side-effects, including the dreaded 'noise modulation'. Without noise reduction, dynamic material was hissy, but Dolby B seemed a good compromise.

Results varied quite a lot with

▼ Both Dolby B and C are well-aligned, and its music is clear and lifelike.

◀ In terms of what you get for your money, the SD-455 is good value.

programme, and while 'busy' stuff came over well, small details gave away the deck's price tag. A lone ping on a triangle, for instance, sounded comical and weedy.

Dubbing is a different matter. If the source tape is Dolby-less and copied at normal speed, results aren't bad, but as you add Dolby and double-speed copying, it goes downhill. Better not to dwell on this: it works, you get something you can listen to in the car — but it's not hi-fi.

#### CONCLUSION

Twin decks have their place, but whether that place is really in hi-fi, as such, is open to question. Though good for the genre, this deck will still be seen off by any decent single deck at the price.

#### VERDICT

**SOUND** ★★★★★

**BUILD** ★★★★★

**VALUE** ★★★★★

**PRICE** £169.90

☛ Works quite well as a single deck, especially on replay, but dubbing at high or low speed does compromise the sound quite markedly.

■ ONE YEAR GUARANTEE

✉ Marantz Hi-Fi UK Ltd, Kingsbridge House, Padbury Oaks, 575-583 Bath Road, Longford, Middx, UB7 0EH  
☎ (01753) 680868

#### FEATURES

- Maximum recording time 2 hrs
- Media cost per hour 50p-£5.00
- Editing facilities Punch-in recording



# TEAC V-1050

TEAC V-1050 Visit Our Website: www.hifichoice.co.uk



**T**hough it sells for roughly the same as the Marantz SD-455, the Teac V-1050 dispenses with the second mechanism and adds a third head to single mechanism instead. This places it firmly on the starting block for three-head decks.

Traditionally, the preserve of high-end machines, the three-head system (ie separate record and replay heads, instead of one head serving in both capacities) still commands a higher price due to the extra electronics required. It should, however, give substantial advantages over a shared record/replay head, all else being equal, because the optimum characteristics of record and replay heads are different.

The 'all else being equal', however, is a bit of a moot point, since they never are. If this deck had only two heads, it would have one less Dolby encoder and less amplification electronics, and would be in the £130 bracket or so. That means real budget stuff, and the construction and finish confirm this. Despite its impressive size, the deck is lightweight and plasticky and a look inside doesn't change that impression. Still, it's put together well enough. At this price, unfortunately, you don't get a dual-capstan transport but there are at least separate motors for capstan

**“ ...Teac favours a slightly unusual layout, with the transport in the centre and controls to the left, which is pleasing to use... ”**

and hubs, which should help the speed stability.

Front-panel controls are pretty much the standard set, though Teac has always favoured a slightly unusual layout with the transport in the centre and controls to the left, which I find pleasant to use. Dolby B and C are provided, and there's bias adjustment, too — this is easier to perform on a three-head machine, as you can quickly adjust for the least tonal difference between the off-tape and input signals. The deck also comes with a remote control.

### SOUND QUALITY

It's rather ironic but, if anything, the performance of this deck is dominated by the line electronics rather than the actual tape section. When monitoring the incoming line signal, there's a marked thickening effect, which has little effect on tonality but seriously squashes images and makes detail harder to

follow — a bit like hearing musicians from just outside the room they're playing in. This is noticeable with any kind of music at pretty much any level.

By contrast, allowing for that effect, performance when recording and replaying a tape is good, especially when quality chrome or metal tapes are used. Despite the simple transport, pitch stability is fair and there's only the slightest hint of wavering in solo piano — generally the toughest test of tape transports. Very dynamic music can be a problem because, as with many cheaper cassette decks, there's some noise modulation: a form of distortion which causes the noise to rise as the signal does, and this is most obvious when recording 'hot' (at high levels) without Dolby. Dolby B, as so often, seems the best compromise; C is hardly quieter and sounds a bit disjointed, though it's more successful with metal rather than chrome tapes.

Replay of pre-recorded tapes is generally good and there seems to be no problem with Dolby alignment. The deck doesn't like really 'hot' tapes but there's no problem with commercial pre-recorded ones. The sound is quite

○ Line electronics let this deck down.

○ Controls are laid out for ease of use.

full and life-like, with powerful, though slightly lumpy bass; and treble which is adequately extended though just a shade dull with tough sounds like cymbals. This may be down to the line stage effects — without pulling the deck apart, one can't know whether input, output or both sections are to blame. On the lab bench, there's certainly some nasty-looking distortion present on line monitor, at all frequencies and any level above about -6dB. There's also a little transport noise, though probably not enough to be irritating in most instances.

### CONCLUSION

Although the third head does have undeniable advantages in some ways, at this price it may still be better to go for a really good two-head machine with better electronics and transport.

### VERDICT

**SOUND** ★★★★★

**BUILD** ★★★★★

**VALUE** ★★★★★

**PRICE** **£179.95**

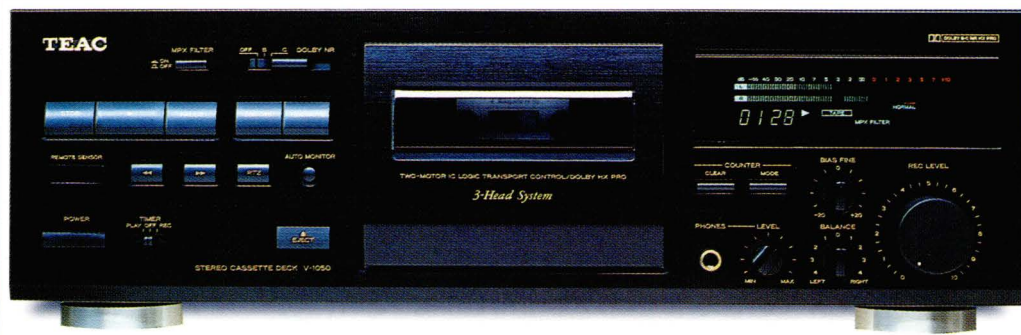
One of the cheapest 3 head machines around, but economies must have been made somewhere and these definitely show in a very 'thick' sound.

#### ONE YEAR GUARANTEE

Teac UK, 5 Marlin House, The Croyley Centre, Watford, WD1 8YA  
(01923) 819630

### FEATURES

- Maximum recording time 1 hr
- Media cost per hour 50p-£5.00
- Editing facilities Punch-in recording



## DENON DMD-1000



Denon has always had a pretty good name in digital audio, having got off to a flying start in the '70s with some of the first digital recordings ever made. In keeping with the company's approach, the DMD-1000 makes its first impression as a solid, no-nonsense machine. The front panel is neatly laid out and easy to follow, with buttons clearly labelled and input selection on a rotary switch. The input-level control has no facility for separate right and left channel adjustment, though I can't recall the last time I needed that function.

Connections include two Toslink digital inputs and one coaxial alongside the analogue inputs, with a single Toslink for digital output. Internally the unit has the usual Far Eastern array of circuit boards, fairly neatly linked. The main audio board is a single-sided printed circuit board with through-hole components mounted on one side, and surface-mount on the other. This type of arrangement has been common for some years, but in a product as complicated as a MiniDisc recorder, it seems astonishing that it is still cheaper to do things this way, than to make a double-sided board. Few UK designers would even consider it: even after all these years, there's still a lot of difference between us and the Far East! The mechanism

is from Sharp, the only mechanism maker apart from Sony.

Operation of the DMD-1000 is typical of most MiniDisc recorders. Basic recording technique is similar to any other recorder of any type – set the level (if you're using analogue inputs), press Record, press Play and away you go. In fact, to allay technofear, that's all you actually need to know. But there are the usual editing features which give the format its unique flexibility. For a start, you can title discs and tracks. However, this is painfully slow because, as with all the MiniDisc machines I've seen, there's no keyboard, so you have to scroll through the entire alphabet to find a letter.

You can edit tracks by dividing, combining, moving and erasing them, effectively giving all the possibilities that a razor blade offers with analogue tape, although it's not easy to be accurate in locating edit points and the process is still a bit slow. It's useful for losing applause and inane commentary interjections in off-air recordings, for instance.

#### SOUND QUALITY

Because MiniDisc is a data-reduced format which quite deliberately throws away some of the data, in the belief that it represents inaudible details in a recording, and because the signal processors effecting this are common to many

different recorders, there is likely to be a degree of similarity between machines. But, if you're using a reasonably competent system, there is still room for individual differences, and this recorder does indeed seem to support the

“...Bass is well-extended and quite powerful, making music with a strong rhythmic drive so much more exciting on audition...”

Denon reputation in terms of sound quality. Recordings made via digital input came across with good attack and vitality, and quite good ambience and 'space'. Bass is certainly well-extended and quite powerful, making music with a strong rhythmic drive so much more exciting on audition. Via the analogue input, the sound became a little muffled and lacking in image depth, suggesting that Denon has not regarded analogue as an area of major importance.

If there is a consistent weakness in MiniDisc, it seems to be a rather odd effect whereby one loses

▼ Less dynamic musical styles seem to fare best on the DMD-1000.

● Recording an MD is just like recording on tape. Editing is more sophisticated.

concentration quickly, even though at first hearing there's nothing wrong. This would appear to be due to the brain missing some 'inaudible' bits thrown out by the signal processing, and later versions of the ATRAC system do show less of the effect. The DMD-1000 is one of the least prone to this and scored well on long-term listening. With music containing lots of near-silences, like solo piano, there's a feeling of disconnection from the music, but less dynamic styles like classical or rock fare better.

#### CONCLUSION

As MiniDisc goes, this is a good performer, if not outstanding in sound or features. Denon's traditional reliability shouldn't be too tarnished by the review sample's mechanism going wrong just as I was concluding the tests!

#### VERDICT

**SOUND** ★★★★★

**BUILD** ★★★★★

**VALUE** ★★★★★

**PRICE** £299.99

■ A good machine which still doesn't manage to shake off the MiniDisc plague of losing the listener's interest.

#### ■ TWO YEAR GUARANTEE

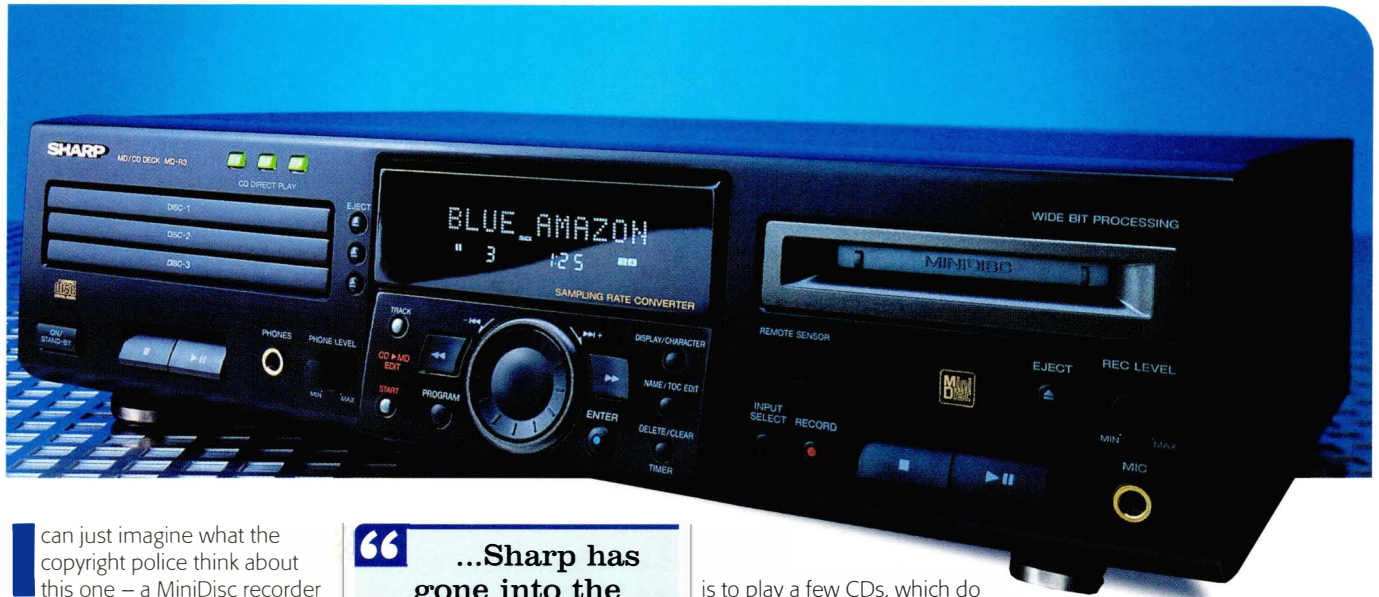
✉ Hayden Labs, Hayden House, Chiltern Hill, Chalfont St Peter, SL9 9UG  
☎ (01234) 741200

#### FEATURES

- Maximum recording time 74 mins
- Media cost per hour £2.00
- Editing facilities Edit to approx 0.1s



# SHARP MD-R3H



can just imagine what the copyright police think about this one – a MiniDisc recorder in the same case with a three-disc CD changer, plus, surprise surprise, the facilities for copying a programmed selection from the latter to the former. It's pretty obvious, but then there was never much pretence about what MD was for – largely, copying from CD. The legal position is still ambiguous but the general consensus seems to be that as long as you're only copying your own CDs for your own listening, you aren't behaving too reprehensibly.

Anyway, Sharp has done it and others are bound to follow. In fact, Sharp has gone into the whole MiniDisc thing with total gusto, not previously having been involved in hi-fi separates since the days of Optonica in the 1980s, the machines have a distinct family look which is both unusual and easy to follow. At least having CD and MD in one box allows the jog wheel to select CD tracks as well. It's a mystery why more CD player manufacturers have not introduced a jog-wheel feature. Some of the buttons are a bit tiny but operation is generally easy enough. Digital input is via Toslink or coaxial, but output is Toslink only.

The CD changer mechanism has three separate trays for the discs, and while one disc is being

“...Sharp has gone into the MiniDisc business with gusto... all the machines have a distinct look and are easy to use...”

played, the others can be changed – but the whole mechanism is terribly slow and clunky. The MD section is much better. Internally the construction is pure budget consumer electronics, with a surprising amount of loose wiring between boards. Audiophile it ain't, but if it works and doesn't pick up hums or crackles, it can't really be too bad. What is surprising is that the analogue input is passed through an electronic switch before going to the level control, which will distort the signal badly if the level exceeds about 2.6V – high, but not above the maximum output of a few CD players. A little more headroom would have been nice.

Most unusually, there's even a microphone input on the MD-R3, stereo at that. No, it doesn't allow you to mix your voice, karaoke-style, with pre-recorded discs!

### SOUND QUALITY

The simplest test of this recorder

is to play a few CDs, which do after all go through the same electronics as an MD on replay. The results are variable. Imaging, often a weakness of cheaper gear, is pretty good and basic tonality is honest, with good detail. But deep bass is rather lumpy, even stodgy, and everything seems ever so upfront and unsubtle. Like so many budget CD players, it's the sort of sound that can prove fatiguing even though it might seem quite exciting initially.

Precisely because both sections use the same DAC and output buffer, the comparison between CD and MD is very fair and reveals the character of the ATRAC processing. There's a slight loss in transparency and detail, and the sound of MD is also less solid and three-dimensional than CD, though otherwise there's little to criticise. However, the classic MD failing of losing the listener's interest, though one can't put a finger on anything wrong, is detectable. As with the Denon deck, the size of this effect varies with the material but never quite vanishes.

Using the analogue inputs, there is a distinct thickening of the sound, a veiling of detail – even

○ The handy jog dial (centre) makes light work of MD and CD manipulation.

○ The MD-R3H is a hardcore multi-CD copying machine.

when simply monitoring the input in record/pause mode. Tonally things are mostly in place but there's an obvious drop in the amount of detail coming through. This may be due, as much as anything, to the electronic switching mentioned above, which is known to be far from inaudible.

### CONCLUSION

It's an attractive-looking product and Sharp, as one of the originators of MiniDisc, is well placed to offer good value for money in terms of features. However, for many people the CD player will be of limited use as they'll already have one, and the relatively limited performance make the bargain look a bit less appealing. But it's quite a clever concept and will probably appeal to well-heeled folks with teenage kids!

### VERDICT

**SOUND** ★★★★★

**BUILD** ★★★★★

**VALUE** ★★★★★

**PRICE** £300.00

■ Nifty machine combining a three-disc CD changer with a MD recorder. Sound on both is rather below par, though.

■ ONE YEAR GUARANTEE

✉ Sharp Electronics UK, Sharp House, Thorp Road, Newton Heath, Manchester, M40 5BE  
☎ (0800) 262958

### FEATURES

- Maximum recording time 74 mins
- Media cost per hour £2.00
- Editing facilities Edit to approx 0.1s





## SONY MDS-JB920



If the esteemed editor gave writers unlimited space in which to describe features, we would all get very rich from Sony's MD recorders. The star feature on this one is undoubtedly the 'Mega Control'. It sounds so wonderful — actually all it does is to allow the MD deck to control track selection on a suitable Sony CD player, connected via the Sony Control A1 link.

Not surprisingly, on this EISA-award-winning deck, there are the usual MD functions and features, including one coaxial and two optical digital inputs, and one output of each type. Add to that stereo or mono recording plus editing and titling facilities. To date, no manufacturer has matched Sony for editing ease and power. The JB920 includes a rehearsal function which, once you have approximately located the edit point, plays a couple of seconds before or after, as required, while you adjust the precise time of the edit. Better still, you can select edit times to within 12ms — much better than most other decks. That's plenty good enough for seamless edits within a piece of music.

Other functions include a real-time clock which writes the date and time to the disc as it records. Given this, and that the deck will work with an external timer, and that the on/off switch is only for standby with power continuously applied, it's a shame that Sony has not equipped the JB920 to function like a VCR, with a built-in timer

**“...To date, no manufacturer has matched Sony for editing ease... good enough for seamless edits within a piece of music...”**

to make unattended recordings. There's a digital record level control in addition to the analogue one, which allows level setting between -60dB and +12dB in fine steps. Time Machine Recording stores six seconds of audio and will enter record from record/pause six seconds before you pressed the button — useful when you want to catch a radio broadcast, announcements and all. A fader function allows fading into or out of a recording with user-programmable fade time.

Many of these functions are accessed via a menu system, which also offers a choice of output wordlengths — 16, 20 or 24 bits. This may be only decorative in a data-reduced system, especially since the deck seems to dither its digital signal processing correctly, but then again, why not? If you like to fall asleep to music, you can program the deck to switch off after 30 to 120 minutes.

Bedroom DJs may appreciate the variable speed/pitch function, which gives an amazing range from +12.5 per cent (2 semi-

tones) to -98.5 per cent (five octaves — wow!) in whole semitone or 0.1 per cent steps, while still preserving a 44.1kHz digital output on the sockets.

Appearance and layout of the deck are good, though some of the buttons are small and cramped, and require such a hard push that the deck will move backwards on a polished surface before the switches operate. Internal construction is smart and tidy, with Sony's own mechanism, a slimline and simple affair. The rear panel is helpfully labelled in four languages.

#### SOUND QUALITY

With all those features, it's still a MiniDisc recorder and — sorry to sound like a stuck record — it has that familiar sound which seems so far to be a characteristic of data-reduced formats. Initial impressions are very favourable and the sound seems immediate, clear and full-bodied. But there remains that peculiar lack of communication which causes the brain to switch off and lose interest in the music unless one makes an effort to keep involved. Hardly a problem if it's only background music you want, but it does interfere with serious listening.

Still, as MiniDisc recorders go, this is clearly a good 'un. In fact, it's

● The MDS-JB920 is ideal for editing, with edit frames of only 12ms.

● Sony's 'Mega Control' permits track selection on a connected CD player.

quite possible that its fine performance in areas like tonality and dynamics only leave the intrinsic MD limitations the more nakedly exposed. Recording via digital inputs makes no immediately obvious mark on the sound, while via the analogue input there's nothing amiss besides a very small amount of chestiness; the detail and imaging are still very good. The sample-rate conversion and digital level control are as near transparent as makes no odds, in this particular context.

#### CONCLUSION

Despite reservations about the ultimate quality of the format, one can appreciate that this is a fine machine which in many situations will perform very well. There are two questions you need to ask yourself: exactly what format would you like, and what machine do you want? If the answer to the former is 'MiniDisc', then the answer to the second may very well be 'this one'. Recommended.

#### VERDICT

**SOUND** ★★★★★

**BUILD** ★★★★★

**VALUE** ★★★★★

**PRICE** £300.00

One of the better MD decks around: its sound is neutral and dynamic.

■ ONE YEAR GUARANTEE

Sony UK, The Heights, Brooklands, Weybridge, KT13 0XW

☎ (0990) 111999

#### FEATURES

- Maximum recording time 74mins
- Media cost per hour £2.00
- Editing facilities Edit to approx 0.1s



# PHILIPS CDR880

PHILIPS CDR880

Visit Our Website: www.hifichoice.co.uk



Philips created quite a stir, and ruffled more than a few feathers in the copyright business, by introducing the CDR870 only months ago. It was the first audio CD recorder below £500 and the first to handle rewritable CD-Rs (CD-RWs).

Paul Miller, writing in these very pages in *HFC* 174, uncovered a problem with the '870's sample-rate converter. This device was included to allow complete compatibility with all digital sources, but actually introduced vast quantities of jitter even when copying from CDs which required no sample-rate conversion at all. Philips responded with commendable haste by updating the model to the CDR880, in many ways the same machine but with a few minor changes, including automatic disabling of said converter when copying from CDs, hence allowing 'bit-perfect' copies.

It is now received wisdom that there is no good reason why CD recorders need to cost much more than players. Both internally and externally the '880 supports that view. It looks, frankly, as if Philips will be in a position to ramp up production and drop the price as soon as sales take off — this is clearly a very highly 'productionised' design. In fact the front panel, though smart enough, does look a bit stiff in the company of most contemporary hi-fi separates. It is, and

“...if there's a difference in sound quality between original and copy, played on the same machine, it's very small indeed...”

looks, entirely plastic and doesn't inspire confidence. Still, all the basic functions are catered for, although some people will miss the option of separate left-right channel record-level adjustment.

Connections include the usual analogue in and out plus both Toslink and coaxial in and out, allowing use with a good quality external DAC for replay. Inside the unit is a lot of fresh air, a power supply board and the mechanism, with pretty much the entire audio electronics section on a board barely 8 by 6 inches. The mechanism itself looks pretty basic, although it is, in fact, based on a cast-alloy chassis.

Display and control functions are handled by a separate board. The display is a major let-down, with only eight coarse steps on the level display. As you probably know already, normal CD-R discs can only be recorded once, with no editing or erasing possible. CD-RW discs can be re-recorded, but are hampered by the fact that the

erasing functions are limited to the last track or the whole disc. Furthermore, CD-RWs won't play on most normal CD players and are still very expensive (around £15, while consumer-use CD-Rs, which you have to use in all consumer audio recorders, are now below £3). At the time of writing, CD-RWs are also incredibly hard to find, so for now they appear to be something of a red herring.

## SOUND QUALITY

Tested as a straight CD player with normal commercial discs, the CDR880 acquits itself as an honest-enough budget machine, around the £160 mark. It's listenable but lacks the hallmarks of greatness, so don't look for the last word in detail, subtlety or polish. As a recorder, from digital inputs (CD), in theory it should be completely transparent, since what goes in comes out. And indeed it does — I copied a minute of material on and off disc and found not a single sample (in a total of around 5 million) different by even one bit. Sure enough, if there's a difference in sound quality between original and copy, played on the same machine, it's very small indeed. What variations there are derive largely from jitter, and that in turn is a function of so many variables

✔ CDR880 makes bit-for-bit CD copies, bypassing its sample-rate converter.

✔ The model proves CD recorders needn't cost much more than CD players.

in the replay equipment that one can hardly generalise about one disc being 'better' than the other. Copying from DAT at 48 or 32kHz sampling rates, there is some loss of precision — whether it's due to jitter or filter details one can't know.

That said, the analogue inputs on the CDR880 do have their own character, and it's not at all bad. Completely transparent, maybe not, but only marred by some loss of detail and imaging. Few cassette decks at this price will do better, even when simply monitoring the input — off tape, forget it.

## CONCLUSION

The CDR880 does its job pretty well and as a CD copying device it is basically blameless, but the analogue input, sample-rate converter and ergonomics prevent this recorder from taking any higher accolade than Recommended.

## VERDICT

**SOUND** ★★★★★

**BUILD** ★★★★★

**VALUE** ★★★★★

**PRICE** £499.00

✔ Capable of making perfect copies of CD digital, and very acceptable copies of anything analogue too. CD replay is in the budget bracket.

■ ONE YEAR GUARANTEE

✉ Philips Consumer Electronics, City House, 420-430 London Road, Croydon, CR9 3QR  
☎ (0181) 665 6350

## FEATURES

- Maximum recording time 74 mins
- Media cost per hour £2.50
- Editing facilities Section Skip



NO DISCOUNT COUPON? PLEASE TELL YOUR NEWSAGENT!

# SAVE £2 ON Scotch™

## CD LASER LENS CLEANER

The ideal way to keep your CD player in tip-top condition!

**I**N THE GOOD OLD DAYS of LP, when records started to sound a little bit more crackly than usual, vinyl fans could see the problem instantly – fluff and dust on the needle. A quick tickle from the stylus brush soon restored musical enjoyment.

Now, in the age of CD, it's easy to assume that domestic detritus is no longer a problem. But CDs are read by a complex laser-optical system, and if dust builds up on the laser lens, there may come a day when your player refuses to recognise your favourite discs. The only way to prevent such misfortune is to clean your laser lens regularly with the Scotch CD Laser Lens Cleaner. **Now available in Dixons, it is offered to Hi-Fi Choice readers with an exclusive £2 saving!**

### HOW TO USE THE CD LASER LENS CLEANER

This cleaning disc couldn't be simpler to use. You just insert it into your CD player as normal, press Play and listen to recorded spoken instructions through speakers or headphones. A tiny brush on the business side of the disc spring-cleans your laser lens discreetly while some music plays. And once cleaning is complete, special test recordings will help you to check you have left and right speakers connected correctly.

### HOW TO CLAIM YOUR EXCLUSIVE £2 DISCOUNT

Don't waste any more time – this offer must end on December 31, 1998. All you need to do is detach the Special Offer card stuck onto this page, and take it to your local branch of Dixons. They'll be glad to sell you the Scotch CD Laser Lens Cleaner at a discount of £2 off the normal price. (Offer open to UK readers only.) So don't delay – get down to Dixons and start cleaning today!



**Special Offer**

**Scotch™**  
AUDIO & VIDEO ACCESSORIES

**£2 OFF Scotch™**  
CD Laser Lens Cleaner  
Exclusively at  
**Dixons**

Card Expiry Date: 31st December 1998  
See Reverse for Full Details

CALL DIXONS ☎ (0990) 500049 TO FIND YOUR YOUR NEAREST STORE.

# Billy Vee

**SOUND SYSTEMS**

248 LEE HIGH RD, LONDON, SE13 5PL

PHONE: 0181 318 5755 FAX: 0181 318 0909

OPEN: 10AM - 6.30PM MON - SAT (CLOSED THURS)

## THE CHOICE IS YOURS

We carry the finest range of Hi-Fi in London and you can be sure that any of the products you see advertised here are on display and available for audition. Our helpful experienced staff are always on hand to help explore new possibilities open to you. This month - New goodies from Arcam, Linn, Naim, Rega, Yamaha, DVD and - some great ex-dem bargains, call now!

## THE PRODUCTS

**ARCAM**

**AVI Products**

**B & O**

**B & W**

**DENON**

**EPOS**

**LINN HI-FI**

**AV 51 & Knekt**

**MARANTZ**

**MORDAUNT SHORT**

**MISSION**

**MYRYAD**

**NAIM AUDIO**

**Pro-Ac**

**PIONEER**

**R.E.L.**

**REGA**

**ROTEL**

**STANDS UNIQUE**

**TANNOY**

**TARGET**

**YAMAHA**

Website <http://www.billyvee.demon.co.uk>  
email: [sales@billyvee.demon.co.uk](mailto:sales@billyvee.demon.co.uk)

## NEW THIS MONTH

Available for audition, come in and listen

**ARCAM** - Digital Radio tuner - here shortly

**REGA** - NEW PRODUCTS - Come and listen.  
**THE CURSA & MAIA** pre - power & **JURA** spkrs

**LINN PRODUCTS** - Desperately sorry - The new CD12 is a chip off the old block - come & listen.

**NAIM AUDIO** - The new CDS/2 may be available for demonstration as you read - call for a listen!

**PIONEER Re-writable** - **THE NEW PDRW 555**  
Record your own CD's - & re-record & re-record... use it like a cassette deck but with digital clarity (Re-recordable media available) **PDRW555 £499**

**PIONEER PDR-04** (WAS £599.00) **Now £449**  
**PIONEER PDR-05** (WAS £999.00) **Now £749**  
**PIONEER DVD 505** For great sound and vision!  
20bit 96Khz DAC - Great CD replay and DVD films

**NOW AVAILABLE WITH FREE INSURANCE**

# 0% APR

MIN LOAN £450 - MIN DEP 10% PLEASE CALL FOR DETAILS  
(0% APR AVAILABLE ON NEW & SELECTED EX-DEM UNITS)

## NEW ARRIVALS & FIRM FAVOURITES

source - COMPONENTS

Arcam Alpha 7 CD ..... £329.00  
Arcam Alpha 8 CD ..... £449.00  
AVI S2000MC CD Player ..... £1399.00  
Linn Karik Player ..... £1850.00  
Marantz CD 67se ..... £249.00  
Marantz CD63KI Signature .... £399.00  
Naim CD 3.5 Player ..... £1050.00  
Pioneer DVD 505 Player ..... £449.00  
Rega Planet CD Player ..... £449.00  
Rega Planar 3 T/T inc arm ..... £274.00  
Yamaha DVD S700 plus AC3 .. £699.00  
Yamaha CDX 890 Pro-Bit CD .. £349.00  
Linn LP12/Arm - combs from £1488.00

selected - AMPLIFIERS

Arcam Alpha 1 (NEW!) ..... £229.00  
AVI S2000MI (line) Amp ..... £999.00  
Linn Majik (line level) ..... £650.00  
Marantz PM66KI amplifier ..... £399.00  
Naim Nait 3 Amplifier ..... £590.00  
Pioneer A300R Precision ..... £399.00  
Rotel RA 931ax Amplifier ..... £149.00  
Rega Brio Amplifier (NEW!) .... £298.00

am/fm - TUNERS

Arcam Alpha 7 Tuner ..... £229.00  
Naim NAT 03 FM Tuner ..... £615.00  
Rega Radio Tuner (NEW!) ..... £298.00

selected - RECORDERS

Denon DRM 550 Cassette ..... £159.00  
Pioneer CT-830S Cassette ..... £499.00  
Pioneer PDR-05 CD-R (NOW) .. £749.00  
Pioneer PDR-04 CD-R (NOW) .. £449.00  
Pioneer CTW806 Double ..... £299.00  
Yamaha KX393 Cassette ..... £129.00  
Yamaha KX580se Cassette .... £249.00

loud - SPEAKERS

B&W DM 302 ..... £149.00  
B&W DM 601 ..... £199.00  
B&W CDM 2se ..... £400.00  
B&W P4 Speakers ..... £675.00  
Epos ES12 (NEW!) ..... £499.00  
Linn Tuklan Mini Monitor ..... £550.00  
Linn Keilidh Speakers ..... £750.00  
Mission 701 (NEW!) ..... £129.00  
Mission 702 (NEW!) ..... £159.00  
Mordaunt Short MS10i Pearl .. £149.00  
Naim INTRO ..... £660.00  
Naim CREDO ..... £1060.00  
ProAc Response 2.5 ..... £2700.00  
Rega Jura speakers ..... £449.00

ALL PRICES CORRECT AT PRESS E&O

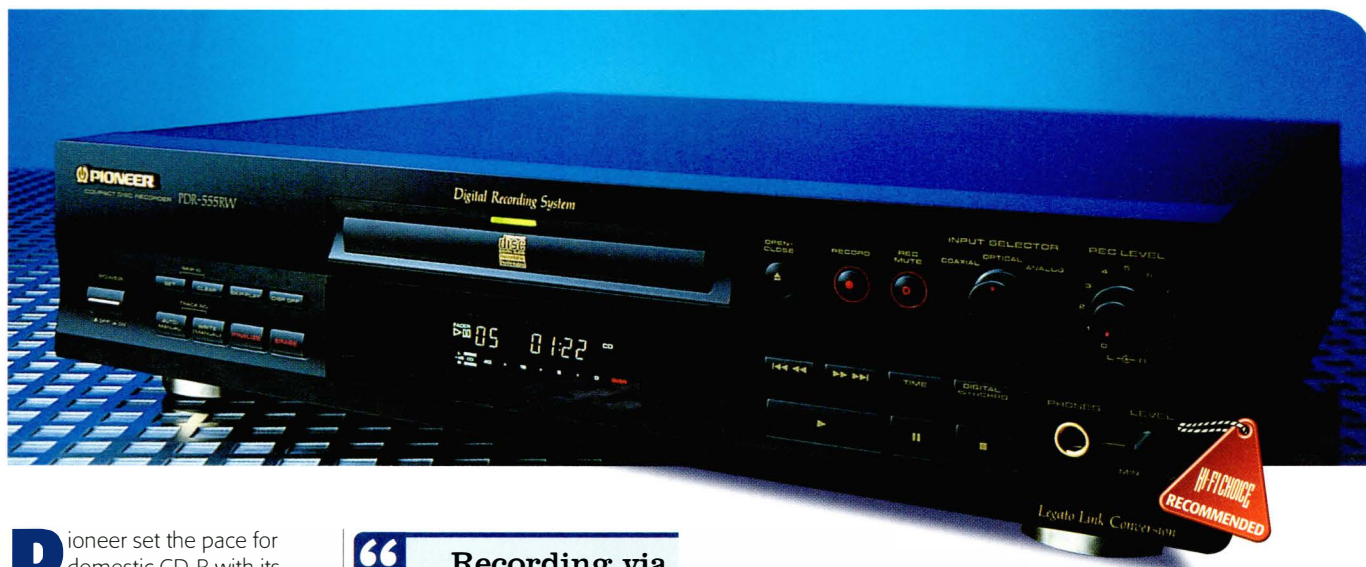
## SAVE £££'S ON OUR CLEARANCE. \*0%APR ON UNITS £600+

ON EX DEM & END OF LINE SOME AS NEW WITH FULL WARRANTY. 24HR DEL ONLY £5. CHECK AVAILABILITY BEFORE ORDERING

AVI S2000 Pre amp with phono stage ..... (1399.00) <b>£1099.00</b>	Linn Keilidh (black) ..... (875.00) <b>£575.00</b>
AVI S2000 Monoblock power amp ..... (1399.00) <b>£1099.00</b>	Linn Wakonda (phono) Pre Amp S/H boxed ... (900.00) <b>£679.00</b>
AVI Integrated Amplifier 100w (WOW!) ..... (999.00) <b>£599.00</b>	Linn Majik phono amplifier ..... (800.00) <b>£639.00</b>
B&O Century music system ..... (1075.00) <b>£799.00</b>	Marantz CD 67/2 C.D. Player ..... (249.00) <b>£195.00</b>
B&O Overture ..... (1250.00) <b>£979.00</b>	Mission 75c Centre Speaker S/H (WOW!) ..... (278.00) <b>£139.00</b>
B&O CX50 Speakers ..... (325.00) <b>£269.00</b>	Mission 751 Freedom Spkrs (WOW!) ..... (348.00) <b>£229.00</b>
B&O CX100 Speakers ..... (425.00) <b>£339.00</b>	Mordaunt Short MS10i Classic (WOW!) ..... (279.00) <b>£159.00</b>
Denon DRM550 Cassette Deck ..... (159.00) <b>£119.00</b>	Pioneer CLD 2950 Laser Player S/H ..... (600.00) <b>£325.00</b>
Denon DRW580 Twin Cassette Deck ..... (199.00) <b>£149.00</b>	REL Senter 2 Sub Woofer (WOW!) ..... (1800.00) <b>£1095.00</b>
Denon AVD 2000 AC3 Decoder (WOW!) ..... (379.00) <b>£269.00</b>	Rega XEL Monitor Speakers (black) (WOW!) (1040.00) <b>£699.00</b>
JBL 4312 Classic Monitor Speakers ..... (1000.00) <b>£749.00</b>	Rega Brio Amp (small case) ..... (229.00) <b>£159.00</b>
Linn Kudos (Sneaky) Module Tuner S/H ..... (500.00) <b>£295.00</b>	

\* 0% APR offered on combined Ex/dem purchases of more than £660. Call for details

# PIONEER PDR-555RW



Pioneer set the pace for domestic CD-R with its PDR-04 and PDR-05. The PDR-555RW is very much a riposte to the Philips CDR880, matching it pretty much spec-for-spec and adding a few unique twists. Nevertheless, it's clear from the insides that Pioneer moved swiftly to bring this model onto the market. For example, this model does not share the Philips' highly-integrated innards. And on the main digital board there is a revision to the circuit which clearly took place after the PCB tracks had been laid out initially. Not that this has any bearing on the unit's performance; it is just an indication of how quickly this unit has been developed.

The layout looks smarter and clearer than the Philips, and the front panel, while still plastic, manages to look a bit like brushed alloy. Input selection (optical, coaxial or analogue) is by a rotary switch and the record-level control has independent left and right adjustment. At the rear, all three types of output are available. Among the features is a fader which lets you fade in at the start and out at the end of a recording, though it's only accessible from the remote control. The recorder automatically increments track number to correspond to a source CD or DAT, if required.

As with the Philips recorder, the

**“...Recording via the digital inputs does not give a totally perfect clone, but you'd be pretty hard pushed to know it...”**

Pioneer has a built-in sampling-rate converter. In this case, it's permanently in circuit which has the disadvantage of preventing bit-perfect copies of any source. Even if the original is sampled at 44.1 kHz (CD or MD), the PDR-555RW will still resample the data from either digital input. From a purist point of view this is undesirable, but the particular chip entrusted with this task (different from the one Philips uses) has a good reputation for sound quality. If resampling is done properly there's no reason why it should be any cause for concern.

#### SOUND QUALITY

The PDR-555RW uses Pioneer's noted 'Legato Link' filter system in its DAC, and that alone probably determines the replay sound quality to a large extent, at least in comparison with other makes. Legato Link attempts to 'recreate' ultrasonic frequencies lopped off in

the analogue-digital conversion process, but by doing so it has the potential to generate audible distortion. Like many LL players, the PDR-555 has an open, spacious sound with a good feeling of extension, but its imaging is sometimes less than perfect and it's not always possible to hear 'through' the sound. But on the whole long-term listenability is good and the tonal balance is neutral.

Recording via the digital inputs, as mentioned above, does not give a perfect clone as one might expect, but you'd be hard pushed to know it. If there are any discrepancies between source and copy due to the sampling rate converter, these would be on a par with differences in jitter due to varying discs and players. It's hard to be sure whether there's a difference or not — and if so, which is 'better'.

Via the analogue inputs, the sound fares rather less well, with some upper mid-range coloration creeping in and some grain affecting complex, treble-rich sounds like violins. Image depth decreases somewhat, too, though width seems largely unaffected. This is more

○ The Pioneer has an open, spacious sound with a good feeling of extension.

○ Plastic front panel looks like alloy; control layout is smart and clean.

noticeable when copying from LP than from CD or radio, most likely due to ultrasonic frequencies (including surface noise) from the LP causing aliasing in the ADC's relatively 'relaxed' filter and some subsequent intermodulation. However, the overall effect of recording and playback is not vast, and frankly, only a few DAT and more expensive open-reel recorders have previously offered this level of performance in a domestic setting.

#### CONCLUSION

These are early days for domestic CD-R. This recorder works well, sounds decent and doesn't cost too much, but inevitably, better (and probably cheaper) machines are likely to arrive before long. Nevertheless, Recommendation is roundly deserved.

#### VERDICT

<b>SOUND</b>	★★★★☆
<b>BUILD</b>	★★★★☆
<b>VALUE</b>	★★★★☆
<b>PRICE</b>	<b>£480.00</b>

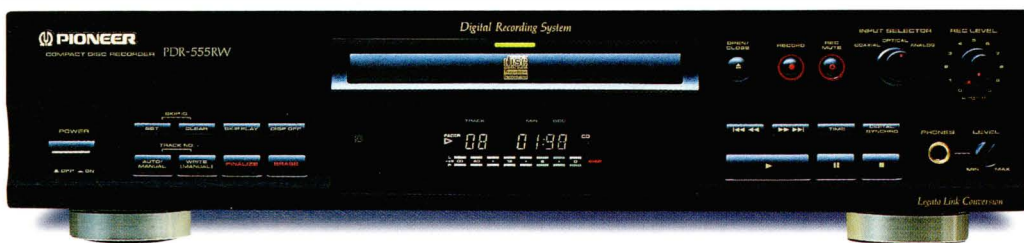
Direct competitor to Philips' CDR880; it can't make perfect copies but arguably has the edge in replay and analogue record sound, plus a few features.

#### ONE YEAR GUARANTEE

✉ Pioneer Hi-Fidelity, Pioneer House, Hollybush Hill, Stoke Poges, SL2 4PQ  
☎ (01753) 789500

#### FEATURES

Recording time	74 mins
Media cost per hour	£2.50
Editing facilities	Last track erase



## Music with Movement in Mind



## Headphones that Work through Walls

A new generation of wireless radio headphone systems...

Innovative design, technical excellence and a few extras into the bargain make the new RS 400 from Sennheiser an easy choice for those who want to enter the world of radio wireless headphones.

Offering everything the hi-fi enthusiast needs for unlimited music enjoyment – quality sound reproduction, style with listening comfort and complete freedom of movement at an attractive price.

And there's far more...

- wide area transmission through walls and ceilings
- a new high performance frequency band
- re-chargeable battery system
- comfortable and lightweight
- switchable frequencies for optimum reception
- integral aerial
- Sennheiser are Emmy award-winners for professional radio microphone technology

...for previously unmatched freedom of movement.

We have listened to you. So what are you waiting for?

 **SENNHEISER**  
*defining sound*



*freeSound*



Call us for further details, Tel: 01494 551571 Fax: 01494 551549  
Sennheiser UK Ltd, FREEPOST, High Wycombe, Bucks HP12 3BR.  
e-mail: [info@sennheiser.co.uk](mailto:info@sennheiser.co.uk) World Wide Web: [www.sennheiser.co.uk](http://www.sennheiser.co.uk)

# HOME RECORDERS

## CONCLUSIONS

One inescapable conclusion kept coming back to haunt me in the course of this test: cassette has probably had its day as a hi-fi medium. I don't use it very often, but when I do, I'm fortunate to have a £1,000 Pioneer deck which performs as well as any. Even so, does tape really offer anything that MiniDisc doesn't? MD has its own limitations, and I have written before about its lack of long-term listener involvement. However, in fairness cassette isn't any better on that score, and its background noise, frequent compatibility problems between decks, and peak-level compression, have long plagued home recordists. In addition, it is not really much easier to use than CD-R, or at least CD-RW. Running costs of the two digital systems are nearing those of cassette and the recording machines are also low in price.

It would be unfair to take the two cassette decks included here as typical of the genre, although informal experience suggests that the Marantz is not untypical of twin decks at least — a breed, to be brutally honest, that is not known for audiophile prowess. The Teac is ambitious for offering three heads at this price, but the stunt doesn't seem to come off. Both machines are cheaper than any of the digital recorders, but not by much.

Here's the scenario as I see it, in the light of these reviews. MiniDisc is the convenience format par excellence, but its sound quality limitations will restrict its appeal for true hi-fi buffs. Still, plenty of people will buy it if only for use on the move. CD-R lacks convenience but the discs (write-once, anyway) will probably play on CD players which are already part of existing systems. So, the dedicated folks who value sound quality above all else will use their CD-R to make copies of broadcasts, treasured LPs, whatever — warts and all. Play back the

finalised CD-R on your CD player and stand by with the pause control on the recorder to edit out announcements, LP run-in grooves and other annoyances. Slow, but not disastrously so, and editing MD isn't instant either.

Out of seven products, only three Recommendations and no Best Buys — that's statistics for you. The Denon DMD-1000 only

just missed its swing tag, while the Sharp MDR3H, although a clever concept, fell at an early hurdle on the sound quality front. If you only want it for CD-MD dubbing, digitally, it's a good proposition (and I guess running the whole shooting match off one crystal oscillator should keep jitter low!); but if you've already got a CD player it's less attractive.

### HINTS & TIPS



The most important thing you can do to make good

tape copies is use good blank tapes. Many of the major manufacturers have reduced prices of chrome and metal tapes almost to the level of ferrics, and a good, brand-name chrome tape will run rings around a cheap ferric.

Cassette decks need to be kept clean. Run a cleaning tape or wipe heads gently with a cotton bud soaked in alcohol. The occasional use of a demagnetiser is beneficial too.

CD recorders must record on blanks marked 'For music' or 'For consumer' and there aren't many makes of these. Make sure you buy a reputable brand such as TDK.

Finally, don't forget to use good cables — analogue and digital!

### HOW THE TESTS WERE DONE

The cassette decks and CD recorders were tested as replay machines with commercial software. All three formats were then used to record and play back a variety of material, mostly from CD source but also from DAT and LP. Other equipment used included Micromega CD player, EAR pre- and power amps, ATC speakers, Pink Triangle LP deck with SME arm and Highphonic cartridge, and Sony DAT recorder. Recordings used included *Concert Programme*, The Penguin Cafe Orchestra; *Cathedrals in Sound*, Ronald Stevenson (piano); *Bruckner 9th Symphony*, Philharmonia.

### THE BEST IN THE TEST



#### PHILIPS CDR880

It may not be the swiftest piece of hi-fi, but it seems like a functional piece of kit. It's the only machine in this survey that can, in theory, make perfect copies of CDs, and its analogue inputs and outputs are far from embarrassing. It is well deserving of a Recommendation.



#### PIONEER PDR-555RW

Pioneer is very obviously firing straight back at the CDR880 with this model. It's a smarter-looking machine with a few more features and arguably slightly better replay sound, but it can't make bit-perfect copies. It seems to be selling for a few pounds less than the Philips, but basically these two are neck-and-neck on balance and you should definitely try the one if you try the other. Another Recommended.



#### SONY MDS-JB920

Sony keeps its good record on MD with the MDS-JB920. As with most of its machines these days, this component does almost everything but wash your dirty underwear. Considering it is also one of the better-sounding MD decks around, at a far from punitive price, it seems quite deserving of Recommendation.

### RECORDERS COMPARISON TABLE

MAKE	MARANTZ	TEAC	DENON	SHARP	SONY	PHILIPS	PIONEER
MODEL	SD455 (Cassette)	V-1050 (Cassette)	DMD-1000 (MD)	MD-R3H (MD)	MDS-JB920 (MD)	CDR880 (CD-R)	PDR-555RW (CD-R)
PRICE	£169.90	£179.95	£299.99	£300.00	£300.00	£499.00	£480.00
SOUND	★★★★☆	★★★★☆	★★★★☆	★★★★☆	★★★★☆	★★★★☆	★★★★☆
BUILD	★★★★☆	★★★★☆	★★★★☆	★★★★☆	★★★★☆	★★★★☆	★★★★☆
VALUE	★★★★☆	★★★★☆	★★★★☆	★★★★☆	★★★★☆	★★★★☆	★★★★☆
GUARANTEE	1 year	1 year	2 years	1 year	1 year	1 year	1 year
MAXIMUM RECORDING TIME	2hr	1hr	74 min	74 min	74 min	74 min	74 min
MEDIA COST PER HOUR	50p-£5	50p-£5	£2	£2	£2	£2.50	£2.50
EDITING FACILITIES	Punch-in rec	Punch-in rec	Edit to approx 0.1s	Edit to approx 0.1s	Edit to approx 0.1s	Section skip	Last track erase

# 38 Outlets Nationwide



At Sevenoaks Hi Fi you will find a wide range of products on show with the emphasis on quality combined with unbeatable value for money.

Everything in stock is on display and available for audition in our dedicated Hi Fi and Home Cinema demonstration rooms.

Our friendly and experienced staff will be happy to assist you through every step of your purchase and will, when appropriate, deliver and install your equipment to ensure total listening satisfaction.

**Sevenoaks Hi Fi - there is no better place to buy.**

**UK TOP TEN CD Albums only £9.99 each**

Participating outlets only. Offer subject to availability. Personal callers only. E&OE.



**ad** authorised DEALER  
WE ONLY SELL PRODUCTS FOR WHICH WE ARE AUTHORISED DEALERS

## 38 SEVENOAKS HI FI OUTLETS NATIONWIDE

- SEVENOAKS  
01732 459555  
109-113 London Road
- ABERDEEN  
01224 587070  
491 Union Street
- BEDFORD  
01234 272779  
29-31 St Peters Street
- BIRMINGHAM  
0121 233 2977  
12 Queensway Arches,  
Livery Street
- **moved** BRIGHTON  
01273 733338  
57 Western Road, Hove
- BRISTOL  
0117 974 3727  
92b White Ladies Road,  
Clifton
- **new** BROMLEY  
0181 290 1988  
39a East Street
- **soon** CAMBRIDGE  
Due to open in November
- CARDIFF  
01222 472899  
104-106 Albany Road
- CARLISLE  
01228 590775  
3 Earls Lane  
(Next to Bus Depot)
- CHELSEA  
0171 352 9466  
403 Kings Road, SW10
- **moved** CHELTENHAM  
01242 241171  
14 Pittville Street
- CROYDON  
0181 665 1203  
373 London Road
- **soon** EDINBURGH  
Due to open in November
- ESSEX  
01376 501733  
1 The Grove Centre,  
Witham
- **new** EXETER  
01392 218895  
28 Cowick Street
- GUILDFORD  
01483 536666  
73b North Street
- **new** HOLBORN  
0171 837 7540  
144-148 Grays Inn Rd
- **new** HULL  
01482 587171  
1 Savile Street



- **new** IPSWICH  
01473 286977  
12-14 Dogs Head Street
- KINGSTON  
(LATE NIGHT THURSDAY)  
0181 547 0717  
43 Fife Road
- LEEDS  
(OPEN SUNDAYS)  
0113 245 2775  
112 Vicar Lane
- MAIDSTONE  
01622 686366  
96 Week Street
- NEWCASTLE  
0191 221 2320  
19 Newgate Street
- NORWICH  
01603 767605  
29/29a St Giles Street
- OXFORD  
(OPEN SUNDAYS)  
01865 241773  
41 St Clements
- PETERBOROUGH  
(LATE NIGHT THURSDAY)  
01733 897697  
36 Park Road
- **new** PLYMOUTH  
01752 226011  
107 Cornwall Street
- PRESTON  
01772 825777  
40-41 Lune Street
- READING  
0118 959 7768  
3 & 4 Kingswalk
- SHEFFIELD  
0114 255 5861  
Old Sheffield Savings Bank,  
635 Queens Rd, Heeley
- SOUTHAMPTON  
01703 337770  
33 London Road
- **new** SOUTHGATE  
0181 886 2777  
79-81 Chase Side, N14
- **soon** SWANSEA  
Due to open in November
- **soon** SWISS COTTAGE NW3  
Opening Soon
- TUNBRIDGE WELLS  
01892 531543  
28-30 St Johns Road
- WATFORD  
(OPEN SUNDAYS)  
01923 213533  
478 St Albans Road
- WORCESTER  
01905 612929  
2 Reindeer Court

Mail Order 01732 458985

## ★ NEW SEVENOAKS HI FI OUTLETS ★

EXETER 01392 218895 28 Cowick Street

IPSWICH 01473 286977 12-14 Dogs Head Street

HOLBORN 0171 837 7540 144-148 Grays Inn Rd

PLYMOUTH 01752 226011 107 Cornwall Street

HULL 01482 587171 1 Savile Street

SOUTHGATE 0181 886 2777 79-81 Chase Side, N14



# Quality Range at



PLEASE NOTE NOT ALL PRODUCTS ARE AVAILABLE AT ALL BRANCHES. PLEASE TELEPHONE TO VERIFY PRICE AND AVAILABILITY BEFORE TRAVELLING.

<b>CD PLAYERS</b>				Kenwood KT2080RDS £ 89.00		Musical Fidelity X-A50 Mono (pair) £ 499.95		Yamaha AV1 inc spks £ 649.95	
Arcam Alpha 7	£ 329.95	Marantz ST48	£ 119.95	Naim Audio	P.O.A.	Yamaha CLAV10	ex spks	£ 849.95	
Arcam Alpha 8	£ 449.95	Marantz ST17	£ 599.95	Roksan Caspian	£ 594.95	<b>DVD &amp; LASER DISC PLAYERS</b>			
Arcam Alpha 8SE	£ 599.95	Meridian 504	£ 739.95	Rotel RB971	£ 199.95	Denon DVD3000 £ 699.95			
Arcam Alpha 9	£ 799.95	Myryad T30	£ 399.95	Rotel RB981	£ 299.95	Panasonic DVDA350 £ 539.00			
Cyrus DAD1	£ 399.95	Myryad MT100	£ 529.95	TAG McLaren 60P	£ 849.95	Pioneer DV505 £ 399.00			
Cyrus DAD3	£ 599.95	Roksan Caspian	£ 694.95	TAG McLaren 100P	£ 1099.95	Pioneer DVL909 £ 799.00			
Cyrus DAD3Q	£ 899.95	Sony STSE500	£ 99.00	TAG McLaren 125M Mono (each)	£ 1199.95	Sony DVPS315 £ 449.00			
Denon DCD425	£ 149.95	TAG McLaren T20	£ 1099.95	<b>LOUDSPEAKERS (Pair)</b>				Sony DVPS715 £ 539.00	
Denon DCD635	£ 179.95	<b>AMPLIFIERS</b>				Acoustic Energy Aegis One	£ 149.95	Yamaha DVDS700 £ 599.95	
Denon DCD735	£ 229.95	Arcam Alpha One	£ 229.95	Acoustic Energy AE100i	£ 199.95	<b>SURROUND AMPLIFIERS</b>			
Denon DCDB35	£ 279.95	Arcam Alpha 7R	£ 299.95	Acoustic Energy AE109	£ 349.95	Arcam AV50 £ 699.95			
Denon DCD1550 AR	£ 349.95	Arcam Alpha 8R	£ 379.95	Acoustic Energy AE120	£ 499.95	Yamaha DSPA492 £ 199.00			
Exposure CD	£ 1049.95	Arcam Alpha 9	£ 499.95	Acoustic Energy AE505	£ 499.95	Yamaha DSPA592 £ 299.00			
Marantz CD48	£ 199.95	Arcam Alpha 10	£ 799.95	Acoustic Energy AE509	£ 999.95	Yamaha DSPA1 £ 1599.95			
Marantz CD6711	£ 249.95	Cyrus SL	£ 399.95	Acoustic Energy AE520	£ 1199.95	Yamaha DSPA1 Gold £ 1699.95			
Marantz CD6711IOSE	£ 299.95	Cyrus MR3	£ 599.95	AVI NuNeutron	£ 499.95	<b>SURROUND RECEIVERS</b>			
Marantz CD631KI Signature	£ 399.95	Cyrus III i	£ 599.95	B&W DM601	£ 199.95	Denon AVR1100RD £ 299.95			
Marantz CD17KI Signature	£ 1099.95	Denon PMA250SE	£ 139.95	B&W DM602	£ 299.95	Denon AVR1400 £ 499.95			
Meridian 506 20 Bit	£ 1194.95	Denon PMA350SE	£ 179.95	B&W DM603	£ 499.95	Denon AVR3200 £ 999.95			
Meridian 508 24 Bit	£ 1249.95	Denon PMA1500R	£ 499.95	B&W CDM1SE	£ 599.95	Kenwood KRV5090 £ 119.00			
Myryad T10	£ 399.95	Exposure Super 20	£ 799.95	B&W CDM7SE	£ 999.95	Kenwood KRV888D Ex Demodulator £ 349.00			
Myryad T20	£ 599.95	Exposure Super 15	£ 899.95	Castle Isis (Deluxe Extra)	£ 249.95	Sony STRDB925 £ 539.00			
Myryad MC100	£ 699.95	Exposure 25	£ 999.95	Castle Kendal (Deluxe Extra)	£ 399.95	Yamaha RXV392 £ 179.00			
Myryad MCD500	£ 1299.95	John Shearne P.O.A.		Castle Severn 2 (Deluxe Extra)	£ 579.95	Yamaha RXV592 £ 369.00			
Naim Audio P.O.A.		Marantz PM57	£ 199.95	Castle Avon (Deluxe Extra)	£ 729.95	<b>SURROUND PROCESSORS</b>			
Pioneer PD5505 Precision	£ 459.95	Marantz PM66SE	£ 229.95	Castle Harlech (Deluxe Extra)	£ 879.95	Cyrus AV Master £ 699.95			
Roksan Caspian	£ 994.95	Marantz PM66KI Signature	£ 399.95	Epos ES12	£ 499.95	Meridian P.O.A.			
Rotel RCD971	£ 349.95	Marantz PM17KI Signature	£ 1299.95	Epos ES22	£ 1184.95	Yamaha APD1 Demodulator £ 99.95			
Sony CDPXE310	£ 99.00	Meridian 551	£ 844.95	Epos ES30	£ 2384.95	Yamaha DSPE492 £ 249.95			
Sony CDPXE520	£ 129.00	Musical Fidelity X-A1	£ 479.95	Kef Q15	£ 199.95	Yamaha DDP2 AC3 Decoder £ 349.95			
Sony CDPXB920	£ 249.00	Myryad T40	£ 399.95	Kef Q35	£ 349.95	<b>CENTRE SPEAKERS</b>			
TAG McLaren CD20R	£ 1249.95	Myryad MI 120	£ 599.95	Kef Q55	£ 499.95	Acoustic Energy AE107C £ 149.95			
Yamaha CDX493	£ 179.95	NAD C320	£ 199.95	Kef Reference	P.O.A.	B&W CC6 £ 229.95			
<b>CD MULTIPLAYERS</b>				Naim Audio P.O.A.		Kef 80C £ 129.95			
Arcam Alpha MCD	£ 449.95	Pioneer A300R Precision	£ 399.95	Mission 700	£ 129.95	Kef Q95C £ 199.95			
<b>CD TRANSPORTS</b>				Roksan Caspian	£ 794.95	Mission 701	£ 159.95	Mission 70c1 £ 99.95	
Meridian 500	£ 1324.95	Rotel RA921	£ 99.95	Mission 711	£ 169.95	Mission 70c2 £ 149.95	Mission 77C £ 169.95		
TAG McLaren CDT20R	£ 1499.95	Rotel RA931	£ 149.95	Mission 712	£ 229.95	Mission 77D £ 299.95	Ruark Dialogue One £ 299.95		
<b>DACS</b>				Rotel RA971	£ 199.95	Mission 774	£ 499.95	Tannoy MC £ 99.95	
Meridian 566 24 Bit	£ 1379.95	Sony TAF248E	£ 159.00	Mission 750LE	£ 249.95	Mission 775 (Deluxe Extra)	£ 799.95	Yamaha NSC60 £ 59.95	
Musical Fidelity X-ACT	£ 129.95	Sony TAFB920R	£ 249.00	Monitor Audio Silver S3	£ 299.95	Monitor Audio Silver S5	£ 399.95	Yamaha NSC105 £ 79.95	
TAG McLaren DAC20	£ 1249.95	TAG McLaren 60i	£ 799.95	Monitor Audio Silver S7	£ 599.95	Monitor Audio Silver S9	£ 999.95	Yamaha NSC150 £ 109.95	
<b>MINI DISC CD RECORDERS</b>				TAG McLaren 60iRv	£ 999.95	Ruark Epilogue (Deluxe Extra)	£ 239.95	<b>SURROUND SPEAKERS (Pair)</b>	
Denon DMD1000	£ 299.95	<b>PRE AMPLIFIERS</b>				Ruark Icon (Deluxe Extra)	£ 399.95	Boston P.O.A.	
Kenwood DM3090	£ 139.00	Arcam Alpha 9C	£ 399.95	Arcam Alpha 9P	£ 399.95	Ruark Templar II (Deluxe Extra)	£ 559.95	Kef 65DS £ 399.95	
Marantz DR700	CD Recorder £ 599.95	Cyrus AEQ7	£ 499.95	Arcam Alpha 10P	£ 599.95	Ruark Scepter (Deluxe Extra)	£ 599.95	Mission 73S £ 99.95	
Philips CDR880	CD Recorder £ 399.00	Cyrus ACA7	£ 799.95	Cyrus XPA	£ 299.95	Ruark Talisman II (Deluxe Extra)	£ 799.95	Yamaha NSE60 £ 79.95	
Pioneer PDR555RW	CD Recorder £ 429.00	Exposure 13	£ 799.95	Cyrus PSXR	£ 329.95	Ruark Prologue One (Deluxe Extra)	£ 799.95	Yamaha NSE105 £ 99.00	
Sony MDSJE520	£ 179.00	Exposure 21	£ 999.95	Cyrus Power	£ 499.95	Tannoy Mercury M1	£ 119.95	<b>SUB WOOFERS</b>	
Sony MDSJB920	£ 249.00	Meridian 501.2	£ 739.95	Exposure Super18	£ 899.95	Tannoy Mercury M2.5	£ 139.95	Acoustic Energy AE108S £ 299.95	
Yamaha MDX793	£ 299.95	Meridian 502	£ 1384.95	Exposure Super18 Mono (pair)	£ 1799.95	Tannoy Mercury M3	£ 229.95	Rel Q50 £ 374.95	
<b>CASSETTE DECKS</b>				Myryad MP100	£ 599.95	<b>SYSTEMS</b>			
Denon DRM550	£ 159.95	Meridian 501.2	£ 739.95	Musical Fidelity X-Pre	£ 199.95	Denon DM3 CD/Rec	ex spks £ 229.95	Rel Q100E £ 494.95	
Denon DRW580 Twin	£ 199.95	Myryad MP100	£ 599.95	Naim Audio P.O.A.		Denon DC1	inc spks £ 379.95	Rel Strata II £ 574.95	
Yamaha KX393	£ 129.95	Musical Fidelity X-Pre	£ 199.95	Rotel RC971	£ 149.95	Denon DF88	ex spks £ 569.95	Rel Storm £ 694.95	
Yamaha KX580SE	£ 179.00	TAG McLaren PA10	£ 849.95	TAG McLaren PA20R	£ 1499.95	Denon DM7	ex spks £ 579.95	Rel Stadium II (Blk) £ 994.95	
<b>TURNTABLES</b>				TAG McLaren PPA20 Phono	£ 1499.95	Denon System 6.5	ex spks £ 849.95	Rel Stentor II (Blk) £ 1799.95	
Michell Gyrodec	inc RB300 £ 1019.95	<b>POWER AMPLIFIERS</b>				JVC UXD88	inc spks £ 299.00	Tsunami TS200 £ 299.95	
Project 0.5	£ 169.95	Arcam Alpha 8P	£ 249.95	Arcam Alpha 8P	£ 249.95	JVC EXTDS	inc spks £ 359.00	Tsunami TS210 £ 399.95	
Project 1	£ 209.95	Arcam Alpha 9P	£ 399.95	Cyrus XPA	£ 299.95	Pioneer NS7T with tape	inc spks £ 449.00	Yamaha YSTS40 £ 339.95	
Technics SL1210	£ 359.00	Arcam Alpha 10P	£ 599.95	Cyrus PSXR	£ 329.95	Sony CMTE1	inc spks £ 269.00	Yamaha YSTS80 £ 179.95	
Thorens TD280/IV	inc AT95E £ 209.95	Exposure Super18	£ 899.95	Cyrus Power	£ 499.95	Teac Ref 500	ex spks £ 599.95	<b>SPEAKER PACKAGES</b>	
Thorens TD166/VI	inc RB250 £ 399.95	Exposure Super18 Mono (pair)	£ 1799.95	Exposure Super18	£ 899.95	Teac Ref 300	ex spks £ 799.95	Boston Micro 90c £ 999.95	
<b>TUNERS</b>				Meridian 556	£ 949.95	Technics SCHD51	inc spks £ 359.00	Mission Cinema I £ 299.95	
Arcam Alpha 7	£ 229.95	Meridian 557	£ 1524.95	Technics SCHD55	£ 449.00	Yamaha AVS7	inc spks £ 399.95	Advertisement valid until at least end of November, 1998 E&OE	
Arcam Alpha 8	£ 279.95	Myryad T60	£ 299.95	Technics SCHD81	£ 539.00				
Creek T43	£ 399.95	Myryad MA120	£ 479.95						
Cyrus FM7	£ 399.95								
Denon TU260L	£ 119.95								
Denon TU215RDS	£ 149.95								
Denon TU1500RD	£ 249.95								

## INTEREST FREE

Spread the cost of buying selected quality hi fi separates and loudspeakers with our 0% finance terms. Up to 24 months interest free.

Written details on request. 0% APR. Subject to status.

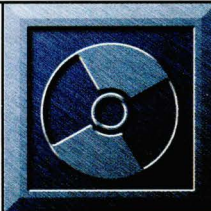
## PRICE POLICY

We promise some of the most competitive prices in the UK along with first class pre and after sales service.

Altogether an unbeatable combination!

# ON TEST!

# CD PLAYERS



Even with DVD making in-roads into the audio market, the CD player is still the King of digital audio. Alvin Gold and Paul Miller try out 11 of the latest models.

## THE CAST LIST

Arcam Alpha 9	£799.90	p93
Denon DCD-835	£279.99	p77
Marantz CD-67IIIOSE	£299.90	p79
Musical Fidelity X-RAY	£800.00	p95
Myriad T-10	£399.95	p85
Parasound C/DP-1000	£499.99	p87
Pioneer PD-5707	£300.00	p81
Rotel RCD-971	£349.95	p89
Sony CDP-XB720E	£199.99	p83
Teac VRDS-8	£599.95	p97
Yamaha CD-X993	£399.95	p91

## GLOSSARY

**DIGITAL CONVERTERS:** The slice of silicon that converts the digital music data off disc into an analogue (music-like) waveform. They come in various forms: the traditional multibit or ladder type; the one-bit or Bitstream type (and variants), which overcome some of the problems at the expense of others, are the best known. dCS (through Arcam) has just introduced the Ring DAC, a radical new technology that largely overcomes the failings of both.

**FILTERS:** Intrinsic to digital audio is the extensive use of filters, both analogue and digital. These are often very sophisticated in design, and in sum total probably have more to do with the 'personality' of CD player sound than most other factors.

**OUTPUT IMPEDANCE:** A measure of resistance to alternating current, representing a music signal in this case. A low output impedance (for example, below 100 Ohms or so) helps ensure compatibility with most amplifiers. A high impedance, especially in conjunction with an amplifier with a low input impedance (some are as low as 8kHz, though the standard is 47kHz – 100kHz) can result in audible treble losses.

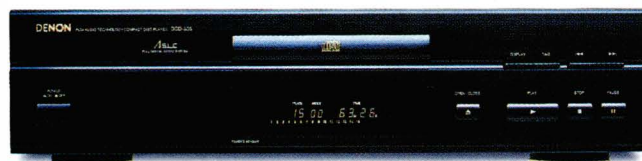
**JITTER:** Jitter represents the uncertainty in the timing of digital signals. High values have various effects on sound quality such as loss of resolution. State of the art is a little below 150psec, but figures over 1000psec are not uncommon.

Not all test groups are born equal, and this one has more than the usual interest. Eleven models are covered in a price band stretching from £200 through to £800. All are single-disc players aimed at the serious listener (how serious listening should be is a moot point, but you get the idea). More than in any similar group covered in, say, the last couple of years, there is real diversity and innovation in this group, but not always with the expected results. This once again underlines the importance of making a properly informed choice. You can waste a lot of money very easily when you could have bought something that sounded better and cost less.

One point that has emerged with increasing strength over the past months is that CD players continue to have a place in the great scheme of things, even though DVD players, which are capable of playing conventional compact discs, are now widely available



Arcam Alpha 9 p93



Denon DCD-835 p77



Marantz CD-67IIIOSE p79

at prices well within the limits set for this test. After all, if you can have a DVD player with what amounts to a CD player thrown in, gratis and for nothing, why would anyone bother with a

plain old vanilla CD player again?

There are two answers to this. The first and most important is that DVD players consistently sound inferior to CD players when playing compact discs. They can often sound quite pleasant, but resolution and timing both suffer, and given the technical complexity of DVD hardware, there is a vanishingly small chance that this situation will change in the foreseeable future. The other reason is that current-generation DVD looks like being redundant for serious music applications as soon as DVD-Audio becomes established, probably some time in the next 12-18 months. DVD-Audio will usher in a new over-arching DVD player specification that will be at least partly incompatible with current DVD (aka DVD-Video) players. It will probably be at least a year before a fully-compatible player capable of playing both types – and longer, perhaps much longer before the technology matures enough to interest the serious music lover.





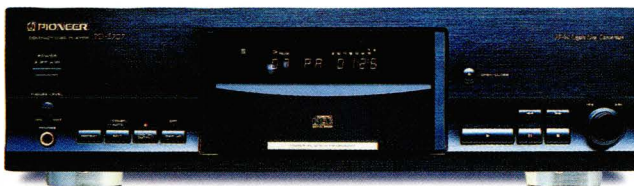
Musical Fidelity X-RAY p95



Myryad T-10 p85



Parasound C/DP-1000 p87



Pioneer PD-S707 p81



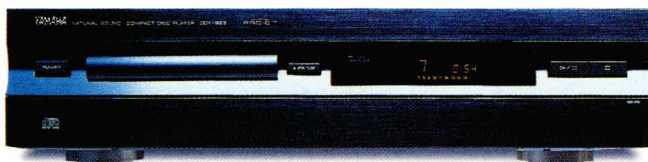
Rotel RCD-971 p89



Sony CDP-XB720E p83



Teac VRDS-8 p97



Yamaha CD-X993 p91

**GROUP A** BELOW £300  
**GROUP B** £300-£500

**GROUP C** OVER £500  
**THE PRICE BANDS**

We divide our candidates into groups based on price (see right). Each band is colour-coded as above.



**HINTS & TIPS**

CD players though less obviously susceptible to the vagaries of vibration than turntables, still improve with good isolation. Therefore, use good quality equipment supports and isolation platforms. For best results leave players switched on permanently. Interconnecting cables are also important and can have a dramatic effect on many aspects of a player's performance. See the Directory for our recommendations. Finally, keep discs clean and scratch free if you want 'perfect sound forever'!

**CD PLAYERS GROUP A**  
**BELOW £300**

There is something here for almost everyone. The Pioneer is the latest Legato Link-equipped player, which 'invents' music-related information above the normal 20kHz cut-off, avoiding the sharp phase shifts and associated harshness and flat imagery. Denon and Marantz both offer highly-refined examples of their existing multi-bit and Bitstream designs, while Sony's player comes with a variable coefficient digital filter which emulates Pioneer's Legato Link and ordinary brick-wall filters. It raises issues that are discussed further in the reviews that follow, and on the Conclusions page (p98).

Denon DCD-835	£279.99	p77
Marantz CD-67110SE	£299.90	p79
Pioneer PD-S707	£300.00	p81
Sony CDP-XB720E	£199.99	p83

**CD PLAYERS GROUP B**  
**£300-£500**

This price band represents a kind of crossover region, and includes models from mainstream producers (Yamaha, Rotel), and smaller specialists (Myryad, Parasound). Specialist suppliers like the latter are traditionally associated with the 'golden-ears' approach to CD player design in which the high-tech elements take a firm second place to careful tweaking based on extensive and informed listening. However, mainstream producers often have enough slack in their budgets to be able to take issues of sound quality seriously as well, with results that are interesting, and not always predictable.

Myryad T-10	£399.95	p85
Rotel RCD-971	£349.95	p89
Parasound C/DP-1000	£499.99	p87
Yamaha CD-X993	£399.95	p91

**CD PLAYERS GROUP C**  
**OVER £500**

This group exemplifies as well as any the virtues of diversity. Aesthetically they could hardly be more different, and the same diversity is very much the rule under the skin, too. The Teac is the second model in this month's test (as well as the Sony XB720E) to employ switchable coefficient digital filters, allowing the player to be 'tweaked' to suit the user's requirements. The Musical Fidelity has some intriguing technology and is visually individual, with its well-built bodywork. The Arcam, meanwhile, features brand-new converter technology, produced in co-operation with dCS, whose importance is only hinted at in this first product.

Arcam Alpha 9	£799.90	p93
Musical Fidelity X-RAY	£800.00	p95
Teac VRDS-8	£599.95	p97

**HOW THE TESTS WERE DONE**

Our 11 CD players were subject to the usual battery of tests, including a close physical examination, unsighted panel-based listening tests in a high-grade system, hands-on listening using a range of speakers and amplifiers, and a computerised measurement test programme. Each player was run in and warmed up prior to being auditioned.

Panel testing, spread over the course of two days, included a number of repeats, with no panel member knowing the identity of the player on test, and with levels carefully matched between test runs. The system used for

these tests included a Musical Fidelity X-P100/X-AS100 pre/power amplifier for the unsighted and hands-on tests, and was extended to include a Copland CTA301 and CSA515 pre/power combination for further hands-on testing, with Definitive Technology BP2002 floor-standing speakers. Speaker cables were from Ixos pending the repair of a speaker plug on my usual Nordost speaker cables. Interconnects were from Musical Fidelity and Ixos (screened) and Nordost (unscreened). Hands-on listening was broadened to include Rogers LS5/9s and a new

compact speaker from HPM. The CD player used as a 'reference' was the Arcam Alpha 9.

**THE LISTENING PANEL**

Our thanks to the panellists:

- David Inman (Castle)
- John Bamford (Pioneer)
- Keith Haddock (REL)
- Mark Hockey (Kenwood)
- Roger Batchelor (Denon)
- Jonathon Jordan (B&W)
- Russell Kauffmann (Densen)
- David Gamble (Mission)

**THE TEST MUSIC**

SHARON ISBIN: *Lauro Sies*

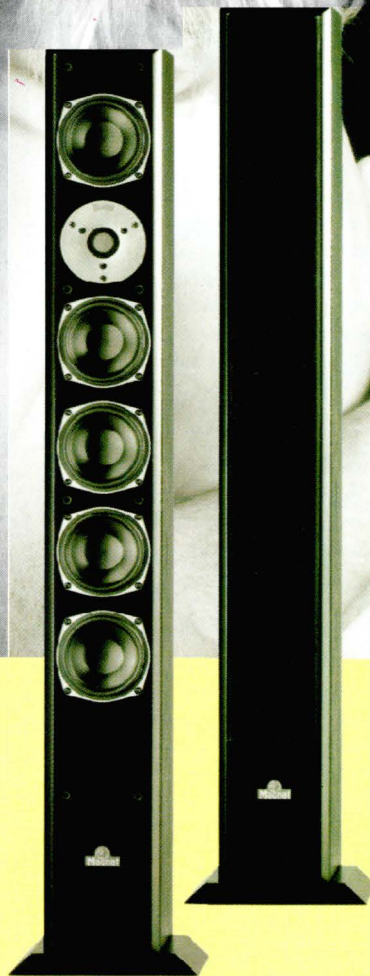
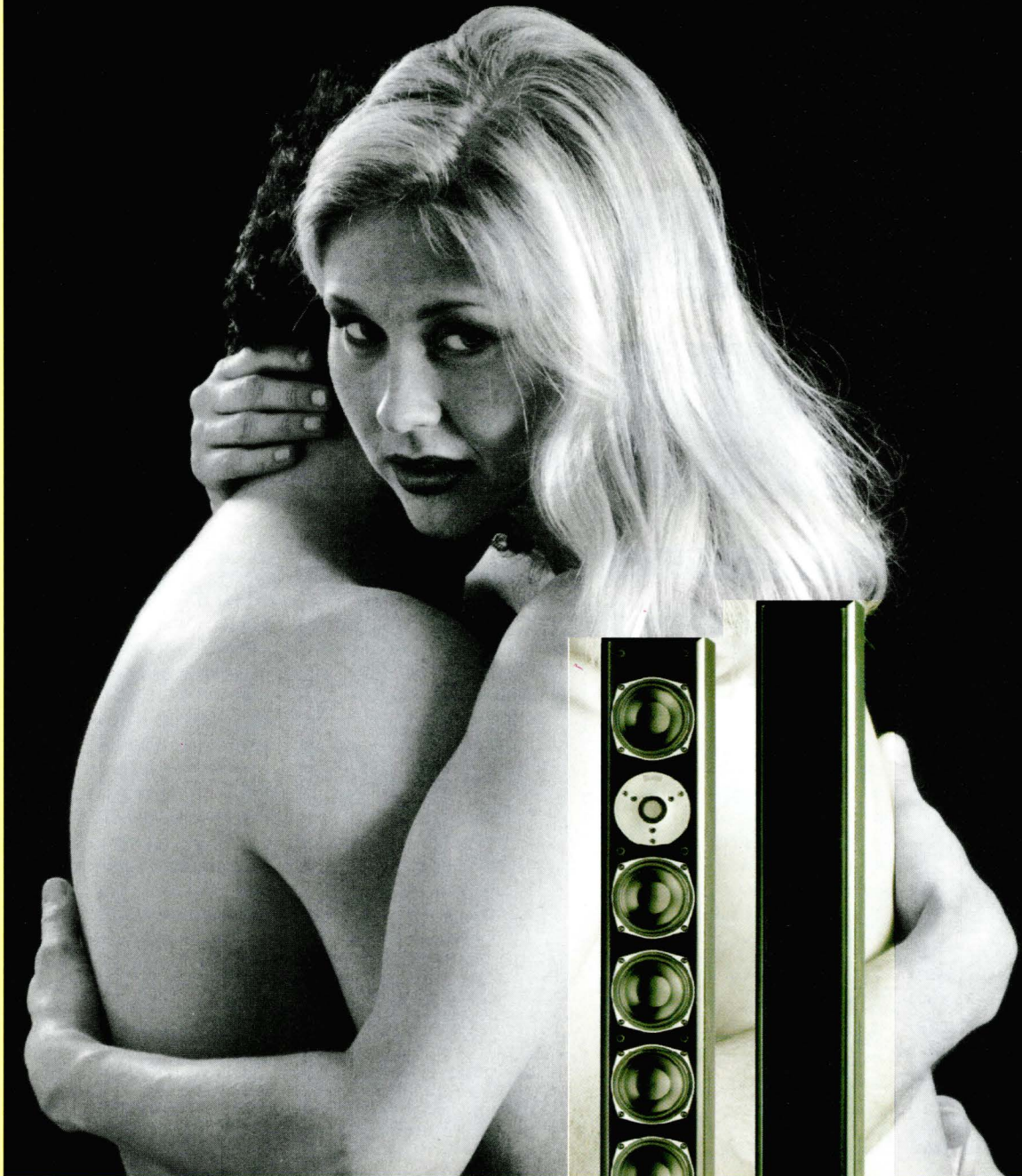
*porDerecho* (for Spanish guitar and percussion) *Thiago de Mello* on Teldec  
**DIANA KRALL:** *All or Nothing At All* from *Love Scenes* on Impulse IMP 12342

**ROBERT SCHUMANN:** *Symphony No 4 (3rd movement)* Eliahu Inbal (cond) Radio-Sinfonie-Orchester Frankfurt on Denon CO018014

**WYCLEF JEAN:** *Gone Till November* (single) on Ruffhouse Columbia 665871 2

Various other titles, standard and HDCD encoded, were used for hands-on testing.

# MAGNETIC ATTRACTION



TALL, DARK AND  
SERIOUSLY  
HANDSOME

For information on the most exciting range  
of loudspeakers to hit these shores in recent  
memory, call HENLEY DESIGNS now on 01491-834700

  
**Magnat**<sup>®</sup>  
VECTOR SERIES

# DENON DCD-835

The DCD-835, a recent addition to the UK Design series, replaces the popular, four-year-old DCD-825 (Rec, HFC 137). Denon claims to have conceived and optimised the '835 in the UK to suit local market conditions. Included are a number of technical features that are uncommon at this price level, including a relatively massive transformer feeding 10 independent regulated supplies, a DAC and audio output stage run from a full 12V supply (5V is more usual), and a DC servo output to avoid problems with capacitor coupling and low-frequency phase errors.

The transport and its logic control are new and faster-acting than before, though track-to-track access was a little sluggish in our tests. There are claimed reductions in jitter (confirmed by our Lab Report), and for the circuit boards, high-quality Silmic and polypropylene-film capacitors, plus selected metal-film resistors.

Also featured are dual-mono, 18-bit Burr-Brown DACs with eight-times-oversampling filter from NPC. Denon's proprietary Lambda circuit aims to banish the zero-cross distortion which afflicts multi-bit DACs. The analogue output stage includes Burr-Brown OP275 opamps.

The simple cosmetic design puts a centrally-mounted loader above a new, neater display. As befits a minimalist design, there is no sound-strangling head-



“...as a measure of its success on audition, the panel thought the DCD-835 was more expensive than the preceding batch. In fact it costs about half as much...”

phone socket, though the output level control is not an audiophile feature. You can extinguish the display with switches on both front panel and remote handset; the latter also supports index search. On the back panel there are electrical S/PDIF digital output and system control ('synchro') sockets.

## SOUND QUALITY

In two presentations to the panel, the Denon scored a high average, with a lower score on its second outing easily ascribable to the strength of the preceding player. As a measure of its success on one audition, the panel thought the DCD-835 was considerably more expensive than the preceding batch of players. In fact it costs about half as much.



Comments culled almost at random from the panel tests included the following: "Well balanced, very even handed, hard to pick out character, bass is well controlled, good body, reasonable slam, good timing (and) treble detail is good too". Another thought the Denon was "a grower — the presentation of the voice (Wyckleff Jean) is very spacious [and] this is one of the best of the day". Its discipline was noted in comments such as "a well-measured player"; "it offers a big, bold sound; the strings are neutral, cultured and well damped [Schumann], and the jazz guitar underpins the vocals well [Diana Krall]". By common consent, the Denon was thought to be a detailed player that provided an open window onto music, with believable instrumental timbre. The sole, intermittent complaint described a trace of sibilance.

## CONCLUSION

Denon stuck with multi-bit digital-to-analogue converters long after most manufacturers opted for low-bit types, which by their nature suffer more from jitter-related problems. Consequently, Denon's players have not always

Denon DCD-835 lacks headphone socket, but includes display dimmer.

been the tidiest-sounding, but they have tended to be sharp and dynamic with good, propulsive timing. This model is no exception, and it has added refinement that has not always been on offer in the past. The measured distortion between channels was not noticed in the listening tests, and although there will always be room for improvement, the DCD-835 already achieves a high standard and thus comes highly Recommended. **AG**

## VERDICT

**SOUND** ★★★★★

**BUILD** ★★★★★

**VALUE** ★★★★★

**PRICE** £279.99

Fine, propulsive and musically engaging performer. The best Denon CD player for some time.

■ TWO YEAR GUARANTEE

Hayden Laboratories Ltd, Hayden House, Chiltern Hill, Chalfont St Peter, Bucks SL9 9UG  
(01234) 741200

## THE LAB REPORT

While Denon's latest budget baby may not be a direct replacement for the DCD-825, it is at least a development of a familiar and ongoing theme. The extra attention paid to ground loops within Denon's DCD-835 has paid dividends, as any PSU-related jitter is reduced to zero, leaving just 185psec of (principally) data-induced patterns. This is the best figure yet for a Denon player and only some 40psec short of that achieved by the best Sony machines. Errors in low-level linearity of +0.3dB/-1.5dB over a full 100dB range are

The DCD-835 declares war on jitter!



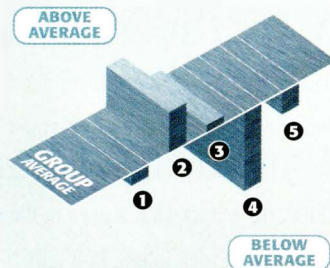
good for Denon's favourite 18-bit DAC, as is the 105dB S/N ratio.

Clearly, the design harbours plenty of potential but, sadly, the initial shipment of units — including those destined for reviews — were not up to specification. I measured three samples where distortion and spurious digital images varied by up to 20dB (a factor of 10x) between left and right channels. (Denon assures us that it has traced this problem to a misrouted wire, and has rectified the problem with immediate effect. Ed) Various innovations, including the relay-protected DC-coupled output stage, do bode well for sound quality, however. Incidentally, the pitch facility included on the remote control is disabled within the player itself. **PMI**

## HOW IT COMPARES

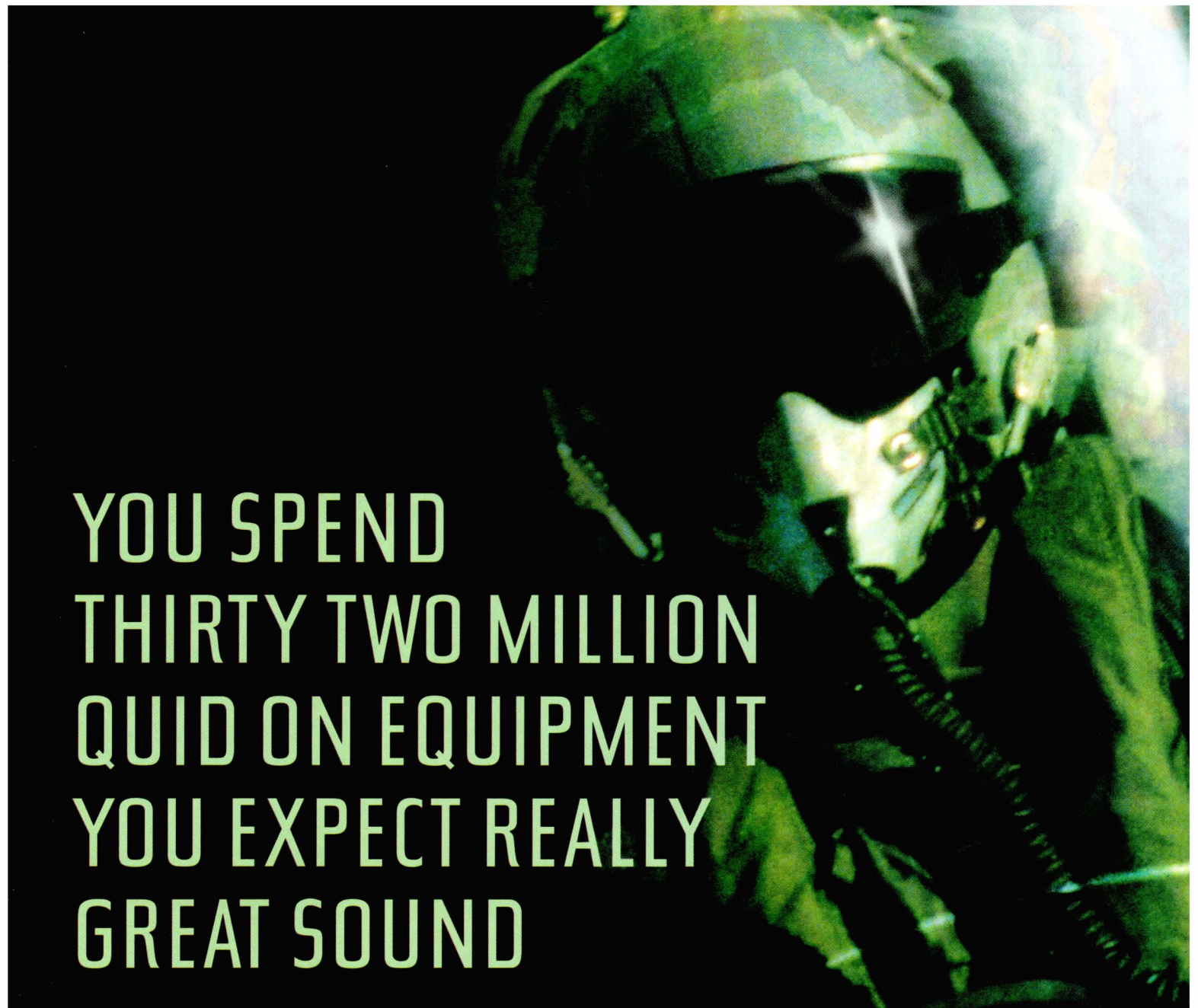
The Denon records a negative-going bar for distortion, not because it is inherently weak, but because the nature and distribution of harmonics are likely to encourage a colourful, rather than strictly neutral sound.

- 1 SUPPRESSION OF DIGITAL IMAGE -5%
- 2 JITTER 30%
- 3 PRACTICAL DYNAMIC RANGE 5%
- 4 HARMONIC DISTORTION VS LEVEL -55%
- 5 LINEARITY -15%



## SPECIFICATIONS

SPECIFICATION	CLAIMED	MEASURED
Distortion @ 1kHz/0dBfs	0.005%	0.0006%
Maximum output level	2.0V	2.24V
A-wtd S/N ratio	90dB	105dB



# YOU SPEND THIRTY TWO MILLION QUID ON EQUIPMENT YOU EXPECT REALLY GREAT SOUND

ARCAM, Pembroke Avenue, Cambridge, CB5 9PB, England. Tel:(01223) 203203

In Australia: Stolmack Audio Pty. Ltd., P.O. Box 162, Lindfield, N.S.W., 2070. Tel:(612) 9416 4799

In Canada: Emerald Audio Resources, RRI, Palgrave, Ontario, L0N 1P0. Tel:(905) 880 7170

In New Zealand: Avalon Audio, 587 Mount Eden Road, Auckland. Tel:(09) 638 9000

In South Africa: Hi-Fi Specialists, 115 Durban Road, Bellville. 7535. Tel:(021) 946 1441

In USA: Audiophile Systems Ltd., 8709 Castle Park Drive, Indianapolis, Indiana 46256. Tel:(317) 849 7103

Described as "Arcam's finest hour", the new Alpha 9 CD player boasts not only Arcam's renowned engineering principles, but something else rather unique. Patented technology in the guise of a ring DAC chip that delivers unheard-of definition and accuracy. Exactly the same technology, in fact, that's used in the radar system in the Eurofighter.

You see, the technology that tells the Eurofighter's pilot whether that's a friend or a foe lurking over the horizon, is precisely the same

technology that enables the Alpha 9 listener to tell whether that's a Steinway or a Bechstein lurking behind the conductor.

There's one big difference, however. The Eurofighter will set you back thirty two million pounds. The Alpha 9, on the other hand, has been described as "the best sound available for less than a thousand pounds".

Call us today for the co-ordinates of your nearest dealer. And prepare to be blown away.

**ARCAM**

MADE IN CAMBRIDGE

visit our website [www.arcam.co.uk](http://www.arcam.co.uk)

# MARANTZ CD-67IIOSE



**M**arantz watchers might be forgiven if they have become confused by the proliferation of high-spec versions (SE, KI Signature et al) of what boils down to just a few basic CD players. Even Marantz seems to be a little confused, since this player is described as the CD-67mkII SE on the front panel, but with a prominent supplementary front-panel badge proclaiming that this is an

'Original SE'. There is a basic model in this case (the £250 CD-67II, Rec, HFC 179); and there is also a direct predecessor, the CD-67II SE. This OSE costs the same as the displaced model, while the Original badge must be a kind of rebuke to other manufacturers using SE badges on their own models without acknowledging a debt to Marantz. However, Marantz is not the first to enhance basic cooking-quality models in an effort to increase its appeal to audiophiles: Rotel, for example, did much the same thing at least a decade earlier.

The formula is by now familiar. Here is a sleekly turned-out player with the characteristically slightly bowed front and gold fittings. There's a full range of front-panel features: a head-

**“...the Marantz is indeed smooth and mellow, and with simple programme material it appears subtle, even seductive in its communication...”**

phone socket; digital outputs in both flavours; system remote control terminals; a four-stage display dimmer (but the display can't be switched off); and an output-level control on the remote handset which is best avoided. Internally the CD-67II OSE uses a Philips CDM12.3 mechanism, a one-bit D/A Bitstream converter and Marantz's HDAM discrete output module (high slew-rate, high current, runs the claim).

## SOUND QUALITY

This was not one of the high scorers of the test, in fact the average test score was quite modest. On two separate presentations the panel was in fairly close agreement on a sonic character which emerged also in the hands-

on listening that took place. And not only was the scoring consistent, so too was the nature of the comments. There were few specific complaints about the CD-67II OSE, but just a generalised feeling from two different listeners that it was "mellow" and "a little rounded". Another felt that the Marantz tended to clutter up complex material: the Schumann, for example, was described as sounding "hard and forward", while Diana Krall was accused of "in yer face" vocals. Timing was described as "messy" and dynamics as "a bit flat".

The bottom line here is that this player is hard to distinguish from some of its predecessors. This is not good news at a time when the competition – well, some of it – has started to move on.

The sighted, hands-on testing told the same story. The Marantz is indeed smooth and mellow, and with simple programme material it appears subtle, even seductive in its communication. With more complex and aggressive material, however, the sound flattened and became harder, typifying the less pleasant aspects of compact disc's sonic character.

◆ This Special Edition Marantz is an original SE. Confused? Read on MacDuff.

## CONCLUSION

Smooth and elegant – and that's just the way it looks! The CD-67II OSE even sounds this way until the octane level is cranked up, at which point the music becomes harder and more aggressive. It is this loss of consistency that marks the player down – plus the fact it is barely distinguishable from players that have gone before. **AG**

## VERDICT

**SOUND** ★★★★★

**BUILD** ★★★★★

**VALUE** ★★★★★

**PRICE** £299.90

◆ Another smooth, sleek Marantz player promises all, but lacks the consistency to follow through. A lacklustre performance with full-throttle material is the principal limitation of this unit.

### ■ TWO YEAR GUARANTEE

✉ Marantz Hi Fi UK Ltd., Kingsbridge House, Padbury Oaks, 575-583 Bath Road, Longford, Middlesex UB7 0EH.

☎ (01753) 680868

## THE LAB REPORT

**O**ver the years, *Choice* has tested all the forebears of this 'Original SE' CD-67, from the CD-63 onward. And not only have those players all *looked* very similar, but the important facets of their design – such as the choice of NPC's SM5872 combined eight-times digital filter and DAC, the JRC op-amps, discrete 'HDAM' output buffer and Silmic decoupling capacitors – remain like dominant genes. Judging any significant technical difference between this CD-67mkII OSE and earlier incarnations (HFC151, 159 and 166) is very tricky indeed, not least

◆ The S/N ratio is improved but the +8dB noise modulation is worse!

because Marantz's production tolerances seem very tight.

The highly complex jitter spectrum, with its characteristic peaks through midband frequencies, is instantly recognisable from early incarnations of the CD-63 and CD-67 and amounts to an equally familiar 533psec. Stereo separation is held to a remarkable >140dB at all frequencies while distortion remains very low at 0.002 per cent (re. -30dBfs, 1kHz). The 104dB S/N ratio is nearly 1dB better than earlier versions but the +8dB noise modulation is 1dB worse! Even the same -1.3dB 'kink' in low-level linearity is visible in the measured performance of the 67mkII OSE. The

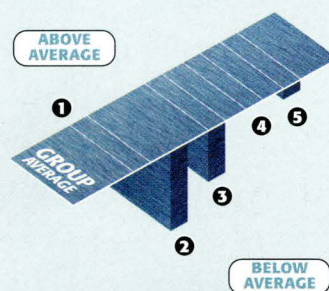
bottom line is this: if you liked the other '67s then you'll also like the 'OSE'. **PMI**



## HOW IT COMPARES

I've already alluded to the Marantz's jitter pattern which has become something of a 'fingerprint' – both objectively and subjectively – for the CD63/67 series. It's also the highest figure in this group, hence the droopy bar.

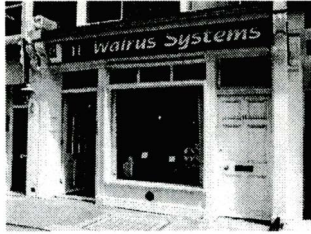
- |                                |      |
|--------------------------------|------|
| 1 SUPPRESSION OF DIGITAL IMAGE | 0%   |
| 2 JITTER                       | -55% |
| 3 PRACTICAL DYNAMIC RANGE      | -35% |
| 4 HARMONIC DISTORTION VS LEVEL | 0%   |
| 5 LINEARITY                    | -5%  |



## SPECIFICATIONS

SPECIFICATION	CLAIMED	MEASURED
■ Distortion @ 1kHz/0dBfs	0.0025%	0.0008%
■ Maximum output level	2.0V	2.30V
■ A-wtd S/N ratio	100dB	104dB

An Aladdin's Cave of real hi-fi in Central London?



An Oasis of patience and friendliness in a desert of commercialism?

(about us)



- Unbiased advice with experience.
- Comfortable studio.
  - No hard sell.
  - Home trials.
- Second hand LPs.
- A sense of humour (uncommon in our business).
- 2 minutes walk from Oxford St and Marble Arch Underground.

An Island of information in a sea of sales talk?

Yes, yes, and yes!

(don't forget our website)



## Walrus Systems

11 New Quebec St, London W1H 7DD  
 Tel: 0171 724 7224 Fax: 0171 724 4347  
 mail@walsys.demon.co.uk www.walrus.co.uk

(what we stock)



ATC  
 Audio Analogue  
 Audio Physic  
 Audio Synthesis  
 Audion  
 Balanced Audio Technology  
 Bravura  
 DNM  
 E.A.R. Yoshino  
 Eggleston Works  
 Electrocompaniet  
 Final  
 Graaf  
 Helios  
 JM Lab  
 Living Voice  
 Morch  
 Musical Fidelity  
 Opera  
 Pass Labs  
 Rega  
 Rehdeko  
 Stax  
 Unison Research



Do your cables allow music to decay naturally



AERO SPACE TECHNOLOGY Loudspeaker Cables



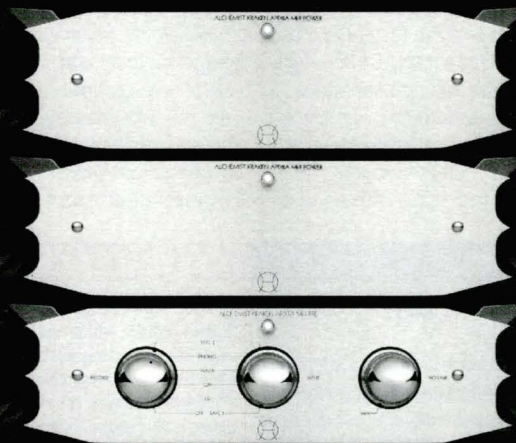
The Leading Edge in Technology



The Leading Edge and Decay in Music

The Derwent Business Centre, Clarke Street, Derby DE1 2BU  
 Sales Office Hot Line: 07000-SONICLINK  
 Tel : + 44 (0) 1332 361 390  
 Fax : + 44 (0) 1332 298 836

## Bridge it Bardot



01491-834700

THE NEW ALCHEMIST KRAKEN PRE-POWER BRIDGED AMPLIFIERS: 6 INPUTS, 2 X TAPE, > 200 WATTS RMS  
 DISTRIBUTED IN THE UK BY HENLEY DESIGNS





# PIONEER PD-S707

The key technology feature of this modestly-priced Pioneer is its new DAC24 D/A converter, which is described as a 'true 24-bit resolution DAC'. This is a Delta Sigma processor proprietary to Pioneer, which includes a version of Pioneer's original Legato Link digital filter on the same substrate. The chip is made to Pioneer's specifications by Burr-Brown. The 24-bit resolution claim could be dubious, but the main pitch is made on behalf of the processor and its reduced sensitivity to clock jitter compared to normal 1-bit DACs, and a reduction in the truncation errors in the digital filter which performs arithmetic to the full 24-bit word lengths.

Otherwise what you see is what you get. The player features



sample failed to locate high track numbers. Perhaps it took a knock during transit. On the whole it handles discs with decorum and locates tracks at a more than respectable lick.

## SOUND QUALITY

The average score for this player was highly satisfactory across two presentations, but there was a considerable spread in scoring between sessions, between listen-

sample failed to locate high track numbers. Perhaps it took a knock during transit. On the whole it handles discs with decorum and locates tracks at a more than respectable lick.

sample failed to locate high track numbers. Perhaps it took a knock during transit. On the whole it handles discs with decorum and locates tracks at a more than respectable lick.



○ The Pioneer's large CD tray is due to its inverted player mechanism.

## CONCLUSION

Legato Link has again produced its usual mixed responses. The PD-S707 is an attractive proposition which extracts the subtleties in good recordings. The only failing is a slight lack of impact with some high-octane material. Not everyone's cup of tea, but well worth auditioning. Recommended. **AG**

“...the Pioneer gave a strong account of itself in different systems, with a range of predominantly orchestral and instrumental recordings...”

Pioneer's trademark inverted-player mechanism that supports the disc (which must be inserted label-side-down) over its whole surface. An electrical digital output is fitted to the UK model, which can be turned off from a front-panel switch to reduce RF interference. The display can also be turned off, and there are plenty of play and tape editing features. The PD-S707 feels like a well-engineered and solid prospect, even though the first



ers during each session, and even from one piece of music to the next. More than one listener realised that the musical attributes of this player are exceptionally dependent on musical styles. "It's going to sound good on some types of material and not on others," read someone's sumup comments. There were times when the Pioneer was described as "uninvolving" and even "unmusical", and others when it was felt to be "com-

## VERDICT

SOUND	★★★★☆
BUILD	★★★★☆
VALUE	★★★★☆
PRICE	£300.00

Expressive, open-mouth delivery with fine, three-dimensional soundstaging, though some may find it lacks focus.

### ONE YEAR GUARANTEE

Pioneer High Fidelity (GB) Ltd, Pioneer House, Hollybush Hill, Stoke Poges, Slough, Bucks SL2 4QP  
(01753) 789500

## THE LAB REPORT

Rather than adopt the latest variant of Pioneer's 'Legato Link S' digital filter, the PD-S707 harks back to the earlier technology of favoured players like the PD-S705 and PD-S505 (HFCs 163 and 166). Nevertheless, the execution of this technology is improved. Earlier issues of *Choice* criticised forebears for a relatively poor 96dB S/N ratio and high 1kOhm output impedance. New power supplies and analogue circuitry have improved this to 106.8dB and 480 Ohms, respectively just as levels of digital jitter have been reduced to

○ The PD-S707 goes back to basics.



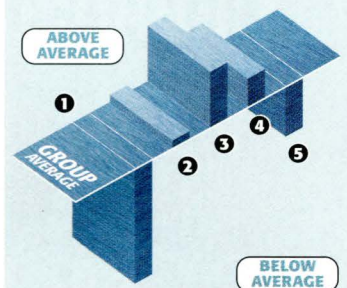
270psec. And this, itself, is largely composed of innocuous low-rate and power-supply-induced patterns.

Distortion remains very low at 0.001 per cent (0dBfs) and just 0.002 per cent at -30dBfs but errors in low-level linearity have increased slightly to +2.4/-2.1dB (re. -100dBfs). Similarly, while the Legato Link filter still encourages a gentle HF roll-off (-2.9dB at 20kHz), the presence of strong digital images just outside the audioband produces *in-band* IM distortions at -75dB (or 0.009 per cent). Low, to be sure, but they were not present in earlier models. Do note that this distortion mechanism can produce a different subjective effect with different amplifiers. Otherwise it looks like a general thumbs-up for Pioneer's 'spring-clean' of the PD-S705. **PMI**

## HOW IT COMPARES

Conventional players attempt to eliminate digital 'reflections' as much as possible, but Pioneer's Legato Link digital filter deliberately manipulates them to simulate the presence of ultrasonic musical harmonics. Hence the -80 per cent recorded here.

1 SUPPRESSION OF DIGITAL IMAGE	-80%
2 JITTER	5%
3 PRACTICAL DYNAMIC RANGE	40%
4 HARMONIC DISTORTION VS LEVEL	20%
5 LINEARITY	-35%



## SPECIFICATIONS

SPECIFICATION	CLAIMED	MEASURED
Distortion @ 1kHz/0dBfs	0.0023%	0.001%
Maximum output level	Not quoted	2.40V
A-wtd S/N ratio	110dB	107dB

# MAKING FRIENDS WITH THE AWARD WINNERS

## *at* Doug Brady Hi-Fi

### NEW TO HI-FI? OR ARE YOU UPGRADING?

#### Either way you could do with a Friend in the Trade

We've been making friends with our customers for 34 years now. We're a family firm, much more concerned about a fruitful long term relationship with our customers than with hard selling.

Because you are the reviewer! What suits your ears, what fits your budget is yours to decide. After all, the menu card is no substitute for the meal, performance figures are no substitute for driving the car, and even an award is no substitute for hearing the equipment you want to test via your own ears.

So close your eyes, open your ears and make a hi-fi choice at Doug Brady Hi-Fi. We have systems from £500 to £50,000, a two-year guarantee, and after 30 years we are still a friendly family business.

**0% FINANCE  
AVAILABLE  
Details on request**

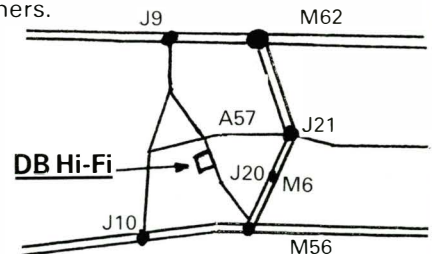
**Kingsway Studios**  
Kingsway North,  
Warrington, Cheshire  
(01925) 828009  
Open six days.  
Fax: (01925) 825773



**PHONE OR WRITE  
FOR  
DETAILED MAP**

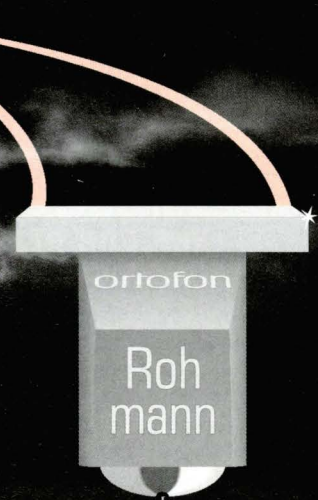
**PRIVATE PARKING**

I don't think you could make a better friend in the trade.  
And our advertisements are our happy customers.



# DANGER!

## Diamond Mine



# ortofon

# 01491 834700

# SONY CDP-XB720E

This Sony is the most affordable player in this month's group by a substantial £79 margin. It understandably feels rather lightweight by group standards, but it is said to have a more rigid chassis than its predecessors, a slanted PCB and 'off-centre' feet to reduce acoustic feedback. A switchable-coefficient digital filter (a Sony speciality, though a very similar idea was first premièred on a British player years ago) has four settings, which allows the user to 'tune' the sound as required.

There is plenty more where this technology came from, notably a new, highly-integrated pulse-gen-

**“...the standard one-fits-all setting may not be ideal in every case, but works adequately most of the time; while the others provide some variety...”**

erator, clock, digital filter and noise shaper, the CDX8735N. For this, greater synchronous time accuracy (a synonym for jitter) and reduced noise are the major claims. Final development of the player took place in the UK, which resulted in a number of changes from the standard international model. These include larger PSU and analogue supply capacitors, improved-quality wiring, new fixing materials, a



changed low frequency alignment and the deletion of the headphone socket, all supposedly to improve sound quality. An output-level control has been retained, which is an inconsistency in this context, and as usual should be bypassed for critical listening. In common with previous Sony players, there are plenty of tape editing, programming and navigation options, including CD Text which displays the track titles of appropriately coded CDs.

## SOUND QUALITY

For the purposes of the test panel, the Sony was treated as four separate players, each corresponding to one setting of the variable coefficient digital filter. The standard setting is a more or less conventional brick-wall filter, and the other three settings (broadly modelled on the Pioneer Legato Link model and designed to improve phase and harmonic behaviour at the expense of in-band response accuracy) provide various flavours of sound which can be chosen to taste. The general prognosis is that a setting that works well, say, with rock record-

ings sounds less appropriate with choral or instrumental discs. Although there were differences in scoring, the range of scores was surprisingly narrow, with the average being quite low, which should be assessed in the context of the player's price.

The standard setting met different reactions from the panel, with comments ranging from "good attack, easy-to-follow guitar lines" to "bass notes fudged — hard and uncomfortable though it is detailed". The consensus view, taken with the hands-on test results, was of a rather sharp, over-etched quality somewhat lacking in body and consistency. The other filter settings all gave a rather softer sound, often with a trace of sibilance. Preferences changed with the programme material, though it was the second filter which met with the greatest success ("a pleasing sense of tension...sense of reality.... good timing and balance"), and filter three the least ("plummy....sibilant.... aggressive"). It was hard to sustain this ranking order when the music, or the system, was changed.

● The Sony CDP-XB720E comes complete with four digital filters.

## CONCLUSION

The standard one-fits-all setting may not be ideal in every case, but works adequately most of the time; while the others provide some variety. The second setting in particular showed real promise with a range of recordings. The Sony may not be appropriate if you want the easy life, but for those who don't mind experimenting, it is an excellent budget choice. **AG**

## VERDICT

SOUND	★★★★☆
BUILD	★★★★☆
VALUE	★★★★☆
PRICE	£199.99

■ A lot of player for the money, and an erratically strong performer that can be tuned to your discs, system and personal taste.

### ■ ONE YEAR GUARANTEE

✉ Sony UK Ltd., The Heights, Brooklands, Weybridge, Surrey KT13 0XW.  
☎ (0990) 111999

## THE LAB REPORT

Employing much the same selectable filter technology that first graced the CDP-X3000ES (HFC 169), this more affordable player also features a new and highly integrated conversion IC. The code for four different digital filter options plus noise shaping and bitstream D/A conversion is housed within this chip, the CXD8735N. The 'behaviour' of the 'XB720E depends largely on which filter is selected. In standard mode the response is ruler flat, stop-band rejection better than 105dB, distortion less than 0.003 per cent (all fre-

quencies, 0dBfs) and low-level linearity held to within tight +0.1/-0.3dB limits. This, plus the vanishingly low 145psec of jitter, would represent a state-of-the-art performance, regardless of price.

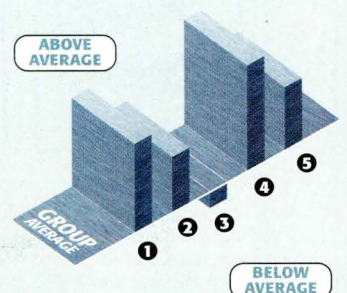
Filter 1 turns the 'XB720E into something that mimics a Pioneer Legato Link player, for example, with a gently rolled-off treble (-4dB at 20kHz) that seems to extend well beyond CD's 22kHz limit. This is achieved by manipulating the digital 'reflections' that other filters seek to remove altogether. Filters 2 & 3 represent variations on this theme but will prove equally variable in their subjective performance with different

amplifiers. Fortunately, if you don't like the sound of one filter, you have three others to fall back on! **PMI**

## HOW IT COMPARES

Sony scores highly both in Jitter and Distortion categories. The former is achieved by minimising all forms of internal interference, the latter by optimising the 'Pulse' bitstream DAC and analogue filter.

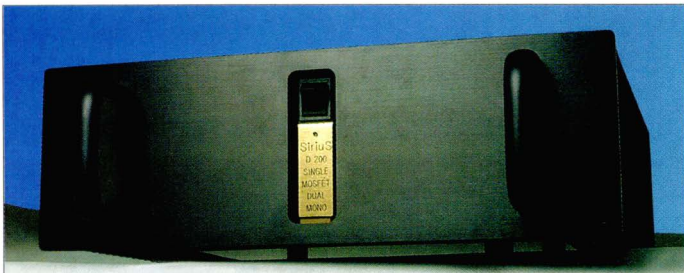
1 SUPPRESSION OF DIGITAL IMAGE	55%
2 JITTER	40%
3 PRACTICAL DYNAMIC RANGE	-10%
4 HARMONIC DISTORTION VS LEVEL	75%
5 LINEARITY	45%



## SPECIFICATIONS

SPECIFICATION	CLAIMED	MEASURED
■ Distortion @ 1kHz/0dBfs	0.0035%	0.0016%
■ Maximum output level	2.0V	2.46V
■ A-wtd S/N ratio	102dB	103dB





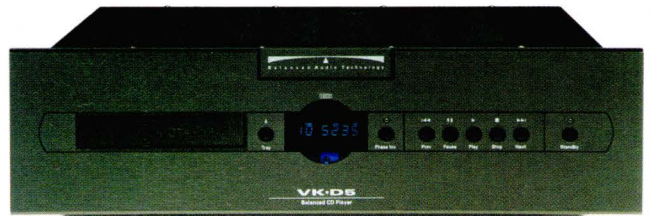
**The new Sirius D 200 reference power amplifier with SINGLE MOSFET technology**

For full range brochure contact our UK distributor:

R.T. Services, 118 Mendip Heights, Didcot, Oxfordshire OX11 7TG  
**Telephone 01235 810455**  
**Telefax 01235 810324**

International distributors are welcome to contact us: Sirius is handbuilt by AMPspeaker ApS, Hedevej 20A, DK-2680 Solrød Strand, Denmark  
**Telephone int +45 56 14 85 85**  
**Telefax int +45 56 14 85 83**

**BALANCED AUDIO TECHNOLOGY**



**VK D5 CD Player**



**VK 60 Power Amplifier**



**VK 31 Remote Pre Amplifier**

**'THE PERFECT BALANCE'**

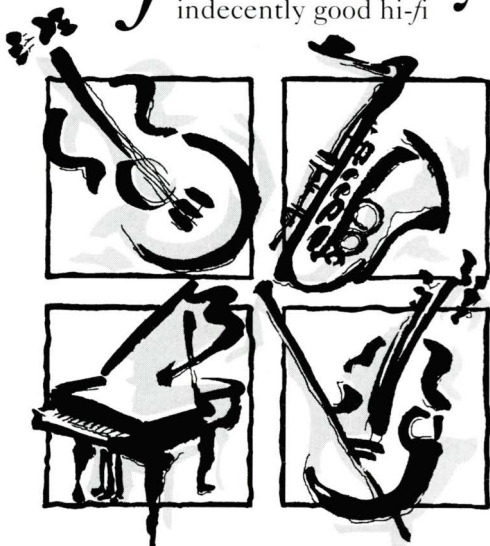
Fully balanced technology commanding some truly outstanding reviews. Call below for details

<b>WALRUS SYSTEMS</b>	<b>LONDON</b>	<b>0171 724 7224</b>
<b>ZOUCH AUDIO</b>	<b>ASHBY DE LA ZOUCH, LEICS</b>	<b>01530 414 128</b>
<b>LINTONE AUDIO</b>	<b>GATESHEAD, TYNE &amp; WEAR</b>	<b>0191 477 4167</b>
<b>THE RIGHT NOTE</b>	<b>BATH, AVON</b>	<b>01225 874728</b>
<b>THE AUDIO NOTE SALON</b>	<b>GLASGOW</b>	<b>0141 357 5700</b>
<b>SOUNDS OF MUSIC</b>	<b>TUNBRIDGE WELLS, KENT</b>	<b>01892 547 003</b>
<b>MIDLANDS AUDIO EXCHANGE</b>	<b>KIDDERMINSTER, WORCS</b>	<b>01562 822 236</b>
<b>HAZLEMERE AUDIO</b>	<b>HIGH WYCOMBE, BUCKS</b>	<b>01494 437 892</b>
<b>THE HI-FI COMPANY</b>	<b>PETERBOROUGH, N'THANTS</b>	<b>01733 341 755</b>
<b>THE AUDIO EDGE</b>	<b>WOKING, SURREY</b>	<b>01483 747 200</b>

**ZENTEK MUSIC LTD**

Distributors of fine music products  
 PASSLABS • EGGLESTON WORKS • HALES • COPULARE  
 BALANCED AUDIO TECHNOLOGY • REFERENCE 3A  
**T. 01892 539595 F. 01892 547004**

**Infidelity**  
 indecently good hi-fi



**Buying hi-fi should be a delight.**

If you would rather chose your new hi-fi in a civilised and relaxed atmosphere from a well-chosen selection of genuine performance equipment, then we are for you. Bring along your own records or CDs, we'll provide the coffee, and hear the difference we can make to your enjoyment of music.

9 High Street, Hampton Wick, Kingston upon Thames, Surrey KT1 4DA

**Telephone: 0181-943 3530**



Open: Tues - Fri 10.30am - 7pm, Saturday 10am - 6pm.



# MYRYAD T-10



The T-10 is the first in Myryad's 'long awaited' T-series, which derives its technology from more 'illustrious and expensive' models, in this case the MC100.

The company appears to be pushing the T-10 as a cheaper version of the MC100 — while it may not look so sophisticated, Myryad claims the T-10's sound is not compromised. For reference, the MC100 costs £700, £300 more than the T-10.

The Myryad makes a good initial impression. While it will win no prizes for aesthetics, the ultra-simple interface provides its own joys, and the simple display also promises little room for misunderstanding. Track access times from its Sony mechanism are satisfyingly short, and the handset delivers all the usual navigation and programming options as well as a 'dim' key, which switches the display off, in a straightforward and understandable manner.

The deck is solidly built and appears to be well endowed, though the aluminium front panel (black on the test sample, but also available in silver) has a rather rough finish. It features a respectably-specified transformer driving seven regulated power supplies. The con-

“...while it will win no prizes for aesthetics, the ultra-simple interface provides its own joys, and the simple display also provides little room for misunderstanding...”

version stage is a 20-bit Crystal Delta Sigma (DS) processor, with a 128-times oversampling digital filter, and a four-pole analogue filter implemented as a FET op-amp. Other highlights include an isolated master clock, said to be of very low jitter characteristics, and close-tolerance passive components. No headphone socket is fitted, but an electrical digital S/PDIF output is included.

## SOUND QUALITY

Although initially impressed by apparently strong timing and a good stereo spread, one panelist went on to describe the Myryad as “untidy” generally. He also observed that it did, as he put it, “weird things” with

depth imagery, especially in the Diana Krall and the Schumann symphonic excerpt. His sum-up comments included the following: “Drums sound machine-like, and strings lack sway”. His comments proved all too typical. In conversation following the tests, one listener commented that the T-10 “needs a big injection of pizzazz” and that it “glosses over detail”. Other complaints included ones of a “sluggish bass”. A perhaps more balanced assessment concluded that the player “impressed me with its dynamic qualities, but as the test progressed, other things didn't happen that should have. There's nothing terrible here, but something lacking compared to the previous player”.

Nothing emerged from the hands-on testing to contradict the panel. Indeed this is a rather messy-sounding player with complex material, and one that underplays its hand with simpler but good-quality recordings of all genres. A well-liked Stravinsky *Rite of Spring* lacked the necessary elemental aggression, and Bill Frisell's lush *Blues for Los Angeles* (from *Gone, Just Like A Train*) lacked both immediacy and consistency.

○ The T-10 claims to embody the MC100's virtues for £300 less.

## CONCLUSION

The T-10 seems to have everything going for it. Being the derivative of a much costlier player, and with simple features, the whole package seems tailored to attract the audiophile on a budget. Build quality certainly appears to justify the price and expectations, and the three-year guarantee is a positive reassurance, but in practice the T-10 failed to cut the mustard musically, sounding inconsistent and, as one listener so aptly put it, “lacking in pizzazz”.

AG

## VERDICT

SOUND	★★★★☆
BUILD	★★★★☆
VALUE	★★★★☆
PRICE	£399.95

Simply-equipped derivative of more costly Myryad designs, the T-10's lacklustre sound quality fails to shine.

### THREE YEAR GUARANTEE

Myryad Systems Ltd, 2 Pipers Wood, Waterberry Drive, Waterlooville, Hants PO7 7SU  
(01705) 265508

## THE LAB REPORT

In this, the cheaper of two related players, Myryad is using a miniature, surface-mount version of Crystal's 20-bit CS4327 converter. However, its output of ultrasonic noise seems better contained than usual, possibly as a consequence of Myryad's proprietary four-pole active filter. This has less impact on high-frequency distortion which still increases from a very low midband figure of typically 0.001 per cent to 0.018 per cent at 20kHz. Though these figures are hardly huge, it's the difference between them that can cause subjective repercussions, not unlike the swift increase in HF THD associated with archetypal, high-feedback transistorised amplifiers, for example.

As expected with a Crystal DAC, low-level linearity is maintained to within tight +0.2dB/-0.5dB limits, while the low 175psec



○ This Myryad boasts very low jitter.

of overall jitter contains just 130psec of substrate-level, data-induced sidebands. This is an excellent result. Sadly, the practical 100dB S/N ratio is well short of a 'real' 20-bit specification. This limitation might just as easily be caused by the analogue stage which is responsible for the high 2.6V peak output level and capable of prejudicing any quick, unmatched A/B demonstrations.

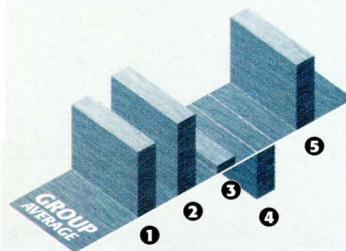
Incidentally, Myryad's board has provision for additional components, possibly intended for the T-20 player or perhaps a future 'T-10SE'. We'll just have to wait and see!

PMI

## HOW IT COMPARES

This player achieves above average scores in most categories but the abrupt changes in distortion through mid to high frequencies might prove the biggest subjective distraction.

1 SUPPRESSION OF DIGITAL IMAGE	45%
2 JITTER	50%
3 PRACTICAL DYNAMIC RANGE	5%
4 HARMONIC DISTORTION VS LEVEL	-30%
5 LINEARITY	45%



## SPECIFICATIONS

SPECIFICATION	CLAIMED	MEASURED
Distortion @ 1kHz/0dBfs	0.003%	0.0006%
Maximum output level	2.5V	2.61V
A-wtd S/N ratio	100dB	100dB



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

*At the Listening Rooms, we pride ourselves on matching your needs with exactly the right equipment, whatever your budget, and because we only stock the best, that's what you'll 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.*

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  
Export and Credit facilities.

0% FINANCE SUBJECT TO STATUS

• ACOUSTIC ENERGY • ARCAM • AUDIO RESEARCH  
• AUDIOLAB • AURA • BOSE • CELESTION • COPLAND  
• CYRUS • DENON • EPOS • HARMAN KARDON  
• JBL • KEF • KRELL • LINN • MARANTZ  
• MARTIN LOGAN • MERIDIAN • MICHELL • MICROMEGA  
• MISSION • MONITOR AUDIO • MUSIC FIDELITY X SERIES  
• NEAT PETITE • PINK TRIANGLE • PIONEER • PROAC  
• QUAD • REL • ROGERS • SME • SONUS FABER  
• STAX • THETA • WILSON AUDIO • YAMAHA •

 **THE listening rooms**

161 Old Brompton Rd. London SW5 0LJ.  
Tel: 0171-244 7750/59. Fax: 0171-370 0192  
Monday - Saturday 10am - 6pm.  
Nearest Tube: South Kensington or Gloucester Road

## Are you getting the Maximum from your System

**D102III Hybrid Interconnect cable**  
£69.99/0.8m pair

**Best Interconnect Cable - What Hi-Fi?**

**Award Winner 1998**

★★★★★ "...a wiry wonder" What Hi-Fi? May '98

★★★★★ "...this is pretty much as good as cable gets"

**Best Buy Hi-Fi Choice March '98**

**CS122 Hybrid Loudspeaker cable**

£11.99/m

**Highly Recommended - What Hi-Fi? Awards 1998**

★★★★★ "Buy with confidence" What Hi-Fi? Oct '98

**The Teatrack Hybrid Bi-wire (£21.99/m)**

Insist on cables by

# van den Hul

The Link Between Technique and Emotion

For details of our extensive range of cables and cartridges please contact

van den Hul UK, Imex House, 6 Wadsworth Road, Greenford, Msex, UB6 7JJ. Tel:0181 997 4280

# audio *edge*

## So many products, So many reviews, Don't know where to start?

At the Audio Edge, we understand that the most important link in your system is your ears. So for this reason, we offer some of the finest audio available. So whether you're a first time buyer or a seasoned audio file, our aim is simply to save you time and money, with a service second to none.

- Interest free credit
- Free home loan service
- Free parking
- Part exchange welcome

### STOP PRESS

New products now in stock, musical fidelity XA family, Rega products, Dynaudio speakers, Harman, JBL, Densen amplifier and new CD players, System audio speakers on permanent dem, JM Lab on permanent dem, Electrocompaniet amplifier and new CD player on dem, new Cadence speakers, new Laverdin amplifier on dem, Clear Audio turntables and cartridges on dem, Meracus amplifier and CD player.

### PLUS ALL OUR OTHER FAVOURITE PRODUCTS

### NORDORST CABLES NOW IN STOCK INCLUDING SPM REFERENCE

Audio Research, Martin Logan, Copland, Krell, Saus Faber, Theta, Audio, BAC, Audio Physics, Musical Fidelity, Rega, Densen, Helios, System Audio, Clear Audio Turntables, Laverdin, Electrocompaniet, Anthem, Jadis, Dynaudio, JM Lab, Triangle Speakers, Audio Mecca, YBA, QED, Sounds Style, Yamamura, Transparent, Atacama.



**64 Goldsworth Road,  
Woking, Surrey.**

**HRS 10.30 - 6.30 6 days  
FREEPHONE 0800 052 1966**

# PARASOUND C/DP-1000



**P**arasound is a medium-priced, specialist hi-fi brand from the USA, many of whose components (the company specialises in pre and power amplifiers) have high-end pretensions. Parasound has not had consistent distribution in the UK, but has recently been taken under the wing of CSE, alongside Straight Wire and Lexicon.

The C/DP-1000 is a minimalist player based on an 18-bit Burr-Brown hybrid chip with eight-times oversampling. It is described as having 'high-resolution' analogue circuitry. All the usual programming and search options are available, mostly via the remote control, and the player will drive an external recorder or D/A converter from an electrical S/PDIF output. Unusually, the Parasound includes a socket for a remote infra-red receiver (available from third-party suppliers), which means the player can be placed behind furniture doors without needing to have a clumsy-looking i/r repeater affixed over the player's own receiver eye.

Build quality is excellent. We tested the 19in rack-mountable version of the C/DP-1000, but it is also available as a 17in standard unit. The rack-mounting

**“...the Parasound was largely well behaved and free from the obvious nasties associated with poorer digital audio, which helped nondescript recordings to sound acceptable...”**

holes are blanked off as supplied, and the casework is extensively strengthened and damped, which is normally done to mitigate the effects of acoustic feedback. The display provides limited information, but it is clear and attractive.

## SOUND QUALITY

The panel reacted favourably to this player, although this was not accurately mirrored in some of the comments submitted. “Smooth vocals are interesting and easy to listen to” (Diana Krall), “good soundstaging” (Schumann) and “presentation of bass promotes long term listening” (Wyckle Jean) are typical of the kind of comments that the Parasound

elicited, but they were leavened with less positive ones. “Slightly shut in,” complained one of the Lauro guitar and drum recording, and “lacks apparent life and dynamic range” greeted the Schumann, while another thought the player sounded “bland and lacking in enthusiasm”.

Despite a patina of architectural solidity, the separate hands-on listening with a wider range of equipment showed some flaws, notably a rather lean, undernourished bass and a lack of vitality with energetic recordings, along with confirmation of a soft, shut-in feel. Most noticeable of all was the loss of low-level clarity, the subtle ambient information, and the high-frequency harmonic structure that makes the strings and woodwind (not forgetting brass and percussion) sound alive and credible.

The effect was rather like listening to an analogue source, but in the wrong sense. The Parasound was well behaved and free from the obvious nasties associated with budget digital audio, which helped nondescript recordings to sound acceptable. The problem was that recordings known to sound better

⦿ This player is also available as a 17in flush-finished component.

through their performance on other players failed to demonstrate their inherent advantage.

## CONCLUSION

This player is not without merit, and in the surroundings of the test system it gave a good account of itself. Extended listening, however, showed a lack of depth to its abilities, with question marks over resolving power and tonal balance, with system-to-system consistency also being suspect. **AG**

## VERDICT

<b>SOUND</b>	★★★★☆
<b>BUILD</b>	★★★★★
<b>VALUE</b>	★★★★☆
<b>PRICE</b>	<b>£499.99</b>

⦿ A bold and expressive player, the Parasound ultimately fails to engage the senses or inject life into the music.

### ■ TWO YEAR GUARANTEE

✉ CSE, Unit 9, Centre Park Holdings, Tockwith, Yorks YO26 7QF  
☎ (01423) 359054

## THE LAB REPORT

**P**hysically this is a heavyweight player, though much of its bulk is accounted for by the rubberised damping sheet under the top plate and the rectangular bar of – I presume – mild steel that’s screwed to the inside of its chassis! Parasound is employing a surface-mount version of Burr-Brown’s (by now, rather dated PCM67 hybrid converter. This is driven by a relatively poor digital filter that offers just 21dB rejection of digital ‘images’ immediately outside of the audioband. The S/N ratio is just within the 16-bit standard.

⦿ High distortion decreases at HF.



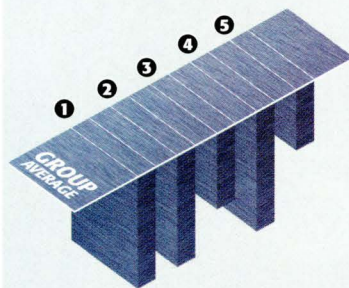
Distortion is high too, at typically 0.02-0.03 per cent at –30dBFs, but this actually decreases at HF thanks to the efforts of Parasound’s analogue filter network. Levels of ultrasonic noise are also well suppressed though, judging by the –1.7dB droop at 20kHz; perhaps the filter bites a little too early. The 2V 0dBFs output level is spot-on, though the source impedance is rather high at 1kOhm for one or two of the ‘low input impedance’ amplifiers knocking about these days. Finally, the 1033psec of overall jitter is largely accounted for by strong data-induced sidebands. From experience, these sorts of patterns are known

to compromise the natural colour and vibrancy of reproduced music. **PMI**

## HOW IT COMPARES

**E**vidently, this player falls well behind the group average in all major areas of performance. Arguably, the high jitter and poor mid-level/HF distortion will have the greatest subjective impact.

- |   |                              |      |
|---|------------------------------|------|
| 1 | SUPPRESSION OF DIGITAL IMAGE | -75% |
| 2 | JITTER                       | -75% |
| 3 | PRACTICAL DYNAMIC RANGE      | -50% |
| 4 | HARMONIC DISTORTION VS LEVEL | -80% |
| 5 | LINEARITY                    | -40% |



## SPECIFICATIONS

SPECIFICATION	CLAIMED	MEASURED
■ Distortion @ 1kHz/0dBfs	0.002%	0.0025%
■ Maximum output level	2V	2.01V
■ A-wtd S/N ratio	110dB	99dB

# *Au naturel*

The appeal of natural materials is unsurpassed... with the introduction of 'Special Edition' cabinets in real wood veneers, AE's multi-award winning 100 Series loudspeakers are now more attractive than ever!

Thanks to their superb quality, stunning performance and outstanding value, their beauty is more than skin deep.

And the further assurance of AE's world-wide reputation, backed by years of experience in hi-fi and pro-audio loudspeaker design, adds body and soul.

For a brochure and your nearest AE dealer, telephone 01285 654432 or Web: [www.acoustic-energy.co.uk](http://www.acoustic-energy.co.uk).

**100SE SERIES**  
WOOD VENEER

Loudspeakers from £230 to £600

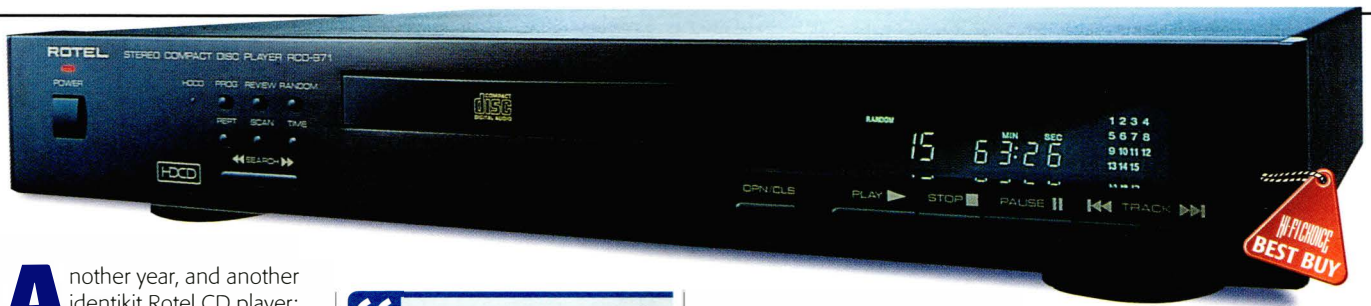
**AE**  
ACOUSTIC ENERGY

*The ultimate sound experience*





# ROTEL RCD-971



Another year, and another identikit Rotel CD player; slim, mean and workmanlike rather than attractive. But someone has been waving a magic wand below deck, and the RCD-971 turns out to have hidden talents.

So, what gives? The engine room contains dual differential Burr-Brown PCM63P DACs and a Pacific Microsonics PMD 100 HDCD digital filter, which of course means that it will play HDCD discs in native mode. This resulted in excellent performance with the handful of worthwhile discs of this type, but performance was only slightly inferior when playing non-HDCD discs.

Other highlights include separate analogue and digital supplies, and slit-foil capacitors (on past form, a significant inclusion) along with other 'audiophile' components including Oscon capacitors, and some mechanical damping of the lid and base. The mechanism is from Sony, but although track access is fast, reading the TOC (Table of Contents track) is achingly (and for Sony uncharacteristically) slow. There are other ergonomic shortcomings too. The player shows a double zero and fails to display preselected track numbers until it has

“...here is a player that has a fullness and roundness and an unusual smoothness that suggests it will remain listenable long after others have started to grate...”

read the disc's TOC. With the drawer open, track numbers (other than track one of course) cannot be preselected at all.

Equipment levels are fairly standard for this class of machine, and include an electrical digital output and all the usual navigation and programming options, but there is no headphone socket.

## SOUND QUALITY

Too many times with recent Rotel products, performance has lacked a certain spark to set it apart from the run of the mill. Not so in this case. Here is a player that has a fullness and roundness and an unusual smoothness that suggests it will remain listenable long after others have started to

grate on the nerves. Yet in no sense has this been achieved at the cost of resolving ability, clarity or dynamics. On the contrary, this is a refined, but exquisitely detailed-sounding player.

Almost to a man, the panel agreed with this prognosis, as the high test score showed. "It's a super smoothie to me," wrote one, who remarked specifically on the "nice spread" of sound and the very "listenable" vocals in the Diana Krall song. Another talked of its smoothness, "almost like a Roberts radio — but in a positive way". The Rotel doesn't sound quite like other players, and this presents a dilemma when making a reasoned assessment. Again, this seemed to have been recognised by the panel, as one noted that either "all the others are wrong and this one's right, or this is an oddball". Well maybe, but the slightly mid-forward balance seemed to suit all music types without favour, and the Rotel's ability to cut to the quick even the most challenging programme material (without sounding raw, aggressive, or alternatively recessed or softened) marks it out from the crowd in a positive sense. The same applies to its confident, unrushed timing.

○ A slick-sounding superstar; lacks only in ergonomics.

## CONCLUSION

This is clearly an exceptional player, and deserving of the highest praise at its relatively modest price. Its resolving ability is particularly strong, and in this context the maker's recommendation to use quality solid-core cables makes good sense in most systems, as stranded cables usually reduce resolving ability. It was surprising to discover some rough edges in what is often called the user interface, but there is nothing here to frighten the horses. Best Buy. **AG**

## VERDICT

SOUND	★★★★★
BUILD	★★★★☆
VALUE	★★★★★
PRICE	£349.95

Simple equipment levels, and some unusual interface shortcomings, but the open, refined and big-boned performance, and usual levels of clarity, mark this model out from the crowd.

### TWO YEAR GUARANTEE

Gamepath Ltd, 25 Heathfields, Stacey Bushes, Milton Keynes, Bucks MK12 6HR  
(01908) 317707

## THE LAB REPORT

Slim and sophisticated, Rotel's RCD-971 combines the services of Pacific Microsonics' HDCD digital filter (see *Oasis*, HFC182) with two 20-bit PCM63P DACs from Burr-Brown. The latter were once the preserve of costly, high-end machines but this implementation — with Burr-Brown op-amps and generous use of Rubycon BGF capacitors — offers a slightly 'modified performance'. The 107dB S/N ratio is at least 6dB behind other '63 users (like the AVI S2000MC, for example) but then its reduced +9.5dB noise modulation will impart less of any 'sonic roughening'. Distortion, too, is

○ Reference jitter levels at 135 psec.



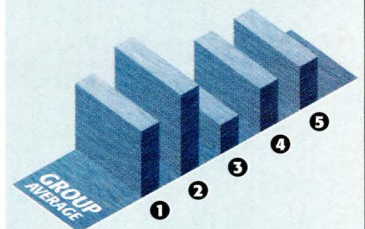
low but not state-of-the-art at 0.0045-0.012 per cent (re. 0dBfs) while the +0.0/-1.1dB errors in low-level linearity are negative, making any digital nasties less audible. The response is flat, and stereo separation in excess of 114dB over the whole audio band.

In the same vein, ultrasonic requantisation noise is suitably suppressed and this, along with the modest 100 Ohm output impedance, bodes well for compatibility with different amplifiers. Jitter, too, is of reference standard with just 135psec of substrate-level, data-induced patterns. Bearing in mind that none of the 170 CD players now on record has achieved better than 130psec, this is an incredible result and certainly the best obtained with the PMD-100/PCM63 chip combination. **PMI**

## HOW IT COMPARES

All the essentials are right here from the wide S/N ratio, exceptionally low jitter and very well controlled, if not vanishingly low, levels of harmonic distortion.

1 SUPPRESSION OF DIGITAL IMAGE	45%
2 JITTER	55%
3 PRACTICAL DYNAMIC RANGE	20%
4 HARMONIC DISTORTION VS LEVEL	30%
5 LINEARITY	30%



## SPECIFICATIONS

SPECIFICATION	CLAIMED	MEASURED
Distortion @ 1kHz/0dBfs	0.0035%	0.0045%
Maximum output level	1.0V	2.37V
A-wtd S/N ratio	107dB	107dB

# CLASSIC ALBUMS AS YOU'VE NEVER HEARD THEM BEFORE

MASTERED BY WORLD'S TOP AUDIOPHILE LABELS FROM  
THE ORIGINAL SESSION TAPES AND PRESSED ON  
24 CARAT GOLD -  
CD'S SO GOOD YOU WON'T BELIEVE YOUR EARS



**A SELECTION OF CURRENT TITLES:**

- JETHRO TULL: ORIGINAL MASTERS - £19.95\*
- JETHRO TULL: SONGS FROM THE WOOD - £21.95
- JETHRO TULL: A PASSION PLAY - £21.95
- LINDA RONSTADT: GREATEST HITS VOL. 2 - £19.95\*
- NAT KING COLE: GREATEST HITS (2:1) - £23.95\*
- SIMON & GARFUNKLE: BOOKENDS - £21.95
- TOM PETTY: FULL MOON FEVER - £21.95
- STEVIE RAY VAUGHAN: THE SKY IS CRYING - £21.95
- LOGGINS & MESINA: FULL SAIL - £21.95
- DON MACLEAN: AMERICAN PIE - £21.95
- VAN HALEN: VAN HALEN - £19.95\*

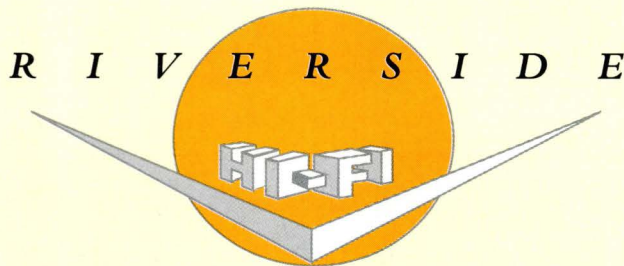
TO PLACE AN ORDER OR TO RECEIVE AN AUDIOPHILE CD OR VINYL  
CATALOGUE, PLEASE CONTACT:

## VIVANTE

UNIT 4, 60 HIGH STREET, HAMPTON WICK, SURREY KT1 4DB  
TEL: 0181 977 6600 FAX: 0181 977 4445

EUROPE'S PREMIER AUDIOPHILE MAIL ORDER COMPANY

TITLES WITH AN \* ARE ALSO AVAILABLE ON 180G HIGH QUALITY VINYL



422 Richmond Road, East Twickenham,  
Middlesex. TW1 2EB.

Tel: (0181) 892 7613 Fax: (0181) 892 7749

## FOR YOUR ABSOLUTE SOUNDS

### STOP PRESS

NEW KRELL CD AND AMPLIFIER. JUST IN.



UP TO 36 MONTHS INTEREST FREE  
CREDIT AVAILABLE  
(SUBJECT TO STATUS)

- ☆ 3 DEMONSTRATION ROOMS ☆
- ☆ MAIL ORDER FACILITY ☆
- ☆ CUSTOMER INSTALLATION ☆

**AGENCIES INCLUDE:**

- Angstrom, Arcam, Audiolab,
- Audio Research, Bang & Olufsen, Bose,
- Boston, Copland, Castle, Denon,
- Dwin, Krell, KEF, Meridian, Marantz,
- Monitor Audio, Musical Fidelity,
- Michell, Micromega, Martin Logan,
- Pioneer, RCF, REL, Siltech,
- Sony, Sonus Faber, Tannoy, TEAC, Theta,
- Transparent, Vidikron, Wilson, Yamaha.

### OPENING HOURS

10.00am-5.30pm  
Monday-Saturday  
Later by appointment

**DEMO ITEMS  
TO CLEAR  
PLEASE  
PHONE**

**The Original Solid Core**  
Get yourself connected...

DNM Speaker cable  
DNM Interconnect cable (7/98)  
DNM Interconnect cable (first test 10/98)  
DNM Interconnect cable (4/98)  
DNM Speaker cable (94)

Home Entertainment Editor's Choice  
Home Entertainment Best Buy

WHAT HI-FI? ★★★★★  
BEST BUY WITHOUT COMPROMISE

Virtual Reality Audio Systems Ltd  
P.O. Box 383 Brentwood Essex CM14 4GB  
Tel: 01277 227355 Fax: 01277 224103  
Email: info@virtual.demon.co.uk

DNM reson

# YAMAHA CDX-993



**N**otionally a replacement for the £329 CD-X890, Yamaha has decided to move upmarket, with this CDX-993, which features substantial enhancements in most areas. The basic topology, however, remains as before. This is a Bitstream player, using Yamaha's own YAC514 single-bit DAC and Pro-Bit digital filtering. This, in turn, is described as having some of the properties of Pioneer's Legato Link, which is a comparatively gentle digital filter. Enhancements include an integral isolating platform base, plus added shielding around the laser pickup assembly, transport mechanism and circuit board, all with the intention of reducing RF (Radio Frequency) interference. Other enhancements include improved earthing, an upgraded power supply, and a Class A output stage.

The most striking physical attribute of the CDX-993, however, is its sheer physical presence. This is a huge player, comparable in size to some LaserDisc players, and larger than any of the other units here. It is nevertheless dressed discretely, with a drop-down full-width panel to conceal the minor features, which include the

**“...the Yamaha oozes style, and the front-accessible optical digital output will be a boon to those who habitually make dubs onto MiniDisc...”**

usual CD navigation buttons, numeric track access keys, programming keys, a headphone socket and volume control. There's even an optical digital output, designed for quick connection to a MiniDisc recorder, in addition to the rear panel optical and electrical outlets. The handset adds a few additional features, such as index search, display dim/off and peak search, the latter to help set record levels when making (analogue) recordings.

## SOUND QUALITY

One listener's feeling was summed up in his opening phrase in after-listening discussion: "How do you spell 'woolly?'" he asked, which met with a chorus of approval. "It's all there, but the bass is under-

damped, layers of sound lying on top of each other with no sense of space in between," said another.

There were more positive views, however. One praised the Yamaha's soundstaging which he felt had "plenty of depth", and its timing (Diana Krall), which he felt was "interesting and foot-tapping", though in the Wyclef Jean he too was back on message with complaints of "sloppiness" and "lack of timing". Another commented in similar terms on the sound being "too smooth — imagery doesn't cohere, and bass timing is variable" before summing up the Yamaha as "safe, but not for me". The test score wasn't disastrous, but was below average.

The hands-on testing confirmed the picture of a player whose low-frequency reproduction sometimes seemed overblown, and whose sound failed to swell with musical dynamics, reducing the impact of symphonic music like the Schumann. Somewhat distant stereo perspectives also played to the same ends, and finally, there was noticeably less consistency in sound between systems than was the rule with other players.

● The largest player in this test!

## CONCLUSION

Massive, but well dressed, with the minor controls hidden away when not required, the Yamaha oozes style. The front accessible optical digital output will be a boon to those who habitually make dubs onto MiniDisc. Musically, it lacks the focus and discipline of the best modern machinery at this price, though its lush, slightly distant sound may find favour with those who find other players too harsh and grainy.

AG

## VERDICT

SOUND	★★★★☆
BUILD	★★★★☆
VALUE	★★★★☆
PRICE	£399.95

■ Warm, outgoing sound needs a touch of backbone, which is a pity as the player is well made, well equipped and has bags of style.

### TWO YEAR GUARANTEE

Yamaha Electronics UK Ltd, 200 Rickmansworth Rd, Watford, Herts WD1 7JS  
(01923) 233166

## THE LAB REPORT

In a variation on earlier players, the CDX-993 uses Yamaha's own YAC514F Pro-Bit bitstream-style DAC. This offers an unusually mixed performance. For example, distortion at peak level can be as low as 0.005 per cent, but this increases by a factor of 25x to 0.013 per cent over the top 30dB of the player's range. Similarly, the A-wtd S/N ratio of 103dB and low +3.9dB noise modulation bode well even though, by modern standards, the +2.4dB/-3.5dB errors in low-level linearity (particularly at

midband frequencies) is something of a throwback to specs of yesteryear.

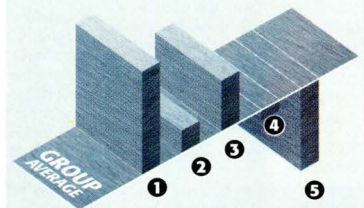
A clump of low-rate (<400Hz) sidebands account for the bulk of its modest 340psec jitter which, though higher than the best in our test, should not prove subjectively damning. More important, perhaps, is the high 655 Ohm output impedance which increases to a maximum of 4.4 kOhms (re. -6dB) via what is evidently an unbuffered variable output. In some circumstances, this could modify the overall system response and distortion, rather like using a passive pot between the fixed output of a CD player and accompanying power

amp. But, if you've a bright-sounding system, this 'incidental fix' could prove to be a welcome solution! **PMI**

## HOW IT COMPARES

One of the CDX-993's strongest assets is the eight-times oversampling digital filter built into Sony's signal processing chip. This provides an excellent stopband rejection while Yamaha's DAC offers a wide dynamic range.

1 SUPPRESSION OF DIGITAL IMAGE	70%
2 JITTER	15%
3 PRACTICAL DYNAMIC RANGE	35%
4 HARMONIC DISTORTION VS LEVEL	-5%
5 LINEARITY	-55%



## SPECIFICATIONS

SPECIFICATION	CLAIMED	MEASURED
■ Distortion @ 1kHz/0dBfs	0.002%	0.0005%
■ Maximum output level	2.0V	2.34V
■ A-wtd S/N ratio	103dB	103dB

# Understand Supports

*xwing support systems*

Have you ever wished your support could have all of these qualities?

Marble shelves as standard

Oak veneered sub shelves 5 colour options

Solid aluminium legs to improve low frequency filtering and isolation



Totally modular

Adjustable spiked shelving and feet

Fully decoupled sections isolation increasing level by level

Any height configuration

**Well now it can!**

And at a remarkably low price, only £499 inc. p&p + insurance.

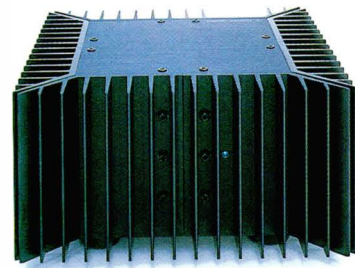
Buy direct or through selected retail outlets.

Call FREE on 0800 3280647 for a FREE colour brochure or details of your nearest stockist.

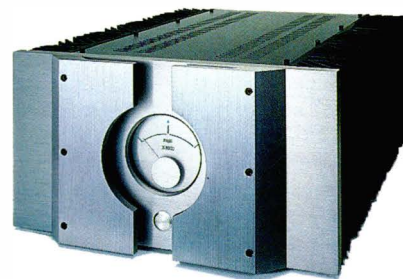
# PASSLABS

CALL FOR OUTSTANDING WORLDWIDE REVIEWS

STEREOPHILE AMPLIFIER OF THE YEAR



**Aleph 3**  
30W Single Ended Stereo



**X 1,000**  
1,000 W Class A Mono Block



**DAC D1**  
Fully Balanced/Volume Control Output

**'IN A CLASS OF THEIR OWN'**

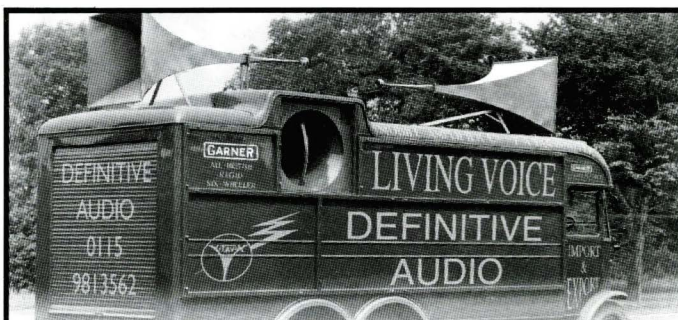
Call for more details to our specially selected dealers below.

<b>WALRUS SYSTEMS</b>	<b>LONDON</b>	<b>0171 724 7224</b>
<b>ZOUCH AUDIO</b>	<b>ASHBY DE LA ZOUCH, LEICS</b>	<b>01530 414 128</b>
<b>LINTONE AUDIO</b>	<b>GATESHEAD, TYNE &amp; WEAR</b>	<b>0191 477 4167</b>
<b>THE RIGHT NOTE</b>	<b>BATH, AVON</b>	<b>01225 874728</b>
<b>THE AUDIO NOTE SALON</b>	<b>GLASGOW</b>	<b>0141 357 5700</b>
<b>SOUNDS OF MUSIC</b>	<b>TUNBRIDGE WELLS, KENT</b>	<b>01892 547 003</b>
<b>MIDLANDS AUDIO EXCHANGE</b>	<b>KIDDERMINSTER, WORCS</b>	<b>01562 822 236</b>
<b>HAZLEMERE AUDIO</b>	<b>HIGH WYCOMBE, BUCKS</b>	<b>01494 437 892</b>
<b>THE HI-FI COMPANY</b>	<b>PETERBOROUGH, N'THANTS</b>	<b>01733 341 755</b>
<b>THE AUDIO EDGE</b>	<b>WOKING, SURREY</b>	<b>01483 747 200</b>

## ZENTEK MUSIC LTD

Distributors of fine music products

PASSLABS • EGGLESTON WORKS • HALES • COPULARE  
BALANCED AUDIO TECHNOLOGY • REFERENCE 3A  
T. 01892 539595 F. 01892 547004



# DEFINITIVE AUDIO

Definitive Audio serves a national and international market representing an holistic, system based approach. The results we achieve are acclaimed worldwide. You can telephone for specific details or for an informal chat.

**"The Living Voice Auditorium Hi Fi Choice Best Buy (£1500).**

Compact and beautifully finished, yet sounds even better than it looks, with high sensitivity and a wonderful coherence which reflects its essential simplicity, quality ingredients and painstaking development." Paul Messenger, July 1998

**Definitive Audio Starter System**

"I have heard far too many conventional systems that cost in excess of £40,000 which exhibit only fractional amounts of this cleverly matched outfit's musical dexterity. I have encountered few systems that sound as good as this one - at any price." Alan Sircom, April 1998

**Second Hand Items Include:**

	Sale	New
Audio Research SP8 Pre Amp (box & man)	£ 800	(£2500)
MF A2 CD	£ 250	(£ 500)
Voyd 5 Reference turntable	£2200	(£5500)
Monarchy Audio Dig Int Processor	£ 90	(£ 250)
Impulse H5 loudspeakers Ash	£ 700	(£1850)
Impulse H2 loudspeakers Ash	£1100	(£2250)
Impulse Taus	£2100	(£3100)
Kelly KT3 loudspeaker (new)	£1000	(£1850)
Vitavox AK 157 Bass Driver (pair)	£ 450	(£ 900)
Lowther PM6A (Boxed)	£ 140	(£ 210)
Carver Platinum (Hybrid Ribbon Dipole)	£ 800	(£3000)
Audio Note DAC3 (1/2 Sig)	£ 700	(£1800)
Meridian 500/ 563 with VdH 1st d/c	£ 980	(£1800)
Vitavox AK 157 Bass Driver 2 and DAC	£ 700	(£1600)
Audio Innovations S.500 Integrated	£ 500	(£1200)
Audio Innovations S.1000SE silver monos	£1500	(£2500)
Monarchy Audio M18 DAC	£ 400	(£1300)
Linn LP12 Valhalla Akito	£ 400	(£1300)
Border Patrol 300 BSE (Blue)	£1250	(£2500)
Various high-end i/c & speaker cables	P.O.A.	

**AMEX - VISA - MASTERCARD**  
**Tel/Fax 0115 981 3562**

• Living Voice • Border Patrol • Art Audio • SJS Electroacoustics • Wadia • Vitavox • Lowther • Helios • MF • Kelly • Nott'm Analogue • Mystic Mat • SME • WB Ortofon •

# ARCAM Alpha 9



The Arcam Alpha 9 CD player may look like every other Arcam CD player, but as regular readers of *Choice* will know (see *HFC 180*) the '9 employs revolutionary RingDAC converter technology, developed in co-operation with pro digital specialists dCS. For once it is not hyperbolic to use the word 'revolutionary'. The proprietary RingDAC implementation here was largely funded by Arcam itself, and in principle its software can be upgraded in the future, though there are no plans to do this at present. The digital output filter is complemented by both a four-pole analogue filter to keep the ultrasonic area clean, and a Pacific Microsonics HDCD digital filter, for use with HDCD-encoded discs. Playing the latter, however, causes a doubling of the output voltage to nearly 5V (from a low source impedance), so bear this in mind when choosing a partnering amplifier. Dealers will advise.

The Alpha 9 does look like other Arcams. Some might argue that the look is fussy and not the last word in class, but it does ensure that the unit matches numerous earlier Arcam products of former years. Another benefit of this look is its visual



“...the Arcam Alpha 9 may look like every other Arcam CD player, but employs revolutionary RingDAC converter technology developed with pro specialists dCS...”

harmony with mainstream components of Far Eastern extraction – a traditional Arcam strength.

This player is relatively feature-laden, with front-panel programming and additional features available from the palm-sized handset. These include a volume control to partner Arcam amplifiers. The Alpha 9 also responds to commands from Philips and Sony remote handsets.

## SOUND QUALITY

The Alpha 9 was auditioned 'unsighted' on three occasions during the tests, and was also used as the (unidentified) reference player, with highly consistent results from session to session. This kind of panel test-

ing prevents listeners from being swayed by technological claims or brand loyalty. In this context the test-score average was well below most of the cheaper players.

After the panel tests had finished, it emerged that our two samples did not demonstrate the true potential offered by this design. While we were listening, Arcam independently discovered an unforeseen and, alas, sonically deleterious consequence of a production-line manufacturing technique. Production was halted while a cure was researched and implemented. At press time we had briefly auditioned a player made according to the new technique, and its sound was a world apart from the first two samples submitted. But comments made on the latter were nothing if not mixed in character.

"The midband is open, and there's a strong sense of space and detail. But as the music progressed, it seemed to degenerate and became mechanical, almost as though the leading edges, were missing". Other comments suggested that the Alpha 9 was "a mixed bag... very warm and midrangy". Sighted listening confirmed a lack of vitality and air.

◊ The Alpha 9 follows Arcam's traditional external styling, but employs the new RingDAC converter inside.

## CONCLUSION

Our final judgment of this player must wait until a fully revised sample can participate in formal unsighted listening sessions. However, as regards the production Alpha 9s that we auditioned, they did not live up to our expectations of the high-tech RingDAC, compared with the engineering sample we tested earlier this year. For now the verdict cannot be glowing, but watch this space for a re-review in due course. **AG**

## VERDICT

SOUND	★★★★☆
BUILD	★★★★☆
VALUE	★★★★☆
PRICE	£799.90

■ On this outing the Alpha 9 failed to excite. Reviews of revised-production models should set the record straight.

■ TWO YEAR GUARANTEE

✉ A&R Cambridge Ltd, Pembroke Avenue, Denny Industrial Centre, Waterbeach, Cambridge CB5 9PB  
☎ (01223) 203203

## THE LAB REPORT

The innovative dCS RingDAC technology, at the heart of the Alpha 9, was covered in depth in *HFC 180*. The strengths of this conversion technology are realised in the minuscule +0.0/-0.3dB errors in linearity over a full 100dB dynamic range, in its almost total suppression of digital 'images' and ultrasonic noise, and in the highly consistent nature of any residual distortion. Sure enough, a figure of 0.009 per cent at peak level (0dBfs) might not be the lowest on record, but the Alpha 9 maintains this figure from 20Hz to 20kHz. And

◊ Alpha 9: consistency is the key.

this, by contrast, is unusual. So too is the consistent 99dB stereo separation right across the same 20Hz-20kHz audioband.

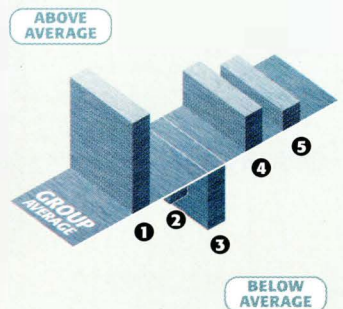
Subjectively, such consistency tends to bode very well for sound quality because it means that what colorations do exist are readily 'learned' and, typically, ignored by the ear. It's those distortions that constantly shift about that give rise to listening fatigue. Anyway, the Alpha 9 is not without its foibles. The RingDAC might well accept 24-bit data, for example, but its implementation here only yields a 16-bit (96dB) S/N ratio. This is just fine for CD but Arcam would have to revise its circuit if the same

technology were to be used for 96kHz/24bit DVD audio replay, for instance. **PMI**

## HOW IT COMPARES

Because of this group's limited sample size, the true impact of Arcam's stopband suppression is not realised just as any 'limitation' of its 16-bit dynamic range is exaggerated.

1 SUPPRESSION OF DIGITAL IMAGE	65%
2 JITTER	-5%
3 PRACTICAL DYNAMIC RANGE	-40%
4 HARMONIC DISTORTION VS LEVEL	25%
5 LINEARITY	15%



## SPECIFICATIONS

SPECIFICATION	CLAIMED	MEASURED
■ Distortion @ 1kHz/0dBfs	<0.01%	0.009%
■ Maximum output level	2.3V	2.36V
■ A-wtd S/N ratio	100dB	96dB





ELECTROCOMPAGNIET

If music really matters...



EMC 1 Integrated CD Player

**Sound Image UK Ltd** • 52 Milton Road • East Sheen • London • SW14 8JR  
Tel: 0181 255 6868 • Fax: 0181 255 6869



Electra 915

Electra CC 30

Electra SW 33A

Electra 920

Electra 905

Electra SR 30

L I G N E *Electra*

**Sound Image UK Ltd** ■ 52 Milton Road ■ East sheen ■ London ■ SW14 8JR  
Tel 0181 255 6868 ■ Fax 0181 255 6869 ■ <http://www.focal.tm.fr>

# MUSICAL FIDELITY X-RAY

Using 'X-RAY' in the name of any piece of hi-fi equipment might strike some as foolhardy, if not downright alarming. In fact, the name is designed to highlight the ability of this player to 'see' into the source, just as X-rays 'see' into the body. Well, you get the idea. The player employs Burr-Brown DACs, although the 24-bit flag on the front panel should not be taken at face value (see Lab Report). The X-RAY has a low claimed output impedance (below 50 Ohms) and a novel linear-phase, five-pole output filter. Combined, these measures should (and did) ensure sonic consistency from one system to the next. Musical Fidelity has also improved its previously indifferent standards of jitter performance.

The X-RAY is very well built. While the strong styling will not suit all tastes, the casework is unusually solid and non resonant. The maker points to this as a significant contribution to sound quality and surely most will welcome its space-saving design. Finish is first class, and the controls feel solid and well damped, with a smooth, quiet loading action to match. The basic front panel set includes track skip, but not search keys, for which the well-endowed remote control is required. Electrical and optical digital S/PDIF outputs are fitted, but there's no headphone socket, in line with the quality-first prospectus. Display switch-off and dimming are also available from the remote handset.



“...finish is first class, and the controls feel solid and well damped, with a smooth, quiet loading action to match...”

## SOUND QUALITY

The X-RAY's average score was disappointing for one of the costliest players in the group. This is particularly true if you think that it had the advantage of being used in the panel sessions with Musical Fidelity's own matching pre/power amp. In fact, the latter was a neutral choice in this context, which is one reason it was chosen.

Despite some remarks suggesting an "overblown" bass and "suspect" timing, there was a consistent thread through the comments made in each presentation. This was that the player sounded clean and well controlled, but

lacked a quality that one listener described as "pizzazz". It was felt to have a "reduced [image] scale" in the Schumann, and perhaps summing up the panel's thoughts, another wrote that the X-RAY's smoothness "robs it of some life".

After listening with other equipment combinations, the lack of overt character in the sound seems to this writer to be an advantage: it is a transparent tool, and one that sustains extended listening well, but the claims of high resolution are not fully met.

## CONCLUSION

In a way, this player is as interesting for what it isn't as for what it is. Musical Fidelity was quick to include Pacific Microsonics' HDCD digital filter, which on previous form is more significant for what it can do with ordinary discs than for its ability to decode HDCD discs. Its absence here was therefore noted, and the story is that the Burr-Brown processor is not yet available with HDCD. Apparently there will be an inte-

Superb build quality and finish distinguish Musical Fidelity's X-RAY.

grated version which will be showcased at some point in a new incarnation of this player. On balance, the latter should be worth waiting for. As it stands, and taking due note of its superb constructional quality (and five-year guarantee), the X-RAY is musical, accurate and even refined, but only erratically engaging. **AG**

## VERDICT

SOUND	★★★★☆
BUILD	★★★★★
VALUE	★★★★☆
PRICE	£800.00

Excellent build, and fine musical manners, but somehow doesn't hit the G-spot. Roll on the HDCD version.

FIVE YEAR GUARANTEE TO ORIGINAL OWNER

Musical Fidelity Ltd, 15/16 Olympic Trading Estate, Fulton Rd, Wembley HA9 0TF  
(0181) 900 2866



## THE LAB REPORT

Lurking within the bowels of this unique machine is the very same 24bit/96kHz-compatible DAC now used in many commercial DVD players. This does not mean the X-RAY will handle DVD discs, nor does it promise a 24-bit dynamic range, as the latter simply refers to the maximum digital 'wordlength' acceptable to the chip. In practice, the X-RAY's 106.4dB does better the S/N of Arcam's '24-bit' player by a good 10dB, though since there's no useable musical information beyond CD's 96dB specifi-

The X-RAY is low on jitter.



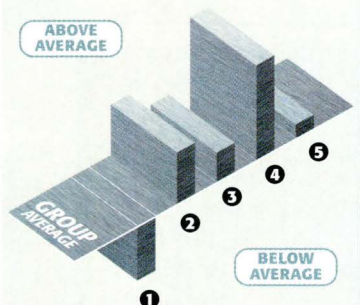
cation, the whole issue is rather academic.

Key performance indicators include the fabulously low 145psec jitter, minimal +0.1/-0.3dB errors in low-level linearity and distortion which holds to within 0.0008-0.0025 per cent right across the audioband at peak output. At the musically important -30dBFs, this increases to a mere 0.0016-0.009 per cent. Incidentally, the player's peak output level is a smidgen high at 2.26V but the low 49 Ohm source impedance should drive most amp/interconnect combinations with ease. MF's proprietary analogue filter also makes a good job of further suppressing the ultrasonic requantisation noise ejected by Burr-Brown's DAC. All of which can only enhance the broad compatibility of the X-RAY with different systems. **PMi**

## HOW IT COMPARES

By not only maintaining low levels of distortion, but also levels that remain consistent with frequency, the X-RAY has one very important potential source of audible coloration under tight control.

1 SUPPRESSION OF DIGITAL IMAGE	-35%
2 JITTER	35%
3 PRACTICAL DYNAMIC RANGE	20%
4 HARMONIC DISTORTION VS LEVEL	65%
5 LINEARITY	10%



## SPECIFICATIONS

SPECIFICATION	CLAIMED	MEASURED
Distortion @ 1kHz/0dBfs	Not quoted	0.0008%
Maximum output level	2.2V	2.26V
A-wtd S/N ratio	105dB	106dB

MISSION MISSION MISSION MISSION



The Mission 752 Freedom is available at the following authorized dealers . . . .



To advertise on this page please call Clare at Hi-Fi Choice on 0171 917 3935

**THE UK'S BIGGEST & BEST MISSION DEALERS**

	<b>BRADFORD</b> Empire Megastore Ingleby Road, Gillington THE NORTH'S BIGGEST ELECTRICAL MEGASTORE TEL: 01274 575000	<b>LEEDS</b> Empire Superstore The Clock Buildings, Roundhay Road, Harehills TEL: 0113 235 1701	<b>WAKEFIELD</b> Empire (EC) Limited 94 Kirkgate, City Centre (Opposite Canon Cinema) TEL: 01924 361736
	<b>BRADFORD</b> Clearstone Rawson Square, City Centre (Formerly Bricks) TEL: 01274 309266	<b>BOLTON</b> Clearstone Blackburn Road, City Centre (On the A666 Blackburn Road) TEL: 01204 531423	<b>BIRMINGHAM</b> Empire Superstore 21-22 Stephenson Street (Behind New St. Opp. Palloades Car Park) TEL: 0121 643 0972

**EMPIRE ELECTRICAL SUPERSTORES**  
ELECTRICALLY UNBEATABLE

**EXPERT ADVICE**  
**MASSIVE CHOICE**  
**THE BEST SERVICE**  
**LOWEST PRICES**  
**DEMO FACILITIES**

**MISSION RANGE ON DEMONSTRATION**

**cosmic**  
A world of difference

**OPEN 7 DAYS A WEEK**

**WIDE SCREEN, PLASMA & PROJECTION TV - LASER DISC & DVD**

**OTHER BRANDS INCLUDE: ARCAM • AUDIO QUEST • B&W • DENON • DUAL • JAMO • MARANTZ • MICROMEGA • NAD • PIONEER • QUAD • SONY • TANNOY • TARGET • TDL • TECHNICS • THORENS • YAMAHA •**

**244-256 STATION ROAD, ADDLESTONE, SURREY**  
**TEL: 01932 854522 FAX: 01932 841615**

**Practical Hi-Fi**

0% Finance available on selected items

- ▶ **MANCHESTER:** 65 Bridge Street – 0161 839-8869
- ▶ **PRESTON:** 43 Friargate – 01772 883958
- ▶ **WARRINGTON:** 88 Bridge Street – 01925 632179
- ▶ **BOLTON:** 33 Knowsley Street – 01204 395789
- ▶ **CARLISLE:** 106 English Street – 01228 44792
- ▶ **BLACKPOOL:** 81 Whitegate Drive – 01253 300599
- ▶ **LANCASTER:** 84 Penny Street – 01524 39657

**Thomas Heintz Ltd**  
EST: 1952

"Established in 1952 Thomas Heintz, Bayswater has supplied audio-visual systems of the highest calibre, selected from some of the finest manufacturers. If you want to enhance your beautiful living environment with breathtaking sound then a visit to our studio is a must. Our friendly staff can help and inform on all matters of home entertainment: from servicing, upgrades, multi-room, home cinema or just exceptional sound systems whatever your budget."

**CYRUS**

35 Moscow Road, Bayswater, London W2 4AH • Tel: 0171 229 2077 Fax: 0171 727 9348  
E-mail: info@thomasheintz.com www.thomasheintz.com

**THE LEAMINGTON HI-FI COMPANY**

23a Regent Street  
Leamington Spa  
Warwickshire CV32 5EJ

Phone: 01926 888644  
Fax: 01926 887486  
E-mail: thehi-ficompany@dial-pipex.com

**THE LEADING HI-FI SPECIALIST**

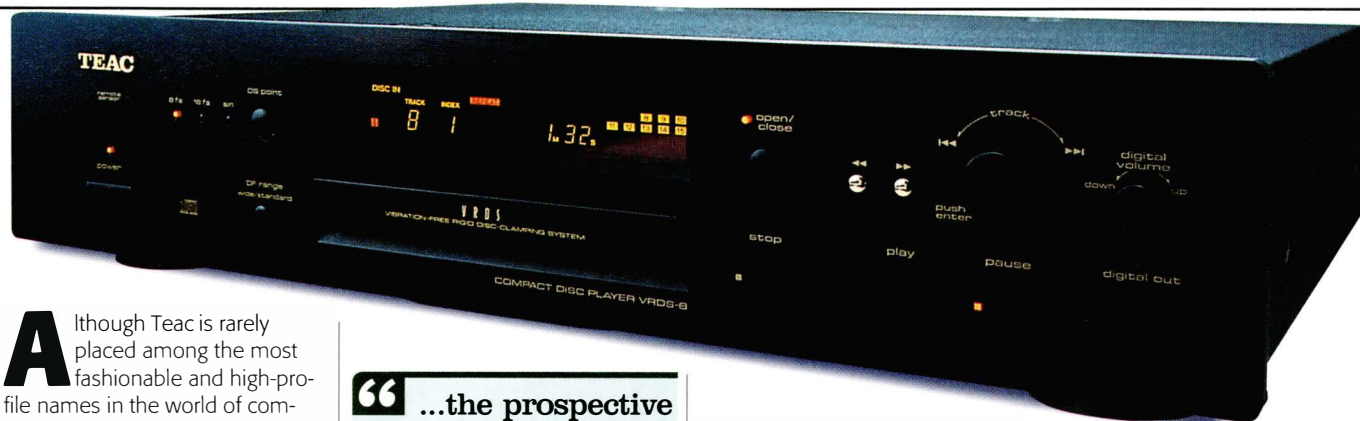
ARCAM AUDIOLAB QUAD MERIDIAN MARANTZ DENON PIONEER YAMAHA NAD MICROMEGA MISSION KEF ACOUSTIC ENERGY CELESTION ATACAMA TECHNICS TRICHORD TDL RELEXOS

Single speaker dem room. We do not use any comparators. We also have full demonstration of projection tv with laserdisc and full prologic systems.

Part exchange welcome please phone or e-mail for prices. We have in stock over 200 laserdiscs call for our latest catalogue.



# TEAC VRDS-8



Although Teac is rarely placed among the most fashionable and high-profile names in the world of compact disc, its technology (in particular for CD mechanisms) is held in high esteem within the industry and by cognoscenti alike. The VRDS-8 is a new slimline model equipped with Teac's CMK-4.5 VRDS (Vibration-free Rigid Disc-clamping System) mechanism, in which the disc is supported around its periphery, and the centre slightly dished, to impose a rigid, non-resonant structure while the disc is being played. The prospective buyer, however, is more likely to be drawn to the heavyweight build, the superb control feel and the solid alloy billet front panel. This, together with other constructional details, gives the player an impression of quality and overkill comparable to esoteric designs costing a great deal more than £600.

The VRDS-8's control system is elegant, but may look unfamiliar at first. The usual track-skip keys are ditched in favour of a rotary, and an output volume control (it defaults to full output at power up), plus a switch to control the oversampling. In essence this is eight times the

“...the prospective buyer is likely to be drawn to the heavyweight build, the superb control feel and the solid alloy front panel...”

sampling frequency, but a divider circuit gives an effect similar to 16-times and 24-times (labelled 'Sin' oversampling). There's even a digital filter 'mode' switch which allows the user to select a sharp attenuation above 20kHz, or a gentler rolloff above 19kHz (on paper, and in practice the gap between these two is not huge). It also has index search, fade in/out as part of a suite of CD dubbing features, and a display-off switch.

## SOUND QUALITY

In common with the Sony CDP-XB720E, each of the variables was auditioned in the panel tests as though it was a separate CD player, but in contrast to the Sony the results were much less equivocal, at least in marking down the 'straight' eight-times

oversampling option. This setting resulted in a very low score from the panel, which held the overall score down. Leaving this option aside, the Teac scored a more satisfactory average, which was higher than for either of the other players above £500 in this test.

The eight-times oversampling setting impressed the panel as sounding "lean" and "tight and bright". Switching to 16-times oversampling was heard as a "great improvement", and the Sin setting was described as "more open and spacious" than the other settings, with particular praise for its dynamics. "The overall balance is as near perfect as they come," was one enthusiastic comment. These settings were made with the standard setting of the digital filter, which sharply attenuates output above 20kHz. The so-called 'wide' setting, which attenuates more slowly starting a little below 20kHz, was felt to be more relaxed and easier to follow, mirroring the hands-on test results, though mild treble loss was identified by some. "There's a lack of sparkle with cymbals," was a typical comment.

◉ The new slimline VRDS-8 is superbly built and has switchable digital filtering.

## CONCLUSION

The physical build of this machine is exceptional, and it is hard to know how they make it for the price. Musically, too, it has its plus points, not least the ability to change to suit different musical conditions, but it failed to equal some of the less costly machinery in this test

AG

## VERDICT

**SOUND** ★★☆☆☆

**BUILD** ★★★★★

**VALUE** ★★★★★

**PRICE** £599.95

◉ The Teac looks and feels every penny of its asking price, and has the advantage that it can be tweaked to suit the musical programme, though this is not quite enough to make it stand out from the crowd.

### ■ ONE YEAR GUARANTEE

☒ Teac UK Ltd, The Croxley Centre, Watford, Herts WD1 8YA

☎ (01923) 819630

## THE LAB REPORT

With its use of both NPC SM5843AP and Analogue Devices AD1893JN oversampling filters, its banks of shift registers and pairs of Burr-Brown PCM1702 DACs per channel, the VRDS-8 is rather like two players in one box! And yet, Teac's selectable filter options do not exert the dramatic influence of Sony's, for example. Importantly, the response remains flat and stopband images very well suppressed with its eight-times and 16-times options. However, jitter does decrease from 413psec (eight-times oversampling) to 347psec (16-

times oversampling) – with standard filter roll-off – where a mixture of power supply-related and mid-frequency patterns dominate the spectrum.

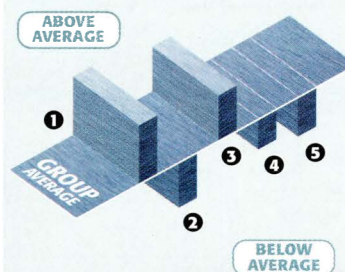
Teac's digital volume attenuator offers precise control over the top 42dB of its dynamic range but a single, odd-order harmonic spoils what might otherwise have been a spectacularly low midband THD performance. As it stands, some 0.011 per cent (re. -30dBfs) is merely 'very good!' Errors in low-level linearity are also minimal but, in common with previous Teac players, the source impedance of the final analogue stage remains too high at

1.2kOhms. Some amplifier/cable dependency might be experienced. PMi

## HOW IT COMPARES

Although Teac's use of a high-quality 20-bit DAC achieves a wide 110dB S/N ratio, the equally high +10dB of noise modulation does limit any practical advantage in the player's dynamic range.

- |   |                              |      |
|---|------------------------------|------|
| 1 | SUPPRESSION OF DIGITAL IMAGE | 40%  |
| 2 | JITTER                       | -30% |
| 3 | PRACTICAL DYNAMIC RANGE      | 30%  |
| 4 | HARMONIC DISTORTION VS LEVEL | -20% |
| 5 | LINEARITY                    | -25% |



## SPECIFICATIONS

SPECIFICATION	CLAIMED	MEASURED
■ Distortion @ 1kHz/0dBfs	0.0015%	0.0016%
■ Maximum output level	2.2V	2.26V
■ A-wtd S/N ratio	110dB	110dB

◉ Two players for the price of one?



# CD PLAYERS

# CONCLUSIONS



## THE BEST IN THE TEST



### 1 ROTEL RCD-971

The RCD-971 was the star of the show. It has a highly individualistic character, with a rare combination of analysis, a solid soundstage and real, deep-down subtlety. HDCD compatibility adds to its repertoire of skills. The only problem was a rather peculiar and obstructive control logic (probably an in-house programming job, and confirmed with a second sample) and DJs are recommended to look elsewhere. This is the only significant failing of a particularly fine and competitively priced player.



### 2 DENON DCD-835

The DCD-835 is a thoroughly likeable player, with strong resolving power and a large measure of transparency. If Denon sorted out the measured distortion disparity between channels then the DCD-835 would presumably be better still, but the problem was not severe enough to impact significantly on sound quality.



### 3 PIONEER PD-S707

The PD-S707 is all but indistinguishable from more than one of its predecessors. The digital hardware has changed, though, with a new, highly-integrated combination of Pioneer's early Legato Link filter with a Burr-Brown DAC. Musically, the PD-S707 easily matches, and perhaps exceeds its predecessors.



### 4 SONY CDP-XB720E

This player has a variable coefficient digital filter that can be switched between four patterns. It can be thought of like tone controls, but the influence on sound quality is more fundamental. This is the cheapest model tested, and is capable of surprisingly mature sound quality, filter 2 and the standard filter setting being perhaps the most useful.



For once, the story of this test is technology related. Clearly the hottest story of all is Arcam's long-awaited dCS Ring DAC, a new digital converter topology that marries the best of Bitstream and multibit, while minimising their disadvantages. It won't have escaped your notice that the one player to feature this technology, the Arcam Alpha 9, was not a resounding success on audition, and indeed was pipped at the post by a number of the cheaper models. However, the test sample was an early one, and it seems probable that the Ring DAC has an important future — not just for compact disc. This test also confirmed the resurgence of interest in multi-bit technologies, following a period of decline.

In the end, however, a clear ranking order emerged that pays no respect to the sophistication of the technology on offer, or the prices being charged. After a long period of relatively static designs, things are moving forward on more than one front. Jitter has become a major design priority (especially with one-bit players where high-speed oversampling magnifies the effect of the small uncertainties in signal timing that are known as jitter). This is in no small part due to HFC's own Paul Miller, whose jitter analysis equipment is now used as an R&D and production test tool by a number of manufacturers, UK and abroad. Other prominent technologies

## CD PLAYER COMPARISON TABLE

MAKE	ARCAM	DENON	MARANTZ	MUSICAL FIDELITY	MYRYAD	PARASOUND
MODEL	ALPHA 9	DCD-835	CD-67105E	X-RAY	T-10	C/DP-1000
PRICE	£799.90	£279.99	£299.90	£800.00	£399.95	£499.99
SOUND	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★
BUILD	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★
VALUE	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★
GUARANTEE	2 years	2 years	2 years	5 years	3 years	2 years
SIZE (WxHxD) IN MM	430x85x290	434x105x288	435x87x312	230x110x320	436x94x286	483x83x254
WEIGHT	4.1kg	5.3kg	5.8kg	8kg	5kg	7.8kg
CLAIMED DISTORTION @ 1KHZ/0DBFS	<0.01%	0.005%	0.0025%	—	0.003%	0.002%
ACTUAL DISTORTION @ 1KHZ/0DBFS	0.009%	0.006%	0.008%	0.008%	0.006%	0.0025%
CLAIMED MAXIMUM OUTPUT LEVEL	2.3V	2.0V	2.0V	2.2V	2.5V	2V
ACTUAL MAXIMUM OUTPUT LEVEL	2.36V	2.24V	2.30V	2.26V	2.61V	2.01V
CLAIMED A-WTD S/N RATIO	100dB	90dB	100dB	105dB	100dB	110dB
ACTUAL A-WTD S/N RATIO	96dB	105dB	104dB	106dB	100dB	99dB

include the use of switchable coefficient digital filters. By far the least expensive model in the entire test, the Sony CDP-XB720E includes such a filter. Switchable filters have been criticised by some on the grounds that they imply that the maker can't make up his own mind about how the player should sound, and is taking the easy route by handing over responsibility to the user. The reality is that no one particular filter characteristic is ideal, and this approach has the benefit that it provides freedom of choice. At the far end of the price band, Teac's VRDS-8 also provides a simple form of switchable filter, along with switchable oversampling rates.

Other technical features are making less headway. CD Text for example is found on the Sony CDP-XB720E, and you'll find it on most Kenwood players, but there is no sign as yet that it is being taken up by the record industry as a whole. In fact, there is no reason why such a feature could not have been included when compact disc was first launched. The examples seen here provide, perhaps, a case of too little, too late.

**TEST INNOVATOR OF THE YEAR**

Our Technical Editor, Paul Miller, has been awarded Test Innovator of the Year by *Test* magazine, the leading European journal of the test and measurement industry. This gong came in recognition of Paul's Jitter Measurement Suite, as used to test CD players for *Hi-Fi Choice*.



**BEST BUYS & RECOMMENDATIONS**



**BEST BUYS:** Our famous Best Buy swing-tag is awarded to hi-fi equipment which offers an excellent standard of performance at an attractive price. Best Buy winners are superb all-round components.



**RECOMMENDED:** Recommended products are first-class audiophile propositions, losing out to Best Buy status only because of a higher price, an operational flaw or a cosmetic quirk.

**HOW TO BUY HI-FI**



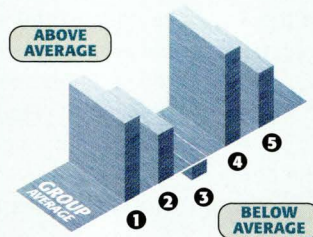
Our Recommended and Best Buy swing-tags are a great way to begin your hi-fi shopping list. However, at *Hi-Fi Choice* we believe firmly that only individual listeners can decide which hi-fi gear to buy. There is only one golden rule of buying hi-fi: hear it for yourself. And for this you need the services of a good local hi-fi dealer. (See page 102 for the *HFC* dealer guide, to find your nearest hi-fi specialist.) If you are upgrading an existing system, you must hear any

proposed new component with gear you use already. Either take your kit to the dealer, or arrange a home trial which most decent retailers will arrange. Listen for as long as possible (a weekend is ideal) because initial impressions can be misleading. Hi-fi you find exciting and zingy 'on the shelf', may well sound unbearably bright in time. If you find dealers you can trust, rely on their recommendations, even if they're not totally in line with ours. Hi-fi is part science, part art!

**UNDERSTANDING OUR BAR-GRAPH MEASUREMENTS**

Behind *Hi-Fi Choice's* unique bar-graphs are some of the most advanced measurements made anywhere on the planet. They are provided by our Technical Editor, Paul Miller, using both GPIB-controlled measurement hardware and his own, award-winning, PC-based Virtual Instrument software. Each bar-graph value is derived from a weighted statistic of several key measurements and is displayed relative to a notional zero per cent which represents the group average for that particular category.

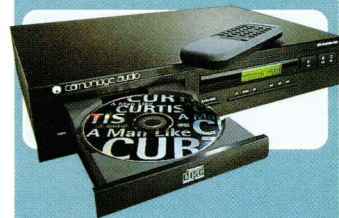
**THE BAR-GRAPHS**



- 1 SUPPRESSION OF DIGITAL IMAGES:** This indicates the effectiveness of the player's digital filter in removing 'aliasing' or 'stopband' distortions immediately outside of the audio band.
- 2 JITTER:** Any uncertainty in the timing of the digital code produces digital jitter which manifests as an insidious form of distortion during digital-to-analogue conversion. The lower the figure the better.
- 3 PRACTICAL DYNAMIC RANGE:** This is determined by the player's Signal-to-Noise ratio and to what degree it is compromised by any Noise Modulation occurring under real signal conditions.
- 4 HARMONIC DISTORTION VS. LEVEL:** This bar chart value is derived from the variation in distortion both with frequency and signal level. The consistency and nature of the distortion also forms part of the equation.
- 5 LINEARITY:** Linearity is a measure of the player's low-level resolution. If a signal coded at -80dB emerges from the player at -80.5dB then this represents a deviation in its linearity of 0.5dB.

**RIVAL BUYS**

**1 CAMBRIDGE AUDIO CD4SE** £200  
Among the best encountered at the price, considerably more refined and convincing than its CD4 predecessor.

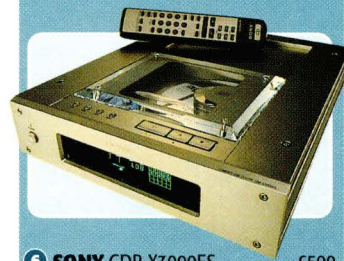


**2 CAMBRIDGE AUDIO CD6** £250  
A sharp, articulate player, a real thoroughbred in fact, but perhaps too sharp and lively for some systems.

**3 ARCAM Alpha 8SE** £600  
Another excellent mid-price model, and perhaps a safer choice than the Alpha 9 at present.

**4 MARANTZ CD-17** £800  
Rather more expensive, but one of Marantz's better designs, and a viable alternative for anyone looking at one of the Group C models in this test.

**5 KENWOOD DP-4090** £250  
Focuses a clear, wide aperture lens on the music – and has CD text too!



**6 SONY CDP-X3000ES** £500  
The first Sony player to employ variable coefficient digital filters, and the model that inspired the Sony CDP-XB720E. The CDP-X3000ES looks a million dollars.

**7 TEAC CDP-3450SE** £200  
For once a budget player where gadgets take second place to respectable, budget amp-friendly sonics.

**C D P L A Y E R C O M P A R I S O N T A B L E**

MAKE	PIONEER	ROTEL	SONY	TEAC	YAMAHA
MODEL	PD-5707	RCD-971	CDP-XB720E	VRDS-8	CDX-993
PRICE	£300.00	£349.95	£199.99	£599.95	£399.95
SOUND	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★
BUILD	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★
VALUE	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★
GUARANTEE	1 year	2 years	1 year	1 year	2 years
SIZE (WXHxD)	420x128x374	440x72x315	430x115x290	442x100x336	435x117x388
WEIGHT	7.2kg	5.4kg	4.8kg	9kg	9.6kg
CLAIMED DISTORTION @ 1KHZ/0DBFS	0.0023%	0.0035%	0.0035%	0.0015%	0.002%
ACTUAL DISTORTION @ 1KHZ/0DBFS	0.001%	0.0045%	0.0016%	0.0016%	0.0005%
CLAIMED MAXIMUM OUTPUT LEVEL	-	1.0V	2.0V	2.2V	2.0V
ACTUAL MAXIMUM OUTPUT LEVEL	2.40V	2.37V	2.46V	2.26V	2.34V
CLAIMED A-WTD S/N RATIO	110dB	107dB	102dB	110dB	118dB
ACTUAL A-WTD S/N RATIO	107dB	107dB	103dB	110dB	103dB

# Five Stars

Paul Messenger explains why you should visit an independent

*Why use a specialist hi-fi dealer? The short answer is because he knows one hell of a lot more about hi-fi than you do. And if you've gone to the trouble of picking up a specialist magazine on the subject, you're obviously interested in something rather more than a mini system from the nearest electrical superstore.*

You've probably bought this magazine for one of two reasons. You're looking for advice (presumably unbiased and good) on choosing and using your hi-fi system, and/or you're checking out the ads to decide where to go and buy it.

The independent specialist dealer doesn't know everything, and he doesn't know much about you, but if music's an important part of your life, he's the only guy around who's able (and hopefully willing) to help you choose the equipment which will give you the best long term satisfaction.

## **Power of the Press**

Dealers sometimes moan to me about the power of the press, and the disproportionate influence of its 'Best Buy' and multi-star ratings. Well, I've been in the press for twentysomething years, and still feel more ignorant than powerful.

The more I mess around with hi-fi gear, the more I become aware of our lack of real understanding of the subtleties involved, and the more I appreciate the importance of the dealer's skills and experience, in bringing together components so that the whole is greater than the sum of its parts.

We hacks get paid to write words, often about components in isolation, because individual product reviews are still the staple diet of the press. They can sometimes provide a useful guide to the way a product performs, but only under the particular circumstances in which the review was conducted.

The hi-fi reviewer attempts, with varying

degrees of success, to evaluate a particular component, and find something interesting (and hopefully positive) to say about it. That's about the end of it, and it's on to the next product.

The magazine prints the review, and that very process magically confers a measure of authority. Experienced hi-fi enthusiasts, who read reviews over a period of years and try out various products themselves, soon start to realise the limitations of that approach. Some reviews are better than others, but none can get to grips with the real heart of the problem - whether a given product will improve your musical satisfaction, in your system and your room.

## **The Role of the Dealer**

The dealer's role is very different, and potentially much more valuable. He has the chance to talk one-on-one. If he's good at his job, he'll use that opportunity to find out what you as an individual are looking (or listening) for.

His motivation is very different too. Sure he wants to make a sale. That's the lifeblood of any shop. But he also knows that if something he sells really does deliver long term satisfaction, there's a very good chance you'll come back again to see if he can repeat the trick some time in the future.

If you go into a shop and demand a particular CD player, on the basis that it got seven stars (out of five) in last month's magazines, the shop will probably simply take the line of least resistance and sell it to you. (Or switch-sell you to a similar price alternative, if he's fresh out of stock

# For Value

**specialist dealer if you are searching for real hi-fi satisfaction**

of that particular flavour-of-the-month.)

If you go in and say you're looking for a CD player, and want his advice on what to choose, things are liable to become more interesting. The onus is now on the dealer to show what he can do. His first task is to ask the right questions to try and get some idea of what you might be after.

Asking the questions is the easy bit. The real skill comes in using the information to come up with a shortlist of likely contenders, and then conducting a demonstration so that you have a real chance to play a central role in the decision making process.

Putting together a successful hi-fi system might not be as difficult as it was twenty or thirty

*"If music is an essential ingredient in your daily diet, you owe it to yourself to become a member of the discriminating minority."*

years ago, but it's just as easy to make a mess of things. Put the 'wrong' combination of components together and it'll still sound a lot better than any cute little mini system package. It might even rate a five star review. But it won't match the potential of a carefully balanced and properly installed system, and it certainly won't cater for your own particular preferences and personality.

We British are notoriously indiscriminating consumers, at a mass market level at least. The majority of the population don't even bother to drive a car they're thinking of buying, never mind take the trouble to listen to hi-fi equipment.

The majority will therefore end up with hyperstore mediocrity, and hi-fi that's about as tasty as supermarket bread. But if music is an essential ingredient in your daily diet, you owe it to yourself to become a member of the discriminating minority.

You know full well that your music collection is as individual as your wardrobe, and just as

precious too, so it's worth taking the time and trouble to search out the dealer and equipment that will make that collection come alive, and give you a new buzz every time you play your favourite discs.

The independent specialist may not beat the chain store on price, but he continues to thrive in a hostile environment because real hi-fi is so much more than a matter of price. The people who work in these shops are themselves enthusiasts, often with many years of experience in meeting customer's needs, and the very necessary expertise to ensure that the whole thing is properly set up to deliver the best results.

The better the hi-fi, the more important it is to get the fine details right at the installation end of things, but even the least expensive equipment can be made to sound a whole lot better if good care is taken over the fine details - the support furniture, the cabling, the positioning of speakers and so on.

Without expert assistance even high class hi-fi can give mediocre results. With it you'll stand a very good chance of ending up with something rather more than a consumer durable - something which will be a source of considerable pleasure and genuine emotional satisfaction for decades to come.

***I agreed to write this signed piece, irrespective of the specific sponsors, because I believe the independent specialist dealer plays a vital role in giving customers long term hi-fi satisfaction.***

**Paul Messenger**

*The specialist Dealers listed here are professional and enthusiastic. Give your nearest a ring for a demonstration.*

## STAR QUALITIES

value for money	★★★★★
service	★★★★★
facilities	★★★★★
verdict	★★★★★

### LONDON

#### **N1 GRAHAMS HI-FI**

190a New North Road  
0171 226 5500

#### **SW11 ORANGES & LEMONS**

61/63 Webbs Road, Battersea  
0171 924 2040

#### **W4 MARTIN-KLEISER Ltd**

109 Chiswick High Road  
0181 400 5555

### SOUTH

#### **Ashford, Kent**

#### **SOUNDCRAFT HI-FI**

40 High Street  
01233 624441

#### **Chelmsford RAYLEIGH HI-FI**

216 Moulsham Street  
01245 265245

#### **East Grinstead**

#### **AUDIO DESIGNS**

26 High Street  
01342 314569

#### **Kingston-upon-Thames**

#### **INFIDELITY**

9 High Street Hampton Wick  
0181 943 3530

#### **Lakeside Retail Park**

#### **RAYLEIGH HI-FI**

Dansk International Furniture World  
01708 680551

#### **Rayleigh, Essex**

#### **RAYLEIGH HI-FI**

44a High Street  
01268 779762

#### **Southend-on-Sea**

#### **RAYLEIGH HI-FI**

132/4 London Road  
01702 435255

#### **Uxbridge UXBRIDGE AUDIO**

278 High Street,  
01895 465444

### MIDLANDS

#### **Banbury OVERTURE**

3 Church Lane  
01295 272158

#### **Birmingham SOUND ACADEMY**

152a High Street, Bloxwich  
01922 493499

#### **Leicester CYMBIOSIS**

6 Hotel Street  
0116 262 3754

#### **Northampton LISTEN INN**

32 Gold Street, 01604 637871

#### **Shrewsbury CREATIVE AUDIO**

9 Dogpole 01743 241924

### NORTH

#### **Cheadle (Stockport)**

#### **AUDIO COUNSEL**

14 Stockport Road  
0161 428 7887

#### **Oldham AUDIO COUNSEL**

12/14 Shaw Road  
0161 633 2602

#### **Sheffield MOORGATE**

#### **ACOUSTICS**

184 Fitzwilliam St  
0114 275 6048

### SCOTLAND

#### **Edinburgh**

#### **RUSS ANDREWS HI-FI**

34 Northumberland Street  
0131 557 1672

#### **Glasgow STEREO STEREO**

260 St. Vincent Street  
0141 248 4079

# Dealer Guide

## BIRMINGHAM



### MUSIC MATTERS

THE AUDIO SPECIALISTS



Our extensive range of products includes the very finest hi-fi and home cinema from Arcam, Audiolab, Audioquest, Audio Research, B&W, Celestion, Chord, Cyrus, Denon, DPA, Dynaudio, Exposure, Jamo, KEF, Kenwood, Drell, Marantz, Martin Logan, Meridian, Michell, Mission, Monitor Audio, Musical Fidelity, NAD, Panasonic, Pioneer, Polk, Pro-Ac, Project, Quad, REL, Rogers, Rotel, Ruark, Sennheiser, SME, Sonus Faber, Tannoy, TEAC, Technics, Theta, Thorens and Yamaha.

A wide range of classical CD's is available at our Birmingham branch.

Open Tuesday to Saturday 10.00 - 5.30. late night (not Stourbridge) Thursday till 7.00

<p><b>INTEREST FREE CREDIT ON SELECTED ITEMS</b> APR 0%. Written details on request. Licensed Credit Broker.</p> <p>VISA • ACCESS • SWITCH • AMEX • DINERS</p>	<p>363 HAGLEY ROAD, EDGBASTON, BIRMINGHAM B17 8DL.</p> <p>TEL: 0121-429 2811 FAX: 0121-434 3298</p>	<p>93-95 HOBBSMOAT ROAD, SOLIHULL, WEST MIDLANDS B92 8JL</p> <p>TEL: 0121-742 0248 FAX: 0121-742 3471</p>	<p>9 Market Street, Stourbridge, West Midlands DY8 1AB</p> <p>Tel: 01384 444184 Fax: 01 384 444968</p>
--	---	---	--

**BADA**  
BRITISH AUDIO DEALERS ASSOCIATION  
the symbol of security

**YAMAHA DSP**  
1988-1996

## BERKSHIRE

## Fraser's

Independent Audio Visual Specialists for over 16 years

Demo Room Available

Brands include:

- MISSION • DENON • (DENON GOLD)
- CASTLE • KEF • JAMO • ARCAM •
- MARANTZ • NAD • PIONEER • QUAD
- REL • ROTEL • TALK ELECTRONICS •
- LOEWE • TANNOY • TEAC • YAMAHA

Unit 35, Observatory Centre, High Street,  
Slough, Berkshire SL1 1LE  
Tel: (01753) 531785



FOR BETTER HI-FI IN THE THAMES VALLEY

Agents for:

**TECHNICS, KENWOOD, B&W, MORDAUNT  
SHORT, SONY, PANASONIC, MITSUBISHI,  
PHILIPS, AIWA, J.V.C.**

**FREE DELIVERY • DEM ROOMS AT\***

37 Stoke Road, Slough SL2 5AH	(01753) 538287
252/254 High Street, Slough SL1 1BN	(01753) 538288*
117/119 Oxford Road, High Wycombe HP11 2DN	(01494) 528605*
9 Market Street, Aylesbury HP20 2PN	(01296) 251 19*
11 West Street, Marlow, Bucks SL7 2LF	(01628) 483555
83 High Street, Maidenhead, Berks SL6 1JX	(01628) 778611
11 Princess Square, Bracknell, Berks RG12 1LS	(01344) 869898

## BIRMINGHAM

### Norman H. Field Hi-Fi

Consultants for Home High Fidelity

■ B & W	■ Thorens
■ Denon	■ Tannoy
■ Castle	■ Yamaha
■ Dual	■ Kenwood
■ Mordaunt-Short	
■ Technics	

## NAD

Two-year guarantee  
Private Listening Rooms

**HURST STREET  
BIRMINGHAM B5 4BJ**

Telephone: 0121-622 2323

## BRISTOL

### V'audio

Hi-Fi Consultants

Home demonstrations and honest advice a speciality, using specially selected equipment from AVI, A.T.C., ALON, ELECTROCOMPANET, HEYBROOK, RUARK, SHEARNE, AUDIO ALCHEMY, OPERA, MICHELL etc.

Home cinema on demonstration using HARMAN-KARDON, SONY, SELECO, STEWART SCREENS, JAMO, TRIANGLE etc

Please ring for an appointment

**36 Druid Hill, Stoke Bishop,  
Bristol BS9 1EJ.**

Tel: 0117 968 6005

## BUCKINGHAMSHIRE

## HAZLEMERE AUDIO

We offer music lovers the chance to increase your enjoyment of music. Objective advice, comfortable listening rooms, home demonstrations, free installations, exceptional customer service, and some of the world's finest equipment (sound, value & reliability).

Alchemist, Accuphase, A.T.C., Audio Analogue, Basis, B.A.T., B.K.S., Classé, Electrocompaniet, Fanfare, Helios, Mirage, Monrio, Passlabs, Opera, Ortofon, Rockport, Sirius, Teac, Trichord, Unison Research, V.P.I.

FOR AN APPOINTMENT (DAY OR EVENING) CALL  
**HIGH WYCOMBE (01494) 437892**

## CHESHIRE

**BADA**  
BRITISH AUDIO DEALERS ASSOCIATION  
the symbol of security



HI-FI & HOME CINEMA SPECIALISTS

4 WEST STREET  
ALDERLEY EDGE  
CHESHIRE

01625  
582704

DEM ROOMS & INSTALLATION SERVICE

ARCAM, CYRUS, DENON, KEF REFERENCE, MERIDIAN, MISSION, EPOS + OTHER LEADING BRANDS. + INTEREST FREE CREDIT AVAILABLE

## CAMBRIDGESHIRE

## University Audio

HI-FI SPECIALISTS

MAIN AGENTS FOR:

ARCAM • A.T.C. • DENON

• MARANTZ • MERIDIAN • MISSION

MONITOR/AUDIO • ROTEL

• TECHNICS • QUAD • YAMAHA

3 DEMO ROOMS

TELEPHONE: 01223 354237

FACSIMILE: 01223 322079

## CHESHIRE

**BADA**  
BRITISH AUDIO DEALERS ASSOCIATION  
the symbol of security

## Doug Brady Hi-Fi

EST 38 YEARS

Serving the North West with the very best in specialist Hi-Fi. Demonstrations and delivery.

CD - VINYL - HOME CINEMA - SYSTEMS £300-£60,000

Most leading makes

0% Finance on Selected Items

**KINGSWAY NORTH, WARRINGTON**

**TEL: 01925 828009 FAX: 01925 825773**

2miles J21-M6 - Private Parking - Send for map



PROFESSIONAL AUDIO

A.T.C. • SONY • NAD • DENON

• QUAD • TEAC • ROGERS • MISSION

• PROJECT • YAMAHA • MONITOR AUDIO

• MUSICAL FIDELITY • PIONEER

• MERIDIAN • ALCHEMIST • ROTEL

Also Quality In-Car and Computing

19c East Street, St. Ives, Cambridge PE17 4PD  
Tel: 01480 465888

• TECHNICS • PIONEER • MARANTZ • TEAC • ALPHASON • IXOS •

## Who's No. 1 in Home Cinema?

DVD - LASER DISCS - WIDESCREEN - SEPARATES

(DOLBY PRO-LOGIC AND AC3 ALWAYS ON DEMONSTRATION INSTORE)

**WARRINGTON AV**  
106 BRIDGE STREET  
WARRINGTON  
TEL: 01925 636215

We are:



**CHESTER AV**  
47 ST. WERBURGH ROW  
CHESTER  
TEL: 01244 320414

**AUDIO-VISUAL**

• ROTEL • ATACAMA • TARGET • TANNOY • TDL • GEMINI • AKG •

Classified

# Dealer Guide

## CHESHIRE

The North Wests newest dealership demonstrating some of the worlds finest Hi-Fi

Home Demonstrations a speciality (see dealer directory for complete product range)

Tel/fax 0161 304 7494  
Mobile 0780 1498934  
Evening calls welcome  
Enquire about our musical evenings

Input *For the pleasure of music*

## HERTFORDSHIRE

**The Audio File**  
AWARD WINNING DEALER

COME AND EXPERIENCE HI FI AND HOME CINEMA AT ITS BEST

THE AUDIO FILE,  
27 HOCKERILL STREET,  
BISHOP'S STORTFORD,  
HERTFORDSHIRE CM23 2DH  
TEL: 01279 506576  
FAX: 01279 506638

THE AUDIO FILE,  
41 VICTORIA ROAD,  
CAMBRIDGE CB4 3BW  
TEL: 01223 368305  
FAX: 01223 345975

ARCAM  
DENON  
CYRUS ■ REGA  
LINN ■ NAIM  
SONY  
PIONEER  
MISSION  
LOEWE  
YAMAHA  
KEF ■ CASTLE  
KRELL  
COPELAND  
MARTIN LOGAN  
SONUS FABER  
MARANTZ  
PRO AC ■ REL  
SOUNDSTYLE  
QED

## KENT

**ELECTRICAL DISCOUNT**

SALES & SERVICE  
DVD • CD • SEPERATES  
DIGITAL CENTRE

AT 109 Broadway, Bexleyheath, Kent DA6 7JH  
0181 298 7880  
or Mail Order Hot line: 01474 326600

**marantz**  
**Technics**  
**PIONEER**  
**JVC SONY**  
**B&W JAMO**  
TDL & others ...

## CORNWALL

**Sounds Perfection**

Cornwalls

Audio Consultancy Premier Tel/Fax 01326 221372  
Home Demonstrations Retailer Mobile 0469 554357

THE VERY BEST IN AUDIO ENTERTAINMENT QUALITY SERVICE TO YOUR DOOR

SONIC FRONTIERS, MYRAD, TEAC, STANDS UNIQUE, BOSTON ACOUSTICS, KELLY SPEAKERS, HENLEY DESIGNS, ELECTROCOMPANET, JM LAB, UNISON RESEARCH, AUDIO ANALOGUE, TARA LABS.

FOR A FULL LIST OF BRANDS, FIND US IN DEALER DIRECTORY  
FOR SERVICE AVAILABLE TO YOUR DOOR 7 DAYS A WEEK, CONTACT NIGEL.  
WE NOW ACCEPT VISA AND MASTERCARD

## CUMBRIA

**Peter TYSON**

...Setting new standards in Hi-Fi retailing!

If you want to see the best brands - want a great deal with the best service and demo included - pay us a visit.

6 ABBEY STREET, CARLISLE (01228) 546756

## ESSEX

**GRAYSTON sound&vision**

Comfortable demo rooms  
Free delivery/installation  
Home trials  
Musical evenings  
Excellent credit facilities available

33 Sir Isaac's Walk, Colchester. Tel 01206 577682

LINN QUAD  
MERIDIAN  
ARCAM B&W  
BOSTON  
HARMAN/KARDON  
PHILIPS MICHELL  
THORENS  
DENON/ROTEL  
MUSICAL FIDELITY  
ALCHEMIST HARBETH  
KEF REFERENCE  
PIONEER PRECISION  
INFINITY

## IRELAND

Hearing is Believing

**CLONEY Audio**  
30 years of Excellence

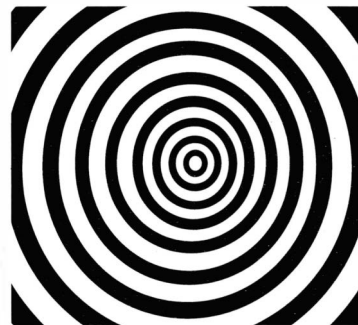
55 Main Street,  
Blackrock,  
Dublin.

Tel: (01) 2889449/2888477

Open: Tues - Sat 10 am to 6 pm.  
Thur - Fri 10 am to 6 pm.

Arcam  
B&W  
Audiolab  
Castle  
Meridian  
Classé  
Rega  
Marantz  
Epos  
Naim  
Sony  
REL

## LONDON



think audio think...

**Auditorium**

0171 384 3030

THE HI-FI SHOP 112 NEW KINGS ROAD LONDON SW6

**AUDIO CONCEPT**

27 BOND STREET, EALING W5 0181 567 8703

APOLLO, ASH DESIGN, AUDIOLAB, AUDIO ALCHEMY, BOSTON, B&O, B&W, CABLE TALK, CASTLE, CHORD COMPANY, COSMIC, DENON, EPOS, HARMON KARDON, KEF, MARANTZ, MISSION, MUSICAL FIDELITY, NAD, NORDOST, ONKYO, ORELLE, QUAD, REL, ROKSAN, ROTEL, RUARK, SONICLINK, SOUND STYLE, STANDS UNIQUE, STRIGHTWIRE DPA, TALK ELECTRONICS, TARGET, TEAC, THORENS, VAN DEN HUL

Two demonstration rooms. Free local delivery.  
Repairs & Service. Closed Wednesday

ESTB. OVER 10 YEARS

**AcousticArts**

ONE OF THE COUNTRY'S LEADING SPECIALIST HI-FI & CINEMA SOUND CENTRES

COMFORTABLE STUDIOS FOR HI-FI & HOME CINEMA. MULTI ROOM / INSTALLATION SERVICE  
WE CATER FROM THE AFFORDABLE TO THE STATE OF THE ART  
FIRST CLASS ADVICE AND SERVICE  
CREDIT FACILITIES AVAILABLE (WRITTEN DETAILS ON REQUEST)  
OPEN TUES-SAT 10-5.30PM (LATE NIGHT THURS BY APPT)

(01923) 245250

101 ST ALBANS ROAD, WATFORD, HERTS (5 MINS JUNCTION 19 M25)

**BADA** BRITISH AUDIO DEALERS ASSOCIATION the symbol of security

**studio 82**

HARPENDEN LTD

ARCAM, ATACAMA, AUDIOLAB, AVI, BANG & OLUFSEN, BOSE, CHORD CO., DENON, HARBETH, JAMO, KEF, MARANTZ, MUSICAL FIDELITY, MUSICAL TECHNOLOGY, MYRAD, PANASONIC, QED, QUAD, ROBERTS RADIO, SENNEHEISER, SOUND STYLE, TANNON, TARGET AUDIO, TDL, TEAC, ETC

HI-FI & TV  
82 The High Street,  
Harpenden  
Herts AL5 2SP  
Tel: 01582 764246  
Fax: 01582 467022

**Radlett Audio** CONSULTANTS EST. 1978

THE HIGH-END SPECIALIST SINCE 1978

AE. ATC. Audio Analogue, Audiolab, AVI. B+W, Bow, Chario, Copland, Denon, Lyra, Marantz, Mark Levinson, MIT, Myriad, NottsAnalogue, Primare, Proceed, Pro-Ac, Ruark, Sonus Faber, Stax, Sumiko, Teac, Theta, Trichord and more.

9 Holywell Hill, St. Albans, Herts. AL1 1EU  
Tel: 01727 855577 • Fax: 01727 858727

**Chew & Osborne**

Akai • Alphason • Arcam • B&W • Bang & Olufsen • Cable Talk • Celestion • Dual • Harman Kardon • Kenwood • Quad • Marantz • Mordaunt-Short • NAD • Pioneer • Ruark • Sennheiser • Sony • Yamaha •

148 HIGH STREET • EPPING • TEL: (01992) 574242  
26 KING STREET • SAFFRON WALDEN • ESSEX • TEL: (01799) 523728

Classified

# Dealer Guide

## LEICESTER

**Cymbiosis** *In harmony with music lovers everywhere*  
Audio & Visual Solutions

Arcam-Audiolab-Chario-Denon-Epos-KEF-Linn Hi-Fi  
Linn AV51-Loewe TV-Micromega-Mordaunt Short  
Myryad-Naim Audio-Projekt-Rega-Rotel-Royd  
6 Hotel Street - Leicester - LE1 5AW  
Telephone 0116 262 3754 Facsimile 0116 262 3758

## LONDON

THE INNOVATIVE AUDIO/VISUAL HI-FI RETAILER  
SERVING LONDON FROM BATTERSEA

**ORANGES & LEMONS**  
0171-924 2040  
61/63 WEBBS ROAD, SW11

Now in our fourth phenomenal year  
0% Credit Finance available

ARCAM. B&W. CABLETALK. CASTLE. CHORD CO.  
DENON. EPOS. KEF. MARANTZ.  
MICROMEGA. M-SHORT. NAD. NAIM.  
NEAT. QUAD. REGA. ROTEL.  
ROYD. RUARK. SOUNDSTYLE.  
STANDS UNIQUE. YAMAHA.

with more to come

**O'Brien Hi-Fi**

ARCAM • ANTHEM • AUDIOGRAM • AUDIO RESEARCH • AUDIO TECHNICA • BEYER • CABLETALK • CHORD • CREEK • DENON • DENSON • JADIS • JECQUIN • MICHELL • MUSICAL FIDELITY • NAD • NAIM • OPERA • PRECIOUS METALS • QED • REGA • ROGERS • ROYD • SENNHEISER • SILTECH CABLES • SME • SONNTEER • SONUS FABER • TEAC • THORENS • TRANSPARENT CABLES • UNISON • RESEARCH • WILSON

AUDIO ANALOGUE • COPLAND • KRELL

Clearance / Second Hand / Ex-Dent Equipment • Details on request  
**0% Instant Finance Available**  
Written details on request

New Demonstration Room • Free car parking • Major Credit Cards  
Personal Export • Mail Order • Installation Service • Repair facilities  
5 mins walk Raynes Park BR • 20 mins Waterloo  
5 mins from A3 (Raynes Park B224AVT) • 25 mins M25 - Junc 10

60 Durham Rd, West Wimbledon, London SW20 0TW  
Tel: (0181)946-1528 Fax (0181)946-0331

**GRAHAMS HI-FI** "One of the five best hi-fi shops in the world"

Hi-Fi • Home Cinema • Multi-Room Installations  
**0171 226 5500**

Grahams Hi-Fi, Canonbury Yard, 190a New North Road, London N1 7BS  
Tel: 0171 226 5500 Fax: 0171 359 7620  
E-mail: choice@grahams.co.uk Web site: http://www.grahams.co.uk

## MANCHESTER

**Central Radio**  
MANCHESTER LTD. EST. 1946  
30-32 SHUDEHILL MANCHESTER M41EZ OPEN 9.00-5.30 MON-SAT

**STOCKISTS OF: BEYER, B&W, CERWIN-VEGAL, KENWOOD, MISSION, PANASONIC, PIONEER, SENNHEISER, SONY, TEAC, TECHNICS, THORENS, ETC. Call us if it's not listed above.**

**DEMONSTRATION ROOM 'MINIDISC SPECIALIST'**  
**CALL US NOW WE'LL BE PLEASED TO HELP**  
**0161 834 6700**  
sales@centralradio.co.uk

## MIDDLESEX

**AudioVenue**  
Bespoke Audio Visual Consultants  
~ ONCE IS NOT ENOUGH ~

"We at AudioVenue are committed to providing an unrivalled service together with state of the art equipment to achieve the ultimate in home entertainment, so whether you are buying, selling, exchanging or just looking for unbiased advice, ensure your first call is to"

► Export Orders Welcome ► Home Demonstrations  
► Multi-Room Design & Installation Service

**Components from £120 - £72,000**

0% Credit available.  
Written quotations on request.  
Subject to status.

Tel/Fax: +44 (0)181 707 4849  
Mobile: +44 (0)973 471 426  
email: audiovenue@vossnet.co.uk

## NORFOLK

**Basically Sound of Norfolk**

STOCKISTS OF LEADING HI-FI  
Naim Audio, Arcam, Audio Alchemy, Audiolab, Cable Talk, Chario, Chord Co. Opera Speakers, Denon, Densen, Epos, Heybrook, Micromega, QED, Rogers, Rotel, Royd, Soundstyle, TDL, Unison Research and others.

**0% FINANCE AVAILABLE**

The Old School  
School Road  
Bracon Ash  
Norfolk NR14 8HG  
Tel: (01508) 570829

**To Advertise On These Pages Please call Clare on 0171 917 3935**

## SCOTLAND

**Loud & Clear**

*Glasgow's friendliest & best Hi-fi Store.*

520 St Vincent St  
Finnieston, Glasgow  
0141 221 0221

\* Naim Audio \* Tag Maclaren  
\* Marantz \* Denon  
\* Music Fidelity \* Monitor Audio  
\* Exposure \* Epos  
\* Rega \* Kef Reference

Interest free credit - installation & service facilities - three comfortable demo rooms

## SOMERSET

**DIGITAL DIRECTIONS**  
the South West's Specialist DPA Dealer  
**Tel: 01278 653283**

## YORKSHIRE

**York... a great place for...**

AE  
Atacama  
Audiolab  
B&W  
Cable Talk  
Copland  
Cynus  
Harman-Kardon  
JBL  
KEF  
Kenwood  
Krell  
Marantz  
Martin-Logan  
Meridian  
Michell  
Mission  
Monitor Audio  
Musical-Fidelity  
Pickering  
Pink Triangle  
Pioneer  
Quad  
REL  
Rogers  
Ruerk  
SME  
Sonus-Faber  
Tannoy  
TDL  
Thorens  
Yamaha  
& lots more...

- Widest choice in the area
- Independent advice
- Qualified staff
- Comfortable dem rooms
- Superb showrooms
- Main road location
- Major car parks nearby
- Insurance estimates
- Over 30yrs experience.
- Service Dept.
- Delivery & installation
- Part Exchange
- Open 10.30-5.30 6 days

**Up to 3 yrs. Interest Free Credit**  
deposit only 20% of £500+ for 12 months  
£1500+ for 24 months  
£3000+ for 36 months  
subject to status

PS. If you're making a special trip...it's best to book, weekdays.

**Vickers Hi-Fi**

24 Gillygate, York  
Tel. 01904 629659  
High Fidelity Specialists est. 1967

### Total customer care

1. Expert, impartial advice on all aspects of audio & video, given by trained staff
2. Products specially selected for quality, performance and value
3. Personal demonstrations - Listen before you buy!
4. A home delivery and installation option for optimum performance

### Total peace of mind

1. A 10-day purchase exchange programme (returns as new & excluding special orders)
2. BADA's Free extended 2-year Guarantee on all new hi-fi and home cinema separates
3. The option to transfer the Guarantee to any one of 120 BADA members nationwide
4. Deposits safeguarded by the BADA Bonding Scheme



### BRITISH AUDIO DEALERS ASSOCIATION

P.O. Box 229 London N1 7UU

Phone: 0171 226 4044 Fax: 0171 359 7620

E-mail: bada1@compuserve.com

For further information please see our web site:  
http://www.bada.co.uk or ring for our information pack

Classified



# Dealer Guide

## SURREY

**BADA**  
BRITISH AUDIO DEALERS ASSOCIATION  
the symbol of security



*Best place in town for Hi-Fi and Home Cinema*

- \* 6 superb demonstration rooms
- \* Interest Free Credit
- \* All Leading Brands
- \* Open Mon-Sat 9.30-5.30pm  
Late night until 8pm on Thursday

**UNILET SOUND & VISION**  
35 HIGH STREET, NEW MALDEN, SURREY KT3 4BY  
TEL: 0181 942 9567 FAX: 0181 336 0820

## SOUTHAMPTON

**BADA**  
BRITISH AUDIO DEALERS ASSOCIATION  
the symbol of security

### For Students to Lottery Winners

Established in 1969 at our current Store, we continue to offer excellence in the choice of Hi-Fi. We have added demonstrating Home Cinema with an 8 foot screen.

Located within 3 miles of Junction 14 (M3/M27)  
Junction 13 (M3) and Junction 5 (M27)

**HAMPSHIRE AUDIO**  
2-12 Hursley Road, Chandlers Ford, Hants, S053 2FU  
Tel: SOUTHAMPTON (01703) 252827

## SUSSEX

### WORTHING AUDIO

20 Teville Gate, W. Sussex. BN11 1UA  
Tel: (01903) 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, J.P.W. Naim Audio, Marantz, Orelle, Origin Live, Ruark, Audio Technica, Target, TDL, Tripod, Kinshaw Electronics and many more.

## SUFFOLK

### SPALDINGS

— THE SOUTH EASTS LEADING HI-FI COMPANY

3 DEMO ROOMS AV., HOME DEMO'S.,  
0% CREDIT, FREE INSTALLATION

KEF • LINN • NAIM • QUAD • AUDIO LAB •  
ARCAM • MISSION • CASTLE • DENON •  
MARANTZ • RUARK • OTHERS

MON TO SAT 9.00 TO 6.00. TUE 9.00 TO 8.00  
CLOSED WEDNESDAY

SERVICE DEPT.  
352-354 Lower Addiscombe Road, Croydon,  
Surrey CR0 7AF  
Tel: 0181 654 1231/2040. Fax: 0181 655 3922

alc audio analogue nva nordost  
audiomeca ortofon  
audio physc aln  
chord co royd  
densen sugden  
harbeth teac  
lyra trichord  
michell and more

**signals**  
hi-fi for grown-ups

ipswich 01473 622866 fax 01473 631588  
www.signals-demon.co.uk

**BADA**  
BRITISH AUDIO DEALERS ASSOCIATION  
the symbol of security

### PHASE 3 HIFI

LEADING HI-FI & 'HOME CINEMA' SPECIALISTS  
FOUR LISTENING AND VIEWING STUDIOS

- \*EXPERIENCED AND FRIENDLY SALES STAFF
- \*INSTALLATION SERVICE \*CREDIT FACILITIES
- \*HOME DEMONSTRATIONS \*PART EXCHANGE

ARCAM • AUDIO LAB • B&W • CASTLE • DENON • KEF • LINN  
• LOEWE • MARANTZ • MERIDIAN • NAIM • PIONEER • ROTEL  
• YAMAHA

213-215 TARRING ROAD, WORTHING,  
WEST SUSSEX BN11 4HW  
TEL: (01903) 245577 FAX: (01903) 505824

## MAIL ORDER

Front End Problems?  
contact:

### The Cartridge Man

It doesn't have to cost an arm and a leg to get the best - listen to my Koetsu - and - Decca - eater. Also agents for Croft, Moth, Real Music Company, Hadcock & Michell & E.A.R.

Valve equipment re-build service available, also Cartridge Man Electronic stylus scales.

- Plus cartridge re-tipping service  
**(0181) 688 6565**

### BOOTHROYD STUART MERIDIAN

Experience the exciting range of Meridian Hi-Fi at the Midlands leading Hi-Fi and Home Cinema store.

**01203 525200**  
163 Medieval Spon Street, Coventry  
Fax: 01203 631403 www.frankharvey.co.uk



FRANK HARVEY  
HI-FI EXCELLENCE

### CARTRIDGES: Trade in your old moving coil and save up to 45% off a new one!!

I CAN ALSO SUPPLY: TURNTABLES, TONEARMS, CASSETTE DECKS, CD PLAYERS, DAT, MINIDISC, CDR, LOUDSPEAKERS, HI FI FURNITURE, AMPLIFIERS, TUNERS, ACCESSORIES, BLANK TAPES & DISCS, TEST CD'S, TEST RECORDS, TEST CASSETTES, CABLES, AERIALS, TRACKING FORCE GAUGES, ALIGNMENT PROTRACTORS.

All goods are brand new & boxed with full U.K. guarantees. No ex-dem or ex-display equipment. No grey imports. Delivery is free. Sorry, no general catalogue. Please phone or write for specific details.

**IAN HARRISON HI FI (MAIL ORDER ONLY)**  
From: 7 MILL HILL, REPTON, DERBY,  
DE65 6GQ. TEL: 01283 702875 9am-9pm  
including Sundays

...naim...keewick audio...aream...audio lab...chord...nakamichi...ortofon...project...polk...quad...roksan...rogers...rotel...sennheiser...sony...sumiko...systemdek...target...tdl...tube technology...van den hul...yamaha...




**A-Z Ref. E2/F 23**

**ACADEMY**  
for the midlands

3 Hi - Fi Studios • Home Trials • Home Cinema Theatre • In House Service  
Department • Mail order available • Interest Free Credit available •  
(On Selected Items. APR 20% written details on request)

and NOW AT 111 The Parade, Sutton Coldfield, Birmingham  
**0121 321 2445**

152a High Street, (Sharing ASDA Car Park) Blorwich Walsall, West Midlands  
**01922 493499**

...mission...short...meridian...micromega...research...apollo...at...audio alchemy...chord company...cyrus...celestion...dpa...epos...exposure...kef reference...kenwood...marantz...michell...morriant...moth...kew...hose...beyer...cabletek...moth...musical fidelity...

## LUX LOUDSPEAKERS




**BANDOR**  
MINIATURE LOUDSPEAKERS  
DESIGN AND MANUFACTURE OF MINIATURE LOUDSPEAKERS AND SYSTEMS

DESIGN & DEVELOPMENT STUDIO  
11 PENFOLD COTTAGES  
PENFOLD LANE  
HOLMER GREEN  
BUCKS, HP15 6XR  
Tel / Fax: (01494) 714058  
e-mail: bandor@netcomuk.co.uk

Bandor loudspeakers - the specialist product of Englishwoman with 35 years experience in this field - embody numerous features which ensure excellent performance. Cone, voice-coil former and voice coil are formed from aluminium alloy, providing good heat dissipation and low thermal compression 1983 Bandor originated the use of a thin, curvilinear, spun cone, subsequently anodised, yielding a structure both light and rigid. The cone assembly is mounted in the chassis by carefully-terminated suspension components, so that Fo is lower than in most other drivers of comparable size. Voice-coil connections ensure linear motion and reliability, even at large amplitudes.

Possessing outstanding ability to reproduce transients faithfully, and reproduce a wide frequency band, the 50mm unit covers 100 Hz-20 kHz, allowing flexibility in the choice of crossover frequency for multiple-driver loudspeakers: e.g. 200 Hz (or lower for modest power handling) may be chosen thus avoiding the critical zone 1-4 kHz where phase errors are most audible, and assists in securing good imaging. In the bass drivers, generous Xmax values allow the realistic reproduction of the pedal organ and bass drum, when correctly loaded. A manufacturer who used Bandor exclusively, advertises that his sales are mostly to professional musicians.

**SEND £1.00 FOR FULL BROCHURE (Stamps)**

Classified

# Dealer Guide

REVOX

MAIL ORDER

**REVOX SERVICE** THE MANUFACTURERS AUTHORIZED SERVICE COMPANY **REVOX SERVICE**

Correct Revox Spare Parts Pricing  
24 Hour Estimation procedure  
Manufacturer Upgrades and Advice  
Delivery and Collection Service  
Comprehensive Guarantees

Factory Trained Engineers  
Rapid Response Turnaround  
Full Revox range serviced  
Written Technical Reports  
Late Evening Opening

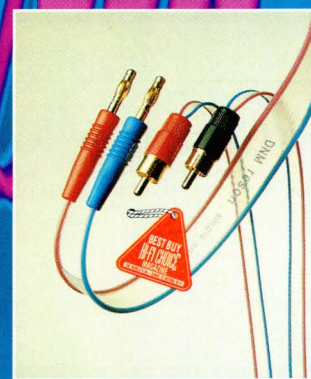
**THE AR TECHNOLOGY LIMITED**  
TTL House, Sheeptick End, Near Lidlington, Bedfordshire, MK43 0SF  
Telephone 01525 841999 Facsimile 01525 841009

**SOUND CONNECTIONS**  
TEL / FAX : 0151 348 1988  
E-mail : sound.connections@dial.pipex.com

MAIL ORDER SUPPLIERS OF QUALITY HI-FI ACCESSORIES

We offer a popular HOME TRIAL SERVICE which enables you to evaluate cables in your own system, therefore ensuring you purchase the right cable.

PLEASE TEL / FAX / E-MAIL FOR OUR LATEST PRODUCT AND PRICE LIST



DNM Reson Audio Cables

VAN DEN HUL ♦ DNM RESON ♦ SONICLINK  
NORDOST ♦ CHORD CO ♦ AUDIO QUEST  
KIMBER ♦ SENNHEISER ♦ STAX ♦ ORTOFON  
SUMIKO ♦ LYRA ♦ MICHELL ♦ STANDS UNIQUE  
TARGET ♦ SOUNDSTYLE ♦ TOWNSHEND ♦ LAT  
IXOS ♦ MUSICAL FIDELITY ♦ XLO

52 Green Lane ♦ Great Sutton  
South Wirral ♦ Cheshire ♦ L66 4LE

OVERSEAS

**Amity** HPA2 \* 249.- Pounds Sterling

Class 'A' symmetrical amplifiers  
HPA2: Headphone Amplifier for high Impedance Headphones.  
"Best Buy" HI-FI CHOICE, England, December 1997  
\*Especially recommended\* stereoplay, Germany, etc.

We manufacture high-end: 45W monoblocks, double mono preamps for 1 stereo input, stereo interconnections, and our high rated headphones amplifiers. All amps are dc coupled, full symmetrical, class A circuits and have a very high purity.

Please call, or fax us for your order or for our product information.  
**Anderson Electronics, Amity HiFi, Brahmstraße 12, D-74193 Schwaigern-2, Germany Tel. 0049-7138-3225, Fax. 0049-7138-3325**

**STUDER - REVOX SALES - SERVICE - SPARES**  
Service & Repair of A77, B77, A700, PR99 & 36 series  
HiFi Spares to order  
Serviced Machines in Stock  
**E.M.A.S.**  
TEL: 01246 275479  
FAX: 01246 550421

PRE OWNED

**HEATHERDALE AUDIO LTD**  
HEATHERDALE PRE-OWNED GUARANTEED EQUIPMENT. EXPORT FACILITIES AVAILABLE  
FOR AN UP-TO-THE-MINUTE LIST VISIT OUR WEB SITE:  
<http://www.hifi-stereo.com>

MARK LEVINSON 332 Power amp MINT	£4995	KEF 104 Loudspeakers	£450
MARK LEVINSON 35 Dec. EX DEM.	£5795	CULO MASTER SPEAKERS (Piano Black) MINT/BOXED (31600)	£1500
MARK LEVINSON 29 Power Amp EX CON.	£1895	AUDIONOTE F4 Monoblocks MINT	£3395
MARK LEVINSON 28 Pre-amp	£1995	AUDIONOTE P2E2 Power amp MINT	£2995
MULLER & KRESEL MKX100 Subwoofer EX CON.	£795	AUDIO INNOVATIONS 1000 Pre-amp	£650
MICHELL ISO HR Phono stage in Pla	£495	ARCAM Delta black box II dac	£175
MERIDIAN 203 Dec.	£1195	AUDIO RESEARCH 3200 amp MINT	£1495
MICROMEGA Stereo & Car Transport	£395	VP115 MK3 (dual coil) Air Transport/Rotary Black	£1300
MONITOR AUDIO Studio 50 Speakers (Rosewood) MINT	£3495	VOYD Triable/SME V & Chiaro Audio Delta cart	£2495
MERIDIAN 263 Dec.	£249	VOYD Standard turntable MINT	£1495
MUSICAL FIDELITY MKV Pre-amp	£895	VOYD Triable (upgraded) you & me? Helius omni	£1495
MICHELL Orbe (ex dem)	£1300	PRIMAIRE 201 Pre-amp with 202 Monoblocks	£2995
MICHELL Orbe/SME 309 arm (ex demo)	£2050	BOULDER 250 AE Power Amplifier MINT	£1995
MISSION 782 Loudspeakers with stands	£250	B&W 801 Series II's	£1850
ACCUPHASE BUBBL. CD player	£2995	B&W 801 Series II's WITH STANDS	£1395
AUDIO RESEARCH LSS MK3 Balanced line pre-amp	£2995	REVOX 877 Tape recorder EX CON.	£595
AUDIO RESEARCH 5 mI Iz line speaker cable EX Dem (954) £650	£2250	REVOX PR99 MA3 Tape Deck	£1995
AUDIONOTE T0 Limited cartridge & PSU	£2250	REVOX B2155 Cassette Deck	£995
AUDIONOTE ANE 5-6 Line Speakers Rosewood (F Veneer) £3995	£3995	REVOX H6 Tuner MINT	£495
AUDIONOTE M2 Line Pre-amp MINT	£599	DECCA P24-400A Monoblocks EX CON.	£2995
AUDIO INNOVATIONS First Audio (with Border Patrol) £1200	£1200	LUXMAN MC3600 KX88 Stereo Power amp	£1295
ALON II Loudspeakers	£995	LUXMAN M570 Tuner	£450
AVISON Acoust Speakers (light wood) MINT/CREATED (E16000)	£7000	LUXMAN M2 000 Power Amp MINT	£495
AUDIONOTE Nerro amp MINT/BOXED	£5495	LYRA Prometheus Dec. Cartridge EX DEM	£1700
AUDIONOTE Aes 7 Step up transformer	£3000	HELIUS Aesius Tonearm MINT	£199
AUDIO RESEARCH SPA MA3 Pre-amp MINT	£1000	HELIUS Silver Wired Tonearm	£995
AUDIONOTE Ongaku MINT	£34995	FOKSELL Cartridge MINT	£295
SONUS FABER Concerto sealed box	£895	JMC T850 Power amp	£595
SPENDOR SP100 (inc. dedicated stands) MINT/BOXED £1195	£1195	ORACLE Premier MKIII Triable with cou	£1495
SOLSTICE AAD Speakers with stands	£495		

WE NOW OFFER 0% FINANCE\* PHONE FOR DETAILS (\*SUBJECT TO STATUS)  
EX-DEM EXPOSURE EQUIPMENT AVAILABLE PLEASE TELEPHONE FOR LIST  
MAIN UK DEALERS FOR THIELE SPEAKERS, MARK LEVINSON, ABSOLUTE SOUNDS PRODUCTS AND MUCH MORE.

ALL USED CARTRIDGES ARE CHECKED UNDER A MICROSCOPE BEFORE BEING OFFERED FOR SALE.  
VISA SWITCH MASTER CARD-DINERS CLUB-AMERICAN EXPRESS WELCOME  
WE TAKE PART EXCHANGE ON NEW AND USED STOCK & BUY IN FOR CASH  
202 Findon Road, Worthing, West Sussex BN14 0EJ  
TEL: (01903) 872288 after hours number (0860) 660001 FAX: (01903) 872234  
e-mail: heatherdale@hifi-stereo.com

STANDS

**TOWNSHEND AUDIO**

**THE SEISMIC SINK STAND**  
Revolutionary double air suspension equipment rack, 1, 3, 4, 5 and 6 shelf, 17", 19" and 22" width.  
"This is the first shelving unit to do it right, the first one worthy of high end audio. Suddenly, all other shelving units are obsolete... That's why the Townshend Audio Seismic Sink Stand is a necessary audio component. The only necessary component. Choose whatever power amp, preamp, program source you want. But put them on this stand." Peter Moncrieff, International Audio Review (IAR) Hotline, Best of 1998.  
"the difference was night and day" Hi Fi Choice Nov 97.

**GOERTZ CABLES**  
Impedance matched speaker and interconnects  
"my favourite" Home Entertainment Mar 98.  
For demonstration, information, dealers and sales  
Tel/Fax 0181 979 2155  
7 Bridge Rd, Hampton Court, Surrey, KT8 9EU  
<http://ds.dial.pipex.com/townshend.audio/>  
[townshend.audio@dial.pipex.com](http://townshend.audio@dial.pipex.com)

SPEAKER KITS

**SOUTH COAST SPEAKERS LTD.**  
326 Portswood Rd., Southampton, Hants SO17 2TD  
Official UK Distributor for VISATON loudspeakers kits/drivers units.  
All offering excellent performance & unbeatable value.

ALSO suppliers of drive units from: MOREL P.D. SEAS VOLT

Design Services  
\* Crossover Design - Optimised for your units  
\* Cabinet Design - Optimum drive unit volumes & port dimensions  
\* Thiele/Small parameters - actual values for your drive units  
\* Full loudspeaker testing undertaken - 1w/1m. Phase, Impedance  
\* Loudspeaker up-grades a speciality  
Please call for your FREE speaker kit information pack & price list.  
Telephone: 01703 559312  
or visit our comfortable showroom for a demonstration

ACCESSORIES

**BUILD YOUR OWN LOUDSPEAKERS**  
and pay 1/4 of the price for better sound quality than at your normal Hi-Fi retailer  
We have over 30 years experience in designing loudspeakers of the highest quality.  
We also have a large range of replacement units should your existing loudspeaker cones fail.  
Phone for your FREE catalogue  
Wilmslow Audio, Dept HFC, 50 Main Street, Broughton Astley, Leicester LE9 6RD.  
Tel: 01455 286603 Fax: 01455 286605  
Email: wilmslow.audio@dial.pipex.com

To Advertise On These Pages  
Please call Clare on 0171 917 3935

Classified

# EURO STAR



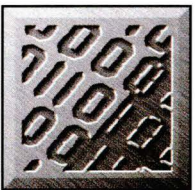
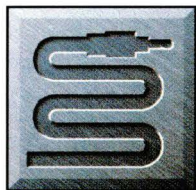
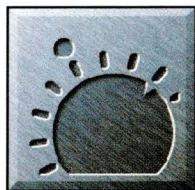
THE MERCURY M1. 1998-9 EUROPEAN LOUDSPEAKER OF THE YEAR.



*When audio magazine writers from 17 European countries voted on their Loudspeaker of the Year, Tannoy's Mercury M1 outshone the rest. In their words: 'True hi-fi performance is rarely so affordable'. Call 01753 680868 or visit your local hi-fi specialist to judge the Mercury range for yourself.*

**TANNOY**<sup>®</sup>

# READER CLASSIFIED



- Acoustic Precision system: Precision amp & CD, Eikos FR1 speakers, Monolith cables. Stands. £1,400. (01977) 620558.
- Arcam Alpha 8P power amp, 50 Wpc, as new, boxed, mint cond, only one year old. £120. (01296) 688322.
- Arcam Alpha 10/10P, 6 months old, half price £695. Plus free Emerald interconnect. Marantz CD-10 £375. Monitor Audio Studio 12 (yew finish) £385. £320 worth of van den Hul The Wind speaker cable, £80. Audioquest Diamond interconnect £140. (01529) 410171.
- Arcam CD transport, digital preamp, 2 x power amps, NAD cass deck, Linn Axis Akito K9, Rogers LS7T speakers plus stands. All black, boxed, in exc. cond. Could split, £1,735 ono. (01344) 621598.
- Audiolab 8000A, 2 years old, with box and documents. £320 ono. Hatfield (01707) 891365.
- Avondale PSU HICAP replacement, 2 discrete circuits with transformers, purchased Aug '97. Not in use. (£360) £125. (01952) 249627.
- Electrocompaniet ECI2 integrated amp £525. Triangle Zephyr 2 speakers £425. Sequence 300s £100. Sequence 200 speakers £75. Croydon (0181) 654 9850.
- Interconnect cable, one metre, Gamma Wow Balance (new £800) £325 ono. 0.6m van den Hul The Second (new £175) £65. Kent (01795) 538226.
- John Shearne Phase 2 integrated amp £320. Superb, warm, involving sound. (0121) 733 1961.
- KEF Q55 speakers 150W bi-wireable, superb sound, mahogany finish, boxed, mint, still guaranteed. Upgrading. (Cost £500) £300. (01703) 322203.
- Linn LP12 (Aphro) good condition, £250. Pembs (01437) 765841.
- Linn Sondek LP12 early model and SME Series II with Ortofon MC10. Stored during last 10 years £250. (01772) 743563.

## ADVERTISE IN HI-FI CHOICE FOR £5\*

To advertise on this page, write your advert in block capitals and send it to: *Hi-Fi Choice*, Reader Classifieds, 19 Bolsover St, London W1P 7HJ. Include a cheque for £5\* made payable to Dennis Publishing Ltd. The advert will appear in one issue only and must be no more than 20 words (or five lines) long, including all spaces and your phone number. Reader Classifieds are for the use of private individuals only. All Reader Classified adverts will be printed

on a first-come, first-served basis, subject to available space, and Dennis Publishing Ltd accepts no liability for the accuracy of the information contained therein, nor any consequence arising from it, nor for any typographical errors. We reserve the right to amend or refuse adverts at the Editor's discretion and cannot guarantee that an advert will appear in any specific issue.

\*This service is FREE to subscribers, provided their subscriber number is enclosed.

- Linn Troika, needs repair, £160 ono. Sound Org tables, 4 shelves, £65 each. Mana Soundframe £65. Leeds (0113) 268 2617.
- Marantz PM-63 KI Sig amp £259. Monolith speaker cable 2 x 3m £199. Eikos interconnect £45. DNM speaker cable 2 x 5m £49. (01582) 724414.
- Meridian 506 16-bit CD £500. Exposure XV amp £400. Both in exc. cond., boxed etc. LFD Airoflex speaker cable, 2 x 4m, biwire, terminated £50. (01492) 547200.
- Meridian 557 power amp, 4 months old, as new, hardly used, £1,150. ProAc Response IS, mint, £800. London (0181) 697 8518.
- Micromega T-Drive transport (£1,200) Micromega Duo Pro-2 DAV (£1,250) XLO Signature 4.1B digital XLR 1/c (£275). Full demo. Mint cond, manuals, reviews, boxed. Bargain at £1,300. Edinburgh (0131) 538 9073.
- Musical Fidelity A370 power amp, Class A, 200W/ch, brand new with manual, cost £2,800, accept £1,200 ono. (01557) 331885.
- Nakamichi BX-300E cass deck, 3 heads, very little use, immaculate, with box and manual £300. Chelmsford (01245) 226842.
- Nordost Flat Line speaker cable x 2, £30 (£90 new).
- Pioneer BSS 780 sound chair, lim. edition. Exc. cond. £600. (0467)

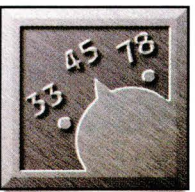
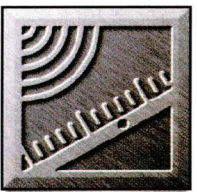
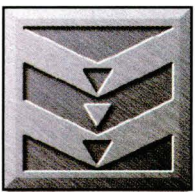
- 605763, aft 6pm (01782) 857632.
- Pioneer Elite DVL-90 Combi DVD/LD/CD. As new, boxed. (List £1,450) £950. LDs: *Broken Arrow, Heat, Independence Day, Michael Collins, Mission Impossible and Star Wars Trilogy*. (01945) 463077.
- Pioneer VSA701S integrated/pre AV amp. Cost £450, sell for £250. Get Rotel RB970BXMkII free. Kent (01322) 286187.
- Quad ESL63 electrostatic loudspeakers. Black ash finish, mint cond, boxed. £1,600 ono. Peter, Romford (01708) 741644. Daytime only.
- Rega Planar 2, very light use, treated with TLC. Linn K9 cartridge, Ringmat. Boxed. £145. Bristol/Bath (01749) 890148.
- Roksan Attezza DP2 CD player, £800. L2/51/DS1 pre/power amp £1,700. Linn Kaber speakers, tri-wired + cable £800. Mint cond. Essex (01708) 440947.
- Rotel RB981 power amp. 160 WPC, 8 Ohms. New, boxed. £225. Cambridge Audio CD4SE CD player, dual Crystal CS4327 20-bit DACs. New, boxed, cost £200, sell £130. Rod (01706) 345418.
- Rotel RCD965BX CD player, £125. Denon DRM500 (HXPro) cassette deck £60. Dual CS505-3 turntable with Audio Technica AT-110E cartridge, £80. Hants (01705) 677628.

- Ruark Epilogue speakers, silk black finish, mint, boxed. Unwanted prize £180. Stoke on Trent (01782) 855749.
- Ruark Templar 2 speakers, black, boxed, never used. £500 n/o. Epping (01992) 573737.
- SMS CD jukebox system: IBM PC, Music Maestro mixer/controller plus software, 2 x Pioneer PD-F906 CD carousels. £2,850 new, offers please. Reluctant sale, unwanted competition prize. Croydon (0181) 681 7609.
- Sony headphones, model MDR CD1700, cost £200, sell £120. Upgrading. Newport (01633) 873766.
- TDL Studio 2, transmission line floorstanding speakers on dedicated stands. Walnut finish, exc. cond, change of listening room forces sale. Demo available. £250 ono. Surrey (01372) 742477.
- Teac VRDS 7 CD player, mint cond, boxed, manuals etc. Superb, excellent transport. Cost £649.99. Reasonable offers considered. Alex (01664) 566362.
- Townshend Seismic Sink stand, 3-tier, 1 year old (£900 new) £500. Gloucester (01452) 616259.



## BUYING TIPS

Buying secondhand can be a great way to pick up a bargain. A formerly-expensive secondhand component might well prove a better long-term bet than a brand-new product engineered down to a price. Do some research on which brands and products have a good service back-up, so if something does go wrong, you can get it fixed. Unless you purchase from a secondhand hi-fi dealer, you're unlikely to get any warranty. So it's up to you to ensure the fitness of any gear that you buy. Products such as speakers should be less prone to breakdown than amplifiers, and amps should be more reliable than CD players. But any abused component could be troublesome – have a proper dem, and judge the seller as well as the goods!





## CHOOSING A HI-FI IS EASY ISN'T IT?

IF YOU THINK BUYING GOOD HI-FI IS SIMPLY A MATTER OF PICKING 'FIVE STAR' PRODUCTS FROM MAGAZINES, THEN THINK AGAIN. AT BEST, REVIEWS CAN ONLY EVER OFFER A ROUGH SKETCH OF THE MARKETPLACE - FOR THE FULL PICTURE IT PAYS TO VISIT A SPECIALIST DEALER. WITH 15 YEARS EXPERIENCE UNDER OUR BELTS, WE KNOW THAT EACH CUSTOMER HAS A

UNIQUE SET OF REQUIREMENTS - THERE IS SIMPLY NO SUCH THING AS A BLANKET "BEST BUY" SYSTEM. IT TAKES TIME AND SKILL TO PUT TOGETHER A HI-FI WHICH WILL THRILL YOU FOR YEARS - BUT THAT'S OUR SPECIALITY!

SO BEFORE YOU TAKE THE PLUNGE, WHY NOT GIVE US A CALL - WE MIGHT JUST SAVE YOUR LIFE.

Creative Audio



HI-FI SPECIALISTS

9 DOGPOLE · SHREWSBURY · SHROPSHIRE · TEL 01743 241924

AUTHORISED RETAILER FOR:

ARCAM · AUDIO ALCHEMY · AUDIOLAB · CELESTION · CYRUS · DEVON · EPOS · KEF · LYRA · MERIDIAN · M&K · MISSION · NAD · NAIM · QUAD · REGA · ROKSAN · SOUNDSTYLE · STANDS UNIQUE · TRIPODS

# HOW TO USE THE BUYERS' GUIDE

## Best Buys, Recommendations & Editor's Choices

- B BEST BUYS:** Awarded to group-tested products which display an unbeatable blend of performance and value for money.
- R RECOMMENDED:** Top performers in group tests: perhaps not the cheapest but possibly more sophisticated than Best Buys.
- E EDITOR'S CHOICE:** More expensive components which exhibit outstanding engineering, industrial design and sound quality.

## Our Three Step Guide to Buying Hi-Fi

The Hi-Fi Choice Price Guide and Directory are extremely simple to use, but contain all the information you need to select and buy the perfect hi-fi system. Here's how it works.

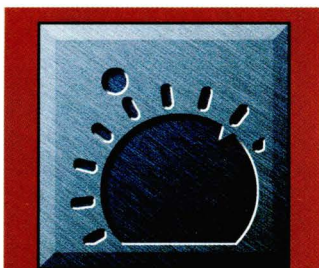
**STEP 1 DISCOVER** which products fall within your budget by using our Price Guide, which starts on this page. The product listing is updated using manufacturers' data every other month, and aims to include every hi-fi component currently available in the UK. (But please fax us on 0171-917 5512 with any omissions!) It is an alphabetical listing divided into different types of hi-fi component, and also into price bands.

**STEP 2 PRODUCTS** whose names are printed in RED are those we have reviewed, which you can read about in the Directory (starts after the Price Guide). Here you will learn which items have been singled out for our famous Best Buy, Recommended or Editor's Choice awards, denoting products of exceptional quality and value. The Directory is sorted by product type and listed alphabetically, and the beginning of each section provides essential information about each kind of hi-fi component.

**STEP 3 FIND** your nearest hi-fi store in our Dealer Directory (at the end of the Directory) to book a demonstration of the hi-fi equipment you want to hear. Remember to take your own LPs or CDs!

## DIRECTORY INDEX

ITEM	PAGE NUMBER
<b>PRICE GUIDE</b>	<b>110</b>
<b>REVIEWED PRODUCTS</b>	
<b>INTEGRATED AMPLIFIERS</b>	<b>122</b>
<b>PREAMPLIFIERS</b>	<b>123</b>
<b>POWER AMPLIFIERS</b>	<b>123</b>
<b>CABLES</b>	
<b>ANALOGUE INTERCONNECTS</b>	<b>124</b>
<b>DIGITAL INTERCONNECTS</b>	<b>125</b>
<b>LOUDSPEAKER CABLES</b>	<b>125</b>
<b>CARTRIDGES</b>	<b>126</b>
<b>CASSETTE DECKS</b>	<b>127</b>
<b>CD PLAYERS</b>	<b>128</b>
<b>CD TRANSPORTS</b>	<b>130</b>
<b>DACS</b>	<b>130</b>
<b>DVD PLAYERS</b>	<b>130</b>
<b>DIGITAL RECORDERS</b>	<b>130</b>
<b>HEADPHONES</b>	<b>131</b>
<b>LOUDSPEAKERS</b>	<b>132</b>
<b>SUBWOOFERS</b>	<b>134</b>
<b>STANDS &amp; SUPPORTS</b>	<b>135</b>
<b>TONEARMS</b>	<b>136</b>
<b>TUNERS</b>	<b>136</b>
<b>TURNTABLES</b>	<b>137</b>
<b>FACTSBACK SERVICE</b>	<b>145</b>
<b>MANUFACTURER CONTACTS</b>	<b>138</b>



## AMPLIFIERS INTEGRATED

**KEY**  
 Ⓢ - Number of line-level inputs.  
 '20W' - Rated RMS output power per channel into nominal load of 8 Ohms.  
**UP TO £250**

Akai AM1100	Ⓢ	50W	230
AMC 3020	Ⓢ	20W	100
AMC 3025A	Ⓢ	30W	140
AMC 3050A	Ⓢ	45W	170
Ariston AX900	Ⓢ	30W	80
Ariston AX910	Ⓢ	30W	100
Cambridge A1 Mk III	Ⓢ	30W	119
Cambridge A3i	Ⓢ	60W	200
Denon PMA-250SE	Ⓢ	30W	160
Denon PMA-350SE	Ⓢ	50W	200
Denon PMA-425R	Ⓢ	45W	230
Denon PMA-100M	Ⓢ	80W	240
Goodmans Delta 900A	Ⓢ	100W	130
H/K HK610	Ⓢ	30W	180
H/K HK620	Ⓢ	40W	250
JVC AX-V4BK	Ⓢ	30W	200
JVC AX-A372BK	Ⓢ	40W	200
JVC AX-R5BK	Ⓢ	45W	200
Kenwood KA-1080	Ⓢ	60W	140
Kenwood KA-3080R	Ⓢ	70W	170
Kenwood KA-3020SE	Ⓢ	50W	200
Marantz PM-47	Ⓢ	40W	150
Marantz PM-57	Ⓢ	50W	200
Marantz SR-47	Ⓢ	40W	200
Marantz PM-66SE	Ⓢ	50W	230
Musical Fidelity E1	Ⓢ	30W	199
NAD 310	Ⓢ	20W	100
NAD 312	Ⓢ	25W	200
Pioneer A-105	Ⓢ	30W	130
Pioneer A-204R	Ⓢ	25W	160
Pioneer A-300R	Ⓢ	50W	200
Pioneer A-305R	Ⓢ	50W	200
Pioneer A-405R	Ⓢ	45W	250
Rega Brio	Ⓢ	30W	229
Rotel RA921	Ⓢ	20W	100
Rotel RA-931	Ⓢ	35W	150
Rotel RA971	Ⓢ	70W	200
Sansui AUX-410R	Ⓢ	50W	150
Sansui AUX-510R	Ⓢ	70W	230
Sherwood AX 4050R	Ⓢ	50W	150
Sherwood AX-7030R	Ⓢ	95W	250
Sony TA-FE210	Ⓢ	45W	130
Sony TA-FE310R	Ⓢ	45W	150
Sony TA-F248E	Ⓢ	40W	200
Sony TA-F448EB	Ⓢ	55W	250
TEAC A-R300	Ⓢ	45W	200
TEAC A-R500	Ⓢ	90W	250
Technics SU-V300	Ⓢ	25W	150
Technics SU-V500	Ⓢ	30W	180
Technics SU-A600 Mk3	Ⓢ	37W	200
Technics SU-V620	Ⓢ	70W	230
Technics SU-A700 Mk3	Ⓢ	45W	250
Yamaha AX-392	Ⓢ	60W	170
Yamaha AX-9	Ⓢ	50W	200
Yamaha AX-492	Ⓢ	85W	220

### £251 TO £500

Alchemist Maxim	Ⓢ	30W	350
AMC CVT 3030A	Ⓢ	30W	400
Arcam Alpha 7	Ⓢ	40W	260
Arcam Alpha 8	Ⓢ	50W	360
Arcam Alpha 9	Ⓢ	70W	500
Audio Analogue Puccini	Ⓢ	40W	450
Audioogram MB1	Ⓢ	40W	493
Aura VA-100 II	Ⓢ	70W	350
CR Dev CR324	Ⓢ	100W	499
Creek 4330	Ⓢ	35W	279
Creek 4340	Ⓢ	35W	279
Creek 4330R	Ⓢ	35W	355
Creek 5250	Ⓢ	50W	450
Cymbal CA1	Ⓢ	40W	499
Denon PMA-725R	Ⓢ	65W	350
EMF Audio Sequel	Ⓢ	50W	450
H/K HK640	Ⓢ	55W	400
Kenwood KA-5090R	Ⓢ	65W	300
Kenwood KA-7090R	Ⓢ	85W	400
Magnum IA120	Ⓢ	65W	265
Magnum IA170	Ⓢ	96W	330
Magnum IA170SE	Ⓢ	90W	430

Marantz PM-68	Ⓢ	90W	300
Marantz PM-66 KI Sig.	Ⓢ	50W	400
Micromega Minium	Ⓢ	40W	350
Mission Cyrus SL	Ⓢ	50W	398
Monrio Asty	Ⓢ	55W	400
Musical Fidelity E11	Ⓢ	60W	300
Musical Fidelity X-A1	Ⓢ	50W	480
Musical Fidelity A2	Ⓢ	25W	500
Myryad T-40	Ⓢ	50W	400
NAD 314	Ⓢ	35W	260
NAD 317	Ⓢ	80W	470
Onkyo A9210	Ⓢ	40W	260
Onkyo A921	Ⓢ	50W	350
Onkyo A922	Ⓢ	70W	400
Orelle SA-100	Ⓢ	50W	499
Pioneer A-400X	Ⓢ	50W	300
Pioneer A-605R	Ⓢ	80W	400
Pioneer A-300R Precision	Ⓢ	35W	400
Rega Luna	Ⓢ	40W	375
Rega Mira	Ⓢ	60W	450
Shearpe 2.5	Ⓢ	35W	489
Sony TA-FA3ES	Ⓢ	70W	400
Sony TA-F3000ES	Ⓢ	35W	500
Talk Electronics Storm 1	Ⓢ	50W	500
TEAC A-H500	Ⓢ	50W	280
Technics SU-A800D Mk2	Ⓢ	55W	300
Technics SU-A900D Mk2	Ⓢ	70W	400
Yamaha AX-592	Ⓢ	100W	280

### £501 TO £700

Alchemist Kraken APD6A	Ⓢ	55W	600
Alchemist Nemesis	Ⓢ	80W	700
Audio Analogue Puccini SE	Ⓢ	50W	995
Audio Note Kanji Line SE	Ⓢ	9W	699
Audio Note First integrated	Ⓢ	40W	699
Audioogram MB2	Ⓢ	60W	599
CR Dev Kalypso	Ⓢ	15W	599
CR Dev CR325	Ⓢ	175W	699
Creek 5250R	Ⓢ	50W	575
Creek 5250SER	Ⓢ	60W	665
Densen Beat B-100 MkII	Ⓢ	60W	650
DPA Renaissance int	Ⓢ	40W	595
Exposure XX Super	Ⓢ	55W	700
Fase Evoluzione Performance 2.0	Ⓢ	40W	570
Gamma Gemini	Ⓢ	12W	699
H/K HK660	Ⓢ	65W	700
Hi Q Sound MCI	Ⓢ	30W	565
JoLida 202	Ⓢ	40W	695
LFD Integrated 0	Ⓢ	50W	549
Linn Majik (Line)	Ⓢ	33W	650
Lynwood Opal	Ⓢ	80W	685
Magnum IA200	Ⓢ	70W	599
Magnum Class A	Ⓢ	85W	690
Mission Cyrus IIIi	Ⓢ	50W	598
Musical Fidelity A220	Ⓢ	50W	700
Myryad MI 120	Ⓢ	60W	600
Naim Nait 3	Ⓢ	30W	575
Orelle SA-100RX	Ⓢ	75W	649
Prime Design A-100	Ⓢ	100W	650
Quad 77 Integrated	Ⓢ	85W	700
Roksan Caspian	Ⓢ	70W	695
Rose Scion	Ⓢ	65W	615
Shearpe Phase 2	Ⓢ	50W	649
Stemfloort SF60	Ⓢ	60W	549
Talk Electronics Storm 2	Ⓢ	50W	650
TEAC A-BX7R	Ⓢ	50W	700

### £701 TO £1000

Alchemist Forseti Integrated	Ⓢ	100W	1,000
Audio Note Oto Line PP	Ⓢ	12W	950
AVI S2000MI	Ⓢ	100W	999
Copland CSA8	Ⓢ	60W	945
Credo IMP702	Ⓢ	70W	850
Credo IMP703	Ⓢ	70W	1,000
Electrocompaniet ECI-2	Ⓢ	50W	995
Exposure XV Super	Ⓢ	55W	800
Fase Evoluzione Performance 1.1	Ⓢ	40W	790
Fase Evoluzione Performance 1.0	Ⓢ	60W	790
Golden Tube Audio SI-50	Ⓢ	50W	1,000
H/K HK680	Ⓢ	85W	1,000
LFD 0 LE Integrated	Ⓢ	60W	799
Linn Majik (Phono)	Ⓢ	33W	800
Magnum Class A SE	Ⓢ	80W	795
Marantz PM-17	Ⓢ	60W	900
Meridian 551	Ⓢ	55W	795
Micromega Tempo 1	Ⓢ	50W	750
Micromega Tempo 2	Ⓢ	75W	950
Naim Nait 3 R	Ⓢ	30W	760
Opera Aida	Ⓢ	60W	795
Pioneer A-07	Ⓢ	50W	999
Primare A20	Ⓢ	40W	799
Rega Elicit	Ⓢ	70W	730
Shearpe Phase 2 Reference	Ⓢ	50W	799
Sonneteer Alabaster	Ⓢ	50W	900
Stemfloort SF100	Ⓢ	100W	849
TAG McLaren 60i	Ⓢ	72W	799
TAG McLaren 60iRV	Ⓢ	72W	999
TEAC AB-X10	Ⓢ	100W	1,000

### £1001 TO £2000

Art Audio Integra		30W	1,499
ATC SIA2-150	Ⓢ	150W	1,984
Audio Note Soro Line PP	Ⓢ	20W	1,200
Audio Note Oto Line SE	Ⓢ	12W	1,200

# HI-FI PRICE GUIDE

Audio Note Oto Phono SE	ⓐ	12W	1,500
Audio Note Soro Line SE		18W	1,699
Beam-Echo SA-50	ⓐ	50W	1,950
Bow Technologies Wazoo	ⓐ	50W	1,795
Bryston B-60	ⓐ	60W	1,249
Copland CSA14	ⓐ	70W	1,199
Copland CSA28			1,299
Copland CTA401	ⓐ	25W	1,699
CR Dev Romulus V3	ⓐ	35W	1,198
CR Dev Remus V3	ⓐ	60W	1,989
Credo LIM 702			1,191
Credo LIM 703			1,249
EAR 834	ⓐ	40W	1,999
Graaf Ventricque	ⓐ	20W	1,695
LFD Integrated 1	ⓐ	65W	1,099
Meracur Intrare	ⓐ	60W	1,095
Primare A301	ⓐ	80W	1,699
Rogers E-20a	ⓐ	20W	1,229
Rogers E-40a	ⓐ	40W	1,900
Sonic Frontiers Anthem Integrated	ⓐ	25W	1,299
T+A PA1200	ⓐ	90W	1,350
T+A R1200R	ⓐ	90W	1,495
T+A PA1500	ⓐ	135W	1,650
T+A R1500R	ⓐ	135W	1,895
Unison Simply Two	ⓐ	12W	1,100
Unison Simply Four P	ⓐ	24W	1,600
Unison Pentode 35	ⓐ	35W	1,650
Unison Simply Four T	ⓐ	11W	1,650
Woodside ISA230 Line	ⓐ	30W	1,099
Woodside ISA230 Disc	ⓐ	30W	1,249
YBA Integre DT	ⓐ		1,650

## OVER £2000

Adyton Opera	ⓐ	50W	2,595
Audio Note Meishu Line		9W	2,750
Audio Note Ongaku	ⓐ	25W	56,000
Audio Research CA50	ⓐ		3,990
Cary CAD-300SE1	ⓐ	11W	3,995
Conrad-Johnson CAV-50	ⓐ	50W	2,495
EAR V20	ⓐ	24W	2,495
EAR 859	ⓐ	13W	2,499
Electrocompaniet ECI-1	ⓐ	100W	2,195
Gamma Rhythm Ref	ⓐ	20W	3,499
Gamma Moment	ⓐ	40W	19,999
Jadis DA30	ⓐ	30W	3,490
Jadis DA60	ⓐ	60W	5,750
Krell KAV500i	ⓐ	150W	2,550
Lavardin IT	ⓐ	70W	3,000
McIntosh MA6400E	ⓐ	100W	3,999
McIntosh MA6800E	ⓐ	150W	5,999
Meracur Onesta	ⓐ	75W	2,595
Musical Fidelity A1001	ⓐ	200W	2,500
Pioneer A-09	ⓐ	45W	4,000
Rowland Concentra	ⓐ	100W	5,500
Tube Tech Unisig Sig. Int.	ⓐ	30W	2,300
Tube Tech Synergy PPS	ⓐ	150W	6,900
Unison Simply 845	ⓐ	24W	3,195
Unison Performance One	ⓐ	25W	4,500
Unison 845 Absolute	ⓐ	40W	11,995

## PREAMPS

### KEY

ⓐ (etc) - Number of line-level inputs.  
Ph - Phono input fitted as standard  
(may be an option on some other models).

### UP TO £500

Art Audio Minuet			499
Audio Analogue Bellini	ⓐ	Ph	475
Audio Note The M			350
Beam-Echo PP-21	ⓐ	Ph	499
Bryston BP1	ⓐ	Ph	438
Carver CT-24	ⓐ	Ph	499
CR Dev Themis	ⓐ	Ph	349
Creek P43	ⓐ		399
Creek P52	ⓐ		499
Crimson CS610C	ⓐ	Ph	450
EAR 834P		Ph	349
EAR 834L	ⓐ		449
Electrocompaniet PCP-1		Ph	495
Fase Evoluzione Phonodrive 1.0	ⓐ	Ph	445
Henley HMC50			200
Henley HMC100			450
Hi Q Sound LCP2			149
LFD Mistral Linstage	ⓐ		449
LFD LSO Linstage	ⓐ		499
Lumley PP70	ⓐ		345
Lumley PP1	ⓐ		345
Magnum MP120	ⓐ		330
Magnum MP660	ⓐ		500
Magnum MP330	ⓐ		500
Monrio ADN-N		Ph	295
Monrio Asty L	ⓐ		500
MoTh 30 Passive	ⓐ		149
MoTh 30 RIAA		Ph	249
MoTh 30 Active	ⓐ		349
Musical Fidelity X10-D	ⓐ		120
Musical Fidelity X-1P		Ph	130
Musical Fidelity X-PR	ⓐ		200
Musical Fidelity E20	ⓐ		400
NAD 114	ⓐ	Ph	270
NAD 116	ⓐ	Ph	430
Naim Prefix	ⓐ		350

Naim NAC92	ⓐ		470
Parasound P/HP-100	ⓐ	Ph	130
Parasound P/HP-850	ⓐ	Ph	400
Rega EOS	ⓐ	Ph	398
Rega Cursa	ⓐ	Ph	450
Roksan Artaxerxes 10	ⓐ	Ph	395
Rose RV-25	ⓐ	Ph	450
Rotel RQ970BX	ⓐ	Ph	130
Rotel RC971	ⓐ	Ph	150
Rotel RC972	ⓐ	Ph	225
Talk Electronics Hurricane 1	ⓐ	Ph	500
Technics SU-C1000 Mk2	ⓐ	Ph	300
Trilogy 905	ⓐ	Ph	375
Trilogy 904	ⓐ	Ph	375
Trilogy 900	ⓐ	Ph	499
Unison Simply Phono	ⓐ	Ph	500

## £501 TO £2000


Adyton Chorus	ⓐ		1,995
Alchemist Kraken Pre	ⓐ		550
Alchemist Forseti Pre	ⓐ		950
Art Audio Headline	ⓐ		700
Art Audio VPL	ⓐ		741
Art Audio Conductor Phono	ⓐ		750
Art Audio VP1	ⓐ		952
Art Audio Conductor	ⓐ		1,250
Art Audio Conductor Export	ⓐ		2,000
Audio Note M1 Line		Ph	550
Audio Note M1 RIAA		Ph	550
Audio Note M2 Line		Ph	999
Audio Note M2 Discovery		Ph	999
Audio Note M2RIAA		Ph	1,099
Audio Research LS7	ⓐ		1,750
Audio Research LS3	ⓐ		1,997
Audio Synthesis Pro Passion	ⓐ		595
Audio Synthesis Passion	ⓐ		695
Audio Synthesis Passion 85	ⓐ		1,295
Audio Synthesis Passion 8M	ⓐ		1,695
Aura CA-200		Ph	700
AVI S2000MP	ⓐ		949
AVI S2000MP+P	ⓐ	Ph	1,199
Beam-Echo SP-21	ⓐ	Ph	1,116
Bryston 4	ⓐ	Ph	642
Bryston BP5	ⓐ	Ph	889
Bryston BP20	ⓐ	Ph	1,126
Bryston BP-25	ⓐ	Ph	1,326
Cary SLP-50	ⓐ		995
Cary SLP-74	ⓐ		1,795
Cary PH-301	ⓐ	Ph	1,795
Chord CPA 1800	ⓐ		1,774
Concordant Exhilarant	ⓐ		900
Concordant Exquisite	ⓐ		1,950
Conrad-Johnson PV-10AL	ⓐ		995
Conrad-Johnson PV-10A	ⓐ	Ph	1,295
Conrad-Johnson PV-12AL	ⓐ		1,990
Conrad-Johnson EF-1	ⓐ	Ph	1,990
Conrad-Johnson PF-2	ⓐ	Ph	1,990
Copland CSA303	ⓐ	Ph	1,199
Copland CTA301 MkII	ⓐ	Ph	1,399
CR Dev Carmenta	ⓐ	Ph	659
CR Dev Argento	ⓐ	Ph	699
Credo CMP004			1,246
Credo CMP005			1,876
Densen DM-20	ⓐ		1,200
DNM 3 Start	ⓐ	Ph	1,000
DNM 3A Start	ⓐ	Ph	1,650
DPA Enlightenment pre			795
DPA DSP500S			2,000
Dynavector L200	ⓐ		1,195
Dynavector P100	ⓐ	Ph	1,495
Dynavector L100	ⓐ	Ph	1,995
Earmax Pre	ⓐ		1,895
ECA Vista S	ⓐ		760
ECA Vista HD	ⓐ		880
ECA Prisma	ⓐ	Ph	880
Electrocompaniet EC-4.5	ⓐ		1,195
Electrocompaniet EC-4R	ⓐ		1,495
Electrocompaniet EC-4.6	ⓐ		1,750
Exposure XIX	ⓐ		800
Exposure XVII	ⓐ	Ph	850
Fase Evoluzione Controlsourse 2.0	ⓐ	Ph	625
Fase Evoluzione Controlsourse 1.0	ⓐ	Ph	1,395
Golden Tube Audio SEP-1	ⓐ		990
Graaf WFB Two	ⓐ	Ph	1,195
Graaf WFB One	ⓐ	Ph	1,725
Henley HMC200	ⓐ		750
Heybrook Signature II Pre	ⓐ		555
Hi Q Sound MCB2	ⓐ		545
Hi Q Sound MCL2	ⓐ		645
Jadis DPL2	ⓐ		1,790
LFD MC1 Phonostage	ⓐ	Ph	949
LFD LS1 Linstage	ⓐ	Ph	999
LFD MC2 Phonostage	ⓐ	Ph	1,499
LFD LS2 Linstage	ⓐ	Ph	1,599
LFD LSB Linstage	ⓐ	Ph	1,999
Linn Wakonda	ⓐ		750
Linn Linto	ⓐ		850
Linn Kairn	ⓐ	Ph	1,400
Lumley LV1.5	ⓐ		895
Lumley LV1	ⓐ		1,150
Lumley PV1.5	ⓐ	Ph	1,700
Lumley PV1	ⓐ	Ph	1,700
Matisse Atom	ⓐ	Ph	1,000
McIntosh C712	ⓐ	Ph	1,999
Meracur Ingredi	ⓐ		925
Mendrian 501	ⓐ		695

Meridian 562			765
Mendrian 562V			995
Meridian 502	ⓐ		1,295
Michell Argo	ⓐ		730
Michi RHC-10	ⓐ		795
Michi RHQ-10	ⓐ	Ph	1,150
Michi RHA-10	ⓐ	Ph	1,150
Micromega Tempo P	ⓐ	Ph	1,250
Mission Cyrus Pre	ⓐ	Ph	648
Monrio Pluri- II	ⓐ		900
Muse Model 3	ⓐ		1,999
Musical Fidelity F25	ⓐ	Ph	1,500
NAD 118	ⓐ		1,000
Naim NAC92R	ⓐ		630
Naim NAC72	ⓐ		725
Naim NAC102	ⓐ		1,050
Quad 77 Pre	ⓐ	Ph	850
Rega Hal	ⓐ	Ph	998
Roksan ROK-L2.5	ⓐ		1,250
Rose RV-235	ⓐ	Ph	525
Rotel RC995	ⓐ	Ph	525
Shearpe Phase 6 Pre	ⓐ		899
Shearpe Phase 1 Pre Ref	ⓐ		1,399
Siemel MC20	ⓐ	Ph	650
Siemel MM20	ⓐ	Ph	650
Siemel TU10	ⓐ	Ph	1,599
Siemel TR20	ⓐ	Ph	1,599
Sonic Frontiers Anthem Pre P1	ⓐ	Ph	899
Sonic Frontiers Phono 1	ⓐ	Ph	1,999
Sonographe SC26	ⓐ		995
Sumo Athena II Line	ⓐ		767
Sumo Athena IIB/II LS	ⓐ		987
Sumo Athena III	ⓐ		987
Sumo Artemis uP	ⓐ		1,595
T+A P1200R	ⓐ		890
TAG McLaren PA10	ⓐ	Ph	849
TAG McLaren PA20R	ⓐ	Ph	1,499
TAG McLaren PPA20	ⓐ	Ph	1,499
Talk Electronics Hurricane 2	ⓐ		650
Talk Electronics Hurricane 3	ⓐ		900
Talk Electronics Hurricane 4	ⓐ		1,550
Talk Electronics Hurricane 5	ⓐ		1,900
Technics SU-C2000	ⓐ	Ph	700
Tesseract TAADA	ⓐ		1,500
Tesseract TALA	ⓐ		1,500
Tesseract TAHA	ⓐ		1,800
Thorens TTP-2000F	ⓐ	Ph	699
Trilogy 901	ⓐ		750
Trilogy 906	ⓐ		995
Trilogy 902	ⓐ	Ph	1,595
Tron Retro	ⓐ		1,000
Tron Nucleus Phono	ⓐ	Ph	2,000
Tron Nucleus	ⓐ		2,000
Tube Tech Seer Line	ⓐ		935
Tube Tech Mac Phono	ⓐ	Ph	1,150
Tube Tech Prophet	ⓐ		1,970
Unison Feather One	ⓐ		795
Unison Mystery Two	ⓐ		1,750
Unison Mystery One	ⓐ		1,750
Unison VPP One	ⓐ	Ph	1,995
Van Den Hul Pre-amp	ⓐ		1,700
Wilson Benesch Stage One	ⓐ	Ph	995
Woodside SC27 Line	ⓐ		949
Woodside SC26 Line	ⓐ		1,557
XTC PRE-1	ⓐ		1,250
Yamaha CX-2	ⓐ	Ph	650
YBA 3	ⓐ		1,199
YBA Integre	ⓐ		1,199
YBA 2	ⓐ		1,999

## OVER £2000

Adyton Temper			2,495
Adyton Modus	ⓐ		2,695
Alchemist The Alchemist pre	ⓐ		4,995
ATC SCA2	ⓐ		2,499
Audio Note M3Line	ⓐ		2,650
Audio Research LS15	ⓐ		3,399
Audio Research LS22	ⓐ		2,650
Audio Research LSS MkIII	ⓐ		6,435
Audio Research REF 1	ⓐ		9,900
Boulder L3AE	ⓐ		2,100
Boulder LSAE	ⓐ		3,400
Boulder LSM	ⓐ		3,800
Boulder 2010	ⓐ		19,995
Cary SLP-98L	ⓐ		2,595
Chord CPA 2200	ⓐ		2,355
Chord CPA 2800	ⓐ	Ph	3,245
Chord CPA 3200	ⓐ	Ph	3,320
Chord CPA 4000	ⓐ	Ph	6,210
Conrad-Johnson PF-R	ⓐ		2,490
Conrad-Johnson PV-12A	ⓐ	Ph	2,590
Conrad-Johnson Premier 15	ⓐ	Ph	3,995
Conrad-Johnson Premier 14	ⓐ	Ph	4,495
Conrad-Johnson Art	ⓐ		14,995
CAT SL1 Sig. Mk3	ⓐ	Ph	6,500
CR Dev Kastor	ⓐ		2,995
Credo LPR 001	ⓐ		2,815
DNM 3C Primus	ⓐ	Ph	2,550
DNM 3C Twin	ⓐ	Ph	3,800
DNM 3C Six	ⓐ	Ph	5,050
EAR 802MC	ⓐ	Ph	2,599
EAR G88	ⓐ	Ph	9,999
EAR P52	ⓐ	Ph	15,999
Gamma Era Ref	ⓐ	Ph	7,999
Graaf GM13.5B	ⓐ		3,750
Jadis DP60L	ⓐ		2,800

Jadis DPL	ⓐ		3,190
Jadis DPMC	ⓐ	Ph	3,190
Jadis JPL	ⓐ		4,720
Jadis JPP200	ⓐ		4,998
Jadis JPP30MC	ⓐ	Ph	5,978
Jadis JPS2	ⓐ		7,900
Jadis JP80MC	ⓐ	Ph	



HI-FI HELP

**Let our experts help with your hi-fi problems. Send your query to 'Help' at the usual address.**

## POWER AMPS (CONTINUED)

Chord SPM 400	100W	1,325
Chord SPM 600	130W	1,720
Conrad-Johnson MV-55	50W	1,995
Copland CTA501	30W	1,750
CR Dev Amphion	12W	1,949
Credo PMP 804		1,876
Creek AS2SE	80W	599
Crimson CS630C	100W	800
<b>Densen DM-30</b>	<b>100W</b>	<b>1,200</b>
DNM PA Start	45W	1,000
DNM PA1 Start	45W	1,650
DPA Enlightenment pwr	100W	995
Earmax Power	25W	1,895
<b>ECA Lectern S</b>	<b>50W</b>	<b>880</b>
ECA Lectern HD	50W	1,480
Electrocompaniet AW60B	60W	1,095
<b>Exposure XVIII Super</b>	<b>70W</b>	<b>850</b>
Fase Evoluzione Powersource 2.0	65W	860
Fase Evoluzione Powersource 1.0	100W	1,670
Golden Tube Audio SE-40	40W	1,100
Golden Tube Audio SE-300B MkII	8W	1,490
Golden Tube Audio SE-100	100W	1,995
Graaf Venticinque P	25W	1,395
Heybrook Signature II Pwr	120W	1,045
Hi Q Sound MCM	70W	715
Jadis DA5	40W	1,997
Lexicon 212	120W	1,850
LFD PA1 Powerstage	60W	999
LFD PA2 Powerstage	75W	1,599
LFD PA2M Powerstage	90W	1,999
Linn LK100	50W	650
Linn LK240	120W	750
Linn AV5105	100W	1,200
Lynwood Ruby	120W	985
Magnum MF330	150W	685
Magnum MF660	125W	825
Magnum A500SE	200W	1,485
Magnum A50SE	200W	1,595
McIntosh MC7100	100W	1,999
Meracrus Cier	60W	1,095
<b>Meridian 555</b>	<b>60W</b>	<b>750</b>
Meridian 556	100W	895
<b>Meridian 557</b>	<b>200W</b>	<b>1,400</b>
Meridian 505	160W	1,590
<b>Mitchell Alecto Stereo</b>	<b>50W</b>	<b>1,150</b>
Mitchell Alecto Mono	100W	1,989
Michi RHB-05	100W	1,100
Michi RHB-10	200W	2,000
Micromega Amp	100W	1,250
Monrio Asty P	100W	950
Monrio Cento	135W	1,495
Monrio HP-1	135W	1,750
<b>Moth 60 Stereo</b>	<b>60W</b>	<b>599</b>
Moth 30 Mono/100	100W	879
Muse Model 100	100W	1,490
Musical Fidelity X-A200	200W	1,000
NAD 218THX	200W	850
Naim NAP140	45W	750
Naim NAP180	60W	1,060
Naim NAP135	75W	1,655
Naim NAP250	70W	1,655
Papworth TVAS0	50W	1,425
Parasound HCA-1000A	125W	600
Parasound HCA-1500A	205W	1,000
Prime Design P-150	150W	650
<b>Quad 77 Power</b>	<b>85W</b>	<b>600</b>
Quad 707	140W	800
Rega EXS	70W	598
<b>Rega Exon</b>	<b>125W</b>	<b>1,196</b>
Roksan Caspian	70W	595
Roksan ROK-S1.5	100W	1,495
Rose RP-190 (Dual Mode)	75W	550
Shearue Phase 3	50W	619
Shearue Phase 3 Reference	50W	729
Shearue Phase 5 Mono	100W	1,500
Sonic Frontiers Anthem Amp 1	40W	1,299
Sonographe SA250	125W	1,195
Sonographe SA400	220W	1,695
<b>Sumo Polaris III</b>	<b>164W</b>	<b>950</b>
Sumo Model Five	60W	1,975
Sumo Andromeda III	240W	1,975
T+A A1200	110W	845
T+A A1500	140W	1,495
TAG McLaren 60P	60W	849
TAG McLaren 100P	100W	1,099
<b>TAG McLaren 125M</b>	<b>145W</b>	<b>1,199</b>
Talk Electronics Tornado 2	65W	600
Talk Electronics Tornado 3	100W	750
Talk Electronics Tornado 4	110W	1,100


Technics SE-A2000	100W	1,100
<b>Thorens TTA-2000</b>	<b>30W</b>	<b>599</b>
Trilogy 948	50W	1,895
Trilogy 948T	22W	1,895
Tube Tech Stryx	45W	1,150
Tube Tech Unisig Sig. Pwr	30W	1,900
Unison Power 35	35W	1,500
Woodside SA240	40W	1,199
Woodside MA100	100W	1,733
Woodside STA50	50W	1,880
XTC POW-2	150W	1,450
Yamaha MX-2	150W	750
YBA 3 stereo		1,299

### OVER £2000

Adyton Cordis 1.6	120W	3,495
Adyton Cordis 3B	280W	12,995
Alchemist The Alchemist pwr	220W	3,995
Alchemist The Alchemist mono	55W	8,995
Art Audio Tempo	30W	2,499
Art Audio Quintet SE	-W	2,500
Art Audio Maestro	100W	3,524
ATC SPA2-200PRO	200W	2,056
ATC SPA2-150	200W	2,500
Audio Note P3	9W	2,150
Audio Note Quest	9W	2,750
Audio Note Yubi	18W	3,850
Audio Note Conquest	18W	4,450
Audio Note Tomei	30W	8,500
Audio Note Neiro	7W	11,360
Audio Note Ankoru	60W	14,500
Audio Research D130	130W	2,299
<b>Audio Research VT60</b>	<b>35W</b>	<b>2,395</b>
Audio Research D300	300W	4,678
Audio Research VT100	100W	4,995
Audio Research D400 MkII	400W	6,850
Audio Research VT130 SE	130W	8,500
Audio Research VT150 SE	150W	17,000
Audio Synthesis Desire Decade	200W	2,495
Beam-Echo DL7-35	30W	3,525
Border Patrol 300B SE	10W	3,495
Boulder 102AE	100W	2,800
Boulder 102M	100W	3,100
Boulder 500AE	150W	4,995
Boulder 500M	150W	5,500
Boulder 2060	600W	19,000
Boulder 2050	999W	35,000
Bryston THX8B	150W	2,385
Cary CAD-572SE	20W	2,495
Cary CAD-300SE	12W	3,995
Cary 300SE Sig	12W	4,795
Cary CAD-805	50W	8,995
Chord SPM 800	160W	2,265
Chord SPM 1000B	200W	2,785
Chord SPM 1200B	250W	3,525
Chord SPM 1200C	315W	3,915
Chord SPM 1600	200W	4,718
Chord SPM 1400B mono	380W	7,830
Chord SPM 5000	415W	13,544
Conrad-Johnson MF-2300A	250W	2,990
Conrad-Johnson Premier 11A	70W	3,500
Conrad-Johnson Premier 12	140W	6,900
Conrad-Johnson Premier 8XS	150W	17,000
Conrad-Johnson Premier 8A	275W	17,000
CAT JLI	100W	18,000
<b>Copland CTA505</b>	<b>67W</b>	<b>2,099</b>
CR Dev Artemis	35W	4,995
Credo LPO 804		2,456
Credo PMP 155		2,676
Credo LPO 455		4,975
Credo LPO 155		6,983
DNM PAS	50W	2,500
DNM PA35	23W	3,750
DPA DAP500S	250W	3,000
Dynavector HX75	75W	2,195
Dynavector HX1.2	130W	3,995
EAR 861	32W	3,299
<b>EAR 509 Mk II</b>	<b>100W</b>	<b>3,699</b>
EAR 519	100W	4,699
EAR 549	200W	6,499
Electrocompaniet AW100DMB	100W	2,095
Electrocompaniet AW120DMB	120W	2,695
Electrocompaniet AW250DMB	250W	3,995
Electrocompaniet AW180MB	180W	4,595
Exposure IV	80W	2,199
Exposure XVI	125W	4,000
Gamma Aeon	20W	4,999
Gamma Space Ref	18W	7,999
Gamma Aeon Ref	70W	49,999
Graaf 5050	50W	2,100
Graaf GM20	50W	2,750
Graaf GM100	100W	4,250
Graaf GM200	200W	7,500
Jadis DA8	80W	3,333
Jadis DA7	100W	5,290
<b>Jadis JA30</b>	<b>30W</b>	<b>5,980</b>
Jadis JA300B	10W	9,000
Jadis JA80	60W	9,912
Jadis JA200	160W	15,518
Jadis JA500	400W	21,500
Krell KAV500/2	100W	3,485
Krell FPB200	200W	6,490
Krell FPB300	300W	9,500
Krell FPB600	600W	12,900
Krell KAS2	200W	20,000
Lexicon 225	250W	2,500

Lexicon 501	500W	5,000
Linn Klout	80W	2,400
Lumley M125	120W	3,750
Lumley M250	250W	7,500
Magnum Class A mono	180W	2,450
Magnum A200SE	275W	3,750
Mark Levinson 331	100W	4,495
Mark Levinson 332	200W	6,495
Mark Levinson 333	300W	8,495
Mark Levinson 33H	150W	19,395
Matisse Ref Monoblocks	180W	8,000
McIntosh MC150	150W	3,499
McIntosh MC300	300W	3,999
McIntosh MC500	500W	8,999
McIntosh MC1000	999W	14,999
Meracrus Tentare	75W	2,245
Meracrus Cantare	-W	8,995
Muse Model 160 Ser. II	160W	2,290
Muse Model 150	125W	2,690
Muse Model 175 Ser. II	175W	3,490
Muse Model 300 Ser. II	300W	3,990
Musical Fidelity F16	200W	2,500
Musical Fidelity F19	300W	4,000
Papworth M100	100W	2,645
Papworth M200	200W	3,825
Roksan ROK-M1.5	160W	2,250
Rowland Model 2		4,999
Rowland Model 6	150W	10,999
Rowland Model 8T	250W	12,499
Rowland Model 9T	350W	27,999
Shearue Phase 1 Pwr Ref	100W	2,199
Siemef TAZO		2,350
Sonic Frontiers Power 1	55W	2,499
Sonic Frontiers Power 2	110W	4,999
Sonic Frontiers Power 3	220W	8,599
Sumo Model Ten/M	240W	4,200
Sunfire Sunfire	300W	2,170
T+A A3000	190W	3,000
Talk Electronics Tornado 5	200W	2,100
Tesserae TAMP-60	60W	7,350
Trilogy 958T	45W	3,395
Trilogy 958	100W	3,395
Tube Tech Genesis Sig.	100W	4,700
Tube Tech Synergy DMA	150W	6,400
Unison Smart 845	24W	3,500
Unison Smart 300B	24W	4,250
Unison Palladio	32W	11,995
Van Den Hul Power amp	65W	2,500
XTC POW-1		2,250
YBA 2 stereo		2,200
YBA 1 HC stereo		4,999

Cambridge Arctic	20.00
<b>Cambridge Pacific</b>	<b>30.00</b>
<b>Cambridge Studio Reference</b>	<b>40.00</b>
Cambridge Silver Spirit 40	70.00
Cambridge Silver Spirit 60	100.00
Cardas Audio 300B-Microtwin	115.00
Cardas Audio Quadlink-Five	200.00
Cardas Audio Cardas Cross	360.00
Cardas Audio Hexlink-Five C	530.00
Cardas Aud. Hexlink Golden-5 C	600.00
Cardas Audio Golden Cross	700.00
ChordCo Chrysalis	33.00
<b>ChordCo Cobra 2</b>	<b>50.00</b>
ChordCo Siren	65.00
<b>ChordCo Chameleon</b>	<b>85.00</b>
<b>ChordCo Solid</b>	<b>99.00</b>
ChordCo Chorus	185.00
Connections UK Ultra	28.00
<b>Connections UK Midas</b>	<b>39.00</b>
Connections UK HD	46.00
DBF Acoustics Black Velvet	30.00
DBF Acoustics Black Velvet SE	40.00
DBF Acoustics Azure SE	75.00
<b>DNM-Reson TCC75</b>	<b>34.00</b>
<b>DPA Slink</b>	<b>41.00</b>
<b>DPA White Slink</b>	<b>75.00</b>
<b>DPA Black Slink</b>	<b>245.00</b>
Expressive Tech IC-1	700.00
Gamma Wow balance	799.00
<b>Goertz M1 Interconnect</b>	<b>145.00</b>
GT Audio Intercon	130.00
Henley HSP10	20.00
Henley HSP50	35.00
Henley HSP100	65.00
Henley HSP200	95.00
Heybrook Black Flash	49.95
Insert Audio Focus 1.2	21.50
<b>Insert Audio IC100 Mk II</b>	<b>46.95</b>
Insert Audio Status 3.4	160.00
<b>Ixos 104</b>	<b>20.00</b>
<b>Ixos 1003</b>	<b>30.00</b>
<b>Ixos Gamma 1002</b>	<b>39.95</b>
<b>Ixos 103</b>	<b>45.00</b>
<b>Ixos 102</b>	<b>60.00</b>
<b>Ixos 101</b>	<b>100.00</b>
<b>Ixos 100XO3</b>	<b>150.00</b>
Kimber PBJ	68.00
Kimber KC1	96.00
<b>Kimber Hero</b>	<b>110.00</b>
Kimber Silver Streak	180.00
Kimber KCAG	390.00
Kimber KCTG	720.00
Kronos Konnekt 3	49.00
Kronos Konnekt 2	99.00
Kronos Konnekt 1	199.00
LAT International IC-50	37.00
LAT International IC-80	60.00
LAT International IC-100-D	89.00
LAT International IC-200 Mk II	151.00
Lieder Chanson	340.00
Lieder Lek	420.00
Lieder Het Lied	420.00
Lieder Song	580.00
Lieder Maas	620.00
Lieder Rijn	1,000.00
Lieder Waal	1,400.00
Lumley Silver 12/2	115.00
Lumley Silver 14/4	175.00
<b>Moth Leyline Black</b>	<b>100.00</b>
<b>Moth Leyline Grey</b>	<b>200.00</b>
Nordost Magic	35.00
<b>Nordost Black Knight</b>	<b>60.00</b>
Nordost Blue Angel	98.00
<b>Nordost Blue Heaven /IC</b>	<b>144.95</b>
Nordost Red Dawn	285.00
Nordost SPM	825.00
Ortofon 7N interconnect	250.00
Precious Metals Silver Signal 35	40.00
Precious Metals Silver Signal 50	50.00
Precious Metals Silver Signal 52	70.00
Precious Metals Silver Signal 53	90.00
Precious Metals Silver Signal 100	100.00
Precious Metals Silver Signal 102	130.00
Precious Metals Silver Signal 103	160.00
Precious Metals Silver Signal 104	190.00
Precious Metals Silver Signal 200	220.00
Precious Metals Silver Signal 202	290.00
Precious Metals Silver Signal 203	360.00
Precious Metals Silver Signal 204	430.00
<b>Prowire Silver</b>	<b>60.00</b>
<b>PAD Elementa</b>	<b>145.00</b>
<b>QED Qnet 2</b>	<b>30.00</b>
<b>QED Qnet 4</b>	<b>60.00</b>
Roksan ROK-Intercon	75.00
Shinpy Red Devil	80.00
Shinpy Red Star 2	120.00
Shinpy Black Star 2	240.00
Shinpy Pulsar 2	495.00
Shinpy Quasar 2	850.00
Siltech MC2-12	308.00
Siltech MC4-24S	400.00
Siltech FTM-5S	730.00
Siltech SS-22	99.00
Silver Sounds SS1	199.00
<b>Silver Tone Ex-Static</b>	<b>35.00</b>
Silver Tone Sci-Fi	95.00
SME S2LB-4	46.18



**CABLES**  
**Analogue Interconnects**

<



SME S3LB-4	52.06
SME 4900A	76.83
SME 5900A	102.57
Sonic Link Red	25.00
Sonic Link Silver pink	35.00
Sonic Link Black	49.00
Sonic Link White	65.00
Sonic Link Brown	70.00
Sonic Link Violet	85.00
Sonic Link Maroon	125.00
Sonic Link Blue Nickel	150.00
Sonic Link Vermillion	195.00
Sonic Link Red earth	300.00
Sonic Link Black earth	450.00
Sonic Link Blue earth	695.00
Sonic Link Black Rhodium	995.00
Straightwire Chorus	40.00
Supra DAC-X	60.00
Supra EFF-ISL	80.00
Supra EFF-XLR	90.00
Transparent Cable Musichord Int	48.00
Transparent Cable The Link	92.00
Transparent Cable Music Link	119.00
Trichord Pulsewire 75	169.00
Vampire Wire CC	24.00
Vampire Wire CCC/II	58.00
Vampire Wire SC/II	98.00
Vampire Wire SC/IV	144.00
Vampire Wire A/2	259.00
Vampire Wire SL	412.00
Van Den Hul Storm	25.00
Van Den Hul Source HB	50.00
Van Den Hul D102 III	69.99
Van Den Hul Thunderlink HB	130.00
Van Den Hul First	210.00
Van Den Hul Second	240.00
Van Den Hul MC Gold	400.00
Van Den Hul MC Silver IT	1,240.00
Van Den Hul MC Silver IT Bal	1,560.00
Wireworld Orbit	30.00
Wireworld Solstice II	40.00
XLO Type 150	50.00
XLO Type 0.1	180.00

QED Digiflex	20.00
QED Optiflex	25.00
Roksan ROK-Intercon	45.00
Shiny Digital	265.00
Siltech HF-6	145.00
Sonic Link Green	60.00
Supra EFF-ID	45.00
Supra DAC-XLR	45.00
Transparent Cable PDL	199.00
Trichord Pulsewire 75D	75.00
Trichord Pulsewire 110D	145.00
Vampire Wire DJ/1	150.00
Van Den Hul Source HB	30.00
Van Den Hul Videolink	60.00
Van Den Hul AES-EBU 110	65.00
Van Den Hul First	125.00
Van Den Hul Second	130.00



## Speaker Cables

- KEY**  
 ⌘ – Stranded construction.  
 ● – Solid-core construction.

Price per mono metre, unterminated.

Acoustic Energy AESC-C3	11.95
Apertura Silver	82.50
Art Yam Church M2000	470.00
Art Yam Church 5000	795.00
Audio Note AN-D	4.50
Audio Note AN-B	16.50
Audio Note AN-L	29.50
Audio Note AN-SP	150.00
Audio Note AN-SPx	450.00
Audioquest Type 2	3.50
Audioquest F-18	3.60
Audioquest Type 6+	9.00
Audioquest Indigo +	15.00
Audioquest Crystal +	25.00
Audioquest Forest	75.00
Audioquest Argent +	125.00
Audioquest Clear 3	200.00
Bandridge LC7409	4.00
Bandridge LC4110	28.00
Bandridge LC3410	40.00
Bandridge LC3210	75.00
Bandridge LC3219	75.00
Bandridge LC3220	90.00
Bandridge LC3310	95.00
Bandridge LC3240	125.00
Cable Talk Theatre 2	1.50
Cable Talk The Flat One	2.00
Cable Talk Talk 3.1	2.25
Cable Talk Overture 2.1	3.25
Cable Talk Talk 4.1	4.25
Cable Talk Talk 3.1 Biwire	4.50
Cable Talk Concert 2.1	7.00
Cable Talk Talk 4.1 Biwire	8.50
Cable Talk Symphony 3	12.50
Cable Talk Concert 2.1 Biwire	14.00
Cardas Audio 300B-Microtwin SC	35.00
Cardas Audio Quadlink-Five SC	59.00
Cardas Audio Cross SC	99.00
Cardas Audio Hexlink-Five SC	109.00
Cardas Audio Hexlink GoldenS SC	175.00
Cardas Audio Golden Cross SC	789.00
ChordCo Myth	6.00
ChordCo Legend	15.00
DNM-Reson LSC	6.95
DNM-Reson LSCB	11.95
DPA Black Sixteen	100.00
Electrocompaniet EC-K2	30.00
Gale XL105	1.00
Gale XL189	1.00
Gale XL315	2.00
Gale XL160-2	2.50
Gale XL315-2	3.99
Gamma Wonder Line	99.00
Goertz M1	16.00
Goertz M2	32.00
Goertz Big Boy	64.00
GT Audio Speaker	50.00
Ixos 607	2.00
Ixos 6004	3.00
Ixos 6003	3.00
Ixos 605	3.00
Kimber 4PR	3.90
Kimber 4VS	9.00
Kimber 4TC	19.60
Kimber 8TC	32.70

Kimber 4AG	394.00
Kimber 8AG	656.00
LAT International SS 800	21.00
LAT International BWIRE	27.00
LAT International SS 1000	42.50
Lieder Pad	340.00
Lieder Bel Canto	450.00
Lieder Spoor	580.00
Lieder Straat	1,000.00
Lieder Weg	1,400.00
Linn K20	4.00
Linn K400	10.00
Linn K600	15.00
Lumley Silver 12/2	35.00
Lumley Silver 14/4	40.00
Mission Duet	1.90
Mission Quartet bi-wire	3.90
Naim NACA 5	5.50
Nordost Octava	3.00
Nordost 4-Flat	12.00
Nordost Blue Heaven Spkr	55.00
Nordost Red Dawn	110.00
Nordost SPM	325.00
Ortofon SPK100	3.00
Ortofon SPK200	5.00
Ortofon SPK300	8.00
Precious Metals Silver L'r 32	7.50
Precious Metals Silver L'r 102	10.00
Precious Metals Silver L'r 34	15.00
Precious Metals Silver L'r 104	20.00
Precious Metals Silver L'r 106	30.00
Precious Metals Silver L'r 108	40.00
Puresonic OFC 7892	1.20
Puresonic OFC 7844	1.65
Puresonic OFC 7845	1.95
Puresonic OFC 7891	2.85
Puresonic OFC 7816	3.75
Puresonic OFC 7832	3.75
Puresonic OFC 7812	3.75
Puresonic OFC 7825	6.95
Puresonic PSOCC 7801	9.50
Puresonic PSOCC 7802	18.00
Puresonic PSOCC 7803	27.00
QED Qudos Micro	1.25
QED Qudos micro 4 core	2.00
QED Qudos 4 core	4.00
QED Qudos Bi-Wire	4.50
QED Qudos Silver	4.95
QED Profile 4x4	9.00
QED Profile Silver 12	15.00
Rega REGA	2.00
Roksan ROK-Speaker	6.00
Shinpy Red Devil	30.00
Shinpy Red Star 2	39.00
Shinpy Black Star 2	62.00
Shinpy Pulsar 2	104.00
Shinpy Quasar 2	208.00
Siltech LS2-45	109.00
Siltech FT-12 Mkl	240.00
Siltech LS4-120	549.00
Silver Sounds 12 Gauge	15.00
Silver Sounds 10 Gauge	35.00
Silver Sounds 8 Gauge	75.00
Silver Tone Silver-Sonic	10.00
Silver Tone Silver-Sonic HC	15.00
Silver Tone Silver-Voice	55.00
Silver Tone Silver-Voice Ultra	85.00
Sonic Link AST50	1.95
Sonic Link AST75	2.75
Sonic Link AST200	5.95
Sonic Link AST200x2	10.00
Sonic Link S300	18.00
Sonic Link S130x2	20.00
Sonic Link S300x2	35.00
Sonic Link S900	50.00
Sonic Link S600x2	70.00
Sonic Link RES.1	90.00
Sonic Link RES.4	330.00
Supra Classic 2.5	2.49
Supra Linc 2.5 Flex	3.49
Supra Classic 4.0	3.95
Supra Ply 2.0	4.95
Supra Linc 4.0 Flex	4.95
Supra Ply 3.4	6.95
Supra Quattro 4x4	8.95
Supra Classic 10	9.95
Tech + Link SPC 79	1.20
Transparent Cable Musichord Spkr	11.00
Transparent Cable The Wave	23.00
Transparent Cable Music Wave Spkr	25.00
Vampire Wire SC-384	11.00
Vampire Wire SC-554	15.00
Vampire Wire ST-I	30.00
Vampire Wire SC-1108	30.00
Vampire Wire ST-II	48.00
Vampire Wire ST-III	73.00
Van Den Hul Skyline HB	3.50
Van Den Hul Snowline	5.00
Van Den Hul Skytrack HB	5.50
Van Den Hul Clearwater	7.00
Van Den Hul Snowtrack	10.00
Van Den Hul CS122 HB	12.00
Van Den Hul Cleartrack	13.00
Van Den Hul D352 HB	20.00
Van Den Hul Teatrack HB	22.00
Van Den Hul SCS12	34.00
Van Den Hul Magnum HB	38.00

Van Den Hul The Wind HB	40.00
Van Den Hul Revolution HB	76.00
Van Den Hul Revelation HB	120.00
Van Den Hul The Third	900.00
XLO Pro 625	4.00
XLO Pro 600	16.60



## CARTRIDGES

- KEY**  
 MM – Moving-magnet type.  
 MC – Moving-coil type.

UP TO £100

Audio Note IO1	MM	99
Audio Technica AT-91	MM	15
Audio Technica AT-95E	MM	20
Audio Technica AT-110E	MM	28
Audio Technica AT450E	MM	70
Audio Technica AT440ML	MM	90
Benz-Micro MC20EII	MM	90
Denon DL110	MC	70
Denon DL160	MC	90
Denon DL103	MC	100
Goldring Elan	MM	19
Goldring Elektra	MM	29
Goldring 1006	MM	59
Goldring 1012GX	MM	79
Goldring 1022GX	MM	99
Grado ZTE+1	MM	27
Grado ZCE+1	MM	37
Grado ZFE+1	MM	48
Grado Prestige Black	MM	49
Grado Prestige Green	MM	59
Grado Prestige Blue	MM	69
Grado ZFI+	MM	83
Grado Prestige Red	MM	99
N'ham Tracer I	MM	98
Ortofon VM52	MM	15
Ortofon OM 5E	MM	20
Ortofon OM 10	MM	30
Ortofon 510	MM	40
Ortofon OM 20	MM	50
Ortofon OM DJ	MM	70
Ortofon OM 20	MM	70
Ortofon MC1 Turbo	MM	75
Ortofon Concorde DJ	MM	80
Ortofon OM 30	MM	90
Ortofon 530	MM	100
Pickering TE-15	MM	20
Pickering VE-15	MM	25
Pickering T-E	MM	25
Pickering V15-DJ	MM	28
Pickering TL-E	MM	35
Pickering TL-2E	MM	45
Pickering XV15-625E	MM	50
Pickering XV15-150-DJ	MM	50
Pickering TL-2-S	MM	55
Pickering XV15-7575	MM	60
Pickering XV15-625DJ	MM	60
Pickering XV15-1800S	MM	70
Pickering TL3S	MM	80
Pickering XEV-3001E	MM	95
Pickering XLZ-3500	MM	100
Pickering TL-4-S	MM	100
Rega Bias	MM	19
Rega RB78	MM	39
Rega Super Bias	MM	59
Rega Elys	MM	85
Shure M70BX	MM	21
Shure M92E	MM	22
Shure SC35C	MM	29
Shure M447X	MM	35
Shure M44GX	MM	35
Stanton 500AL II	MM	35
Stanton 500EL	MM	45
Stanton 680AL/X	MM	59
Stanton 680EL/X	MM	74
Sumiko Oyster	MM	30
Sumiko Black Pearl	MM	50
Sumiko Pearl	MM	70
Sumiko Blue Point	MM	70
	MC	100

OVER £100

Audio Note IO2	MM	139
Audio Note Soara	MC	795
Audio Note IO1V	MC	1,095
Audio Note IO1LD	MC	4,500
Audio Technica AT-OC9	MC	330



## CABLES Digital Interconnects

- KEY**  
 ⌘ – Stranded construction.  
 ● – Solid-core construction.

Prices of interconnects are for a one-metre terminated pair.

Apertura Model B	139.00
Apertura Model A	255.00
Apogee Digital Wyde Eye	20.00
Apogee Digital Wyde Eye Bal.	30.00
Art Yam Church 5000	275.00
Audioquest Digital/video 1	30.00
Audioquest Digital/video 2	60.00
Audioquest Optilink X	90.00
Audioquest Digital PRO	100.00
Audioquest Optilink Pro	149.00
Audioquest Optilink Z	179.00
Cable Talk Digital 2	78.00
Cardas Audio Lightning	190.00
ChordCo Codac	36.00
ChordCo Prodac	50.00
DNM-Reson DIG100	26.00
DPA Opt-link	20.00
DPA Digi-link	28.00
Insert Audio Dataline 500	24.95
Insert Audio Optic 2.1	29.95
Insert Audio Dataline 700	39.95
Insert Audio Image 5.1	44.95
Ixos 105	25.00
Ixos 106	30.00
Kimber Opti-link	50.00
Kimber Illuminati DV-30	70.00
Kimber Illuminati D-60	325.00
Kimber Illuminati DX-50	350.00
Kimber Illuminati Orchid	750.00
LAT International DF-20-D	79.00
Moth Leyline Datalink	140.00
Nordost Moonglo	155.00
Precious Metals Silver Dig 35	20.00
Precious Metals Silver Dig 100	50.00
Precious Metals Silver Dig 200	110.00
Precious Metals Silver Dig 202	145.00

WRITE TO US! A burning question to express in print? Write in to 'Letters' at the usual address. A prize for every letter printed!

CARTRIDGES (CONTINUED)

Table of Cartridges with columns for brand/model, cartridge type (MC, MM, MC MC), and price.

Table of Cartridges (continued) with columns for brand/model, cartridge type, and price.

CASSETTE DECKS KEY section with an image of a cassette deck and text: 'Autoreverse - no need to remove and turn around the tape. 3-H - 3 heads, i.e. separate record and replay heads. UP TO £200'.

Table of Cassette Decks with columns for brand/model, features (indicated by arrows), and price.

OVER £200

Table of Cassette Decks (continued) with columns for brand/model, features, and price.

Table of CD Players with columns for brand/model, features (indicated by arrows), and price.

CD PLAYERS KEY section with an image of a CD and text: 'Multiplayer: can be loaded with more than one disc. Electrical (coaxial) digital output. Many players also include an optical (Toslink) output. UP TO £250'.

Table of CD Players with columns for brand/model, features, and price.

Table of CD Players (continued) with columns for brand/model, features, and price.

£251 TO £500

Table of CD Players (continued) with columns for brand/model, features, and price.

£501 TO £1000

Table of CD Players (continued) with columns for brand/model, features, and price.

Trichord Digital Jukebox 25	599
Trichord Digital Jukebox 50	649
Trichord Digital J'box 100	699
Trichord Revelation	799
YBA Special	625

## OVER £1000

Acoustic Precision Eikos	1,850
Alchemist Forseti	1,995
Audio Research CD1	3,290
Audio Research CD2	4,100
Audiomeca Talisman	2,150
Audiomeca Talisman SE	2,300
AVI S2000MC	1,599
Cary CD-301	2,495
Conrad-Johnson DF-2	1,695
Conrad-Johnson DV-2b	2,495
Copland CDA-266	1,199
Copland CD277	1,800
Copland CDA288	2,199
Cymbal CDP12	1,299
Helios Model 1	1,250
Helios Stargate	2,250
Krell KPS30i	5,490
Krell KPS-20i	9,990
Marantz CD-17KIS	1,100
Mark Levinson 39	4,995
McIntosh MCD7009	3,699
Meracus Tanto	1,395
Meracus Imago Player	4,495
Meridian 506	1,100
Meridian 508	1,995
Micromega Solo	2,750
Myryad MCD500	1,300
Naim CD2	2,000
Naim CDX	2,200
Naim CDS	3,940
Oracle CD Player	7,300
Pink Triangle Numeral	1,049
Pink Triangle Litaural	2,200
Primare D302	1,799
Roksan Attezza-DP3P	1,495
Shenwood CD1	1,100
Sonic Frontiers Anthem CD1	1,699
Sonic Frontiers SFCD-1	3,799
TAG McLaren CD20R	1,249
TEAC VRDS-25	1,300
Theta Digital Miles	2,495
XTC CDP-1	1,250
YBA Integre	1,250
YBA CD3	2,250
YBA CD2	3,550
YBA CD1	4,500



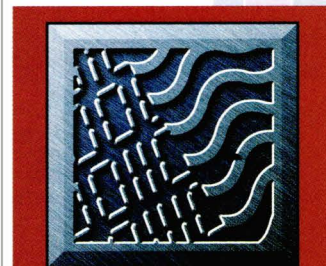
## CD TRANSPORTS

### KEY

ⓐ - Electrical (coaxial) digital output.  
 Many players also include an optical (Toslink) output.

Alchemist Forseti Drive	1,100
Altis CDT III	4,995
Arcam Delta 250	800
Audio Research CDT1	3,290
Audio Synthesis Transcend Decade	2,995
Audiomeca Damnation	999
Audiomeca Damnation SE	1,100
Audiomeca Talisman	1,850
Audiomeca Talisman SE	1,999
Audiomeca Talisman DOB	2,250
Audiomeca Mephisto	2,350
Audiomeca Mephisto SE	2,500
Audiomeca Mephisto	2,750
Cambridge Discmagic One	300
Conrad-Johnson DR-1	1,795
DPA Enlightenment Drv	725
Jadis J03	4,850
Jadis J02	4,990
Jadis J01	12,500
Krell KPS-20t	8,490
Linn Kark	1,850
Mark Levinson 37	3,995
Mark Levinson 31.5	9,295
Meracus Imago	3,995
Meridian 500	1,245
Micromega Drive 3	750
Micromega Data	2,250
Monrio Bitmatch	950

Muse Model 5	1,800
Oracle CD Drive	4,680
Pink Triangle Cardinal II	909
PS Audio Lambda TR	2,250
PS Audio Lambda AT&T	2,778
Rogers SC-8t	2,699
Roksan Attezza-DP3	1,295
Sonic Frontiers Transport 3	5,999
T+A CM1200R	990
TAG McLaren CDT20R	1,499
TEAC VRDS-T1	550
TEAC P-30	2,500
Theta Digital Data Basic II	2,397
Theta Digital Data III NTSC/PAL	5,455
Thorens TCD-2000	699
Trichord Digital Turntable	999
Tube Tech Fulcrum	1,000
Wadia 8	3,195
Wadia 20	4,370



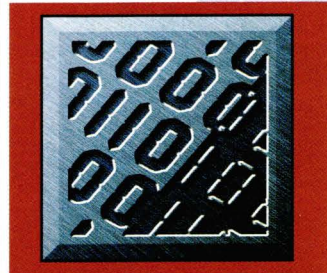
## DIGITAL TO ANALOGUE CONVERTERS (DACs)

### KEY

ⓐ - Number of digital inputs

Alchemist Forseti DAC	1,100
Altis Reference	4,995
AMC DAC8	130
Apogee Digital DA-1000	3,395
Arcam Black Box 50	350
Arcam Black Box 500	500
Audio Note DAC1	675
Audio Note DAC2	1,099
Audio Note DAC3	1,750
Audio Research DAC5	2,148
Audio Research DAC5	2,335
Audio Research DAC3	4,195
Audio Research DAC3	4,555
Audio Synthesis DAX Decade	2,795
Audiomeca Elixir	799
Audiomeca Ambrosia	1,850
Boulder 2020	17,750
Cambridge Dacmagic 2 Mk II	150
Chord DSC1100	2,575
Chord DSC1500	3,850
Conrad-Johnson D/A-3	1,195
Conrad-Johnson D/A-2b	1,990
dCS Elgar	8,500
Denon DCD-425	150
DPA Little Bit 3	325
DPA Renaissance DAC	570
DPA Enlightenment DAC	825
DPA SX128	2,000
DPA SX256	4,000
DPA SX512	8,000
Jadis JS3	2,129
Jadis JS1	8,068
LFD DAC2	1,950
LFD DAC3	3,500
Linn Numeral	1,500
Manley Professional DAC-20	6,950
Mark Levinson 36	3,995
Mark Levinson 30.5	15,950
Meracus Auriga	1,295
Meracus Flagrare	2,495
Meridian 566	1,095
Micromega DAC 2	750
Micromega Dialog	2,000
Monrio 18B2	795
Muse Model 2	2,190
Muse Model 2 Plus	2,500
Musical Fidelity X-ACT	200
Musical Fidelity X-DAC	300
Onkyo DX 7310	330
PS Audio DL3	777
PS Audio SL3	1,449
PS Audio UltraLink 2 HDCCD	2,590
PS Audio Ref Link	4,550
Rogers SC-8m	1,899
Roksan Attezza-DAC2	595
Sonic Frontiers Processor 3	5,999
Sumo Theorem II	945
Sumo Theorem IIB	1,155
TAG McLaren DAC20	1,249
Talk Electronics Thunder 3	1,000
TEAC D-T1	500
TEAC D-700	600
Theta Digital Chroma Std	849
Theta Digital Pro Geny	1,145
Theta Digital Pro Prime II	1,800

Theta Digital Pro Basic III	2,990
Theta Digital Gen V SE	4,300
Theta Digital Casablanca LS	5,910
Thorens TDA-2000	700
Trichord Pulsar Ser One	1,395
Tube Tech Fulcrum	1,400
Wadia 12	1,530
Wadia 15	3,790
Wadia 64.4	4,750
Wadia 16	7,395
Wadia 7	9,995
Wadia 9	12,790
Woodside DVAC-18	1,499



## DIGITAL RECORDERS

### KEY

MD - MiniDisc  
 DAT - Digital Audio Tape  
 ⓐ - portable

Denon DMD-1000	MD	300
Denon DMD-1300	MD	500
Kenwood DM-7090	MD	500
Kenwood DM-9090	MD	550
Pioneer PDR-555RV	MD	500
Pioneer PDR-04	MD	700
Pioneer D-05	DAT	900
Pioneer PDR-05	DAT	1,000
Pioneer D-C88	DAT	2,000
Sharp MD-R2	MD	300
Sharp MD-R1E	MD	300
Sharp MDR3H	MD	300
Sharp MD-MS200H	MD	350
Sharp MDXV300H	MD	1,000
Sony MZ-E20	MD	180
Sony MDS-JE510	MD	250
Sony MZ-E30	MD	280
Sony MDS-JB920	MD	300
Sony MDS-S38	MD	300
Sony MZ-R30	MD	300
Sony MDS-JA30ES	MD	699
Sony MDS-JA50ES	MD	1,300
TEAC MD-H500	MD	650
TEAC MD-10	MD	950
Yamaha MDX-9	MD	300



## HEADPHONES

### KEY

'D' - Dynamic type, compatible with virtually all normal headphone outputs.  
 'E' - Electrostatic type; generally includes a separate power supply.  
 ⓐ - Open-back construction.  
 ⓑ - Closed-back construction.

Aiwa HP-X301	D	20
Aiwa HP-VX303	D	25
Aiwa HP-X705	D	40
AKG Rox	D	30
Aural Envelope DX200	D	20
Aural Envelope DX220	D	30
Beyer DT111	D	15
Beyer DT211	D	31
Beyer DT211TV	D	35
JVC HA-CD88	D	18
JVC HA-D525	D	20
JVC HA-F65	D	20
JVC HA-D626	D	25
Kenwood KPM-310	D	18

Kenwood KPM-410	D	25
KLH KHP201TW	D	21
KLH KHP-300V	D	25
KLH KHP-420V	D	33
Maxell HP-2000	D	20
Pioneer SE-A40	D	20
Pioneer SE-A20V	D	23
Pioneer SE-M250	D	25
Pioneer SE-M350	D	30
Sennheiser HD56	D	18
Sennheiser HD433	D	20
Sennheiser HD400	D	25
Sennheiser HD470	D	35
Sennheiser HD60TV	D	40
Sony MDR-W20G	D	18
Sony MDR-E837	D	18
Sony MDR-P70	D	18
Sony MDR-ED238	D	20
Sony MDR-009TV	D	20
Sony MDR-A34L	D	20
Sony MDR-E848	D	20
Sony MDR-P1TV	D	25
Sony MDR-CD270	D	30
Sony MDR-E868	D	35
Sony MDR-V400	D	40
Sony MDR-D11	D	40
Stanton ST Pro	D	25
Technics RP-F200	D	30
Technics RP-HT300	D	40
Vivanco SR150	D	20
Vivanco SR200	D	25
Vivanco SR250	D	25
Vivanco SR300	D	30
Vivanco IR5700	D	40

## OVER £41

AKG K301	D	80
AKG K222IR	D	100
AKG K401	D	120
AKG K501	D	150
AKG K333IR	D	150
AKG K444IR	D	180
AKG K290S	D	250
AKG K1000	D	700
Audio Technica ATH910PRO	D	80
Audio Technica ATHD40FS	D	120
Audio Technica ATHM40FS	D	120
Audio Technica ATH911	D	120
Beyer DT511	D	50
Beyer DT411	D	63
Beyer DT511	D	106
Beyer DT801	D	125
Beyer DT811	D	145
Beyer DT100	D	160
Beyer DT901	D	160
Beyer DT911	D	170
Denon AH-D210	D	45
Denon AH-D350	D	65
Denon AH-D550	D	80
Denon AH-D650	D	95
Denon AH-D750	D	130
Denon AH-D950	D	150
Grado SR40	D	45
Grado SR60	D	79
Grado SR80	D	100
Grado SR125	D	150
Grado SR225	D	200
Grado SR325	D	300
Grado RS2	D	495
Grado RS1	D	695
Jecklin Float Model 1	D	79
Jecklin Float Model 2	D	99
Jecklin Float ELS	E	399
JVC HA-D727	D	43
JVC HA-W60	D	49
JVC HA-D910	D	65
JVC HA-D1000	D	250
JVC HA-F25	D	699
Philips SBC 3396	D	70
Philips SBC HP9000	D	90
Pioneer SE-M550	D	50
Pioneer SE-M750	D	60
Precide Ergo Model 1	D	120
Precide Ergo Model 2	D	140
Sennheiser IS 380	D	55
Sennheiser HD455	D	55
Sennheiser HD465	D	65
Sennheiser HD470	D	80
Sennheiser HD475	D	80
Sennheiser HD25 SP	D	90
Sennheiser IS450	D	110
Sennheiser HD545 Ref	D	125
Sennheiser HD265 Linear	D	125
Sennheiser HD250II	D	150
Sennheiser HDC 451-1	D	150
Sennheiser HD565 OvatN	D	150
Sennheiser HD25-13	D	160
Sennheiser HD25	D	160
Sennheiser HD 580 P'cision	D	200
Sennheiser HD600	D	250
Sennheiser Lucas	D	280
Sennheiser IS850	D	859
Sennheiser HE60/HEV70	E	998
Sennheiser Orpheus	E	9,652
Sony MDR-IF120K	D	50
Sony MDR-E888	D	55

## HEADPHONES (CONTINUED)

Sony MDR-HF125RK	D	60
Sony MDR-V600	D	70
Sony MDR-F1	D	100
Sony MDR-NC5	D	100
Sony MDR-HF420RK	D	100
Sony MDR-CD770	D	100
Sony MDR-D77	D	130
Sony MDR-HF520RK	D	150
Sony MDR-CD1700	D	200
Stanton DJ Pro 101/HB	D	65
Stanton DJ Pro 1000	D	95
Stanton DJ Pro 1001	D	150
Stax SR-0001	E	280
Stax SR-Lambda Nova C	E	370
Stax Lambda Nova Basic	E	449
Stax SR-Lambda Nova S	E	450
Technics RP-F800	E	50
Technics RP-HT600	D	60
Technics RP-DJ1200	D	130
Vivanco IR5800	D	50
Vivanco SR850	D	50
Vivanco SR650	D	50
Vivanco FMH 3000	D	60
Vivanco SR750	D	60
Vivanco IR6000	D	70
Vivanco SR909	D	70
Vivanco IR7600	D	100
Vivanco SR1000IFL	D	100
Vivanco SR2000IFL	D	120

Alphason RS1	120	49
Alphason Akros II	60	59
Alphason NCI	60	84
Alphason HDS-40/M	60	85
Alphason Titan S	60	125
Apollo AZ6	66	80
Arcici Q-1	30	299
Arcici Q-2	30	299
Atacama BD21	56	55
Atacama BD17	55	55
Atacama BD25	60	60
Atacama SE16	65	65
Atacama SE12	65	65
Atacama SX500	67	67
Atacama F2	70	70
Atacama F1	70	70
Atacama SX600	70	70
Atacama SL200	70	70
Atacama SE24	61	70
Atacama SE20	70	70
Atacama SX700	73	73
Atacama SL300	73	73
Atacama TP600	75	75
Atacama TP500	75	75
Atacama SE615	75	75
Atacama SE515	75	75
Atacama SE415	75	75
Atacama SL400	76	76
Atacama SE1000S	80	80
AVF Tower P6144BP	60	35
BCD Model 1010	60	595
Credo STD 001	60	284
Custom Design CD 500	50	35
Custom Design AS 130	25	35
Custom Design AS 630AV	65	40
Custom Design Tri 100	50	50
Custom Design R/S 200	50	50
Custom Design R/S300	60	70
Custom Design Tri 300	55	85
Custom Design SCS 24	60	85
Custom Design X24	61	109
Custom Design C 20	50	109
Custom Design H1	50	275
Deadrock 903	60	60
Deadrock 902	47	60
Deadrock 901	39	60
Dynaudio Trophy	60	120
Dynaudio Master	60	200
Dynaudio Ultima	60	290
Harbeth HL-Stands	21	249
Heybrook Stand-ULT	3	55
Heybrook Stand-S6	63	69
Heybrook Stand-S4	48	69
Heybrook Stand-S1	47	119
JPW MS2	45	45
JPW MS3	61	55

JPW MS1	46	80
JPW HS1	58	120
JPW HS2	45	120
Kudos Audio Arrow	60	50
Kudos Audio S-50	60	100
Kudos Audio S-100	63	270
Mission Micrometer	58	70
Mission Entasis	58	98
Opera S1	60	345
Pioneer CP-7	50	80
Pioneer CP-8	55	80
Projekt Signature	55	80
Revolver RS1	50	70
Royd Royd	55	99
SD Acoustics SD Alexandra	50	359
Silverado Silverado 1 Stand	60	360
Sonus Faber Ironwood	475	475
Sonus Faber Stonewood	497	497
Sound Org 2037	55	55
Sound Org 2027	55	55
Sound Org 2026	55	55
Sound Org Z518	45	65
Soundstyle X6118	42	100
Stands Unique Speaker support	59	159
Stands Unique Tuned Spkr Support	59	220
Stands Unique Tuned CarbonFibre	59	299
Stands Unique Vivas CF Spkr Supp	60	349
Target TR60	60	68
Target R1	53	280

## HI-FI CHOICE WEBSITE

Why not use our exclusive interactive hi-fi buying guide? Find us on the Web at: <http://www.hifichoice.co.uk>. See You There!



Optimum OPT 3406	3	149
Optimum G5/Pedestal	6	150
Optimum OPT 4906	6	199
Optimum OPT 6606	4	249
Optimum OPT 340	3	249
Optimum OPT 490	4	299
Optimum OPT 440	4	299
Optimum OPT 10206	6	299
Optimum AV 300	3	329
Optimum OPT 700	5	349
Optimum OPT 610	5	349
Optimum OPT 660	5	349
Optimum OPT 1020	6	399
Optimum OPT 1190	7	450
Projekt A3	3	145
Projekt A4	4	190
Projekt A5	5	235
Projekt B3	6	255
Projekt A6	6	280
Projekt B3i	6	300
Projekt B4	8	340
Projekt B Multi	8	345
Projekt B3ii	7	345
Projekt C3	9	375
Projekt D3	12	420
Projekt C3i	8	420
Projekt B5	10	425
Projekt C3iii	11	465
Projekt C3ii	10	465
Projekt D3i	12	500
Projekt C4	12	500
Projekt C3iv	10	510
Projekt D3ii	14	545
Projekt C Multi	9	555
Projekt D4	16	560
Quadraspire Q45 mini shelf	1	65
Quadraspire Q45 shelf	1	65
Quadraspire QKS Cabinet shelf	1	80
Quadraspire QAV shelf	1	130
Quadraspire Q4M mini table	4	250
Quadraspire Q4 table	4	250
Quadraspire Q4SP Table	4	320
Quadraspire QAV table	3	350
Quadraspire QAVSP Table	4	400
Quadraspire QK Cabinet	4	450
Reson DOMOPS	1	195
Reson DOMOWS	1	195
Sound Org 2022	1	65
Sound Org 2021	2	78
Sound Org 2030	3	100
Sound Org 2060	4	120
Sound Org Z038	5	155
Sound Org Z540	4	140
Sound Org Z545	4	140
Sound Org Z560	5	160
Sound Org Z530	3	170
Soundstyle X300	3	180
Soundstyle X305	3	210
Soundstyle X053	4	210
Soundstyle X050	4	210
Soundstyle X6300	3	215
Soundstyle X100	4	220
Soundstyle X6110	4	230
Soundstyle X058	5	240
Soundstyle X310	3	250
Soundstyle X105	5	250
Soundstyle X6053	4	255
Soundstyle X6100	4	265
Soundstyle X6310	3	275
Soundstyle X6058	5	290
Soundstyle X6105	5	300
Soundstyle Finewoods W105	5	320
Stands Unique Isolation Platform	1	52
Stands Unique Sound Support	4	249
Stands Unique Sound Tower	5	289
Stands Unique Compact Sound Supp4	4	315
Stands Unique Sound Support 10	4	315
Stands Unique Sound Twr Cabinet	5	369
Stands Unique Ref Wall Support	1	550
Stands Unique Ultimate Tower	10	689
Stands Unique Ref Floor Support	6	799
Target B5	5	175
Townshend Seismic Sink 1-CD	2	110
Townshend Seismic Sink 1-3D	2	400
Townshend S/Sink Stand 1-4	4	999



## EQUIPMENT SUPPORTS Speaker Stands

### KEY

60 – Height of stand in cm

Alphason NCI	60	47
Alphason Akros I	60	49

BCD Model 1010	60	595
Credo STD 001	60	284
Custom Design CD 500	50	35
Custom Design AS 130	25	35
Custom Design AS 630AV	65	40
Custom Design Tri 100	50	50
Custom Design R/S 200	50	50
Custom Design R/S300	60	70
Custom Design Tri 300	55	85
Custom Design SCS 24	60	85
Custom Design X24	61	109
Custom Design C 20	50	109
Custom Design H1	50	275
Deadrock 903	60	60
Deadrock 902	47	60
Deadrock 901	39	60
Dynaudio Trophy	60	120
Dynaudio Master	60	200
Dynaudio Ultima	60	290
Harbeth HL-Stands	21	249
Heybrook Stand-ULT	3	55
Heybrook Stand-S6	63	69
Heybrook Stand-S4	48	69
Heybrook Stand-S1	47	119
JPW MS2	45	45
JPW MS3	61	55



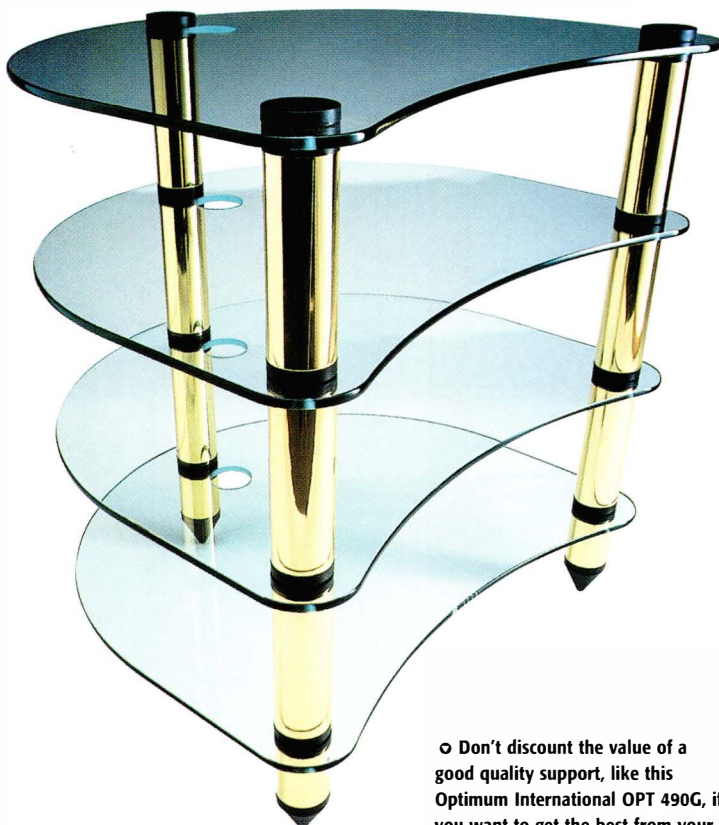
## EQUIPMENT SUPPORTS Hi-Fi Tables

### KEY

60 – Height of stand in cm

Alphason SM17	1	49
Alphason VSM17	1	85
Alphason G5M17	1	85
Alphason G4M1P	1	110
Alphason R17/17	3	120
Alphason GMH1P	1	150
Alphason GR17/17	3	150
Alphason VR17/17	3	190
Audiophile Base 01	1	79
Audiophile S4T120	4	280
Audiophile S4T120P	4	560
BCD Model 1006/8	1	795
BCD Model 1000	3	1,250
Custom Design G3	3	130
Custom Design Aspect 650	4	240
Custom Design Aspect 500AV	3	270
Custom Design Aspect 850	5	270
Deadrock 701	1	60
Deadrock 802	2	90
Deadrock 703	3	130
Deadrock 704	4	190
Deadrock 705	5	230
Fi-Rax R4	6	399
Frameworks H175	1	130
Frameworks FS1	1	150
Frameworks FT2	285	
Frameworks FT3	350	
Frameworks H700	355	
Frameworks H900	389	
Frameworks H500/H175	3	404
Heybrook Stand-Signature	4	249
Impulse Iso-plate	190	
JPW 3 Tier	3	80
JPW 5 Tier	5	100
Kudos Audio Corinthian	5	600
Linn K3000	85	
Mana Sound Frame	125	
Mana Mini Table	150	
Mana Power supply table	150	
Mana Reference flat top	150	
Mana Sound Shelf	175	
Mana Sound Base	175	
Mana Sound Stage	200	
Mana Sound Table	235	
Mana Ref Shelf	325	
Mana Reference Table	350	
Mana 2 Tier Amp stand	375	
Mana 3 Tier Amp Stand	450	
Mana 4 Tier Amp Stand	500	
Mana 5 Tier Amp Stand	600	
Mana 6 Tier Amp Stand	700	
Mission Hark	298	
Optimum G2	2	69
Optimum G2/Pedestal	2	99
Optimum G4/Pedestal	5	130

Don't discount the value of a good quality support, like this Optimum International OPT 490G, if you want to get the best from your sources and amps.



Townshend Seismic Sink 3-4	4	1,250
Vibrplane Passive	1	1,895
Vibrplane Active	1	3,600
Wilson Benesch Standard Shelf	1	130
Wilson Benesch Mono Block	1	265
Wilson Benesch Kevlar Shelf	1	270
Wilson Benesch Asside Basic	1	590
Wilson Benesch Asside	4	720
Wilson Benesch Triptych	1	990



## LOUDSPEAKERS

### KEY

- Floorstander; larger models requiring no separate stand.
- Stand mount; smaller models designed to be raised above the floor.
- Wall mount; designed to be hung on the wall or mounted in-wall.
- Box type, including infinite baffle, reflex and transmission line types.
- Horn type; mostly large and very efficient.
- Panel type, including electrostatic and planar magnetic types.

### UP TO £130

Allison Micro Monitors	0	95
Allison Mini References	0	120
Aniston MSX 05	0	80
Celestion 12i	0	119
Denon SC-M2	0	80
Gale Mini Monitors	0	70
Gale Gold Monitors	0	90
Genexa GX300	0	80
Genexa GX330	0	80
GLL Arena	0	65
Goodmans Active 75	0	90
Interaudio XL1000	0	130
Jamo Studio-80	0	70
Jamo SAT-90	0	100
Jamo Cornet 25	0	100
Jamo D-110	0	100
Jamo SAT-170	0	110
Jamo Studio-110	0	110
Jamo Cornet 145	0	110
Jamo Cornet 35	0	120
Jamo Artina	0	120
Jamo D-115	0	120
Jamo 28	0	125
JBL TLX111	0	120
JPW Mini Monitor	0	60
JPW ML110	0	70
JPW Gold Monitor	0	80
JPW ML210	0	80
JPW ML310	0	90
JPW ML410	0	100
JPW ML510	0	130
JVC SX-SC1VBK	0	60
JVC SP-V50	0	80
JVC SP-X220TBK	0	100
JVC SP-X550BK	0	130
KEF Coda 7	0	129
Kenwood LS-90UK	0	130
Mission 700	0	130
Mission 731i	0	130
Mordaunt-Short VS-100	0	100
Mordaunt-Short MS05i	0	100
NAD 801	0	100
Paradigm Micro	0	100
Paradigm Atom	0	130
Pioneer CS-3030	0	120
Polk AB410	0	100
Realistic Minimus 26	0	56
Realistic Minimus Pro-77	0	100
Revolver Baretta	0	100
R Allen Minette 2	0	129
Solid HCM2	0	130
Sony SS-86E	0	100
Tangent Monitor 3	0	60
Tangent Monitor 5	0	80
Tannoy Mercury M1	0	120
TDL Nucleus 1	0	75
TDL Nucleus 2	0	130
TEAC LS-X8 Mk II	0	80
Technics SB-CS55	0	80

Technics SB-CS65	0	100
Technics SB-CS75	0	100
Visonik 5202	0	129
Wdale Valdius 100	0	80
Wdale Diamond 7.1	0	100
Wdale Valdius 200	0	110
Wdale Modus Micro	0	110

### £131 TO £200

Acoustic Energy AE100	0	200
Allison Model 4A	0	170
B&W DM302	0	150
B&W CWM5	0	170
B&W DM601	0	199
Bose 201 IV	0	200
Boston CR6	0	149
Boston 325	0	149
Boston Micro 80 Sat	0	169
Boston Runabout	0	169
Boston 335	0	179
Boston 351	0	189
Boston CR7	0	199
Boston Runabout II	0	200
Celestion 15i	0	199
Cerwin-Vega CT-165	0	200
Denon SC-E313	0	160
Gale 2i	0	140
Gale 4i	0	140
Gale 3i	0	200
Genexa GX650	0	140
Genexa Pro	0	160
GLL Imagio IC100	0	170
Heybrook Prima 2	0	159
Infinity SM65	0	150
Infinity Reference 1i	0	150
Infinity Reference 1i i	0	200
Interaudio XL2000	0	200
Jamo Cornet 165	0	150
Jamo 38	0	150
Jamo 525	0	150
Jamo 560	0	150
Jamo 660	0	170
Jamo Cornet 65	0	170
Jamo Studio 180	0	180
Jamo D165	0	200
Jamo 68	0	200
JBL TLX121	0	150
JBL LX20	0	200
JPW ML610	0	170
JPW SS551	0	200
KEF Coda 8	0	189
KEF Q15	0	199
KEF Monitor 60S	0	199
Kenwood LS-200G	0	200
KLH Model 21	0	155
KLH Model 11	0	155
KLH Model 31	0	185
Magnat Vector 22	0	179
Mission 731i Pro	0	140
Mission 732i	0	200
Mordaunt-Short MS10i Pearl	0	150

Mordaunt-Short VS-200	0	150
Mordaunt-Short MS20i Pearl	0	200
Mordaunt-Short VS-300	0	200
Paradigm Titan	0	150
Pioneer CS-5030	0	170
Polk M2	0	180
Polk RT3	0	200
Polk AB610	0	200
Rega Kyte	0	198
Revolver Colt	0	139
Revolver The 230	0	169
Revolver Purdey MkII	0	199
R Allen Minette 3	0	159
R Allen Dim'n 5/1 Compact	0	179
R Allen RA6	0	199
Rogers GS1	0	179
Royd A7X	0	155
Sequence 200	0	199
Solid Monitor	0	200
Sony SS-126EB	0	150
Sony SS-176E	0	200
Tangent Monitor 9	0	150
Tangent Monitor 11	0	180
Tannoy Mercury M2	0	140
TDL Nucleus 3	0	200
Technics SB-CS95	0	150
Technics SB-M20	0	200
Visonik 6003	0	143
Visonik 5001	0	170
Wdale Diamond 7.2	0	140
Wdale Valdius 300	0	150
Wdale Modus Music Two	0	200
Wdale Valdius 400	0	200
Wdale Diamond 7.3	0	200

### £201 TO £300

Acoustic Energy AE200	0	250
Audio Gem Opal	0	230
B&W CWM6	0	280
B&W DM602	0	300
Bose 151	0	220
Bose 301 IV	0	300
Boston 361	0	219
Boston CR8	0	239
Boston 381	0	259
Boston CR9	0	279
Boston Voyager	0	299
Castle Isis	0	250
Celestion 23i	0	299
Cerwin-Vega VS-8	0	250
Cerwin-Vega CT-350	0	300
Chano Syntar 100	0	249
Chario Ref 100	0	299
Chario Hiper 1000	0	299
Dali 102B	0	260
Dali 150	0	300
Eltax Linear Response	0	249
Faraday FS1	0	245
Gale 5i	0	220
GLL Imagio IC110	0	260
GLL Imagio IC115	0	300

Heybrook Optima	0	259
Heybrook Heylette	0	269
Heybrook HB1	0	269
Infinity SM85	0	250
Interaudio XL3000	0	230
Interaudio XL4000	0	260
Jamo 892	0	220
Jamo Cornet 175	0	230
Jamo Classic 4	0	250
Jamo Art	0	270
Jamo D265	0	300
Jamo 307A	0	300
JBL LX2	0	250
JBL TLX151	0	300
JPW ML710	0	230
JPW ML810	0	260
JPW ML910	0	300
JVC SX-SW10	0	300
KEF Coda 9	0	299
KEF Model 70S	0	299
KLH 83A	0	205
KLH 183A	0	265
KLH Soundbites System	0	276
KLH Model 81	0	280
KLH Model 41	0	290
Mission 750LE	0	250
M-A Monitor 1	0	250
M-A Monitor 2	0	300
Mordaunt-Short MS30i	0	275
Mordaunt-Short MS10i Classic	0	280
Mus Tec Kestrel SE	0	300
NAD 802	0	280
NHT SuperZero	0	218
Paradigm Mini Monitor	0	220
Paradigm Monitor 5	0	250
Pioneer CS-7030	0	230
Pioneer CS-9030	0	280
Pioneer S-LC1	0	300
Polk AB505	0	220
Polk M3 II	0	220
Polk RT5	0	250
Polk RT7	0	300
Polk M5	0	300
Promenade SP1	0	299
Rega EL8	0	298
Revolver The 250	0	250
R Allen Dimension Five 1	0	259
R Allen RA8	0	249
R Allen RA8M	0	249
R Allen Dimension Five 2	0	269
Rogers db101	0	250
Rogers GS3	0	270
Royd The Envoy	0	249
Spinnaker	0	275
Ruark Epilogue	0	239
Sequence 300	0	249
Solid HCM1	0	250
Sony SS-176EB	0	250
Tannoy Mercury M3	0	230
Tannoy Precision P10	0	300
Visonik 7003	0	205
Visonik SUB5	0	259

**You must listen to...Mission's 731i.**

**MISSION**

"A combatant truly worthy of the budget speaker challenge".  
 Alan Sircom, HI-FI CHOICE, July/August 1996.  
 Call ☎ (01480) 451777 for more information or your nearest stockist.

# H I - F I P R I C E G U I D E

## SPEAKERS (CONTINUED)

W'dale Modus Music Four	□	□	□	230
W'dale MFM1	□	□	□	250
W'dale Valdius 500	□	□	□	300
Yamaha NS10M	□	□	□	300
ZYP A1	□	□	□	219
ZYP A2S	□	□	□	295

### £301 TO £500

Acoustic Energy AE109	□	□	□	350
Acoustic Energy AE209	□	□	□	450
Acoustic Energy AE120	□	□	□	500
Allison Model 2A	□	□	□	420
AVI Neutron	□	□	□	499
B&O Beovox CX50	□	□	□	325
B&O Beovox CX100	□	□	□	425
B&W CWM8i	□	□	□	350
B&W DM305	□	□	□	350
B&W CDM2	□	□	□	400
B&W DM603	□	□	□	500
B&W Signature 7	□	□	□	500
Bandor Pictures	□	□	□	352
Blue Room Mini Pod	□	□	□	400
Boston Micro 90 Sat	□	□	□	369
Boston Micro 80 Sys	□	□	□	369
Boston VR20	□	□	□	380
Castle Tay	□	□	□	350
Castle Eden	□	□	□	470
Castle Kendal	□	□	□	500
Celestion 25i	□	□	□	399
Celestion 30i	□	□	□	449
Celestion 35i	□	□	□	499
Cerwin-Vega VS-10	□	□	□	350
Chario Syntar 100T	□	□	□	399
Chario Ref 1000	□	□	□	499
Clements 300si	□	□	□	395
Dali 104B	□	□	□	370
Dali 606	□	□	□	400
Dali Royal	□	□	□	500
Def Tech Celsius	□	□	□	395
Dynaudio Audience 5	□	□	□	400
Epos ES12	□	□	□	499
Faraday SG	□	□	□	345
Faraday Siren	□	□	□	445
GLL Imagio IC120	□	□	□	400
GLL Imagio IC130	□	□	□	500
Heybrook Heylios	□	□	□	389
Heybrook Heylo	□	□	□	439
Infinity SM105	□	□	□	350
Infinity SM115	□	□	□	400
Infinity SM125	□	□	□	500
Jamo Classic 6	□	□	□	330
Jamo Cornet 75	□	□	□	330
Jamo Cornet 195	□	□	□	350
Jamo BX-100A	□	□	□	350
Jamo 98	□	□	□	350
Jamo 407A	□	□	□	350
Jamo D365	□	□	□	400
Jamo Cornet 95	□	□	□	400
Jamo Classic 8	□	□	□	400

Jamo Graphic	□	□	□	400
Jamo 128	□	□	□	450
Jamo BX-150A	□	□	□	450
Jamo Atmosphere	□	□	□	480
Jamo 477A	□	□	□	500
JBL LX60	□	□	□	350
JBL LX6	□	□	□	350
JBL TLX161	□	□	□	400
JBL P58	□	□	□	500
JBL TLX171	□	□	□	500
JM Lab Micron	□	□	□	395
JM Lab Megane	□	□	□	495
Jordan Watts JHFLG	□	□	□	380
JPW S5553	□	□	□	400
JPW MLL1010	□	□	□	400
JPW Ruby 1	□	□	□	400
JPW Ruby 2	□	□	□	500
KEF Q35	□	□	□	349
KEF Q55	□	□	□	499
KEF RDM One	□	□	□	499
Keswick Aria II	□	□	□	379
KLH 283A	□	□	□	310
KLH 383A	□	□	□	335
KLH Model 51	□	□	□	375
KLH Model 71	□	□	□	420
KLH Model 62T	□	□	□	486
Linn Sekrit	□	□	□	395
Magnat Vector 55	□	□	□	349
Magnat Vector 77	□	□	□	449
Mission 733i	□	□	□	330
Mission 751f	□	□	□	348
Mission 734i	□	□	□	499
M-A Monitor 3	□	□	□	400
M-A Monitor 4	□	□	□	500
Mordaunt-Short MS25i Pearl	□	□	□	330
Mordaunt-Short MS40i	□	□	□	450
Mus Tec Harrier	□	□	□	400
NAD 804	□	□	□	400
Neat Critique	□	□	□	385
NHT SuperOne	□	□	□	338
NHT Model 1.5	□	□	□	450
Opera Duetto	□	□	□	395
Origin Live OL-1AS	□	□	□	399
Origin Live Monarch	□	□	□	399
Paradigm Monitor 7	□	□	□	330
Paradigm Studio/20	□	□	□	350
Paradigm Monitor 9	□	□	□	400
Pentachord A	□	□	□	469
Pioneer S-LC2	□	□	□	450
Polk AB705	□	□	□	330
Polk RT8	□	□	□	400
Polk RT10	□	□	□	500
Polk AB805	□	□	□	500
Prof Monitor Co TB15M	□	□	□	403
Prof Monitor Co TB1	□	□	□	410
Prof Monitor Co TB1S	□	□	□	430
Prof Monitor Co TB1M	□	□	□	447
Prof Monitor Co XB1	□	□	□	499
Promenade SP2	□	□	□	399
Promenade SP3	□	□	□	499
Rega Jura	□	□	□	450

Rega ELA MkII	□	□	□	498
Revolver The 260	□	□	□	350
R Allen Dimension Five 3	□	□	□	349
R Allen Dimension Five 4	□	□	□	429
Rogers GS5	□	□	□	379
Rogers CS6	□	□	□	429
Rogers CS8	□	□	□	479
Rogers C6/20	□	□	□	499
Royd The Squire	□	□	□	350
Royd Minstrel SE	□	□	□	399
Royd Doublet	□	□	□	485
Ruark Icon	□	□	□	359
Sequence 400	□	□	□	329
Solid Verticale	□	□	□	400
Spendor S2	□	□	□	399
Spendor 2020	□	□	□	399
Spendor S1	□	□	□	499
Tannoy Precision P20	□	□	□	400
TDL RTL2 SE	□	□	□	330
TDL RTL 3SE	□	□	□	450
TDL Chiltern CF100	□	□	□	450
Titan Midi Centre	□	□	□	399
Technics SB-M300	□	□	□	350
Technics SB-M500	□	□	□	450
Totem Mite	□	□	□	495
Triangle Titus TZe	□	□	□	379
Triangle Lunn	□	□	□	500
Visonik TB1S	□	□	□	366
W'dale Modus Music Six	□	□	□	330
W'dale MFM3	□	□	□	350
W'dale Modus Music Eight	□	□	□	430
W'dale MFM5	□	□	□	450
W'dale Modus Music 1/6	□	□	□	500

### £501 TO £800

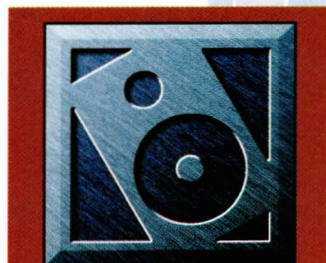
Acoustic Energy AE1-II	□	□	□	795
Acoustic Precision Eikos FR1	□	□	□	800
Allison Model 3A	□	□	□	525
Audio Gem Emerald	□	□	□	540
Audio Note AN-K/D	□	□	□	620
Audio Note AN-J/B	□	□	□	799
Audiovector M1	□	□	□	759
B&O Beolab 2500	□	□	□	750
B&W CDM1 SE	□	□	□	600
B&W P4	□	□	□	675
Bose 501	□	□	□	600
Bose A'mass AM3	□	□	□	650
Boston VR30	□	□	□	600
Castle Severn 2	□	□	□	580
Castle Avon	□	□	□	730
Celestion 45i	□	□	□	599
Cerwin-Vega VS-12	□	□	□	550
Cerwin-Vega VS-15	□	□	□	700
Chario Ref 100T	□	□	□	599
Chario Hiper 1000T	□	□	□	699
Clements 600si	□	□	□	595
Dali 107	□	□	□	600
Dali 350	□	□	□	600
Dali 450	□	□	□	700
Dali 109	□	□	□	800
Def Tech BP6B	□	□	□	750

Diapason Micra II	□	□	□	750
Dynaudio Audience 50	□	□	□	577
Epos ES14	□	□	□	675
Faraday FS10	□	□	□	795
Harbeth BBC LS3/5A	□	□	□	699
Harbeth HL-P3ES	□	□	□	799
Heybrook Ultima	□	□	□	649
Heybrook Quartet	□	□	□	649
Infinity SM155	□	□	□	550
Jamo BX-200A	□	□	□	530
Jamo Classic 10	□	□	□	600
Jamo 507A	□	□	□	700
Jamo 707i	□	□	□	800
JBL LX70	□	□	□	550
JBL LX7	□	□	□	550
JBL TLX181	□	□	□	600
JBL SVA1500	□	□	□	700
JBL L20	□	□	□	700
JBL PS12	□	□	□	750
JM Lab Profil 55	□	□	□	625
JM Lab Opal 59 ti	□	□	□	750
Jordan Watts JH200	□	□	□	510
Jordan Watts JH400	□	□	□	565
JPW Ruby 3	□	□	□	800
KEF LS3/5a	□	□	□	649
KEF RDM Two	□	□	□	699
KEF Q65	□	□	□	799
Kelly KT2	□	□	□	700
Keswick Volante	□	□	□	729
KLH Model 82Ta	□	□	□	690
Linn Tukan Passive	□	□	□	550
Linn Keilidh Passive	□	□	□	750
Magnat Vintage 710	□	□	□	799
Manticoire Minaret	□	□	□	690
Meridian A500	□	□	□	750
M&K S-85	□	□	□	700
Mission 752f	□	□	□	578
Mission 735i	□	□	□	650
Mission 753f	□	□	□	798
M-A Studio 2SE	□	□	□	600
M-A 700 PMC	□	□	□	600
M-A 702PMC	□	□	□	700
M-A 703PMC	□	□	□	800
Mordaunt-Short MS50i	□	□	□	550
Mordaunt-Short MS30i Classic	□	□	□	600
Mus Tec Falcon	□	□	□	575
Naim Intro	□	□	□	660
Neat Mystique 2	□	□	□	575
Neat Petite II	□	□	□	745
Opera Seconda	□	□	□	595
Opera Operetta II	□	□	□	770
Opera Platea	□	□	□	795
Origin Live Resolution	□	□	□	750
Origin Live Victory	□	□	□	730
Paradigm Studio/60	□	□	□	650
Paradigm Studio/80	□	□	□	750
Pentachord B	□	□	□	519
Pentachord Pentode	□	□	□	729
Polk RT12	□	□	□	600
Polk RT16	□	□	□	799
Polk LS50	□	□	□	800
Proac Tablette 50	□	□	□	599
Proac Studio 100	□	□	□	699
Promenade SP4	□	□	□	650
Quad 10L	□	□	□	600
Rogers GS9	□	□	□	579
Rogers LS3/5A	□	□	□	699
Rogers CG/25	□	□	□	799
Roksan ROKone 1	□	□	□	595
Roksan Ojan 3	□	□	□	795
Royd The Sorcerer	□	□	□	595
Royd Abbot	□	□	□	695
Ruark Templar II	□	□	□	599
Ruark Sceptre	□	□	□	599
Ruark Talisman II	□	□	□	749
Ruark Prologue One	□	□	□	799
SD Acoustics SD3R	□	□	□	649
Shinpy Polarys	□	□	□	595
Silverado Raider	□	□	□	695
Sonus Faber Concertino	□	□	□	599
Spendor 2030	□	□	□	599
Spendor LS3/5A	□	□	□	630
Spendor SP3/1P	□	□	□	795
T+A TB 100	□	□	□	690
Tannoy Precision P30	□	□	□	600
Tannoy Definition D100	□	□	□	689
Tannoy Precision P40	□	□	□	800
TDL Cotswold CF200	□	□	□	650
TDL RTL 4	□	□	□	650
TDL T-Line 3	□	□	□	700
Titan Mini T2	□	□	□	700
Titan Mini T3	□	□	□	799
Totem Rokk	□	□	□	695
Triangle Comete TZe	□	□	□	525
Triangle Zephyr	□	□	□	799
W'dale MFM7	□	□	□	650

### £801 TO £1500

Acoustic Energy AE505	□	□	□	850
Acoustic Energy AE509	□	□	□	1,000
Acoustic Energy AE2-II	□	□	□	1,095
Acoustic Energy AE520	□	□	□	1,200
Acoustic Solutions Eight	□	□	□	1,200
Alon I Mk II	□	□	□	1,500

ATC SCM10	999	Shiny Microphonica	1,099	Polk LS90	1,700	Lowther Opus One	4,999
Audio Note AN-J/D	930	Silverado Ryder	1,395	Posselt Albatross	2,500	Lumley L/M 2 Sig. Mk3	4,500
Audio Note AN-K/SPx	1,060	Sonus Faber Minuetto	898	Proac Response 2S	2,000	Magnat Vintage 770	3,500
Audio Note AN-E/B	1,299	<b>Sonus Faber Concerto</b>	<b>1,098</b>	Proac Studio 250	2,249	Magneplanar MG-3.5SE	3,800
Audio Note AN-J/SPx	1,415	Spendor 2040	899	<b>Proac Response 2.5</b>	<b>2,700</b>	Magneplanar MG-20 SE P	10,300
Audio Physic Step	1,299	Spendor SP2/3E	1,050	Prof Monitor Co IBIS	2,099	Magneplanar MG-20 SE A	11,000
Audiovector M1 Super	999	Spendor SP1/2E	1,390	<b>Rehdeko RK115</b>	<b>1,700</b>	Martin-Logan SL3	3,499
Audiovector M2	1,399	T+A TAS 1200E	990	Rogers L5S/9	1,549	Martin-Logan CLS Ilz	4,555
Audiovector M1 Sig	1,449	T+A TB 120	990	<b>Ruark Crusader II</b>	<b>1,599</b>	Martin-Logan Re-Quest	5,875
AVI Posttron	899	<b>Tannoy Definition D300</b>	<b>999</b>	<b>Ruark Equinox</b>	<b>1,849</b>	Martin-Logan Monolith S	7,440
B&O Beolab 4000	1,100	TDL Cheviot CF300	850	Ruark Accolade	2,699	Martin-Logan Monolith IHP	8,550
B&W P5	875	Technics SB-M1000	1,500	<b>SD Acoustics SD5</b>	<b>1,549</b>	Martin-Logan Monolith IIIXPB	11,900
<b>B&amp;W CDM7</b>	<b>1,000</b>	Titan Tower T4	1,175	<b>SD Acoustics SD1E</b>	<b>2,995</b>	Meridian DSP5000	3,295
B&W DM604	1,000	<b>Totem Model One</b>	<b>1,195</b>	<b>Shahinian Arc</b>	<b>1,875</b>	Meridian DSP5500	5,950
B&W P6	1,095	Triangle Antal	1,099	Shahinian Obelisk	2,695	<b>Meridian DSP6000</b>	<b>9,400</b>
<b>B&amp;W Matrix 805 V</b>	<b>1,095</b>	<b>Vandersteen 2Ce</b>	<b>1,395</b>	Shiny Eurtmica	1,995	M-A Studio 50	4,000
Bandor Trident	846	Visonik LB1	935	Shiny Altair	2,895	M-A Studio 60	6,000
Bandor Mora	1,260			Silverado Silverado 1	1,995	Naim DBL Active	7,414
Bandor Bandora	1,340			Sonus Faber Minima Artator	1,566	Neolith NEO 2	3,499
BKS Audio Hybrid 107	1,500			Sound-Lab Quantum	2,150	Neolith NEO 3	4,999
Bose A'mass AM5	900			Spendor SP7/1	1,990	NHT Model 3.3	3,500
Bose 701	1,000			Spendor SP100	2,099	Paragon Regent	3,490
Boston VR40	1,000			T+A TB 140	1,680	Proac Response 3.5	4,250
Cabasse Farella 400	950			<b>Tannoy Definition D500</b>	<b>1,999</b>	Proac Response 5	9,000
Castle Harlech	880			Tannoy Stirling TW	2,200	Proac Response 4	12,000
Castle Howard S2	1,200			Tannoy Definition D700	2,500	Prof Monitor Co MB1P	4,370
Celestion A1	899			TDL Studio Monitor-m	2,750	Prof Monitor Co BB5 A	16,688
Celestion A2	1,499			Totem Mann-2	2,795	<b>Quad ESL63</b>	<b>3,450</b>
Cerwin-Vega AL-1000	1,100			Triangle Zays	1,750	Rehdeko RK125	3,200
Cerwin-Vega 1515	1,300			Triangle Altiris	2,250	Rehdeko RK145	4,800
Chario Ref 100T	999			Triangle Extan	2,950	Rehdeko RK175	8,800
Chario Academy 1	1,299			Wilson Benesch Orator	2,700	Revel Gem	5,295
Clements Reference 1	995					Rockport Syzygy	15,000
Dali 850	1,100					Rockport Procyon	32,500
Def Tech BP8B	1,000					Shahinian Hawk	4,995
Def Tech BP10B	1,500					Shahinian Diapason	8,895
Diapason Prelude II	875					Shiny Enigma	3,995
Diapason Karis	1,250					Shiny Euphonia	5,995
Dynaudio Contour 1.1	879					Shiny Magnifica Suprema	14,500
Dynaudio Contour 1.3	1,198					Shun Mook Bella Voce	6,800
Electrocompaniet EC-Qube	1,195					Sonus Faber Electa Artator	3,293
Electrocompaniet EC-Qube SE	1,495					Sonus Faber Extrema	6,500
Epos ES22	1,185					Sound-Lab Dynastat	3,790
Harbeth HL-K6	1,049					Sound-Lab Aura	6,490
Harbeth HL-Compact 7	1,499					Sound-Lab Pristine III+	7,900
Harbeth BBC L5S/12A	1,499					Sound-Lab A-3	11,990
Heybrook Sextet	1,299					Sound-Lab Ultimate II	13,950
Impulse Kora	1,250					Sound-Lab A-1	13,990
Jamo Concert 8	1,300					Sound-Lab Ultimate III	18,950
JBL L40	1,000					Sound-Lab Ultimate I	23,950
JBL PS15	1,000					Spendor SP9/1	3,450
JBL SVA 2100	1,250					T+A AD4	3,940
JBL L80	1,250					T+A AD3	4,660
JBL L90	1,500					T+A AD2	8,590
JM Lab Profil 77	1,050					Tannoy Edinburgh TW	3,250
JM Lab P.S 5.1	1,250					Tannoy Definition D900	3,999
JM Lab Spectral 909.1	1,375					Tannoy GRF Memory TW	4,000
Jordan Watts JH1+1	995					<b>Tannoy Westminster TW</b>	<b>6,600</b>
JPW Ruby 4	1,000					Tannoy Canterbury 15 TW	7,720
KEF Q75	999					Tannoy Westminster Royal	14,920
KEF Ref. Model One	1,199					TDL Ref Standard-m	6,000
Kelly KT3	1,200					Triangle Nemo Altair	-4,250
<b>Keswick Torino</b>	<b>999</b>					Wilson Audio Cub	5,495
Keswick Figaro Evolution	1,099					Wilson Audio WATT 5	8,750
Keswick Milano	1,199					Wilson Audio WITT	8,888
Keswick Legato	1,199					Wilson Benesch Actor	3,800
Keswick Amber	1,499					<b>Wilson Benesch ACT1 5pr</b>	<b>6,857</b>
Linn Tukan Aktiv	1,050						
Linn Keilidh Aktiv	1,250						
<b>L Voice Auditorium</b>	<b>1,500</b>						
Lowther Accolade 2	1,199						
Lumley L/M3.5	1,050						
<b>Magnat Vintage 720</b>	<b>1,199</b>						
Magneplanar SMG-C SE	990						
Magneplanar MG-0.6 SE	1,370						
Meridian Argent 1	995						
M&K S-125	1,150						
Mission 754f	1,298						
M-A Studio 12	1,000						
M-A 70SPMC	1,400						
Mordaunt-Short Perf 820	1,495						
Mus Tec Condor	1,000						
Mus Tec Hawk	1,250						
Mus Tec Eagle	1,500						
Naim Credo	1,060						
NHT VT-1.2	999						
NHT Model 2.5	1,299						
Opera Terza	999						
Opera Callas Gold	1,050						
Opera Divina II	1,500						
Origin Live Sovereign	975						
Paradigm Studio/100	950						
Polk LS70	1,200						
Polk RT20p	1,500						
Proac Tablette 50 SIG	899						
Proac Response 1 S/C	1,199						
Prof Monitor Co LB1	935						
Prof Monitor Co AB1	1,496						
Rega XEL	1,040						
RMS Revelation S 1	1,299						
Rogers C6/28	1,399						
Roksan Qjan 3X	995						
Royd The Albion	985						
Ruark Broadwood II	899						
Ruark Paladin	1,099						
Shahinian Super Elf	875						
Shahinian Compass	1,395						
<b>£1501 TO £3000</b>							
Acoustic Energy AE1 Sig	1,695	Acoustic Energy AE2 Sig	2,695	Alon II Mk II	2,300	Ambience Mod 3.2	1,780
Apertura Agora Signature	2,295	Apertura Tanagra	2,395	Apertura Tanagra Sig.	2,795	ATC SCM20	1,599
ATC SCM20 Tower	2,099	Audio Note AN-E/D	1,520	Audio Note AN-E/SPx	2,250	Audio Physic Spark 2	1,749
Audio Physic Tempo	1,999	Audiovector M3	1,899	Audiovector M3 Sig	2,499	Avalon Monitor	2,995
B&O Beolab 6000	1,550	B&O Beolab 8000	2,100	B&O Beolab Penta 3	2,650	<b>B&amp;W Matrix 804</b>	<b>1,695</b>
B&W Matrix 803s2	2,495	B&W Matrix 802s3	2,995	BKS Audio Hybrid 128	2,549	Bose 901 VI	1,650
Boston Lynfield 300L	2,000	Bravura Virtuoso Bronze	2,995	Carver AL-111P	1,999	Cary SP-301	2,295
Celestion A3	2,399	Celestion Kingston	2,500	<b>Chario Academy 2</b>	<b>1,649</b>	Chord L5S/12A	1,595
Chord CEL 201	2,130	Chord CEL 202	2,375	Chord CEL 301	2,840	Clements Reference 7	1,995
Credos SPB 003	1,820	Credos SPB 009	2,453	Dali Grand Coupe	2,500	Def Tech BP2002	2,400
Diapason Adamantes II	1,895	Diapason Adamantes III	1,995	Dynaudio Contour 1.8	1,842	Dynaudio Crafft	2,598
Dynaudio Contour 3.0	2,930	ECA Servo A.2	2,450	ELS Res'ch Vision	2,800	Epos E530	2,385
Gamma Epoch Ref Five	2,999	Harbeth HL-S8	1,999	Helios Syrius II	2,395	Helios Syrius I	2,850
Heybrook Octet	1,800	Hi Q Sound SM108	2,000	Horning Aristophane	2,600	Impulse Lali	1,850
Jamo Concert 11	2,000	JBL L100	1,750	JM Lab Spectral 913.1	1,850	JM Lab Antea	2,850
Jordan Watts JH2K	2,820	KEF Ref. Model Two	1,599	KEF Ref. Model Three	1,999	Linn Kaber Passive	2,000
Linn Kaber Aktiv	2,640	Lowther Fidelio	1,999	Lowther Academy	2,399	Lowther Bel Canto	2,699
Lumley L/M2 Mk3	2,995	Magnat Vintage 760	1,999	Magneplanar MG-10 SE	1,650	Magneplanar MG-1.5 SE	1,780
Magneplanar MG-2.7 SE	2,650	Manticore Matisse	1,890	Martin-Logan Aerius i	2,299	Meridian M60	2,150
Mordaunt-Short Perf 860	1,895	Mordaunt-Short Perf 880	2,795	Naim SBL Active	1,970	Naim SBL Passive	2,999
Neolith NEO 1	1,600	NHT VT-2	2,199	NHT Model 2.9	2,350	Opera Caruso II	1,650
Paragon Jubilee	1,995	Pentachord P'column	1,649	Polk LS90	1,700	Posselt Albatross	2,500
Proac Response 2S	2,000	Proac Studio 250	2,249	<b>Proac Response 2.5</b>	<b>2,700</b>	Prof Monitor Co IBIS	2,099
<b>Rehdeko RK115</b>	<b>1,700</b>	Rogers L5S/9	1,549	<b>Ruark Crusader II</b>	<b>1,599</b>	<b>Ruark Equinox</b>	<b>1,849</b>
Ruark Accolade	2,699	<b>SD Acoustics SD5</b>	<b>1,549</b>	<b>SD Acoustics SD1E</b>	<b>2,995</b>	<b>Shahinian Arc</b>	<b>1,875</b>
Shahinian Obelisk	2,695	Shiny Eurtmica	1,995	Shiny Altair	2,895	Silverado Silverado 1	1,995
Sonus Faber Minima Artator	1,566	Sound-Lab Quantum	2,150	Spendor SP7/1	1,990	Spendor SP100	2,099
T+A TB 140	1,680	<b>Tannoy Definition D500</b>	<b>1,999</b>	Tannoy Stirling TW	2,200	Tannoy Definition D700	2,500
TDL Studio Monitor-m	2,750	Totem Mann-2	2,795	Triangle Zays	1,750	Triangle Altiris	2,250
Triangle Extan	2,950	Wilson Benesch Orator	2,700	Acoustic Energy AE5	7,995	Alon IV Mk II	3,495
Alon V Mk III	4,995	Alon Lotus SE	3,495	Alon V Mk III	4,995	Alon Adriana	8,500
Alon Circe	9,995	Alon Phalanx	19,000	Ambience Mod 5.0	9,550	Apertura Athena	6,995
Apertura Atlante	8,995	ATC SCM20A	3,049	ATC SCM50	3,750	ATC SCM100	4,499
ATC SCM50A	5,250	ATC SCM100A	5,999	ATC SCM200A	12,999	ATC SCM300A	14,999
Audio Note AN-JSE Silver	7,900	Audio Note AN-ESE Silver	9,600	Audio Physic Virgo 2	3,399	Audio Physic Avanti 2	6,699
Audio Physic Caldera	10,599	Audio Physic Medea	24,999	Audiovector 5X	3,999	Audiovector 6X	5,699
Avalon Avatar	4,495	Avalon Arcus	6,000	Avalon Eclipse	6,495	Avalon Radian	10,995
Avalon Osiris	72,000	<b>B&amp;W Matrix 801s3</b>	<b>3,995</b>	<b>B&amp;W Silver Signature</b>	<b>5,500</b>	<b>B&amp;W Nautilus</b>	<b>35,000</b>
Bandor Bandoline	3,290	Bandor Bandora/Mora	3,290	BKS Audio Hybrid 175	3,995	Boston Lynfield 500L	4,449
Bravura Virtuoso Gold	3,395	Bravura Virtuoso Reference	3,995	Bravura Accelerando	6,600	Chario Academy 5j	5,999
Credos SPB 012	3,147	Credos SDL 001	5,677	Dali Grand	4,000	Def Tech BP2000	3,600
Diapason Adamantes Ltd	3,995	Dynaudio Contour 2.8	3,198	Dynaudio Contour 3.3	4,815	Dynaudio Confidence 3	4,846
Dynaudio Confidence 5	5,924	Dynaudio Confidence 5	14,566	<b>Electrofluidics Sonolith 2.2x</b>	<b>5,999</b>	ELS Res'ch Vista	3,900
ELS Res'ch Illusion MkII	9,000	Fase Evoluzione Aria	3,100	Horning Athathon	3,555	Impulse Ta'us	3,100
Infinity Sigma	5,995	Infinity Epsilon	9,995	Jamo Oriel	7,000	JBL S2600	3,500
JBL S3100	4,000	JM Lab Alcor	4,995	JM Lab Utopia	16,000	JM Lab Grande Utopia	33,000
Jordan Watts JH5K	3,950	Jordan Watts JH10K	7,570	KEF Ref. Model Four	3,299	Keswick Zero 2	7,000
Linn Kelik Aktiv	6,000	<b>L Voice Air Scout</b>	<b>19,500</b>	<b>L Voice Air Partner S</b>	<b>37,200</b>	Lowther Delphic	3,099



**SUBWOOFERS**  
KEY  
Ⓐ - Active; includes a dedicated power amplifier.  
THX - THX-approved by LucasFilm for use in Home THX installations.

Acoustic Energy AE108S	300
Allison Mini Ref Sub	210
Alon Poseidon	12,000
ATC SCM 0.1/1.5	2,750
Audio Physic Terra	3,499
B&W ASW1000	500
B&W AS6	500
B&W ASW2000	800
B&W ASW3000	1,000
B&W Matrix 800ASW	1,500
B&W Matrix 800ASW	1,500
Boston CR400	300

## Factsback

For access to  
past reviews  
see page 145.

### SUBWOOFERS (CONTINUED)

Celestion CS135		139
Celestion CSW MkII	ⓐ	329
Celestion S1i	ⓐ	349
Cerwin-Vega HT-10D		200
Cerwin-Vega HT-12D		250
Chario Syntar Bass		299
Chario Hipex Bass		499
Crede SDC 001	ⓐ	3,054
G.L.L. LE Bass		350
H/K Citation 7.4		875
Infinity SSW-10	THX	500
Jamo SW305E	ⓐ	220
Jamo SW400E	ⓐ	330
Jamo SW505E	ⓐ	400
Jamo Sub One	ⓐ	400
Jamo SW600e	ⓐ	500
JBL Control Sub 6	ⓐ	200
JBL PSW800	ⓐ	275
JBL Sub 10	ⓐ	300
JBL PSW1000	ⓐ	325
JBL PSW1200	ⓐ	375
JPW Subwoofer		130
JPW SW40	ⓐ	199
JPW SW60	ⓐ	350
JPW SW-120	ⓐ	500
KEF Model 20B	ⓐ	349
KEF Model 30B	ⓐ	499
KEF Model AV1	THX	2,499
Kenwood SW500	ⓐ	250
Keswick Alto		1,299
KLH ASW10-100	ⓐ	350
KLH ASW12-120	ⓐ	380
Linn AV5150	ⓐ	2,850
L Voice RW24		11,500
Magnat Vector Sub 30P		149
Magnat Vector Sub 30A	ⓐ	299
Meridian M2500	ⓐ	1,595
M&K VX-7MkII	ⓐ	450
M&K V-75 MkII	ⓐ	650
M&K V-125	ⓐ	800
M&K V-125 (THX)	THX	800
M&K MX-70	ⓐ	900
M&K MX-150 (THX)	THX	1,500
M&K MX-200	ⓐ	1,800
M&K MX-300	THX	2,500
M&K MX-5000 (THX)	THX	2,900
Mission 73AS	ⓐ	450
Mission 75AS	ⓐ	548
Mordaunt-Short T2000	ⓐ	500
Mus Tec Sub	ⓐ	650
Muse Model 22	ⓐ	1,890
Muse Model 18	ⓐ	3,790
Neat Gravitas	ⓐ	1,095
NHT SW2Pi	ⓐ	699
Paradigm PDR10	ⓐ	250
Polk PSW50	ⓐ	350
Polk PSW150	ⓐ	500
Polk PSW300	ⓐ	750
REL Q50	ⓐ	375
REL Q-100E	ⓐ	495
REL Strata II	ⓐ	575
REL Storm	ⓐ	695
REL Stadium II	ⓐ	995
REL Stentor II	ⓐ	1,800
REL Studio II	ⓐ	4,000
Revel Sub-15	ⓐ	2,195
Revolver The Recoil	ⓐ	100
R Allen Gold Sub	ⓐ	149
R Allen Dim'n Active	ⓐ	499
R Allen Magnum Active	ⓐ	699
Rogers AB1	ⓐ	549
Rogers Sub-bass	ⓐ	679
Roksan Ojan 3S	ⓐ	795
Sequence FW120	ⓐ	249
Solid PB100	ⓐ	350
Sony SA-W101	ⓐ	230
Sunfire True Sub	ⓐ	1,450
TDL Nucleus SBR	ⓐ	200
Triangle Sat III	ⓐ	650
Tsunami TS200	ⓐ	300
Tsunami TS210	ⓐ	400
Velodyne VA-68XII	ⓐ	399
Velodyne VA-810XII	ⓐ	599
Velodyne VA-1012XII	ⓐ	699
Velodyne VA-1215XII	ⓐ	999
Velodyne FSR-12	ⓐ	1,099
Velodyne FSR-15	ⓐ	1,299
Velodyne F-1800II	ⓐ	1,999
W'dale Modus Sub Bass	ⓐ	180
W'dale Modus Powered Sub	ⓐ	350
Wilson Audio Puppy 5.1	ⓐ	8,450
Wilson Audio Whow III	ⓐ	12,500
Yamaha YST-SW40	ⓐ	140
Yamaha YST-SW80	ⓐ	180

Yamaha YST-SW150  
Yamaha YST-SW300

ⓐ 280  
ⓐ 350



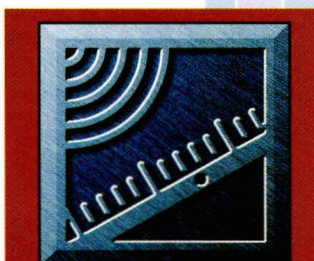
### TONEARMS

#### KEY

ⓐ – Pivoted.

# – Parallel tracking.

Air Tangent IC		4,600
Air Tangent 10B	#	8,600
Air Tangent Reference	#	14,000
Audio Note AN-ARM 1	ⓐ	169
Audio Note AN-0s	ⓐ	795
Audio Note AN-1s	ⓐ	995
Audiomeca SL5		2,500
Clearaudio TQ-1 Improved	#	1,950
Dynavector 507	ⓐ	1,995
Graham 1.5 Basic	ⓐ	1,695
Graham Mk 2.0	ⓐ	2,650
Helius Orion 4 Copper	ⓐ	549
Helius Cyalene 2	ⓐ	1,495
Kuzma Stogi	ⓐ	750
Kuzma Stogi Ref	ⓐ	1,250
Linn Akito	ⓐ	500
Linn Ekos	ⓐ	1,500
Mantecore Musician II	ⓐ	595
Mantecore Magician II	ⓐ	895
Mantecore Magician 12	ⓐ	995
Moth Mk I	ⓐ	109
Moth MkIII Stainless	ⓐ	146
Moth Mk III Tungsten	ⓐ	174
Moth Moth 900	ⓐ	598
Naim ARO	ⓐ	1,040
N'harm Space	ⓐ	450
N'harm Paragon 3	#	550
N'harm Paragon 2	#	800
N'harm Mentor	ⓐ	800
N'harm Foot	ⓐ	1,100
N'harm Paragon 1	#	1,600
Rega RB250	ⓐ	109
Rega RB300	ⓐ	174
Rega RB900	ⓐ	598
Rockport Series 7000	#	6,000
Roksan Tabriz	ⓐ	320
Roksan Tabriz Zi	ⓐ	420
Roksan Artemiz	ⓐ	895
SME 3009 Ser II Imp	ⓐ	309
SME 3009 S2 Ser II Imp	ⓐ	338
SME Series II 3009-R	ⓐ	514
SME Series II 3010-R	ⓐ	526
SME Series II 3012-R	ⓐ	565
SME 309	ⓐ	689
SME 310	ⓐ	705
SME 312	ⓐ	802
SME Series IV	ⓐ	983
SME Series V	ⓐ	1,461
Wheaton Music Tri-Planar 4i	ⓐ	3,000
Wheaton Music Tri-Planar 5i	ⓐ	3,250
Wilson Benesch Act 0.5	ⓐ	795
Wilson Benesch ACT2	ⓐ	1,350
Zeta AS	ⓐ	469
Zeta VDH	ⓐ	549



### TUNERS

#### KEY

'P20' (etc.) – Number of presets.

RDS – Radio Data System;  
receives text information on station,  
programme type etc.

Akai AT1200 P30 170  
AMCT7 P30 130

Arcam Alpha 7	P24	230
Arcam Alpha 8	P24	280
Arcam Delta 280	P20	300
Ariston TX-510	P20	60
Aura TU80	P30	350
AVI S2000MT	P16	599
AVI S2000MT2	P99	899
Carver TX-8R	P20	469
Creek T43	P68	399
Day Sequerra FM Ref		5,937
Day Sequerra S B'dcast Mon		14,640
Denon TU-260L	P20	120
Denon TU-215RD	P40	150
Denon TU-425RD	P40	200
Denon TU-1500RD	P40	250
Fanfara FT1	P08	1,395
H/K TU930	P30	150
H/K TU950	P30	200
Kenwood KT-2080	P30	130
Kenwood KT-3080	P30	180
Linn Kudos	P50	775
Linn Kremlin	P80	2,600
Magnum Dynalab FT1 I		550
Magnum Dynalab FT-101A		825
Magnum Dynalab Etude		1,250
Magnum Dynalab 108		4,500
Marantz ST-48	P30	119
Marantz ST-17	P60	600
McIntosh MR7084	P50	2,499
McIntosh MX118	P50	4,999
McIntosh MX130	P50	6,999
Meridian 504	P30	695
Michi RHT-10	P16	895
Micromega Miniom FM Mk2	P39	329
Micromega Tuner	P39	750
Mission Cyrus FM7	P29	400
Musical Fidelity E50	P20	300
Myryad MT-100	P20	530
NAD 412	P24	190
NAD 414RDS	P30	250
NAD 710	P24	270
NAD 712	P24	330
Naim NAT03		595
Naim NAT02		1,080
Naim NAT01		1,730
Onkyo T 4210RDS	P30	180
Onkyo T 409	P30	230
Onkyo T 411RDS	P30	260
Pioneer F-204RDS	P30	140
Pioneer F-504RDS	P40	250
Pioneer F-504RDS Precision	P40	300
Quad 77FM	P25	700
Rega Radio	P24	298
Roksan Caspian	P50	595
Rotel RT-935AX	P20	160
Rotel RT-940AX	P20	200
Sony ST-SE200	P30	100
Sony ST-SE300	P30	120
Sony ST-SE500	P30	140
Sony ST-SE700	P30	180
Sony ST-SA3ES	P30	250
T+A T1200R	P30	745
TAG McLaren T20	P39	1,099
TEAC T-R400	P20	120
TEAC T-H500	P30	170
TEAC TB-X10	P20	100
Technics ST-T350L	P30	430
Technics ST-GT550L	P39	180
Technics ST-GT650L	P39	230
Thorens TRT-2000	P59	499
Yamaha TX-480L	P40	100
Yamaha TX-10 II	P40	130
Yamaha TX-492RDS	P40	130
Yamaha TX-59 2RDS	P40	180
Yamaha RX-396RDS	P40	250

### TURNTABLES

#### KEY

ⓐ – Arm included.

ⓐ – Cartridge included.

UP TO £500

Audio Note AN-TT 1	ⓐ	349
Dual CS435-1	ⓐ	150
Dual CS455	ⓐ	190
Dual 505-4 UK	ⓐ	250
Eclipse TT430	ⓐ	70
Genexa Lab-710	ⓐ	60
Genexa Lab-810	ⓐ	70
Kenwood KD-492F	ⓐ	100

Michell Mycro		455
Moth Alamo	ⓐ	199
Moth Kanoot MkI Arm	ⓐ	279
Moth Kanoot Mk3 Arm	ⓐ	329
NAD 533	ⓐ	220
N'harm Interspace	ⓐ	500
Pioneer PL-J2500-C	ⓐ	80
Pioneer PL-990	ⓐ	130
Pro-Ject 0.5/OM10	ⓐ	170
Pro-Ject 1/510	ⓐ	210
Pro-Ject 2/520	ⓐ	325
Pro-Ject 6/MCI5	ⓐ	500
Rega Planar 78	ⓐ	214
Rega Planar 2	ⓐ	214
Rega Planar 3	ⓐ	274
Roksan Radius	ⓐ	470
Sherwood PM8550	ⓐ	130
Sony PS-LX150H	ⓐ	90
Sony PS-LX300H	ⓐ	150
Systemdek I/920	ⓐ	136
Systemdek IIX/900	ⓐ	230
Systemdek IIX20/Moth	ⓐ	235
Systemdek IIXE/900Ap	ⓐ	388
Systemdek 960	ⓐ	500
Systemdek 2X2	ⓐ	500
Technics SL-J110D	ⓐ	120
Technics SL-BD20	ⓐ	160
Technics SL-BD22	ⓐ	180
Technics SL-1210MkII	ⓐ	2,499
Technics SL-1200MkII	ⓐ	400
Thorens TD-180 AT91	ⓐ	190
Thorens TD-280 IV/UK	ⓐ	210
Thorens TD-166 VI/UK/RB	ⓐ	400
Thorens TD-318 III TP50	ⓐ	500

### OVER £500

Audio Note AN-TT 2		995
Audio Note AN-TT 3		1,995
Audiomeca Romance	ⓐ	1,895
Audiomeca J1		3,500
Basis 2000		1,995
Basis 2001		2,995
Basis Ovation II		5,400
Basis 2500		5,495
Basis 2800	ⓐ	7,495
Basis Debut Gold Std III		8,200
Basis Debut Gold Vacuum		10,300
Chantry QT Level 2	ⓐ	705
Clearaudio Evolution	ⓐ	1,790
Clearaudio Reference		3,990
DNM-Reson Rota 1	ⓐ	3,900
DNM-Reson Rota 2	ⓐ	5,600
Impulse Moskito	ⓐ	695
Kuzma Stabi		1,950
Kuzma Stabi Reference		3,750
Linn LP12 Basik		1,100
Linn LP12 Lingo		1,750
Mantecore Mantra		895
Mantecore Magister		4,400
Michell Gyrodeck		875
Michell Orbe		1,995
N'harm Spacedeck		750
N'harm Graphic		1,200
N'harm HyperSpacedeck		1,500
N'harm Mentor		2,600
N'harm Anna Log		5,500
Oracle Pars		1,100
Oracle Delphi		3,370
Oracle Delphi 15th Annv		3,800
Pink Triangle Tarantella		680
Rega Planar 9	ⓐ	1,598
Reson RS1M	ⓐ	600
Reson Rota 1	ⓐ	3,900
Rockport Capella II		7,000
Rockport Sirius III	ⓐ	50,000
Roksan Xenex 10		1,295
Roksan TMS		2,750
SME Model 20/2		3,403
SME Model 20/2A	ⓐ	4,863
SME Model 30/2		10,675
SME Model 30/2A	ⓐ	12,135
Stratosphere ST1		6,500
Technics SL-1200LTD	ⓐ	700
Thorens TD-146 VI TP50	ⓐ	550
Thorens TD-2001 TP90	ⓐ	700
Thorens TD-520 SME		1,050
Well Tempered Record Player	ⓐ	1,850
Well Tempered Classic	ⓐ	2,980
Well Tempered Super	ⓐ	3,900
Well Tempered Reference	ⓐ	5,300
Wilson Benesch Circle		795
Wilson Benesch WB Turntable		1,775
Wilson Benesch Full Circle	ⓐ	1,995

## PRODUCTS TESTED & RATED

Turn over for a full  
round-up of all  
reviewed products!



*Do you want to choose your hifi in a comfortable and relaxing environment . . . ?*

*Do you want friendly and helpful advice (and a cup of tea) . . . ?*

*Do you want to buy your system based on what you hear (and not what somebody tells you) . . . ?*

*Do you live in GUILDFORD . . . ?*

. . . or Addlestone, Aldershot, Ashford (Middx), Ashstead, Bagshot, Basingstoke, Bracknell, Camberley, Chertsey, Crowthorne, Cranleigh, Dorking, Epsom, Esher, Farnborough, Farnham, Fleet, Frimley, Godalming, Hartley Wintney, Haslemere, Hook, Horsham, Kingston, Liphook, Leatherhead, Molesey (East & West), New Malden, Odiham, Petersfield, Reading, Reigate, Redhill, Richmond, Shepperton, Virginia Water, Walton-on-Thames, West Byfleet, Weybridge, Windsor, Woking, Wokingham, Yateley?

**Nobody else** in these areas stocks all the following major brands: Acoustic Energy, Arcam, Audiolab, Aura, B&W, Cyrus, Epos, DPA, Harman Kardon, Heybrook, Infinity, JPW, KEF (Reference), Linn Products (including records), Marantz, Meridian, Mission, Musical Fidelity, NAD, Nakamichi, Onix, Pioneer, PROAC, QED (Systemline), Quad, Rega, Revox, Rogers, Rotel, Sony, Sound Org, Target, T.D.L., Yamaha (including Home Cinema Systems) & Top Tape.

**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).

# PJ HIFI

**Guildford's only REAL Hi-Fi shop**

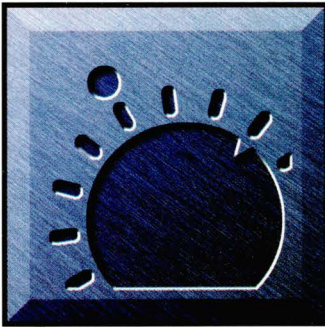
PHONE  
NOW FOR  
DISCONTINUED  
AND  
EX-DEM  
BARGAINS

We are at:  
**3 BRIDGE STREET, GUILDFORD**  
*(by the traffic lights –  
next door to Alfred Marks)*

**01483 504801 • 01483 304756**

NEW!  
LINN  
AV51 SYSTEM  
MERIDIAN  
DIGITAL THEATRE  
&  
YAMAHA  
DSP  
all on permanent  
demonstration

Access • Visa • Switch Open Monday – Saturday 9am – 6pm (later by appointment)



## Amplifiers

The amplifier is at the heart of any hi-fi system, accepting the outputs from various music sources, increasing the amplitude of their signal and then driving the loudspeakers to produce sound. One-box 'integrated' amps rule the roost at low-to-middle price points, but if you pay more, the low-level and high-level signal processes are separated into preamp and power amp boxes, and even separate 'outboard' power supplies come into play. Another luxury is a separate amp for each stereo channel: such devices are known as monoblocks. Finally, output power and sound quality are not necessarily related. Some of the finest amplifiers outputs only 12 Watts, but will yield loudness aplenty when partnered with high-efficiency loudspeakers.

### KEY TO SPECIFICATIONS

**LINE INPUTS:** Number of input sockets for line-level (non-vinyl) sources such as CD players, tuners and cassette decks.  
**MM PHONO INPUT:** An input specially designed for moving magnet (high output) phono pickup cartridges.  
**MC PHONO INPUT:** An input for moving coil (low output) phono pickup cartridges.  
**REMOTE CONTROL:** An infra-red handset to adjust volume etc.  
**HEADPHONE SOCKET:** An integral output for headphones.  
**POWER OUTPUT (Watts):** Our measurement of an amp's RMS power output into 8 Ohms.  
**RECEIVER:** An amplifier with built-in radio receiver (tuner).  
**FACTSBACK REFERENCE:** The Factsback Reference number permits direct access to our faxed review reprint service. For full info, see the Factsback advert on the penultimate page of the mag.  
**ISSUE NUMBER:** The issue of *Hi-Fi Choice* in which an original review appeared.  
**H:** High End Review

**B BEST BUY**    **R RECOMMENDED**    **E EDITOR'S CHOICE**

# Amplifiers

### SPECIFICATIONS

MM PHONO INPUTS  
 MC PHONO INPUTS  
 REMOTE CONTROL  
 HEADPHONE SOCKET  
 POWER OUTPUT (W)  
 RECEIVER  
 FACTSBACK NO.  
 ISSUE NUMBER

STATUS

PRODUCT	(£)	COMMENTS	LINE INPUTS	MM PHONO INPUTS	MC PHONO INPUTS	REMOTE CONTROL	HEADPHONE SOCKET	POWER OUTPUT (W)	RECEIVER	FACTSBACK NO.	ISSUE NUMBER
Alchemist Maxim	319	Vivid and colourful-sounding amp, but just too bold and brassy	5	●				30		1737	154
Alchemist Kraken APD6A	579	Compact, with Darth Vader styling, yet sound quality is meek and mild, despite strong midband dynamics	5	●				55		2150	175
Alchemist Nemesis	700	Good if ultimately undistinguished amplifier whose strengths include warmth, authority and distinctive aesthetics	6					80		2006	168
AMC 3025a	140	Surprisingly potent and easy on the ear, if not especially analytical – classic bargain-basement material, in fact	4	●	●	●	●	30		2045	171
AMC 3050a	170	Tremendous value for money, and a full, big, if rather uninformative sound	4	●	●	●	●	45		1970	167
AMC CVT3030a	400	Beer-budget valve amp, with valve-like virtues (euphony with dynamics) and vices (system dependency, noise)	6	●				30		2001	168
Arcam Alpha 7	260	Decent, if slightly system-fussy amplifier that generally pulls all the right strings	5	●				40		1971	167
Arcam Alpha 8	360	Enjoyably soft-centred amp, won't frighten the animals. Upgradeable via preamp output, and optional remote	5	●				50		1853	162
Arcam Alpha 9	500	Not quite a match for the Alpha 9/9P Combo, the solo integrated is nevertheless colourful and explicitly detailed	7				●	70		2007	168
Arcam Alpha 10	800	Although not the best sounding in its class, the Alpha 10's modular nature demands it be taken seriously	5				●	100			181
Audio Analogue Puccini	450	Superbly finished, the entry-level Audio Analogue performs way out of its class	5	●	●			40		2147	175
Audio Analogue Puccini SE	595	Upgraded, more powerful Puccini is disappointingly sluggish and curiously lacking in musical vitality	5	●	●			40			181
Audiogram MB1	493	The only flaws are the amateurish build, a number of technical problems and inconsistent sound quality	4	●			●	40		2235	178
Audio Note Oto SE	1,200	Transparent, dynamic, clear and subtle, but offers limited power output	4					24			126
Audiolab 8000LX	470	Well built, entry-level model lacks bottle and pizzazz. Superseded by new TAG McLaren Audio products	6					60		2148	175
Audiolab 8000S	700	Informative in every sense, only a slight lack of bite detracts. Superseded by new TAG McLaren Audio products	6				●	60		1740	154
AVI S2000MI	999	Fine, detailed amplifier with excellent timing and strong control of a wide range of loudspeaker loads	5				●	100		2155	175
Bryston B60R	1,249	Great build, but the lazy bass and opaque treble bracket an articulate midband. Comes with 20 year guarantee	5				●	60		2156	175
Cambridge Audio A3i	200	"Maximum information" design, with plenty of usable and reasonably refined power. A snip!	4	●				60		1972	167
Copland CSA8	945	Sophisticated yet transparent, this is one of those amplifiers that sounds good even when the gloss has worn off	5					60		2010	168
Copland CSA14	1,199	Great sound and looks, but avoid high capacitance speaker cables	4	●				60		1416	148
CR Developments CR324	569	Solid and capable on paper, this is a bit of a blunt instrument when let loose on the music	5					150			181
Credo IMP702	850	Old-fashioned looking, but bags of clarity and precision, though it can sound brash in the wrong system	5					70		2157	175
Cymbal CA1	499	Lacklustre amplifier tends to underperform with complex material. Best with straightforward compact loudspeakers	6					40		2236	178
Creek 4330	279	Compact, even pretty, but sounds dark and uninviting, with coarse treble and 'woomy' bass	5					40		2052	171
Denon PMA-250SE	160	This amp can sound rough when extended, but within its limits it is open, detailed and likeable	5				●	30		2046	171
Denon PMA-350SE	200	Reinvented in the minimalist tradition, this SE model is a control freak, but can sound wonderful	5				●	50		1856	162
Denon PMA-425R	230	Well-equipped and generally enjoyable but slightly ragged performer	3	●				45		1973	167
Denon PMA-725R	350	Warm, bold, up-front presentation, but musically unexciting	5	●	●	●	●	97		1802	157
Denon PMA-1500R	500	Recommended for its outrageous power, especially with problem speakers.	5	●	●	●	●	70			181
Densen Beat B-100 MkII	650	High 'air guitar' factor, and can punch above its weight, but check it will complement your system	5					60		1855	175
DPA Renaissance	595	DPA's first integrated amp is typically innovative, but a little too 'crisp'n'dry' for our tastes	5	●				40		1582	140
EMF Audio Sequel	450	Relaxed and restrained design from Mike Creek	5	●				50			109
Exposure XX Super	700	Rather transistorised, unexciting sound. Good coherence and rhythm. Best played loud	6					55		1743	154
Electrocompaniet EC1-2	995	A 50 watt amplifier which sounds more powerful, and makes 'real sounding' music.	4					50		2158	175
Gamma Acoustics Gemini	699	Genuine single-ended triode design, but with low power, mundane sound and poor build	3					12		1416	148
Goodmans Delta 900A	130	Coloured and raw sound tarnish high power yield and remarkable pricing, and noisy fan cooling is a real joy-killer	5	●			●	100		2228	178
Harman/Kardon HK610	180	Lively and friendly sound, but could prove too exciting for the faint hearted	6	●			●	30		1465	149
Harman/Kardon HK620	250	Capable and musical amplifier which is one of the nicest at this price. Optional add-in MM/MC board available	6				●	40		1858	162
Hofli Audis Signature	750	A 'no-feedback' circuit giving outstanding resolution, but significant load dependency	4	●				65			181
Jolida 202	695	Well-built and technically accomplished, affordable valve integrated with subtle refined, if not quite gripping sound	4					40		2011	168
JVC AX-V4	200	Respectable performance for a Pro-Logic AV amplifier. Lacks resolution and sparkle, though	5	●				63		1805	157
JVC AX-R5	200	Versatile, and lots of even-handed, articulate detail; but let down by superficiality	5	●				45		1466	149
Kenwood KA-3020SE	200	Not a brilliant phono stage, but this is a lively, exuberant-sounding amp via CD	5	●			●	50		1130	134
Kenwood KA-5090R	300	Large, well equipped and high tech integrated, but TRAITR output still gives a harsh, unsubtle performance	5	●	●	●	●	65		2053	171
Lavardin Model IT	£3,200	Banishment of 'memory distortion' delivers an amp with the best of valve and transistor sound characteristics	4					40			184
LFD Integrated Zero	549	Lively and brisk, but at the same time cold and unsympathetic	6					50		1584	140
Linn Majik (phono)	800	The cornerstone of Linn's modular hi-fi system is innovative, but sounds vague and confused	5	●	●			33		1013	129
Magnum IA120	265	Mirror finish amplifier with bold, colourful delivery, but needs careful system matching to avoid loss of clarity	6				●	65		2054	171
Magnum IA170	330	Gives a realistic sense of instruments playing within a very believable acoustic; preserves colour and dynamics	6				●	96		1260	142
Magnum IA-200	599	Sweet, valve-flavoured solid state amplifier which flatters where it doesn't cast light	7					160		1860	162
Magnum Class A	690	Lashings of rich and compelling music, but the Class A circuits trade lushness for accuracy	4	●			●	60			116
Magnum Class A SE	795	A MOSFET amplifier drawing inspiration from the world of valves, this is an erratically refined, detailed amplifier	5	●				80		2159	175
Marantz PM-57	200	Well equipped but ultimately anodyne amplifier which lacks for nothing but star quality	5	●				50		2049	171
Marantz PM-66SE	230	A bit lush, and power output is limited, but it gives airy, large-scale music. An excellent budget buy	5	●			●	50		1969	167
Marantz PM66 KI-Signature	400	It knows how to rock and roll with holographic detail and stereo, but prefers small/medium scale acoustic material	5	●			●	50		2003	168

CONTINUED

# Amplifiers

STATUS

SPECIFICATIONS

MM PHONO INPUTS  
MC PHONO INPUTS  
REMOTE CONTROL  
HEADPHONE INPUTS  
POWER OUTPUT SOCKET  
RECEIVER  
FACTSBACK NO.  
ISSUE NUMBER

PRODUCT (€) COMMENTS

▲	Micromega Tempo 2	900	Idiosyncratic but flexible amplifier with an attractively forward and expressive sound quality	7		●	●	70			181
	Mission Cyrus IIIi	598	Beautifully presented, but mid-dominated balance was not liked. Upgradeable using PSX PSU unit		●		●	50		1854	162
▲	Mission Cyrus SL	398	Articulate amplifier with build quality to die for, superb, outgoing midband and lean, though well-extended bass	6				50			168
	Monrio ASTY	400	Engaging, but ill-disciplined, even OTT amplifier with unpredictable system compatibility	5				55		2237	178
▲	Musical Fidelity E1	199	Richly flavoured tone and realistically-scaled imagery distinguish this entry-level Richer Sounds special	6				30		2050	171
	Musical Fidelity E1.1	299	Well built minimalist amp with a 5 year guarantee, but can sound congested when extended	6				60		2252	178
▲	Musical Fidelity X-A1	479	<i>Idiosyncratic visuals just another plus for an amp that is powerful, well built, and serves the music superbly</i>	6				50			181
▲	Musical Fidelity A2	500	Lucid, transparent midband and a full upper bass are provided by this highly proficient A1 replacement	5	●			25		1862	162
▲	Musical Fidelity A220	700	Powerful, authoritative and well turned-out amplifier that is easy to match with comparably priced speakers	5	●			50		2012	168
▲	Myryad MII20	600	Well styled, well built: a good, even tempered amplifier, though it can sound rather brittle	6			●	60		2153	175
▲	NAD 310	100	<i>Fleet and sure of foot, it seems likely to set all appendages tapping with its blend of enthusiasm and artfulness</i>	5				20		1468	149
	NAD 312	200	<i>Another great budget price NAD, and a worthy all-round successor to the 302</i>	6	●		●	25		2051	171
▲	NAD 314	260	Lively if coloured presentation that is musically engaging and easy on the ear	6	●			53		1807	157
▲	Naim Nait 3	575	Distinctive and highly musical sounding integrated amp. Perhaps too distinctive for some tastes	5				30		1748	154
▲	Orelle SA-100	499	<i>A musically rewarding amplifier that grows on you. Trace of coarseness in treble</i>	5				50		1749	154
▲	Orelle SA-100RX	649	<i>In its latest guise, this is a fluid, articulate and transparent design – and excellent value</i>	7			Opt	75			181
▲	Pioneer A-204R	160	The A-204R makes no special claims beyond being well equipped and cheap, but displayed unexpected quality	5	●		●	25		2047	171
	Pioneer A-300R	200	Its bright and breezy sound is a natural tonic to those of us worn down by the ongoing stress of life	5	●		●	50		1469	149
▲	Pioneer A-405R	250	Fully featured, open and dynamic sounding; makes up in enthusiasm what it occasionally lacks in refinement	5	●			45		2230	178
▲	Pioneer A-400X	300	On second audition, this amp was tonally unchanged but less compelling than on its first outing	6	●	●		50		1545	138
▲	Pioneer A-300R Precision	400	<i>Sophisticated variant of the A-300R. Not an obvious winner, but will slowly ply you with its subtle charms</i>	5	●		●	35		1863	162
	Pioneer A-605R	400	Intriguing technology, but execution is certainly impeded by excessive gadget count	5	●		●	80		2005	168
	Pioneer A-07	999	Curious blend of high-end attributes and inconsistent, though undeniably detailed sound	5	●		●	80		2160	175
▲	Primare A-20 Mk II	799	Everything except packaging has changed in mkII version: but ballsier model has lost none of its refinement	5			●	70			181
	Project Model 7	300	A minimalist amplifier brimming with good intent, but too quirky for its own good. Either MM or MC phono	5	●			40		1264	142
▲	Quad 77 Integrated	700	Compact and sophisticated amp. Has limited inputs when used with 'foreign' components. (Optional system remote)	3				84		2013	168
	Rega Elex	398	Minimalist amplifier, derived from Elicit, is a little uninspiring, though at least it is well behaved	4	●			50		1865	162
▲	Roksan Caspian	695	<i>Well-built, open and articulate amplifier, which is also consistent from system to system, and well built</i>	6			●	70		2014	168
	Rose Scion	615	Unique two-box integrated gives real subtlety and low level resolution, but the sound lacks scale and weight	5	●	●		65		2009	168
	Rotel RA-931	150	Rather dry and unforgiving sound from this internally well specified and attractively priced amplifier	4	●			35		2048	171
▲	Sony TA-F448BE	250	Minimalist interface is matched to carefully considered circuit with satisfactory effect – but keep the volume in check	5	●			55		2055	171
▲	Sony TA-F3000ES	500	<i>Champagne 'shoebbox amp' may lack power reserves, but is quick and articulate. In every sense a knockout</i>	5	●	●	●	35		2239	178
	TAG McLaren 60iRv	999	Looks, feels and sounds better than the Audiolab it supersedes. Smooth, open, refined but lacks body and drive	6			●	60			184
▲	Talk Electronics Storm 1	500	Good soundstaging and strong detail are provided by this unassuming and not especially powerful model	6				50		1868	162
▲	Talk Electronics Storm 2	650	Crisp, clean, well defined sound, arguably lacking warmth; but a good midrange purchase overall	6			●	50		2154	175
	TEAC A-BX7R	700	Characterful balance mars a meticulously designed amplifier. Includes a balanced input, optional MM/MC stage	5			●	50		1869	162
	Technics SU-A700 Mk 3	250	Fully equipped, high-tech amplifier ultimately fails the authenticity test, and can sound messy and inarticulate	5	●			45		1870	162
▲	Technics SU-A800D Mk 2	300	Two-box amplifier looks great, has plenty of gadgets, and makes good, if slightly over-exuberant music	5	●		●	55		2234	178
	Technics SU-A900D Mk 2	400	Looks like a pre/power amplifier, but in effect it's an integrated, with a rather soft-centred sound to match	5	●		●	70		2149	175
	Woodside ISA230 Disc	1,249	Smooth and inoffensive valve amplifier, though it lacks the sparkle and euphony required for ultimate success	3	●			30			116
▲	Yamaha AX-492	220	Powerful, well equipped amplifier at an attractive price, offers powerful and engaging music-making	5	●		●	85		2231	178
	Yamaha AX-592	280	Fine, middle ranking amplifier, with a detailed midband but performance declines at frequency extremes	5	●	●	●	100		2056	171
<b>PREAMPLIFIERS</b>											
	Audiolab 8000C	580	Distinctive, stark neutrality will not appeal to all. Superseded by new TAG McLaren Audio products	5	●	●					97
	Audiolab 8000Q	1,250	Tested with 8000M monoblock power amps. Superseded by new TAG McLaren Audio products	6			●			1301	145
▲	Copland CTA-301MkII	1,399	Sweet sounding, but never gets bogged down in audio treacle	4	●					1630	151
	Crimson 610C/620C	875	Not entirely satisfactory preamp which has dynamic strengths, but underachieves when the volume is raised	4	●						181
▲	EAR 802MC	2,599	Tested with 509 Mk 2 power amp. (See Power Amplifier section.)	4	●	●					63
▲	ECA Vista	760	<i>Wind up the volume and blow a breath of fresh music into your system. (Tested with Lectern power amp)</i>	5						1302	145
	Exposure XVII	850	Superbly rhythmical; maybe a bit overpowering in the midband. Tested in Sessions with XVIII Super	5	●	●					142
▲	Jadis JP-30MC	5,978	French tubes, beautiful build, nostalgic styling and delightful midrange. (Tested with JA 30 power amp)	5	●						60
	LFD Mistral Linestage	449	Strong ergonomics, generally decent sound, but a little lacking in detail	6						1930	165
	Meridian 501	695	Tight, positive sound, but dispassionate; intense at high levels. (Tested with 555 power amp)	5	●		●			1303	145
	Meridian 562V	995	Transparent and capable preamp, also features six digital inputs	9	●		●				140
	Meridian 502	1,295	Extremely sophisticated analogue controller with tremendous flexibility and a fast and tidy presentation	7			●				162
▲	Moth 30 Passive	149	<i>Modular system gives cracking results. Passive preamp and power amp warrant Best Buy</i>	4							109
	Moth 30 Active Line Stage	349	Excellent-sounding ultra-simple miniature preamp	4						1931	165
	Muse Model Three	1,990	Natural sounding tranny preamp with useful audiophile features. Works beautifully with 160 power amp	5			●				166
▲	Musical Fidelity X-PRE	200	Cleverly configured preamp with many upgrade options, and open, lively and engaging sound	4						2152	175
	Musical Fidelity Nu-Vista	1295	Fully remote, nuvistor tube equipped, with fine coherence and musicality	5	●		●				182
▲	NAD 114	270	<i>Beer-budget preamp, sounds focused, detailed and consistent</i>	6	●	●	●			1932	165
	Naim NAC92R	630	Upgradeable preamp uses proprietary socketry. (Tested with NAP90 power amp)	5			●			1936	165
▲	Quad 77 Pre	850	<i>Sophisticated design with 2-way remote control console; open colourful sound and very flexible</i>	4	●	●	●			1941	165
▲	Rega Hal	998	Passive line stages dedicated to Exon power amps	6	●	●	●			1942	165
▲	Rose RV-23	450	You can pay more to get a more transparent sound, but it's hard to criticise at the price	3	●						77
	Rotel RC-971	150	Low price is offset by rather coarse sound quality with certain types of music. (Tested with RB-971 power amp)	5			●				178
▲	Sumo Athena IIB	767	Big, natural and tidy-sounding with very natural reproduction of acoustic and electric instruments	6						1305	145
	TAG McLaren PA20R	1500	Refinement of Audiolab original with clean, detailed sound but limited thrill power. (1/w 125M monoblocks.)	6			●				184
	Talk Hurricane 2L	649	Design of integrity which gets to the heart, if not the soul, of the music	6						1937	165
	Thorens TTP2000F	699	Glamorous, shoebbox-format, minimalist pre with fine detail and some granularity	3	●	●	●			1938	165

CONTINUED

# Amplifiers

SPECIFICATIONS

MM PHONO INPUTS  
MC PHONO INPUTS  
REMOTE CONTROL  
HEADPHONE SOCKET  
POWER OUTPUT (W)  
RECEIVER  
FACTSBACK NO.  
ISSUE NUMBER

STATUS

PRODUCT	(£)	COMMENTS	MM PHONO INPUTS	MC PHONO INPUTS	REMOTE CONTROL	HEADPHONE SOCKET	POWER OUTPUT (W)	RECEIVER	FACTSBACK NO.	ISSUE NUMBER
Woodside SC26 Phono	2,233	Synergistic with STA35, with a cool, controlled sound, good focus and transparency. (Tested with STA35)	5	●	●					100
Alchemist Kraken/Pwr	529	Hardly accurate, but entertaining nevertheless	1					60		124
<b>POWER AMPLIFIERS</b>										
Arcam Alpha 9P	400	Clear, colourful and well-disciplined, the Arcam is a strong all-rounder that can compete with conviction	1					60	1929	165
Arcam Alpha 10P	£600	Good all-rounder with huge headroom and a taut, controlled sound. Not the last word in transparency	1					100		183
Art Audio Quintet	1,393	Switchable triode, ultralinear output stage. In triode mode, these are 15 of the sweetest Watts around	1					15		109
Audiolab 8000M	1,600	Strong, controlled sound; confident bass, but colourless. Superseded by new TAG McLaren Audio products	1					125	1301	145
Copland CTA-505	2,099	Grown-up amplifier with a refined, yet never over-civilised air	1					67	1630	151
Crimson 620C	875	Not entirely satisfactory power amp which has dynamic strengths, but underachieves when the volume is raised	1					50		181
Cyrus Power	£498	Detail and midband clarity and stand-out qualities. Smooth and refined with most types of music but bass-soft	1					50		183
Densen B-300	£800	Expensive but highly musical. Colourful and warm sound with strong timing and listener involvement	1					100		183
EAR 509 Mk II	3,699	Combining sonic strengths of transistors and valves, this amp warrants attention. (Tested with 802 Preamp)	1					100		63
ECA Lectern	880	Tested with Vista. Wind up the volume and blow a breath of fresh music into your system	1					50	1302	145
LFD Mistral Power	449	Infectious upper band vitality, but LF dynamics lacking – likewise 'grip' and transparency	1					60	1930	165
Meridian 555	750	By providing an open window on the music, this amp is wide open to RF and low level IM distortions	1					60	1303	145
Michell Alecto stereo	1,150	Open, well-focused imagery with natural, refined textures	1					50	1940	165
Moth 60 Watt Stereo	599	Miniature power amp lacks control and finesse – not comfortable with difficult speaker loads	1					60	1931	165
Moth 30 Series Monoblocks	879	Tested with Active Preamp. Demonstrated solid balance and proved adept at delivering vital musical qualities	1					100		155
Musical Fidelity FX2	800	Quality build and imposing presentation is married to strong power yield, tonal colour and finesse	1					100	1934	165
Musical Fidelity X-A50	500	Cleverly configured and attractively packaged, open, lively and engaging sound. Reviewed with X-PRE	1					50		175
Myriad MA120	450	Based in MI120 integrated – see latter for comments, but sounds significantly better when bi-amped with MI120	1					60	1935	165
NAD 214	370	A little lightweight, but detailed, consistent sound quality, and excellent value for money	1					80	1932	165
Naim NAP90	450	Power amp from a Nait integrated with some improvements	1					30	1936	165
Quad 77 Power	600	Open, bold and colourful, with mild compression	1					85	1941	165
Rega Exon	1,196	Monoblock, priced each, dedicated for Hal preamp. Bold, outgoing, in-command kind of sound	1					125	1942	165
Roksan Capstan Power	£595	Excels musically and in conventional hi-fi terms. A power amp for people with long-term satisfaction in mind	1					70W		183
Rotel RB-971	200	Somewhat better than the accompanying preamp – clean, mean and bridgeable. (Tested with RC-971)	1					70		178
Rotel RB-980BX	450	Tames enthusiastically recorded material with a laid-back and occasionally smeared sound	1					120		155
Sirus D200	2995	Single MOSFET pair per side gives tremendous resolution and timing (balanced only)	1					200		183
Sumo Polaris III	950	Tested with Athena IIB. Big and tidy-sounding with very natural reproduction of acoustic and electric instruments	1					164	1305	145
TAG McLaren 125M	2400	Refined Audiolab replacement monoblocks with clean sound but limited thrill power. (t/w PA20R preamp)	1					145		184
Talk Tornado 2	600	Good, but slightly retiring sound which lacks the authority to stand out in a crowd	1					65	1937	165
Thorens TTA2000	599	Low power shoe-box format, but gutsy and surprisingly subtle and articulate	1					30	1938	165



## Cables

Cables are an integral part of a hi-fi system, required to connect source components to amplifiers, and the latter to speakers.

- Analogue Interconnects connect source components and amplifiers, and run between pre and power amps. They are priced for one-metre terminated pairs.
- Digital interconnects connect CD transport to DACs or digital recorders. They come in optical and electrical varieties, the former being made of plastic or glass. The prices shown are for a terminated linear metre.
- Speaker cables are used between the amplifier and speaker. Our prices are per unterminated metre. Termination (plugs and soldering) costs vary.

KEY TO SPECIFICATIONS

- SYMMETRICAL: A twisted pair of conductors.
- COAXIAL: A central 'hot' conductor and a shield that carries the negative signal.
- STRANDED: Multiple strands with no intervening insulation.
- SOLID CORE: Single or multiple, individually insulated strands.
- COPPER: Material used for conductor.
- SILVER: Material used for conductor.
- DIG CABLE TYPE: O - optical digital; E - electrical digital for CD Players, DACs and digital recorders.
- FACTSBACK REFERENCE: The Factsback Reference number permits direct access to our faxed review reprint service. For full info, see the Factsback ad on the penultimate page of the mag.
- ISSUE NUMBER: The issue of Hi-Fi Choice in which an original review appeared.
- BE: High End Review

**B** BEST BUY   **R** RECOMMENDED   **E** EDITOR'S CHOICE

STATUS

# Cables

SPECIFICATIONS

SYMMETRICAL  
COAXIAL  
STRANDED  
SOLID CORE  
COPPER  
SILVER  
DIG CABLE TYPE  
FACTSBACK NO.  
ISSUE NUMBER

PRODUCT	(£)	COMMENTS	SYMMETRICAL	COAXIAL	STRANDED	SOLID CORE	COPPER	SILVER	DIG CABLE TYPE	FACTSBACK NO.	ISSUE NUMBER
<b>ANALOGUE INTERCONNECTS</b>											
Audio Note AN-A	18	Not especially impressive: warm but well-rounded balance that restricts 'air' but is quite clear									108
Audio Note AN-C	35	Neutral but lacking in subtle texture and unable to distinguish fine detail								1687	131
Audio Note AN-S	99	Up-beat and enthusiastic sound with satisfyingly deep and grumbly bass								1687	131
Audio Note AN-V	179	15 individually insulated silver strands make up this very clean and dynamically unchallenged cable								1687	131
Audioquest Turquoise	40	A 'fit and forget' cable that sounds distinctly lazy									160
Audioquest Topaz 2	60	Sounds flattened out, with poor imaging and grainy treble								2166	176
CableTalk Advanced 2	35	Slight roughness in loud music barely detracts from a well-balanced performance with good imaging								2166	176
Cable Talk Studio 2	65	A first-class performer from tonal, dynamic and rhythmic standpoints									160
Cambridge Pacific	30	Lacks subtlety and bass impact but is otherwise quite serviceable for the price								2167	176
Cambridge Audio Studio Ref	40	Dynamic cable with strong soundstaging and only a slight lack of detail									160
Chord Company Cobra 2	50	Good, strong sound with full-bodied music, less happy with smaller forces								2167	176
Connections Midas HD	39	Canary yellow cable with excellent plugs and an open sound. Slight treble glare									160
DNM TCC75	34	Price for 0.75m. High resolution cable, but best in short runs due to higher than average series impedance								1690	131
DPA Slink	41	Slightly bright and zingy with flat soundstaging and hollow bass, though vocals and strings sound convincing								1690	131
DPA White Slink	75	Bass recedes as the music gets complex; midrange and treble better with quite good detail and imaging								2168	176
DPA Black Slink	245	Initially dark and meaty but after running in, it's lucid and transparent. Quad geometry, Gore-Tex dielectric								1691	131
Goertz M1 Interconnect	145	Soft sound lacking in bite, with excessive and plummy bass (NB sample used in review was only 0.5m)								2168	176
Insert Audio IC100 MkII	47	Mostly good sound is let down by pervasive dryness								2169	176

CONTINUED

# Cables

STATUS

SPECIFICATIONS

SYMMETRICAL  
COAXIAL  
STRANDED  
SOLID CORE  
COPPER  
SILVER  
DIG. CABLE TYPE  
ISSUE NUMBER  
FACTSBACK NO.

PRODUCT (E) COMMENTS

PRODUCT	(E)	COMMENTS	SYMMETRICAL	COAXIAL	STRANDED	SOLID CORE	COPPER	SILVER	DIG. CABLE TYPE	ISSUE NUMBER	FACTSBACK NO.	
▲ Ixos 104	20	Open and detailed presentation, full bass and silky if overly smooth treble					●	●	●	1692	131	
Ixos Gamma 1002	39	Lumpy bass, grainy treble, and poor integration. Nice colour, though	●				●	●		2169	176	
▲ Ixos 103	45	Even-handed and generous sound, bass has a well-rounded, bouncy quality					●	●	●	1692	131	
Ixos 102	60	A bit bright and undynamic, this cable is nevertheless a good all-rounder, whose faults are largely subtractive	●				●	●			160	
Ixos 101	100	A cable with personality: its veiled and shut in quality bring an earthiness to vocals and rhythm guitar alike	●				●	●	●	1693	131	
▲ Kimber Hero	110	Slight roughness detracts from some music; seems well suited to rock and jazz. Lively and detailed	●				●	●		2170	176	
▲ Moth Ley Line Black	100	Offers a full sound, neutral yet very solid and confident in delivery. Expansive imaging retains music's energy	●				●	●	●		108	
Moth Ley Line Grey	200	Detailed, but there's a sense of distance between music and listener: vocals are coarse rather than liquid	●				●	●	●		108	
Nordost Black Knight	60	Flat black cable that is distinctive but slightly coloured – but not in a wholly negative manner	●				●	●			160	
▲ Nordost Blue Heaven	145	Very good bass and only slightly grainy treble add up to a well integrated, natural-sounding cable	●				●	●			176	
▲ Prowire Silver	60	A good cable in every way, with just the occasional hint of coloration and coarseness					●	●	●	2171	176	
PAD Elementa	145	A fat, heavy and frankly rather lazy-sounding cable; best with music for small forces	●				●	●		2171	176	
▲ QED Qnect 2	30	Very well balanced, refined and detailed, this is everything a good cable should be, and excellent value					●	●		2172	176	
Silvertone Ex-Static	35	Pleasantly unfatiguing and competitively priced cable that lacks detail and insight					●	●	●		160	
▲ SonicLink Silver Pink	35	Dynamically sensitive and muddle-free. We're unsure about the flesh-coloured finish though...	●				●	●	●		160	
▲ Sonic Link Black	49	Nickel-plated copper with a slight dryness in the bass and a hint of treble roll-off don't compromise integration	●				●	●	●	2172	176	
▲ Straight Wire Chorus	40	A very confident cable with good bass, though perhaps a shade of treble loss					●	●	●	2173	176	
van den Hul The Storm	25	Price for 0.8m. Rich and warm but bass is rolled off; however there's plenty of drive and top end is clean	●				●	●		1701	131	
van den Hul Source HB	50	Price for 0.8m. Hybrid carbon-fibre/copper cable that is a paragon of naturalness	●				●	●	●		160	
▲ van den Hul D102 MkIII	70	A cable with everything: good bass, treble, imaging and naturalness					●	●		2173	176	
van den Hul The First	210	Using 12,000 carbon fibres, a gentle and subtle sounding cable that conveys oodles of information					●	●	●	1702	131	
van den Hul The Second	240	Wonderfully open and relaxing but also intimately detailed, slightly softens percussive dynamics	●				●	●	●	1702	131	
XLO Type 150	50	A restrained but useful cable for taming lively CD players, dynamics lack freedom, treble lacks clarity	●				●	●	●	1703	131	
▲ XLO Type 0.1	180	Unusual but highly expressive and detailed with a hint of graininess on powerful vocals					●	●		1703	131	
<b>DIGITAL INTERCONNECTS</b>												
Audioquest Digital Pro	100	A silver cable with all the drive of Video Z but lacking its clear-cut transparency					●	●		E	108	
Chord Codac	36	A connection with a stranded inner core and a sound that lacks integration	●				●	●	●	E	108	
▲ Chord Prodac	50	Price for 0.6m length. Lively detailed treble, drives music along confidently with no hint of fizz					●	●	●	E	1706	131
DPA Opti-link	20	Sound is lacklustre								O	108	
▲ DPA Digi-link	28	Can seem slightly impassive but there's no avoiding its exceptionally detailed sound	●				●	●	●	E	108	
▲ Ixos 105	25	Extended but soft-edged treble that's mercifully free of fatiguing colourations; plenty of weight, smooth					●	●	●	E	1707	131
▲ Kimber Kable Opti-link	50	Appears to be a bog-standard PMMA fibre, yet sounds a little brighter and livelier than most								O	108	
Moth Leyline Datalink	140	A thin, coaxial version of Leyline Black with a rather hard and unforgiving character. Too expensive	●				●	●	●	E	108	
▲ QED DigiFlex	20	A top performance, low-loss 75 Ohm coax with a very open, almost liquid quality	●				●	●	●	E	108	
Siltech HF-6	145	Sounds detailed, very clean and extended, but bass is less well resolved – a treat for high-end systems	●				●	●	●	E	1709	131
▲ SonicLink Green	60	Spacious, positive and engaging if a bit over-crisp at times – very compelling, however					●	●	●	E	1709	131
▲ van den Hul The First	125	Exceptionally natural albeit slightly cautious compared to some. Plenty of subtle information and integration	●				●	●		E	1710	131
<b>LOUDSPEAKER CABLES</b>												
ALR Jordan QMM	5	Generally neutral, if sometimes bass-shy, but not very communicative	●				●	●	●		183	
Audio Note AN-D	4.50	Supplied in linear, non-polarised lengths that are twisted into stereo pairs. Sounds rather grippy and forward						●	●		109	
▲ Audio Note AN-B	16.50	Well suited to valve systems, elastic bass, methodical but unintrusive and musical					●	●	●	1711	133	
▲ Audio Note AN-L	29.50	Fruity bass and expressive vocal rendition was appreciated by the panel, which was happy to accept its foibles	●				●	●	●	1712	133	
▲ Audio Note AN-SP	150	A calm and civilised presentation, very quiet in the way it reveals subtle low level detail. Great poise and clarity	●				●	●	●		109	
▲ Audioquest F-14	2.2	Ideal for laying under carpets. F-14 encourages a slightly warm and vibrant sound					●	●	●		109	
Audioquest Type 4	5	Four 18-gauge OFHC copper conductors wound in a Litz-type fashion increases capacitance but restrains 'bite'	●				●	●	●		109	
Audioquest Type 6	9	A very inflexible cable in which the sonic ends don't quite justify the means	●				●	●	●		183	
Audioquest Crystal	25	Neutral balance is spoiled by some graininess and smearing	●				●	●	●		168	
▲ Bandridge LC7409	4	Detailed and up-beat cable. A bit too steely for classical strings					●	●	●	1800	157	
▲ Cable Talk Talk 3.1	2.25	Quite well-balanced but tends to lose bass lines in complex music	●				●	●	●		168	
Cable Talk 4.1	4.25	Smooth and cultured sound that lacks fine detail and is a bit too restrained					●	●	●	1800	157	
DNM LSC350	6.95	Majors on midband and lower treble lucidity at the expense of bass and extreme treble extension	●				●	●	●		168	
▲ DNM LSCB500	12	High impedance can influence the treble response, but this was a winner on sound per pound. Bi-wire					●	●	●	1716	133	
▲ DPA Black Sixteen	100	Unflappable resolution of musical details. No dampening of dynamics, simply oodles of taut information	●				●	●	●	1717	133	
▲ Gale XL189	1	Slightly bright and not too subtle, but a perfectly acceptable cable for any starter system	●				●	●	●		168	



Tel: 0181 348 5676 (2.00-7.00 pm)  
Fax: 0181 341 9368

## Esoteric High Fidelity CABLES

Dealers in: Absolute, Audio Note, Audioquest, Deltec, Electrocompaniet, Harmonix, Kimber, Mandrake, MIT, Siltech, Symo, Transparent, 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**

13 John Princes Street, London W1M 9HB (A division of Connection 90' Travel Ltd.)

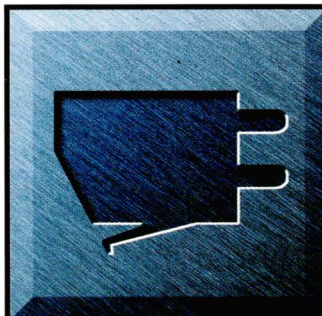
CONTINUED

# Cables

STATUS

SPECIFICATIONS

PRODUCT	(£)	COMMENTS	SYMMETRICAL	COAXIAL	STRANDED	SOLID CORE	COPPER	SILVER	DIG CABLE TYPE	FACTSBACK NO.	ISSUE NUMBER
Gale XL315	2	A little lacking in detail but plenty of life and excellent value					●	●		1800	157
Gale XL160-2	2.50	Rhythmic and bouncy-sounding bi-wire cable. Can be slightly manipulative					●	●		1800	157
Goertz M2	32	Remarkably detailed, smooth, neutral and with excellent bass; check amplifier compatibility	●				●	●			168
Heybrook Heywire	3.5	This well-meaning facsimile of earlier ribbon cables ends up sounding lumpy and uneven					●	●			109
Hitachi LC-OFC	7	Very crisp, very clear and very confident. In the right system would be very expensive to better	●				●	●			109
Kimber 4TC	19.6	A well-balanced cable with good performance in all areas	●				●	●			168
Kimber 4VS	9	A good mix of virtues including particularly fine bass	●				●	●			183
Linn K20	4	Seems to work best with lively, unobtrusive music - can be dry and edgy					●	●			183
Naim NACA 5	5.5	A 'dinosaur of a cable', this stiff wire rod doesn't belong outside Naim systems, where it works a treat					●	●			109
Nordost Octava	3	Fair bass but confused treble and some coloration					●	●			168
Ortofon SPK100	3	Grey-sounding - strips instruments of their natural richness and resonance. A bit bass-shy, too					●	●			133
Ortofon SPK200	4.99	Good strong bass and fair detail, only slightly marred by a little dryness	●				●	●			183
Ortofon SPK300	8	Tremendously open and atmospheric, with robust, full-blooded bass - if slightly bright at times					●	●			133
Precious Metals SL102	10	Unusual construction gives rather strained sound, only really cheering up with simple musical textures	●				●	●			183
Puresonic 7845	1.95	Big, weighty sound - but too messy and bloated for its own good	●				●	●			183
Puresonic 7891	2.85	Chunky cable design; shame about the sound quality	●				●	●		1800	157
QED Qudos	2.25	Despite high-tech design and excellent Air-Loc plugs, its music-making failed to gel					●	●		1800	157
QED Profile 4x4	9	Good midrange and treble balance, but bass is rather slack and detail not outstanding									168
QED Qudos Silver	5	Basic figure-8 cable adds value with silver plating, to generally smooth and detailed effect	●				●	●			183
Silver Sounds 12 gauge	15	Basic 'homemade' construction gives fairly neutral sound. Price not outstandingly competitive	●				●	●			168
Sonic Link S300	18	Happiest with simple music; tends to smudge detail in complex pieces	●				●	●			168
SonicLink AST50	1.95	It may look like bell-wire, but AST50 sounds detailed, ordered and balanced					●	●		1800	157
SonicLink AST150	3.95	Slightly plummy bass and a useful way of holding musical strands together					●	●		1800	157
Straight Wire Quartet	8	A good all-rounder with full tone, clear detail and natural ambience	●				●	●			183
Supra Ply 3.4	6.95	Clean sound which stays together well at high levels, with full bass - perhaps a touch of treble restriction	●				●	●			183
Tara Labs Klara	2.95	A good budget cable with an even spread of virtues - and very minor vices - across the board	●				●	●			183
van den Gold Water	7	Bass becomes shy when there's a lot happening, and detail could be clearer	●				●	●			183
van den Hul The Clearwater	7	Despite its evocative title, the Clearwater turns out to be a disappointingly murky-sounding cable					●	●	●		109
van den Hul The Magnum	38	Touted as vdH's most prestigious twin-lead cable, Magnum sounds soft and old-fashioned					●	●	●		109
van den Hul The Wind	40	'The Wind' kicks up a storm with its lush midrange and bone-crunching bass!					●	●	●		109
van den Hul Revolution	76	Silver-plated OFC combined with carbon fibre prompts a sombre character with an easy and relaxed treble	●				●	●	●	1726	133
XLO Pro Type 625	4	Lively but natural and relaxed-sounding - a hint of congestion at frequency extremes					●	●	●	1726	133
XLO Pro 600	16.60	Basically neutral tonality but can become aggressive and two-dimensional	●				●	●			168



# Cartridges

Cartridges fall into two groups: high output MM (moving magnet) models, capable of working directly into most phono inputs; and generally more expensive low- and very-low-output MC (moving coil) models. MC cartridges usually have better mechanical integrity, tighter tolerances and give better performance. Many amplifiers are no longer equipped with the necessary phono input for a cartridge, and a separate phono stage is necessary. Phono-input-equipped valve amps need a transformer to cope with MC cartridges. ■ Even basic high-output MM cartridge designs will benefit from a customised amplifier input load. Consult your dealer for further details on this topic.

KEY TO SPECIFICATIONS

- **MM:** Moving-magnet cartridge with a normal output, suitable for all amplifier phono inputs.
  - **MC:** Moving-coil cartridge with a low output, only suitable for high-sensitivity MC amplifier phono inputs.
  - **REPLACEABLE STYLUS:** Most MM cartridges have a stylus (needle) that can be removed and replaced when worn out.
  - **OUTPUT (mV):** Cartridge output in millivolts.
  - **MASS (g):** The mass of your chosen cartridge.
- affects the choice of partnering tonearm. Consult dealers or manufacturers to establish which arms and pickups work well together.
- **FACTSBACK REFERENCE:** The Factsback Reference number permits direct access to our faxed review reprint service. For full info, see the Factsback ad on the penultimate page of the mag.
  - **ISSUE NUMBER:** The issue of Hi-Fi Choice in which an original review appeared.
  - H:** High End Review

**B BEST BUY** **R RECOMMENDED** **E EDITOR'S CHOICE**

STATUS

# Cartridges

SPECIFICATIONS

PRODUCT	(£)	COMMENTS	MM	MC	REPLACEABLE STYLUS	OUTPUT (mV)	MASS (g)	FACTSBACK NO.	ISSUE NUMBER	
Audio Technica AT-95E	20	Clear and dynamic, though richly balanced				●	2.8		48	
Clearaudio Signature	1,495	A great all-round performer with fine dynamic vitality and a seductive midband intimacy				●	0.55	11.5	2142	175
Denon DL110	70	A fine all-rounder, this high output MC model is likely to perform well				●	1.0	6		48
Denon DL160	90	Although listeners just preferred the 110, its brother here survived lab tests and is still 'thoroughly competent'				●	0.1	6		43
Denon DL103	100	Good performance in bass and good 'life'. Is seriously let down by its spherical stylus which kills subtle detail				●	0.1	6		103
Denon DL304	200	Uncoloured, detailed, tracks superbly. Top notch altogether, and a bargain at the price				●				103
Dynavector Karat 17D2 mk2	450	Clean and controlled sound with taut, tuneful bass. Detailed and musically cogent				●	0.15	5.3		158
Dynavector Te-Kaitora	1,698	A real smoothie, but pricey. Worth checking out for its delicate laid-back transparency and low needle-talk				●	0.25	8.5	2142	175
Dynavector XX-1L	998	Very clear, very detailed; a response lift around 20kHz seems to do no harm				●	0.25	12		84
Dynavector XX-1	998	Good, but not immensely competitive at the price, and not helped by comparison with the low output version				●	2.0	12		84
Goldring Elan	19	A lightweight and frisky-sounding MM apparently based on Nagaoka MM4 body	●			●	5.0	7		67
Goldring 1012GX	79	Slightly harsh but plenty of life and detail. Some high frequency colouration apparent	●			●	6.5	7		85
Goldring 1022GX	99	As with 1012, a touch harsh; detail and transient purity improved	●			●	6.5	7		85
Goldring Eroica LX	110	Not the most subtle cartridge in the world: can sound edgy at times, but lively and informative				●	0.5	8		84
Goldring 1042	120	Not terribly subtle, and not such good value alongside 1012 and 1022. Quite lively, though				●	6.5	6		91
Goldring Elite	220	The basics are right, and it will cheerfully tackle any source material, but its sound is not the cleanest				●	0.5	8		103
Goldring Excel VX	525	Good bass drive but dull and imprecise higher up. An old-fashioned sound that falls short of the true high end				●	0.45	8	2143	175

CONTINUED

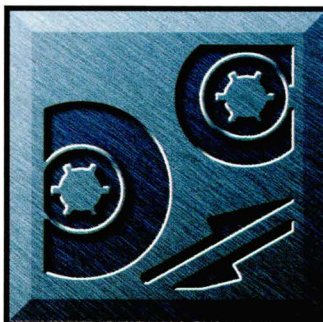
# Cartridges

STATUS

SPECIFICATIONS

REPLACEABLE STYLUS  
MM MC  
OUTPUT (mV)  
MASS (g)  
FACTSBACK NO.  
ISSUE NUMBER

PRODUCT	(£)	COMMENTS	REPLACEABLE STYLUS	OUTPUT (mV)	MASS (g)	FACTSBACK NO.	ISSUE NUMBER
Grado Prestige Gold	149	Rich sounding with an unusually refined top-end for a moving magnet-type cartridge	●	4	6	158	
Grado Reference	995	Loads of tracking headroom but treble is limited. A prospect for mid-oriented valve amp users	●	1.7	6.5	2143	175
Linn K9	125	Linn improved this model by beefing up the Basik's bodywork and adding a super stylus	●	4.5	5	Col	
London Decca Maroon	259	Now manufactured under the London brand name, this Decca cartridge is as iconoclastic as ever	●	5.0	6	67	
London Decca S Gold	399	Immediate and detailed, but coloured and nonlinear, with a questionable effect on records	●	5.0	6	84	
Lyra Lydian	649	Superbly capable all-round musical performer that improves markedly when its body cover is removed	●	0.3	7	158	
Lyra Clavis Da Capo	995	A stable tracker, and one of the finest cartridges we've heard	●	0.1	7	143	
Lyra Pamassus D.C.t	1,895	A real little jewel of a cartridge, with many good qualities, but handicapped by a rather too obvious treble peak	●	0.22	10.5	2144	175
Ortofon 510/P	38	For the price, a good blend of virtues – weight, clarity and neutrality	●	3.0	5	85	
Ortofon 520/P	65	Sensitive to load capacitance, but the 520/P has a lively, effervescent sound	●	3.0	5	67	
Ortofon MC3 Turbo	130	The 3 Turbo is bright, cheerful and bouncy, but unsubtle – take it as it comes!	●	3.3	4	103	
Ortofon MC15 Super II	130	A good all-rounder, with outstanding resolution, if slightly bright and close up	●	0.35	7	103	
Ortofon MC25E	180	An excellent upgrade for a mid-price turntable	●	0.5	11	139	
Ortofon MC25FL	250	A bit too stark and honest, but faithful to what's on the LP	●	0.5	11	139	
Ortofon MC30 Supreme	525	Highly detailed and even-sounding cartridge that has a special affinity with female vocal recordings	●	0.5	10.7	158	
Ortofon Rohmann	1,000	A class act in nearly every respect, with fine groove security and a very smooth and even-handed sound	●	0.25	8.5	2144	175
Ortofon MC3000II	1,100	A real ear-opener. Nothing to criticise anywhere – one of the very best	●	0.12	10	84	
Ortofon MC5000	1,500	Limited tracking ability, bright and forward sound, but good stereo	●	0.12	10	91	
Rega Bias	39	Difficult to mount in some arms due to its shallow body, but the Bias offers a gentle, refined sound	●	5	4	67	
Rega Elys	85	Clearly superior to the Bias, the Elys is more detailed, accurate and convincing	●	5.0	5	67	
Roksan Corus Black	130	Recognisably related to the Corus Blue, but smoother and more civilised	●	6.5	5	91	
van den Hul MM-1	250	If woody midrange could be tamed, imaging and security would pull it through	●	5.5	6	103	
van den Hul DDT-II	600	Outstanding stereo imaging and neutral balance are appealing, but rhythmically the DDT-II is a bit lazy	●	0.35	7.6	158	
van den Hul MC-10	750	A neutral, balanced performer, gives fine depth and focus and a firm, extended bass	●	0.4	6	60	
van den Hul MC-One	900	This extends all the positive qualities of the 10, but adds greater authority and scale – worth all the extra money	●	0.4	6	60	
van den Hul MC-Two	1,200	MC-Two rewards with a highly detailed yet fluid and musically convincing portrayal	●	0.4	6	72	
van den Hul Frog	1,500	Seems to control/suppress surface noise better than its rivals. This delicate and subtle performer has great charm	●	0.65	7	2145	175
van den Hul G' hopper III GLA	2,800	Undoubtedly one of the finest cartridges available. It has tremendous bandwidth, energy and finesse	●	0.4	6	122	
Wilson benesch Matrix	786	Extraordinarily well balanced cartridge: neutral and detailed yet lively and rhythmically assertive	●	0.58	6	158	
Wilson benesch Carbon	1,573	Carbon fibre body contributes to a delightfully clean and open midrange, and a quick, lively and coherent sound	●	0.45	7	2145	175



## Cassette Decks

The compact cassette is still the world's most versatile and ubiquitous music storage medium. Cassette decks hook up to the 'tape loop' inputs and outputs offered by most modern amplifiers. It's worth taking care to choose the best tapes for a specific machine. For example, expensive metal tapes will be a wasted investment for a cheap deck. Many better-specified decks have manual or automatic bias adjustment to get the best from specific samples of tape. Twin decks offer the possibility of copying from tape to tape, playing two cassettes sequentially or recording onto two tapes at once. Autoreverse is a useful feature, but uni-directional mechanisms promise better sound. Dolby S is the ultimate noise reduction system, and three-head decks permit record monitoring off-tape.

KEY TO SPECIFICATIONS

- **DOLBY B/C:** The first and second Dolby hiss-killers.
- **DOLBY S:** A desirable derivative of Dolby SR professional noise-reduction.
- **DOLBY HX-PRO:** Extends headroom for cassette recording.
- **3-HEAD:** Permits monitoring off-tape while you're recording.
- **TWIN DECK:** Contains two decks for dubbing and continuous play.
- **AUTOREVERSE:** Automatically plays both sides of the cassette.
- **AUTO CALIBRATION:** The deck will automatically set up bias and EQ for any tape.
- **ADJUSTABLE BIAS:** Permits manual optimisation of tape.
- **FACTSBACK REFERENCE:** The Factsback Reference number permits direct access to our faxed review reprint service. For full info, see the Factsback advert on the penultimate page of the mag.
- ISSUE NUMBER:** The issue of Hi-Fi Choice in which an original review appeared.
- High End Review**

**B** BEST BUY    **R** RECOMMENDED    **E** EDITOR'S CHOICE

# Cassette Decks

STATUS

SPECIFICATIONS

DOLBY C  
DOLBY S  
DOLBY HX PRO  
3-HEAD  
TWIN DECK  
AUTO REVERSE  
AUTO CALIBRATION  
ADJUSTABLE BIAS  
FACTSBACK NO.  
ISSUE NUMBER

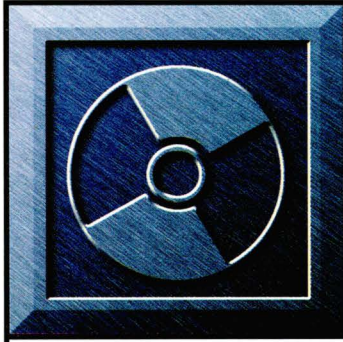
PRODUCT	(£)	COMMENTS	DOLBY C	DOLBY S	DOLBY HX PRO	3-HEAD	TWIN DECK	AUTO REVERSE	AUTO CALIBRATION	ADJUSTABLE BIAS	FACTSBACK NO.	ISSUE NUMBER
Aiwa AD-F450	120	Basic but well-designed deck. Astonishing value; only the poor metering gives the game away	●			●					1513	136
Aiwa AD-WX727	170	High-class twin for those who want bells, whistles – and music	●			●		●	●		1377	146
Denon DRM-550	160	There are some technical limitations, but this remains a fine-sounding deck, and excellent value	●			●						158
Denon DRW-580	200	Twin deck: OK for casual use, but will quickly pall with more quality critical applications	●			●		●	●			171
Denon DRS-640	200	Draw-loading deck, with simple facilities and smooth, well-adjusted sound	●			●		●			1591	140
Denon DRM-650S	230	An improvement on predecessors, it offers a wide-ranging, sound. Dolby S is not the best feature	●	●		●				●	1920	164
Denon DRM-740	270	Breathed-on DRM-710, with good external treatment, offers good, if somewhat detached sonics	●			●		●			1514	136
Denon DRS-810	310	Draw-loading deck, carefully designed yet lacking in subtlety on audition	●			●		●				127
Harman/Kardon TD420	250	Minor inconsistencies detract from a well-conceived, minimum features design	●			●		●			1592	140
Harman/Kardon TD450	350	Draw loader with poor tape navigation features; good midband but shallow bass	●			●		●			1920	164
JVC TD-R472	200	Excellent auto-reverse deck which doesn't suffer the usual disadvantages and is very sharply priced	●			●				●		158
JVC TD-V662BK	270	Assured, clean and agile-sounding recorder, if not quite the most refined in its class	●			●				●	1380	146
JVC TD-W718	300	Twin deck. Good for creative live recording, but no timer standby. Respectable performance	●			●		●	●		2039	171
Kenwood KX-W6080	200	Modestly decent-sounding twin deck, with some transport instability and ragged bass	●			●		●	●		2040	171
Marantz SD455	170	Works well as a single deck, especially on replay, but dubbing at high/low speed compromises sound	●			●		●	●			184
NAD 613	230	Rough and ready, but enjoyable sound, though marred by mechanical motor noise	●			●		●				158
NAD 616	300	Twin deck with basic features. No Dolby setting memory, transport is too unstable for audiophile use	●			●		●	●		2041	171
Onkyo K-611	460	Cute drawer-loading mini-size component with 3-heads and dual capstan transport	●			●		●		●	1384	146
Pioneer CT-S550S	250	Great features, good with cheap low bias tapes, but slightly synthetic sound quality	●	●		●		●			1920	164
Pioneer CT-W806DR	300	Had it not been for the iffy transport quality, this sophisticated twin would have been Recommended	●			●		●	●		2042	171

CONTINUED

# Cassette Decks

STATUS

PRODUCT	(£)	COMMENTS	DOLBY C	DOLBY S	3-HEAD	TWIN DECK	AUTO REVERSE	ADJUSTABLE BIAS	FACTSBACK NO.	ISSUE NUMBER
Pioneer CT-SB30S	500	High-class mechanism, if lacking in battleship externals, and superb sound	●	●	●	●	●	●	1385	146
Sony TC-KE600S	300	Mild setting-up problems notwithstanding, this UK-tweaked design has a smooth, open sound	●	●	●	●	●	●	158	
Teac V01050	180	One of the cheapest 3-head machines around, but it shows in very 'thick' sound	●	●	●	●	●	●	184	
Technics RS-AZ6	200	For those who can't afford the RS-AZ7, clarity over the widest bandwidth thanks to AZ thin-film head	●	●	●	●	●	●	1920	164
Technics RS-AZ7	270	Thin-film head gives a solid, almost CD-like bass and midrange. A clear advance in state-of-the-art	●	●	●	●	●	●	158	
Yamaha KX-490	200	Electrifyingly transparent and capable deck whose only flaw is a trace of audible wow and flutter	●	●	●	●	●	●	158	
Yamaha KX-580SE	250	Subtle, engaging and transparent deck, with a lightweight tonality, but stability and strong detail	●	●	●	●	●	●	2043	171



## CD/DVD Players

All CD players offer a basic selection of facilities, and some can keep you entertained for hours as you programme in disc names and track orders. All but the excessively inexpensive feature remote control. Most CD players can be upgraded by adding an outboard DAC (see below). To do this the player needs a digital output of either electrical or optical type. The former is preferable for the ultimate sound. A CD player can be split into two basic components: the disc drive or transport, and a device which converts the disc's digital bitstream into an analogue audio signal. This is called a digital to analogue converter, or DAC. Although most players are contained within a single box, expensive players are usually two-box affairs. The first new DVD players have not excelled with CD software.

### KEY TO SPECIFICATIONS

- **ELECTRICAL DIGITAL OUTPUT:** For electrical connection to an outboard DAC.
- **AES/EBU ELEC DIG OUTPUT:** Balanced digital output to be used with similarly equipped DACs.
- **OPTICAL DIGITAL OUTPUT:** For optical connection to an outboard DAC.
- **ST OPT DIG OUTPUT:** High-speed optical output to be used with similarly equipped DACs.
- **BAL ANALOGUE OUTPUT:** Balanced analogue output for amplifiers equipped with balanced inputs.
- **HEADPHONE SOCKET:** For 'car' users.
- **VARIABLE OUTPUT:** Remotely adjustable output level (usually non-audiophile).
- **MULTI-DISC:** Equipped with a carousel or multi-tray system for continuous play of multiple discs.
- **DAC TYPE:** BS – Philips Bitstream; MB – multibit; Hyb – hybrid of multibit and bitstream technologies; 1bit – single bit types eg MASH, bitstream, PWM, etc; CC – constant calibration.
- **FACTSBACK REFERENCE:** The Factsback Reference number permits direct access to our faxed review reprint service. For full information, see the Factsback advert on the penultimate page of the magazine.
- **ISSUE NUMBER:** The issue of Hi-Fi Choice in which an original review appeared. Factsback information page.

**B** BEST BUY

**R** RECOMMENDED

**E** EDITOR'S CHOICE

BROUGHT TO YOU IN ASSOCIATION WITH



# CD/DVD Players

STATUS

PRODUCT	(£)	COMMENTS	AES/EBU ELEC DIG OUT	OPTICAL DIG OUT	ST OPT DIG OUT	BAL ANALOGUE OUT	HEADPHONE SOCKET	VARIABLE OUTPUT	MULTI-DISC	DAC TYPE	FACTSBACK NO.	ISSUE NUMBER	
Acurus ACD11	899	First-rate if costly player, which combines a delightful transparency with an uncontrived naturalness	●	●	●	●	●	●	●	1bit	1962	166	
Acoustic Precision Eikos	1,850	Seriously customised Pioneer with extraordinary resolution and world beating imaging and bass	●	●	●	●	●	●	●	1bit		165	
Alchemist Nexus APD32A	597	Refined treble, constrained yet capable bass and attractive all-round presentation	●	●	●	●	●	●	●	Hyb		169	
AMC CD8A	150	Has balanced output, but is otherwise rather grey and unremarkable	●	●	●	●	●	●	●	BS	2071	172	
AMC CD9/DAC8	200	Beer-budget two-box system (player + DAC) is smooth, attractive and easy on the ear	●	●	●	●	●	●	●	CC	2261	179	
Anthem CD1	1,595	Unusual combination of high-end player, complete with HDCD, and changer. Good, but noisy	●	●	●	●	●	●	●	●	MB	2219	178
Arcam Alpha 7	330	Mildly rehased favourite comes up smelling of roses	●	●	●	●	●	●	●	BS	1872	179	
Arcam Alpha MCD	450	Excellent bass and natural midband, but just a touch of treble dryness, from this very listenable changer	●	●	●	●	●	●	●	●	MB	2220	178
Arcam Alpha 8	520	Refined, intricately detailed but a little cautious. Should be broadly compatible with a variety of amps	●	●	●	●	●	●	●	●	BS	1873	163
Arcam 8SE	600	Excellent (and very reasonably priced) HDCD-compatible player is a strong all-rounder	●	●	●	●	●	●	●	1-bit		176	
Arcam Alpha 9	800	Looks like other Arcam CD players, but sounds compressed and lacking in detail	●	●	●	●	●	●	●	Ring DAC		184	
Audio Research CD1	3,290	Suspends disbelief with a real yet obviously coloured sound. A rare proposition among CD players	●	●	●	●	●	●	●	●	BS	1875	163
AVI S2000MC2	899	A chip off the old block. This model's in-yer-face balance obstructs an otherwise finely detailed sound	●	●	●	●	●	●	●	●	MB	2179	176
AVI S2000MC Reference	1,399	Lean, dry, high resolution player, built to outlast most of us. A fine performer in a sympathetic system	●	●	●	●	●	●	●	●	MB		169
Cambridge Audio CD4	150	Basic appearance and sluggish track access/track search belies its up and at 'em sound quality	●	●	●	●	●	●	●	●	Hyb	1268	147
Cambridge Audio CD4SE	200	Among the best encountered at the price, considerably more refined and convincing than the CD4	●	●	●	●	●	●	●	●	BS	1877	163
Cambridge Audio CD6	250	A sharp, articulate player, a real thoroughbred in fact, perhaps too sharp and lively for some systems	●	●	●	●	●	●	●	●	BS		159
Copland CDA-266	1,199	Simple yet elegant design is unexpectedly sophisticated under the skin, and effective in execution	●	●	●	●	●	●	●	●	MB	2183	176
Copland CDA-288	2,199	A gentle giant of a player that errs in favour of pastel shades rather than bold daubs of colour	●	●	●	●	●	●	●	●	MB	1880	163
Cymbal CDP12	1,299	Clean, detailed and airy HDCD-equipped player with minimalist trappings	●	●	●	●	●	●	●	●	Hybrid	2184	176
Denon DCD-635	180	Modest presentation gives little clue to the thoroughbred electronics ticking away inside	●	●	●	●	●	●	●	●	MB	2075	172
Denon DCD-625	200	DCD-615 replacement is generously equipped but lacks sophisticated sound of its forebear	●	●	●	●	●	●	●	●	MB	1269	147
Denon DCD-835	280	Refined version of Denon's multibit technology is a bit of a star	●	●	●	●	●	●	●	●	MB		184
Denon DCD-1550AR	350	Disappointing bland and ploddy sound from an immaculately constructed, high tech player	●	●	●	●	●	●	●	●	MB	2266	179
Denon DCD-1015	350	Excellent, mid-range player – fast, fluid and lean	●	●	●	●	●	●	●	●	MB	1599	141
Denon DCD-3000	1,000	Sings with the temperament of a huge orchestra under the baton of a timid conductor	●	●	●	●	●	●	●	●	MB	1881	163
harman/kardon HD710	200	A player of integrity, but can sound a bit hard and rough when extended, and is amplifier fussy	●	●	●	●	●	●	●	●	1bit		159
harman/kardon HD730	300	Competitive at the price, with a coloured but dynamic and outgoing sound, good features	●	●	●	●	●	●	●	●	BS	1957	166
harman/kardon FL8300	300	Generally capable changer with relaxed sound and firm bass. Just a hint of roughness on occasion	●	●	●	●	●	●	●	●	MB	2220	178
Helios Model 2	950	This player may not be to everyone's taste, but it is an individual, with some interesting things to say	●	●	●	●	●	●	●	●	1bit	2180	176
JVC XL-V184BK	120	Excellent budget player, well presented, a little opaque, but its heart is in the right place	●	●	●	●	●	●	●	●	1bit	2072	172
JVC XL-V284BK	140	Featuring a new set of bitstream innards, this flexible player has a refined sound	●	●	●	●	●	●	●	●	1bit	1270	147
JVC XL-Z574	250	Strong resolving power, good midband and dynamics, but slightly raw and thin	●	●	●	●	●	●	●	●	1bit		159
JVC XL-Z674BK	300	Even-handed, but glosses over the most intimate moments	●	●	●	●	●	●	●	●	1bit	1637	151
Kenwood DP-3080	170	Bold, dynamic and outgoing sound, though somewhat aggressive. Poor build quality and finish	●	●	●	●	●	●	●	●	1bit		159
Kenwood DP-4090	250	Focuses a clear, wide aperture lens on the music – and has CD Text too!	●	●	●	●	●	●	●	●	1bit	2076	172



CONTINUED

# CD/DVD Players

**SPECIFICATIONS**

AES/EBU ELEC DIG OUT  
OPTICAL DIG OUT  
ST OPT DIG OUT  
BAL ANALOGUE OUT  
HEADPHONE SOCKET  
VARIABLE OUTPUT  
MULTI-DISC  
DAC TYPE  
ISSUE NUMBER  
FACTSBACK NO.

STATUS

PRODUCT	(£)	COMMENTS	AES/EBU ELEC DIG OUT	OPTICAL DIG OUT	ST OPT DIG OUT	BAL ANALOGUE OUT	HEADPHONE SOCKET	VARIABLE OUTPUT	MULTI-DISC	DAC TYPE	ISSUE NUMBER	FACTSBACK NO.
Kenwood DP-5090	300	Disappointing senior brother to the excellent DP-4090, but surface interface is good	●	●							1-bit	2267 179
Kenwood DP-7090	400	A lively and compelling performer with an even-handed and coherent disposition	●	●							MB	1885 163
Linn Mimik	875	Useful multi-room features matched to strong bass, but poor imagery and transparency	●								Hyb	1762 155
Marantz CD-48	200	Somewhat inconsistent, middle ranking player which hints at better things	●								1bit	2077 172
Marantz CD-67 Mk II	250	The digital equivalent of a safe pair of hands. Smooooth	●	●							BS	2268 179
Marantz CD-67SEmkII	300	Lacks dynamic consistency to justify the stunning performance with simple material	●	●							BS	184
Marantz CD-67SE	350	Refined, enjoyable player, though ultimately a little soft-centred	●	●							BS	1958 166
Marantz CD-63MKII Kl Sig	500	It's the quintessential sound of Marantz – warm, open, and smooth almost to a fault	●	●							Hyb	169
Marantz CD-17	800	Fabulous packaging and an excellent all round performer: smooth, detailed and consistent	●	●							BS	1763 155
Marantz CD-17KIS	1,100	Minor QC problems aside, this is a superbly turned-out machine, but ultimately a little bland	●	●							BS	2181 176
Meracus Tanto	1,395	Believable tonal colours and textures, refinement takes preference over dynamics – but it's not cheap	●	●							DS	169
Meridian 506	1,100	Revised 506 includes MSR remote and a new D/A chip, which makes it livelier and more detailed	●	●							1 bit	2182 176
Meridian 508 (20-bit)	1,995	Combines a delicate mid and treble with rich, opulent bass and has impressive low-level resolution	●	●			●				BS	1886 163
Mission Cyrus dAD3	598	A relaxed style of delivery that convinces with guile and subtlety rather than orchestral ordnance	●								BS	1887 163
Mission Cyrus dAD3Q	898	Lucid, transparent and uncontrived sound quality, superb build, and readily upgradeable	●	●							MB	1887 169
Monrio Privilege	995	Costly and well-engineered, but ultimately rather heavy-handed and dull, if refined player	●								MB	1963 166
Musical Fidelity E60	300	This entry-level player lacks proper stereo localisation and clarity	●	●							BS	1959 166
Musical Fidelity A2	500	Warm (too warm), attractive and open player, a great improvement on (related) E60	●	●							BS	169
Musical Fidelity X-RAY	799	Brilliantly packaged and clean but slightly antiseptic sounding player	●	●							MB	184
Musical Fidelity FCD	1,500	A forward disposition makes this perfect for Fenders but less appropriate to Guarneris	●				●				BS	1888 163
Myryad T-10	400	Rather ordinary player fails to shine with good music recordings	●								DS	184
Myryad MC100	700	A little extra get-up-and-go wouldn't go amiss, but its sheer maturity and composure ensure listenability	●	●							BS	1889 163
Myryad MCD500	1,300	Well-built, attractive player, showing much promise, but can be a little heavy-going, on audition	●	●							1bit	2185 176
NAD 522	170	Crude, mechanical sounding player fails to tickle the music buds									1 bit	2262 179
NAD 510	200	Pale version of NAD's senior CD players with a stripped-down feature count									1bit	2078 172
NAD 512	250	Simple, well-focused presentation, and articulate with it. Hard-nosed quality is not everyone's cup of tea	●								1bit	159
NAD 523	250	Nothing seriously amiss with this classic NAD 'no-frills' changer, but it lacks that vital spark									Hyb	2222 178
NAD 514	370	Boisterous sound, but undeniably attractive	●								BS	1639 151
Naim Audio CD3	1,000	The idiosyncratically packaged CD3 is solid and highly articulate. Always has its feet on the ground									MB	1765 155
Naim Audio CD2	2,000	Provides bags of detail with a solid stereo focus but not all the romanticism we know to be possible									MB	1890 163
Onkyo DX-7210	260	Well-bred CD player features an unusual digital filter, is smooth and cultured without appearing boring	●	●							BS	1273 147
Onkyo DX-7510	400	Strongly flavoured, assertive sound	●	●							BS	1640 151
Orelle CD-100EA	649	Excellent imagery, timing and transparency, and readily upgraded or reconfigured	●	●	●						MB	1964 166
Parasound C/DP-1000	499	Comes on like a high end player, but ultimately sounds a tad weak and soft-centred	●								Hybrid	184
Philips CD-721	130	Surprisingly well-sorted, articulate if slightly glossy and attractively presented sound. Captive signal lead									1bit	159
Philips CD751	150	Inconsistent and occasionally opaque and scrawny sounding cheapie	●								1bit	172
Pioneer PD-S705	300	This machine was loved by some for its articulation and disliked by others for sounding too impressive!	●	●							BS	1891 163
Pioneer PD-S707	300	Idiosyncratic Legato Link dominated sound, but always subtle and interesting	●	●							MB	184
Pioneer PD-F906	350	Interesting appearance and concept, but this changer's sound is lacklustre and ergonomics frustrating									1bit	2223 178
Pioneer PD-S904	400	Too much legato – literally – in sound, but a very smooth performer	●	●							1bit	1641 151
Pioneer PDS-06	550	Technologically sophisticated. Pioneer's first multi-bit player for years is polished and capable	●	●							MB	2176 176
Pioneer PD-S505 Precision	460	Assured, fluid-sounding player, with great spatial coherence	●	●							1bit	1965 166
Quad 77	900	A true thoroughbred combining a penetrating insight into detail with poise rarely found at the price									Hyb	1893 163
Revox Exception E426	2,250	Very stylish with a light, agile sound that extends superbly and has fine timing	●				●				BS	182
Roksan DP3P	1,495	Dramatic and compelling. Classical listeners should be ready to 'air conduct' when auditioning	●	●							BS	1896 163
Roksan Caspian	895	Solid, articulate, and fundamentally well-engineered player, but with some subtle low-level limitations	●	●							Hyb	169
Rotel RCD-971	350	Odd disc handling logic, but bold, detailed and refined sound make this a must	●	●							MB	184
Rotel RCD-970BX	375	A combination of solid build, useful facilities and an attention-grabbing sound make this a winner	●	●							BS	1897 163
Sherwood CD-4030R	180	Easy on the ear, smooth-sounding player, with limits set by the slightly soft, compressed quality									BS	159
Sherwood CD1	1,100	A very neutral, even handed sounding player with a rather flat, lifeless sound. Beautiful construction	●	●							BS	1899 163
Sony CDP-XE510	140	Excellent value and bright as a button, but can sound OTT in some systems									1-bit	179
Sony CDP-XE510	180	Souped up CDP-XE500 which tells a rather bland and unengaging story									1bit	172
Sony CDP-XB720E	200	Good basic performance and a number of filter settings make this an interesting player for tweaks	●	●							Low bit	184
Sony CDP-XE900E	300	Refined and analytical disc scavenging tool, some distinctive colourations make auditioning vital	●	●							BS	159
Sony CDP-XA20ES	450	High tech, with a long list of gadgets, oddly configured player that ultimately sounds less than compelling	●	●							1-bit	2177 176
Sony CDP-X3000ES	500	Shoebbox format player, looks to die for, switchable digital filters to tweak the already excellent sound	●	●							BS	169
TAG McLaren CD20R	1,249	Fabulous build but transparent, highly-detailed sound lacks meat and is bettered at the price	●								1bit	184
Teac CDP-3450SE	200	For once a budget player where gadgets take second place to respectable, budget amp-friendly sonics	●	●							1bit	1960 166
Teac CD-5	350	Bright, breezy and up-beat – but short in the trouser department	●	●							BS	1643 151
Teac VRDS-7	599	Although bold and outgoing, this player can sound both intrusive yet lacking in fine detail	●	●							BS	1769 155
Teac VRDS-8	600	Superb build quality is matched to good, but not exceptional sound quality	●	●							MB	184
Teac VRDS-9	700	Well-presented. This Teac is crisp, yet shallow, and inconsistent in sound quality and partnering skills	●	●							1-bit	2178 176
Teac VRDS-10SE	850	Superbly built and presented, but rather leaden bass, with an over-prominent mid/top	●	●							BS	169
Teac VRDS-25	1,300	A solid player in all respects, combining powerful sound with state-of-the-art technology	●	●							MB	1903 163
Technics SL-PG480A	130	Full driving sound, but somewhat uneven in balance with a unsubtle, slightly harsh top end									1bit	159
Technics SL-PS670D	200	Fine, middle ranking player which sounds solid, sometimes even a little stolid									1 bit	2264 179
Technics SL-PS770D	250	High tech and well built technology battleship which smoothes the rough edges off the music									BS	2080 172
Technics SL-MC410	250	If you fancy a CD player that holds 111 discs, this one's cheap, pretty capable, and easy to use									Hyb	2224 178
Trichord Genesis	549	Breathed-on Pioneer is warm and mellifluous, but ultimately lacks drive and authority	●	●							Hyb	169
Trichord Revelation	799	Well-ordered and clean sound that may be a little too refined for some, images well	●	●							1bit	1966 166
XTC CDP-1	1,250	Bright and sometimes abrasive, but detailed player	●								MB	2186 176

CONTINUED

# CD/DVD Players

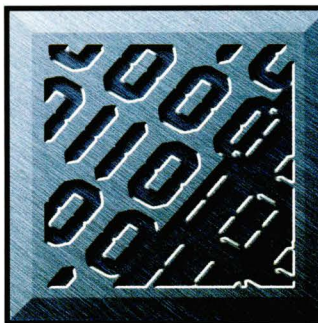
SPECIFICATIONS

AES/EBU ELEC DIG OUT  
OPTICAL DIG OUT  
ST OPT DIG OUT  
BAL ANALOGUE OUT  
HEADPHONE SOCKET  
VARIABLE OUTPUT  
MULTI-DISC  
DAC TYPE  
FACTSBACK NO.  
ISSUE NUMBER

STATUS

PRODUCT	(£)	COMMENTS	AES/EBU ELEC DIG OUT	OPTICAL DIG OUT	ST OPT DIG OUT	BAL ANALOGUE OUT	HEADPHONE SOCKET	VARIABLE OUTPUT	MULTI-DISC	DAC TYPE	FACTSBACK NO.	ISSUE NUMBER		
Wadia W830	3000	Envelope busting dynamics, power and imaging in a rather unexciting box (digital volume control)									MB	183		
Yamaha CDC-665	220	This player offers many features and highly listenable sound, with tidy and tuneful bass and good imaging	●	●	●	●	●	●	●	●	1bit	2225	178	
Yamaha CD-X993	400	A bit of a lush, though the sound is singularly free of grain, and equipment levels are strong	●	●					●	●	BS		184	
<b>TRANSPORTS</b>														
Linn Karik	1,850	Based on early Linn transport, the Karik is dry but very positive, detailed and engrossing	●	●								-	1323	144
PS Audio Lambda	2,250	With Ultralink Two, sound positively sparkles with colour and resonant detail	●	●								-	1106	133
Roksan Attessa ATT-DP3	1,295	Not the most detailed or refined but capable of sounding exciting with the right material	●	●							1bit	1867	162	
Teac VRDS-T1	550	Superb quality engineering is mated to tidy and composed sound (tested with D-T1)	●	●								-	1325	144
Theta Data Basic II	2,397	Uses a Philips CDM9 Pro mechanism and works a treat with more lively DACs	●	●								-	1494	130
Thorens TCD2000	999	Lively presentation not helped by rather loose bass and splashy treble. (Tested with TDA 2000 DAC)	●	●								-	1867	162
Trichord Digital Turntable	699	Very detailed, precise, controlled yet involving; a first-rank performer	●	●								-	1867	162
Wadia 8	3,195	Budget version of Teac's VRDS mechanism in a fancy case; too expensive for the performance on offer	●	●	●	●						-	1495	130
<b>DACS</b>														
Audio Note DAC1	675	Oddball DAC with manual de-emphasis switch. Needs a high preamp input impedance or bass will suffer										MB	127	
Linn Numerik	1,500	A new 20-bit DAC and revised Karik transport have cleaned up; but sounds a bit dry and humourless										MB	1323	144
PS Audio UltraLink 2 HDCD	2,590	The sound positively sparkles with colour and resonant detail. (Tested with Lambda transport)									MB	1106	133	
PS Audio Reference Link	4,550	Consolidates reputation of PS Audio for high performance digital electronics						●			MB	1069	132	
Roksan Attessa ATT-DA2/DSS	1,145	Not the most detailed or refined but capable of good excitement with the right material									1bit	1867	162	
Teac D-T1	500	Teamed with VRDS-T1 for test, this superb quality unit is tidy and composed									BS	1325	144	
Teac D-700	600	With P-700, the D-700 may lack the resolution, but is bubbly and entertaining									MB		120	
Thorens TDA2000	700	Lively and up-front presentation not helped by rather loose bass and splashy treble									BS	1867	162	
Trichord Pulsar Series One	1,395	Very detailed, precise, controlled yet involving; a first-rank performer. Switchable phase, dither etc									Hyb	1867	162	
<b>DVD PLAYERS</b>														
Denon DVD-3000	700	Enjoyable rather than analytical, includes 24/96 and AC-3/MPEG-2 Audio	●	●					●		BS		180	
Micromega Premium DVD	1,500	Unique lack of regional coding constrictions but both DVD and CD replay are compromised	●	●							BS		183	
Panasonic DVD-A350	700	24/96 converter and AC-3 & MPEG-2 Audio included, well balanced, if slightly blurred and shut in	●	●					●		BS		180	
Pioneer DV-505	450	Plenty of analysis, with a slightly ragged edge. Rescued by the price & S/PDIF capabilities	●	●							BS		180	
Pioneer DVL-909	900	DVD and LD player: self-recommending to AV nuts; musically detailed but occasionally seems disjointed	●	●							BS		180	
Sony DVP-S715	600	24/96 converter for DAD compatibility, sharp, forward, but slightly unsubtle sound	●	●					●		BS		180	
Toshiba SD3107B	550	Dynamic sound and good stereo which lacks lowest stratum of detail	●	●					●		BS		180	

YOU MUST LISTEN TO **MISSION** FOR DETAILS OF YOUR NEAREST STOCKIST, (01480) 451777. OR VISIT THE COMPANY'S WORLD WIDE WEB SITE - HTTP://WWW.MISSION-CYRUS.COM



## Digital Recorders

Domestic digital recording has been possible since the launch of digital audio tape (DAT) in the '80s. Since then DAT has remained expensive and largely esoteric, favoured only by well-heeled or professional users. Digital Compact Cassette and MiniDisc (MD) were launched in the early '90s but only MD has stayed the course. A little later came domestic CD-Recorders using CD-R discs, while the latest twist is the arrival of rerecordable CDs known as CD-RW discs. The recording quality hierarchy is as follows: DAT, CD-R/CD-RW, MD. MD is probably the most convenient to use, and offers sophisticated editing facilities, while CD-R is ideal for making digital 'dones' of prerecorded CDs. DAT is the medium of choice for high-quality location recording.

KEY TO SPECIFICATIONS

- **FORMAT:** Type of recorder - see left for descriptions.
- **DAC TYPE:** Digital to analogue converter: BS - Philips Bitstream; MB - multibit; Hyb - hybrid of multibit and bitstream; 1bit - single bit types such as MASH1, bitstream, PWM etc.
- **ADC TYPE:** The analogue to digital converter (ADC) converts sound into digits during live recording. Types of ADC are as per DACs (qv).
- **PORTABLE:** Battery operable, but not necessarily personal-stereo-sized.
- **OPTICAL IN/OUTPUTS:** Digital socketry for optical cable.
- **ELEC IN/OUTPUTS:** Digital socketry for electrical cable.
- **FACTSBACK REFERENCE:** The Factsback Reference number permits direct access to our faxed review reprint service. For full info, see the Factsback advert on the penultimate page of the mag.
- **ISSUE NUMBER:** The issue of Hi-Fi Choice in which an original review appeared.
- H:** High End Review

**B** BEST BUY    **R** RECOMMENDED    **E** EDITOR'S CHOICE

STATUS

# Digital Recorders

SPECIFICATIONS

FORMAT  
DAC TYPE  
ADC TYPE  
PORTABLE  
OPTICAL IN/OUTPUTS  
ELEC IN/OUTPUTS  
FACTSBACK NO.  
ISSUE NUMBER

PRODUCT	(£)	COMMENTS	FORMAT	DAC TYPE	ADC TYPE	PORTABLE	OPTICAL IN/OUTPUTS	ELEC IN/OUTPUTS	FACTSBACK NO.	ISSUE NUMBER
<b>MINIDISCS</b>										
Denon DMD-1000	300	A good machine, but it still doesn't manage to shake off the MiniDisc plague of losing the listener's interest	MB	BS	N	●	●			184
Denon DMD-1300	500	Sound sometimes lacks integration but tonal balance is good and it handles loud music with panache	MD	BS	BS		●	●	2193	177
Kenwood DM-9090	550	Slight sibilance and image vagueness do not detract from excellent balance and solid bass	MD	BS	BS		●	●	2194	177
Onkyo MD-121	450	Midi-sized deck that sounds slightly coloured at times, though immediate and lively	MD	BS	BS		●	●	2195	177
Sharp MDR3H	300	Nifty machine combining a 3-disc CD changer with a MD recorder. Sound on both is rather below par, though	BS	BS	N		●	●		184
Sharp MD-R2	300	Budget recorder that loses little or nothing in comparisons with much more expensive models - highly capable	MD	BS	BS		●	●	2196	177
Sony MDS-JB920	300	One of the better MD decks, its sound is neutral and dynamic. European Audio Recorder of the Year '98-'99	BS	BS	N	●	●			184
<b>CD RECORDERS</b>										
Philips CDR-880	499	Capable of making perfect copies of CD digital, and very acceptable copies of anything analogue too	BS	BS	N		●	●		184
Pioneer PDR-555RW	480	Competitor to Philips' CDR880; it can't make perfect copies but has the edge in replay and analogue record sound	BS	BS	N		●	●		184
Pioneer PDR-04	700	Scaled down version of the PDR-05 with auto level setting but all the socketry and features you need to make CDs	CD-R	BS	BS		●	●		171
Pioneer PDR-05	1,000	The first domestic CD-R deck - excellent sound quality	CD-R	BS	BS		●	●	1652	152



# Headphones

There are several different ways of making a headphone. The most expensive models employ electrostatically-driven diaphragms within an open-backed earcup. Most mid-price designs feature dynamic, moving-coil-driven diaphragms in open, semi-open or closed-back designs. An open-backed headphone can sound remarkably transparent, but also permits the ingress of external noise. Closed-back designs keep out unwanted sound, but may be less comfortable to wear and more coloured. The latest development is the cordless headphone using either infrared light or, more recently, radio waves. Quality is improving, but has yet to match the best corded designs.

## KEY TO SPECIFICATIONS

- **TYPE:** Operating principle: D - dynamic, E - electrostatic.
- **SUPRA-AURAL:** Where a flat pad presses on the outer ear.
- **CIRCUM-AURAL:** Where the earcup encloses the ear.
- **OPEN BACK:** Offers an open sound but lets in noise.
- **CLOSED BACK:** Keeps out external noise.
- **MASS (g):** Mass in grams.
- **IMPEDANCE (Ω):** Load offered to the headphone amplifier. Many headphones offer a significantly higher value than loudspeakers, for example, but this does not mean they will be incompatible with the majority of amplifiers.
- **3.5MM JACK ADAPTER:** Compatible with mini-jacked components, eg personal stereos.
- **FACTSBACK REFERENCE:** The Factsback Reference number permits direct access to our faxed review reprint service. For full info, see the Factsback advert on the penultimate page of the magazine.
- **ISSUE NUMBER:** The issue of Hi-Fi Choice in which an original review appeared.
- H:** High End Review

**B** BEST BUY

**R** RECOMMENDED

**E** EDITOR'S CHOICE

# Headphones

STATUS

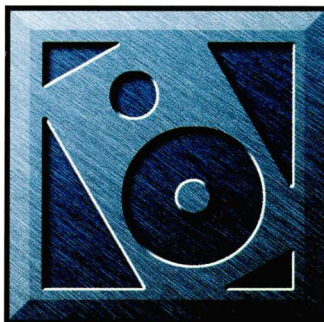
## SPECIFICATIONS

PRODUCT	(£)	COMMENTS	TYPE	SUPRA-AURAL	CIRCUM-AURAL	OPEN BACK	CLOSED BACK	MASS (g)	IMPEDANCE (Ω)	3.5mm JACK ADAPTER	FACTSBACK NO.	ISSUE NUMBER
AKG K1000	700	One of the best dynamics on the market, hooks directly into speaker outputs	D			●	●	270	120			99
Audio Technica ATH910PRO	80	The closed back 910s are an improvement on the 909s, with a nice rhythmic quality rarely found	D	●				280	40	●		55
Beyer DT100	160	Rugged, modular professional design, but bass is woolly and treble lacks detail	D			●		350	600			157
Beyer DT311	50	Uncharacteristically tight, unrefined sound quality from this otherwise well engineered 'phone	D	●			●	124	40		1098	133
Beyer DT411	63	A reasonable but not very thrilling headphone that doesn't really offer enough at the price	D	●			●	120	250			111
Beyer DT511	106	Superb midband clarity and speed slightly at odds with soft bass. High tingle factor, even so	D			●	●	200	250		2063	172
Beyer DT531	135	A good buy for serious, heavy-duty music making	D			●	●	245	250			144
Beyer DT911	170	Probably too revealing for many headphone amps: these are very subtle and fine, if expensive cans	D			●	●	275	250			111
Denon AH-D550	80	A competent 'phone with integrity, but little panache or charisma. Hard headband causes brain strain	D			●		200	35	●	1801	157
Denon AH-D750	130	Loud and gutsy, meaty bass, good with rock and dance. Can sound thick and clumsy	D			●		250	30	●	2063	172
Grado SR-40	45	Cheap and nasty appearance largely redeemed by cheerful, up-beat sound. Very comfortable	D	●			●	120	32	●	2064	172
Grado SR-80	100	Open and dynamic with pedantically open mid-band. Crude physical design, rough frequency extremes	D	●			●	60	8	●	1801	157
Grado SR-225	200	Warm, darkly-coloured tonally and ultimately lacking in clarity, but true to the spirit of the music	D	●			●	200	32	●	1883	163
Jecklin Float Model 1	79	While very unusual in appearance, the Floats give remarkable sound quality and openness	D			●	●	400	200			55
Jecklin Float Model 2	99	Helmet shaped, but open sounding and comfortable in the long term, despite lack of adjustment	D			●	●	400	200			63
JVC HA-D910	65	Broadly acceptable if unexciting design with low level losses and some colourations	D	●			●	220	32	●		121
JVC HA-W60	49	Remarkable lack of interference and hiss ameliorates adequate sound of this cordless design	D	●			●	165	I/R	●		172
Precide Ergo Model 2	140	Still has much of the spaciousness of the Float from which it is derived, but coarse mid/top	D			●		380	100		1892	163
Philips SBC 3396	70	Remarkably airy for closed-back designs. Fine tonal balance, punchy delivery. Amazing for money	D			●	●	255	32	●	2064	172
Philips SBC HP900	90	Sharper, snappier midrange than 3396: initially impressive but blows it on balance and listenability	D			●		200	32	●	2065	172
Sennheiser IS 380	55	As close as you'll get to real hi-fi with infra-red phones at this price. Inevitable hiss spoils the illusion	D	●			●	192	I/R	●		172
Sennheiser HD 455	55	Inoffensive, if nondescript sound; modular, but can become dislodged from head	D	●			●	185	60	●	1801	157
Sennheiser HD 475	80	Elegant, uncluttered sound and very comfortable but lean bass saps satisfaction	D	●			●	120	60	●	2065	172
Sennheiser HD 545	125	Fine all-rounder that takes all styles of music in its stride. Ear-clamping headband	D			●	●	255	150	●	2066	172
Sennheiser HD 565 Ovation	150	Wide bandwidth design which is refined, expressive and extremely comfortable	D			●	●	255	150	●	1801	157
Sennheiser HE 60/HEV70/UK	998	Very nearly a superb electrostatic, with a pure midband, but top end is sibilant and edgy	E			●	●	260	n/a		1898	163
Sony MDR-CD770	100	Neutrality and comfort make the Sony easy to live with. Correct-sounding too, yet musically unrewarding	D			●	●	-	-	●	1801	157
Sony MDR-CD1700	200	Astonishingly detailed, uncoloured and free of the usual artefacts from a sealed back headphone	D			●	●	325	32	●	1901	163
Sony MDR-F1	100	Natural, easy-going sound teamed with great looks and comfort. Shame about the lightweight bass	D			●	●	300	12	●	2066	172
Technics RP-DJ1200	130	Functional design with head-pulping bass and muggy tonal balance. Good job they're sweat-proof	D	●			●	230	32	●	2067	172
Stax Lambda Nova Basic	449	Refined, articulate, yet with real presence - and a notable bargain by electrostatic standards	E			●	●	347	n/a		1902	163
Vivanco IR5800	50	Consistently musical infra-red design. Doesn't reach for sonic heights so hiss can be forgiven	D	●			1/2	226	I/R	●		172
Vivanco SR650	50	Unusually comfortable 'phone with excellent detail resolution but aggressive	D	●			●	175	-	●	1801	157
Vivanco SR750	60	Coosetting physical design, attractive sound, though suffers overhang and lacks ultimate dynamics	D	●			●	188	-	●	1801	157
Vivanco Cyberwave FMH3000	80	The only cordless 'phone to offer genuine walkabout freedom, but sounds like a cheap FM tuner	D	●			●	210	FM	●		172



# HI-FI CHOICE HELP

FOR ASSISTANCE IN BUYING THE ULTIMATE SYSTEM, CHECK OUT THE HELP SECTION ON OUR WEB SITE AT [www.hifichoice.co.uk](http://www.hifichoice.co.uk), OR WRITE TO US AT: 'HELP', HI-FI CHOICE, 19 BOLSOVER STREET, LONDON W1P 7HJ



## Hi-Fi Loudspeakers

As the last link in the hi-fi chain, loudspeakers are at the mercy of incoming signals. Nevertheless, distortions introduced by loudspeakers (and rooms) tend to be the most obvious. The average loudspeaker comprises an enclosure containing two drive units. Inside the box, a simple electrical circuit (the crossover or dividing network) splits the incoming, full-frequency-range signal into the right portions for specific drive units to handle: highs to the 'tweeter', lows to the 'woofer'. For any given box size, designers must balance the 'sensitivity' of the loudspeaker (how loud it goes for a given electrical input) against bass extension (how low it goes). Subwoofers augment bass and are either passive (unamplified) or, preferably, active (self-amplified).

### KEY TO SPECIFICATIONS

- SIZE WxHxD (cm):** Width by height by depth in centimetres.
- FLOORSTANDER:** Requires no stand support.
- SENSITIVITY (dB/W):** How much sound results for a given electrical input – the higher the figure, the louder the speaker.
- IMPEDANCE (Ω):** Impedance, measured in Ohms, indicates how much resistance the speaker presents to an amplifier. As impedance decreases, demands on an amplifier increase.
- BASS FROM (Hz):** The lowest frequency that a speaker can reproduce effectively.
- FREE SPACE:** Speakers which should not sit close to walls.
- CLOSE TO WALL:** Speakers which should sit between 3 and 12cm from the rear wall.
- FACTSBACK REFERENCE:** The Factsback Reference number permits direct access to our faved review reprint service. For full info, see the Factsback advert on the penultimate page of this issue.
- ISSUE NUMBER:** The issue of Hi-Fi Choice in which an original review appeared.
- H:** High End Review

**B** BEST BUY

**R** RECOMMENDED

**E** EDITOR'S CHOICE

# Hi-Fi Loudspeakers

### SPECIFICATIONS

SIZE WxHxD (CM) | SENSITIVITY (dB/W) | IMPEDANCE (Ω) | BASS FROM (Hz) | CLOSE TO WALL | FREE SPACE | FACTSBACK NO. | ISSUE NUMBER

STATUS	PRODUCT	(£)	COMMENTS	SIZE WxHxD (CM)	SENSITIVITY (dB/W)	IMPEDANCE (Ω)	BASS FROM (Hz)	CLOSE TO WALL	FREE SPACE	FACTSBACK NO.	ISSUE NUMBER
A	Acoustic Energy AE200	250	Metal-cone miniature has a tendency to shout but is still lots of fun, and well built too	18,5,30,25	87	6	40	●		2199	177
A	Acoustic Energy AE109	350	Lots of mass-loaded twin-driver speaker for the money, especially for loud, driving bass	18,90,25	●	88	4	25	●	1904	164
A	Acoustic Energy AE120	500	Attractive presentation and good sonic headroom, but a heavy, uneven overall balance	18,98,28	●	89	4	25	●	1904	170
A	ATC SCM20	1,599	Massively built, invariably informative but the rather forward presentation can be uncomfortable	24,44,31	●	83	8	28	●		86
A	Audio Gem Emerald	540	Pretty compact floorstander with lively if lightweight sound	18,94,21	●	87	6	40	●	1905	164
A	Audio Note AN-J/B	799	Light damping and local unevenness add some coloration, but don't spoil the speaker	38,58,25	●	93	8	25	●		110
A	Audio Note AN-E/B	1,299	Coherent, dynamic and transparent, with extended bass and high sensitivity – but ugly!	36,84,28	●	94	8	20	●		106
A	Audio Physic Tempo	1,999	Tall and unusually-styled floorstander has stunning stereo but suspect bass tuning	22,107,47	●	88	8	28	●	1344	143
A	Audiovector M2	1,399	High-class, smooth and slightly laid-back performer has driving bass. It's upgradeable, too!	20,102,30	●	89	4	22	●		180
A	AVI Positron	899	This 'mini-floorstander' is capable of great precision and delicacy, but in a rather small scale way	175,74,24.5	●	85	6	40	●	2130	174
A	B&W CDM2SE	400	Beautifully styled and finished, respectable midband. Lacks definition towards frequency extremes	22,32,25	●	87	6	40	●		183
B	B&W DM302	150	Highly competent and neutral all rounder; clever Prism enclosure	19,32,22	●	88	4	45	●	1778	156
A	B&W DM601	199	Great main driver for the price, entertaining dynamics	20,5,35,5,23	●	88	6	30	●	1779	156
A	B&W DM602	300	Prefers tall stands and space, but offers impressive midband dynamics and musical tension	24,49,31	●	90	8	30	●	1654	152
A	B&W DM305	350	Ridged paper cone gives lively sound, clever box, but a little uneven	22,87,31	●	89	4	40	●	1908	164
B	B&W DM603	500	Squat floorstander with decent dynamics and well-judged, restrained balance; bass could go deeper	23,5,88,29	●	89	7	45	●	2030	170
A	B&W CDM1SE	600	A great looking stand-mount with one of the best midbands around, and a subtle blend of other qualities	22,37,29	●	88	5	40	●	2209	177
A	B&W CDM7	1,000	A combination of serious welly and physical elegance; but a basic lack of midband smoothness	22,97,29	●	90	4	22	●	2131	174
A	B&W Matrix 805 V	1,095	Stylish, remarkable imaging, good balance and low coloration	33,33,21	●	87	8	30	●		98
A	B&W Matrix 804	1,695	A great all-rounder which combines exceptional bass extension with fine sensitivity	26,96,26	●	88	4	20	●	1985	167
E	B&W Nautilus 802	6000	Outstanding example of the high tech speaker builder's art	39,111,55	●	91	8	34	●		183
A	Cabassee Farella 400	950	Exciting but very upfront-and-in-ye-face sound. High sensitivity, fine build and good dynamic drive	26,92,32	●	92	5	28	●		180
A	Castle Isis	250	A great miniature at a competitive price. Sound is lightweight but very coherent, with a fine overall balance	17,35,5,21	●	87	8	45	●	2019	170
A	Castle Kendal	500	A beautifully finished compact floorstander with a decidedly forward but communicative sound.	17,76,20	●	86	6	45	●	2204	177
A	Castle Severn 2	539	Carbon fibre cone gives lovely, subtle midband but treble is a bit dull and bass a bit thumpy	21,84,25	●	87	8	30	●	2120	174
A	Castle Avon	730	Lovely box and lovely voices from carbon-fibre composite cone	22,91,28	●	85	8	22	●	1909	164
B	Castle Harlech	880	Handsome big-sounding floorstander, great value and dynamic midrange	20,96,33	●	88	8	28	●	1820	160
A	Castle Howard S2	1,200	Ably fills the gap between Chester and Winchester, has a rich, laid-back balance	26,104,41	●	90	8	40	●	1078	132
A	Celestion 12i	119	Not without virtue, but the relentless enthusiasm and mid-band colourations can become wearing	19,31,21	●	88	6	45	●	2254	179
A	Celestion 23i	300	Cosmetically flawed, but the bottom end has fine get-up-and-go, and works well with dance tracks	24,86,27	●	89	6	30	●	2200	177
B	Celestion A1	899	Rich, warm and laid-back, but a true quality sound; lovely build	24,41,35	●	88	6	25	●	1910	164
A	Celestion A2	1500	Full scale, big sound from ultra-elegant floorstander. Smooth and slightly laid back presentation	24,93,39	●	89	6	22	●		180
A	Cerwin-Vega VS10	350	Not very refined but extremely ballsy; these rock boxes have no shortage of gung-ho	33,70,29	●	95	6	37	●	1758	155
A	Chario Syntar 100	249	Pretty with a pleasantly easygoing balance, but not the most communicative or exciting sound around	18,32,27	●	87	6	45	●	2020	170
A	Chario Academie	1650	Pricy Italian stand-mount, has high class sound and appearance. Solid walnut enclosures	25,40,31	●	84	8	40	●		180
B	Dali 606	400	A big bruiser at a tempting price. Sounds refined and polite, but also packs some punch	22,97,32	●	91	4	25	●	2121	174
A	Dynaudio Audience 5	400	Follows the Dynaudio tradition for fine midband transparency, but the overall timbre is a bit thin	20,31,26	●	85	4	40	●	2205	177
B	Dynaudio Audience 50	577	This stand-mount doesn't look big, but sound quality can match many models at twice the price	20,33,25	●	86	4	30	●	2122	174
A	Dynaudio Contour 1.8	1,842	Wonderful voice-band delicacy and loads of deep bass from a very elegant and compact box	21,95,29	●	85	4	20	●	1986	167
A	Eltax Linear Response	249	A curiously dumpy shape, but smooth, laid-back performer is easy on the ears, with fine tonal accuracy	25,35,32	●	85	4	40	●	2201	177
A	Epos ES12	499	High quality luxury stand-mount has great midband and stereo imaging	20,38,25	●	85	8	45	●	1823	160
A	Epos ES14	675	Substantial stand-mount delivers delightful midrange focus and delicacy with good bass control	23,49,29	●	87	8	25	●		98
A	Epos ES25	1,655	Handsome floorstander with a rather uneven and bass heavy balance	24,90,35	●	88	6	22	●	1346	143
A	Faraday Siren	445	High mass concrete cabinet is let down by imbalance of ageing driver combination	25,27,46	●	90	4	48	●		94
A	Gale Z1	140	Unspectacular sound and appearance fail to help this solid little miniature stand out from the crowd	22,40,27	●	88	7	40	●	2021	170
A	Genexa Pro	160	Terrific treble and upper-mid but coloured and cuppy lower-mid and bass. A mixture of genius and grot.	14,27,14	●	86	8	90	●	2255	179
A	GLL Imagio IC130	500	Lots of speaker for the money, but sound is decidedly dull and shut in	22,112,29	●	88	4	20	●	1824	160
A	Heybrook Prima 2	159	Great openness, speed and timing. Sounds fresh and vital, though sometimes lacks scale and weight	20,29,18	●	87	6	50	●	2256	179
A	Heybrook Heylette	269	Attractive traditional-style near-miniature has fine bass-to-mid integrity, but dull and shut-in top end	19,5,30,20	●	89	6	45	●	2026	170
B	Heybrook Heylios	389	Great all-round performance in a pretty package at a sharp price	24,36,27	●	87	6	25	●	1912	164
A	Heybrook Heylo	439	Good vocal reproduction, but sounds thin and bass seems an afterthought	23,73,19	●	88	8	30	●	1658	152
A	Heybrook Quartet	649	Solid, large bookshelf model with good sensitivity and a lively, forward sound	24,41,22	●	90	8	48	●		122
A	Heybrook Ultima	649	Has the bass wallop to justify its dual hi-fi/home cinema roles, but doesn't excite	22,97,29	●	89	6	45	●	2126	174
A	Heybrook Sextet	1,299	Coherent and highly analytical, partly due to distinct upper-mid forwardness	27,90,20	●	88	8	25	●		102
A	Heybrook Octet	1800	Good-looking but pricey floorstander with novel drivers and a fine ceramic-enclosure midband	24,97,31	●	90	6	25	●		180
A	Infinity Delta 60	700	Striking and massive floorstander, lots of speaker for the price, but seems a victim of its own complexity	16-29,115,41	●	90	4	25	●		183
A	Infinity Reference 1i	150	Although not to our tastes, this is a competent speaker, and decent material value	20,34,20	●	89	6	50	●	1403	148

CONTINUED

# Hi-Fi Loudspeakers

SPECIFICATIONS						
SIZE WxHxD (CM)	FLOORSTANDER	SENSITIVITY (db/W)	IMPEDANCE (Ω)	BASS FROM (Hz)	FREE SPACE (Hz)	CLOSE TO WALL

STATUS

PRODUCT	(£)	COMMENTS	PRICE	SENSITIVITY	IMPEDANCE	BASS FROM	FREE SPACE	CLOSE TO WALL	FACTS/BACK NO.	ISSUE NUMBER
Jamo BX100A	350	Offering a cracking output for their size, these rock boxes can be a bit bright but have decent bass	31.5,54,28	91	8	40	●	●	1758	155
Jamo Classic 8	400	A lot of speaker for the money, good when playing quietly, but boom'n'tizz character sounded crude	22,90,29	●	90	4	28	●	1659	152
Jamo Cornet 195	350	Loads of bass, should have plenty of yooof-appeal – it looks the business, and is priced attractively	20,5,91,31	●	90	3	26	●	183	
Jamo 477A	500	Very prettily styled, but build and sound quality are disappointing at the price	19,77,28	●	88	4	40	●	1549	138
Jamo 507A	700	Imaginative styling keeps the front view super slim yet still it packs a punch. Glass top is a nice touch	22,94,37	●	88	3	40	●	2126	174
JBL LX2	250	<i>Invigorating, if a touch crude, this good-hearted speaker reproduces music with considerable enthusiasm</i>	22,40,27	87	8	40	●	●	2022	170
JBL L20	700	Pricy, heavy and a bit laid back, but this is a fine rock'n'roller which is dynamic and communicative	26,42,28	86	8	30	●	●	1550	138
JBL SVA1500	700	A distinctive Pro-style bi-radial horn tweeter, with a fun sound, enlivened by a juicy bass thump	17,51,31	86	8	40	●	●	2127	174
JBL L40	1,000	Classic, large, stand-mount three-way is full of vim and vigour, with a superb sense of balance	30,65,31	88	4	23	●	●	1976	167
JBL SVA 2100	1,250	Monstrously large and brutish styling, goes very loud as well as deep. Fine focus but some boxiness	37,114,52	●	91	8	<20	●		180
JBL L90	1,500	<i>A classic monitor which communicates with gusto and enthusiasm, though it can sound a bit crude</i>	24,94,35	●	91	6	23	●	1348	143
JBL LX70	550	Bassmeister supreme, shame the rest doesn't match up. Fine sensitivity but an itchy scratchy treble	26,5,94,30	●	91	4	33	●		183
JM Lab Spectral 909.1	1,375	Multi-driver array in a large and very substantial enclosure. Good scale but lacks delicacy and sweetness	27,107,35	●	90	4	20	●		180
JMLab Tantal 515	495	<i>Lively and open if bright. Sound is entertaining and informative, but presentation is nondescript</i>	20,94,26	●	92	5	32	●		183
Jordan Watts JH400	565	Piano-finish hexagon has controversial sound, with uneven balance but delightful mid	28,38,21	86	8	50	●	●		106
JPW Mini Monitor	60	<i>Ultra-cheap miniature works well in a limited way</i>	18,27,17,5	86	8	50	●	●	1781	156
JPW Gold Monitor	80	<i>More informative than Mini Monitor – but fiercer too</i>	18,27,17,5	86	8	50	●	●	1782	156
JPW ML510	130	<i>Lots of good-quality speaker for the price, but not an ideal match for cheap budget components</i>	20,34,22	88	5	50	●	●		169
JPW ML710	230	Good material value but disappointingly uneven bass – check out the 510s instead	20,88,30	●	88	5	40	●	2202	177
JPW ML910	330	Loads of speaker for the money, plenty of headroom and loudness capability, but sounds dull	23,104,30	●	91	4	43	●		183
JPW ML1010	400	A seriously substantial speaker for the price, and an obvious choice for those who like their music loud	22,5,115,40	●	91	6	25	●	2031	170
JPW Ruby 1	400	Very pretty but pricy luxury metal-cone miniature has good, if slightly edgy balance	19,32,21	87	6	55	●	●	1572	139
JPW Ruby 4	1,000	Twin metal-cone main drivers improve the dynamic performance and bass extension, with little sacrifice	22,94,26	●	88	8	25	●	2132	174
KEF Coda 7	129	Lovely open voice reproduction, but bass could be tauter; build tougher	18,30,23	88	6	50	●	●	1783	156
KEF Coda 8	189	Outstandingly well-balanced, bass is deep but a little vague	20,32,5,29	86	6	28	●	●	1784	156
KEF Coda 9	299	Uneven budget 3-way floorstander with poor bass definition	20,86,28	●	89	6	30	●		1785
KEF RDM One	499	Cute and tiny, nice midband but lack of bass warmth and weight	23,30,24	88	6	70	●	●	1913	164
KEF Reference Model 2	1,599	Classy, large floorstander that has massive headroom and clean mid-to-treble, but limited deep bass	23,103,34	●	89	4	30	●	1987	167
Kelly KT2	700	<i>Chunky floorstander has tacky finish but whopping sensitivity and a very involving, (if characterful) sound</i>	23,89,34	●	94	4	33	●		183
Kelly KT3	1,200	<i>Super-high-sensitivity, hefty floorstander sacrifices smoothness for dynamic realism</i>	25,95,36	●	95	4	28	●	2133	174
Keswick Audio Aria II	379	<i>Confident and dynamic sound, if a little crude and shut in</i>	21,42,24	89	8	20	●	●	1405	148
Keswick Audio Torino	999	Good value, lively contender with distinctive styling. Goes loud and deep but could be smoother	18-26, 93,28	●	90	4	20	●	1977	167
Linn Keilidh Passive	750	Stunning timing and coherence, and awesome bass drive	20,83,28	●	87	4	22	●	1552	138
Linn Kaber Passive	2,000	Dry, bright balance emphasises dynamics and transients, but can sound unforgiving	20,90,28	●	87	4	25	●		118
Living Voice Auditorium	1,500	<i>Pretty, compact floorstander has wonderful coherence, high sensitivity and fine dynamic integrity</i>	21,5,98,29	●	91	4	25	●		180
Magnat Vector 77	450	Tall, dark and a lot of speaker for the money. Beautiful balance, but lacking in subtlety and transparency	22,115,29	●	89	5	30	●		183
Magnat Vintage 720	1,200	Slightly crude in some respects but lots of heart, fine scale, decent dynamic coherence and integrity	29,113,32	●	88	4	20	●		180
Mission 700	130	A lot of speaker for the money. Good bass weight and extension and goes loud with ease	18,34,26	87	8	40	●	●	2257	179
Mission 731 PRO	140	<i>Cautious balance makes a fine match with budget equipment. A classy baby for smaller rooms</i>	17,5,31,5,20	89	8	55	●	●		169
Mission 750LE	250	Fabulous cosmetics and a great midband carry the day, though size will out and bass is inevitably limited	17,28,27	86	7	45	●	●	2203	177
Mission 733i	330	New tweeter gives a more open sound; a good all-rounder that doesn't sound as big as it looks	20,5,88,30	●	88	8	45	●	2027	170
Mission 774	500	Gorgeous floorstander is an entertaining communicator, despite some balance oddities (bright treble)	18,95,31	●	90	4	40	●		183
Mission 752 Freedom	578	<i>A beautifully judged compromise in the art of combining presentation with a decent sound</i>	20,90,25	●	89	8	45	●	2123	174
Mission 753 Freedom	798	<i>Great styling. New, more restrained tweeter reveals fine midband dynamics</i>	21,90,31	●	89	4	40	●		1914
Mission 754 Freedom 5	1,298	Tall but exceptionally elegant floorstander gives fine midband projection; goes loud but limited deep bass	22,111,31	●	88	4	40	●		1981
Monitor Audio Monitor 3	400	An exceptionally discreet floorstander; sonically uneven, but capable of fine results	16,91,21	●	88	5	30	●	2032	170
Monitor Audio Monitor 4	500	An oddball balance but an entertaining sound, and a good looking real-wood-box at a realistic price	20,87,24	●	84	6	23	●	2210	177
Monitor Audio MA700 PMC	600	Good-looking luxury compact with all-metal diaphragms: lovely midrange, but occasionally edgy	22,35,26	89	8	45	●	●	1661	152
Monitor Audio 702PMC	700	A good all-round stand-mount with intimate midband focus	20,40,25	87	8	30	●	●	2128	174
Monitor Audio MA703 PMC	800	Lovely but pricy floorstander has up-front, coherent, 'shiny' sound	20,89,27	●	88	8	50	●	1826	160
Monitor Audio Studio 12	1,000	A real looker, but sound and content are a bit on the small side for the price	17,92,20	●	90	8	28	●		1349
Monitor Audio 705PMC	1,400	Beautifully finished compact floorstander with fine midband coherence, but limited bass and top end	20,94,28	●	89	4	25	●		180
Mordaunt-Short MS10i	140	<i>Up front, bouncy and a whole lot of fun</i>	18,5,30,5,20	86	8	50	●	●	1789	156
Mordaunt-Short MS30i	275	Slightly shut-in and coloured quality is offset by fine bass and impressive communication	25,43,28	90	8	28	●	●	1662	152
Musical Technology Kestrel SE	300	Brighter and drier-sounding than the standard Kestrel (and not the better for it)	20,84,19	●	84	5	50	●	1915	164
Musical Technology Harrier	400	Very pretty package, good measured performance and even sound. Sensitivity is low, and dynamics limp	25,80,23	●	86	8	25	●	1663	152
Musical Technology PM15	450	<i>A subtle, understated but very involving example of the 'classic' luxury-finish compact standmount.</i>	20,41,27	88	5	38	●	●		183
Musical Technology Condor	1,000	Lots of clever ideas in a floorstander, which places transparency and smoothness ahead of dynamic drama	25,91,23	●	85	4	28	●	2134	174
Musical Technology Hawk	1,250	Strikingly original, purposeful and attractive enclosure, but upper midband is decidedly shut in	20-36,93,24-38	●	87	5	23	●		180
Naim Intro	660	<i>Great dynamic range and info retrieval, but thin, lacks warmth</i>	24,89,27	●	89	6	30	●		1916
Naim Credo	1,060	Involving sound, but rather forward and cold. Good clarity, but some coloration and a lack of richness	24,89,30	●	88	8	28	●		180
Naim SBL Passive	1,970	Lively and punchy – smoother but more upfront than before	27,89,27	●	88	6	25	●	1352	143
Neat Critique 2	445	Contemporary standmount has a clean, crisp sound with lovely natural midband voicing	22,32,24	86	6	50	●	●		183
Neat Mystique Mk2	575	<i>This elegant package delivers a fine overall sound quality; some might find the top end too insistent</i>	20,86,18	●	85	6	23	●	2211	177
Neat Petite II/Gravitas	2,000	Beautifully presented miniature/subwoofer combo with ribbon tweeter gives smooth, laid-back sound	23,105,40	●	85	6	25	●		1988
Origin Live Conqueror	1,650	Chunky floorstanding three-way has lovely cabinetwork and lively sound, but limited deep bass	24,94,27	●	88	8	30	●		1989
PMC TB1S	430	<i>Pro-audio version of TBI</i>	20,41,30	87	6	40	●	●	2207	177
PMC TB1	482	<i>A classy, laid-back performer that likes going loud and loves the bass guitar</i>	20,40,31	87	8	45	●	●	1830	160
PMC LB1	935	Delightful smoothness and transparency, though bass and treble are both limited	18,53,25	89	4	33	●	●		110
PMC AB1	1,496	Lovely panel-like transparency, slightly shut-in balance, needs a big room	26,79,43	89	6	22	●	●		114
Polk LS50	800	No enthusiast tweaks here, but powerful and beautiful balance	27,83,29	●	89	8	25	●	1155	138

CONTINUED

# Hi-Fi Loudspeakers

**SPECIFICATIONS**

SIZE WxHxD (CM)    FLOORSTANDER    SENSITIVITY (db/W)    IMPEDANCE (ohm/W)    BASS FROM (Hz)    FREE SPACE    CLOSE TO WALL    FACTS/BACK NO.    ISSUE NUMBER

**STATUS**

PRODUCT	(£)	COMMENTS										
Polk RT16	799	Bass rich, lively and powerful, but suspect top end; big and not very pretty		22,105,39	●	91	4	22	●			1831 160
Polk LS70	1,200	High sensitivity, but balance has too much midbass boom; mid-top is laid back		31,94,37	●	90	8	22	●			1084 132
Proac Response 2.5	2,700	For aspirant high-enders looking for seriously good boxes, this speaker should be first port of call		22,107,25	●	86	8	30	●			1457 149
QLN Signature	1,000	Attractive pyramidal stand-mount with heavy, laid-back balance but remarkably unboxy sound		27,37,36	●	83	4	25	●			167
▶ Quad ESL-63	3,450	Classic electrostatic lacks punch, but has strengths some can't live without		66,93,27	●	86	8	34	●			60
▶ Rega KYTE	198	Has splendid timing and coherence, sounds very explicit and informative		19,31,19	●	87	8	50	●			114
▶ Rega EL8	298	Kyte drivers in compact floorstander give more bass but less coherence		17,72,20	●	86	8	55	●			122
▶ Rega ELA Mk II	498	Pretty and smooth, the latest incarnation has a superb midband and excellent communicative skills		30,80,20	●	87	8	40	●			1578 139
▶ Rega XEL	1,040	Looks and sounds great: balance bright but even, with delightful coherence and timing		20,82,30	●	89	6	40	●			1083 132
▶ Rehdeko RK 115a	1,700	Single-driver system has limited bandwidth and obvious coloration, but wondrous dynamic coherence		34,42,27	●	95	8	55	●			1982 167
▶ Revolver Colt	139	A good all-rounder, if a little bland, and excellent value for money		30,19,22	●	88	6	48	●			1407 148
Revolver 250	250	A nice price for a floorstander, but over-bright sound balance has potentially fatiguing consequences		21,85,5,25	●	87	8	22	●			2023 170
RMS Revelation Series 1	1,299	Innovative metal-box compact with integral port/stand - clean with good timing but very laid-back balance		20,99,24	●	81	8	22	●			1983 167
Rogers GS1	179	Classy-looking small box with equally classy, if slightly over cautious sound		19,30,17	●	85	8	45	●			2258 179
▶ Rogers dB101	250	This shapely sub-miniature is fast and agile but lightweight and forward: great voices; lacks bass		20,26,20	●	88	6	45	●			2024 170
▶ Rogers LS3/5A	699	Clever AB1 stand/subwoofer helps the classic 3/5A monitor give its best shot		19,31,17	●	82	12	45	●			1354 143
▶ Rogers C6/28	1,399	Large floorstander with carbon-fibre tweeter. Sounds better than it looks, especially through the midband		25,103,29	●	88	6	20	●			167
Roksan ROKone	595	Large stand-mount is musically very communicative if a little coloured		21,45,33	●	89	6	30	●			1834 160
▶ Roksan Ojan 3 Black	795	Squat, stylish and black, great bass extension and somewhat uneven balance		28,76,46	●	88	8	20	●			1082 132
▶ Roksan OJ3X Black	995	Innovative low-line, 2-way floorstander with decoupled tweeter; great bass and fine dynamic range		28,79,46	●	84	8	20	●			1979 167
▶ Royd Minstrel	275	Not much wellie or loudness but fine coherence and timing; a bit bright		18,69,12	●	86	8	30	●			1167 135
▶ Royd Doublet	485	Great value compact floorstander: lively and very informative, if a little uneven		18,93,19	●	90	4	28	●			1835 160
▶ Royd The Sorcerer	595	Extremely musical and communicative speaker that's fun to listen to. Aesthetics could be better, though		20,31,18	●	86	8	35	●			139
▶ Royd Abbot	695	Dynamic and fine transient qualities are hampered by a rather coloured mid-forward balance		20,81,30	●	90	8	43	●			118
▶ Ruark Epilogue	269	Beautifully finished miniature with a lively balance and plenty of charm; best suited to smaller rooms		17,29,23	●	87	8	47	●			183
Ruark Sceptre	599	'Traditional' cabinetwork with classy veneer and shiny gilt fixings, hampered by rather wayward sound balance		21,38,31	●	87	8	40	●			2129 174
▶ Ruark Talisman II	749	Less ideologically committed than some, strength lies in fine all-round coherence		23,84,32	●	88	8	30	●			118
▶ Ruark Crusader	1,599	Elegant luxury three-way with wonderfully even-handed, if rather laid-back balance		24,94,31	●	85	6	22	●			1990 167
▶ Ruark Equinox	1,849	The primary strength of this speaker is its ability to vanish behind the music		25,88,34	●	88	6	45	●			1227 140
▶ SD Acoustics SD3R	649	SD3 has the agility and charm of a quality miniature, good bass and low sensitivity		20,38,30	●	87	8	25	●			106
▶ SD Acoustics SD5	1,549	Bass suspect but forward midband is delightfully smooth. Has ribbon tweeter		20,110,30	●	88	8	30	●			1081 132
▶ Sequence 400	329	Clever hang-on-wall panel is well voiced, though bass isn't too great		25,100,7	●	86	8	45	●			1917 164
Shahinian Arc	1,875	Occasionally wonderful, small, floorstanding omnidirectional design: bright but coherent and revealing		35,69,25	●	88	6	24	●			110
Silverado Raider	695	Beautifully built audiophile compact: neutral if bright, tough work for amps		20,40,25	●	83	3	30	●			1918 164
▶ Spendor 2030	599	Discreet slimline floorstander with delicately coherent, laid-back sound		18,89,27	●	87	8	30	●			1836 160
▶ System Audio 1130	499	Super-slim, super smooth, involving experience, but not ideal if you like your bass deep and loud		3,100,21	●	89	4	43	●			183
Tangent Monitor 5	80	An uneven performer best suited to small rooms and generous volume levels		17,5,27,18	●	83	8	55	●			169
▶ Tangent Monitor 9	150	Budget floorstander that motors when the music demands, with a solid bass but occasionally raw treble		19,5,75,5,22,5	●	90	6	45	●			1926 165
▶ Tannoy Mercury M1	120	Sounds much bigger and expensive than it is. Solid, tuneful bass, wide open soundstage, excellent imaging		17,30,20	●	87	8	50	●			2259 179
▶ Tannoy Mercury M2	140	A fine all-rounder with big box and deep bass for the price; could be sweeter and tighter		20,5,38,28	●	87	8	25	●			169
▶ Tannoy Mercury M3	230	Good-looking floorstander; very neutral and evenhanded, with fine midband but weak dynamics and drive		20,5,87,28	●	87	7	20	●			2025 170
Tannoy Precision P20	400	A creative and attractive design with time-aligned drivers, but the sound lacks sufficient excitement		21,80,30	●	88	5	25	●			2208 177
▶ Tannoy D300	999	Gorgeous-looking compact floorstander. And a fine all-round performer, too!		16,24,85,23	●	87	6	26	●			167
Tannoy D500	1,999	Plenty of muscle and stereo, but short of poise and delicacy. Hard work for amps		31,93,34	●	91	6	20	●			1355 143
▶ Tannoy Westminster TW	6,600	These awesome horn-loaded speakers are remarkably controlled and impressive		large	●	99	8	38	●			C93
▶ TDL RTL3SE	450	A touch of boom'n'tizz might be to taste, but this is a lot of box for the money, with floor-shaking bass		20,91,39	●	89	6	22	●			2124 174
▶ TDL CF100 Chiltern	450	Tiny but classy monitor has a laid-back balance, a fine midband and a surprising bass; but needs space		20,29,23	●	85	8	50	●			183
TDL CF200 Cotswold	650	Fine midband tonality and dynamic range, but less happy towards the bandwidth extremes		22,5,78,23	●	86	6	40	●			2212 177
TDL T-Line 3	700	Plenty of bass and treble, but broad midband is rather repressed		20,97,38	●	86	8	20	●			1921 164
Technics SB-M20	200	Well-balanced with natural perspectives and fine midband coherence, but bass is a bit boxy and uneven		20,32,23	●	70	8	50	●			1413 148
Technics SB-M500	450	This model offers a clean, open sound, offset by midbass, heavy balance and low sensitivity		25,78,37	●	85	8	25	●			1666 152
▶ Totem Model One	1,195	Utterly delightful but exasperatingly expensive luxury miniature sets the benchmark for its size		17,31,23	●	87	4	28	●			122
Vandersteen 2Ce	1,395	Elegant staggered baffle contributes to a refreshing freedom from boxiness		41,101,27	●	88	7	23	●			86
Wharfedale Diamond 7.2	140	A good-hearted, lively and up-front performer that's a little lacking in subtlety and smoothness		19,29,5,23	●	88	4	45	●			169
Wharfedale Valdus 400	200	Very loud with a minimum of amplification, but the sound is thick and uneven, with a heavy upper bass		25,80,26	●	91	8	30	●			1414 148
▶ Wharfedale Valdus 500	300	These rock boxes can move plenty of air, albeit not as subtly as alternatives		25,108,26,5	●	91	4	40	●			1758 155
▶ Wharfedale MFM-3	350	Smooth broad midband gives fine voice rendition; bass could be better		22,89,28	●	87	8	40	●			1922 164
▶ ZYP AI	199	Cute metal-cased micro-miniature is quite coloured but great fun		14,22,12	●	88	8	30	●			110
<b>SUBWOOFERS</b>												
Acoustic Energy AE108S	299	Lots of loud subwoofer for your money, though ultimately more film than music oriented		50,42,43	●			20	●			2247 179
B&W ASW1000	499	(Active) Very competently engineered all round, and goes (unnecessarily) very loud		54,47,48	●			20	●			2248 179
B&W AS6	500	(Active) Good material value with a fair amount of low bass from 100W design		45,51,45,5	●			30	●			1736 154
Celestion CS135	139	Compact hideaway passive sub lacks deep bass for high sensitivity speakers		52,19,34	●	86	8	45	●			128
Jamo SW600	530	(Active) Has some neat styling touches and remote control, but deep bass is limited		38,41,53	●			30	●			1736 154
▶ JPW SW60	349	A real heavyweight, sounds clean and transparent, if perhaps a little understated. Usefully flexible		55,47,39	●			20	●			2249 179
KEF Model 30B	499	(Active) Commendably discreet with good sense of timing but limited extension		38,5,37,43	●			45	●			1736 154
KEF AV1	2,499	(Active) Works well, looks great, shakes the windows but costs a lot and is bulky		56,43,50	●			45	●			128
M&K VX-7B	450	(Active) Baby of a big range; this active design delivers deep, plentiful bass but lacks transparency		35,25,37	●			40	●			1736 154
▶ M&K MX70	900	(Active) Justifies cost and belies its diminutive size, with an agility that makes sense of the toughest material		25,5,46,35	●			25	●			2250 179
▶ REL Q50	375	(Active) Genuinely deep, clean bass from an attractively compact and cost effective package		40,41,42	●			20	●			2251 179
Rogers AB1	549	Subwoofer-cum-stand designed as partner for LS3/5a or similar miniatures		19,57,16	●	82	8		●			1354 143

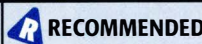
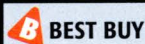


## Stands & Supports

Hi-Fi supports are more important than you might imagine – they can have very subtle effects on the sound of your system! There are two kinds of support: those for equipment and those (stands) for loudspeakers. Equipment supports keep vibrations and resonances from affecting electronic components, while speaker stands hold enclosures stock-still and ensure they are at the correct height for your ears. Equipment supports may be rigid affairs fabricated from steel or more exotic materials; or they may have a form of suspension. Speaker stands come in a variety of sizes and styles to suit different models, and vary between open-frame and solid-pillar types. Always check with speaker and electronics manufacturers to see which supports they recommend.

### KEY TO SPECIFICATIONS

- **HEIGHT (cm):** How tall is your support?
- **TOP PLATE SIZE (cm):** Dimensions of top surface on stand or equipment support.
- **FILLABLE:** Some speaker stands can be mass-loaded with sand or lead-shot to improve sound.
- **WELDED:** The better stands and supports are welded together rather than just bolted.
- **NUMBER OF SHELVES:** The number of tiers on an equipment rack or support.
- **SHELF TYPE:** The material from which shelves are made. Wood generally means Medium Density Fibreboard (MDF).
- **FACTSBACK REFERENCE:** The Factsback Reference number permits direct access to our faxed review reprint service. For full info, see the Factsback advert on the penultimate page of the magazine.
- **ISSUE NUMBER:** The issue of Hi-Fi Choice in which an original review appeared.
- H:** High End Review



# Stands & Supports

### SPECIFICATIONS

TOP PLATE SIZE (cm)  
HEIGHT  
FILLABLE  
WELDED  
NUMBER OF SHELVES  
SHELF TYPE  
FACTSBACK NO.  
ISSUE NUMBER

STATUS

PRODUCT	(£)	COMMENTS	HEIGHT	TOP PLATE SIZE (cm)	FILLABLE	WELDED	NUMBER OF SHELVES	SHELF TYPE	FACTSBACK NO.	ISSUE NUMBER
<b>EQUIPMENT SUPPORTS</b>										
Alphason GR 17/17-AS	275	Great looks but sound can be bettered at this price	36	60,39			4	Glass	181	
▲ Elemental Isotube x 4/Ref	1199	Blockbusting size and build. Super sound quality	92	45,49		●	4	Marb	181	
Fi-Rax R4	399	Lively, exuberant sound, slightly weak bass					5	Glass	1633	151
▲ Frameworks H500/H175	404	Two-shelf stand and isolation platform combo in tubular steel – made a spectacular impression on audition	70	52,34		●	3	Glass	1952	166
Ixos Deadrock 704	250	Looks unassuming but sound is full and inviting		46,39			4	Resin		181
Kudos Corinthian	599	True heavyweight that doesn't quite manage knockout sound	91	46,38			4	Wood		181
▲ Mana Acoustics Ref. Table	350	King of its type: angle iron, chipboard and glass combine to make a significant difference to sound quality	56	49,39		●	1	Glass		147
▲ Mana 5 Tier Sound Table	600	Infinitely upgradeable. Persuasive and thrilling glass and angle-iron design that adds speed and bandwidth	91	49,39		●	5	Glass	1633	151
▲ Optimum Int 2000 OPT490	299	25kg stand with shelves between variable-height tubular uprights. Sounds smooth and relaxed with sturdy bass	50	60,40			4	Glass	1953	166
▲ Optimum Int 2000 OPT660	349	Glitzy style isn't reflected in sound, which is wholesome	82	60,52			5	Glass		181
▲ Quadraspire Q4	250	Easy to live with, tonally neutral	54	40,49			4	MDF	1633	151
▲ Sound Organisation Z038	135	Too lively and lacking order – but inexpensive	50	84,40		●	5	Wood	1633	151
▲ Sound Organisation Z560	160	Welded and bolted members give structural integrity. While performance is not up with the best, it's great value	90	46,36		●	5	Wood	1954	166
▲ Soundstyle X100	230	Looks lovely, sounds lively but slightly bright	64	49,28		●	4	Glass		181
▲ Soundstyle Select 6105	290	Respectable sonics: structurally solid and smart	78	43,36			5	Glass	1633	151
Soundstyle Finewoods W105	320	Veneered shelves clamped between tubular uprights. Delivers with classical material	82	48,27			4	Wood	1955	166
▲ Sound Organisation Z545	150	Budget gem from the stalwarts of sound supports	70	46,36		●	4	Glass		181
▲ Soundstyle X100	150	Looks lovely, sounds lively but slightly bright	64	49,28		●	4	Glass		181
Stands Unique Sound Tower	289	Wooden uprights combine with glass shelves to provide a fresh, forward sound, but bass could be quicker	81	72,42			5	Glass	1633	151
▲ Target B5	175	Free of colorations, fine grip and good value	81	49,36		●	5	Wood	1633	151
▲ Townshend Seismic Stand	1245	It's big, it wobbles and it's pricey. But this is the ultimate equipment support	72	58,45			3	Wood		181
▲ Wilson benesch Asside	590	Sounds even better than it looks. And it looks wonderful	72	37,50			4	Wood		181
<b>SPEAKER STANDS</b>										
Alphason NC I	45	Filled single-column design without threaded spike holes, that's appropriate for non-critical applications	40-60	16,16	●				1373	146
Alphason NCII	84	Tall, slim and elegant, though sound and value are unexceptional	40-60	17,17	●					159
Alphason Titan	125	Excels in the midband and allows voices to come across in a detailed and expressive fashion	40-60	16,16	●	●			1373	146
Apollo AZ6	80	Fine engineering value, but sound is unexceptional and top-plate small	66	15,13	●	●				159
▲ Atacama BD21	55	Good-looking and good value, but doesn't match the SE24's sound quality	56	15,17	●					159
▲ Atacama SE24	70	Stands out from the budget crowd because of the consistency and overall quality of its performance	61	19,57	●	●			1373	146
AVF Tower 400	35	Ridiculously cheap and much better than no stand at all	54	17,20	●					159
▲ Kudos S50	100	Better sound than the budget stands, particularly in low-frequencies	60	15,21	●					159
▲ Kudos S100	270	The best all-round stand around... Probably...	63	15,21	●					159
▲ Mana Soundframes	125	For use under floorstanders and equipment racks, these make music effortless and natural. Can be stacked	5			●			1373	146
Revolver RS1	70	A good blend of performance and appearance for the price	53	18,18	●					159
▲ RMS/Stands Unique Vivus	349	Precise carbon fibres give ultra-clean sound with exceptional voices	50	N/A						159
▲ Stands Unique HP	220	Real wood disguises high-performance tuned technology	59	22,23						159
▲ Target R1	280	Truly high-mass four-pillar design with superb weight and speed, giving music delicious attack	53	15,21	●	●			1373	146
▲ Target TR60	68	Lively, dynamic midrange and detailed treble from a less-than-audiophile-oriented, twin-column design	60	15,15	●				1373	146



CALL NOW FOR **YOUR** essential guide

TO THE ULTIMATE

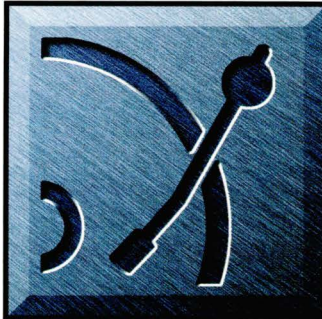
**AUDIO** Christmas presents!

FREE phone 0800 373467 UK ONLY

Russ Andrews

**HI-FI LIFESTYLE DIRECT**  
Russ Andrews Accessories Ltd., Kendal, Cumbria  
LA8 9AS E-mail: info@russandrews.com  
Tel: 01539 823247 Fax: 01539 823317

Ref: CH1298



## Tonearms

Less expensive turntables are usually supplied with a matching tonearm (and often a 'starter' cartridge, too). However, hard-core vinyl fans should invest in a more expensive separate motor unit with specialist tone-arm – the only way to make the most of vinyl LPs. It is essential to achieve operational synergy between such components, so this is one area of hi-fi where the skills of a knowledgeable dealer are invaluable. The quality of a tonearm's construction and design affect sound quality significantly. There are three basic arm designs listed in the key, and each has strengths, but pivoted designs are the most popular, being usually the most practical and affordable.

### KEY TO SPECIFICATIONS

- **EFFECTIVE MASS:** This relates to cartridge compliance. Generally high mass arms are suitable for low compliance cartridges and vice versa.
- **PARALLEL TRACKING:** An arm which allows the cartridge to track the disc in a linear fashion.
- **PIVOTED:** Arms which allow the cartridge to describe an arc as they traverse the record.
- **UNI-PIVOT:** Pivoted arms with a bearing that allows movement in two planes.
- **EFFECTIVE LENGTH (CM):** Length of arm from bearing to cartridge mounting.
- **ADJUSTABLE HEIGHT:** Important for accurate cartridge set-up.
- **FACTSBACK REFERENCE:** The Factsback Reference number permits direct access to our faxed review reprint service. For full info, see the Factsback ad on the penultimate page of this issue.
- **ISSUE NUMBER:** The issue of *Hi-Fi Choice* in which an original review appeared.

**B** BEST BUY   **R** RECOMMENDED   **E** EDITOR'S CHOICE

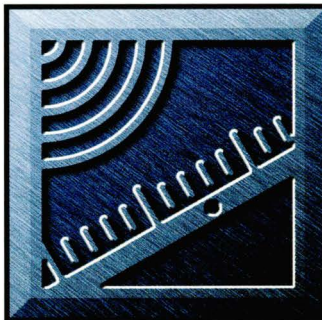
## Tonearms

### SPECIFICATIONS

PARALLEL TRACKING EFFECTIVE MASS   PIVOTED UNI-PIVOT EFFECTIVE LENGTH (cm)   FACTSBACK NO.   ISSUE NUMBER

STATUS

PRODUCT	(£)	COMMENTS	PARALLEL TRACKING	PIVOTED UNI-PIVOT	EFFECTIVE LENGTH (cm)	FACTSBACK NO.	ISSUE NUMBER
▲ Kuzma Stogi Ref	1,250	Large, solid and well-made arm, gives exceptionally clear sound with just a hint of brightness	High	●			79
▲ Linn Ekos	1,500	Superb, state-of-the-art design which builds significantly on predecessor's strengths	Medium	●	229	●	67
▲ Moth Arm	95	The ultimate budget arm? Refined, sweet, detailed and natural	Low	●	237		60
▲ Rega RB300	174	Despite its modest price it sets exceptional standards and could be used on many high-end turntables	Low	●	237		60
▲ Roksan Tabriz Basic	275	Targeted at the Xerxes, this is a good alternative to the Rega arm in many cases – a touch bright though	Low	●	240	●	91
▲ SME Series IV	983	Superb engineering and finish with a finely balanced sound, impressive stereo focus and low coloration	Low	●	233	●	60
▲ SME Series V	1,461	Excellent in all respects, this arm arguably sets the standards for pivoted arms, regardless of price	Low	●	233	●	60



## Tuners

TV has stolen radio's status as the foremost broadcast entertainment medium, but with its Radio Four plays and Radio Three music, the BBC still makes a potent case for audiophile reception equipment. For how much longer, under the cost-conscious Birtist régime, remains to be seen. Another new imponderable is the arrival of digital radio broadcasting, though reception apparatus is currently non-existent outside of the in-car market. These days tuners play second fiddle to hi-fi sources like CD, but in many ways they are a greater engineering challenge than digital equipment, and thus higher prices clearly equate to superior performance. High-quality, roof-mounted antennae are essential for audiophile listening, so factor them into your budget.

### KEY TO SPECIFICATIONS

- **WAVEBANDS:** FM – (VHF), M – MW, L – LW.
- **PRESETS:** Number of station frequencies that can be stored.
- **RDS:** (Radio Data System) was originally designed for in-car applications. RDS tuners can identify and display the name of the radio station being received, traffic news and other information about broadcasts.
- **REMOTE CONTROL:** Infra-red control handset supplied.
- **SIGNAL STRENGTH METER:** Indicates strength of signal from aerial – useful for aligning your 'twig' during installation.
- **ROTARY TUNING KNOB:** Experience has shown that this analogue throwback is ergonomically far superior to the button-based approach.
- **FACTSBACK REFERENCE:** The Factsback Reference number permits direct access to our faxed review reprint service. For full info, see the Factsback advert on the penultimate page of this issue.
- **ISSUE NUMBER:** The issue of *Hi-Fi Choice* in which an original review appeared.

**B** BEST BUY   **R** RECOMMENDED   **E** EDITOR'S CHOICE

## Tuners

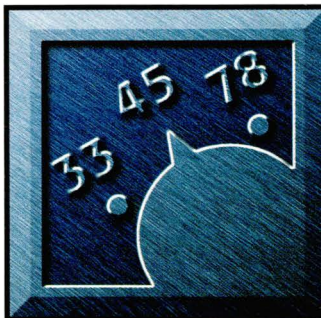
### SPECIFICATIONS

WAVEBANDS   PRESETS   RDS   REMOTE CONTROL   SIG. STRENGTH METER   ROT. TUNING KNOB   FACTSBACK NO.   ISSUE NUMBER

STATUS

PRODUCT	(£)	COMMENTS	WAVEBANDS	PRESETS	RDS	REMOTE CONTROL	SIG. STRENGTH METER	ROT. TUNING KNOB	FACTSBACK NO.	ISSUE NUMBER
▲ AMC T7	130	Performance adequate but price is sharp, especially with remote control. Some hum	FM, M	30		●			1945	166
▲ Arcam Alpha 7	230	Indifferent RF performance but a touch of audiophile sound quality with clean, strong signals	FM, M, L	24					1946	166
▲ Arcam Delta 280	300	Fine sound quality marred by mild synthesiser whine; RF performance only average. Remote £60 extra	FM	20			●			120
▲ Denon TU-260L	120	Careful minimalist design promises a surprisingly open and vivacious sound	FM, M, L	20						93
▲ Denon TU-425RD	200	A fine all-rounder with advanced RDS, good RF performance and decent sound. Remote extra	FM, M	40	●				1947	166
▲ Denon TU-1500RD	250	A well-balanced and clean sound with good bass and treble extension	FM, M	40	Y	N	N	Y		184
▲ Magnum Dynalab FT11	499	All-analogue tuner: receives weak or tightly packed stations but loses out on noise and sonic neutrality	FM	3	N	N	Y	Y		184
▲ Harman/Kardon TU950	200	Bulky but effective, delivering fine RF performance and good sound for the price	FM, M, L	30	●		●	●	1948	166
▲ Linn Kremlin	2,600	Controversially good sound at a very high price	FM	80		●	●		1254	142
▲ Magnum Dynalab FT101	825	Although fairly expensive given its minimum set of facilities, its excellent sound provided ample compensation	FM							72
▲ Marantz ST-48	120	A classic budget model which manages a performance only just behind much more expensive models.	FM, M	60	Y	N	N	N		184
▲ Micromega Tuner	750	Has digital output but even without the Micromega DAC, this provides exceptional sound quality. Looks good too	FM	39		●	●		1810	157
▲ Mission Cyrus FM7	400	Open, generous soundstaging gives the music plenty of foundation, if a touch shut-in at the top	FM	29		●	●	●	1254	142
▲ Musical Fidelity E50	300	Sounds involving if coloured and with a subjectively larger-than-life presentation	FM	20					1810	157
▲ Myryad T-10	530	A very smart unit which works well and offers good rhythmic drive and vitality, albeit at a price	FM	20	N	N	Y	Y		184
▲ Naim NAT01	1,730	There may be better sounding tuners in the world, but we have yet to hear one	FM						1254	142
▲ Pioneer F-504RDS	250	Cable-friendly with advanced RDS and excellent RF performance; slightly disappointing sound	FM, M	40	●		●	●	1949	166
▲ Pioneer F504RDS	300	Lots of features, plus a sound that's low on noise and high on communication, adds up to a good value package	FM, M	40	Y	N	Y	Y		184
▲ Roksan Caspian	595	Neat facia with great ergonomics, but sound is not really any better than models at half the price	FM	50	N	Y	Y	Y		184
▲ Rotel RT-935AX	160	Good ergonomics and sound quality at a realistic price, but limited features and RF selectivity	FM, M	20					1950	166
▲ Sony ST-SA3ES	250	Clean, lean presentation but needs a quality aerial to perform at its best	FM, M, L	30			●	●	1810	157
▲ Sony STS-B920S	180	A little hiss and image compression don't detract from the clean performance of this feature-packed tuner	FM, M, L	30	Y	N	Y	Y		184
▲ Technics ST-GT350L	130	Decent RF performance is offset by sound quality more typical of a mini/midi system	FM, M, L	30			●	●	1254	142
▲ Thorens TRT2000	499	Not exactly neutral sounding, but nonetheless makes listening fun	FM, M	59	●	●	●	●	1810	157





## Turntables

Specialist turntables are at the heart of high-fidelity sound. CD players may offer ultra-low noise and a flat frequency response, but they can't match the dynamics and superlative rhythmic timing taken for granted by serious turntable users. Less expensive turntables are usually supplied with a matching tonearm (and often a 'starter' cartridge, too). Still better quality is found at higher prices among the separate motor units and tonearms. Because turntables are mechanical devices, designed to retrieve micron-small modulations engraved into vinyl, engineering quality is of paramount importance. This is also the reason why turntables cost as much as they do, and require the finest equipment support systems.

### KEY TO SPECIFICATIONS

- **MANUAL:** You do all the work.
- **AUTO:** The record player does all the work.
- **SEMI-AUTO:** You put the needle on, the turntable lifts it off at the end of the record.
- **SPEEDS:** in RPM to correspond with long-playing records or seven/12-inch singles.
- **SUSPENDED SUBCHASSIS:** Sprung suspension to minimise structural interference.
- **EXTERNAL PSU:** Outboard power supply; generally indicative of higher-quality performance.
- **SUPPLIED WITH ARM:** Many turntables do not come with a tonearm fitted, but if this category is checked, the deck is already thus equipped.
- **SUPPLIED WITH CARTRIDGE:** If a turntable comes complete with arm and cartridge.
- **FACTSBACK REFERENCE:** The Factsback Reference number permits direct access to our faxed review reprint service. For full info, see the Factsback ad on the penultimate page of this issue.
- **ISSUE NUMBER:** The issue of *Hi-Fi Choice* in which an original review appeared.

**H:** High End Review

**B** BEST BUY    **R** RECOMMENDED    **E** EDITOR'S CHOICE

# Turntables

### SPECIFICATIONS

MANUAL    AUTO    SEMI-AUTO    SPEEDS    SUSP. SUBCHASSIS    EXTERNAL PSU    SUPPLIED WITH ARM    FACTSBACK NO.    ISSUE NO.

STATUS

PRODUCT	(£)	COMMENTS	MANUAL	AUTO	SEMI-AUTO	SPEEDS	SUSP. SUBCHASSIS	EXTERNAL PSU	SUPPLIED WITH ARM	FACTSBACK NO.	ISSUE NO.
Clearaudio Reference	3,990	Opulent beast tested with Souther TQ-1 arm. Tends to gloss over detail, but can sound bold	●			33/45					1328 144
▲ DNM Rota 2	5,600	Tonally slightly bleached, but extracts detail like few others. Works well on its own table	●			33/45	●		●	●	1328 144
▲ Dual 505-4 UK	250	Consistent sounding and well isolated turntable. It is slightly lacking in oomph				● 33/45	●		●	●	103
▲ Kuzma Stabi/PS	1,950	(Tested with Stogi Reference) Solid oak plinth; sound is very clear, detailed and extended	●			33/45	●	●			91
▲ Linn LP12 Basik	1,100	Trails the full LP12 significantly, but pace, rhythm, timing etc still top rank	●			33	●		●		103
▲ Linn LP12 Lingo	1,750	The classic reference is improved by the Lingo, but charming character remains	●			33/45	●	●			91
▲ Michell Gyrodec	875	Sweet and natural-sounding player, well matched to Rega RB300 arm	●			33/45	●	●			55
Moth Kanoot	329	Rather coarse-sounding deck that requires decent isolation and comes with a Rega RB300 arm	●			33/45				●	1907 164
▲ Notis Analogue Spacedeck/Arm	750	No frills, just a first-rate, outstandingly natural-sounding deck that will last forever	●			33/45		●	●		159
▲ Pink Triangle Anniversary	2,500	Possibly the most detailed, clear, neutral-sounding deck around. Likeness to master tape is uncanny	●			33/45	●	●			91
▲ Pro-ject 2	300	Remarkably effective at the price, with decent timing and a generally well defined sound	●			33/45				●	1907 164
▲ Pro-ject 6/Sumiko	850	Don't think of this as a deck with a good arm, but as a scaled-down Oracle Delphi – it's that good	●			33/45	●	●	●		138
▲ Rega Planar 2	214	A remarkable product at the price, surprisingly articulate and confident	●			33/45				●	48
▲ Rega Planar 3	274	Sounds musical in a balanced manner, needs decent isolation and suffers a little pitch instability	●			33/45			●		1907 164
▲ Reson RS1	600	Supplied set-up and ready-tuned, this unconventional deck is packed with mid-band detail	●			33/45		●	●		159
▲ Roksan Radius 3/Tabriz zi	890	Elegant-looking turntable with a tidy, ordered sound. Bright and breezy if a shade lightweight	●			33/45	●	●			159
SME Model 20A	4,863	Supplied with Series V arm. Engineered to last a lifetime, giving excellent stereo and detail retrieval	●			33/45/78	●	●	●		118
▲ Thorens TD166 V/UK/RB	400	Refined, solid sound with well-focused imagery; suitable for use with good MM/MC budget cartridges	●			33/45	●		●	●	103
Thorens TD2001	700	Balances convenience and sound well, but deck lacks detail and bass could be better controlled	●			33/45	●		●		159
▲ Well Tempered Record Player	1,850	Intriguing and challenging. Musically not ideal, but its limpid quality and lack of artificiality set standards	●			33/45	●	●			1180 136

**THE HI-FI CHOICE WEBSITE**

FOR MORE IN-DEPTH INFORMATION ON REVIEWED PRODUCTS, CHECK OUT OUR WEB SITE AT [www.hifichoice.co.uk](http://www.hifichoice.co.uk)

**HI-FI CHOICE**

**HI-FI CHOICE HELP**

FOR ASSISTANCE IN BUYING THE ULTIMATE SYSTEM, CHECK OUT THE HELP SECTION ON OUR WEB SITE AT [www.hifichoice.co.uk](http://www.hifichoice.co.uk), OR WRITE TO US AT: 'HELP', HI-FI CHOICE, 19 BOLSOVER STREET, LONDON W1P 7HJ

# MANUFACTURER & DISTRIBUTOR CONTACT NUMBERS

## A

Acoustic Energy • tel 01285 654452  
 Acoustic Precision • tel 01483 267516  
 Acurus • Audio Illusion • tel 01753 542761  
 Adyton • Aanvil Audio • tel 01359 240687  
 Air Tangent • Absolute Sounds • tel 0181 971 3909  
 Aiwa • tel 0181 897 7000  
 Akai • tel 0181 897 6388  
 AKG • Path Group plc • tel 01494 441736  
 Alchemist • Henley Designs • tel 01491 834700  
 Allison Acoustics • tel 01484 603333  
 Alon • Sound Image UK • tel 0181 255 6868  
 Alphason • tel 01942 678000  
 Altis • HEAR • tel 01232 319148  
 Ambiente • Esoteric Aud. Imp. • tel 01243 533030  
 AMC • Tangent Acoustics • tel 0500 828620  
 Analysis • Audio Spectrum • tel 01752 363355  
 Apertura • Audiophile Club • tel 0181 882 2822  
 Apogee Digital • Sound Image • tel 0181 255 6868  
 Arcam • A&R Cambridge • tel 01223 203203  
 Arston • Richer Sounds plc • tel 0171 940 2240  
 Art Audio • tel 0115 963 7795  
 Atacama • Sambell Eng. • tel 01455 283251  
 ATC Loudspeaker Technology • tel 01285 760561  
 ATD • Aanvil Audio • tel 01359 240687  
 Audio Analogue • UKD • tel 01753 652669  
 Audio Innovs • Richer Sounds • tel 0171 940 2240  
 Audio Note • PM Components • tel 01475 560521  
 Audio Physic • Aanvil Audio • tel 01359 240687  
 Audio Research • Abs. Snds • tel 0181 971 3909  
 Audio Synthesis • tel 0115 922 4138  
 Audio Technica • tel 0113 277 1441  
 Audiogram • Absolute Sounds • tel 0181 971 3909  
 Audiomeca • Kronos Distrib • tel 01868 748632  
 Audiophile Furniture • tel 01342 826262  
 Audiophile International • tel 01932 821111  
 Audioquest • A&R Cambridge • tel 01223 203203  
 Audiostatic • Audiofreaks • tel 0181 948 4153  
 Audiovector • Clave • tel 01622 664070  
 Avalon • Audiofreaks • tel 0181 948 4153  
 AVF • tel 01952 670009  
 AVI • AV International • tel 01453 765682

## B

B&O • Bang & Olufsen UK • tel 0118 969 2288  
 B&W Loudspeakers • tel 01903 750750  
 Bander • tel 01494 714058  
 Basis • RT Services • tel 01235 810455  
 BCD Engineering • UKD • tel 01753 652669  
 Benz-Micro • Audiofreaks • tel 0181 948 4153  
 Beyerdynamic • Veda Products • tel 01279 501111  
 Bose UK • tel 01795 475341  
 Boston Acoustics • Portfolio • tel 01489 795519  
 Boulder • Sound Image UK • tel 0181 255 6868  
 Bow Tech • Path Premier • tel 01494 441736  
 B\*a • Thomas Transducers • tel 01424 813888  
 Byston • PMC • tel 01707 393002

## C

Cable Talk • tel 01276 686717  
 Cambridge Audio • Richer Snds • tel 0171 940 2240  
 Cardas Audio • Audiofreaks • tel 0181 948 4153  
 Carver • Sound Dept • tel 01235 555622  
 Cary • Audiophile Club • tel 0181 882 2822  
 Castle Acoustics • tel 01756 795333  
 CAT • Audio Reference • tel 01483 575344  
 Celestion International • tel 01622 687442  
 Cenwin-Vegal • CSE • tel 01423 359054  
 Chario • MDC • tel 01992 573030  
 Chord • The Chord Company • tel 01722 331674  
 Chord Electronics • tel 01622 764874  
 Classé Audio • Audio Illusion • tel 01753 542761  
 Clearaudio • Absolute Analogue • tel 01425 654488  
 Clements • Wollaton Audio • tel 0115 928 4147  
 Connections UK • tel 01487 832424  
 conrad-johnson • Audiofreaks • tel 0181 948 4153  
 Copland • Absolute Sounds • tel 0181 971 3909  
 CR Developments • tel 01702 469055  
 Credo • Townshend Audio • tel 0181 979 2155  
 Creek Audio • tel 0181 361 4133  
 Crimson • Virtual Reality • tel 01277 227355  
 Croft • tel 01902 656517  
 Custom Design • tel 0191 262 4646  
 Cymbol • tel 01273 517358

## D

Dali • Audio Club • tel 01296 482017

Dawn Audio • tel 01932 355040  
 Day Sequerra • Abs. Sounds • tel 0181 971 3909  
 Deadrock • Path Distribution • tel 0121 749 2240  
 Definitive Tech • Gecko Inc • tel 0181 681 1817  
 Denon • Hayden Laboratories • tel 01753 888447  
 Densen • tel 01582 561227  
 Diapason • UKD • tel 01753 652669  
 DNM • Virtual Reality • tel 01277 227355  
 DPA • tel 01446 747288  
 Dual • Revolver UK • tel 0161 973 0505  
 Dynaudio UK • tel 01732 451938  
 Dynavector • Pear Audio • tel 01665 830862

## E

EAR • Yoshino • tel 01480 455791  
 Eclipse • Richer Sounds plc • tel 0171 940 2240  
 Electrocomplanet • Sound Im • tel 0181 255 6868  
 Electrofluidics • tel 0171 735 3300  
 Electrostatic Res. • Audusa • tel 0181 241 9826  
 EMF Audio • tel 0181 361 6734  
 Epos Acoustics • tel 01705 498866  
 Exposure Electronics • tel 01273 423877

## F

Fase Evoluzione • Esoteric AI • tel 01243 533030  
 Finite Elemente • Audiofreaks • tel 0181 948 4153  
 Frameworks • Arrow Consult • tel 01702 611451

## G

Gale • Richer Sounds plc • tel 0171 940 2240  
 Genesis • MDC • tel 01992 573030  
 Genexxa • Intertan • tel 01922 434000  
 CLL • tel 01705 492777  
 Goertz • Townshend Audio • tel 0181 979 2155  
 Golden Tube Audio • Audiofreaks • tel 0181 948 4153  
 Goldring Products • tel 01284 701101  
 Goodmans Industries • tel 01705 391000  
 Graaf • UKD • tel 01753 652669

Grado • Goldring Products • tel 01284 701101  
 Graham • Audio Reference • tel 01483 575344  
 GT Audio • tel 01895 833099

## H

Harbeth Acoustics • tel 01444 440955  
 harman/kardon • Gamepath • tel 01908 317707  
 Harmonix • Audiofreaks • tel 0181 948 4153  
 Helios • Absolute Analogue • tel 01425 654488  
 Henley Designs • tel 01491 834700  
 Heybrook Hi-Fi • tel 01752 333800  
 Hørring • Definitive Audio • tel 0115 981 3562

## I

Impulse Loudspeakers • tel 0181 766 0474  
 Infinity • Gamepath • tel 01908 317707  
 Insert Audio • Clave • tel 01622 664070  
 Interaudio • Bose UK • tel 01795 475341  
 Ixos • Path Distribution • tel 0121 749 2240

## J

Jadis • Absolute Sounds • tel 0181 971 3909  
 Jamo UK • tel 01327 301300  
 JBL • Gamepath • tel 01908 317707  
 Jecklin • May Audio Marketing • tel 01535 632700  
 JM Lab • Sound Image • tel 0181 255 6868  
 John Shearne • tel 01438 740953  
 JoLida • Wollaton Audio • tel 0115 928 4147  
 Jordan Watts Acoustics • tel 0181 985 1646  
 JPW Loudspeakers • tel 01752 333800  
 JVC UK • tel 0181 208 7654

## K

KEF Audio • tel 01622 672261  
 Kenwood Electronics UK • tel 01923 816444  
 Keswick Audio • tel 01977 671823  
 Kimber Kable • Russ Andrews • tel 01539 823247  
 KLH Europe • tel 01473 833228  
 Koetsu • Absolute Sounds • tel 0181 971 3909  
 Krell • Absolute Sounds • tel 0181 971 3909  
 Kronos Hi-Fi • tel 01868 753606  
 Kudos • tel 01732 461648  
 Kuzma • Audiofreaks • tel 0181 948 4153

## L

LAT International • Audusa • tel 0181 241 9826  
 Lexicon • Harman Audio • tel 0181 207 5050  
 LFD • tel 01255 422533  
 Lieder • Esoteric AI • tel 01243 533030  
 Linn Products • tel 0500 888909  
 Living Voice • Definitive Audio • tel 0115 981 3562  
 London • Presence Audio • tel 01444 461611  
 Lowther Voight • tel 0181 300 9166  
 Lumley Ref. • Sounds of Music • tel 01892 547003

Lynwood Electronics • tel 01709 873667  
 Lyra • Path Premier • tel 01494 441736

## M

MAG Audio (UK) • tel 0181 555 1222  
 Magnephanar • tel 01865 883555  
 Magnum • Hailey Audio • tel 01992 442425  
 Magnum Dynalab • Audiofreaks • tel 0181 948 4153  
 Mana Acoustics • tel 01753 655744  
 Manley Pro • Sound Image UK • tel 0181 255 6868  
 Manticore Audio Visual • tel 01767 318437  
 Marantz Hi-Fi UK • tel 01753 680868  
 Mark Levinson • Path Premier • tel 01494 441736  
 Martin-Logan • Abs Sounds • tel 0181 971 3909  
 McIntosh • Picture the Sound • tel 01483 454991  
 Meracus • Aanvil Audio • tel 01359 240687  
 Meridian Audio • tel 01480 434334  
 Michell • Michell Engineering • tel 0181 953 0771  
 Michi • Gamepath • tel 01908 317707  
 Micromega • Surrey Sounds • tel 01932 254297  
 Miller & Kreisel • Gecko Inc • tel 0181-681 1817  
 Mission • Centralforce • tel 01480 451777  
 Monarchy • Wollaton Audio • tel 0115 928 4147  
 Monitor Audio • tel 01223 242898  
 Morion • UKD • tel 01753 652669  
 Mordaunt-Short • tel 01705 498866  
 Moth Marketing • tel 01234 741152  
 Muse Electronics • Audiofreaks • tel 0181 948 4153  
 Musical Fidelity • tel 0181 900 2866  
 Musical Technology • tel 01494 793137  
 Myriad Systems • tel 01705 265508

## N

NAD • Audio Club • tel 01296 482017  
 Naim Audio • tel 01722 332266  
 Neat Acoustics • tel 01833 651021  
 Neolith • Picture the Sound • tel 01483 454991  
 Nordost • tel 01352 730251  
 Nottingham Analogue • tel 01773 762947  
 NHT • + 1 707 748 5940

## O

Onkyo • Audio Club • tel 01296 482017  
 Opera • UKD • tel 01753 652 669  
 Optimum Int. 2000 • tel 01274 583249  
 Oracle • Esoteric Audio Imports • tel 01243 533030  
 Orelle Hi-Fi • tel 0181 810 9388  
 Origin Live • tel 01703 442183  
 Ortofon • Henley Designs • tel 01491 834700

## P

Paradigm • Richer Sounds plc • tel 0171 940 2240  
 Paragon Acoustic • Audiofreaks • tel 0181 948 4153  
 Parasound • CSE • tel 01423 359054  
 Pentachord Loudspeakers • tel 0181 788 2228  
 Philips Consumer Electronics • tel 0181 665 6350  
 Pickering Cartridges • tel 01904 642463  
 Pink Triangle Projects • tel 0171 703 5498  
 Pioneer High Fidelity (GB) • tel 01753 789500  
 Platinum • Woodstock M & F • tel 01865 481415  
 Polo Audio • tel 01727 827311  
 Posselt • GT Audio • tel 01895 833099  
 Primare • MDC • tel 01992 573030  
 Pro-Ject • Henley Designs • tel 01491 834700  
 ProAc • DNA Marketing • tel 01798 343414  
 Professional Monitor Co • tel 01707 393002  
 Prowire • Absolute Sounds • tel 0181 947 5047  
 PS Audio • Absolute Sounds • tel 0181 971 3909  
 Puresonic • Tech + Link • tel 0181 771 8388/9

## Q

QED Audio Products • tel 01276 451166  
 QLN UK • tel 01352 730251  
 Quad • IAG • tel 01480 431737

## R

RA Labs • RDL Acoustics • tel 01484 603333  
 Rega Research • tel 01702 333071  
 Rehdeko • Virtual Reality • tel 01277 227355  
 REL Acoustics • tel 01656 768777  
 Reson • Virtual Reality • tel 01277 227355  
 Revolver UK • tel 0161 973 0505  
 Revox • MDC • tel 01992 573030  
 Richard Allan Loudspeakers • tel 01484 549899  
 RMS Ltd • tel 01284 769848  
 Rockport • Abs Analogue • tel 01425 654488  
 Rogers International • tel 0181 640 2172  
 Roksan • Centralforce • tel 01480 433777  
 Rose Industries • tel 01235 847023  
 Rotel • Gamepath • tel 01908 317707

Rowland • Musical Design Co • tel 01992 575030  
 Royd Loudspeakers Co • tel 01952 290700  
 Ruark • tel 01702 601410

## S

SD Acoustics • tel 0181 399 6308  
 Sennheiser UK • tel 01494 551551  
 Sequence • May Audio • tel 01535 632769  
 Shahinian • Pear Audio • tel 01665 830862  
 Sharp Electronics (UK) • tel 0161 205 2333  
 Sherwood • Richer Sounds plc • tel 0171 940 2240  
 Shipny • Audiophile Club • tel 0181 822 2822  
 Shun Mook • Audiofreaks • tel 0181 948 4153  
 Shure • HW International • tel 0181 808 2222  
 Silver Sounds • CR Devs • tel 01702 469055  
 Silver Tone • tel 0973 743054  
 Silverado • tel 0181 567 0260  
 SME • tel 01903 814321  
 Solid • B&W Loudspeakers • tel 01903 750750  
 Sonic Frontiers • MPI • tel 01483 454993  
 Sonneteer • tel 01372 468676  
 Sonographe • Audiofreaks • tel 0181 948 4153  
 Sonus-Faber • Absolute Sounds • tel 0181 971 3909  
 Sony UK • tel 0990 111999  
 Sound Organisation • Goldring • tel 01284 701101  
 Sound-Lab • Audiofreaks • tel 0181 948 4153  
 Soundstyle • Goldring • tel 01284 701101  
 Spendor Audio Systems • tel 01323 843474  
 Stands Unique • tel 01933 461058  
 Stanton • Lamba plc • tel 017278 40527  
 Stax • Path Premier • tel 01494 441736  
 Stemfoort Audio • Audio Synergy • tel 01924 406016  
 Straightwire • CSE • tel 01423 359054  
 Sugden • Audio Synergy • tel 01924 406016  
 Sumiko • Path Premier • tel 01494 441736  
 Sumo • Audusa & Co • tel 0181 241 9826  
 Sunfire • Audusa & Co • tel 0181 241 9826  
 Supra • Clave • tel 01622 664070  
 Synergy • Richer Sounds plc • tel 0171 940 2240

## T

T+A • Richard Hirschmann • tel 01234 345999  
 TAG McLaren Audio • tel 0800 7838007  
 Talk Electronics • tel 01276 686030  
 Tangent Acoustics • tel 0500 828620  
 Tannoy • tel 01236 420199  
 Tara Labs • Sound Image UK • tel 0181 255 6868  
 Target Audio Products • tel 01582 401244  
 TDL Electronics • tel 01628 850111  
 TEAC UK • tel 01923 819630  
 Tech + Link • tel 0181 771 8388/9  
 Technics • Panasonic • tel 0990 357357  
 Tesseract Research Ltd • tel 0181 669 0011  
 Theta • Absolute Sounds • tel 0181 971 3909  
 Thiel • Picture the Sound • tel 01483 454991  
 Thorens • Portfolio Marketing • tel 01489 795519  
 Titan • tel 01702 206870  
 Totem • May Audio Marketing • tel 01535 632700  
 Townshend Audio • tel 0181 979 2155  
 Transfiguration • Audio Ref. • tel 01483 575344  
 Transparent Audio • Abs. Sounds • tel 0181 971 3909  
 Triangle • Kronos Distribution • tel 01868 748632  
 Trichord Research • tel 01684 573524  
 Trilogy Audio Systems • tel 0181 856 2499  
 Tube Technology • tel 01932 821111

## U

UKD-Opera • UKD • tel 01753 652669  
 Unison Research • UKD • tel 01753 654531

## V

van den Hul • tel 0181 810 9388  
 Vandersteen • A&R Cambridge • tel 01223 203203  
 Vivanco UK • tel 01442 403020  
 Vivante • tel 0181 977 6600  
 VPI • Absolute Analogue • tel 01425 654488

## W

Wadia • MDC • tel 01992 573030  
 Well Tempered • Pear Audio • tel 01665 830862  
 Wharfedale • IAG • tel 01480 431737  
 Wilmslow Audio • tel 01455 286603  
 Wilson Audio • Absolute Sounds • tel 0181 971 3909  
 Wilson benches • tel 0114 285 2656  
 Wireworld • Richer Sounds plc • tel 0171 940 2240  
 Woodside Electronics • tel 01994 448271

## Y

Yamaha Electronics UK • tel 01923 233166  
 YBA • Kronos Hi-Fi • tel 01686 753606

# HI-FI CHOICE

## The finest hi-fi magazine in the world hits the web!



**HI-FI CHOICE**

**THE MAG**

**CONTENTS**

**MAY 1997 ISSUE 166**

**REGULARS**

**Update**  
Election? Schmelection! We've been to Bristol and we got the news. All the latest from the show as well as locations further afield.

**Instant Systems**  
Alan Sircom gets to grips with a pair of £300 separates systems. The question is, can you get real hi-fi for the price of a telly?

**REVIEWS**

[Acurus ACD11](#)

[Aeon Acoustics Linear](#)

[AMC 3025a](#)

**Navigation Menu:**

- Search
- News
- Reviews
- Chat
- Classifieds
- Mail Order
- Links
- Win!
- The Mag
- Subscribe
- Feedback
- Contacts

\*Answers at the bottom of the page for those without web access.

### Have you ever wondered...

- 1 Which is the most expensive amplifier in the World?
- 2 How many drive units in the Mission 753 Freedom?
- 3 What is the name of Benz-Micro's most expensive cartridge?
- 4 What is the best CD player for £350 or under?

**Find answers NOW\* at Hi-Fi Choice Online, the fact-packed NEW web-site from the makers of the Finest Hi-Fi Magazine In The World.**

[www.hifichoice.co.uk](http://www.hifichoice.co.uk)

Answers:  
1 The Audio Note Gaku-On, at a basic price of £159,500, is probably the most expensive commercially-manufactured amplifier package in the world. And it's only a power amp. 2 Five drive units in total; four 130mm pistilised-paper, long-throw mid-bass units and a 27mm silk-dome tweeter. 3 Benz-Micro's most expensive cartridge is the Ruby Open Air moving-coil, priced at £1,600 and available from AudioBreaks in the UK. 4 One of the best-value CD players priced below £350 is the Cambridge Audio CD4SE, which received an HFC Best Buy in issue 163.

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 able to help in your area.

# DEALER Directory

Members of the British Audio Dealers Association are able to offer:



- Two year guarantee, transferable to another BADA dealer should the purchaser move more than 30 miles from his/her original address
- low cost five year guarantee option
- proper demonstration facilities
- seven day exchange or refund scheme if the dealer's advice is taken on product selection
- fully guaranteed service work
- customer complaints procedure in the event of problems

For more information, contact BADA on (0171) 226 4044

## BATH/BRISTOL

**AUDIO EXCELLENCE**, 65 Park Street, Bristol. Tel (0117) 9264975. All that's best in Hi-Fi carefully selected and demonstrated by friendly knowledgeable staff, at prices to suit all budgets. Delivery and installation, home dems, part exchange, in-house workshops, full credit facilities with interest free on selected items. Tues-Sat 9.00-5.30. Closed Mon. **BADA**

**THE RIGHT NOTE**, Tel (01225) 874728. Give your ears a new reference point for the best sounds at any price. Forget reviews and trying to put together a system like a patchwork quilt with the 'best' bits around. It's our job to do the assessing, you judge the results. Come here, or we'll come to you, and plan a system for the future, even if you spread the purchases. Leave "upgrade-itis" behind, save money and enjoy music. Just listen, and you'll know. Ask also about our ex-dem and mint used items if you must! Our credentials - CD: Acurus, Audio Synthesis, Classe, Enlightened Audio Design, Meracus, Orelle, Wadia, XTC. Vinyl: Basis, Graham, Michell, Sumiko. Amps: Arcurus, Audio Sculpture, CAT, Classe, DNM, Kora, Lumley, Meracus, Michell, Orelle, Sirius, Sonneteer, XTC. Speakers: Audio Artistry, Audio Physic, Ethos, Harbeth, Lumley, Magneplanar, Mirage, NEAT, Spendor, Totem. Tuners: Fanfare, Magnum Dymalab. Cables: Chord, DNM, Silver Sounds, SonicLink, Tice. **BADA**

**V AUDIO**, 36 Druid Hill, Stoke Bishop, Bristol BS9 1EJ. Tel (0117) 9686005. Alon, ATC, Audiomeca, AVI, Cable Talk, Cadence Valve, Chord Amps, Electrocompaniet, Exposure, Goldring, Harman Kardon, Heybrook, Jamo, LFD, Lyra, Mesa Baron, Michell, Opera, Oracle, Ortofon, Pink Triangle, Pro-Ac, Project, REL, Ruark, Shearwater Audio, Silver Sounds, SME (inc 20A), Sonic Link, Stax, Townshend, Triangle, Trichord, Union Research. Demos including home cinema by apt only, home trial facilities, free installation, service facilities. Access, Visa. For full product listing please see Dealer Guide.

## BEDFORDSHIRE

**RICHARDS AUDIO VISUAL**, 4 Greyfriars, Bedford, Tel (01234) 365165. Stockists of Arcam, Audioquest, Beyer, B&W, Bose, Cabeltalk, Celestion, Cyrus, Denon, Marantz, Mission, Moth, Ortofon, Pioneer, Pro-ject, REL, Rotel, Ruark, Sennheiser, Soundstyle, Stands Unique, Talk Electronics, Target, Teac, Van den Hul & more! Hi-Fi Listening Room. Free credit available. Open 6 days 9.30-5.30.

## BERKSHIRE

**AUDIO T**, 4 Queens Walk, Broad Street Mall, Reading, Tel (0118) 958 5463. Fax (0118) 956 6417. Open Tues-Sat 9-5.30. Evening dems arranged by appointment. See our main entry under Oxford. We also sell AVI, Linn, Michell, Naim, Rega, Royd & Ruark. **BADA**

## BIRMINGHAM

**GRIFFIN AUDIO**, Birmingham, for music and pictures at home. Forty five years experience in quality sound and vision. For expert and friendly advice call Bob Griffin on 0121-622 2230. We are agents for Arcam, Chord, Denon, Dynavektor, Linn, Musical Technology, Naim, QED, Quad, Quadraspire, Rega, Sennheiser, Shanhinian, Stands Unique, Stax and Teac. Open Tuesday to Saturday 10am to 5.30pm at 94 Bristol Street, Birmingham B5 7AH.

**MUSIC MATTERS**, 351 Hagley Road, Edgbaston, Birmingham B17 8DL. Tel (0121) 429 2811. Rotel, Denon, Lexicon, Tannoy, Ruark, Alchemist, Exposure, Pioneer, Roksan, Nakamichi, Arcam, Audiobab, 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 10-6. **BADA**

**MUSIC MATTERS**, 93-95 Hobs Moat Road, Solihull, W. Midlands B92 HJ1. Tel (0121) 742 0254. See main entry under West Midlands. **BADA**

**MUSIC MATTERS**, 156-157 Lower High Str, Stourbridge, W Midlands D18 1TS. TEL (01384) 444184. See main entry under West Midlands. **BADA**

**SOUND ACADEMY** 152a High Street, Bloxwich, Nr Walsall W. Midlands. Tel (01922) 493499/ 473499. Audio equipment from leading and specialist brands, with 3 demo floors, home trials, home cinema with instore demo theatre, evening dems by appointment. In house service dept. Mail order avail. Int free credit subject to status. Open 6 days 9am - 6pm. Late night Friday. Expert advice, cable dressing and free installation **BADA**

## BUCKINGHAMSHIRE

**NORTHWOOD AUDIO**, 98 Cambridge St, Aylesbury, Bucks HP20 1BA. Tel. (01296) 428790 (A/P). Selected sounds from Alchemist, Audio Meca, Boston, B&W, Cabeltalk, Castle, Celestion, Chord Company, Denon, D.P.A., Exposure, Harman Kardon, KEF, Marantz, Michell, Micromega, Monitor Audio, Musical Technology, NAD, Pro-Ac, Rega, REL, Rose, Rotel, Ruark, Tannoy, Teac, Thorens Neat Acoustics, Talk Electronics, Chord, Heart, Audio Note, Epos, Klipsch, Acoustic Energy, Stax, Pioneer, D.N.M.. NOBODY EVER REGRETTED PURCHASING THE BEST. Export orders welcome. 2 Dem rooms. Credit facilities available. **BADA**

**TECHNOSOUND and AUDIO INSIGHT**, 7-8 Granville Square, Willen, Milton Keynes, Bucks, MK15 9JL. Tel: (01908) 604949. Main lines include Meridian, Arcam, B&W, Acoustic Energy, Musical Fidelity, Mission, Ruark, Royd, Teac, UKD. 4 Dem Rooms. Custom Home Cinema, Video Projection and Dolby Digital. Service Department, Free Installation and Home Trial Facilities. Access & Visa accepted and Interest Free Credit available. Open 10-6pm, Tues-Sat 10-6pm, late night Fri till 7.30pm. **BADA**

## CAMBRIDGESHIRE

**INTUNE PROFESSIONAL AUDIO**, 19 East Street, St Ives, Cambridge P17 4PD, telephone: 01480 465888. Main agents for ATC, Sony, NAD, Denon, Quad, Teac, Project, Yamaha, Monitor Audio, Rogers, Mission, Musical Fidelity, Pioneer, Meridian, Alchemist, also quality In-Car and Computing. **BADA**

**THE AUDIO FILE**, 41 Victoria Road, Cambridge CB4 3BW. Tel (01223) 68305. See our main entry under Hertfordshire. **BADA**

**UNIVERSITY AUDIO**, 1-2 Peas Hill, Cambridge. Tel (01223) 354237. Acoustic Energy, Mission-Cyrus, Arcam, Rotel, Denon, Meridian, ATC, AVI, Quad, Linn. 3 dems, 1 single speaker. Home trial, free install, Service Department Visa, Access, Amex, Credit. Open 9-5.30.

## CHESHIRE

**ACOUSTICA**, 17 Hoole Rd, Chester CH2 3NH. Tel (01244) 344227. Naim, Arcam, Celestion, Chord Company, Densen, Epos, Mission, Rega, Ruark, KEF, Micromega, Myryad, Rotel, Royd, Teac, Quad etc. Full demonstration facilities, home dems and installation a pleasure. INTEREST FREE CREDIT (subject to status). Open Tuesday to Saturday, evenings by arrangement. For the best products and the best service, call ACOUSTICA.

**ACTON GATE AUDIO**, 4 Ruabon Rd, Wrexham. Tel (01978) 364500. Demonstration room, installation service. Easy parking and motorway access. Access, Visa etc. See main entry under CLWYD.

**ASTON AUDIO**, 4 West St, Alderley Edge. Tel (01625) 582704. Arcam, B&W, Cyrus, KEF, Meridian, Mission, Tag McLaren, Yamaha and other leading brands. For the very best in hi-fi separates and home cinema. Wide range of specialist audio, interest free credit. Visa, Access. Home trial. Closed Mondays. **BADA**

**AUDIO COUNSEL**, 14 Stockport Rd, Cheadle, Cheshire. Tel (0161) 428 7887. Please see entry under Greater Manchester. **BADA**

**AUDIO EXCELLENCE**, 86-90 Boughton, Chester, CH3 5AQ Tel (01244) 345576. All that's best in Hi-Fi carefully selected and demonstrated by friendly knowledgeable staff, at prices to suit all budgets. Delivery and installation, home dems, part exchange, in-house workshops, full credit facilities with interest free on selected items. Tues-Sat 9.00-5.30. Closed Mon. **BADA**

**CHRIS BROOKS HI-FI**, 29 Gaskell St, Stockton Heath, Cheshire. Tel (01925) 261212. Fax (01925) 264001. e-mail chris.brooks@audio.net.com. Tues-Sat 9.30-5.30 3 dem rooms. Credit facilities. All credit cards. Hi-Fi AV multiroom. Total absence of bull\*\*\*\*. **BADA**

**DOUG BRADY HI-FI**, Kingsway Studios, Kingsway North, Warrington, WA1 3NU. Phone (01925) 828009, Fax (01925) 825773. For the widest range of high quality hi-fi in the Northwest. Family business est. 35 years. 3 dem rooms, incl home cinema, home trials; deliveries throughout NW; Access, Visa. Credit Facilities. Open 10-6; 6 days. Send for free map and/or 5 page sale list **BADA**

**INPUT AUDIO**, Dukinfield Cheshire (Tel) 0161 304 7494 (Mobile) 0402 268490. We have the time, we have the patience, we have the desire and we have the products to help you reach your goals. featuring ART, Audiogram, Audio Analogue Puccini, Audiomeca, Audio Physic, Audio Vector, Base, Chord Cables, Clearaudio, Diapason, Graaf, Helios, Inert, Immedia, LFD, Meracus Michell, Monrio, Neat, Pink Triangle, Stands Unique, System Audio, Triangle, UKD Opera, Unison Research, VPI, Yamamura Churchill, YBA. Specialising in home demonstration. Please phone for more information or friendly chat. Credit card facilities. Input for the pleasure of music. **BADA**

**PRACTICAL HI-FI**, 88 Bridge Street, Warrington, (01925) 632179. The audio video specialist, exert advice, instant demonstrations, best prices, interest-free credit, part-exchange welcome. Extended warranty. Stockists of Yamaha, Kenwood, Denon, Sony, Technics, Onkyo, Marantz, Pioneer, Mission, KEF, Jamo, Celestion, B&W. Also stockists of LaserDiscs. **BADA**

**THE HI-FI SHOWROOMS**, 12A West Str, off West St Car Park, Congleton, Cheshire Tel (01260) 280017. E-mail: mail@hifishowrooms.co.uk. Web site: hifishowrooms.co.uk. Naim Audio, Audiobab, Rega, REL, Arcam, Technics, KEF, NAD, Harman-Kardon, Yamaha, Rotel, Lexicon, RCF, Millennium, NHT, JBL, Onkyo, Sony, Marantz, Toshiba, Panasonic, Ruark, Jamo, Celestion, Qed, Teac, Castle. Front and rear projection systems, 3 demonstration rooms, 1 AV with 8ft screen. Customer car park. The North West's Premier Audio Visual Specialist. Access, Visa, Amex, JCB. 9.15-5.30, Closed Sun/Mon. **BADA**

## CLEVELAND

**ACTION ACOUSTICS**, 155-157 High Street, Redcar, Cleveland TS10 3AN. Tel (01642) 480723. Audio Note, Denon, Harman-Kardon, Heybrook, Jamo, JBL, Michell, Ortofon, Pink Triangle, Rogers, Royd, Sonic Link, Teac, Thorens, Townshend etc. Dem Room. Appts nec. Home trial facilities, free installation, service dept. Access, Visa & H.P. Open 9.15-5.30. Interest free credit. **BADA**

## CORNWALL

**SOUNDS PERFECTION**, Nightree House, Mawgan, Helston, Cornwall, TR12 6AX. Tel/Fax (01326) 221372. Alchemist, Analysis, Audio-note, Audio Spectrum, A.T.C., Cable Talk, Boston Acoustics, Henley Designs, Magnat Speakers, Myryad, Michell, Nordost, Parasound, Monitor Audio, Moth Group, Musical Fidelity, Projekt Furniture, Projekt Turntables, Lexicon, R.E.L., S.M.E., Sonic Frontiers, Soundstyle, Stands Unique, Elemental Audio, Philosophy Cables, Audioquest, Kelly Transducers, Target, Teac, Thorens, V-Damp Isolation. **BADA**

## CUMBRIA

**PRACTICAL HI-FI**, 106 English Street, Carlisle, Tel: (01273) 344444. **BADA**

(01228) 44792 The audio video specialist, expert advice, instant demonstrations, best prices, interest-free credit, part-exchange welcome. Extended warranty. Stockists of Yamaha, Kenwood, Denon, Sony, Technics, Onkyo, Marantz, Pioneer, Mission, KEF, Jamo, Celestion, B&W. Also stockists of LaserDiscs.

## DEVON

**AUDIO EXCELLENCE**, 156 Sidwell St, Exeter EX4 6RT. Tel (01392) 491194. All that's best in hi-fi, carefully selected and demonstrated by friendly knowledgeable staff at prices to suit all budgets. Delivery and installation, home dems, part exchange, in-house workshops, full credit facilities with interest free on selected items. Tues-Sat 9.00-5.30. Closed Monday. **BADA**

**UPTON ELECTRONICS**, 31 Torquay Road, Paignton, Devon TQ3 3DT. Tel (01803) 5513298. Friendly and knowledgeable service from a dealer with over 20 years experience, stockists of Denon, Pioneer, Marantz, Alchemist, NAD, Myryad, Orelle, Micromega, Castle, Tannoy, TDL, Jamo, Project Mordaunt-Short, GLL, Sony, Rel, Onkyo, Cabeltalk, Qudos etc, etc. Large range of Accessories. Credit facilities, interest free on certain items. Free delivery and installation, Demonstration facilities, Mastercard, Visa, American Express, in house service department. Part exchange. **BADA**

## DONCASTER

**HI-FI STUDIOS**, Sunnyfields, Doncaster, DN5 8SA. Tel/Fax (01302) 781387. Audiobab, Electrocompaniet, Pro-Arc, Ruark, Castle, TEAC, Unison Research, T+A, Impulse Films, Monitor Audio, Harbeth, Alchemist, Michell Turntables, Nottingham Analogue Studios, Blueprint, Audio Analogue, Exposure, Living Voice, Densen, Celestion, (A series only), Opera, Etalon, Audio Physic, Trichord research, Yamaha and Klipsch Home Cinema Pro-Logic demonstrations Nordost, Stands Unique, stax Electrostatics, Ortofon, Ringmat Developments, Audio Technica, Goldring, Listening room, Demonstrations, Home Trial, Free Delivery and Installation. 2 Years Guarantee. Access, Visa. 10-8pm Tues-Fri, 10-6pm Sat, Closed Monday. phone for further information & FREE fact-pack. **BADA**

## DORSET

**DAWSONS**, 74 Poole Road, Westbourne, Bournemouth, Dorset Tel (01202) 764965. Bang & Olufsen, JBL, Lexicon, Myryad, Sony, Technics. Suppliers and installers of complete home cinema systems. Cedia member. Various credit facilities available, open 9-5.30 Monday to Saturday. **BADA**

**MOVEMENT AUDIO**, 588 Ashley Road, Poole, Parkstone, Dorset BH14 0AQ. Tel (01202) 730865. Arcam, Audiobab, B&W, Castle, Cyrus, Denon, KEF, Marantz, Meridian, Michell, Micromega, Pioneer, Ruark, Shearwater Audio, 2 Dem rooms. Listen to the available choice and decide at your leisure - no pressure, no obligation. Our staff enjoy music, with our choice of products, you can too! Service Department. Free installation. Home trial facilities. Access, Visa, Amex, Diners card. Credit facilities available. Open Mon-Fri 10-6, Sat 9-6. **BADA**

**MOVEMENT AUDIO**, 336 Wimborne Road, Winton, Bournemouth, Dorset, BH9 2HH. Tel (01202) 529988/520066. Arcam, B&W, Denon, KEF, Marantz, Meridian, Mission, Pioneer, Sony, Yamaha. Full dem facilities available, also home dem. Friendly expert advice. Service Department. Free installation. Home trial facilities. Access, Visa, Amex. Open Mon-Fri 9-5.30. **BADA**

**PHONOGRAPHY** Star Lane, Ringwood, BH24 1AL. Tel (01425) 461230. **BADA**

**SUTTONS HI-FI**, 18 Westover Road, Bournemouth. Tel (01202) 555512. Linn, Arcam, Mission, Quad, Audiobab, Rotel, Yamaha, Denon, etc. 2 Single Speaker Listening Rooms, Home Demonstrations, Free Installations. Open Mon-Sat 9-5.30. Call for details. **BADA**

**WEYMOUTH HI-FI**, 33-35 Maiden Street, Weymouth, Dorset DT4 8BA. Tel (01305) 785729. Arcam, Aura, B&W, Denon, Kenwood, Marantz, Micromega, Musical Fidelity, Panasonic, Quad, Sony, Technics, Yamaha. Dem room. Friendly professional advice. Only quality hi-fi dealer in Weymouth area. Service Department. Free installation. Home trial facilities. Access, Visa, Amex, Switch, Delta Mastercard. Interest free credit. Instant credit. Open Mon 9.30-5.30, Fri-Sat 9.30-5.30

## DOVER

**JOHN MARLEY HI-FI CENTRES LTD, DOVER HI FI**, 43 High Street, Dover. Tel (01304) 207562. Arcam, JBL, Mordaunt Short, Musical Fidelity, NAD, Pioneer, Panasonic, Rotel, Ruark, Short, Tannoy, TDL, Technics, Yamaha. A/V Dem Room. Full service department. Mon-Sat 9-5.30. Free installation. Credit to £1000. Access, Visa, Switch, Electron. Established 25 years. Expert advice. Friendly service.

## DARLINGTON

**HI-FI EXPERIENCE**, 17 Coniscliffe Road, Darlington DL3 7EE. Tel Help Line (01325) 481418. Fax (01325) 382982. Agencies include: Arcam, Audiobab, Bang & Olufsen, Cyrus, Denon, Dynaudio, KEF, Marantz, Mission, Musical Fidelity, Meridian, NAD, Quad, Rotel, Sheame, Tannoy, TDL, Teac, Yamaha. 3 listening rooms. 3 years guarantee. Free delivery and simple installation North Yorks/South Durham. Home cinema specialist.

## ESSEX

**AUDIO T**, 442-444 Cranbrook Road, Gants Hill, Ilford, IG2 6LL. Tel (0181) 518 0915. Fax (0181) 554 8463. Open Tues-Fri 10-6. Sat 9.30-5.30. Late Thurs until 8.00. See our main entry under Oxford. We also sell AVI, Celestion, Epos, Michell, Monitor Audio, Proac & Technics.

**AUDIO T**, 30 Crown Street, Brentwood CM14 4BA. Tel: 01277 264730 Fax: 01277 264731. Open Tues-Sat 9.30-6 Late night Thursday until 8pm. See our main entry under Oxford. We also sell Michell, Ruark & Technics.

**RAYLEIGH HI-FI**, 44a High Street, Rayleigh, Essex. Tel (01268) 779762/747571. Arcam, Atacama, Audiobab, Chord, Cyrus, Celeco, Denon, Epos, KEF, Lexicon, Linn, Loewe TVS, Marantz, Micromega, Mission, Miller & Kreisel, Naim, Ortofon, Quad, QED, Rega, Roksan, Rotel, Ruark, Revox, Sennheiser, Stands Unique, Stak, Target, Van den hul. WWW.RayleighHiFi.Com/v

**RAYLEIGH HI-FI**, 216 Moulsham St, On-the-Parkway, Chelmsford. Tel (01245) 265245.

**RAYLEIGH HI-FI**, 132-134 London Road, Southend-on-Sea. Tel (01702) 435255.

**RAYLEIGH HI-FI**, At Danksa International Furniture World, Lakeside Retail Park, West Thorrock. Tel (01708) 680551 Open on Sundays.

## GLOUCESTERSHIRE

**AUDIO EXCELLENCE**, 58 Bristol Road, Gloucester. Tel (01452) 300046. All that's best in Hi-Fi carefully selected and demonstrated by friendly knowledgeable staff, at prices to suit all budgets. Delivery and installation, home dems, part exchange, in-house workshops, full credit facilities with interest free on selected items. Tues-Sat 9.00-5.30. Closed Mon.

**AUDIO T**, 40-42 Albion Street, Cheltenham, GL52 2RQ. Tel (01242) 583960. Fax (01242) 226435. Open Tues-Fri 9.30-6. Sat 9.30-5.30. Evening dems arranged by appointment. See our main entry under Oxford. We also sell Celestion, Epos, Linn, Michell, Naim, Roksan, Ruark & Technics.

## HAMPSHIRE

**AUDIO T**, 4 Feathers Lane, Basingstoke, RG21 1AS. Tel (01256) 324311. Fax (01256) 324430. Open Tues-Sat 9-5.30. Evening dems arranged by appointment. See our main entry under Oxford. We also sell Epos, Linn, Michell, Naim, Royd & Technics.

**HAMPSHIRE AUDIO LTD**, 2-12 Hursley Rd, Chandlers Ford, Hants S053 2FU. Tel Southampton 01703 252827 Hi-Fi & Home Cinema for students to lottery winners. Winner of Southern England Sony/Hi-Fi News Dealer Awards. Projection TV with 8ft Screen. Thurs late, closed Mon (except in Dec). 2yr guarantee, service dept. On site free parking, junctions 4 (M27/M3), 5 (M27), 12 (M3), 13 (M3) all within 3 miles.

**JEFFRIES HI-FI** 29 London Road, Portsmouth. PO2 0BH. Tel (01705) 663604. Hi-fi, home cinema and multi-room specialist. Range includes Acoustic Energy, Arcam, Beyer, Celestion, Chord, Definitive Technology, Denon, Harbeth, Heybrook, KEF, Lexicon, Linn, Loewe, Miller & Kreisel, Naim, Panasonic, Polk, Rega, REL, Rotel, Royd, Ruark, Selec, Sennheiser, Sound Organisation, Sound Style, Top Tape, Yamaha. 2 dem rooms. Open Tues-Sat, late night Wed. Free parking, bus route, credit facilities. Winner Sony/Hi-Fi News Best Southern Dealer.

**NOW THATS HI-FI** 32 Arundel St., Portsmouth. Tel (01705) 811230. Pioneer, Yamaha, Marantz, Kenwood, Mission, T.D.L, REL, Attacama and much more. Laserdisc and AC3 specialists. Accessory centre at 24 Arundel Way, Portsmouth. Tel (01705) 811618.

**PHONOGRAPHY** Star Lane, Ringwood, BH24 1AL. Tel (01425) 461230. Contributions to music from: Chord Co., Densen, Dynavector, Naim Audio, Rega Research, Rotel, Royd, Shahinian and Well Tempered, Relaxed and friendly service, two demonstration rooms, free installation, long guarantees.

## HEREFORDSHIRE

**ENGLISH AUDIO**, 37 Whitecross Road, Hereford HR4 0DE. Tel (01432) 355081. Arcaydis, Arcam, A.T.C., B&W, Castle, Cyrus, Denon, Dynaudio, Heybrook, KEF, Marantz, Mission, Naim, Pink Triangle, Pioneer, Proac, Quad, REL, Rotel, Ruark, Sheame, Stax, Tag McLaren, Tannoy, Teac, Yamaha and others. Single Speaker Dem room. Home trial. Free install. Service dept. Access, Visa, Credit arranged. Open Mon-Sat 9.30am-5.30pm.

## HERTFORDSHIRE

**ACOUSTIC ARTS LTD**, 101 St Albans Rd, Watford, Herts. Tel (01923) 245250. Fax (01923) 230798. Apogee, Audiobab, Audio Research, B&W, Bose, Castle, Celestion, Chord, Classe, Copland, Denon, KEF, Marantz, Martin Logan, Michell, Micromega, Orelle, Roksan, Ruark, SME, Sonus Faber, Sonic Link, TDL, Theta, Thorns, Wilson. 4 demonstration rooms. Purpose built AV studio. Credit available, 100 yards from Watford Junction station. Open Tues-Sat 10-5.30 (Thursday open until 8pm).

**THE AUDIO FILE**, 27 Hockerill St, Bishops Stortford, Herts CM23 2DW. Tel (01279) 506576. 9.30-5.30 open 6 days, 9.30-8pm Thursdays. Linn, Naim, Quad, Cyrus, Arcam, Roksan, Denon, Epos, KEF, Marantz, ProAc, Rega, Yamaha. 0% credit.

**DARBY'S OF ST. ALBANS** 6 Market Place, St. Albans, Herts. Tel (01727) 851596. Hert's premier Hi-Fi/AV specialists est. 1946. Full Home Cinema demonstration suite. Whether your needs are large or small, we stock it all; Arcam, Yamaha, Quad, Denon, Sony, B & O, Pioneer, REL, JVC, KEF-Reference, Mission-Cyrus, Ruark, Celestion, Polk, and many more. Free delivery and installation. Open 9-6 Mon-Sat.

**DAVID ORTON AUDIO VISUAL** 6-8 Bancroft, Hitchin, Herts, SG5 1JQ Tel (01462) 452248 Fax (01462) 458424. Stockists of Apollo, Arcam, B&W, Celestion, Cyrus, Denon, Marantz, Mission, Pioneer, Quad, Rotel, Ruark, Soundstyle, Teac, and many others. Hi-Fi listening room and A/V dem room. Workshop off premises. Access, Amex, Visa, Diners, Interest free and instant credit. Open 9.30-5.30 Mon-Sat.

**STUDIO 82** (Harpندن) Ltd, 82 High Street, Harpenden, Herts AL5 2SP. Tel (01582) 764246, Fax (01582) 467022. Arcam, ATC, Audiobab, AVI, Bang & Olufsen, Bose, Co Company, Chord, Denon, Harbeth, Jamo, KEF, Marantz, Musical Fidelity, Musical Technology, Myriad, Naim, Panasonic, QED, Quad, Roberts Radio, Sennheiser, Soundstyle, Tannoy, Target, TDL, Teac. Single Speaker Demonstration room. Free installation. Service dept. Access, Visa, Switch, Amex. Open 9am-5.30pm Mon-Sat.

## KENT

**ASHFORD SOUNDCRAFT HI-FI**, 40 High Street, Ashford. Seeking music lovers, male or female any age, to share common interest in, musical Pro-aktiv Hi-Fi Systems, Multi Room or Home Cinema. Attractive unusual equipment in unusual setting, your place or ours, we guarantee lasting pleasure. Open Mon-Sat, Appointment Service or just pop in. Tel (01233) 624441.

**CANTERBURY HI-FI**, 50 Burgate, Canterbury, Kent. CT1 2HW. Tel (01227) 765315. Authorised stockiest of Acoustic Energy, B&W, Celestion, Denon, Harman Kardon, Jamo, J.B.L., J.V.C., Kef, Kenwood, Marantz, Panasonic, REL, Rotel, Sony, Tannoy, Technics, Wharfedale, Yamaha. Full credit facilities with interest free on selected lines. Mon-Sat 9.00-5.30.

**HALKSWORTH WHEELER**, 34 Guildhall Street, Folkstone Tel (01303) 255688. See previous entry.

**LINN STUDIO**, 123 Snargate Street, Dover, Kent. CT17 9AP. Tel (01304) 201525, Fax: (01304) 240135. Specialist in Home Cinema, Hi-Fi, Multi Room. Excellent and friendly service, we can arrange demonstrations in listening room or in the convenience of the customers home. With our 50 years of experience, we will help you to design you ultimate system for your budget. Full home, commercial and marine service. All major credit cards accepted.

**MUSICAL IMAGES LTD**, 126 High St, Beckenham, Kent BR3 1ED. Tel (0181) 663 3777, Fax (0181) 663 3555. Email: sales@musical-images.co.uk. AV Dealer of the Year. Home Cinema, Hi-Fi, multi-room specialists. Main authorised dealers for over 100 brands. Interest free credit anywhere in the UK, subject to status. Mail-order worldwide. 10 demonstration rooms throughout Musical Images, including projectors and big screen TVs. Professional home installation and design consultancy. Part exchange, service and repairs. Active Musical Images Club. Open all week including Sundays. 10am-6pm (10am-4pm Sundays).

**PROGRESSIVE AUDIO**, 2 Marylane Court, Rainham, Kent, ME8 8QY. Tel: 01634 389004. Agencies include: Audio Note, Audion, B&W, Conran Johnson, Marbeth, Tube Technology, Michell, Pro-Ac, Townsend, Suggden, SME Audio Synthesis, Unison Research, Pink Triangle, Analysts and more.

**SOUNDS OF MUSIC**, 10/12 Chapel Place, Tunbridge Wells, Kent TN1 1YQ. Tel (01892) 547003, Fax (01892) 547004. Quad, Exposure, Marantz, Tannoy, REL, Magnum, Ruark, Musical Technology, Micromega, Acoustic Energy, Anthem, Audio Note, Pink Triangle, A.V.I. Electrocompanies, Teac, Audion, B&W, KEF, Pro-Ac, Michell, Copland, Trichord, Thorns, Pass, Lumley, Woodside, BAT, CAT, Osborn, Wadde, Krell, Audio Research and many more. We offer the very best service and advice along with some very special deals. 1 month's trial exchange, good prices and free delivery, the widest range of equipment, systems from £300-£100k, valve + vinyl specialist. All major credit cards accepted. HTTP://WWW.SOUNDSOFMUSIC.CO.UK.

**UNILET SOUND & VISION** 24-26 Union Street, Maidstone ME14 1ED. Tel (01622) 676703. 5 minutes from M20. Open 9.30 to 5.30 Monday-Saturday. Late night till 8pm Thursday. Three superb hi fi and home cinema demonstration rooms. Most leading brands. Home survey and set up. Friendly and interested staff. Interest free credit and credit cards. "The best place in town for hi fi and home cinema." Bada Bonded.

## LANCASHIRE

**AUDIO EXCELLENCE**, 131 Friargate, Preston, Lancs PR1 2EE. Tel (01772) 253057 Fx (01772) 562731. All that's best in Hi-Fi carefully selected and demonstrated by friendly knowledgeable staff, at prices to suit all budgets. Delivery and installation, home dems, part exchange, in-house workshops, full credit facilities with interest free on selected items. Tues-Sat 9.00-5.30. Closed Mon.

**ROMERS HI-FI** 94-96 High Street, Rishton, Nr Blackburn, Lancs, BB1 4LQ. Tel (01254) 887799. Suppliers of quality hi-fi equipment including Linn, Arcam, Cyrus, Quad, Yamaha, Mission, Ruak, Sony, Monitor, Audio, NAD, Onkyo, Bose, Castle, Nordost, Strightwire, Panasonic, Pioneer, Loewe, TDL, JVC, Target, Stand Union, Specialist multiroom installation. Access Visa, Switch. Credit facilities. Opening hours 9.00am - 5.30pm Monday to Saturday, 5.00pm Wednesday - Saturday. Demonstration room and home demonstration available.

**CLEARTONE**, 235 Blackburn Road (1/2 mile from city centre on the A 666 Blackburn Road), Bolton, Lancs BL1 8HB. Tel (01204) 531423. Bolton's biggest Hi-Fi superstore. Every top brand & all the best buys at guaranteed unbeatable prices. Aiwa, Akai, Arcam, Audiobab, B&W, Bose, Castle, Celestion, Denon, Hitachi, Infinity, JBL, JVC, KEF, Kenwood, Marantz, Meridian, Mission, Mordaunt Short, NAD, Panasonic, Pioneer, Rotel, Sony, Tannoy, TDL, Technics, Toshiba, Yamaha. 2 Dedicated Hi-Fi Demo rooms and 2 A/V Demo rooms, no appointments necessary. Service department, free installation, home trial facilities. free parking. Access, Visa, Amex, Diners. Interest free credit. Open Mon - Wed 10.00-6.00, Thurs - Fri 10.00-7.00, Sat 9.00-6.00, Sun 11.00-5.00.

**PRACTICAL HI-FI**, 43 Friargate, Preston. Tel (01772) 863958. The audio specialist, expert advice, instant demonstrations, best prices, interest-free credit, part-exchange welcome. Extended warranty. Stockist of Yamaha, Kenwood, Denon, Sony, Technics, Onkyo, Marantz, Pioneer, Mission, KEF, Jamo, Celestion, B&W. Also stockists of LaserDiscs.

**PRACTICAL HI-FI** (also in) 81 Whitegate Drive, Blackpool. Tel (01253) 300599. 33 Knowsley Street, Bolton. Tel (01204) 395789. 84 Penny Street, Lancaster. Tel (01524) 39657.

## LEEDS

**IMAGE AUDIO**, 17 The Springs, Wakefield, WF1 1QE. Tel (01924) 200272. Fax (01924) 200404. The finest in Home Cinema, Multiroom installation and classic stereo systems from Arcam, B&W, Cyrus, Denon, Linn, Mission, Naim, Rega, Yamaha, DSP. Open Monday to Saturday 9.30am to 5.30pm. **IMAGE AUDIO**, 8 St Annas Road, Headingley, Leeds LS6 3NX. tel (0113) 2789374, Fax (0113) 2754252. The finest in Home Cinema, Multiroom installation and classic stereo systems from Arcam, B&W, Cyrus, Denon, Linn, Mission, Naim, Rega, Yamaha, DSP. Open Monday to Saturday 9.30am to 6.00pm.

## LEICESTERSHIRE

**CYMBIOSIS**, 6 Hotel Street, Leicester., LE1 5AW Tel (0116) 262 3754 Facsimile (0116) 262 3758. Arcam, Audiobab, Denon, Epos, KEF, Linn Hi-Fi, Linn AV51, Loewe Televisions, Micromega Stage, Micromega Classicline, Mordaunt Short, Myriad, Naim Audio, Projekt Furniture, Rega, Rotel & Royd, Multiroom Design and Installation Service. 4 Listening Lounges. Finance available. Open 6 days 10 am-5.30pm

**LEICESTER HI-FI CO**, 6 Silver Walk, St Martins Square, Leicester LE1 5EW. Tel: (0116) 2539753. Fax (0116) 2626097. Arcam, B&W Matrix, Copland, Mission Cyrus, Marantz, Harman-Kardon, KEF, M&K, Michell, Pink Projects, Quad, Roksan, Rogers, Rotel, Sonus Faber, Talk Electronics, Teac, Technics, Yamaha. 3 Dem areas. We can demonstrate, deliver and install. Credit Facilities. All cards taken, 6 days 9.30-5.30

**WILMSLOW AUDIO**, 50 Main St, Broughton Astley, Leicester LE9 6RD. Tel (01455) 286603. Suppliers of high quality loudspeaker kits, drive units, acoustic sound damping, cross-overs, and components. ATC, Dynaudio, KEF, Morel, Peerless, Scanspeak, Seas. All major credit cards taken. Open 9-5.30 Mon-Fri, 9-1 Saturday.

**ZOUCH AUDIO**, The Old Coach House, off South St, Ashby-de-la-Zouch, LE65 1AN. Tel: 01530 414128 or 0976 571875 (mobile). Suppliers of quality Hi-Fi. Artemis, Audio Analogue, AVI, Balanced Audio Technology, Bow Technologies, Cat, Celestion, Chord Electronics, Creek, DCS, Eggleston Works, Graham, John Sheame, Lat, Lumley, Lyra, Magnum Dynalab, MIT, Monrio, Musical Fidelity, Musical Technology, Neat, Opera, Orchid, Orelle, Paff Laboratories, Proceed, Sirius, Stands Unique, Sumiko, Teac, Tice, Townshend, Transfiguration, Unison Research, Wilson Benesch, XTC. Open 10.00-5.30; Closed Monday.

## LINCOLNSHIRE

**STAMFORD HI-FI**, 9 Red Lion Square, Stamford, Lincs PE9 2AJ. Tel (01780) 762128. Aiwa, Denon, KEF, Kenwood, Marantz, Mission, NAD, Pioneer, Quad, Technics, Yamaha. 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.

## LONDON

**ALPHABEC**, 392 Finchley Road, London NW2 2HR. Tel (0171) 431 9133. Main product lines include Denon, Sony, JVC, Onkyo, Linn, Loewe, Grundig, Yamaha, Teac, Boston Acoustics, Jamo. One demo room with full cinema surround system available and service dept. Interest free credit available. Access, Amex, Visa and Mastercard accepted. Open Mon-Sat 10-6pm, half day Thurs 10-1pm.

**AUDIO T**, 190 West End Lane, West Hampstead, London NW6 1SQ. Tel (0171) 794 7848. Fax (0171) 431 3570. Open Tues-Sat 10-6 Late Thurs until 8.00. See our main entry under Oxford. We also sell Celestion, Michell, Monitor Audio, Proac, Roksan, Van den Hul & XTC. **BADA**

**BILLY VEE SOUND SYSTEMS**, 248 Lee High Road, Lewisham, London SE13 5PL. Tel (0181) 318 5755/(0181) 852 1321. Arcam, AVI, Denon, Linn, Marantz, Mission, Naim, Pioneer, Rega, Rotel, etc. Two domestic style listening lounges. Apts required, service dept, home trial facilities. Interest free credit, instant credit. Access, Visa. Open Mon-Sat 10-6.30. Closed Thurs. **BADA**

**THE CORNFLEAK SHOP**, 37 Windmill Street, London W1P 1HH. Tel (0171) 631 0472. Fax (0171) 436 7165. Email: cornflake@diap.pipex.com Open Tues-Sat 10-6, Thurs 10-7. The specialists for high quality sound, be it for one room or many more. They offer friendly advice, and a full delivery and installation service is available. Two listening rooms with full A/V facilities demonstrating Arcam, ATC, AVI, Barco, Bryston, Dynaudio, Mark Levinson, Linn Knekt, Naim, Origin Live, Proceed, Pro Monitor Co, Rega, Royd, Yamaha and more. Service Department, Amex, Mastercard, Switch, Visa and worldwide mail order service. They used to be the coolest HiFi shop in London, now they're the hottest. **BADA**

**GRAHAMS HI-FI**, Canonbury Yard, 190a New North Rd, London N1. Tel (0171) 226 5500. Winner Sony/HFN Greater London Dealer Award 1986/89/90. "One of the 5 best hi-fi shops in the world". Arcam, Linn, Meridian, Naim, Rega, etc. Systems from £500. FREE PARKING, 4 dem rooms, service dept, open Tues-Sat. RING FOR APPOINTMENT. **BADA**

**HI-FI & COMPONENTS**, 84 Battersea Rise, London, SW11 1EH. Tel (0171) 223 1110. ESTABLISHED 33 years. Beyer, Celestion, Cerwin Vega, Denon, Eminence, Goodmans, Harman Kardon, KAM, Jamo, Kenwood, QED, NAD, Ortofon, Sennheiser, Shure, Stanton, Tannoy, Project, Marantz, Vivanco. Wide range of accessories & stylus. Apts nec, Service Dept. Access, Switch, Visa, Diners, Amex, Open 10-6 Closed Wed. **BADA**

**HI-FI WAY HI-FI LTD**, 318-324 Edgware Road, London W2 1DY. Tel (0171) 723 5251. Fax (0171) 258 1682. Email: Sales@hiwaygroup.co.uk. Also at 242 Tottenham Court Road, London W1 9AD. All major brands stocked, established since 1978, price match policy, extended guarantees, mail order service, home cinema equipment, hi-fi separates, midi, mini & micro systems portable audio video recorders for home & export, televisions for home & export, full range of video accessories, digital camcorders, VHS 8mm camcorders, video editing equipment, digital Still cameras, 35mm & APS photo cameras. **BADA**

**HI-FI EXPERIENCE**, 227 Tottenham Court Road, London W1P 0HX. Tel (0171) 580 3535 24 hour, Fax 0171-436 4733. Agencies include: Acoustic Energy, Arcam, Audio Alchemy, Audiolab, Bang & Olufsen, Castle, Celestion, Chord, Cyrus, Denon, KEF, Marantz, Mission, Musical Fidelity, Meridian, NAD, Naim, Quad, REL, Rotel, Ruark, Tannoy, TDL, Teac, Yamaha. 8 listening rooms, 3 years guarantee. Free delivery and simple installation (M25 periphery), Home cinema specialist. **BADA**

**INFIDELITY**, 9 High Str, Hampton Wick, Kingston-upon-Thames. Tel (0181) 943 3530. For full details see entry under SURREY. **BADA**

**K.J. WEST ONE**, 26 New Cavendish St, London, W1M 7LH. Tel (0171) 486 8262/63. Fax (0171) 487 3452. Hi-Fi, THX Home Cinema and Multiroom specialists. Dem studios bookable. Home trial. Installations by arrangement. Major credit cards. Interest free credit - ask for details. Most major brands stocked. Open 10am-6pm (Closed Wednesday & Sunday). E-mail: 106435.121@compuserve.com. **BADA**

**KAMLA**, 251 Tottenham Court Rd, London, W1P 9AD. Tel (0171) 323 2747. Kenwood, Pioneer, JVC, Philips, Toshiba, Boston, B&W, AR, Mitsubishi. Demonstration room available. Apts required. Service dept. Access, Visa, Amex, Diners. Open Mon-Sat 9-6. **BADA**

**MUSICAL IMAGES LTD**, 18 Monmouth Street, Covent Garden, London WC2H9HB. Tel (0171) 497 1346, Fax (0171) 497 9205. Email: sales@musical-images.co.uk. AV Dealer of the Year. Home Cinema, Hi-Fi, multi-room specialists. Main authorised dealers for over 100 brands. Interest free credit anywhere in the UK, subject to status. Mail-order worldwide. 10 demonstration rooms throughout Musical Images, including projectors and big screen TVs. Professional home installation and design consultancy. Part exchange, service and repairs. Active Musical Images Club. Open all week including Sundays. 10am-7pm (10am-4pm Sundays). **BADA**

**MUSICAL IMAGES LTD**, 173 Station Road, Edgware HA8 7JX. Tel (0181) 952 5535, Fax (0181) 951 5864. E-mail: sales@musical-images.co.uk. See main entry under Middlesex. **BADA**

**MUSICAL IMAGES LTD**, 45 High Street, Hounslow, Middlesex TW3 1JR. Tel (0181) 569 5802, Fax (0181) 569 6353. E-mail: sales@musical-images.co.uk **BADA**

**NICHOLLS HI-FI**, 1/5 Eltham Road, Lee Green, London SE12 8RW. Tel (0181) 852 5780. ATC, Alchemist, Audio Alchemy, Boulder, Celestion, Cello, Chario, Dynaudio, Electrocompaniet, Harman, Jamo, JBL, Levinson, Micromega, Project, Revox, Jeff Rowland Group, REL, Revox, Thorens, Technics, Sony, Marantz, Kenwood etc. Dem Room, Home Dem facilities. Interest free credit, Instant Credit, Access, Visa, Amex etc. Mon/Fri 9.30-6.00. **BADA**

**ORANGES & LEMONS**, 61-63 Jubbs Road, Battersea SW11. Tel (0171) 924 2040. Juicy fruit from London's newest, freshest hi-fi/home cinema retailer. Telephone demonstrations or just pop in. All the usual, ie friendly and efficient service, free home installation, credit cards, 0% finance available, plus all the very best from: Arcam, Cable Talk, Chord Co, Demion, Denon Lifestyle, Epos, Micromega, NAD, Naim, QED Multiroom, Quad, Rega, Roksan, Rotel, Royd, Ruark, Soundstyle, Stands Unique, Yamaha with more to come. The innovative Audio/Visual retailer. **BADA**

**RICHER SOUNDS**. The world's busiest hi-fi retailer. 30 branches nationwide and Eire. Call 0500 101112 for a free fun packed catalogue including a full branch listing and opening times. Full range of budget and high end equipment, semi pro and DJ and home cinema from all top brands. Demonstration facilities in all stores. If in the incredibly unlikely event you see an offer remotely approaching one of ours, simply tell us about it and we'll smash it by up to £50. (most brands). Ask in store for details. **BADA**

**STUDIO 99**, 79-81 Fairfax Road, Swiss Cottage, London NW6. Tel (0171) 624 8855, Fax (0171) 624 5315. Naim, Meridian, Quad, ATC, Mission, Cyrus, Rega, KEF, Arcam, Epos, Acoustic Energy, Yamaha, Philips, Royd, Rotel, Sonus Faber, Bang & Olufsen. High quality demonstrations. Home Cinema. Multiroom. Service Dept. Visa/Access credit facilities. Mon-Fri 10.00am-7.00pm, Sat. 10.00-6.00pm. **BADA**

**THOMAS HEINITZ**, 35 Moscow Road, Bayswater, London, W2 4AH. Tel (0171) 229 2077. Fax (0171) 727 9348. Nearest tube stations Queensway and Bayswater. Plenty of parking meters available. Demonstration room available by appointment. Stockists of B&O, Naim, Rega, Micromega, Cyrus, Denon and Epos. Payment via, ACCESS, VISA, cheques, cash and interest free credit facilities (details on request). Open 10.30am-6.00pm, Tuesday-Saturday. **BADA**

## GREATER MANCHESTER

**AUDIO COUNSEL**, 14 Shaw Road, Oldham, OL1 3LQ. Tel (0161) 633 2602 Fax (0161) 633 2502. Arcam, Audiolab, Rega, Naim, Rotel, Royd, Marantz, Sonus Faber, Ruark, Epos, Denon, Yamaha. Bang & Olufsen. Free installation. Major credit cards and credit facilities. Open Tuesday-Saturday 10.00 to 5.30. 8pm on Thurs. **BADA**

**PRACTICAL HI-FI**, 65 Bridge Street, Manchester. Tel (0161) 639 8869. See main listing under Lancashire for details. **BADA**

## MIDDLESEX

**AUDIO T**, 159a Chase Side, Enfield, Middlesex EN2 0PW. Tel (0181) 367-3132, Fax (0181) 367-1638. Open Tues-Fri 9.30-6. Sat 9.30-5.30. Evening demos arranged by appointment. See our main entry under Oxford. We also sell Celestion, Linn, Naim, Monitor Audio & Moth. **BADA**

**MUSICAL IMAGES LTD**, 173 Station Rd, Edgware HA8 7JX. Tel (0181) 952 5535, Fax (0181) 951 5864. Email: sales@musical-images.co.uk. AV Dealer of the Year. Home Cinema, Hi-Fi, multi-room specialists. Main authorised dealers for over 100 brands. Interest free credit anywhere in the UK, subject to status. Mail-order worldwide. 10 demonstration rooms throughout Musical Images, including projectors and big screen TVs. Professional home

installation and design consultancy. Part exchange, service and repairs. Active Musical Images Club. Open all week including Sundays. 10am-6pm (10am-4pm Sundays). **BADA**

**MUSICAL IMAGES LTD**, 45 High Street, Hounslow, TW3 1JR. Tel (0181) 569 5802, Fax (0181) 569 6353. E-mail: sales@musical-images.co.uk. See above entry. **BADA**

**MUSICAL IMAGES LTD**, 18 Monmouth St, Covent Garden, London WC2H 9HB. Tel: (0171) 497 1346, Fax (0171) 497 9205. E-mail: sales@musical-images.co.uk. See main entry under London **BADA**

**RIVERSIDE HI-FI LTD**, 422 Richmond Road, East Twickenham, Middlesex TW1 2EB. Tel (0181) 892 7613. Fax (0181) 892 7749. Internet: http://www.riversidehifi.co.uk/ "Where dreams come true." e-mail: Soundadvice@riversidehifi.co.uk. Arcam, Arcam, Audiolab, Audio Research, B&W, Bose, Copland, Castle, Denon, Dwin, Krell, KEF, Meridian, Marantz, Monitor Audio, Musical Fidelity, Michell, Micromega, Martin Logan, Nakamichi, NHT, Pioneer, RCF, REL, Sony, Sonus Faber, Tannoy, Theta, Vidikron, Wilson, Yamaha. Appointments recommended. Finance available. All major credit cards accepted. Mon-Sat 10-6. Thurs 10-7. **BADA**

## WEST MIDLANDS

**DOWNING & DOWNING**, 31-35 Market Street, Stourbridge, W. Midlands DY8 1AB. Tel: 01384 371747. 44 High Street, Bromsgrove, Worcs. B61 8HQ. Tel: 01527 872976. Hi-Fi from a local company. We stock surprising Hi-Fi providing solutions to sound problems. Discrete Hi-Fi. Visually stunning Hi-Fi. Multi-room Hi-Fi, multi-source Hi-Fi. Integration with visual products. Home Cinema - we have tackled the lot. Perhaps we have the solution - tell us your problems. **BADA**

**GRIFFIN AUDIO**, 94 Bristol Street, Birmingham, West Midlands. Tel (0121) 622 2230/(0121) 692 1359. 40 years in Hi-Fi and still the best in the Midlands. We sell great Hi-Fi from Arcam, Denon, Linn, Marantz, Musical Technology, Nakamichi, Naim, Quad, Rega, Shalinian and Loewe Television. Arcam Xeta Home Theatre. Open Tues-Sat 10.00-5.30. **BADA**

**MUSIC MATTERS**, 10 Boldmere Road, Sutton Coldfield, West Midlands. Tel: 0121 354 2311. Rotel, Denon, Lexicon, Tannoy, Ruark, Alchemist, Exposure, Pioneer, Roksan, Nakamichi, Arcam, Audiolab, Musical Fidelity, Mission/Cyrus, Meridian, KEF, Monitor Audio, Pink Triangle. 2 single speaker luxury demo rooms. Apts 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 10-6. Branches also at: 156-157 Lower High Str, Stourbridge, W. Midlands D18 1TS. Tel: (01384) 444184. **BADA**

**SCOUND AUDIO**, 152a High Street, Bloxwich, Nr Walsall, W. Midlands Tel (01922) 493499/473499. Please see entry under BIRMINGHAM. **BADA**

## NORFOLK

**BASICALLY SOUND**, The Old School, School Rd, Bracon Ash, Norwich NR14 8HG. Tel (01508) 570829. Arcam, Audiolab, Beyer, Cabeltalk, Chord Co. Opera Speakers, Denon, Densen, Dynavector, Epos, Grado, Heybrook, Micromega, Naim, Opera, Sound Organisation, Rogers, Royd, Soundstyle, TDL, Teac, Unison Research, etc. 2 comprehensive dem rooms. Home trial. Free installation. Visa, Access, HP facilities. 0% Finance. Tues-Fri 9.30-1, 2-5.30. All day Sat. **BADA**

**MARTIN'S HI-FI est. 1968**, Ber St, Norwich. Tel (01603) 627010 Fax (01603) 611302. Arcam, Atacam, Audiolab, Audioguest, Cable Talk, Celestion, Cyrus, Denon, GLL, KEF, Marantz, Mission, Meridian, Monitor Audio, NAD, Pioneer, Quad, Rotel, REL, Ruark, Sennheiser, Soundstyle and Target, separate AV and Hi-Fi demo rooms, Home Cinema specialists. Open Monday to Saturday 9-5.30. Home delivery and installation available. Interest free credit. Price promise - we will match any genuine local price. **BADA**

## NORTHAMPTONSHIRE

**CLASSIC HI-FI + VIDEO**, School Lane, Kettering, Northants. Tel (01536) 310855. Aura, B&W, Exposure, Heybrook, JBL, KEF, Kenwood, Marantz, Musical Fidelity, NAD, Orrelle, Pioneer, Rogers, Rotel, Sheame, Sugden, Tannoy, Teac, Yamaha and many more. Home trial, free installation, service department. Interest Free Credit. All major credit cards. Open 9.30-5.30pm. **BADA**

**H.G. RAPKIN**, 11 Kettering Road, Northampton, Tel: 01604 637515. Atacam, Bose, B&W, Jamo, JBL, Kelly, Musical Fidelity, Panasonic, Pioneer, Project, QED, REL, Rogers, Sonica Link, Tannoy, Target, TDL, Teac, Technics, Yamaha. 2 Floors of Hi-Fi, Audio Visual Home Installation on most systems. Access - Visa - AMEX. Open 9.00 - 5.30 Mon-Sat. **BADA**

**LISTEN INN**, 32 Gold Street, Northampton NN1 1RS. Tel (01604) 637871. Making music with help from Linn, Naim, Rega, Myryad, Arcam, Denon, Rotel,

Yamaha, Marantz, Castle, Shalinian, Epos, KEF, Mission, Tannoy, Sennheiser, Chord Company, Cable Talk, Ixos, Dynavector, Sumiko and others. With support from Target, Projekt, Something Solid. 2 listening rooms. Open 10am-5.30pm Mon-Sat (Closed Thursday). **BADA**

**OVERTURE**, 3 Church Lane, Banbury, OX16 8LR. Tel (01295) 272158. See main entry under Oxfordshire. **BADA**

## NOTTINGHAM

**CASTLE SOUND & VISION** 48-50 Maid Marian Way, Nottingham NG1 6GF. Tel (0115) 958 4404. Nottingham's newest and largest hi-fi and home theatre store, serving the whole of the region. Brands stocked include Alchemist, Audio Valve, Blueprint, Boston, Acoustics, Castle Acoustics, Chario, Chord Electronics, DMP, Denon, Henley, Jeff Rowland, Jolida, KEF, Keswick, Klyne, Lexicon, Loewe, Marantz, Mark Levinson, Micromega, Monarchy, NHT, Naim, Nordost, Pink Triangle, Pioneer, Proceed, Project Turntables, Precious Metals, QLN, Quad, REL, Revox, Sheffield Lab, Solidsteel, Sonic Frontiers, Sony Projection Systems, Stand Union, Stereophile, Talk Electronic, Wilson Benesch and XLO. New brands arriving all the time. Large showroom and three demonstration rooms. Home demonstrations and a full installation service available, including multi room. Open 10.00am to 6.00pm Tuesday, Thursday, Friday and Saturday, 11.30am to 8.00pm Wednesday. Appointments out of normal shop opening hours can also be arranged. **BADA**

**CHANNY AUDIO** 16-18a Eldon Street, Tuxford Nr Newark, Nottingham NG22 0LH. Tel (01777) 870372. Product lines include Krell, Theta, Copeland, Epos, Audio Research, Ruark, Meridian, Sonus Faber, D.P.A., Mordaunt Short and many more. 3 dem rooms inc. home cinema. Service dept, free installation, home trial facilities. Access, Amex and Visa Accepted. Interest free credit available. Open Mon-Sat. **BADA**

**DEFINITIVE AUDIO** serves the first time purchaser and the seasoned audiophile with the same high level of care and interest. Our aim is long term customer satisfaction. We achieve this with quality impartial advice, quality back up and service and genuine interest in your needs. We have an established reputation for achieving sound quality benchmarks with innovation. We have an extensive range of carefully selected agencies. We are open Mon-Fri 9.30-6.30, Sat 10.00-1.30. Visa / Mastercard / Amex. Deliveries nationwide and worldwide. Extensive second hand stock. Components from £10.00 to £75000. Call for more information. Tel/Fax (0115)9813562. **BADA**

**NOTTINGHAM HI-FI CENTRE**, 120-122 Alfreton Road, Nottingham. Tel (0115) 9786919. The area's oldest established specialist (Est. 1969). Two superb demonstration rooms, easy free parking. Home Cinema and Multi Room. Stockists of: Arcam, Audiolab, Celestion, Denon, KEF, Linn, Loewe TV, Marantz, Micromega, Michell, Mission-Cyrus, Rotel, Sennheiser, Yamaha. Mon-Sat 9.00-5.30. **BADA**

## OXFORDSHIRE

**ASTLEY AUDIO LTD**, 3 Marketplace, Wallingford OX10 0EG. Tel (01491) 839305 Fax: 01491 825024. Founded 1975. Great deals on Aura, B&W, Denon, Dual, KEF, Kenwood, Marantz, Mission, Mordaunt Short, Panasonic, Pioneer, Sony, Tannoy, Technics, Yamaha. Home trial, Installation and delivery service. Service dept. on site. 2 yr guarantee on most products. Interest free credit on selected items. 1 Home cinema room, 2 listening rooms. Access, Visa, Amex, Diners. Instant credit. Tues-Fri 9-5.30, Sat 9-5. Tapes & C.D.'s stocked. **BADA**

**AUDIO T**, 19 Old High Street, Headington, Oxford OX3 9HS. Tel (01865) 760844, Fax (01865) 60415. E-mail: hifi@audio-t.co.uk Web site: http://www.audio-t.co.uk Great Deals on Acoustic Precision, Arcam, Audiolab, B&W, Cable Talk, Castle, Celestion, Cyrus, Denon, Densen, Dynaudio, KEF, Marantz, Meridian, Mission, Mordaunt Short, NAD, Pioneer, Quad, REL, Rotel, Talk Electronics, Tannoy, Teac, Yamaha & many more. Tues-Fri 10-6. Sat 9.30-6. Late Thurs until 8.00. 3 year guarantee on Hi-Fi separates & systems. Price Promise. 30 day free upgrade scheme. Part exchange. Interest Free Credit on selected items. 2 listening rooms. Home trials. 30 years in business. Home Cinema specialists. BADA Bonded. Serious hi-fi shops - Silly prices! **BADA**

**OVERTURE HI-FI**, 3 Church Lane, Banbury, OX16 8LR. Tel (01295) 272158. Arcam, Bose, Denon, Heybrook, KEF, Linn Products, Mission, N.A.D., Naim Audio, Quad, Yamaha. For sensible un-biased advice, call Oxfordshire's audio experts. Superb demo facilities. No apts nec, service dept, free install, home trial. Access/Visa, instant credit. Mon-Fri 10-6, Sat 9.30-5.30. **BADA**

# DEALER Directory

**OXFORD AUDIO CONSULTANTS**, Cantay Hse, Park End Street, Oxford OX1 1JE. Tel (01865) 790879 Fax (01865) 791665. Email: oxford.audio@btinternet.com Quad, Denon, B&W, Pink Triangle, Krell, Sonus Faber NAD, Rotel, Musical Fidelity, Pioneer, Marantz, Cogliand, Teac, Audio Analogue, Castle, Yamaha, Proac, REL. Demo room. Home trial and free installation. Instant credit. Access, Amex, Visa. 10-6 Mon-Sat. **BADA**

**PORTSMOUTH**  
**HOPKINS HI-FI**, Technics approved specialist dealer, full range of products stocked from separates cinema sound and mini systems. Denon, NAD, Onkyo, Castle, B&W, Tannoy, and lots more plus demo facilities. With over 30 years experience of giving sound advice service and best prices, visit Hopkins Hi-Fi your local specialist dealer. 40 Fratton Road, Portsmouth, 01705 Tel: 822155 Fax: 611999. Finance available on request, most cards taken. Phone orders welcome.

**SHROPSHIRE**  
**CREATIVE AUDIO**, 9 Dogpole, Shrewsbury, SY1 1EN. 01743 241924. One of the largest ranges of quality HiFi/Audio Visual equipment outside of London. Arcam, Atacama, Cabletalk, Celestion, Chord, Cyrus, Denon, Heybrook, KEF, Miller & Kreisel, Mission, Onkyo, NAD, Naim, Nokia, Pace, Quad, Rega, Roksan, Soundstyle, Stands Unique, Wharfedale. Comfortable listening room, home installation (including multiroom and tracking satellite), free 2 & 5 year warranties, selected used equipment, part-exchange welcome, specialist workshop facilities. Access/Visa/Switch/Amex and low cost finance from £250 up to £15,000. **W. OWEN**, 58 Market Street, Oakengates, Telford, Shropshire, tel (01952) 613818. Audio/Video specialists. Pioneer, Reference Point, Kenwood, Sony, Jamo, B&W, Bose, Dolby Pro-Logic specialist. 16.9 screens in stock. Free installation and home deliveries.

**MD SHROPSHIRE AUDIO**, 24 Peveril Bank, Dawley, Telford, Shropshire TF4 2BU. 01952 502092. Ex-Demo & used HiFi equipment from: Linn, Naim, Quad, Teac, Celestion, Arcam, etc. ect. Home Cinema equipment also available, including Laser Discs. Why buy new, use your budget for a better system or save money. Call anytime seven days a week until 9.00pm. Appointments necessary. Mail order service available.

**SOMERSET**  
**MIKE MANNING AUDIO** - 110, Middle Street, Yeovil, Somerset BA20 1NE Tel (01935) 479361. 54, Bridge Street, Taunton. Tel (01823) 326688. The HiFi and AV specialists. The best in HiFi from: Arcam, ATC, Aura, B&W, Castle, Denon, Heybrook, KEF, Marantz, Naim Audio, NAD, Pioneer, Rega, Rotel, Royd, Shahinian, TDL, Teac. Somerset's Bang & Olufsen centre. Dedicated listening lounge for relaxed and unpressured demonstrations. Home installations on most systems. Full service department. Access, Visa, Instant Credit. Closed Mondays.

**SUFFOLK**  
**AUDIO IMAGES**, 128 London Road North, Lowestoft NR32 1HB. Tel (01502) 582853. The shop for Real Hi-Fi separates and Home Cinema. refreshingly different range as well as established manufacturers. Hi-Fi from budget to high end, transistor & valve. AV from £100 to a £100,000 custom install. Projection systems, DVD players and movies. Separate dem room, range of credit facilities, free fitting & the best and friendliest service available. **BADA**

**EASTERN AUDIO**, 41 Bramford Rd, Ipswich. Tel (01473) 217217. Easy parking. Dem Room. Giving sound advice for over 21 years. Arcam, Audioblab, Meridian, Denon, B&W, Technics, Quad, Castle, Celestion, Top Tape, plus all the usual headphones, leads, racks etc. **BADA**

**BASICALLY SOUND**, The Old School, School Rd, Bracon Ash, Norwich. Tel (01508) 570829. For full details see entry under Norfolk. **BADA**

**STOWSONDS**, Stone Farm, Borough Lane, Gt Finborough, Suffolk IP14 3AS. Tel: 01449 675060. Specialist hi-fi dealer with great products from Acoustic Solutions, Alchemist, Atacama, Audioquest, Beyer, Cable Talk, dpa, Electrocompaniet, Exposure, Grado, JM Labs, Kimber, Neat, Nordost, QED, SonicLink, Sonneteer, Sound Organisation, Soundstyle, Stands Unique, Van den Hul, other makes and used equipment available, call us for more details.

**SURREY**  
**AUDIO DESIGNS**, 26 High Street, East Grinstead, West Sussex RH19 3AS. Tel/Fax (01342) 314569. See main entry under West Sussex. **BADA**

**AUDIO T**, 173-175 London Road, Camberley GU15 3JS. Tel: 01276 685597 Fax: 01276 685327. Open Tues-Fri 10-6 Sat 9.30-5.30 Late Thurs until 8pm. See our main entry under Oxford. We also sell

Celestion, Michell, Naim & Ruark.  
**COSMIC HI-FI SUPERSTORE EST 1962**, 244-256 Station Road, Adlestone, Weybridge, Surrey KT15 2PS. Tel (01932) 854522/843769/851753 Fax (01932) 841615. Open 7 Days a week, Mon-Sat 9-6pm, Fri till 8pm, Sun 10-4pm Large free car park, fully equipped service depart, massive showroom. Arcam, Audio Quest, B&W, Cable Talk, Denon, Dual, Jamo, Marantz, Mission, NAD, Pioneer, Quad, Rogers, Sennheiser, Sony, Tannoy, Target, TDL, Technics, Thorens, Yamaha. Home cin, widescreen TV, projection TV, laserdisc. Int free credit. All Major credit cards.

**INFIDELITY**, 9 High Street, Hampton Wick, Kingston Upon Thames, Surrey. Tel (0181) 943 3530. Arcam, Densen, Epos, Heybrook, Linn, Micromega, Naim Audio, Neat Acoustics, Rega Reserch, Roksan, Royd, Shahinian, Yamaha. Single speaker listening room. Apts pref, free installation, service dept. Major credit cards. Closed Mon, Tues-Fri 10.30-7, Sat 10-6pm. **BADA**

**PJ HI-FI**, 3 Bridge Street, Guildford, GU1 4RY. Tel (01483) 504801/304756. Mon-Sat 9-6pm. Linn, Rega, ProAc, EPOS, Rotel, Audioblab, Arcam, Meridian, Musical Technology, NAD, Quad, KEF, Acoustic Energy, Marantz, B&W, Nakamichi, Rogers, Mission/Cyrus, Pioneer (precision). Listen to Linn/Meridian AC3 here now! Home Cinema & HiFi Dem rooms, parking, Free delivery & installation. Service department on the premises. Call now **BADA**

**RIVERSIDE HI-FI**, 422 Richmond Road, East Twickenham, TW1 2EB. Tel: (0181) 892 7613. Fax: (0181) 892 7749. See main entry under Middlesex.

**ROGERS HI-FI**, 13 Bridge Street, Guildford, Surrey. Tel (01483) 561049. B&W, Castle, Denon, Harman-Kardon, Marantz, Micromega, Musical Fidelity, Myrrad, Ruark, Tannoy, and many more. Demonstration facilities available, no appointment necessary. Free installation. Service department. Access/Visa. Instant credit up to £1,000 subject to status. Monday-Saturday 9.30-6pm, later by appointment.

**SPALDINGS HI-FI**, (Established 30 years), 352-4 Lower Addiscombe Rd, Croydon, Surrey CR0 7AF. Tel (0181) 654 1231/2040. Linn Naim, Quad, Meridian, Audioblab, Mission, Marantz, Denon, Ruark, Tannoy, Arcam, KEF, Castle. 3 dem rooms including AV room. Service dept, free install, home trial facilities, appointments advisable. Access, Visa, Amex, Interest free credit, instant credit. Mon-Sat 9-5.45. Tues-8. Service dept. **BADA**

**SURREY HI-FI**, 45 High Street, Godstone, Surrey RH9 8LS. (Just off J6 - M25) Tel (01883) 744 755, free parking. Home Cinema on demo. Arcam, Audioblab, KEF, KEF Reference, Beyerdynamic headphones, Bose, Cabletalk, Denon, Marantz, Mitchell, Musical Fidelity, Partington Stands, Qudos Cables, Target, TDL, Thorens, Yamaha, Stands Unique, Roger, Miller & Kreisel Sub Woofers, MIT Cables, Alphason Stands, Sennheiser headphones and many others. Interest free credit available. Closed Wednesday.

**UNILET SOUND & VISION**, 35 High Street (Opposite Waitrose), New Malden, Surrey, KT3 4BY. Tel (0181) 942 9567. Open Mon-Sat 9.30-5.30pm. Late night Thurs 8pm. The very best hi fi and home cinema brands on show with 3 hi fi PLUS 3 home cinema demonstration rooms fully equipped at New Malden. Knowledgeable staff. Free car parking. Open Sundays. **BADA**

**SUSSEX (EAST)**  
**ADAMS & JARRETT**, 6-18 Norman Road, St. Leonard's-on-sea, East Sussex, TN37 6NH, Tel (01424) 437165/432398. Stockists of B+W, Cabletalk, KEF, Marantz, Meridian, Micromega, NAD, REL, Rotel, Ruark, Sennheiser, Tannoy, Target, Yamaha, Talk Electronics, Stands Unique, Dynaudio, Musical Fidelity, Denon, Dali, Myvrad, Onkyo, Aura. Two demo rooms, home trial, AV specialists. Instant and interest-free credit available. Open Mon-Sat 9-5.30.

**JEFFRIES HI-FI**, 69 London Road, Brighton BN1 4JE. Tel (01273) 609431. Hi-fi, home cinema and multi-room specialist. Range includes Acoustic Energy, Arcam, Beyer, Celestion, Chord, Definitive Technology, Denon, Harbeth, KEF, Kinshax, Lexicon, Linn, Loewe, Miller & Kreisel, Naim, Panasonic, Rega, REL, Rotel, Royd, Ruark, Sennheiser, Shahinian, Sound Organisation, Sound Style, Top Tape, Yamaha. 2 dem rooms. Open Tues-Sat, late night Wed. Free parking, bus route, credit facilities. Winner Sony/Hi-Fi News Best Southern Dealer. **BADA**

**JEFFRIES HI-FI**, 4 Albert Parade, Green Street, Eastbourne BN21 1SD. Tel (01323) 731336. Fax (01323) 416005. Hi-fi, home cinema and multi-room specialist. Range includes Acoustic Energy, Arcam, Beyer, Celestion, Chord, Definitive Technology, Denon, Harbeth, Heybrook, KEF, Lexicon, Linn, Loewe, Miller & Kreisel, Naim, Panasonic, Polk, Rega, REL, Rotel, Royd, Ruark, Selec, Sennheiser, Sony, Sound Organisation, Sound Style, Top Tape, Yamaha. Two demonstration rooms. Open Tues-Sat, late night Wed. Free parking, bus route, credit facilities. Winner

Sony/Hi-Fi News Best Southern Dealer. **BADA**  
**THE POWERPLANT**, 66/67 Upper North Street, Brighton BN1 3FL. Tel (01273) 775978 Fax (01273) 748419 Email: email@powerplant.co.uk Whatever your budget we can help you choose from our carefully selected range of todays finest hi-fi and home cinema equipment. Recommended agencies include Arcam, Audioblab, ATC, B&W, B&O, Cyrus, Exposure, Epos, Linn, Marantz, Micromega, Mark Levinson, Pro Ac, Rega, QED Systemline, Yamaha. Excellent demonstration facilities, Knowledgeable and Friendly Staff. Multi Room specialist, CEDIA member. Open Tues - Sat 10am-6pm late evenings by appointment. All major Credit Cards. Full Credit facilities. **BADA**

**SUSSEX (WEST)**  
**AUDIO DESIGNS**, 26 High Street, East Grinstead, West Sussex RH19 3AS. Tel/Fax (01342) 314569. www.audiodesigns.co.uk. Hi-Fi, Home cinema & Multi-room specialists. Authorised stockists of: Arcam, Audioblab, Cabletalk, Castle, Cyrus, Epos, KEF (inc. Reference), Linn (inc. AV51), Loewe, Marantz, Mission, Naim, Pioneer, Quad, Rel, Rotel, Sennheiser, Sony, Soundstyle, Stands Unique, Tag McLaren, Target, Thorens, Yamaha & more. 3 dedicated demonstration rooms - Hi-Fi & Home cinema. Service dept. 0% finance available. 9.30-6.00 Mon-Sat.

**BOWERS & WILKINS LTD.** (Est. 1945) 1 Becket Buildings, Littlehampton Rd, Worthing. Tel (01903) 264141. 1 minute from A24 & A27. Free local parking. B&W, Denon, Harman-Kardon, JBL, Jamo, Marantz, NAD, Philips, Solid, Tannoy, TDL, Technics, Thorens and many more in 4 Dem Rooms. Systems, Hi-Fi and Home Cinema. Service Dept., Installations. Open 6 days a week. Access, Visa, instant credit to £1000 subject to status.

**PHASE 3 HI-FI**, 215 Tarring Road, Worthing, West Sussex, BN11 4HW. Tel (01903) 245577. Email: pearl@msn.com. Whether your requirements are for the best in HiFi, Home Cinema, Multi room, or full systems integration, contact us to discuss bespoke systems to match your needs and your budget. Three listening and viewing studios. Agencies include, Acoustic Energy, Arcam, Audioblab, B&W, Castle, Celestion, Denon, KEF, Linn Knekt, Marantz, Meridian, M&K, Naim, Pioneer Precision, Shearman, Talk Electronics, Yamaha. Open Mon-Sat 9.30am-5.30pm. All major credit cards. Full credit facilities. **BADA**

**TYNE AND WEAR**  
**LINTONE AUDIO LTD** 7/11 Park Lane, Gateshead 0191 477 4167. 6/8 The Arcade, Metro Centre, Gateshead 0191 460 0999. Email: linton.audio@virgin.net. Web site: www.lintone.co.uk. Three demonstration rooms plus home theatre, suppliers/installers of multi room systems, full service facilities. Stockists of Naim, B&O, Meridian, Audioblab, Krell, Cyrus, Mission, Audio Analogue, Arcam, Castle, Ruark, Teac, Technics, KEF, Opera, Tannoy, Marantz, Yamaha, Proac, etc. All major credit cards. Interest free Credit, Mail Order.

**WARWICKSHIRE**  
**THE LEAMINGTON HI-FI COMPANY**, 23a Regent St, Royal Leamington Spa, Warwickshire CV32 5EJ. thehi-ficompany@btinternet.com Tel: (01926) 888644 Fax: (01926) 887486. E-mail: K.brown@bbcnc.org.uk. Acoustic Energy, Arcam, Audioblab, Quad, Meridian, Marantz, Denon, Pioneer, Yamaha, Nad, Micromega, Mission, KEF, Celestion, Atacama, Technics, Trichord, TDL, REL, IXOS. Singl speaker dem room. We do not use any comparators. We also have full demonstration of projection TV with laserdisc and full Pro-Logic systems. Part exchange welcome. Please phone or e-mail for prices. We have over 200 laserdiscs in stock. Call for our latest catalogue.

**WILTSHIRE**  
**AUDIO T**, 60 Fleet St, Swindon, Wiltshire, SN1 1RA. Tel (01793) 538222. Fax (01793) 487260. Open Tues-Sat 9.30-6. Late Thurs until 8.00. See our main entry under Oxford. We also sell Linn, Michell, Naim, Ruark & Technics. **BADA**

**SALISBURY HI-FI LTD**, 15 Catherine Street, Salisbury, Wiltshire SP1 2DF. Tel (01722) 322169. Arcam, B&W, Celestion, Denon, KEF, Kenwood, Marantz, Meridian, Micromega, NAD, Ruark, Sony, Yamaha. 2 dem rooms. Friendly relaxed atmosphere. Professional advice. Home dem available. Service Department. Free installation. Home trial facilities. Access, Visa, Amex. Interest free credit. Instant credit. Open Mon-Sat 9-5.30 **BADA**

**WORCESTERSHIRE**  
**SOUND & VISION** Independence House, The Trinity, Tel: 01905 619059. Tues-Sats 9am-5.30pm. Evening dems arranged by appointment.

**YORKSHIRE (NORTH)**  
**SOUND ORGANISATION YORK**, 2b Gillygate, York YO3 7EQ. Tel (01904) 627108. Carefully chosen Hi-Fi & AV equipment includes Arcam, B&W, Denon, Linn, M&K Subwoofers, Naim, Rega, Rotel, Royd etc. 3 Dem rooms incl Home Cinema & Multiroom facilities. Service department. Home installations. Instant Credit

and Major credit cards. Closed Mondays. Phone for a chat & more details.

**YORKSHIRE (EAST)**  
**THE AUDIO ROOM**, 38 St Augustines Gate, Hedon, Nr Hull HU12 8EX. Tel: 01482 896166. Fabulous new showrooms, complete with 2 demonstration rooms now open. Authorised agents for Alchemist, Atacama, B&W, Cable Talk, The Chord Co, Dali, Denon, Gamma Audio, Helios, Jamo, Marantz, Manrio, Musical Fidelity, NAD, Neat, Opera, Oreille, Onkyo, Ortofon, Pro-Ject, QED, Quad, Sonneteer, Sound Style, Stands Unique, Talk Electronics, Tannoy and many more. Opening times, Mon-Sat 9.00am till 7.00pm. Credit facilities, home demonstrations available. Friendly, personal service guaranteed.

**ZEN AUDIO**, 35 George St, Hull. Tel (01482) 587397. Comfortable listening rooms; Home dems; Personal, friendly service; Free installations. Agencies include: Acoustic Energy, Arcam, Aura, Audioblab, Atacama, Audio Note, Audion, B&W, Cable Talk, The Chord Company, Conrad-Johnson, D.P.A. Densen, Denon, E.A.R., Jaffr, Harbeth, Heybrook, Impulse, KEF, Meridian, Michell, Monitor Audio, Mordaunt-Short, NAD, NAIM, Pioneer, Pro-Ac, Rega, REL, Rehdeko, Rotel, Royd, Ruark, Shearman Audio, Stands Unique, Sugden, Spendor, Sonic Link, TEAC, Unison Research... and many others.

**YORKSHIRE (SOUTH)**  
**HI-FI STUDIOS**, Sunnyfields, Doncaster, DN5 85A. Tel (01302) 781387. TDL, Audio Alchemy, Sugden, Audioblab, Electrocompaniet, Proac, Ruark, Castle, Teac, Unison valves, Impulse Horns, Apogee, Steamfort, Pink Triangle, Heybrook, Monitor Audio, Harbeth, Keswick Audio Research, Michell Turntables, CR Developments (valves), Art Audio (valves), R.E.L. Subwoofers, Pro-ject, Plus Yamaha and Klipsch Home Cinema Pro-Logic Demonstrations, Systemdek, Alphason, Target Sonic Link, Chord, Holfi, Q.L.N., Audio Quest. Listening room, dems, home trial, free delivery and install, 2 year guarantee. Access, Visa, 10-8pm Tues-Fri, 10-6 Sat. Closed Monday. Phone for further info. & FREE fact pack. **BADA**

**YORKSHIRE (WEST)**  
**AUDIOVISION est 1957 (YORKSHIRE) LTD** 5 Bethel St, Brighouse, HD6 1JR 1 mile from junction 25, M62, West Yorkshire, (01484) 713996. 40th Year Celebrations 1957-97 • Cash savings & interest free credit. • Informed and independent advice on digital wide screen TV & Hi-fi. • Quality DVD & Dolby digital dems. • Professional pro logic home installs. • Keen Prices on award winners. Yorkshire's largest & latest range of Panasonic & Technics. The North's No. 1 Poik Audio dealer. BOSE multiroom Lifestyle systems. Yamaha DSP, Philips widescreen TV. Speakers by Cerwin Vega/ Miller & Kreisel, Mordaunt-Short & VCR Pioneer laserdisc & Panasonic DVD, VCR & camcorders. Qualified in-store service team. Mailorder sales (01484) 718116 (Mastercard, Visa) or why not visit our showroom? We're not too far! Open 9-5.30. Mon-Sat.

**CLEARTONE (FORMERLY ERRICKS)**, Rawson Square, Bradford City Centre, BD1 3JR. Tel (01274) 309266. Bradford's leading Hi-Fi specialists. Every top brand & all the best buys at guaranteed unbeatable prices. Aiwa, Akai, Arcam, Audioblab, B&W, Bose, Castle, Celestion, Denon, Hitachi, Infinity, JBL, JVC, KEF, Kenwood, Marantz, Micromega, Mission, Mordaunt Short, NAD, Panasonic, Pioneer, Rotel, Sony, Tannoy, TDL, Technics, Toshiba, Yamaha. 2 Dedicated Demo rooms, no appointments required. Service department, free installation, home trial facilities. Access, Visa, Amex, Diners. Interest free credit. Open Mon - Sat 9.30-5.30.

**EMPIRE ELECTRICAL MEGASTORE**, Ingleby Road, (Girlington), Bradford, BD8 9AN. Tel (01274) 575000. The North's biggest electrical megastore. Every top brand & best buy at guaranteed unbeatable prices. Aiwa, Akai, B&W, Bose, Celestion, Denon, Grundig, Hitachi, Jamo, JVC, KEF, Kenwood, Marantz, Mission, Mitsubishi, Mordaunt Short, NAD, Panasonic, Pioneer, Rotel, Sony, Tannoy, TDL, Technics, Toshiba, Yamaha. 3 Dedicated Hi-Fi & AV Demo rooms, no appointments required. Free service department, free installation. Free parking. Access, Visa, Amex, Diners. Interest free credit. Open Mon - Fri 9.30-8.00, Sat 9.30-6.00, Sun 11.00-5.00.

**EMPIRE ELECTRICAL SUPERSTORE**, The Clock Buildings (formerly the Clock Cinema), Roundhay Road, Leeds (on the junction of the A 58 & Roundhay Road), LS8 2SH. Tel (0113) 2351701. Leeds's largest range of Hi-Fi separates & systems including all the best buys at guaranteed unbeatable prices. Aiwa, Akai, B&W, Bang & Olufsen, Bose, Castle, Celestion, Denon, Hitachi, JVC, KEF, Kenwood, Marantz, Mission, Mitsubishi, Mordaunt Short, NAD, Panasonic, Pioneer, Rotel, Sony, Tannoy, TDL, Technics, Toshiba, Yamaha. 2 Dedicated Hi-Fi Demo rooms and 2 AV Demo rooms, no appointments

necessary. Service department, free installation, home trial facilities. Free parking, Access, Visa, Amex, Diners. Interest free credit. Open Mon - Wed 10.00-6.00, Thurs - Fri 10.00-8.00, Sat 9.30-5.30, Sun 11.00-5.00.

**Huddersfield Hi-Fi Centre**, 4 Cross Church St, Huddersfield. Tel (01484) 544668, Fax (01484) 423140. Also at 3-5 Kings Cross Street, Halifax, West Yorks. Tel (01422) 366832, Fax (01422) 349954. B&W, Cyrus, Kenwood, Denon, Rotel, Arcam, Musical Fidelity, Quad, Audio Lab, Marantz, 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. Tel (01924) 200272, Fax (01924) 200404. The finest in Home Cinema, Multiroom installation and classic stereo systems from Arcam, B&W, Cyrus, Denon, Linn, Mission, Quad, Rega, Yamaha DSP. Open Monday to Saturday 9.30am to 5.30pm **BADA**

**IMAGE HI-FI**, 8 St Annes Road, Headingley, Leeds, LS6 3NX. Tel (0113) 2789374, Fax (0113) 2754252. The finest in Home Cinema, Multiroom installation and classic stereo systems from Arcam, B&W, Cyrus, Denon, Linn, Mission, Quad, Rega, Yamaha DSP. Open Monday to Saturday 9.30am to 6.00pm. **BADA**

## NORTHERN IRELAND

### BELFAST

**LYRIC HI-FI**, 161/3 Stranmillis Road, Belfast. Tel (01232) 381296. Demonstration and installation of the finest Hi-Fi, Home Cinema and Multi-room systems, including Arcam, Cyrus, Denon, Linn, Loewe, Mission, Naim, Yamaha and many more. Our experience will help you to choose the right system for your needs. Open Mon-Sat 10-6, Late night Thurs, closed all day Wednesday.

**THE HI-FI SHOP**, Bruce House, Bruce Street, Belfast, BT2 7JD, Tel (01232) 327604. Product lines include Arcam, Audioblab, B&O, B&W, Castle, Chario, Keswick Audio, Micromega and Rotel. Dem room and Earl Gray available. Service Dept, free installation, home trial facilities. Access and Visa, instant and interest free credit. Open Tues-Sat 10am-6pm.

### DUNGANNON

**KRONOS HI-FI**, 7 Scotch Street Centre, Dungannon BT70 1AR. Tel (01868) 753606, Fax: 753006, Email: David@KronosHi-Fi.demon.co.uk, website: http://www.KronosHi-Fi.demon.co.uk We have one of the largest ranges of quality Hi-Fi in Ireland. Our agencies include Absolute Sounds, Apogee, Audion, Audiomeca, Blueprint, BOW Technology, Cadence, Copeland, Densen, Frameworks, Harman Kardon, Helios, JBL, Kelly, Kimber, Klipsch, Living Voice, Lyra, LFD, Marantz, Michell, MIT, Musical Fidelity, Nottingham Analogue, Orelle, QLN, Rogers, Roksan, Rotel, Ruark, Silver Sounds, SME, Triangle, Trichord, Unison, UKD, Wilson Benesch, YBA and much more. Demo rooms for Hi-Fi and AV. Free installation, home demos and home trial. Access and Visa. Credit including instant and interest free. Multi-Room specialists. Open Mon-Fri 9.30-5.30. Closed Wed. Sat 10-5. We are also open any evening by appointment.

## SCOTLAND

### DUNDEE

**J D BROWN**, 28 Castle Street, Dundee for real HiFi and home cinema in Tayside. Our friendly, knowledgeable staff will be delighted to give you a demonstration and help you to choose your system. Phone and book one of our listening rooms. Interest Free Credit Available. Tel. 01382 226591

### EDINBURGH

**MUSIC MILL**, 72 Newhaven Rd., Edinburgh EH6 5QG. Tel (0131) 555 3963 or Fax (0131) 555 3964. Audio Research, Copland, Naim Audio, Krell, Roksan, Marantz, AVI, Rotel, Grado, Transparent Audio, Theta Digital, Wilson Benesch, Quadrospire, Stands Unique, Sequence, Target, Ortofon, Ringmat Michell, Project, Tannoy, Jecklin Float, Crimson, Sonus Faber, Wilson Audio, ProAc, Alchemist, Teac, Martin Logan, Revox, Goldring, Koetsu. Listening Rooms, Free Parking, Workshop, Delivery and Installation. Open Monday to Saturday 10am-6pm. Call Mark, John, Raoul or Mike for information or directions.

### GLASGOW

**DESIGN AUDIO CLASSICS**, 1 Park Gate, Glasgow G3 6DL. Tel: 0141 353 7474 Fax: 0141 353 7444. Offers Scotland's only true hi-end Hi Fi and Home Cinema

specialists. All our equipment is carefully sourced from the USA, The Far East, Europe and the UK. Our exclusive-line brands include Avantgarde's stunning horn speakers (from Germany) and Cary's (USA) amazing valve amps and pre amps. We are also Scotland's main authorised dealers in Krell, Martin Logan, Pro-Ac, Wilson Benesch, Lexicon (exclusive), Audioblab, Sugden (exclusive), Tannoy, Sonas Faber, JBL, Marantz Reference, H. Kardon, Reference Cables, Pink Triangle (exclusive), DVD (exclusive) & Laser, Copeland, DTS (exclusive) & AC3, REL, Myriad, Loewe, Sony & Sanyo Projection, etc etc. We have FIVE superbly comfortable permanent dem rooms including Scotland's only DTS / AC3 / THX / DVD / Laser Home Cinema demonstrator and leisure room and offer relaxed friendly service to all our valued customers. All our equipment is available for free home demonstrations. We also offer interest free credit, and a specialist repair service. All major credit cards welcome. Mon-Sat 10am - we're finished.

**GLASGOW ANALOGUE STUDIO**, 3 Boghead Road, Lenzie, Glasgow G66 4EG Tel (0141) 776 3642. Illusion of music systems for the vinyl enthusiast featuring turntables, arms and cartridges from Nottingham Analogue, amplifiers from Croft and loudspeakers from Dantax. Experience the beauty of music in our relaxed and friendly listening room. Demonstration by appointment only. Free installation anywhere in Scotland.

**GLASGOW AUDIO**, 135 Great Western Road Glasgow G4, Tel (0141) 332 4707. Main product lines include Arcam, Castle, Cyrus, Harman-Kardon, Marantz, Meridian, Mission, Onkyo, Polk, REL, Rotel, Royd, Ruark etc. 3 Dem rooms, AV and Hi-Fi, service facilities installation service, and home trial facilities available. Access and Visa accepted. Instant and interest-free credit. Open Mon-Sat 10am-5.30pm Sun 1-4pm.

**KEVIN GALLOWAY AUDIO**, Phone: 01563 574185, Fax: 01563 573207. Audio Physic, Accuphase, Audion, Basis, DCS, Pink Triangle, Electrocompaniet, Sugden, Nagra, Tara Labs. Nationwide delivery and installation. Demonstration by appointment.

**LOUD & CLEAR**, 520 St Vincent St, Finnieston, Glasgow, G3 8XZ Tel (0141) 221 0221 Glasgow's friendliest and best HiFi store, combining knowledgeable advice with specially selected products and the keenest prices. Three comfortable demonstration studios, full service and installation facilities, interest free credit available on selected products. Naim Audio, Exposure, Alchemist, Rega, Tag, MacLaren, Musical Fidelity, Marantz, Denon, Rotel, EPOS, Kef, Kef Reference, Monitor Audio, Tag McLaren, Tannoy, Mordaunt Short, VDH, Chord Co, Ash Design, Stands Unique. Mon-Sat 10am-6pm. Thurs till 7pm. Complimentary parking at PC World, Finnieston St.

**STEREO STEREO**, 260 St Vincent Street, Glasgow G2 5RL. Tel (0141) 248 4079. Email:stereo@cix.compulink.co.uk We will help you choose a system to suit your needs precisely. Whether it's a complete distributed audio and video system or just a repair to your old speakers. WE'RE NOT JUST STEREO STEREO. Open 10-6.00pm closed Sunday, Tuesday. Interest free credit available.

## WALES

### CLWYD

**ACOUSTICA**, 17 Hoole Road, Chester, Cheshire CH2 3NH. Tel (01244) 344227. See main entry under Cheshire.

**ACTION GATE AUDIO**, 4 Ruabon Rd, Wrexham Tel (01978) 364500. Audio Visual specialists. Arcam, Bose, Boston, B&W, Celestion, Castle, Denon, GLL, Harman-Kardon, Jamo, JBL, Marantz, Michell, Mission, Mordaunt-Short, Musical Fidelity, Myriad, NAD, Micromega, Quad, Rotel, Rogers, Roksan, Ruark, Tannoy, Teac, TDL, UKD, Yamaha DSP member. Demonstration room, installation service. Easy parking and motorway access. Access, Visa etc.

### SOUTH GLAMORGAN

**AUDIO EXCELLENCE**, 134 Crwys Road, Cardiff. Tel (01222) 228565. All that's best in Hi-Fi carefully selected and demonstrated by friendly knowledgeable staff, at prices to suit all budgets. Delivery and installation, home dems, part exchange, in-house workshops, full credit facilities with interest free on selected items. Tues-Sat 9.00-5.30. Closed Mon. **BADA**

**AUDIO C LLENCE**, 9 High St, Swansea. Tel (01792) 474608. All that's best in Hi-Fi carefully selected and demonstrated by friendly knowledgeable staff, at prices to suit all budgets. Delivery and installation, home dems, part exchange, in-house workshops, full credit facilities with interest free on selected items. Tues-Sat 9.00-5.30. Closed Mon. **BADA**

## Sounds of Music

10/12 Chapel Place  
Tunbridge Wells  
Kent TN1 1YO  
Telephone: 01892 547003  
Facsimilie: 01892 547004

# Great News! - Superb new dem facilities

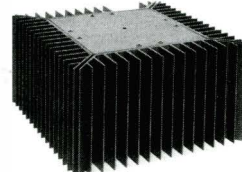
Over the last few months, those of you who have visited us have been subjected to a few cramped conditions prior to our expansion. At last we are delighted to tell you that we now have

# five

new demonstration lounges for your absolute comfort and choice.

We carry an amazing range of product from all over the world and from all the worlds best manufacturers. On demonstration are systems from £1K to £100K covering every format possible and all this coupled with our now famous one months trial exchange system must surely enable you to pick us as your No.1 choice.

Call us today for a real musical experience. If music is your priority, then Sounds of Music is the place to come.



**PASS ALEPH 3  
STEREOPHILE AMPLIFIER  
OF 1997**



**B.A.T. VK60  
POWER AMP**



**WILSON BENESCH  
THE CIRCLE**



**PROAC 3.8**

- ADVANTAGE • AUDIO
- SYNTHESIS • AUDIO
- PHYSICS • APOLLO
- AUDION • AUDIO NOTE •
- AUDIO RESEARCH •
- AUDIO ANALOGUE •
- ALTIS ANTHEM • AVI •
- ATC • ARGENTO • ALON
- ACOUSTIC ENERGY •
- ATACAMA • ARTEMIS •
- BCD • BASE • BALANCED
- AUDIO TECHNOLOGY •
- B&W • BOW •
- CONVERGENT AUDIO
- TECHNOLOGY • CHORD •
- COPLAND • CADENCE •
- COGAN/HALL • CABLE
- TALK • C R
- DEVELOPMENTS •
- DUNLAVY • DAC •
- EGGLESTON WORKS •
- ELECTROCOMPANIET •
- EIKOS • F M ACOUSTICS
- GENESIS • GRAHAM •
- GRAFF • GOERTZ •
- GOLDRING • GERSHMAN
- ACOUSTICS • HERBETH •
- HALES • HELIOS •
- INFINITY • JAMO • J M
- LABS • KOETSU • KRELL
- KEF • KLIPSCH •
- KIMBER • LUMLEY •
- LYRA • L.A.T. LAVARDIN
- MUSICAL TECHNOLOGY
- MIT • MAGNUM

- MAGNUM DYNALAB •
- MICROMEGA • MYRYAD •
- MARANTZ • MORDAUNT
- SHORT • MAGNA
- PLANAR • MARTIN
- LOGAN • MICHELL •
- NEAT • NORDOST •
- NOTTINGHAM
- ANALOGUE • OPERA •
- OPTIMUM • ORTOFON •
- ORELLE • OSBORN •
- PROMENADE • PURIST
- AUDIO • PASS • PRO-AC •
- PINK TRIANGLE • QED •
- QUAD • RUARK •
- REFERENCE 3A •
- REL • ROKSAN •
- ROLAND • SME •
- SEQUERRA • SHURE •
- SENNHESER •
- SOUNDSTYLE • SONIC
- FRONTIERS • SUNFIRE •
- SPENDOR • SONUS-  
FABER • STANDS UNIQUE
- TARGET • TRILOGY •
- TANNOY • TOTEM •
- TALK • TRANSPARENT •
- TRANSFIGURATION •
- THETA • TOWNSHEND •
- TRICHORD • THORENS •
- TEAC • TRIANGLE •
- UNISON RESEARCH • VAC
- VON SCHWEIKERT •
- WOODSIDE • WILSON  
BENESCH • WADIA •
- WILSON AUDIO • XTC •
- XLC

### STOP PRESS

#### Wilson Benesch

November is the Bishop month, call for an appointment with this amazing loud speaker



1 months trial  
exchange  
system



Free installation  
and delivery plus interest  
free credit



# THE HI-FI CHOICE ARCHIVE

Missed *Hi-Fi Choice* the first time round? Don't worry! There are several different ways to acquire complete back issues or individual reviews. Our step by-step guide shows how.

## 1. BUY AN ORIGINAL BACK ISSUE ☎ (01789) 490215

<p><b>MAY 1998/ISSUE 178</b></p> <ul style="list-style-type: none"> <li>■ TACT Millennium Digital Amp</li> <li>■ 13 Amplifiers £120-£650</li> <li>■ 7 CD Multiplayers</li> <li>■ Nagra PL-P Preamp</li> </ul>	<p><b>JUNE 1998/ISSUE 179</b></p> <ul style="list-style-type: none"> <li>■ 8 CD Players £140-£350</li> <li>■ Budget Loudspeakers £120-£180</li> <li>■ Subwoofers £300-£900</li> <li>■ Philips CDR80 CD Recorder</li> </ul>	<p><b>JULY/AUG 1998/ISSUE 180</b></p> <ul style="list-style-type: none"> <li>■ 11 High-End Speakers £950-£1,800</li> <li>■ Home DJ Hi-Fi Gear</li> <li>■ Arcam Alpha 9</li> <li>■ DVD Players Vs CD</li> </ul>	<p><b>SEPTEMBER 1998/ISSUE 181</b></p> <ul style="list-style-type: none"> <li>■ 11 Amplifiers £480-£900</li> <li>■ 8 HDCD CD Players</li> <li>■ 9 Equipment Supports</li> <li>■ dCS Elgar - 24/96 appraisal</li> </ul>	<p><b>OCTOBER 1998/ISSUE 182</b></p> <ul style="list-style-type: none"> <li>■ European (EISA) Awards Report</li> <li>■ 11 MD &amp; CD Personals</li> <li>■ DVD-Audio news update</li> <li>■ Kuzma Stabi S Turntable</li> </ul>	<p><b>NOVEMBER 1998/ISSUE 183</b></p> <ul style="list-style-type: none"> <li>■ 12 Loudspeakers £300-£700</li> <li>■ Integrated/Power Amp upgrades</li> <li>■ Speaker Cables below £10/m</li> <li>■ B&amp;W Nautilus 802 speaker</li> </ul>
---	--	--	--	--	--

Back issues from 1988 onwards are available as shown in the table. They cost £4.00 (UK) or £6.95 (overseas). Both prices include p&p. Order by phone from Dennis Direct, on ☎ (01789) 490215 (answering service available outside office hours). Alternatively, fax your order on ☎ (01789) 490878. AmEx, MasterCard and Visa credit cards accepted, also Switch and Delta debit cards.

## BACK ISSUE AVAILABILITY

YEAR	HFC N°S	SOLD OUT ISSUES	AVAILABILITY
1988	54-65	Jun, Jul, Sep	Very limited
1989	66-77	Jan-Mar, Sept	Very limited
1990	78-89	Jan, Feb, Jun, Aug, Sep, Dec	Very limited
1991	90-101	Jan, Feb, Aug-Dec	Very limited
1992	102-113	All exc. Mar 92	Very limited
1993	114-125	Jan, Mar, Jun, Sep-Nov	Very limited
1994	126-137	Jun-Aug, Nov	Very limited
1995	138-149	All exc. Feb	Very limited
1996	150-161	Jun, Jul	Limited
1997	162-173	None sold out	Good
1998	174-183	None sold out	Good

## 2. GET REVIEW REPRINTS BY FAX



*Hi-Fi Choice* reprints are available via fax, 24 hours a day. Our database, operated by Starcomm Ltd, holds a broad selection of

reviews and features from mid-1995 onwards. UK readers can access this service on ☎ (0930) 110118. Calls cost 45p per minute off-peak and 50p per minute at all other times.

Overseas readers can order copies of reviews, non-interactively, by sending a faxed request to Starcomm on ☎ (+441937) 587941 – remember to include your credit-card details. Reviews will be faxed back to a designated number at a cost of £1.50 per page.

All pages have been designed to minimise user costs. If you experience problems with this service, or have further queries, please do not contact the editorial offices. Call Starcomm Ltd on ☎ (0870) 121214.

### HOW TO USE FACTSBACK (UK readers only)

- 1 Call the Factsback system on ☎ (0930) 110118, from the handset of your fax machine. The handset must be switched to 'tone'. You will be connected to an automated switchboard. The system works using a series of index numbers corresponding to individual reviews and features. Some index numbers are printed in *The Directory* (p122 onwards).
- 2 The switchboard will offer you a number of actions to choose from. If you know the index number of the reprint you seek, enter it on your fax machine's handset, when prompted to do so. Alternatively, you may request an index of stored pages, at all times using the handset of your fax machine and following the voice prompts.
- 3 Factsback will send your chosen documents to your fax machine, complete with a cover-sheet.

## 3. VISIT OUR WEBSITE

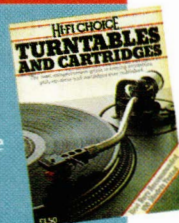
The *Hi-Fi Choice* Web site holds copies of reviews from the past two years. It also offers a user-customisable search facility for specific products and price-points. In addition, there is a unique opportunity to swap hints, tips and gossip in our online 'chat' areas. Our site has been remarkably successful since its launch earlier this year, and is currently scoring approximately 405,000 hits per month, with a total of 90,000 page impressions. The site has no less than 6,700 unique users!

<http://www.hifichoice.co.uk>



## 4. ORDER A REVIEW REPRINT

If you are interested in an *HFC* review of an older component, and the back issue has sold out, we can send photocopies of old reviews to any UK address for a flat fee (inc. p&p) of £5.00 per review. You must know in precisely which issue the original review appeared; we are unable to search back issues for old reviews. Send a written request, enclosing a cheque made payable to Dennis Publishing Ltd, to: *Hi-Fi Choice* Reprint Service, Dennis Publishing Ltd., 19 Bolsover Street, LONDON W1P 7HJ. PLEASE NOTE: THIS SERVICE IS ONLY FOR OTHERWISE UNOBTAINABLE REPRINTS.



HAVE HI-FI CHOICE DELIVERED TO YOUR DOOR EVERY MONTH!  
SUBSCRIPTION RATES START AT JUST £14.97  
— SEE PAGE 28 FOR DETAILS! —

THE BEST BUYS 1998 EDITION OF  
*HI-FI CHOICE* WILL BE ON SALE THURSDAY  
NOVEMBER 19, 1998. DON'T MISS IT!

# DAVID VIVIAN



Where is the crossroads of science and magic? You'd be surprised, according to Swiss combo Yello.

quite like Yello. No, not the banana-hued Kimber mains cable marketed by Russ Andrews, but those synth-wielding cosmic nut balls from Switzerland, Dieter Meier and Boris Blank. Admit it, *The Race* is a truly great hi-fi demo track, and the one that goes "Oh Yeaahhh" in a ridiculously deep voice isn't bad, either. BADA should give them an award for lifetime services to hi-fi retailing — a gong for the guys who make NAD sound like Naim, Kenwood sound like Krell.

But last year Yello released a wreck of a CD called *Pocket Universe*. No decent tunes, a depressing absence of funk, synth layering so dense it had congealed. I don't mind stylish rubbish, but this was plain poor.

Obviously I hadn't listened carefully enough, though. Because *Pocket Universe* is a high-concept album dealing with mankind's place in the cosmos. All that slow, portentous synth noodling and rumbling was meant to inspire awe at the fathomless size of the great beyond and our utter insignificance in the general scheme of things.

The denouement becomes clearer during the track *Resistor* which I hadn't managed to last out the first couple of times. Encouragingly, music is part of Yello's take on the meaning of life as intoned by this track. "Music," Dieter Meier moans, "is an interstellar language. The magic of music is a sign of consciousness that can be understood on far-flung worlds."

So far so good. But then he attempts to de-bunk science and replace it with "magic". He starts with Rupert Shell Drake's observation that scientists' attitudes towards

their experiments influences the results of those experiments. Is he sure that wasn't Uri Geller? Arthur C Clarke is cited as once having said that "any sufficiently advanced technology is indistinguishable from magic". Meier concludes from this that, as we approach the third millennium, scientists have had to admit that "the universe is magic".

That's it, then: Dieter Meier is a wacko. Until you realise that what he's talking about is hi-fi. Stands to reason. Yello's interest in sound quality must have brought them into contact with the fringes of the hi-fi industry many times. There they'll have encountered things far stranger than the big bang, quasars and

- Relees your CDs from static attack.
- Blank and Meier get *The Race* going.



Russ doesn't require your belief, just your money. How refreshing. His latest magic potion, called Relees, will set you back £20. It seems a lot for what looks like a small bottle of odourless, non-toxic clear liquid contained in a black, plastic spray mechanism. What it's made of is secret. What it's meant to do is kill the static charge that harms the performance of CDs, DVDs, cassettes and video tape. Take a CD. Spray the label side of the disc, the transport tray and, for good measure, the inside of the CD box. Then wipe the residue off

with a soft cloth. Now play the CD and, according to Russ, you'll hear deeper bass, lower distortion and a more three-dimensional soundstage. The treatment lasts for three months, then just zap it again. This is far less fiddly than the last anti-static CD product, the Statmat from Ringmat Developments (placed between disc and tray) and, claims Russ, about 10 times more effective.

He gets away with it, of course, because it works. Brilliantly. Statmat was good but Relees is better. It does everything he says; it's like upgrading to a better CD player. But then Russ Andrews has got accessories sussed. That's why Relees will walk off the shelves. Magic? No. I sprayed it on the Yello CD. It was still one of the worst albums in the universe.

Russ Andrews Accessories Ltd  
☎ (01539) 823247

Y E L L O · F L A G

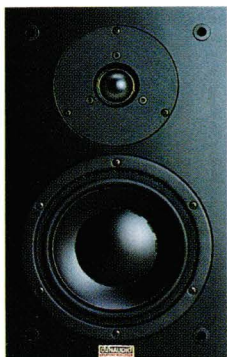


## HIGHLIGHTS OF NEXT MONTH'S ISSUE ...

### BEST BUY FRENZY

Next month *Hi-Fi Choice* takes a break from the usual format in order to produce our annual Best Buy guide. This compendium of all the Best Buy and Recommended products from 1998 is everything the enthusiast should need to shortlist components for a first class system.

Basically we bring you the cream of 1998's crop, and it



was a bumper harvest. Incorporating group test reviews, system tests, statements/high end reviews and EISA winners you won't find a more comprehensive assembly of the year's best gear.

### ALL THIS AND MUCH, MUCH MORE!

Carefully reviewed for your entertainment we have: 20 CD players, 15 amplifiers, three mini systems, six personal stereos, four tuners, four DVD players, five recorders, seven

equipment supports, 35 loudspeakers, three subwoofers, 13 cables and five cartridges.

### NO MORE CROSS REFERENCING

If you want to buy a fine example of any of the above you won't find a better guide to making the right choice, the *Hi-Fi Choice*.



# Wall To Wall Magic



## The Ultimate in Custom Audio/Visual Installation



You think you know your favourite movie. Think Again.

Nothing you have experienced can prepare you for the definitive sight and sound of a Kamla demonstration.



In the hands of our experts, many of the World's most exclusive audio-visual designs combine to deliver the most compelling surround-sound magic in air-conditioned comfort. Unforgettable.



Boston Acoustics

Since the introduction of surround-sound for the home, Kamla has led the way in custom installation, lighting, multi-room and everything audio-visual.



0% finance available, see our Web-site for more details.



251 Tottenham Court Road, London W1.  
Tel: 0171 323 2747. Fax: 0171 637 2690.

Web: <http://www.kamla.com> e-mail: [hifi-info@kamla.com](mailto:hifi-info@kamla.com)

B&W, Boston, Citation, Crestron, Definitive Technology, Genesis, Harman/Kardon, JBL, Kenwood, Lexicon, Lutron, Onkyo, Panasonic, Pioneer, REL, Runco, Sony, Toshiba, Vidikron and more...

*From dream...*

*...to reality*



The Nautilus™ is an acoustic engineer's dream. Its radical cabinet technology and hallmark spiral have reshaped the audio landscape.

Literally. For the B&W Nautilus™ loudspeaker sounds like no other. Its performance can only be coloured by cables or external source equipment. It is hailed the best loudspeaker money can buy.

B&W's Nautilus™801 fuses the innovative Nautilus™ tube technology with a series of industry firsts: Fixed Suspension Transducer™, Kevlar® drive units, Matrix® cabinet bracing and Flowport™ technology. The result is an unprecedented purity of sound. The reason EMI's Abbey Road studios, along with best in the recording industry, are now upgrading to the Nautilus™801. Listen and you'll see – at your nearest authorised Nautilus™ 800 Series dealer. For more info contact B&W: 01903 750 750 or visit our website <http://www.bwspeakers.com>

**B&W**

LISTEN AND YOU'LL SEE