FROM VINYL TO SACD » PINK FLOYD'S 'DARK SIDE' TRIP

THE FINEST HI-FI MAGAZINE IN THE WORLD | www.hifichoice.co.uk | june 2003

(AA

on (No Lock)

An

0

Ferguson Hill's outrageous horn speaker **>** 

Brilliant multichannel sound from Enlightened Audio Designs

Models from Creek,

THE ULTIMATE GUIDE TO HIGH PERFORMANCE HI-FI AND AV

Cyrus, Rega and Unison

**EXCLUSIVES** 

**GROUP TEST** 

DVD PLAYERS

ić.

TEREO SPEAKER

🧶 🔝 😫

Best Buys from £800 to £1,300

In-depth guide: is now the time to go digital?

000

DAB & FM tuners tested

£3.60

Portable radios rated

## > RELEASED



## **B&W** Bowers & Wilkins



The magic of sound I'm me again

Listen and you'll see



www.listenandyoullsee.com

To hear B&W loudspeakers and find your nearest retailer, please call 01903 221 500 or visit our website.

# M dis 0 0 00 SHOL

#### WHAT HI + FI?

Harman Kardon AVR 8500 & DVD 25 reviewed February 2003 and March 2003 respectively

Harman Kardon brings professional sound to your home. AV receivers and DVD players lead a world class line-up of quality hi-fi and audio-visual separates that bring out the best in music and movies, whatever your tastes. In short, you experience more. harman/kardon<sup>®</sup> Power for the Digital Revolution.™

Harman Kardon is one of nineteen Harman International companies, all at the forefront of sound recording and reproduction. From music studios to tour and stadium sound, film post-production to cinema and multimedia to car audio, no one has more experience.

In short, you experience more. H A Harman International Company to car audio, no one has more experience. Harman Consumer UK, Harman International Industries Limited, 6 Elstree Gate, Elstree Way, Borehamwood, Hertfordshire WD6 1JD. Phone 020 8731 4670 for your nearest dealer or visit www.harman.com

## **HI-FICHOICE**

#### JUNE 2003 ISSUE 242

Future Publishing Ltd, 99 Baker Street, London W1U 6FP Tel: +44 020 7317 2600 Fax: +44 020 7317 2686

#### EDITORIAL

Tim Bowern **editor** tim.bowern@futurenet.co.uk Dan George **reviews editor** dan.george@futurenet.co.uk Howard Malone **art editor** howard.malone@futurenet.co.uk

#### CONTRIBUTORS

Richard Black, Faz Choudhury, Jim Findlay, Del Gentleman, Alvin Gold, Jimmy Hughes, Jason Kennedy, Magic Torch, Shaun Marin, Paul Messenger, Paul Miller, Dave Oliver, Mark Prendergast, Alan Sircom, David Vivian, Nigel Williamson

> PHOTOGRAPHY Chris Foster

#### ADVERTISING

Debbie Maclaren **head of sales** 020 7317 2637 debbie maclaren@futurenet.ou.k Richard Bennett **deputy advertising manager** 020 7317 2684 richard bennett@futurenet.ou.k Richard Dappiano **senior sales exec** 020 7317 2629 richard dappiano@futurenet.ou.k Matt Dalton **senior sales exec** 020 7317 2622 mattdalton@futurenet.ou.k Eloise Simpson **classified sales exec** 020 7317 2429 eloise simpson@futurenet.ou.k Adam Porte **classified sales exec** 020 7317 2656 adam.porte@futurenet.ou.k

#### HFC ONLINE

Lucy Price-Lewis online editor lucy.price-lewis@futurenet.co.uk Mark Phillips online advertising manager 020 7317 0230 mark.phillips@futurenet.co.uk

SUBSCRIPTIONS +44 (O) 870 444 8650 Prices (13 issues): UK £29.97, Europe £43, North America £49.99, rest of the world £62

BACK ISSUES +44 (0) 870 444 8650 Prices: UK £4 per issue, overseas £6.95 per issue

MARKETING & LICENSING Philippa Montgomery marketing manager philippa.montgomery@futurenet.co.uk Simon Wear licensing manager simon wear@futurenet.co.uk Colin Polis commercial buyer

PUBLISHING

Simon Maxwell publisher simon.maxwell@futurenet.co.uk Andy Sutcliffe editorial director Robert Price publishing director John Bowman group finance director Colin Morrison chief operating officer and managing director, UK

PRODUCTION & DISTRIBUTION Matt Gregory production manager Craig Broadbridge senior production controller Rob Brock circulation manager

All contents © Future Publishing Ltd 2003. No part of this publication may be reproduced in any form without the express permission of the publisher. While we make every effort to ensure that everything we print in *Hi-Fi Choice* is factually correct, we cannot be held responsible if factual errors occur. Advertisements are accepted by us in good faith as correct at the time of going to press



Future Publishing is part of The Future Network plc. The Future Network produces carefully targeted specialist magazines and websites for groups of people who share a passion We arm to satisfy their passion by creating titles that offer supers value for money, trustworthy information, multiple ways to save time and money, and are a pleasure to read or visit. Today we publish more than 80 magazines and over 30 magazine websites and networks from offices in five countries. The company also licenses 32 of its titles resulting in over 150 local editions in 23 diter countries. The future Network plc is a public company quoted on the London Stock Exchange (symbol: FNET) Tel: +44 1225 442244 www.the futurenetwork.plc.uk Bath • London • Minan • New York • Paris • San Francisco. • Worclaw

#### CONTRIBUTORS

To make sure you get the best advice, *Hi-Fi Choice* employs the most talented and experienced writers in the business.



Jason previously edited Hi-Fi Choice, but can now be found swanning about the wilds of Sussex indulging himself with the very best hi-Fi money can buy. His own system is simply sensational (trust us) and his ove of music knows no bounds



A former editor of *HiFi Choice*, Paul has been writing about his beloved hiFi hobby for some 26 years. In that time he has become one of the world's most respected sonic scribes and probably the UK's foremost loudspeaker reviewer. He also writes for respected US hi-fi journal Stereophile.



#### PAUL MILLER

Science officer Miller is hi-fi's undisputed king of lab testing. He employs his own specially designed equipment to pull apart every measurable parameter and explain its effect on a product's performance.



Alvin cut his hi-fi teeth in the retail trade, and has now been writing about his obsession for more than 20 years. In that time he has contributed to almost every hi-fi periodical you can think of (and several more besides). Few can match his encyclopedic knowledge of all things audio.



RICHARD BLACK Richard is one talented guy: a professional musician, experienced recording engineer and a highly knowledgeable hifi enthusiast to boot. He's particularly nerdy about cables It's probably Freudian. uggles got it wrong. 24 years on and the prophetic popsters' proclamation has failed to materialise – video, it seems, has yet to kill the radio star, though not for want of trying. Movies and telly are the nation's favourite 'pop' media, MTV has infected a generation's musical diet and what hits the eyes is now more commercially important than what fills the ears.

Yet demand for audio-only broadcasts remains, despite the kicking it's received from video. Sometimes, all you want is sound, whether to fill in the background or engage the mind. And with DAB grabbing a few mainstream column inches, it seems radio still has an important place within today's crowded home entertainment agenda.

DAB hasn't been greeted with unreserved glee in audiophile circles, largely because maximum sound quality is being sacrificed to squeeze in more stations. Yet the system offers inherent advantages over FM, and for those who regularly tune in to MW stations like *Radio 5 Live* its qualities are all but messianic. As the arguments rage, radio remains the most accessible place to hear new music and the most cost-effective way for broadcasters to target specific tastes and demographics. And DAB has at least given its profile a fair-sized kick.

This issue includes a special report (p32) on radio as well as reviews of tuners and portables. We also

trace the history of Pink Floyd's Dark Side Of The Moon, which helped shape the UK hi-fi industry in the 1970s and is now on SACD – not to mention our usual cocktail of news, reviews and opinion. Turn on, tune in...



### Star products in this issue



42 REGA RADIO 3 Top-notch FM/MW tuner



50 JMLAB COBALT 816 SIG Floorstander of distinction



28 EAD MULTICHANNEL High-spec AV system



62 UNISON UNICO Pre/power amp combo



## JUNE 2003 ISSUE 242 CONTENTS HI-FI**CHOICE**

### **PRODUCT REVIEWS**

- **INCOMING** NEW GEAR 16
- Tannoy Sensys DC2 loudspeaker Ecosse 'The Baton' interconnect 16 17
- Creek A50iR stereo amp 19
- Rega Mira 3 stereo amp 20
- AAD S-1 loudspeaker 21

#### **IN-DEPTH** SOLO TEST 28

EAD DVDMaster/TheaterMaster/PowerMaster multichannel AV system

#### 36 **GROUP TEST**

- RADIO TUNERS £130-£600
- 38 Acoustic Solutions SP110
- 39 Cambridge Audio DAB300
- 40 Marantz ST-17
- 41 Pure Digital DRX-702ES
- Rega Radio 3 42
- Rotel RT-02 43

#### 46 **ROUND-UP** PORTABLE RADIOS

- Ministry Of Sound MOSDR011 46
- 46 Perstel DR201 46
- Pure Evoke-1 Elgar Roberts Revival
- 47 Roberts Romano 47
- Tivoli PAL 47

#### **GROUP TEST** 48

#### STEREO SPEAKERS

- £800-£1,300
- JMlab Cobalt 816 Signature S 50
- 51 Mission 782SE
- 52 Monitor Audio Silver S10
- 53 **Revolver R45**
- 54 Spendor S3/5se Triangle Zays 222 55

#### 58 **STATEMENTS**

- **HIGH-END TESTS**
- Ferguson Hill FH001 loudspeaker 58
- 62 Unison Research Unico preamp &
- Unico DM power amp
- 65 Linn Akiva moving coil phono cartridge 66
- Cyrus Pre X preamp & Mono X power amps ProAc Response Hexa sub/sat system 70
- **NEWS & FEATURES AUDIO FILE**

NEWS AND VIEWS Insight from hi-fi's cutting edge

23 **CHOICE CUTS** SOFTWARE New and recent releases, rated for sound and content





- **MUSIC FEATURE** 24 DARK SIDE OF THE MOON From vinyl to high-res surround - 30 years of Pink Floyd's greatest opus
- **TECHNOLOGY FEATURE** 32 THE STATE OF RADIO DAB versus FM and the future of UK radio. HFC investigates...
- 73 **RETRO** HI-FI REVISITED Musical Fidelity A1 – a lovably idiosyncratic amp from the eighties
- 75 MUSO CLASSIC ALBUMS Marvin Gave's new definition of soul with What's Going On
- 77 **DIGITALIA** DIGITAL TECH Solid state media - the way forward?
- **138 HI-FI EXTREME** David Vivian on Zen and the art of the stylus

#### **READER SERVICES**

Our regular information service, including where to buy, how to get a back issue and second-hand kit for sale How to Subscribe

- 79 Reader Classified 80
- 123 Glossary
- Dealer Guide 124

confidence

- Dealer Directory 132
- Back Issues/Next Month 135

#### **STAR RATINGS**

#### EXCEPTIONAL VERY GOOD $\star \star \star \star$ $\star \star \star$ AVERAGE SOMETHING LACKING $\star \star$ $\star$ RUBBISH AWARD BADGES **HI-FICHOICE** HI-FICHOIC HI-FICHOIC Best Buy The Hi-Fi Choice Awarded to Products in the Best Buy badge is outstanding products Statements and only awarded to in our Group Tests In-Depth sections products found to that may not offer that really blow us offer exceptional such exceptional away are eligible for performance and value-for-money as a a special Award Best Buy, or may not badge. The coveted value for money in an HFC Group be suitable for Editor's Choice Test. Buy this kit everyone, but still Award is reserved for with absolute turn in a convincing high-end products of

exceptional quality. For 28 years, our unique tests have brought you the most accurate guide to buying hi-fi. Our mix of thorough Group Tests and in-depth solo reviews ensures HFC is the magazine to trust.

performance

## **COVER HIGHLIGHTS**

#### 58 FERGUSON HILL FH001



**GROUP TEST: LOUDSPEAKERS** 

#### EAD AV SYSTEM 28 **NEL COMPONENTS**



#### **SPECIAL REPORT: RADIO**







## **83 BUYER'S BIBLE**

The ultimate guide to high performance hi-fi and AV - our favourite products for vour perusal. Your shortlist starts here...



#### SOURCE COMPONENTS

- 84 CD players DVD players 88
- Vinyl
- Radio tuners
- Digital recorders

#### AMPLIFIERS

104 Stereo amps 106 AV amps

#### LOUDSPEAKERS

110 Stereo speakers 114 AV speaker packages

#### **ANCILLARIES**

117 Headphones Cables

Stands and supports

# PRODUCT NEWS



## **DVD-AUDIO GOES SUB £200** CAMBRIDGE HIGH-RES SURROUND PRICE SHOCKER

Cambridge Audio has entered the world of high-resolution multichannel audio with a DVD-Audio/Video player for just £200. The new 50 series contains three new DVD players, the first from Cambridge to offer features such as progressive scan video and chipsets from respected manufacturer Crystal. The flagship £200 DVD57 offers

five-channel 24-bit/96kHz DVD-Audio playback, rising to 24-bit/192kHz with suitably-encoded two-channel recordings, together with progressive scan for both PAL and NTSC discs. The remaining 50 series players are the DVD55, a £150 machine without DVD-A playback and the stripped-down £120 DVD53. The 50 series will be completed by the

The 50 series will be completed by the

AVR57 AV receiver later this year. Powered by a digital amplifier offering 50 watts across all five channels, the AVR57 will also boast Dolby Digital and DTS decoding and have a 30-preset FM/MW RDS tuner. All components will be available exclusively through Richer Sounds. Richer Sounds 0870 900 1000 Www.cambridgeaudio.com



### TEAC TUNES IN COMPACT DAB & AM/FM TUNER

TEAC's new T-H300 DAB radio tuner is a mini-sized unit sporting both DAB and FM/AM reception. Priced at £220, it's the latest introduction to the Reference Series 300 range of mini components, hence its compact dimension (WxHxD: 93x21x30cm), though TEAC reckons it'll be equally at home in any system. Further specifications include a scrolling dot-matrix display, remote control and two digital audio outputs – optical and coaxial. DAB stations can be selected by station name and accessed via the front-mounted rotary dial. The T-H300 DAB includes Band III reception to cover all current UK DAB broadcasts and is available in the shops from August.

## BEAT BOX NEW CD PLAYER FROM DENSEN

Danish manufacturer Densen's new CD player will soon be winging its way to the UK's 30-odd Densen dealers. The B-400 Plus is crafted from extruded aluminium with military-spec components inside and is claimed to offer improved rhythm and timing over its predecessor, the B-400, along with virtually immeasurable jitter. Other features include the '24-bit Plus' DAC, a custom-made transport and a software-upgradable board. It's available for £1,350 (black) or £1,450 (albino). Densen 0045 75 181 214 @ www.densen.dk



## FINAL'S COUNTDOWN

The countdown has started for delivery of a new electrostatic speaker destined to reach the UK soon from Dutch manufacturer the Final Sound Corporation. The Model 700 is a full range electrostatic panel and is one of two designs in the flagship Professional range. With a height of 186cm yet only a small footprint, the Model 700 can be wall-mounted if required for further flexibility.

KER	
KEY FEATURES Full-range electrostatic technology	
Featherweight Mylar diaphragm	
Ultra-thin, lightweight design	
<ul> <li>Floorstanding or wall-mounted</li> </ul>	
● Includes the Final Central Unit for modular system flexibility	



## ATC GETS FLOORED NEW SCM FLOORSTANDING SPEAKER

ATC's latest 'two-man lift' loudspeaker to roll off the Stroud production line is the SCM35, a large three-way speaker that takes its name from the 35-litre enclosure it's built around. Features include a soft dome tweeter that extends beyond 20kHz, ATC's highly regarded 75mm super-dome transducer for the midrange and a brand new 200mm bass driver. The SCM35 is also said to use a heavy-duty crossover and is tri-wire ready.

Priced at £2,000 a pair, the speakers come supplied with nonresonant plinths and are available in cherry wood veneer with other veneers available to order. A six-year guarantee is also offered. ATC 01285 760561 
www.atc.gb.net

#### DARK SIDE OF MARANTZ NEW ECLIPSE SYSTEM GOES DVD

Marantz's little Eclipse system from the Style Series range has gone multichannel. New for this year is the Eclipse '36, a compact system comprising a DVD player/ tuner and a 5.1 channel amp that offers 50 watts of power and a good range of decoding formats including Dolby Digital and DTS 5.1. In addition, any two-channel source can be played in 5.1 surround using Dolby Pro Logic II decoding. Eclipse systems have a motorised front panel that opens to expose the fascia controls and can be closed to offer an arguably more stylish and discreet look. The Eclipse '36 can be yours for £700 and will run concurrently with the **CD**-based stereo version. Marantz UK 01753 680868 www.marantz.co.uk



## audiofile ⊗ product news

## Soundbites

**DEZOREL** makes high-quality power filters and its range is to be distributed in the UK by Ecosse. Claimed to be "the world's best precision filters," these products are the only power filters to offer an AC mains ground filtering option in a system. The range starts with the Powerstation One (P1) that can handle up to 2,400 watts and is priced at £550. A custom build service is available and you can expect a top of the range filter to set you back around £2,300. www.dezorel.co.uk

TIVOLI users could benefit from increased dynamic range and a more natural sound courtesy of a new Russ Andrews power supply. The PowerPack is a 12V DC power supply designed to replace the internal version on the range of Tivoli radios. Two types are available – the PowerPack 1 features a superior switch-mode power supply with standard cable and the PowerPack 2 gains a Kimber link cable. Prices are £40 and £60 respectively, including free delivery. ① 01539 825500

SENNHEISER has a new headphone aimed at the pro market that is extremely durable and benefits from full acoustic isolation. Priced at £100, the new HD280 also boasts replaceable parts and has a folding design with rotating earpieces. The unit strips down for servicing and comes with a two-year guarantee, even for pro users. A full 38dB of isolation is provided, giving a 102dB sensitivity rating. 20 0800 652 5002

ISOTEK's latest mains conditioning component comes in the shape of the Mini Sub, a £500 unit that offers six individually filtered outlets that are specifically tailored for source, digital and amplifier components. The Mini Sub is constructed entirely from non-magnetic materials and comes with a 25-year guarantee. ☎ 01635 291357

LINN's latest version of the Classik Movie system is claimed to offer superior surround sound playback of external analogue and digital sources due to a powerful processor platform developed from the Unidisk 1.1 universal disc player. The Classik Movie Di has two digital audio inputs for use with external sources as well as composite video, S-video and component in/outs. 20 0141 307 7777

## **audiofile** S PRODUCT NEWS

## Soundbites

#### TAG MCLAREN has made

improvements to its F1 Avantgarde speaker series through the use of a Wideband tweeter. The range now extends beyond 40kHz thanks to a new drive unit from Danish specialist Vifa. TAG McLaren claims the improved linearity offered by the new tweeter affects the audible band in both frequency and time domains, giving much improved sound. Prices start at £10,000. ☎ 01480 415600

NORDOST has a new cable suitable for high-end video applications. The new CinemaFlex 14/2 interconnect consists of twin 19-strand conductors that are silver plated before being wrapped in Teflon, twisted and shielded in PVC alloy. The design is said to give low capacitance and inductance, resulting in low signal loss. It's available in three set lengths with prices starting at £23 for a 0.6m mono run. 20 01352 730251

SONANCE describes itself as "the market leader in architectural audio." It also calls its new Ellipse 1.0 LCR inceiling speaker speaker "revolutionary." The speaker has an elliptical footprint and an angled baffle that gives the user a degree of directionality when considering placement. Treble is handled by a 13mm soft dome tweeter, with a 165mm glass composite driver for bass/midrange. Expect to pay £350 per speaker. ☎ 01284-701101

#### **Hi-Fi diary**

#### MAY/JUNE 29-1 High

- High End Show Frankfurt, Germany + 49 202 702022 or email paxa@highendsociety.de One of Europe's best-known high-end hi-fi events
- 24-26 CEDIA UK Expo

Brighton, 01462 627377 Annual showcase for the custom install brigade

#### AUGUST

29-1 IFA Berlin 2003 Berlin, Germany 020 7886 3103 Europe's largest consumer electronics expo

#### SEPTEMBER

26-28 HiFi Show & AV Expo Heathrow, London 020 8774 0847 London's best established hi-fi show

26-28 What Hi-Fi? Sound and Vision Show, London New London event for 2003



## KILO ON THE LOOSE MUSICAL FIDELITY KW PREAMP UNLEASHED

As a perfect partner to Musical Fidelity's kW (kilowatt) power amp, the Wembley outfit has unveiled the Tri-Vista kWP preamp, an equally extravagant creation that's also limited to 75 units. The design objectives of the preamp included adding one of the best phono stages available and giving "a ridiculously massive overload margin". As you might expect, the Tri-Vista kWP isn't cheap – £7,500 – but for that you get state of the art PCBs (one per channel), a separate power supply, low noise output impedance and an MM/MC phono stage with switchable impedance. In true Tri-Vista style the kWP has feet that light up and change colour to signify warm up. And naturally, Musical Fidelity claims that it will outperform all of the competition.



#### FINGER ON THE PULSE SPEAKERS FROM ALLAN HENDRY

Specialist privateer speaker manufacturer Allan Hendry has announced details of his latest project – five new loudspeakers called Monopulse, available from a small number of dealers across the UK. Hendry uses bought-in drivers integrated into his own MDF cabinets enclosed all around with steel plate giving a high mass and greater damping properties.

The range starts with the petite model 22, a tenlitre enclosure with a 143mm Audax driver giving a claimed 88dB sensitivity for a cost of £595. The flagship 42H (£895 from a dealer or £1,300 to custom order) boasts 90dB sensitivity from its Danish Peerless drivers.

☎ Monopulse 01590 623543⊕ www.monopulse.co.uk

#### ANOTHER BRICK IN THE WALL NEW MERIDIAN IN-WALL SPEAKERS

The increasing popularity of upmarket multi-room audio has prompted Meridian to release a DSP-equipped in-wall speaker. The DSP420 is an active model complete with onboard amplification for greater control and it's fully digital – the signal remains in the digital domain until arrival at the on-board amp. Meridian's DSP technology uses a Motorola DSP engine on a six-layer PCB to offer features such as position control to compensate for speaker location, a buffer to minimise jitter and a phase-corrected balance/listener-position setting. Cost is £1,265 each, plus £150 for installation. Meridian Audio 01480 445678 www.meridian-audio.com



# HI PURITY-OFC BALANCED INTERCONNECT CABLE www.ecossecables.co. a revolutionary cable AT AN EVEN MORE REVOLUTIONARY PRICE

ECOSSE "THE BATON" PREMIER PLUS OPTIMIZED

cossecables.co.uk

**ERENCE CABI** 

class Fro

TERCONNECT

🗱 The Baton is available either in 'pseudo-balanced RCA' or 'fully balanced XLR' form 🗴 🐝 Never before has an interconnect of this quality and construction been available at this price level 🛫 🗱 The Baton uses several sub-topologies synergised in one cable resulting in a quite unique structure 🖈 \* Deep silver-plated Ultra Hi Purity-OFC™ conductors are helically wound around a polymer core, forming a cylinder \* 🌣 The two conductors are held in precise formation by our unique and patented Isohelix™ clamp mechanism - necessary to critically maintain the electrical characteristics of this device 🖈 ☆ Triple continuous shielding/drain wire-ensures complete electrical and mechanical isolation from the elements 💥 🛠 The pin joints throughout utilise Ecosse's new, improved low resistance, high strength lead-free Supersolder 🕷 🛠 ...and the price? An astonishing £80/0.8m RCA pair

SILVER PLATED ULTRA HI PURITY-OFC BALANO

ECOSSE "THE BATO



Guaranteed to improve your system - or your money back call us now 0141 353 0509 www.ecossecables.co.uk e-mail info@ecossecables.co.uk

# © INDUSTRY & TECHNOLOGY NEWS

## **RECOTON COLLAPSES**

The Recoton Corporation has filed for bankruptcy. Having sold the NHT loudspeaker brand to Rockford in January the Recoton group was still a major player in the international loudspeaker industry, with brands such as Acoustic Research (AR), Heco, Jensen, Magnat and Advent in its portfolio. The corporation is filing for Chapter 11 bankruptcy which will allow it to sell off its assets in order to offset some of the debt that has undermined it.



Founded in 1936, Recoton blames several years of losses and an unsuccessful venture into gaming accessories for its problems which began to manifest themselves with a near halving of its workforce last summer. Fortunately for the hi-fi community there has been plenty of interest expressed in the various brands on the roster.

## **BRAVE NEW 'RAY**

The first Blu-ray high definition video recorder has been launched by Sony in Japan. The BDZ-S77 costs ¥480,000 (£2,500), though Europe will have to wait until Christmas at the earliest.

Utilising blue laser technology in place of the red lasers used by current formats, Blu-ray has the backing of nine of the biggest players in the AV industry, all of whom hope it will become the next-generation optical disc format. It offers much higher recording capacity than standard DVD at 27GB per side and supports a high-speed data transfer rate of 36Mbps. It has been designed to take advantage of HDTV, the high-definition broadcast format that's available



in Japan and the US. Whether it will also be used to create a new highres audio format remains to be seen.

## **PROVINSON?**

Madrigal is to merge the Proceed and Mark Levinson brands. The effect will be the removal of the AV-oriented Proceed name from its roster and a reduction in the breadth of components. Some existing Proceed models will become ML products, including the AVP2+6

processor, CVP2 component-video processor and HPA2/HPA3 amps.

Madrigal will produce the current Proceed line until the changeover in autumn, though existing Proceed kit will continue to be supported.







## APPLE BIDS FOR UNIVERSAL?

The computer firm Apple has allegedly made a \$6 billion bid for Universal Music. Apple already has a licence to sell Universal's massive catalogue via its online subscription service, but if true (there's no official confirmation as we go to press) the move would see it attempting to control one of the biggest music labels on the planet. Apple CEO Steve Jobs is hoping to revive flagging profits by investing in the music industry at a point where he believes that online music sales are on the verge of profitability. With the rise of anti-piracy measures it is getting harder to "rip, mix, burn" as Apple's ads suggested last year. By offering a competitively priced alternative to file sharing (as low as ten cents per track), Jobs hopes to transform the nature of online music distribution.



## **TRI-PLANAR DESIGNER DIES**

Herb Papier, inventor of one of the world's finest tonearms, the Wheaton Triplanar, has died at the age of 86. Amateur musician and engineer Papier developed his remarkable tonearm in the late seventies while running a music store in Wheaton, Maryland. A tangential design with VTA that can be adjusted as the record plays, the Tri-Planar was initially made from balsa wood but went into small scale production in aluminium.

Papier built the arms in his basement until failing health forced him to sell the company three years ago. New owner, Dung Tri-Mai of Minneapolis, has refined the design and is currently building a MkVI version called solely Tri-Planar. Eltax Sovereign 5-pack System/DR-110/Atomic Sub A-8





## Lights! Camera! Eltax!

The room is dark. The popcorn is close at hand. Your senses spin as the sound effects boom all around you and the big screen lights up. Quickly you're lost in movie magic as your Eltax home cinema solution takes you to worlds unknown.

Each Eltax home cinema solution combines over 40 years experience within sound of reproduction with the digital technologies of today. Experience the whistling wind whirl around you as you're immersed in a frightening horror classic, brought to life by six stunning Eltax speakers and the DR-110 DVD Receiver.



The DR-110 DVD-Receiver serves all your movie needs, delivering razor-sharp images and crystalclear sound to your entire system. 300 watts of digital amplification power the five dramatic Sovereign loudspeakers, and the dedicated subwoofer output pumps lowfrequency bass effects to the powerful Atomic A-8 Active subwoofer. (eltax)

Fashionably attired in natural aluminium, silver and black, your Eltax home cinema package is suitable for all the glamour and glitter of Tinseltown. Add flexible placement options and brilliant Eltax performance, and you've got a solution that's hard to pass up.

Eltax home cinema: where great sound and great pictures are yours at a great price.

0 0 0

# **BEATS'N'PIECES**

#### TIME MACHINE FIVE YEARS AGO

Hi-Fi Choice June 1998

HFC broke the story of Philips' £500 CDR880 CD recorder with an exclusive appraisal. It followed our review of Philips' first CD-R/RW recorder, the CDR870 in

which we discovered significant jitter-related problems. The '880 was a direct response to these criticisms and we were pleased to declare a clean bill of health. Elsewhere, die-hard *HFC* contributor Phil Strongman attempted to sell the virtues of mono sound and our budget speaker Group Test made overnight heroes of the new Mission 700 and Tannov Mercury M1.

#### **TEN YEARS AGO** Hi-Fi Choice June 1993

Remember Quad's 67 CD player? £800 of cutting



edge CD with only a power and eject button on the front panel, so losing the remote was not an option. Minimalism gone mad, but that's marketing for you – these days

buttons are back in vogue. Simple Minds drummer Mel Gaynor let *HFC* poke around his home studio and grill him about the band's recording techniques. And who could forget the Accuphase DP-90/DC-91 CD player? State of the art technology and style for £14K – an unusually costly foray into CD's high end.

### **SYSTEM BUILDER** EACH MONTH, WE PICK A FAVOURITE DISC AND BUILD A SYSTEM TO SHOW IT AT ITS BEST



#### PAUL WELLER Wild Wood Island

In September 1993, Paul Weller followed up his eponymous solo debut from the previous year with a stronger, more considered collection of electro-acoustic work that distanced him still further from the post-Jam Style Council and created the mould for many successful albums to come. Reaching number two in the UK, Wild Wood marked his belated return to the charts with the acoustic title track in particular making its mark with Weller fans past and present. For Weller novices this is a good place to start - a finer collection of tight, melodic and rhythmic rock you're unlikely to find. Like many of the great man's albums however, it sounds strangely bloated and benefits from a tight system that can keep the bass in check, while letting the rhythm flow through and allowing the busy percussion to shine.



#### CD PLAYER Creek CD50 £699

The new Creek lends itself particularly well to spot-on timing. Sporting up to the minute electronics, including a 24-bit DAC, Creek's latest will dig out Weller's well plucked strings and hang on to the prominent groove.

#### SPEAKERS PMC DB1 £550

An immensely capable box with superior balance and fine overall neutrality. Its dynamic ability is impressive and it sounds much bigger than it looks, with clean and agile bass that'll help keep the disc's bloated bloom in check. To be sure, few small speakers rock so well.





#### Naim Nait 5 £825

It says 30 watts on the tin but it goes noticeably further. The Nait 5 will encourage the CD50 to bring out better boogie than a boozy Brighton hen weekend and will feed the DB1s with a current that's tighter than a student in Richer Sounds.



#### **BOOK OF THE MONTH**

#### **Miller's Collecting Vinyl**

#### By John Stanley

Miller's Publishing £12.99 If you're someone who has a stack of vinyl of questionable worth, or you know a rookie record collector eager to expand their knowledge, *Miller's Collecting Vinyl* is a bargain for the price of a CD. Its unique in its coverage of musical genres combined with practical and valuable collecting information. Unlike the hefty and expensive price-check bible from *Record Collector*, Miller's guide is a much more accessible and entertaining read that you can take with you to fairs and shops. The layout takes a bit of getting used to and the absence of a comprehensive price guide will deter some, but author John Stanley has created an informative read with a pocket-money price tag.

## audiofile BEATS'N'PIECES

#### **CLASSIC DEMO DISCS** GREAT MUSIC FOR HI-FI AUDITIONS



#### LENNY KRAVITZ Let Love Rule

"A gem of an album from 1989, it has a little bit of everything - guitar ballads, funk, rock, love songs, angry protest songs and even a little neo-hippy optimism. It is recorded the way all music should be not to maximise its effect on the car radio,

but to actually be listened to. The musicianship is excellent (most of the instruments are played by Kravitz himself) and the songs can really draw you in. This album was recommended to me, now I love it, and it will certainly give your hi-fi a good workout." Martin Smith via email

What's your favourite disc for hi-fi auditioning? Why not write in and tell us - 100 words on what and why - we'd love to hear about it. Email your choice to dan.george@futurenet.co.uk or write in to Classic Demo Discs, Hi-Fi Choice, Future Publishing, 99 Baker Street, London W1U 6FP.

#### JIMMY'S TWEAKS #9

#### HANDY HINTS FROM JIMMY HUGHES - HI-FI'S SUPER TWEAKER



#### Talking over the music

Ever noticed how some hi-fi systems sound 'loud' in the aggressive, unpleasant sense of the word, even when played at fairly low volume levels? Some listeners want their music to sound forward and penetrating. But quality reproduction should exude an air of ease and transparency that makes loud

passages sound thrilling and immediate without being overbearing. An easy way to test this is to talk as the music plays. Being able to speak in a normal conversational voice and still be heard clearly over the music, while remaining able to follow what's being played, indicates a quality hi-fi system. The louder you can play things without having to shout to be heard over it, the better the system. Real musicians playing live without amplification in a good hall rarely seem 'loud' - yet the sound has a scale and presence even the best hi-fi struggles to match.

#### ON THE OFFICE STEREO MUSIC THAT AMUSED US WHILE CREATING THIS ISSUE

Pinto/ Cortes City Of God OST **Eels** Shootenanny

Supergrass Supergrass The Donnas Spend The Night Señor Coconut Fiesta Songs RZA The World According To RZA Gonzales Z

Stevie Wonder Hotter Than July Paul Westerberg Mono/Stereo Dandy Warhols Welcome To The Monkey House



## **NEW MUSIC IN THE STUDIO** ARTISTS RECENTLY ABSENT FROM THE CUT AND THRUST OF

SHOWBIZ HYPE DUE TO FINISHING THEIR LATEST ALBUMS



#### FUE Cibelle June

Brazil's Cibelle looks set to follow in the platinum-selling footsteps of her compatriot, Bebel Gilberto. Mixed by the Morcheeba team and released on the same indie label that launched Gilberto (before she was snapped up by Warners), her debut ranges from bossa nova to downtempo electronica with breathtaking effortlessness.

## EAGLE-EYE CHERRY Title: tbc Sept

Eagle-Eye Cherry enjoyed a top ten hit with his first single Save Tonight in 1996. His third album leaves behind some of the singer-songwriter mannerisms in favour of lusher arrangements and a hi-tech production. Titles include Crashing Down, Skull Tattoo and the anthemic Don't Give Up.

#### HN CALE

Undergrounder John Cale releases an freed me up," he says. "It's a method I first used doing film music."

#### LISA LOEB

#### Hello Lisa June

Lisa Loeb's debut 1994 single Stay (I Missed You) was part of the soundtrack to the film, Reality Bites. It earned her a Grammy nomination and a Brit Award and made her the only unsigned artist ever to have a number one single. She returns with an album that combines effervescent pop with lyrical storytelling on 11 original songs co-written with the likes of

Randy Scruggs, Dweezil Zappa and Glen Ballard.



### SUPER FURRY ANIMALS Phantom Power July

Two years after their Mercury Prize short-listed Rings Around The World, the idiosyncratic Furrys are at work on their sixth album with Beastie Boys producer Mario Caldato. Described as having 'more of a home-made feel' than the polished production of their last effort, the album will be accompanied by a feature-length animated DVD.

## ALSO COMING SOON...

Tindersticks Waiting For The Moon (Beggars) June, The Magic Band The Palmdale Sessions (ATP) July, Laura Pausini From The Inside (EastWest) July, Eels Shootenanny (Polydor) June

#### Classical/iazz

Crusaders Rural Renewal (Verve) June, Yo-Yo Ma Obrigado Brazil (Sony Classical) June, Carla Bley Big Band Looking For America (ECM) June, Roisin O'Reilly Love So Kindly (Universal Classics) July

Led Zeppelin DVD June, Once Upon A Time In America June, Marvin Gaye Live In Montreaux July, Miller's Crossing SE July

Five Tracks June As a prelude to his album due in autumn, one-time Velvet EP of sample-based arrangements recorded in London and New York. "Working with the samples really

#### **New Gear**

# **Incoming** First tests of essential new kit from hi-fi's front line

## Tannoy Sensys DC2 speaker £649 per pair ACCUSIVE

Despite its low price, the DC2 is the flagship of the new Tannoy Sensys range. The tall floorstanding Sensys DC2 combines two of the company's favourite buzzphrases – Dual Concentric drive units and Wideband technology. The former is well-known (see box), but Wideband is a newer system designed partly to make the most of the new DVD-Audio and SACD music formats.

At first glance, the DC2 looks like a three-way design, with the tweeter sitting in a pod above the main speaker cabinet, which contains a pair of 175mm bass and midrange drive units with multi-fibre paper pulp cones. In fact, that tweeter pod contains a 25mm titanium dome Wideband super-tweeter. This begins where the regular tweeter (another 25mm titanium dome, this time built into the topmost bass/mid unit) stops and covers the region from around 20kHz up to more than 50kHz.

This super-tweeter might seem superfluous – our hearing has nothing to offer above around 20kHz (if you are a thirty-something-plus male, take that figure down to around 15kHz or less). However, the extended harmonic structure of instruments go far beyond our hearing threshold and the wide bandwidth means you get a more representative impression of instruments. The other advantage is that whether we *hear* or *perceive* metal dome tweeters misbehaving themselves in the 20kHz-30kHz



25mm titanium dome super-tweeter 25mm titanium dome tweeter within 175mm paper-cone bass/mid unit Additional 175mm paper-cone bass unit Suggested 89dB efficiency Claimed 8-ohm impedance Rear ported Bi-wirable Size (WxHxD) 21x96.6x29.3cm Weight: 17kg

KEY FEATURES

Floorstanding

loudspeaker

region, the nasty brightness and ringing is all too noticeable. As the Tannoy design eliminates that ringing (or at least pushes it well into the 50kHz+ region), it sounds smoother than many titanium-domed tweeters. To take full advantage of Tannoy's

Wideband technology you need components that offer a suitably extended bandwidth, such as a DVD-Audio or SACD player and a set or amps that can handle ultrasonic frequencies. Most good modern amps should have no problem there, but the accent as always should be on a partner of genuine hi-fi quality. It's not a difficult speaker to drive either, with an 89dB sensitivity rating, and a nominal impedance claimed at eight ohms but with bass down to 34Hz. The DC2 isn't the prettiest box Tannoy has ever constructed, but its rear-ported design has a functional charm – just don't expect Italianate





# *"The Dual Concentric design has long been popular for its wonderful coherence, the ability to play loud and show off a keen dynamic range."*

curved edges or piano-lacquered birdseye maple veneers. Still, looks aren't everything and as soon as price is taken into account, Tannoy is forgiven for the DC2's utile demeanour.

The Dual Concentric design has long been popular for its wonderful coherence, the ability to play loud and show off a keen dynamic range. No wonder these are used in horn designs and professional monitor systems. But subtlety is often not a strong suit.

Yet this super-tweeter enhanced version is dramatically different. You still get the big, powerful 'nature red in tooth and claw' presentation, but there's a refinement that's never normally a part of the Dual Concentric sonic spectrum. And strangely, this super-tweeter refinement also helps the performance of CDs, despite their lack of ultrasonic response – the super-tweeter works surprisingly well with old and new formats alike.

It needs a powerful amp to really take off, but the DC2 can deliver both big-image Mahler and polite plinkyplonky audiophile Norah Jones sounds. Earlier Tannoy Dual Concentric speakers were more at the Mahler end of the spectrum, but this one covers all areas. What's more, bass appears tighter, better controlled and more rhythmic than a speaker at this price level has any right to. So it can cope with the polyrhythms of Orchestra Baobab and the pounding throb of Leftfield without qualms.

The downsides are small, especially at this price. It's not the most

transparent speaker – it may have a wide and deep soundstage, but the sound is not exceptionally neutral (too breezy a character with an emphasis on the upper ranges for that). Also, those after the smooth sonics of something like a Sonus Faber may not like the relatively forthright sound. But really, it's a tremendous collection of attributes for the money.

Tannoy's recent success at the bottom end of the market has taught the company a lot. Here, it manages to squeeze pretty much the whole quart into a financial pint pot. It's got its rough edges, but the Sensys DC2 is the ideal choice for SACD or DVD-Audio users who lack extra-deep pockets. And CD users shouldn't sniff at the Sensys, either. Tannoy 01236 420199 # www.tannoy.com

#### DUAL CONCENTRIC

Tannoy's Dual Concentric drive unit is no stranger - the design has featured strongly in the company's up-scale conventional and horn-loaded speaker designs for decades. The idea is to place the tweeter in the acoustic centre of the bass/mid unit - in this case the upper of the two main drivers. Aside from cutting down on the number of holes in the cabinet, this configuration improves the directivity and time coherence of the speaker. So it sounds fast and expressive, and relies less on a listening room 'sweet spot'.

#### ★★★★

## **Ecosse The Baton interconnect** £80

Ecosse has made a name for itself as a purveyor of good-value cables, so we're always eager to try new offerings – especially when they're from the upper reaches of the range. This one, advertised as 'Premier Plus' level, is still sensibly priced – but just a glance reveals it as a pretty serious bit of wire. After all, only a true devotee is going to want something this inflexible, which requires a good four inches behind any equipment to curve gently downwards.

The clue to its large size and awkward behaviour lies in the triple shielding applied by Ecosse. Now, some cable manufacturers still happily sell unshielded cable, but there's no denying that the amount of potential interference around is increasing markedly with every bit of electronic equipment sold and it's clear that Ecosse takes this very seriously. Other construction details reveal a similarly painstaking approach – locking phono plugs, high purity copper, low-loss insulation and 'pseudo-balanced' construction.

Worth the trouble, then? On the whole, yes. You might think a chunky cable means chunky bass, but in fact the sound is perhaps most notable for its lightness and agility. Bass is there though, solid and tuneful, but never overstated. If there's a flaw it's an occasional

touch of grain in the upper midrange, which can subtly blur the precision of a stereo image and slightly colour the tone of female vocals. But it's very minor, and hardly intrusive. Altogether, this is a well-balanced cable which offers fine performance at a competitive price. Ecosse 0141 353 0509 # www.ecossecables.co.uk

KEY FEATURES

Pseudo-balanced
construction
(directional)
Colocking
phono plugs
Silver-plated
copper conductors
Aluminised
mylar shields
Moderate
capacitance







X-TUBE<sup>TM</sup> is a genuine breakthrough in loudspeaker cable design, the result of intensive research and development. All 3 models in the X-TUBE<sup>TM</sup> range utilise QEDs' unique, high resolution 'tubular conductor geometry' and are designed with one simple aim – to produce the very best performance possible from your hi-fi or home cinema system. X-TUBE by QED, NATURALLY.



QED Audio Products Ltd. † 01483 747474 e info@qed.co.uk w www.qed.co.uk

PURE DESIGN. PUR

Ε

PERF

ORMANCE

**New Gear** 





## Creek A50iR stereo amp £550 (EXCLUSIVE)

The £475 A50i and £550 A50iR integrated amplifiers are the very latest entry points into the world of Creek. But, instead of attempting to compete with cheap new products by stealthily switching mass production to Asia or Eastern Europe, Creek's new A50i still says "designed and made in the UK" on its front panel. Damn the price-tag and shout 'Huzzah' for Blighty!

Creek's new A50i/iR is a reworking of the popular 4330SE that preceded it. It's a more powerful design compared to its 40-watt predecessor, but the new 50-watt MOSFET-based model still comes with four line inputs (three if you take the turntable option), a single tape loop and a pair of preamp outputs. The two optional extras are plug-in MM or MC phono modules and the remote control. The former is retrofittable, the latter means stumping up the extra £85 for the A50iR version reviewed here and despite a handset that suggests it can switch sources and adjust balance the natty silver remote simply controls volume level and muting.

The external changes are the most obvious – the old green-on-black

 KEY FEATURES
 Integrated amplifier
 50 watts per channel
 Four line inputs
 Tape loop
 Optional MM/MC phono modules
 Standard (A50i) version without remote
 AS0iR includes remote to operate volume and muting
 Size (WxHxD): 65x43x25cm
 Weight: 6kg effect has gone, replaced with a shiny silver alloy front and black lettering. But elsewhere Creek has stuck to its minimalist guns. There are no tone controls, no loudness or home cinema direct bypass button, not even a channel balance. Sadly, there's no provision for a headphone socket either, but Creek does make an excellent little headphone amplifier called the OBH21, which seems a natural and logical partner for those with private tendencies.

Creek has stuck to its musical guns, making a sound that's as big as it is fun to sit in front of. Musical enjoyment is paramount here – you can't help tapping your foot along with the music and naturally gravitate toward genres of music which match the Creek's character. Bach's Mass in B Minor leaves the listener cold and slightly bored after a few minutes, but play Gorillaz or Buena Vista Social Club or The Datsuns or Stan Getz and you find yourself playing everything with a big smile on your face. This is not the most analytical of

amplifiers – you get the distinct impression that the Creek is somehow bored or disinterested in frilly or fluffy

"This is a 'down the pub with its mates, boogying along with the latest CD releases' type of amp, the sort that would pour scorn on the 'genteelly nodding and politely following along with the libretto' presentation of more reserved amplifiers." detail. This is more of a 'down the pub with its mates, boogying along with the latest CD releases' type of amp, the sort that would pour scorn on the 'genteelly nodding and politely following along with the libretto' sort of presentation pursued by amplifiers of a more reserved nature.

So, if you favour the cerebral and believe music went downhill after Mozart, the A50iR will not be for you. The rest of us however will be trading discs and tapping our feet to nasty music with a beat... and quite possibly playing it on the Creek A50iR. 20 Creek Audio 01442 260146 40 www.creekaudio.co.uk

#### **CREEK PEAKS**

Creek has always been capable of fighting far above its weight. It is a small amplifier from an undoubtedly small company, yet the A50iR continues to affirm that Creek has consistently turned out products with giant-killing performance. In fact, a quick trawl through the internet chat sites (such as www.ezboard.com) shows there is still a following for the original Creek CAS4040 amplifier, despite it using DIN plugs and being a design that dates back 21 years. Those with an original CAS4040 still in good working condition can congratulate themselves that they can fetch significantly more than their original £99 price tag on eBay.





## **Rega Mira 3 stereo amp £548**

The Mira 3 is the more expensive of Rega's latest brace of integrated amplifiers. It features many of the innovations developed in the Cursa 3 preamp and Exon 3 power amp.

It's a well-constructed 60-watt model with a built-in adjustable phono stage and enough line stages to keep you in stereo sources practically forever. Its design is strictly minimalist – even volume and channel switching are controlled via the same clever rotary control (see box). A tape loop and a mute button are the 'frivolous' extras, but you soon feel guilty when using them. Even the remote control is a £25 optional extra, although it's an option well worth taking if you value convenience.

Time passes pleasantly in front of the Mira 3. It makes a lovely, neat and slightly dry sound that will probably leave some cold, but the rest of us can relish the tidy, close-knit presentation. And, although Linkin Park fans would most likely get fed up with having to turn the volume dial through about 20 revolutions to get the right sound KEY FEATURES

KEY FEATURES

Integrated
preamplifier

O do watts per channel

Adjustable MM/MC
phono stage

O optional
remote control

Five inputs + one
tape loop

O ne amplifier
output/one
preamplifier input

Adjustable preamplifier gain pressure levels, there's a lot to like about the Mira 3.

It seems to cut through the chaff to get at the music buried beneath, so you get a coherent, tightly focused sound that gently persuades you listen to the whole of the Norah Jones album instead of being tempted to pick out 'reviewer' tracks.

It's a distinctly un-audiophile sound, but in all the right ways. This makes it a bit of a pig for a reviewer though – the track is selected, pencil is cued up to hit the pad and then you drift off into the music for another half an hour of entertainment.

It's not perfect however. Its ability to play complex and challenging pieces of music at high volumes is at best unconvincing, so that full-on *Rachmaninov's Symphonic Dances* seems to overawe it. But on the other hand, the sound of the latest ABKCO hybrid CD/SACD reissue of the Rolling Stones' *Let It Bleed* album makes it all worthwhile. You find yourself nodding along to *Midnight Rambler* like it was recorded yesterday. On the whole, the Rega Mira 3 has

*"It cuts through the chaff to get at the music buried beneath, so you get a coherent, tightly focused sound that persuades you listen to the whole of the Norah Jones album instead of being tempted to pick out 'reviewer' tracks."* 

an ability to captivate in the long term. A quick five-minute blast might make it seem like the kind of amplifier that would be more suited for background music replay, but that laid-back, slightly close-knit approach rarely gets in the way of the music and is in fact what makes it so good. Not for everyone, then, but those who like the Mira 3 will love it above any competition at the price. Rega Research 01702 333071

www.rega.co.uk

#### DIGITAL VOLUME CONTROL

Like its cousin, the Cursa 3 preamp, the Mira 3 features a microprocessorcontrolled switched resistor network (in place of the more commonplace potentiometer) for volume control. This stepped resistive network is extremely precise, giving 1dB steps across the amp's volume range, and it also makes for a constant input impedance in the preamp circuit, thereby overcoming subtle changes in sound quality relative to volume. (See *HFC* 238 for more info).

What this means in practical terms is that it delivers a crisper and slightly more direct sound, especially in the midrange and high frequencies. However, it is expensive to produce and implement, and this inevitably adds to the amp's price.



3

## AAD S-1 speaker exclusive £399 per pair

Phil Jones, the brains behind the original Acoustic Energy AE-1, Platinum Audio and the Boston Acoustics Lynnfield Project system, is a speaker guru of considerable pedigree. His latest venture is American Acoustic Development, a company designed to bring high-end performance to real world levels. We weren't over-keen when we reviewed the AAD E48 six months back, but the S-1 is a very different ball game.

The £399 S-1 is the baby of AAD's top of the line S series, which also comprises another standmount, a pair of floorstanding towers and a centre and subwoofer for home cinema use. All share the curved cherry design with satin black trim and the style looks good, if a bit Americanised rather like a Sonus Faber without the violin envy. The S-1 is single wired and comes with a rear port that already has a bung firmly ensconced within. It's a two-way design, featuring a 25mm titanium dome tweeter partnered with a 125mm bass/mid unit, which delivers bass down to 40Hz. The efficiency is slightly below average at a suggested 87dB with a

KEY FEATURES Two-way standmount loudspeaker Rear ported 2 25mm titanium dome tweeter 125mm paper cone woofer Single wired Sensitivity: 87dB Impedance: 8 ohms Magnetically shielded

Size: (WxHxD): 19x33.5x31.5cm



claimed eight-ohm nominal impedance – pretty amp-friendly stuff. It is, like the rest of the S Series, fully magnetically shielded, too. Be wary of the latticework grilles, though. They're adept at keeping prying little hands away from the drivers, but they should be scorned when it comes to listening.

63

-

AAD has done well to deliver the precise feel of a metal dome tweeter, but without the oft-associated brightness. This means you can clearly hear into the oboe work in the *Kyrie* of *Bach's Mass In B Minor*, without losing the male and female vocalists in the process. The three intertwine, swapping melody and harmony, but the oboe is usually either lost or overemphasised at this price point – here all three trade blows beautifully.

That smooth, extended and detailed treble is aided by an uncoloured mid-band. Not Quad Electrostatic transparent, not even BBC LS3/5a transparent, but open and refined nonetheless. Bass is a bit of a stumbling block, however. On the plus side, the S-1 goes for bottom end accuracy and precision instead of trying to overreach itself. It can also be bolstered up by the use of a good, high-mass speaker stand. Unfortunately, even heavy stands cannot add bass when it's not there. If you own a King Tubby record or ever went to an On-U Sound gig, you'll wonder where all the earth-moving equipment went.

.

Overall, this is a sophisticated dry martini of a loudspeaker – cool, intelligent and exciting, even if it doesn't do wicked things to you on an immediate, visceral level like a tequila shot. Unless you like your bass lines to be measured on the Richter Scale, the S-1 is the detail freak's bargain. Peach Amber 01327 706560 # www.aadsound.com

#### JONES'S WAY

Phil Jones isn't one to let a speaker unit go out untouched. In the past, he developed the clever Amplitude Modulation Device, a tiny set of tuned pipes that sit across Boston Acoustic's tweeters to help smooth out the high frequency response. But in the S-Series, that ribbed long fibre cone woofer comes in for the TJ treatment. The ribbing helps reduce cone break-up and is designed to match the 25mm tweeter perfectly. Few start-up companies would consider making drive units for speaker ranges, especially those not costing a King's Ransom, but for Phil Jones, there is no other way.

# Shhhh.

## Approved Dealer Network

Laser Audio

Kilmarnock

Loud & Clear

Loud & Clear

Glasgow

Lyric Hi-Fi

Relfast

Edinburgh

**A.N Audio Ltd** St. Neots 01480 472071

**Audience** Bath Tel: 01225 333 310

Audiovision (Yorkshire) Ltd Bridghouse Tel: 01484 713 996

**Cornflake** London Tel: 0207 631 0472

**Cineaste Ltd** Cheshire Tel: 0161 976 3478

**Cinema Experience** Enfield Tel: 020 8363 6776

**Cyberselect** Norwich Tel: 01603 660 901

**Cymbiosis** Leicester Tel: 0116 262 3754

Fortuna Ltd Jersey Tel: 01534 732 549

Futurehome Wokingham Tel: 0118 979 8282

Gilson Audio Middlesborough Tel: 01642 248 793

Grahams Hi-Fi London Tel: 020 7226 5500

Griffin Audio Birmingham Tel: 0121 692 1359

Hampshire Audio Winchester Tel: 01962 854 466

Harrods (Sound & Vision Dept) London Tel: 0207 730 1234

Hi-Fi Experience London Tel: 0207 580 3535

Hi-Fi Studios Doncaster Tel: 01302 727 274

Home Media Maidstone Tel; 01622 676 703

Ideas Sound & Vision Cardiff Bay Tel: 02920 498 460 Kronos Hi-Fi Dungannon Tel: 028 8775 3606

Tel: 01563 574 957

Tel: 0131 226 6500

Tel: 0141 221 0221

Tel: 02890 381296

Tel: 01494 681 300

Tel: 0208 400 5555

Martin Kleiser

Martin Kleiser

Music Matters

Music Matters

Pinner

Tel: 0121 429 2811

Tel: 020 8420 1925

Music Unlimited

Newcastle Hi-Fi

Newcastle upon Tyne Tel: 0191 285 7179

Oranges and Lemons

Tel: 0207 924 2040

Tel: 01865 790 879

Tel: 01228 546756

Tel: 01344 621100

Tel: 01483 304 756

Tel: 01772 883 958

Tel: 01253 300 599

Practical Hi-Fi

Practical Hi-Fi

Practical Hi-Fi

Practical Hi-Fi

Tel: 01524 39 657

Tel: 01204 395 789

Blackpool

Lancaster

Bolton

Oxford Audio

Peter Tyson

Playrooms

Sunninghill

PJ Hi-Fi

Surrev

Preston

Wainfleet Tel: 01754 880 617

London

Oxford

Carlisle

Birmingham

London

Beaconsfield

**Practical Hi-Fi** Warrington Tel: 01925 632 179

**Practical Hi-Fi** Manchester Tel: 0161 839 8869

**Prestige Audio** Rickmansworth Tel: 01923 711 113

**Radlett Audio** St Albans Tel: 01727 855 577

**Rayleigh Hi-Fi** Grays Tel: 01708 680 551

**Rayleigh Hi-Fi** Southend on Sea Tel: 01702 435 255

Rayleigh Hi-Fi Chelmsford Tel: 01245 265 245

**Rayleigh Hi-Fi** Rayleigh Tel: 01268 779 762

Robert Taussig London Tel: 0207 487 3455

Russ Andrews High Fidelity Edinburgh Tel: 0131 557 1672

Stereo Stereo Glasgow Tel: 0141 248 4079

**Stone Audio** Bournemouth Tel: 01202 201 735

Sound Academy Bloxwich Tel: 01922 493499

Sound Ideas Faversham Tel; 01795 591 991

The Audio File Bishops Stortford Tel: 01279 506 576

**The Audio Visual Loun** London Tel: 0207 375 3691

**The Edge** Ipswich Tel: 01473 288 211

**The Listening Rooms** London Tel: 0207 244 7750

**The Sound of Music** Crewe Tel: 01270 214 143

**The Sound Organisati** York Tel: 01904 627 108

Unilet Sound & Visior Surrey Tel: 020 8942 9567

----- --- ...

# <sup>just</sup> listen

#### Anthony Gallo doesn't make ordinary speakers...

Instead he designs *beautifully different* loudspeakers **\*** He doesn't build conventional **'boxy'** rectangular speakers either, preferring to design his creations around **spheres** thus eliminating internal **resonance** and external **diffraction**, the two main causes of loudspeaker distortion **\*** 

Quite simply - Anthony Gallo produces *the world's finest 'small' speaker systems*, each designed to complement your interior design needs and to bring *exceptional*, *expansive sound* to living spaces large and small **es** 

Why not visit one of our approved retailers and *experience* roundsound for yourself **65** 





#### **NEW MUSIC FORMATS**



PINK FLOYD Dark Side of the Moon

(multichannel/stereo SACD plus stereo CD layer) EMI

Music: You'll find a complete history of this album elsewhere in the issue and it seems unlikely that anyone won't have heard *Dark Side*,

but even if you know it by heart you haven't heard its full glory unless you've heard this. A superb production by James Guthrie reveals the full effect and expression in the music. This is not just the best multichannel remastering of a classic so far, it's also one of the best surround sound discs of any kind. The extra channels are used to tremendous effect with FX and music alike, the spoken words are all completely clear and things like the cash tills on the start of Money spin around you to tremendous effect. This sounds more 'correct' than the stereo version, and I've never said that before! **CALFICIELS Sound:** The vintage of this recording limits its ultimate quality, but in truth not

by very much. The power and resonance will transport you with ease and the multi-driver bass simply gorgeous – if you want to know why hi-res rules, this is one of the best places to start.



#### **BEETHOVEN: SPRING** & KREUTZER SONATAS Anne-Sophie Mutter, Lambert Orkis (piano)

SACD (multichannel/stereo SACD plus stereo CD layer)

Deutsche Grammophon 471 641-2 Music: These are the two most popular Beethoven violin sonatas, and while they don't

scale the intellectual peaks of the late string quartets, they undoubtedly remain lively, enjoyable works. The extended conversation between violin and piano in the opening adagio of the *Kreutzer*, in particular, speaks with the authentic voice of mature Beethoven. Among other things, this disc is especially notable for the lively, accomplished playing of Anne Sophie Mutter, and the spirited accompaniment provided by Lambert Orkis, who is clearly very much at home with Mutter's sometimes flamboyant gear changes. **EXERCISES Sound:** The vital, dynamic playing is matched with a recording which can sound strident from the CD layer, but which is more refined in the SACD mix. This is a good, if not great recording, and one with solid, three-dimensional perspectives, though the piano has a tendency to spread. **EXERCISES** 

#### **DVD: THE CINEMA SELECTION** Because these days hi-fi doesn't just mean music



#### DIE ANOTHER DAY: SPECIAL EDITION

MCM Film: There's something not quite right here. The white-knuckle action, sexy temptresses and tongue-incheek escapism usually combine to buy an audience's forgiveness for the preposterous plots and antique premise, but the latest Bond manages to fall short. Pierce Brosnan and Halle Berry both look the part, but are grossly undermined by a dire script full of painfully unsubtle innuendo and a plot so ridiculously contrived as to defy any suspension of disbelief. All the usual ingredients are stirred in, but this franchise is starting to look in dire need of a shake.

Sound and vision: The disc is almost too good – the razor-sharp picture shows up a few unusually clumsy effects mercilessly. The soundtrack is also spot on, the effects extravaganza in the main and rear channels going some way to atone for the dreadful dialogue occupying the centre.

#### **CD AND VINYL**



#### STRAVINSKY: RITE OF SPRING, SCRIABIN: POEM OF ECSTASY Valery Gergiev (cond), Kirov Orch

Philips 468 035-2 Music: Scriabin's Poem Of Ecstasy evokes the decaying end of the romantic era, and the stark, elemental mysticism of the *Rite* virtually defines modernism, but despite the obvious contrasts, there are profound links between these two pieces. By any standards these are great performances, the Stravinsky perhaps most of all. Rhythmic and impassioned, it is hard to conceive of a more powerful advocate of one of the defining works of the 20th century. ESTABLES

Sound: This recording has real depth, space and presence, and illuminates detail as it breathes fire into every crevice of the complex scores. The percussion especially, deserves special mention. **CELECTE AG** 



THE CARDIGANS Long Gone Before Daylight Stockholm

Music: Back in 1995, the Cardigans were a cheeky, chirpy pop band who covered Black Sabbath songs in lounge jazz style and generally appeared to be having a great time. Then they married their pin-sharp melodic sense to anthemic rock choruses and became huge. But somewhere along the way, the fun seems to have gone, giving their darker moods an unhealthy (for them anyway) precedence. Long Gone is quiet, tender, bitter and sad, but retains a warm, beating heart, and moments of beauty. Sound: The songs are graced by subtle breaths of strings, background guitar passages and Nina Persson's coolly emotive vocals. You'll still be exploring its nuances six months from now. DO



#### THE JAYHAWKS Rainy Day Music

American/Lost Highway Music: While the Jayhawks have yet to recapture the brilliance of Hollywood Town Hall, this album comes close particularly the opening salvos. The first five tracks from Stumbling Through The Dark through to Eyes of Sarahjane find band leader Gary Louris at his best, a classic Jayhawks blend of acoustic folk and mid-tempo country rockers, with harmonies and hooks galore. Check it out early to ensure you get the limited 2CD version with six additional tracks, which, rather unusually, are well worth a listen. 

Sound: Rough and ready the recording may be, but there's an honest clarity to the vocal harmonies that comes across particularly well on an open sounding system with a bit of life to it.



GONZALES

Z Kitty-Yo

Music: The self-styled prankster rapper claims he couldn't think of any new songs, so he's done a 'best of', offering reinterpretations of his many non-hits. But any resemblance to past albums is purely coincidental. He's always had enough lyrical and musical ideas to light up Berlin (where he's been living since he left Canada), but here he raises the bar, dancing between hip hop and pure pop, electro funk and crooning strings - sometimes all in the same song. The lyrics are sometimes clever-clever, sometimes clever-smart. but most importantly, he always sound like they're having fun. Sound: Such an eclectic mix of styles could sound like mush on the wrong system and you'll need an expressive one to appreciate it.

Dark Side Of The Moon From vinyl to SACD



When Pink Floyd's defining statement was released on 24 March 1973, it was met with widespread critical indifference. But it has since sold over 30 million copies, gone through 13 reissues in the UK alone and its latest transition to multichannel SACD could offer the definitive version of its now legendary proto space rock t's been 30 years and 30 million sales since *Dark Side Of The Moon* introduced high-fidelity space rock to the world. Long-time Pink Floyd engineer James Guthrie was given the unenviable task of remixing the masters for the new SACD surround sound release, but as one pundit noted, "Guthrie found a way to succeed where there were ten thousand ways to fail!" Instead of a gimmicky multichannel bounced sound that would return us to the early days of quadraphonic, the SACD gives a full 'cineramic' effect with new elements which startle the ears and

delight the mind. Keyboard player Rick Wright was happily surprised to hear tubular bells on *Brain Damage*, which he'd forgotten were there. And Roger Waters was moved enough to claim. "it adds a whole new sonic dimension". Both David Gilmour and drummer Nick Mason are thrilled that the public can at last hear the intricacies of what went into the recording. Quite simply, the new hybrid SACD is the best version since the original album came out in 1973.

On its release, the album wasn't greeted with great enthusiasm by the press The record that would take up a 14-year residency on the Billboard chart was initially dubbed "chaotic and formless," in a prominent UK review "Too many sound effects, too little cohesive music," hammered another. Only the *NME* had something positive to say, albeit with a sting in the tail: "The extraordinarily clever way with production adds a new dimension to what may be considered very ordinary social commentary".

Future critics wouldn't always warm to it either. *Vox* in the UK greeted the first remastered CD in 1992 with the words



"ponderous" and "a tendency towards bombast". But the fans voted with their wallets and their letters. In a poll of the best British albums of the 1970s by the *NME* in the same year it came third (admittedly after such production nonentities as the debut albums by The Clash and The Sex Pistols).

#### SPECIAL EFFECTS

Although the album sleeve still states that recording took place between June 1972 and January 1973 at Abbey Road Studios, it didn't actually take six months to record. The reality was 38 days of recording squeezed in around tours of Britain, Japan and North America, as well as a soundtrack for the Barbet Schroeder film *La Vallée* (*Obscured By Clouds*) and work on a French ballet with input from Roman Polanski and Rudolph Nureyev.

It began in a West Hampstead rehearsal studio on 30 Nov 1971. The band were back from America and sick of touring. Rick Wright, in particular, was worried about the increased possibility of a plane or train crash. *Meddle* had just come out and everyone was enthused by the kind of epic head-music they defined on that album's *Echoes*.

Over the next seven weeks they wrote furiously, with Waters paying particular attention to mortality and original member Syd Barratt's mental collapse. Alan Parsons, famous for his work on the Beatles' *Abbey Road*, engineered the album working night and day on two 16-track decks. He remembers creating effects using all the tape machines in every Abbey Road room with tape trailing down the corridors. Each first-generation recording was non-Dolby but Dolby A was used in a second-generation 16-track with all the effects added.

And what effects - the band threw in pretty much everything they could think of. On The Run contains a benchmark use of VCS3 synthesiser, a suitcase model known as the EMS Synthi AKS, with its on-board sequencer. Gilmour had come up with an eight-note sequence which Waters changed to a seven-note sequence sped up to give the familiar burbling effect. Though some of the sounds on the track are library SFX the train sound is guitar feedback and the footsteps were recorded by Parsons in Abbey Road and on the London Underground. On Time, Gilmour's guitar is swathed in distortion and phasing, and is automatically double-tracked. All the slide guitar pieces on the album are Gilmour playing his Fender Stratocaster on his lap. On Money Gilmour plays two different guitars with different effects. The seven-note bass here is accompanied by the paper/money/

cash register sounds cut into the take by Waters from tape lengths recorded on a Revox in his wife's potting shed! The echoes on Us And Them come from tape running at 7.5 ips (inches per second) vari-speeded by 1.5 seconds. Any Colour You Like contains amazing Hendrix-like Uni-Vibed and tremeloed guitar solos by Gilmour, shimmering organ and VCS3 keyboard solos by Wright and a stunning boom-echo repeat bass tone from the VCS3 synth. Gilmour got the strange guitar sounds on Breathe, Brain Damage and Eclipse by playing through the revolving Leslie cone of Wright's Hammond organ, a trick he borrowed from Eric Clapton.

Rick Wright distinguishes himself throughout on Hammond, Farfisa Duo organ, Wurlitzer electric piano, acoustic piano and backing vocals, with aspects of his style inspired by Miles Davis's impressionistic jazz masterpiece, *Kind Of Blue*. Waters sings vocals on the last two tracks, Gilmour on all the others including the harmonies on *Breathe*.

Nick Mason was strong on all the extraneous noises and is famous for his Roto-Toms (which had to be retuned for each key change) on *Time*. The voice segments were recorded by Waters in response to 20 questions he wrote on cards and featured Floyd road people



#### Dark Side of the Moon UK Discography



EMI Harvest SHVL 804 (LP, solid light blue prism label, 1973) EMI Harvest O4

SHVL 804 (Quadrophonic mix LP, blue outline prism, 1973)

EMI Harvest SHVL 804 (Box set, First XLLP 1979)

EMI Harvest CDP 7 46001 2 (CD,

1984) EMI 7 80566 2 (Box set, Shine On remastered CD, 1992) EMI 8 29752 8 (MiniDisc, 1992) EMI 7 81479 2 (20th anniversary





EMI 8 29752 2 (Remastered CD, 1994)

EMI 29752 4 3 (Cassette, 1994)

EMI Harvest 55673 1 5 (LP, EMI 100th anniversary remastered edition, white outline prism, 1997)

EMI 29752 1 (Remastered LP, 1997)

EMI 7243 582136 2 (30th anniversary edition remastered hybrid SACD, 2003)



EMI 7243 582136 1 (30th anniversary remastered edition LP, 2003)



## *"For the launch at the London Planetarium only Rick Wright turned up because the quad mix wasn't ready."*

Soger The Hat, Chris Adamson and Pete Watts, but the most famous came from two Irishmen, Wings guitarist Henry McCullough ("I don't know, I was really drunk at the time") and Abbey Road doorman Jerry Driscoll ("I've always been mad..." etc). Clare Torry's screams on *Great Gig* were done in one take on a Sunday night in Jan 1973. The group finished the album with *Speak To Me*, which is a collage of sounds from *Time*, *Money* and *Great Gig*, the dscillating machine noise provided by the VCS3 synth.

Around the middle of January 1973, producer Chris Thomas was brought in for three weeks to oversee the mix as a fresh pair of ears. Waters wanted it dry, Gilmour wanted it wet. In the end the echo-laden wet sound, which would benefit all subsequent format mixers, was Thomas's addition.

#### QUAD RANT

And what of the mythical four-channel quadraphonic mix? When the original album (SHVL 804) was launched at London's Planetarium in March 1973, only Rick Wright turned up because the quad mix wasn't ready. Nick Mason wanted JBL speakers but with only a WEM PA and a stereo mix the press had to put up with cardboard cut-outs of the rest of Pink Floyd! The famous Q4 SHVL

804 vinyl SQ quad mix wouldn't see daylight until near the end of 1973. Back then quad was seen as the medium of the future, one writer going so far as to say "the entire activity of music recording has to be completely re-appraised". Alan Parsons spent a long time working on the quad mix. For a while Floyd had been famous for their live quad rig termed The Azimuth Co-Ordinator. When he turned to Dark Side, Parsons had to avoid over-obvious panning and after various ideas including one involving two separate mixes, the plan was to monitor an SQ quad mix and the stereo result direct from channels of one four-track tape at EMI'S quad re-mix room at Abbey Road.

Some things were easy – the piano on The Great Gig In The Sky was recorded in quad, the clocks on Time were specifically recorded by Parsons to showcase the medium and the intro to Money could be spread around four speakers. But other songs proved to be a nightmare.

Us And Them required the use of another 8-track tape machine because of the delay lines on the vocals. By the fourth repeat, eight tape stages had been used with consequent speed shifts and EQ imbalances. According to Parsons the sixth and seventh vocal repeats were barely audible in quad but the desired 'round and round' effect was achieved. Released in the UK in December 1973 and subsequently re-issued, the quad version was only ever released on 8-track tape cartridge in the US. During the 1970s, four Pink Floyd albums – Atom Heart Mother, Meddle, Dark Side Of The Moon and Wish You Were Here – were released in quad in the UK. In the US, only Wish You Were Here was given an official vinyl quad SQ release in 1976. Bizarrely, an Australian 1988 reissue appeared in pink vinyl!

#### VERSIONS

More interesting in the US was the 1979 Mobile Fidelity Sound Lab vinyl issue (MFSL 1-01). This was cut at halfspeed from the original masters and pressed onto two single-sided virgin vinyl records. The masters were transported to the States handcuffed to security guards, and the release was long regarded as a reference point for all hi-fi buffs. Some other vinyl trivia the first UK vinyl version had a solid light blue prism on the record label while subsequent vinyl releases had a blue outline prism until the 1997 EMI 100th Anniversary edition, which featured a white outline prism (like the original cover). Various Dark Side releases on other formats have included the 1973 Harvest XDR cassette, the





Above: Dave Gilmour wrestles with guitar harmonics and headphone hair during the Abbey Road sessions. 1978 Capitol picture disc and a 1992 release on MiniDisc from EMI

The CD story is a whole different ball game. When Dark Side was released by EMI on CD in August 1984 it was the company's first ever compact disc issue. A factory in Germany did nothing but churn out Dark Side discs all day. Initial discs were made from second generation copies of the master tapes, a problem which Gilmour rectified guickly. Many felt that the sound quality of the original CD release (CDP 7 46001 2) was inferior to either the Toshiba/EMI Pro-Use or Mobile Fidelity vinyl pressings. During the early 1980s there was a smattering of Japanese-pressed import CDs featuring black labels with silver lettering which had superior sound quality and are worth a fortune today.

Then in 1988 came the Mobile Fidelity Gold Ultradisc CD (MFSL UDCD 517) from the US, James Guthrie's

shoot-off point for the new multichannel remastering. In 1992 Alan Parsons sat in on the remastering of Dark Side for CD by James Guthrie at the Mastering Lab in California. He sorted out the Dolby tones but his idea to add 16 to 20kHz of top end to the mix came close to ruining the entire sound, putting far too much emphasis on the treble, and severely letting down Any Colour You Like, which has far more impact on the original CDs than on the remastered version which appeared in 1992 (Shine On box), in 1993 (20th anniversary edition) and in 1994 (white prism, jewel case) on both sides of the Atlantic.

#### **SUPER AUDIO**

Which neatly brings us to the new multichannel hybrid SACD. For recent trials at EMI it was played on a Sony SCD-XB780 player and STR-DB1080 AV amp using B&W speakers. On The Run came out a clear winner, and this minimalist masterpiece now sounds like the inside of an aural nightmare. The shifting undertow is so much more apparent alongside the VCS3 synth bubblings and various SFX of the surface. The idea of a world totally out of control is perfectly realised across a sound field of speed, tension and laughter. The metallic shifts, Hoover effects, screaming and elongated dying footsteps have never before been realised in such theatrical terms. Roger Waters is bang on the money when he says it "adds

more space for the theatre". The clocks on *Time* fall out of every speaker while the piano on *Great Gig* is simply marvellous, with greater definition given to Gilmour's lap steel guitar. The best vocal track, the band all agree, is *Us And Them*, where the echoing voices and oscillating organ all get the fullest 'round and round' treatment. On *Any Colour You Like* the new-found clarity makes the organ sound dated but the ratcheting guitar has a more visceral quality. All in all it's a much deeper listening experience than ever before.

James Guthrie had to raid all the tape vaults to get the original masters as this is a fully loaded re-issue with a 'red book' CD layer alongside both stereo and multichannel high-res versions. It was done at his Das Boot home studio in the Sierra Nevada mountains, Lake Tahoe. Firstly he got the two 16-track analogue tapes, synchronised them and striped a new time code. They also had to have new Dolby alignment tones. He played them on Studer 16-track tape machines of 1973 Abbey Road vintage, and he had two EMT 140 reverb machines re-built to recreate the reverb of the original album.

He chose "the fabulous" ATC SCM 150 speakers for ease of mixing and even had them sent to other members of Pink Floyd for listening. The mix was to be like the stereo version, but with a little bit of extra guitar added to the killer track *On The Run*. The mixes were brought first to Waters in New York, then to rest of the band in London for approval. Guthrie is head over heels in love with the Direct Stream Digital encoding process of SACD and thinks it offers the best route available to high quality digital sound.

Mastering engineer Doug Sax, who worked with Guthrie on the SACD, also worked with Kevin Gray on remastering *Dark Side* for the 30th anniversary vinyl edition using an MCI JH-110 tape transport with custom heads and tube electronics at Acous Tech in Camarillo, California. The same E.A.R. tube EQ was used in both the CD and vinyl remastering to ensure continuity.

The journey to SACD has been a marathon for all but the sonic results are worth it, and with beautiful new Storm Thorgerson artwork and 20-page booklet the *30th Anniversary Edition* is one for any hi-fi buff to treasure. *Dark Side* for the 21st Century, no less.

There's a full review of the new 30th Anniversary SACD in Choice Cuts, p23.

#### Dark Side of the Moon US Discography

Harvest SMAS 11163 (LP, 1973)



Harvest 8XW-11163 (8-track, 1973) Harvest Q8W-11163 (Quadraphonic mix, 8-track, 1973)

Harvest 4XAS-11163 (Cassette, 1973) Harvest 4XW-11163

(cassette, XDR re-issue, 1973)

Capitol SEAX-11902 (LP, picture disc, 1978)

MFSL 1-017 (2xLP, original master, half-speed,

1979) MFSL C-017 (Cassette, original master recording,

1979) MFSL UHQR (LP, 200g super vinyl, 1981)

Capitol CDP 7 46001 2 (CD, 1984) MFSL UDCD 517

(Gold Ultradisc CD, 1988) Columbia CK 53184

(Box Set, Shine On, remastered CD, 1992)

MFSL UDCD 517 (Gold Ultradisc II CD, 1993)



Capitol 7 81479 2 (20th anniversary edition remastered CD, 1993) Capitol C2-91340

(20th anniversary CD box set, 1993) Capitol 7 46001

4 9 (Remastered/ repackaged CD, 1994)

Capitol 7243 5 82136 2 1 (30th anniversary edition remastered SACD, 2003) Capitol 7243 5

82136 1 1 (30th anniversary edition remastered LP, 2003)



#### DVD PLAYER SET-UP MENU

Panasonic ACTION	Audio	988 <b>3</b> 99		
<b>N</b>	Speaker Setting Multi-channe			
	Digital Audio Output	On (RE MASTER Off)		
	PCM Down Conversion	No 👘		
	Dolby Digital	Bitstream		
	DTS Digital Surround	Bitstream		
SELECI	D. Range Compression	0ff		
2	Audio during Search	On		
ENTER RETURN				

The DVD-Audio/Video player uses Panasonic's set-up menu and should be configured as shown for best results. The video settings pane (not shown) refers only to the Genesis component output fitted to the donor Panasonic chassis.

#### **DVD PLAYER SPEAKER CONFIGURATION**



This speaker configuration menu relates to the player's analogue outputs only. In a departure from the norm, EAD performs all its bass management in the analogue domain using a proprietary circuit design.

#### **DVD PLAYER AUDIO TEST: JITTER**



Whatever the quality of EAD's balanced analogue stage, there's no escaping the 15,000psec of jitter arising from the decoder on Panasonic's donor chassis. All third-party solutions based on this chassis that we've tested suffer the same problem.

## EAD multichannel AV system DVDMaster 8000 Pro £4,920 TheatreMaster 8000 Pro £5,200 PowerMaster 8300 £5,750

You might expect £15K to buy you the cutting edge in DVD audio and visual reproduction – and if you used it to buy EAD's new system, you'd be right

Enlightened Audio Designs or EAD is an infrequent visitor to these shores but like other rare migratory species, its arrival typically adds a splash of the exotic to the high-end scene. We last saw EAD in the form of an intriguing CD transport/DAC combo some ten years ago (HFC 120). Since then, the brand name has been acquired by Tara Labs which provided the resources for EAD to make an impact in the competitive AV market. The fruits of this marriage are realised in three very luxurious components, headed by the £4,920 DVDMaster 8000Pro DVD-Audio/Video player and complemented by the £5,200 TheaterMaster 8000Pro AV processor and £5,750 PowerMaster 8300 eight-channel power amplifier. Heady stuff, and no mistake.

All three products share the same front panel design, an outrageously thick slab of alloy, etched and polished to give a most unusual, almost holographic effect as light plays across its surface. This 1920s Metropolis-style aesthetic is certainly distinctive and looks its best in a softly-lit room where the fascias shimmer with iridescent rainbows. Perhaps this is why EAD has kept the number of buttons down to the bare minimum of track/group access and progressive video functions on the player with volume and input selection on the processor. Even the on/off button is a flush. touch-sensitive piezo switch.

Another reason why both the DVD and TheaterMaster products look so clean is the lack of customary Dolby Digital and DTS logos which, along with the appropriate copyright assignments, usually forms part of the licensing procedure.

#### DVDMASTER 8000 PRO DVD-A/ V PLAYER

Behind EAD's spectacular fascia lies a donor DVD-A chassis from Panasonic, complete with its original Dolby/DTS decoder and Genesis progressive video converter (NTSC only). This chip drives one of two component video outputs, the other being fed from EAD's superior Adagio video board. This technology, based around a Silicon Image processor and video DACs from Analog Devices, was developed by EAD's parent company Alpha Digital Technologies and works directly on the digital video output of the original Panasonic MPEG decoder. The Genesis-fed component video output offers greater flexibility with its control over picture brightness, contrast, colour balance, noise reduction and aspect ratio while the upscaled Adagio component output has aspect control only.

By way of recompense, the progressive Adagio video output provides just about the most impressively clean, bold and detailed pictures available from DVD today. There's a 'cinematic' quality about blockbuster movies that's promised but rarely fully realised by conventional DVD players. The DVDMaster, by contrast, delivers depth, detail and a jaggiefree smoothness to every image, creating inherently natural and compelling pictures.

Confirming the quality of its internal I-to-P conversion, we compared both PAL and NTSC versions of *Star Wars II: Attack Of The Clones* through my reference Marantz VP12-S2 projector. The NTSC copy, despite the additional 3:2 pulldown processing, was preferred for its slightly more vivid colours – the sheen on R2D2's bodywork was better represented while his panels simply looked more 'metallic'. Progressive conversion is truly first rate, even classic chroma upsampling errors, typically seen with the red panic button from the reconstruction scene in *The Fifth Element*, were completely absent.

The analogue audio section of the DVDMaster is less impressive. Sure enough, EAD offers no less than eight balanced XLR analogue outputs with independent volume control and a novel 'Multi-Bass Management' circuit, but multichannel audio is still



*"Even the largest speakers melt from view as the audience is swept into a realm of unforced, three-dimensional sound."* 

#### PROCESSOR TEST: JITTER



This is the equivalent jitter spectrum for the TheaterMaster 8000Pro, reproduced on the same scale as Graph (1). Note the sharper central peak. Jitter (marked in blue) is reduced to just 400psec while the increased background noise helps bury any digital 'nasties'.

#### PROCESSOR TEST: DOLBY RESPONSES



This shows the TheaterMaster's decoded multichannel response(s) with Dolby software. The centre (green) trace demonstrates the effect of bass redirection while the increased subwoofer output (purple) is designed to offset the reduced <u>level of the LFE track during DVD mastering</u>.

#### PROCESSOR TEST: DISTORTION



This multichannel graph shows the very consistent 'character' of all channels as distortion hovers around 0.0018% over the top 20dB of the Theater-Master's dynamic range increasing, as expected, to a mere 0.005% at -30dBFs. Such consistency is vital for a truly uniform surround experience.

#### In-Depth

#### "Get your dealer to set it up and don't even think about the manual unless you're a qualified rocket scientist."

blighted by the 15,000psec or so of jitter incurred by the Panasonic decoder chip which precedes EAD's own stages. For convenience, these XLR outputs are bundled together, by way of a Tara Labs adapter, into the DB25 (RS232) connector of the TheaterMaster processor, simplifying its analogue pass-through mode with DVD-Audio software, for example.

The remote's 'Action' button reveals Panasonic's OSD and while the speaker configuration menu is visually unchanged, it is executed via EAD's proprietary *analogue* bass management circuit. Also, the additional 'Extra Surround' channel is derived from EAD's own analogue matrix of the L/R surround signals. While this is compatible with Dolby Digital EX and DTS ES-encoded DVDs, it is not licensed as such. These same ideals are carried through to the TheaterMaster 8000Pro processor.

#### THEATERMASTER 8000 PRO PROCESSOR

If the DVDMaster is a relative joy to set up, thanks in no small part to the Panasonicderived OSD, then its companion Theater-Master 8000Pro 'Eight Channel Total Capability' processor is an utter nightmare. Although composite and S-video switching is provided, there's no on-screen display to guide you through the automated set-up (speaker level, delay and phase compensation) and 'tweaking' procedure. Instead, the processor is supplied with a Marantz RC5200 touch-screen remote that's been pre-programmed for the TheaterMaster. This stubby little handset is tricky enough to wield, but the endless iteration of EAD's limited two-line fluorescent display is mind-numbing. Get your dealer to

set up the entire shooting match and don't even think about wading through the manual unless you're a qualified rocket scientist.

Its five coaxial and one optical digital inputs will not accept sample rates above 48kHz, so replay of 24-bit/96kHz stereo

#### PROCESSOR TEST: RESOLUTION



EAD's use of 24-bit Burr-Brown DACs endows the TheaterMaster with very good low-level resolution. Here we can see that both left (black) and right (red) channels are accurately represented down to -110dBFs or so. That's a good 18 bits of resolution.

DVD-Video software is out of the question without downsampling. PCM inputs including 44.1kHz CD and 48kHz DVD-V are accepted along with Dolby Digital, DTS and MPEG audio bitstreams. EAD has specified a series of PCM1732 DACs from Burr-Brown, and these provide a combination of low noise and excellent low-level linearity (resolution is good to within 0.3dB over a 110dB range).

The processor's single-ended and balanced outputs are capable of delivering over eight volts, which is very high indeed. A volume position of -11dB yields a 2.3V output with peak-level digital inputs, which is sufficient to drive the matching PowerMaster 8300 to full power (assuming the latter is set to its lower +26dB gain mode). Either way, use higher volume settings with great care! The 'Eight Channel Total Capability that EAD refers to includes two subwoofer channels and its own matrix-derived ES channel as well as the usual five main channels. The TheaterMaster will not automatically recognise a Dolby EX disc which it treats as Dolby Digital 5.1, instead this derived channel should be invoked by the user, via remote control, according to whim.

The TheatreMaster has its own bass management software that's rather different from the 'Large, 'Small' or 'None' speaker size settings used by most other brands. Instead, the 8000Pro allows bass to be redirected from any main speaker to one or both of the subwoofer channels without automatically filtering the bass from the main channel itself. This way, a 'medium-sized' front or centre channel loudspeaker will still be fed a fullrange signal while its bass output is



augmented by a parallel feed to the subwoofer(s). Provided the medium-sized speaker can handle – if not adequately reproduce – this bass information without getting into trouble, then the sonic benefits of avoiding a digital filter network cannot be

#### AMPLIFIER TEST: RESPONSES



The amp response is slightly treble-shy with a mild -0.3dB drop at 20kHz, rolling off to -6dB at 100kHz - the notional limit of 192kHz DVD-A and SACD software. Output impedance (red) is a bit high, so the system response will vary with some speakers.







#### **AMPLIFIER TEST: DISTORTION**



Amp distortion is low but not ultra-low, dipping to 0.003% through the midrange but quickly climbing to 0.02% at 10kHz and 0.045% at 20kHz. Once again, however, this level of performance is consistent through all eight power amp modules.

#### EAD DVDMaster 8000 Pro/TheaterMaster 8000 Pro/PowerMaster 8300 In-Depth

underestimated. Of course, if one or more of the speakers is a real tiddler, then it's still possible to both filter and redirect bass away from its fragile drive unit.

1/44

#### POWERMASTER 8300 MULTICHANNEL POWER AMPLIFIER

The final component in EAD's 'Eight Channel Total Capability' range is a back-breaking power amp, made of individual monoblock amp cards bolted to a huge internal heatsink. A low pressure fan keeps the chassis tickingover at a moderate temperature while sophisticated protection circuitry will shut down the outputs in the event of a fault. Not only are single-ended and balanced inputs available, but each card is bridged to increase the voltage available into eight-ohm loads. With enough reserved current to support this voltage, each card delivers in excess of 300 watts/eight ohms, which is more than adequate for the most exotic AV installations!

#### SYSTEM PERFORMANCE

While the decoder section of the DVD player is less memorable than its Adagio-driven video output, as a *transport* for the TheaterMaster 8000Pro, it realises a new lease of life. The combination yields a truly beautiful and inherently 'musical' sound with both music and film soundtracks, even if DVD-A software – even in analogue pass-through mode – carries the blight of the player's jitter. Used in my newly-completed home theatre, with B&W Nautilus 802, 804 and ASW850 (sub) speakers, the EAD had the most uniformly enveloping sound we've heard to date.

In particular, its surround processing is very subtle indeed, allowing the largest speakers to melt from view and sweep the audience into a realm of unforced, three-dimensional sound. The Speeder Chase chapter from Attack Of The Clones contains one of the most complex 6.1 channel mixes of any film, a fusion of musical scores and computer generated effects that, with the EAD in tow, built tremendous tension to accompany the images on screen. The sheer homogeneity of the sound was utterly compelling without appearing forceful. So, while the ripping 'exhaust note' of the speeders had a realistic bite and edginess, as these effects tore across the room, neither did it tear our heads off.

In all, this proved to be a very different experience from the vast majority of AV systems that are typically more up-front and

aggressive. Robbie Williams' Live At The Albert both sounded and looked superb (this event was filmed with HD cameras) even if the acoustic of the Hall was a little less lively than we had expected. Nevertheless, there's a real body to the sound, a depth, warmth and weight that adds to the cinematic experience. Even







background music seems to swell and fill the room with ease, a supremely gentle and yet detailed sound that integrates perfectly with the images on screen.

The EAD system is capable of delivering a



truly 'complete' performance while the 8000Pro processor, in particular, lies at the heart of an altogether smoother and more sophisticated sound than you might ever expect from mere 'home theatre'. Next time you have your socks blown off by an impressive demo, remember you'll want to be captivated by a movie for a good two hours. And no system is better for transporting you there than EAD's TheaterMaster – home cinema's answer to the *Twilight Zone*.

#### VERDICT

With a total system cost well into the super-fi league, EAD's eight-channel power amp offers the greatest perceived value while the processor provides a glorious sound, matched only by the player's astonishing picture quality. The combination brings a truly musical and enveloping sound to everything you play. Ultimate Sonics 020 7435 1222 # www.ultimate-sonics.com



# Waves of Confusion

*FM and DAB, even cable and satellite – the state of the radio nation is more complex than ever. Here's all you need to know to bring clarity to the airwaves* 

t used to be simple: if you wanted quality sound from a radio, you got an FM set, preferably with a high-quality aerial. But the coming of digital is challenging the old order – perhaps not in a revolutionary way (at least not yet), but it's certainly causing enough waves for audiophiles to now consider taking it seriously.

It was obviously only going to be a matter of time before radio went digital. It was inevitable, with everything else going that way – it just took a little longer than some other formats, for a variety of not-very-interesting reasons. As so often, there are pros and cons, and we don't even know what they all are yet. The main pros of course, have been loudly trumpeted by broadcasters and the powers that be:

- Extra stations
- CD-quality' sound
- No need to returne as you move around the country
- No interference or fading
- More environmentally friendly
- Ease of use no station frequencies to remember or care about
- The potential to broadcast pictures and more text information alongside sound

Cons? Well, coverage is not yet the entire UK population, by any means. You *can* get digital radio anywhere at all in the British Isles if you have a Sky dish and digibox (for more on this see the box over the page) but if you want 'regular' DAB (Digital Audio Broadcasting) you'd better be not too far from a major population centre. though one can understand why a truly transparent system may not be desirable – copyright reasons, for a start. But those of us who care deeply about sound quality have cause for some grave misgivings about the whole digital radio thing.

Most of those claimed pros, by the way, seem to be borne out in practice. Several DAB-only stations are now available and that's all to the good. Because of the way DAB works, the same frequency can be used for a station – or actually a group of stations or 'ensemble' – all over the country, quite unlike FM, so that retuning is never required. This in turn means that low-power transmitters can be liberally distributed around the place, transmitting less total power between them, hence the environmental friendliness. And like any wellbehaved digital system, when it works it works 'perfectly', effects like interference being dealt with by the very robust error-correction that's built into the system.

Mind you, another characteristic of digital systems is that when they do finally fail they do it pretty suddenly. FM and AM radio fail gradually, fading gently into noise so that if it's really important you can still hear something of the station. DAB rapidly degenerates, via 'plopping' noises, into broken chunks of audio and then total silence, just like a bad mobile phone connection.

That can be irritating but can be dealt with, at least in the home, with a decent antenna. What's more alarming about DAB for hi-fi aficionados is the basic sound of the system as is currently broadcast by the UK's various stations. All too often it's coarse, harsh and far too bright. With some sounds, particularly speech and instruments with lots of high

#### **NOT ALL ROSY?**

www.magictorch

The most worrying 'con' is that sound quality is not uniformly improved by the switch to digital. All forms of digital radio, including DAB, use 'coding' to reduce the amount of data that must be sent across the airwaves, and this process is not lossless. It should be, and indeed could be, very nearly subjectively perfect,

#### **GET INVOLVED**

If you believe, as many do, that more bandwidth should be allocated for DAB – and broadcasters encouraged to use it to increase bitrates rather than just squeezing in more stations – check out the Radiocommunications Agency's website (www.radio.gov.uk) where a public consultation document is due to be published around the time this issue appears. Influence the future of radio now!



Armonics, one can hear a very odd 'fluttery' effect which can be very distracting – one of those things that very soon becomes hard to ignore once you've noticed it.

There are several factors at work. The fluttery business is due to an intrinsic characteristic of the coders used to convert 'linear PCM' (CD-style) digital audio to 'MPEG2' at a lower bit-rate – these devices allow the maximum bandwidth to vary too fast from moment to moment and that's where the fluttering comes from. Some of the harshness is due to this and other coding effects – after all, the whole principle of coding is that the ear misses distortion if it's 'masked' by signal at the right frequency and level, but if the coder gets this even slightly wrong there's a lot of potentially audible distortion just waiting to jump out at you.

#### **MEANWHILE, BACK AT THE STUDIO...**

Some of the harshness is also due to studio practices, including excessively close-miking of speech and deliberately boosting treble to make the station sound more 'exciting' on a car radio or portable set. Hmm...

One studio practice which DAB does often improve on is audio dynamics compression. In order to make theirs the 'loudest station on the dial', many stations compress dynamics

#### SOUND QUALITY

This graph compares the relative sound quality of various audio formats, including AM, FM and DAB radio. Note this is only an approximate guide and there is wide variability between different broadcasts and recordings.

CD Perceptible change Slightly annoying Poor Intelligible AM Radio FM Radio (Good FM Radio reception) FM Radio (Good FM Radio reception) FM Radio

0

#### **OTHER WAYS OF GETTING DIGITAL RADIO**

The obvious way to get digital radio at home is to buy a DAB radio tuner like the ones featured in this month's Group Test. But there are alternatives. Digital TV services also carry digital radio signals - Sky satellite, freeview terrestrial digital and digital cable. Cable varies across the country (and is still analogue in places) while freeview isn't everywhere, but you can get Sky anywhere in the British Isles. The BBC broadcasts some of its stations at a higher bit-rate, and therefore (in principle at least) higher quality via these media. Radio 3 keeps the same bit-rate as DAB, 192Kbps, and the other national stations also use this bitrate. But the audio outputs of digiboxes are

generally a bit

indifferent and you need a SCART lead to connect most of them, though Nokia makes a couple of models with digital audio out and analogue output on phono sockets - the Nokia Mediamaster can work without a TV, and at £89 is cheaper than any DAB set. You won't get all the extra DAB stations, but most are there, and Sky carries several non-DAB stations. Keep an eye on the web for info - two helpful sites are www.uk-dab.info and www.digitalradiotech.co.uk. If you're a real radio propellerhead you'll also appreciate that many European stations are free-to-air on satellite. Then there's the internet -

another can of worms with unreliable sound at present, but perhaps not for too much longer...

## *"What's alarming about DAB is the basic sound of the system as is often currently broadcast."*

very heavily, using sophisticated multiband compressors – this makes the sound brighter than ever, of course. But most stations use slightly less compression on DAB than on FM, which is welcome.

In fact, DAB was designed from the outset to give the *listener* the choice of whether to apply compression (useful on the move, admittedly) or not, with 'Dynamic Range Control' (DRC). Instead of compressing at the studio, broadcasters simply send some 'metadata' which tells the receiver how and where to compress. The listener has the choice of switching this on. Unfortunately many stations don't bother to implement it and since it's usually off by default on tuners (some don't even include it, which is dumb) it's almost never used in practise. It's to be hoped that broadcasters don't resort to heavy-handed non-optional compression on DAB too.

#### **IT'S ALL IN THE BITS**

Finally, but very importantly, there's the issue of bit-rate. CD has a bit-rate of 1,411 Kbps – most DAB music stations only transmit 128 Kbps, though a few manage 160 Kbps and the honourable exception, Radio 3, uses 192 Kbps and also offers some of the finest dynamic range on offer (with well-implemented DRC).

And why is the bit-rate so low? Because too many people in broadcasting are far more interested in quantity (lots of stations) than quality. Is anything going to be done about it? The bad news is that increases in bit-rate look highly unlikely. The good news is that the BBC at least is in the market for new coders which may offer better quality. There's little scope for improving things at the receive end, but clever tricks at the transmit end may yet work wonders.

So DAB quality is not what it might be even given the way the system operates. A few stations, let it be said, deserve a proper slap for crummy technical standards – 'Mean Country' is one of the worst offenders at the moment, wasting a promising 160Kbps bit-rate with appaling sound. Doubly ironic given the famously high technical standards which tend to prevail in Nashville!

#### **DEVELOPING TECHNOLOGY**

DAB receiver technology has naturally come on in leaps and bounds over the four years or so that the system's been available. Once manufacturers get a handle on a technology like this, plus the confidence that it is really worth some investment, they are able to go for major economies of scale and make cleverer products that cost much less to produce. Imagination Technology (parent of Pure Digital) and its various subsidiaries have gone to town on this, making a complete DAB solution on a module barely 50x80mm and a few mm thick. IT company Frontier Silicon has designed an integrated circuit that does practically everything inside and still has processing room left over for additional applications.

As a result, DAB tuners are certainly getting cheaper, though on the whole not actually much cleverer. And better? Well, only very slightly. Differences in DAC quality and audio buffer are not great between early and current models and in any case are not as obvious as with disc sources, for various

#### **Special Report**

reasons. However, the 'bit slippage' that a few early models showed seems to have been fixed so at least the data is being recovered properly.

Prices will fall a bit yet, but not forever – the limit is dictated by the metal box and the power supply, plus the need for some sort of display, so don't expect to see prices for hi-fi units going massively below £100. Portables could better this, though, and will in time.

#### THE DILEMMA

From a 'true audiophile' point of view, does DAB score at all over FM? This is very hard to answer and depends on what you listen to, what irritates you and where you live. Personally, I have given up the unending struggle for decent FM reception on Radio 3 without interference and although I'll happily listen to FM casually I tend to use DAB when I want to sit through a whole opera, for instance. In fact I prefer to record the programme, dump it on the PC and post-process it to remove some fluttering, then listen to the result.

But if you listen to Radios 1, 2 and 4 you may well find you prefer FM. The high treble levels of the first two, and speech on the last, show up all that can be irritating about DAB and a really good FM tuner plus decent antenna is a very satisfactory solution. There's little or no difference in audio compression or frequency response between the two. (Note that while DAB is capable of reproducing frequencies above 20kHz, real broadcasts very rarely exceed 17kHz – often less.)

Then again, if you live in a city DAB becomes more attractive as FM become harder to receive cleanly. The question you have to ask is, "how satisfied/fed up am I with FM at present?" If the answer is on the satisfied side, why change? A tuner or antenna upgrade may be all that's required. Ultimately the plan is to switch off FM but there's no date set and it's likely to be a decade off. If you get a decade from any technology upgrade you make now you've probably had reasonable value from it.

#### **GET YOUR ANTENNAE UP!**

And speaking of antennae... FM will almost never work properly if it has to rely on an indoor wire antenna. DAB often will, indeed the idea is that in the end it will almost everywhere. All the same, an outdoor one may be necessary or beneficial in some areas. The true FM nut will have a biggie on the roof, probably mounted on a rotator too. DAB is certainly less fussy in this area.

Finally, combined DAB/FM tuners – anything to be gained? In theory, yes, since they can share a box, a power supply, display, pushbuttons – but the couple of affordable examples we've seen so far don't make a great case. TAG McLaren makes a blinder but you've got to be prepared for its cost!

#### **HIGH QUALITY BROADCASTING**

Sound quality varies enormously between stations, but those below offer notably high technical standards. This is all relative and factors in studio practices as well as bit-rates etc.

#### FM STATIONS:

Classical: Radio 3 Popular genres: Radio 1, Radio 2, Kiss FM, Capital FM

#### Speech/ drama: Radio 4

DAB STATIONS:

Classical: Radio 3 (192Kbps), Classic FM (160Kbps) Popular genres: Virgin Radio (160Kbps), Capital FM (160Kbps), Radio 1 (128Kbps), Radio 2 (128Kbps) Speech/drama: Radio 5 Live (80Kbps mono), Radio 4 (128Kbps), Talksport (80Kbps mono)

#### **DIGITAL-ONLY STATIONS**

New stations exclusive to digital radio are coming online all the time (and some seem to be going offline already). Most are on DAB, but a few are only available on other digital carriers. The following are some nationally-available DAB stations that you won't find on the analogue (AM/FM) dial.

**BBC 1Xtra** ('contemporary black music for 16-24-year-olds')

BBC Five Live Sports Extra (sport) BBC 6 music ('for listeners who are passionate about rock and pop')

BBC 7 (Entertainment, comedy, drama) BBC Asian Network (Asian-centred news and music)

Core ('fresh hits for the UK')

Life ('big name contemporary music') OneWord (plays, books, comedy and reviews) Planet Rock ('classic rock tracks of yesterday') Prime Time ('melodic hits from the last six decades')

TalkSport (talk and, er, sport)

In addition, several stations pop up on regional multiplexes in many areas. A comprehensive regional list can be found at www.worlddab.org/dabworld/countries/uk.htm



#### **BBC DIGITAL RADIO STATION GUIDE**

	Radio	Internet	Digital	Satellite	Digital	Digital
The second second			terrestrial		Cable	platforms
BBC NATIONAL RADIO STATIONS	DAB	BBCi	Freeview	Sky	ntl:	Telewest Broadband
Radio1	1	1	70	851	858/401	901
1 Xtra	1	1	71	919	859	907
Radio2	1	1	72	852	860/402	902
Radio3	1	1	73	853	861/403	90
Radio4 FM	1	1	74	854	862/404	904
Radio4 LW	1	1		870		
Radio5 Live	1	1	75	855	863	905
Radio5 Sports Extra	1		76	907	864	908
6Music	1	1	77	911	865	909
BBC7	1	1	78	922	866	910
Asian Network**	1	1	79	869	867	
World Service	1	1	80	865	868	906
World Service Extra	1	1		902		Contraction of the
BBC REGIONAL & LOCAL STATIONS					6	
Radio Scotland	1.			866	869	931
Nan Gaidheal	1.			920		938
Radio Wales	1.			867	870	1.1.1.1
Radio Cymru	1.		5	904		
Radio Ulster	1.	1		868	871	2.18-1
BBC WM	1.	1				930-934*
BBC GMR	1.	1				930-934*
Radio Sheffield	1.					930-934*
Radio Newcastle	1.					930-934*
Radio Merseyside	1.	1			a second second	930-934*
BBC London	1.	1			1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 -	930-934*
Radio Cleveland	1.	1				930-934*
Radio Leeds	1.	1				930-934*
Radio Bristol	1.	1	200 - C. 44			930-934*
Radio Lancashire	1.	1				930-934*
Radio Humberside	1.	1				930-934*
Radio Essex	1.	1			201	930-934*
Radio Solent	1.	1				930-934*
Radio Devon	1.	1				930-934*
Radio Cambridgeshire	1.	1				930-934*
Radio Leicester	1.	1.000				930-934*
BBC Radio Norfolk	1.					BY AND IN
BBC Radio Swindon	1.					
BBC Radio Wiltshire	1.		KEY 7	0.0	annel number * Lo	and a state from the



#### Has video killed the radio star? We reckon not. And here's why...



ree music, delivered to your home, whenever you want it, in any style you choose. Or if you're in the mood, news, current affairs, sport, drama, chat, features... all free, all on demand. A dream?

Hardly, and getting nearer complete fulfilment with every radio station that's launched. Never has so much been broadcast to so many. In fact, these days you really can expect to find something for pretty much every taste at practically any time. And it really is free, at least once you've bought your radio (and as you're about to discover, that needn't set you back more than a small bag of full-price CDs, for high quality results).

Now that the DAB (Digital Audio Broadcast) market has matured a little, it no longer feels so strange mixing FM and DAB tuners in one group. And despite the obvious conflict between the two systems as far as stations broadcast on both are concerned, they are to some extent complementary, given that each includes stations not available on the other. So are we saying that you must have both?

Absolutely not! You may often find that the decision has been made for you. Many city-dwellers, unable to use an external FM antenna or perhaps plagued by pirate stations and other sources of interference (memo to pirates – your stations may be excellent musically but could you just turn it down a bit and stick to your frequency? Ta...), will welcome DAB unhesitatingly, offering as it does the promise of interference-free reception with little more than damp string for the antenna. By contrast, those in rural areas may find themselves unable to receive DAB however hard they try, and although coverage is improving all the time why wait if FM can float your boat?

And as PURE's multi-mode tuner demonstrates, there are models around which can handle both FM and DAB for the truly radio-hungry. The ultimate solution? A handy one certainly.

What's evident, even before the results come in, is that radio is very much alive and well and enthusiastically supported by hardware manufacturers. Three FM tuners, representing the culmination of half a century's development, and three of the latest generation of DAB units grace the following pages. Let's see how they behave... (

#### EQUIPMENT USED REFERENCE SOURCES

Rotel RCD-971 CD player Rotel A76 all-analogue tuner AMPLIFIERS EAR 802/519 amplifiers Harman/Kardon HK6500 integrated amp SPEAKERS

ATC SCM20 speakers ANCILLARIES Cables by Bespoke and Kimber Sound Technology ST1000 FM generator (modified)

#### **MUSIC USED**

José Antonio Guzmán Ambrosio Beethoven/Klemperer 9th Symphony BB King King Of The Blues Astor Piazzolla The Central Park Concert

(CDs converted to FM signal via FM generator for comparison purposes) Plus BBC Radios 1 to 4, Classic FM, Planet Rock and other broadcasts






# £130 № 01327 340601 @ www.acousticsolutions.co.uk

Cheap as chips, but ultimately not quite as satisfying



CONTROLS: There's sense in having very few DAB presets - they're easier to remember! Anyway, all stations are stored by name, ordered alphabetically or by 'favourite' order. The headphone output is useful, the system remote optional. Hit 'Autotune' once in a while to refresh the stations list.

CONNECTIONS: About as simple as it gets, but that optical output can usefully lift the performance of this particular model. The F-connector antenna socket ensures that an FM antenna isn't used by accident, which could give inferior reception. Reviewing this a while ago in the front of the magazine, we commented that it was the cheapest full-size DAB tuner. It seems it still is, if by less of a margin. Little appears to have been lost either, by comparison with more expensive models. OK, so there's no input for an FM tuner to loop through and just the one (optical) digital output, but it's housed in a smart and well-made case and even offers a headphone output with its own level control.

Internally it's based on a fag-packet sized card from Frontier Silicon, an offshoot of the Imagination Technologies (VideoLogic/Pure) empire. In fact that tiny module does most of the work, with the aid of a simple power supply and an additional control board. The audio output appears to be taken direct from the FS board too, which at least keeps the signal path short. Not surprisingly there's a lack of audiophile bits and pieces but assembly is neat and tidy.

Operation is much like any other Imagination Technologies-derived tuner, including the 'spin 'n' press' tuning control – and if that's not quick enough for you (bearing in mind that DAB stations already exist effectively as presets rather than anonymous frequencies) there are just four onetouch presets. A remote control is an optional extra and doesn't add any functions, though it also operates an Acoustic Solutions amp and CD player.

The small display conveys essential information, including signal strength and the arguably more useful signal error rate – see that drop to zero and at least you have confidence that data is intact. There may be a small problem with the Dynamic Range Control



Seen advertised for as little as £99.95, it's the cheapest way into DAB – but its sound is noticeably coarser than models costing not much more. Probably an economy too far. CHECKLIST

REMOTE CONTROL OPT LBAND X RDI OUTPUT X OPTICAL DIGITAL OUT X ELECTRICAL DIGITAL OUT X implementation – levels seemed inconsistent at times and activating DRC caused clipping on some stations.

The basic sound of DAB is there as ever with the SP110, including the odd high-frequency artefacts that affect almost every station from time to time. What isn't quite up to DAB's usual standards is the noise floor. In fact if one listens to good speech broadcasting it's possible to hear a veritable symphony of background buzzes and whistles. This suggests that Acoustic Solutions has been a little cavalier with the layout of this design and noise is coupling from the control circuits to the audio.

But is this really a big deal? The answer depends on what you listen to. If your tastes run to the various specialist pop stations offered by DAB (Planet Rock, Radio 1Xtra etc) you're much less likely to notice. It's pretty rare that these stations let anything go out that isn't near full volume anyway. In those cases you might notice a slight extra roughness to the sound compared with the best DAB units, but even that will most often be masked by the intrinsic brightness and harshness of the broadcast itself. With Radios 3 and 4, however, this tuner is at a distinct disadvantage on the clarity front. DAB does pretty well with quiet stuff, in general, and it's a shame to let a tuner spoil that. This one does, reducing detail and compressing stereo images.

The good news, however, is that the digital output shows none of this. If you already use a CD player with an external DAC and it has a spare input, you can buy this tuner with complete confidence. Otherwise, it really is worth spending a little more to realise the benefits of what DAB does well.



# CAMBRIDGE AUDIO DAB300 DAB

Excellent value digital radio tuner that sonically only just falls behind much more expensive models

he similarities between this and the Acoustic Solutions model start becoming evident when they are switched on – the 16x2 character display is a dead ringer, for a start. Then there's the same 'tuning' knob (though here it's so stiff that pushing it to tune a particular station is liable to move the tuner bodily off its support), and finally, inside, the same Frontier Silicon DAB module, complete with front-end, decoding and DAC.

Actually this isn't fully identical to the SP110, having for instance an additional buffer op-amp on the output and having very slightly different features enabled. Like the SP110 it has the all-important received error rate indicator, but it can also display the transmitted bit-rate of incoming signals, useful for monitoring when broadcasters decrease (or, perish the thought, increase) quality. This time, there are ten presets - five one-touch, five two-touch. Finally, there is an electrical digital output in addition to the optical one. As with all the cheap DAB tuners currently on the market. this one only receives on Band III and so won't do if broadcasters start using L-Band (there are no signs that this is imminent in the UK).

As on most Pure tuners, there is an *input* on the rear of the DAB300 for connecting an existing analogue tuner. It took ages to find out how to activate this – we eventually worked out that you simply turn off the DAB300!

There's no doubt that you get something for your extra few quid. This tuner recovered a significantly more detailed sound from the airwaves than the Acoustic Solutions cheapie, and came notably closer to the standards achieved by a decent external DAC. In VERDICT SOUND \* \* \* \* \* \* FEATURES \* \* \* \* \* BUILD \* \* \* \* \* \*

Although it is possible to wring just a few more drops of subtlety from DAB you'll spend quite a lot of money doing it. This is a highly competent product at a tempting price.

CHECKLIST REMOTE CONTROL OPT LBAND X RDI OUTPUT X OPTICAL DIGITAL OUT X ELECTRICAL DIGITAL OUT X fact if one is to be honest, there is really very little that stands between the DAB300 and the various more expensive DAB models available. To be really picky, it showed slightly less insight into thickly scored orchestral music on Radio 3 and at times gave the impression that it was brighter than neutral on some pop channels – though many of those are so bright anyway that it's hard to tell.

But it certainly has very clear and assured bass which can really get the feet moving, this after all being an area where DAB is particularly capable compared with FM, and the midrange is tonally neutral and as detailed as most broadcasts will allow. Stereo images are good on Radio 3 at least, one of the few stations (possibly the only one) to broadcast consistently in true stereo rather than the slightly compromised 'joint stereo'.

At risk of being repetitive, it must be emphasised that with most DAB tuners the sound of the medium predominates over that of the tuner. Hence here there's the usual odd fluttering which tends to be attendant on sounds with fairly strong high-frequency content the harsh, brash quality in seriously treble-rich pop and the frequently alarmingly sibilant quality on speech. Against that one must offset the undoubted advantages of quiet background, lack of obvious distortion and complete absence of interference. And you get all of those for £150, by and large, just as you do for several times as much. In other words, this is a safe and sensible choice for a first DAB tuner. Yes, it lacks L-band and Radio Data Interface but for good oldfashioned 'listening to the wireless' it does a fine job. 🔘



CONTROLS: Ten presets here. The 'brightness' control will we welcomed by those who like to listen in dimly-lit rooms. 'Power' actually switches to standby – in principle, keeping the electronics warm is no bad thing.

CONNECTIONS: That tuner input passes straight to the output sockets when in standby mode, or when power's removed – a nice touch that saves an amplifier input. Electrical digital connection can give better results than optical, though in this case differences are marginal in the extreme.



# £600 № 01753 680868 @ www.marantz.co.uk

A well built and beautifully presented tuner, but its sound falls short of its price tag





**CONTROLS:** The 'gyro control' is by far the nicest way to tune, and helps in naming preset stations – though you'll still need the patience of a saint to do it often. Those tiny buttons are fiddly – why do all manufacturers seem so devoted to them?

CONNECTIONS: Given this tuner's dislike of too much RF level, Antenna B is the one to go for, with the attenuator switched to 'local' – at any rate, if you have a decent antenna in the first place. Control sockets give neat integration with other Marantz kit.

reviously reviewed in HFC over a year ago, the ST-17 is now in 'modified' form, though hard information on precisely what has been modified seems a little hard to find. It's clearly the same beast outwardly, and a well-specified piece of kit by any standards. For a start, it's surprisingly heavy, a function of its very solid chassis and relatively substantial transformer and power supply. Probably the most immediately appealing feature for the radio-loving die-hard is the 'gyro' tuning control, which allows a quick flick of the wrist to tune, if not quite from end to end of the scale, at least a good bit of the way. Very much nicer than up/down buttons!

It's no surprise to find RDS operation, which not only displays information relating to the programme (pretty much the same as with DAB, really) but also the type of programme - hence it is possible to search for stations by programme type (classical, religious, jazz, etc). Sixty presets, covering all three bands, should be enough for most folks, and to help organise them you can input a name for each - if you can be bothered! Two FM antenna inputs cater for those who have both cable delivery and an antenna, or even two antennae pointing at different transmitters. One of the inputs also has a switchable attenuator, which can be useful in some circumstances

The picture is completed with switchable IF bandwidth to improve matters when nearby stations crash in on each other (hello, South London pirate broadcasters!), the usual manual or automatic tuning options and a system remote control connection at the rear. Build quality is excellent, though most of the operational parts

# 

Marantz's FM reputation is enviable and this is a beautifully presented unit – which however fails to live up to the promise. Better sound in all areas can be had for significantly less. CHECKLIST

REMOTE CONTROL X IF BANDWIDTH SWITCHING Y SIGNALSTRENGTH METER X RDS Y PRESETS 60 are from the usual pool of radio bits from Sanyo, and it's all very nice to use. Still no signal strength meter, though...

If only those modifications had done something about the sound. In some respects it's very nice – tonally there's much to enjoy, with some of the finest bass we've heard from FM and very decent voices, and it's good and quiet. But there's just too much congestion to the sound, a lack of clarity that affects almost everything from news reports to acid house to symphonies.

In all likelihood, if you heard this tuner in isolation it might not sound half bad. Given the technical standards of some of what gets out on the airwaves (massive over-compression being only the half of it) it could probably sound miraculous. But directly compared to two other current models, both in the region of half its price, it loses out quite noticeably in the detail and precision stakes, making an orchestra sound under-rehearsed and spoiling the marvellous sonic realism of the best Radio 4 drama.

Why? Frankly, it just distorts too much. Some new lab tests which show up detailed technical performance speedily and graphically soon revealed that under almost all conditions the ST-17 produces more distortion than the other two FM tuners in this group. In fact it seems to have been optimised for very low radio signal levels, which is all very well and could be a blessing for some, but this has meant that ultimate sound quality is sacrificed - and there are other oversights on the audio front too. What's more, other tuners we've seen manage just as well with poor reception and still sound better under idealised conditions. Put this one down to experience... 🔘



# PURE DIGITAL DRX-702ES DAB/FM/MW

A superbly well-featured DAB radio, but the FM side could do with a bit of work

hile most manufacturers are still coming to terms with DAB's very existence, Pure (a brand evolved from the older VideoLogic name) is on effectively its third generation of DAB tuners, and this is its current 'statement' model. Actually it's almost a retrograde step, in a way, since for the first time it includes old-fashioned AM/FM radio alongside DAB. That's entirely sensible, though, and will be welcomed by anyone who needs a new tuner but can't yet receive all (or any) DAB stations.

That makes for quite a busy back panel, since there are now input sockets for FM, AM and DAB antennae, plus optical and electrical digital outputs, Radio Data Interface output, audio outputs (and loop-through inputs) and on top of all that a USB socket so that the tuner can be connected to a PC and upgraded with new control software. The same socket allows data to be passed from tuner to PC, giving access to DAB's promised data services. The review sample even came with the optional extra (£70 extra, to be exact) balanced outputs. Oh, and this futureproof model incorporates L-Band reception and several choices of language for the display.

Assembly is smart and modern, with practically all the audio circuitry on a single surface-mount circuit board. The FM/AM side of things is largely handled by a standalone module from Panasonic, which incorporates RDS: this has allowed Pure to add full automatic (DAB-like!) FM tuning operation, with stations being identified and stored by RDS name, even to the extent of ignoring weaker signals with the same RDS ident. Ease of use is good, though the display's a little disappointing.

# VERDICT SOUND

There's much to be said for the concept of providing both DAB and FM in one box, but while DAB performance is fine the FM side leaves quite a lot to be desired, reducing appeal markedly.

CHECKLIST REMOTE CONTROL IF BANDWIDTH

SWITCHING SIGNAL-STRENGTH METER RDS

PRESETS 99 (EACH BAND)

'Psycho-Acoustic Compensation' to MkII, but it's still the same colour of a horse - a gently shelved treble response which does mildly alleviate some of DAB's too-frequent brightness but doesn't address the more serious issues of fluttering ('space monkeys') and programme-dependent lack of detail. In other words, A/B dems of this tuner against a non-Pure DAB model will immediately put this one at a mellow advantage but in the longer term one still has to contend with the artefacts, and it's not really any easier to hear the real detail especially in brighter sounds. Mellow-sounding music is great, as

Pure has recently upgraded its

always on DAB, and one can also easily appreciate the strong and clear bass of the system through this tuner. FM performance varies far more between models, and with the '702ES it must be said that it's not that great. In fact on most stations it's a bit mushy

In fact on most stations it's a bit mushy and unclear – tonally there's not much wrong apart from a slight chestiness in the midrange, but detail is really not up to the standards of the best budget tuners, let alone the FM-only models in this group. Objectively, noise and distortion both seem on the high side, so that's perhaps not surprising. The '702ES also really appreciates a clean, strong FM signal, suffering more than most from 'birdies' and high noise levels as the signal fades.

This is a bit of a shame, since with its feature count and basic specification this tuner should be a no-brainer. But it seems that in its eagerness to make it all things to all men, Pure may have cut one corner too many. If FM is an emergency-only option for you this may do nicely, but for any serious FM listening it's not a strong contender.



CONTROLS: By comparison with other Pure (and Pure-derived) tuners it seems some controls are missing, but all the various display modes (signal strength and quality, bit-rate, station information) are there somewhere! Headphone output is nice but a level control on it would be even nicer.

CONNECTIONS: Plenty going on - though note that the balanced outputs are an added-cost option. Adding USB connectivity seems a good idea, bringing the PC (and by implication the internet) yet further into the hi-fi fold.



# **REGA RADIO 3 FM/MW**

It's a digital-free zone, but this tuner handles analogue FM exceptionally well



CONTROLS: The buttons feel cheap and plasticky, some modes are a bit idiosyncratic and manual tuning is slow and tiresome. But if you make use of the presets that will seldom bother you, and it can't detract from the sonic performance. CONNECTIONS: Absolutely just the basics! Like practically all FM tuners, this one has a male UHF connector so you may need a gender-changer to connect a standard antenna downlead. Don't be tempted to take a feed from your TV antenna - it won't help!

he name seems destined to appeal to classical music lovers the aesthetics will appeal to some but perhaps not others. A classic bit of iconoclastic Rega design, in fact. Not so unusual inside though, with more of the usual radio bits doing the business. Still, you get a more impressive power supply, and a considerably more substantial case, than electronically similar models from the Far East can offer. True, you also get less features, but really the only thing one might miss is RDS and if Rega wishes to counter that very few people really use RDS in the home we can only agree.

Talking of features, though, they could perhaps be a bit easier to use. There's always a compromise between clutter on the front panel and ease of use, but it could be argued that Rega has worried a little too much about the first. There also seems to be an operational oddity in that when 'preset' mode is activated stations sometimes play at reduced volume. But if you keep the manual handy, or simply don't retune much, you'll get by happily enough. Tuning is achieved in half steps (25kHz) which can sometimes help in avoiding interference from nearby stations. Rather unusually for a specialist tuner there's also AM reception - and it's relatively good too.

Don't be alarmed if the tonal balance of this tuner seems a little bright at first. Ever so slightly, it is. Sometimes that's the first symptom of more worrying things like roughness, harshness or even shrillness. In this case it's simply a very slightly uptilted response, something one gets used to after a minute or three. And once that's accounted for, the sound overall is extremely tasty.

# VERDICT SOUND $\star \star \star \star \star$ FEATURES $\star$ $\star$ $\star$ $\star$ BUILD $\star$ $\star$ $\star$ $\star$ VALUE $\times$ $\times$ $\times$ $\times$

A simple, unpretentious unit which does just what it claims - captures the best sound from the airwaves at what in context is an attractive price. Midrange hi-fi at its very best.

CH	EC	KL.	SI	

REMOTE CONTROL	OPT
IF BANDWIDTH SWITCHING	x
SIGNAL-STRENGTH METER	×
RDS	×
PRESETS	20

Given, as usual, that not all of what one receives on any radio is of decent quality, this tuner can always make the best of a bad job, and with good programmes it really shines. On Radios 2, 3 and 4 it proved a dab (no pun intended) hand at coaxing uncommon levels of detail from the ether. It does like to be fed a pretty strong radio signal, and under marginal conditions it will tend to be slightly noisier than some of the competition, but it's not easily upset by having too much level so, as usual, a good FM aerial is highly recommended.

You'll be rewarded with a very pleasingly clean sound, with good bass extension that never overreaches into plumminess, a commendably open and neutral midrange and just a little coloration in the higher frequencies, really nothing to get upset over. Speech is handled gracefully with minimal spit and stereo imaging is about as good as it gets via radio. Classical music is suitably civilised, while energetic rock drives along with great vigour, perhaps losing the smallest degree of 'foottappingness' but only by comparison with considerably more expensive reference devices.

Because of this tuner's slightly bright character, modern synth-based pop can sound a bit too much in direct comparisons with other models, but in the longer run the lack of roughness further down the band more than compensates for this. Incidentally, output levels are lower than with many other tuners, making careless comparisons misleading!

In short, this is a very capable and satisfying tuner which should certainly be auditioned by anyone seeking to maximise the pleasure of FM radio.



# ROTEL RT-02 FM/MW

Not the sharpest attack, but you're assured of a smooth ride over the airwaves

his model is part of Rotel's fairly recent overhaul of its range. Once again, however, it draws on active components most of which have been turning up with great regularity in tuners for many years. One internal detail caught our eye, – a particularly well-thought-of op-amp in the output stage, showing that Rotel still cares enough about FM radio to put at least some effort into it! An encouraging sign.

That apart, the basic feature count is par for the course, with FM, AM (MW only), RDS, 30 presets - and a remote control. Remotes are relatively uncommon as standard accessories for tuners, but you won't want to lose this one because Rotel has made some functions available only via the remote, which one might regard as a mixed blessing. You can use all basic features without it, but it adds direct numeric entry of station frequency, access to searching by RDS station type (and searching for traffic announcements too) and even the option of turning the display off. A couple of feature buttons provided on the remote evidently only apply to fancier tuner models, however. Sockets on the rear of the RT-02 allow its use with a system remote as well.

As is the custom with Rotel products, design and assembly inside and out are a small but noticeable cut above average. Operation is simple enough. Just once during the review period it hiccuped and lost all reception, but the next day it was working fine again and the problem never recurred. Oh, the joys of microprocessor control...

On the whole, this proved to be a likeable performer with many good

# VERDICT SOUND SOUND FEATURES BUILD VALUE

Perhaps not the most impressive tuner you'll ever hear but one that's very satisfying to live with. A good, practical model with decent sound under any conditions.

CHECKLIST REMOTE CONTROL / IF BANDWIDTH SWITCHING / SUGNALSTRENGTH METER / RDS / PRESETS 30 qualities. Its bass is extended and strong, though on occasion Just a little on the heavy side. The treble is a definite strong point, open and neutral with very little sibilance, while the midrange gave mixed results depending on material. Speech is excellent, but densely-layered music is served a little less well with some thickening of textures here and there and a slight loss of detail and stereo image precision.

With a good radio signal at the input, noise is typically just a little higher from this tuner than from the others in the group, a result confirmed by our new measurement regime which showed a localised 'bump' in the noise floor in the midrange, just where it registers on the ear. How this affects the overall result certainly depends on the station, and it's hardly likely to contribute much to the overall sound of highly compressed pop stations. Indeed, for the latter this makes a very good choice, not ameliorating the broadcasters' heavyhanded processing but at least making it no worse. With the much more dynamic Radios 3 and 4 it fares a little less well but still produces a gratifyingly musical result.

One might summarise this tuner by saying that it seems very laid back and unfussed. It never sounds dull but it won't appeal to those who value raw attack highly. If you listen a lot it will never give you a headache and it seems well adjusted to making the most of a wide range of reception conditions, only lacking switchable IF bandwidth for really crowded airwaves. Perhaps not a true star but it's a good solid performer that will serve you well.



CONTROLS: The busy front panel doesn't even include all the controls! You'll need the remote for RDS, direct frequency input and switching to mono (still one of the best ways to cut persistent interference). The display's smart but the signal strength meter is, as too often, far too optimistic.

CONNECTIONS: Despite the remote's antenna switching function, there's only one FM antenna input! The connections for external remote and on/off switching are aimed at multi-room installations as much as anything – good forward thinking.

# CONCLUSIONS

DAB is here, but there are still plenty of good reasons to buy an FM tuner - the sound for one

FM here are two things we can be reasonably confident about in the radio scene – FM is here to stay for a while yet, from the point of view of software and hardware, and DAB will continue to fall in price for a

## TRY THEM WITH THESE

#### AMPLIFIERS

BRYSTON BP25/4BSST £4,000 Over the top? No – a good radio can gracefully partner the top ranks of amps and speakers and keep getting better. Radio can be a demanding source!

ROKSAN KANDY KA-1 £475

A high-power integrated that's always in control and unflustered by high-energy treble – a useful attribute with compressed sounds from radio.

#### ROTEL RA-02 £349

Suited to more than just its sibling tuner, this lively and detailed amp is a classic budget winner.

SPEAKERS ATC SCM20SL £2,051

The neutral balance, fine bass extension and excellent detail of this largish standmount give good results with the best music stations on the dial.

#### B&W D602 S3 £300

A fine speaker with notably clear (not over-bright) treble, which makes it a good match to radio source material. Good with disc replay too!

## **BLUEROOM MINIPOD £249**

Eccentric looks, but a very natural and open sound, particularly if you listen to speech on the radio as well as music.

## HINTS AND TIPS

FM tuners benefit enormously from a really good, clean RF signal, which in almost all cases means an antenna mounted on the roof. If this is even remotely possible, budget around £100 for it. In marginal-reception areas, DAB too needs a good antenna. Outdoor ones with four elements are available from Maplin and others. Many DAB tuners have a signal quality display, which indicates whether the received data as intact. 'Error rate O' is very comforting! Sadly, most FM tuners either don't have a signal-strength meter or have one that indicates 'full level' when the signal is in fact marginal. Don't ignore cables – tuners benefit as much as anything from decent interconnects

If you have FM and DAB tuners, putting them together can cause mild interference – separate them by a shelf or two if possible. given level of performance and set of features.

This review nicely demonstrates both of those. A firm with Rotel's experience and savvy doesn't put a smart new tuner like the RT-O2 on the market in the expectation that FM will vanish overnight. Likewise the Rega and Marantz models, which though recent aren't quite as new, come from manufacturers accustomed to assessing the market with a shrewd eye – and they've both shown strong commitment.

As for DAB, the Cambridge and Acoustic Solutions models are almost down to the 'impulse purchase' level and no doubt many people will buy one just to see what DAB's all about. At worst, one might find new DAB features being enabled in a year or two in which case one buys a new tuner (probably even cheaper by then) and relegates the old one to the study or the offspring. At best, a model like that could end up giving good service for a good long time.

Well, the Cambridge could, anyway. The AS does seem to have scrimped a little too hard and lost something in the process, but Cambridge's model loses little, very little, to more upmarket DAB tuners. There'll be others along in a minute but chalk one up to Cambridge for the moment. Rega's FM tuner costs a deal more, and factor in a decent antenna for a few tens of £s at least if you really want good results. But this still doesn't amount to a very frightening sum of money and in many cases, truth to tell, FM really does sound better than DAB. If you're fundamentally happy with FM and just want to upgrade a budget tuner, this one's a sure-fire ear-pleaser.

Rotel has a habit of making good kit and the RT-02 is no exception. It might have shone here if the Rega hadn't outshone it in turn. As it is, it's cheaper and good at its price – another one that will give pleasure reliably and consistently.

# **STAR PERFORMER**

# **REGA RADIO 3**

In a world full of flashy, highly-featured gizmos this FM/MW tuner continues to stand for classic hi-fi virtues of simplicity and purposefulness. Its performance – detailed, clean, open, stress-free – proves that those virtues really mean something. One of a small handful of outstanding tuners on the market.





# TUNERS AT A GLANCE

MAKE	Acoustic Solutions	Cambridge Audio	Marantz	Pure Digital	Rega	Rotel
MODEL	SP110	DAB300	ST-17	DRX-702ES	Radio 3	RT-02
PRICE	£130	£150	£600	£330	£374	£279
SOUND		****				
FEATURES						
BUILD						
VALUE						
CONCLUSION	The cheapest full-size DAB tuner yet, but sound is noticeably coarser than in slightly more expensive models.	A DAB winner - very nearly matches much more expensive models for sound. Band III only.	A beautifully made and fully-featured three-band tuner, but its sound lacks precision for the money.	DAB and FM/AM in one box is attractive, as is the wealth of features, but sound disappoints on FM.	A lovely little analogue music-maker that just plays to perfection with no frills.	Highly competent and well featured, a tuner that will give pleasure in any system.

# Send for your Free copy today

The DAB Digital Radio Guide is packed with information on new digital-only stations and your current favourites, along with a quick look at some of the new radios that are available. There's also a chance to win a DAB **Digital Radio.** 

DAB brings you lots of choice - a fantastic mix of music at your fingertips. Rock, pop, classical, dance, hip hop... whatever you're into, it's there for you.

And there's more: you'll get Classic FM and Virgin Radio in digital stereo and talkSPORT sounding crystal clear. A host of new services offer you all you could want from discussion, plays and books to news, sport and comedy.

Choice, crystal-clear reception, no need to retune, text information and the richest-ever choice of stations.

Digital is the most exciting thing to happen to radio since AM and FM – if you're not listening in, you're missing out.

Please send me my Free copy of The DAB Digital Radio Guide.

# or apply online now at www.lovemyradio.com

Digital One 20 Southampton Street, London WC2E 7QH Tel - 020 7288 4600 Fax - 020 7288 4601. Or visit www.ukdigitalradio.com

Surname	 		
Address			
			-
Postcode		 	
Telephone		 	 
Email			

Please send to: Digital One, FREEPOST LON20648. LONDON WC2E 7BR

If you do not wish to be contacted again, please tick this box

sport comedy Books and plays Entertainment and much, much more.... Meet some new faces, and some familiar ones Find out about new products

Music

DAB digital

# PLUS YOUR CHANCE TO WIN A DIGITAL RADIO

First name

# £150 ► CONTRACT CONTRACT OF CONTRACT CONTRACT OF CONT

here may or may not be some kind of logic in MoS launching a DAB radio just as its own DAB channel goes off the air. Not being in the habit of doing things by halves, MoS has produced a very neat package based on the latest hardware from Frontier Silicon – so in most ways this portable behaves just like the full-size units from Pure, Acoustic Solutions and Cambridge, complete with signalstrength displays etc. The antenna is in the head phone lead, which seems to give excellent reception. Officially, you can't use other headphones, though in practise you can often get away with it. Using said (in-ear) phones the sound is pretty good and with studio-quality cans it's really very fine. Objectively there's precious little between this unit and full-size ones, unless you choose to activate the various equaliser presets – which are well done, and not excessive. Volume steps are a bit coarse, but all things considered this is a goodsounding unit that's nice to use and reasonable on batteries (about eight hours off a pair).

PORTABLE





# £229 ► TEL COLUE © 020 8263 6123 ⊕ www.perstel.co.uk

ne can only marvel at the fact that this 21st-Century tranny contains over 600 million transistors. Why? Because it's also a 64MB MP3 player. And it receives FM in case DAB reception peters out at some point on your travels. That's a great idea, though it's a shame that both DAB and FM generally require the telescopic antenna to be extended, wrecking the 'pocket-sized' image.

But it's a very nifty gadget. The in-ear phones supplied aren't bad and Perstel has cut the high treble output of the tuner itself which helps tame the typically bright sound of such beasts (the built-in equaliser only works in MP3 mode). Reception in inner London seems good and FM reception isn't bad either. All the same, the finer subtleties of sound lose out to the Ministry Of Sound personal and in any of the various modes it's hard to hear deep into the music. Battery life is around five hours. An aspirational toy, but not the best-sounding of its kind.

# £120 ★★★★ 2 01923 277488 @ www.pure-digital.com

he basic Evoke, at £100, has proved popular so it's no surprise that Pure should seek to capitalise by offering a smarter variant – and the cherry veneer certainly is smart. It's a good-looking table radio for the new century, and just like any other DAB tuner to use, with the usual features including Dynamic Range Control. This really can be useful in this kind of application (and helps disguise the fact that just a little more max volume might have been helpful).

Sound quality is dominated by the internal speaker, which is good but not great, losing out (given good reception in both cases) to the Tivoli PAL on naturalism and projection. You'll not easily forget you're listening to a pretty radio here, but the DAB advantages of clear reception, ease of use and extra stations all apply. Via headphones or the line output some odd background noises are audible, which seems careless. But it's nice-looking, practical and a decent example of its kind.



RADIOS

Six options to tune in and turn on whether you're on the move or in the kitchen

# £100 ₩₩₩ 312 @ 01709 571722 @ www.robertsradio.co.uk **ROBERTS REVIVAL** FM/MW/LW

on't worry, it's available in other colours – even in real leather for £30 extra. Roberts is well known for its radios that hark back to the days of the classic 'tranny', and the external resemblance is very good. Inside it's not bad either, though the modern speaker is less substantial than those of old and there are a few more modern-looking electronic parts. If you choose to use batteries, you'll have to find a big 'PP9' type, which is getting hard these days. Sound is a little disappointing given

sound is a little disappointing given the price and also by comparison with similar-sized trannies from the 1960s and 1970s – it's a bit thin and weedy, with a distinct lack of the terrific projection which made many a small tranny sound much bigger than it really was. All the same it is reasonably listenable and the internal ferrite antenna actually gives quite decent results on MW and LW. FM reception is mono only (even on headphones) and the tuner's a little deaf but the analogue tuning allows fair rejection of neighbouring stations. You pay a lot for the looks though.





# 

oberts' little cutey above is a throwback, but the Romano is very much Roberts in the present. Okay, it's not DAB, but it has digitallytuned (PLL) stereo reception – stereo on headphones only – and it looks both individual and modern. It has FM, MW and LW, presets, an alarm clock, mains or battery operation, and tasteful lighting. Oh, and a rotary tone control.

The trouble is that you're unlikely to find the tone acceptable. It's thick, congested, muddy and, with music at any rate, downright unappealing. With speech the results can be a bit more positive but they're not great and don't really justify either the price or the sheer size of the thing (about 22cm high). No one expects a clock radio to be full-on hi-fi, but surely you can expect to listen to it with only half an ear and still understand what's being said? As an alarm clock it doesn't really score either because the ill-thought-out top panel is not what you want to be fumbling around with at 6am.

# £130 ☆☆☆☆☆ ∞ 01702 601410 ⊕ www.tivoliaudio.com

ever mind the silly name (Portable Audio Laboratory – laboratory??). This is a spin-off from the original Tivoli, one of the fastest audio legends ever. In case you missed it, the Tivoli was designed by another audio legend, Henry Kloss, to be the kind of table radio that you might actually want to spend some time listening to. This is a Tivoli to take on holiday or to the beach – it's pretty much weather-resistant, includes a rechargeable battery and is also

small, handy and robust.

And the latest version is quite simply the business. It's well thought-out, for a start, with a lovely tuning action, and it has terrific selectivity on both FM and AM bands. Above all, it sounds much better than you could reasonably expect, with clear, detailed and dynamic sound in both speech and music. Very bright music can get the better of it, truth be told, but on the whole it is just delightful and fully justifies the high price.



# **REVIEWS - Paul Messenger**



# The area around £1,000 is where you find some of the most striking differences in speaker approach and quality

his six-strong group's £800-£1,300 price band represents the upper middle sector of the marketplace. There are similarities between many of the models, but stark contrasts too, and it's these that make a group test such as this so interesting.

Five of the speakers are floorstanders, and so are very different from the tiny Spendor S3/5se standmount. The contrast in bulk between the Spendor and the Triangle at opposite extremes is quite dramatic, so it's not surprising to find that this is reflected in various aspects of their sound quality character.

Four are British, and two are French. Irrespective of any sonic differences of philosophy between the two cultures, there are quite obvious contrasts in their approaches to styling and especially surface finishing. It's a reminder that, in spite of globalisation, even neighbouring countries have their own distinct traditions in household furnishings.

As one might expect at these sort of prices, five of the speakers have real wood finishes of various kinds, while the sixth, from the newly reformed Revolver brand, opts for a very attractive and lounge-friendly fabric-based alternative.

The Spendor is too small to be anything but a two-way. Of the others, both the JMlab and the Monitor Audio are 'two-and-a-half-ways'. The Revolver, Triangle and Mission are all three-way designs, only Mission really taking full aesthetic advantage of the fact by placing its bass driver on the floor, and using a small midrange driver to keep the front view fashionably slim.

The Revolver and Monitor Audio look very similar indeed in terms of drive unit line-up, but MA has opted for a two-and-a-half-way configuration, whereas the Revolver is a three-way. These have different advantages and disadvantages, at least in theory. The two-and-a-half-way has a much simpler crossover network, requiring just one extra 'arm' over a two-way to roll off the bass-only unit, in a relatively gentle non-critical way, whereas the three-way has to match the bass rolloff to the midrange roll-on and achieve an accurate blend. The former offers greater simplicity that should

lead to superior coherence, but the three-way will have superior power handling, and also allows each drive unit to be more precisely tailored to its allotted task.

# EQUIPMENT USED

SOURCES Naim CDS 2 CD player Rega Jupiter CD player Linn LP12 turntable Rega RB1000 tonearm Linn Akiva, Dynavector XV-1 cartridges Magnum Dynalab MD 102 tuner AMPLIFIERS Naim NAC552 pre-amp Naim NAP500 power amp CABLES Naim NACA5, Nordost SPM, Acoustic Zen speaker cables **MUSIC USED** Lambchop Is a Woman Grateful Dead From The Mars Hotel

Alison Krauss + Union Station Live Cambridge Singers/Rutter There is Sweet Music LSO Live Shostakovich Symphony No 11 Lowell George Thanks I'll Eat It Here BBC Radios 3 & 4 were also used extensively







# **£999** per pair ☎ 0121 616 5126 ⊕ www.focal-jmlab.fr **JMLAB COBALT 816 SIG**

Top-notch all-rounders with a very distinctive look

France's number one speaker marque by a comfortable margin, JMlab (named after founder and principal Jacques Mahul) is the brand used for complete speaker boxes, which invariably use the drive units the company makes and markets under the Focal brand.

A little over two years back we reviewed a pair of Cobalt 816s as part of a five-channel surround sound system. Now there's a new model postscripted 'Signature S', based closely on the standard version but

# **KEY FEATURES**



DRIVE UNITS: This 'two-and-a-half-way' design uses two 165mm 'W-sandwich' cone drivers, combining structural foam and sheets of woven glass fibre, the upper one with a new acoustically transparent dust cap. These operate below the Tioxid 5 version of the company's inverted titanium dome tweeter. The enclosure is loaded by a large front port, which may be blocked by supplied bungs if preferred.

CONNECTIONS: Round the back are twin terminal pairs placed conveniently close to the ground, and an inspection panel, so you can watch the crossover network doing its thing! incorporating a substantial under-theskin revamp and carrying a £100 premium. The contemporary styling is certainly different from the British norm, with 'red cherry' real wood veneered sides, metallic-look front and top panels, and a perforated grey metal grille. JMlab 'trickles down' the technologies from the Utopia and Electra ranges, so this model shares many of the same advanced features touted by these more costly speakers.

It's a 'two-and-a-half-way' design, with both 165mm 'W-sandwich' cone drivers operating through the bass region, and just the upper one carrying on through the midband. Key Signature S elements include a new acoustically transparent dust cap for the topmost bass/mid driver, a more effective cabinet damping material (borrowed from the Electras), and the Tioxid 5 version of the company's inverted titanium dome tweeter. The crossover network has also been realigned. Round the back are twin terminal pairs, and a crossover network inspection panel. The enclosures are ported, but can be blocked by supplied bungs if preferred, and tough 8mm spikes give firm support - though without the added stability of a separate plinth.

Sonically the Signature S is a real class act, delivering a rare combination of open neutrality alongside ample bass drive and weight, and realistic dynamic expression. The Alison Krauss + Union Station Live album came across with all the verve, intimacy and dynamic tension that is the raison d'etre of a live recording like this. The original model was already a leading performer, and this upgrade undoubtedly represents a significant improvement, avoiding the rather 'shut-in' and 'pinched' voice band that was the most obvious limitation and criticism of the original model. As a result, diction is much clearer and lyrics are that wee bit more intelligible, especially at low listening levels.

Indeed, JMlab might have gone a little too far in rebalancing the Signature S, which if anything has a slight tendency to over-project detail in the presence band. This adds a mild 'spitchy' coloration to speech, and can



# VERDICT SOUND SALE AND EASE OF DRIVE SALE AND BUILD VALUE SALE AND VALUE

One of the best allrounders available around the 1,000 mark, combining a lively and dynamic character with an unusually smooth and neutral balance, marred only by a slight 'sting' in the lower treble .

CHECKED	
FLOORSTANDER	
CLOSE TO WALL	
WIDTH	22CI
HEIGHT	98CI
DEPTH	31C
<b>BI-WIRABLE</b>	

make close-miked vocals and applause sound a little bit too up-front and aggressive, but it's a minor point.

While it might lack the loudness capability or bass weight of a three-way, this speaker's inherent simplicity is clearly reflected in its fine overall coherence, and that in turn must be responsible for its excellent communication skills.

# LAB MEASUREMENTS

Significant changes in the impedance trace show that the Signature S 816 is indeed different from the 'standard' model, confirmed by comparing the far-field inroom responses. The latter's 7dB 'notch' around 2.3kHz is now completely eliminated, and Signature S's overall trace is impressively flat from 150Hz-8kHz, and smoother than most too, albeit with a slight emphasis at 2.5-4.5kHz.

Sensitivity is a generous 91dB, in-room bass extension solid (-8dB at 20Hz), but the amplifier load is quite demanding, falling to 3-4 ohms in the bass region. The bass alignment looks pretty good, clearly indicating the speakers should be kept clear of walls.

**Group Test** 

# £900 per pair ☎ 01480 423700 ⊕ www.mission.co.uk

Thoroughly modern floorstander receives a sonic tweak

ore than three years ago *HFC* reviewed and Recommended Mission's original £700 782. Now this delightfully compact and beautifully styled floorstander has undergone a major performance upgrade. The result is the £900 782SE, which allegedly is having no problems pinching sales from its still current and less costly brother.

The main changes lie in the use of a selected version of the 25mm fabric dome tweeter, and in a complete reworking of the crossover network

# **KEY FEATURES**



DRIVE UNITS: The midrange driver has a 90mm diameter Keraform cone. This impregnates a fibre matrix with a china clay/resin compound and is much closer to a true ceramic than the surface coatings deep-anodised into some metal diaphragms. The mechanically decoupled tweeter has a 25mm fabric dome, and a 120mm-cone bass driver fires from the cabinet's side.

CONNECTIONS: The terminal block is conveniently placed close to the floor, with two pairs of gold-plated socket/binders for bi-wiring/bi-amping. The side-mounted bass driver is placed at a similar height. which has been upgraded using audiophile-grade components – polypropylene capacitors, iron dust inductors and special OFC internal cabling, all hard-wired. Finish is an attractive alder real wood veneer.

Keeping Mission firmly at the forefront of modern industrial design, the three-way 782SE looks exceptionally slim because the 120mmcone bass driver has been mounted on the side of the enclosure. The front panel therefore only has to accommodate the smaller midrange and tweeter drivers, while heavy chamfering further enhances the already slim appearance.

The speakers are built as mirror-image pairs, so they may be sited with the bass units and ports pointing inwards or outwards, according to preference. The midrange driver uses a small (90mm diameter) ceramic-type cone material called Keraform, co-developed with speaker drive unit specialist Audax. Keraform impregnates a fibre matrix with a china clay/resin compound, so it's much closer to a true ceramic than the surface coatings sometimes anodised onto metal cones. The tweeter, placed below the midrange here, has a 25mm fabric dome and is mechanically decoupled from the enclosure.

The whole thing is set on a moulded, web-reinforced base, which provides secure fixing for the chunky chromeplated spikes. Twin terminals provide a bi-wire/amp option.

Finding the right location for these speakers is critical. Too close to a wall tends to thicken up the bass textures and add a 'thumpy' character to bass guitars. Too far away and there's a loss of impetus and drive, and a slightly 'detached' character. Get it right, however – in our room a gap of around 40cm between the rear of the speaker and the wall seemed about right – and this speaker has a lovely ability to 'disappear', acoustically speaking, leaving just the soundstage, with no hint of boxiness.

It's still not a dramatically powerful or dynamic sounding speaker, and the bass could certainly do with a little more purpose and drive. The Grateful



VERDICT SOUND CASE OF DRIVE CASE OF DRIVE CASE OF DRIVE CASE OF DRIVE CASE OF DRIVE

Not the most exciting sound around, but definitely one of the neatest and prettiest speakers on the market. Careful experimentation is needed with siting, but they then 'disappear' acoustically, and deliver a very even balance.

CHECKLIST

FLOORSTANDER	1
CLOSE TO WALL	1
WIDTH	16.5CM
HEIGHT	80CM
DEPTH	29.5CM
BIMIRABLE	

Dead's *Mars Hotel* is an album that ought to be driven along by Phil Lesh's bass guitar, but here he seemed to take second place to the midband. Speech sounds a little pinched and nasal, with a touch of 'chest' and slightly exaggerated sibilants too.

But this is, ultimately, a supremely well-balanced design, as well as one of the most attractive and compact packages on the market.

## LAB MEASUREMENTS

The SE's measurements look very similar indeed to those obtained with the standard 782 back in Y2K. The most serious criticism back then was that there was some lack of output in the zone between the bass and the mid drivers.

The SE seems to have closed the gap somewhat, but it's still there to a degree. Sensitivity remains a modest 86dB/W (despite the claimed 89dB/W), although the amplifier load is relatively benign.

Bass extension is relatively modest too, while the alignment looks tricky - close to wall siting can make the mid-bass too strong, though it does help fill in the upper bass gap.

# £1,000 per pair 201268 740580 @ www.monitoraudio.co.uk

Ceramic-coated drivers give a solid-silver sound

onitor Audio has an illustrious thirty-year history, and was a major influence in the reintroduction of metal cones and domes during the 1980s. More recently it successfully handled the transition from the original founder to the current ownership, as well as a move from Cambridge to Essex.

The Silver S series models that came out last year improved on their predecessors by using rather larger and more capable main drivers to very good effect in the Silver S8, which we reviewed and Recommended in *HFC* 

# **KEY FEATURES**



DRIVE UNITS: Three metal-cone drivers operate here in a two-and-a-half-way configuration. The bass/mid unit has a 115mm diameter diaphragm, the two bassonly units have 140mm cones, and the tweeter has a 25mm gold-coloured metal dome. All these various metal diaphragms have been deep-anodised to form a ceramic oxide coating 50 microns thick, which increases stiffness significantly.

CONNECTIONS: Twin terminal pairs set well off the ground permit bi-wiring or bi-amping. Foam bungs are supplied to block either or both of the ports, to taste.

237. It must be debatable whether this top-of-the-line £1,000/pair Silver S10 is really different enough from the S8 to justify a 25 per cent price premium the two bass drivers are slightly larger, the box is 10cm taller and 1.5cm wider, and the whole is 2.5kg heavier, which doesn't necessarily sound like £200'sworth of value. But it's an attractive real wood veneered floorstander, with a separate plinth to improve appearance and stability, floor-coupling with 6mm spikes. The veneered 19mm MDF cabinets use extensive internal bracing, and twin ports are fitted to the rear, with bungs supplied for blocking these if preferred.

The front panel has no less than three ceramic-coated (deep-anodised) metalcone drivers operating in a two-and-ahalf-way configuration - all three cover the bass region, but just the smaller, upper one carries on through the midband up to the tweeter crossover point. The bass/mid unit has a 115mm diameter diaphragm and bullet-shaped central voice-coil cover, while the larger, lower two bass-only units have 140mm cones and domed centres. The tweeter here has a 25mm gold-coloured metal dome diaphragm. Twin terminal pairs set well off the ground permit bi-wiring or bi-amping.

It wasn't possible to compare the Silver S10 to its S8 sibling, but it was clear enough that this larger model is also a class act, and possibly even better balanced overall. It's not the smoothest sound around perhaps, but colorations are pretty well controlled across the band, with notably good voicing that brings an attractive clarity to speech reproduction. There is a slightly 'shut-in' quality here, to be sure, but perhaps it's really more a measure of wise restraint, so that the speaker avoids becoming aggressive when you wind up the wick.

The bass region is warm and full, with a touch of thickening that sometimes robs bass guitars of their innate agility, but again its fundamentally rich character is actually rather welcome where so many rivals seem to veer towards the cold and thin these days. One might cavil that the dynamic expression is less than the best, but the



VERDICT SOUND A A A A A EASE OF DRIVE BUILD BUILD VALUE

Good-looking real-wood floorstander has warm and full balance. Dynamic expression and timing is less than the best, but overall dynamic range is very good here, delivering plenty of detail.

CHECKLIS	δT
FLOORSTANDER	1
CLOSE TO WALL	×
WIDTH	20CM
HEIGHT	100CM
DEPTH	27CM
BI-WIRABLE	1

background 'grunge' is very low here, so the overall dynamic range is very good, with good detail and textures. The S10 might be a chunk more money than the S8, but it's still a fine and good looking performer that fully deserves Recommendation.

# LAB MEASUREMENTS

The similarities between the S8 and S10 are very obvious indeed, the in-room traces being virtually identical across much of the band. Interestingly and surprisingly, the main differences are found in the midband 200Hz-1kHz region, where the S10 has about 3dB more output. This accounts for its somewhat higher – indeed high – sensitivity rating of 92dB. That extra midband output also makes the '10 arguably slightly better balanced overall, although it shows rather greater midband unevenness.

Bass extension is good, with the port tuned to a low c33Hz, while the load is, unsurprisingly, quite demanding. Monitor Audio claims that tweeter improvements have extended the frequency response to 30kHz - certainly there's a sharp and pronounced resonance above 19kHz. £899 per pair ☎ Acoustic Partnership 0870047 0047 ↔ www.revolveraudio.co.uk **REVOLVER R45** 

# Revolver returns, but does this speaker hit the target?

he Revolver brand actually started out making vinyl-spinning turntables back in the 1980s. After a brief absence, it then resurfaced in the mid-1990s as a budget loudspeaker brand, but stayed around only briefly before disappearing again. Now it's back, again focusing on loudspeakers, but now owned and operated by some of the management that left JPW a couple of years back. Three models start the ball rolling - a £499/pair R33 standmount, a £299 R25 centre channel and this £899/pair R45 floorstander, which means it's one

# **KEY FEATURES**



here - three 165mm drivers, each with 115mm diameter woven glass fibre matrix cones, plus a 26mm metal dome tweeter. Two of the cone drivers operate as bass-only drivers, loaded by the bulk of the rear-ported enclosure and the uppermost main driver handles midrange-only duties. There's no grille here.

**CONNECTIONS:** The fitted plinth extends the stability footprint. Twin terminal pairs, set rather high off the ground, feed a classy crossover with air-cored inductors, metalfilm resistors and polypropylene capacitors.

of the least expensive in this group. Is there really room for another speaker brand in our crowded marketplace? Quite possibly, given Revolver's very original approach to styling. The silver-grey cloth covering the back and sides here contrasts very attractively with the pearlised maple used for the front, top and plinth (burgundy and black cloths are optional alternatives). Whichever, the end result seems rather well camouflaged to fit into the typical lounge, where fabrics are the rule rather than the exception. The woodwork all has nicely radiused 'soft' edges, but paradoxically perhaps there's no matching grille, so the drivers will always be on display.

There are four of these - three 165mm bass/mid drivers, each with 115mm diameter woven glass fibre matrix cones, plus a 26mm metal dome tweeter. This is a full three-way design, two of the main drivers operating in tandem as bass-only drivers, loaded by the bulk of the rear-ported enclosure, while the uppermost main driver handles midrange-only duties.

Hefty build includes laminated double-thickness panels on top, front and bottom, with extra internal bracing for the midrange chamber. The pre-fitted plinth extends the stability footprint, helped by secure 6mm spikes. Twin terminal pairs feed a high-class crossover with air-cored inductors, metal-film resistors and polypropylene capacitors.

Sound-wise the R45 is broadly neutral, erring a little on the laid-back side perhaps. Bass is impressively firm and deep, supplying plenty of weight with appropriate material. The sound balance has a nice warmth, though there did seem to be some added coloration in the upper bass, which added a touch of thickening that tends to blur the textures of instruments like the bass guitar.

Stereo images are well portrayed, showing that the enclosure provides a very solid foundation, but the midband did sound a little 'detached'. Speech is broadly neutral, but not particularly smooth, nor without some colorations a slightly 'pinched' nasality and mild 'cupped hands' boxiness were audible.



Sound quality is competent rather than exceptional, but does achieve a good basic standard nonetheless, with superbly deep bass. It also offers a genuinely different presentation with its attractive coloured cloth covering

CHECKLIST			
FLOORSTANDER	1		
CLOSE TO WALL	×		
WIDTH	25CM		
HEIGHT	93CM		
DEPTH	32CM		

**BI-WIRABLE** 

32CM

The bottom line is that the sound is competent but not exceptional, perhaps pointing to some lack of timecoherence compared to simpler twoand-a-half-way designs. The plus side of course is that this speaker does achieve a good basic standard nonetheless, and also offers something genuinely different in terms of its attractive clothcovered presentation.

# LAB MEASUREMENTS

Broadly very well balanced overall, the R45 has a fine bass alignment for siting in free space, plus impressive deep bass extension, registering -6dB at 20Hz inroom, due in part to a very low port tuning to around 27Hz. However, output is a little strong around 100Hz, and decidedly uneven especially in the upper bass, then again further up in the upper midrange and presence zones, 800Hz-5kHz.

Sensitivity is high, at around 92dB, and while the impedance trace resembles the side-on view of a switchback, there's no harm in it, and since it never drops below four ohms, it's unlikely to stress the amplifier unduly.

£850 per pair ☎ 01323 843474 @ www.spendoraudio.com SPENDOR S3/5SE

Evolved classic excels with speech

**S** pendor was the first speaker brand to emerge from BBC roots, and its monitoring loudspeakers have always been highly regarded in the broadcast sector, which in turn has created considerable credibility in the hi-fi arena.

The most famous of all the BBC designs is a tiny sealed-box sub-miniature called the LS3/5A. This cult speaker has not only been in production more or less continuously for more than thirty years, it has also spawned a whole succession of 'tribute' designs, all of which adopt a similar

# **KEY FEATURES**



DRIVE UNITS: The S3/5se has a Spendordesigned and manufactured 140mm (fiveinch) bass/midrange driver, with an injection-moulded frame and a moulded plastic cone, crossing over to a Spendor-Scanspeak high performance 19mm soft dome tweeter. Both units are recessed into the veneered front panel, with the grille an integral part of the acoustic design.

CONNECTIONS: No rear port in this sealedbox design, aiding close-to-wall siting. Twin bi-wire/bi-amp terminals feed a completely new 'hi-tech' crossover design, claimed to be 'resonance-free'. outline format but incorporate more up to date engineering techniques.

Hence Spendor's S3/5se, a new upgraded version of an S3/5 which first appeared in 1998. It's a tiny little two-way, sealed-box speaker with the same external dimensions as the 3/5A, but turned round so it's deeper than its width. The price tag here is a considerable £850/pair eighteen months ago HFC reviewed a very similar looking S3 as part of a five-channel surround sound system, and they cost just £600.

Compared to the much larger multi-driver floorstanders assembled here, this little Spendor does indeed look costly, especially as a pair of stands will add to the bill – as could the more luxurious veneers, with rosewood at £925 and alpi birds-eye maple at £975.

That said, small is beautiful for many loudspeaker purchasers, and need not necessarily represent a serious handicap either, provided of course your maximum loudness demands aren't too great. Indeed, a small box has a head start in minimising box coloration, because there's not much box to add coloration, and it's easy to make a small box very stiff. Although a small speaker ought to be short of bass, this can be obtained by sacrificing sensitivity – which is why this model is rated at a very modest 84dB.

On balance the S3/5se was preferred when placed quite close to a wall, as this certainly helped to fill out the bass region to a worthwhile degree, yet perhaps surprisingly didn't seem to lead to unacceptable reflection interference in the midband, and consequent coloration.

This speaker's major strength lies in its beautifully smooth and unusually natural voice reproduction. Speech in particular is exceptionally well conveyed, with a lovely openness and

# VERDICT SOUND X X X EASE OF DRIVE BUILD X X X X VALUE

spendor

This tiny speaker shows outstanding freedom from boxiness, with marvellously smooth, open and neutral voice reproduction, especially with speech. Full-scale music, however, is a little short of dynamic interest and enthusiasm.

CF	HEC	KLIS	T

FLOORSTANDER	x X
CLOSE TO WALL	
WIDTH	16.5CM
HEIGHT	30.5CM
DEPTH	19CM
BI-WIRABLE	1

evenness, impressively free from the boxiness, nasality and 'shut-in' presence character that plagues so many commercial speakers.

spendor

However, things are rather less convincing with full-bandwidth music programming. The treble seemed a little short of sparkle and 'air', while the bass weight certainly benefited from wall reinforcement, but was never convincing in terms of authority and grip. Both dynamics and the actual dynamic range seemed decidedly limited, especially when playing rock material, where the bass line provides most of the impetus.

Once again the fine freedom from boxiness was very evident, but the restricted dynamic expression remains a barrier to communicating music with enthusiasm and realistic scale.

# LAB MEASUREMENTS

The far-field in-room averaged response is remarkably smooth and flat, all the way from 150Hz in the bass right up to 5kHz in the treble – indeed, it's considerably smoother and flatter than the S3 we reviewed eighteen months ago. The bass tails off very gently below 150Hz, but this is filled in nicely when close to a wall.

Surprisingly, the treble rolls off steadily above 5kHz, registering -10dB (far field) by 15kHz. The amplifier load stays above six ohms throughout, but that doesn't make this a particularly easy speaker to drive, as its low sensitivity - 85dB on our measure - will soak up the volts.

# £1,295 per pair 201753 652669 @ www.ukd.co.uk

A French speaker that doesn't sit on the fence

ne of the more extreme and unusual brands around, Triangle (pronounced tree-ongle in its native French) follows its own distinct philosophies, including a good helping of nostalgia on the engineering side, and styling that will look rather strange to British eyes.

The company makes three ranges of models, all based on rather similar driver line-ups, but packaged in different suits of clothes. This Zays 222 is part of the decidedly more upmarket Univers series, and the stain applied to a rather nondescript real

# **KEY FEATURES**



DRIVE UNITS: A full three-way design, all three cone drivers use cast chassis and paper cone diaphragms. While the two bass drivers have regular rubber surrounds, the midrange driver has a 'bullet' pole-piece extension and pleated cloth surround - the latter has the advantage of less energy storage than rubber materials. The dome tweeter has a pronounced horn and 'bullet' phase compensator.

CONNECTIONS: Twin terminal pairs, for bi-wiring or bi-amping, are conveniently located close to the floor. There's also an electronic protection device. wood veneer has a distinct and rather unusual tinge of orange.

At £1,295 it's comfortably the most costly pair in our group, but that's arguably justified because it's also the largest and heaviest by a significant margin. Indeed, this is a large and heavy speaker by any standards, which doesn't make the rather blunt, sharp-edged box and lack of any plinth any more attractive.

It's a full three-way design, combining a pair of port-loaded 165mm bass drivers, each with 120mm diameter paper cones, with another (but rather different) 165mm unit for the midrange. This has a 110mm paper cone and a 'bullet' pole-piece extension, while the tweeter has a pronounced horn and phase compensator.

While the two bass drivers have regular synthetic rubber surrounds, the midrange driver has a pleated cloth surround – a rather old-fashioned technique which has the advantage of less energy storage than rubber materials. Four little brass domes accommodate 6mm spikes with no locknuts, and twin terminal pairs are fitted. There's also, at least according to the spec, some form of electronic protection device.

Listening to this speaker is both an exciting and an edgy experience. On the plus side it is notably lively, with an invigorating sound that has much tighter timing and less time-smear than the norm. That factor alone gets it much closer to creating 'the shock of the real' than most rivals, bringing true dynamic tension and realism to the party, right through the bass and midrange, that results in very superior musical communication skills.

The down side is that the Zays 222 is also the speaker in the group with the most obvious colorations. (Who said choosing a speaker was easy?) The most obvious problem is its decidedly 'edgy' top end, which tends to emphasise speech sibilants, for example – a characteristic directly related to the rising and uneven treble found in the room measurements. But there's also an obvious nasality and a slightly 'dark' and 'shut-in' voice quality.

So, Triangle brings you a little bit of





Wonderfully taut timing and freedom from time-smear gives this high-sensitivity design very invigorating and realistic dynamics, though colorations are also obvious with an 'edgy' top and some nasality on voices.

# CHECKLIST

FLOORSTANDER	R .
CLOSE TO WALL	
WIDTH	25.5C
HEIGHT	1160
DEPTH	320
<b>BI-WIRABLE</b>	

heaven, and a little bit of the flipside too. Which matters most will depend to some extent on personal taste. In this listener's experience, one can usually adjust to colorations over time, even if they are better avoided, while a speaker with as little time-smear as this is sufficiently rare it deserves to be treasured – and Recommended.

# LAB MEASUREMENTS

The Zays 222 has an exceptionally high sensitivity, of around 94dB, alongside very decent deep bass extension, registering -7dB at 20Hz in-room. This is partly because the port is tuned to a low 30Hz, but also because the impedance dips a little below four ohms.

The in-room far-field averaged response is pretty good overall, but it is marred by peaks at 90Hz, 700Hz, 9kHz and 17kHz, plus a rather obvious dip around 2.6kHz.

The bass alignment looks well suited to free space siting, though it's worth exploring alternatives before fixing the locations.

# CONCLUSIONS

Choosing a speaker is a matter of taste – there's a pair here to suit every palate

his is a classy group of speakers, which is really only to be expected in view of the £800-£1,300 price band. All have some pretty impressive strengths, it must be said, though in each case there's at least one weakness to bear in mind. And as is the way with speakers, it's a different weakness in every case. Even though none approach perfection, this does at least leave the prospective purchaser with the

## TRY THEM WITH THESE

#### CD PLAYERS MERIDIAN 507 £1.195

Classy discrete styling plus much of the sonic refinement and subtlety of the brand's costlier equipment at an 'entry level' price.

# NAIM AUDIO CD5 £1,125

At its best, this smooth, polished performer sounds dynamic, vivid and compelling. Can be upgraded with FLATCAP 2 (see amplifiers).

SONY SCD-555ES £1,200 Fabulous build and superb sound from both CD and SACD sources. Hard to better for the price.

#### AMPLIFIERS

AVI TYPE S21 MI £1,399 An amp with exceptional power and grip for its size, with terrific dynamic range and excellent bass performance.

#### NAIM NAC112/NAP150/ FLATCAP 2 £1,850

FLAICAP 2 £ 1,850 Clean simplicity, with Naim's rhythmic and punchy character, but an altogether sweeter sound than earlier generations.

#### PRIMARE A30.1 £1,500

Smooth, detailed singing quality, elegant appearance and a healthy power output too.

# HINTS AND TIPS

Floorstanders need good floor coupling arrangements. A generous fore-and-aft footprint is sonically important, but decent lateral stability is handy too. Floor-coupling spikes should have tight lock-nuts, but don't overtighten these and strip the threads. Standmounts need the best possible stands to get best results. Finding the right place to put the loudspeakers acoustically is very important. Do take time to experiment, as even small changes of position can have a big effect. Speakers will improve steadily over the first 100 hours or so. 🕀 Use decent speaker cable, if you want best results.

opportunity to make a realistic choice depending on his/her personal preferences.

The Spendor's tiny dimensions will certainly appeal to those who like their speakers to be as discreet as possible, the more so because it can be placed close to a wall to advantage. This speaker also has the most beguilingly smooth and open speech reproduction, which fans of Radio 4 will find very attractive, though limited dynamics remain a significant drawback, especially with rock material.

Aesthetics are a major strength of the Revolver too, the coloured cloth finish giving an attractively 'softer' look than the usual wood or laminate surfaces. Sonically it's

# **STAR PERFORMER**

# **JMLAB COBALT 816 SIGNATURE S**

While the Cobalt 816 Sig might not be the ultimate in loudness capability and bass weight, its inherent simplicity is clearly reflected in fine overall coherence. One of the better all-rounders you'll find, it combines a lively and dynamic character with an unusually smooth and neutral balance, marred only by a slight 'sting' in the lower treble.

a little on the laid-back side, with deep and powerful bass.

The cleverest design aesthetically, however, must be Mission's 782SE, which is beautifully slim and compact. It's not the most exciting speaker sonically, but it is broadly neutral and even-handed provided care is taken to find the best positioning.

It's difficult to say whether Monitor Audio's Silver S10 is significantly superior to the slightly smaller S8, but it's a very handsome speaker with an attractively warm balance and a fine dynamic range with a good amount of detail, albeit with some time-smear.

The best all-rounder here is JMlab's Cobalt 816 Signature S,

which combines a fine open neutrality with good coherence and dynamic expression. The only real reservation is that it tends to be a bit 'hot' in the lower treble so the sound can get a tad aggressive at times.

Triangle's Zays 222 might be a bit large and strange-looking for British tastes, and its colorations are rather more obvious than elsewhere in the group. But it also has the least time-smear and the best dynamic expression. You pays your money...





# SPEAKERS AT A GLANCE

MAKE	JMlab	Mission	Monitor Audio	Revolver	Spendor	Triangle
MODEL	Cobalt 816 Sig	782 SE	Silver S10	R45	S3/5se	Zays 222
PRICE	£999	£900	£1,000	£899	£850	£1,295
SOUND						****
EASE OF DRIVE		****				
BUILD				★★★★		
VALUE						
CONCLUSION	An excellent all-rounder – lively and dynamic, smooth and neutral, marred only by a slight sting in the treble.	Could sound more exciting, but definitely one of the prettiest speakers around with a very even balance.	Full balance with a fine dynamic range delivering plenty of detail. Timing is less than the best.	Sound is of a good basic standard, with very deep bass. Different presentation in coloured cloth covering.	Outstanding freedom from boxiness; smooth, open and neutral voices. But full scale music lacks dynamic enthusiasm.	Wonderful freedom from time-smear gives very invigorating and realistic dynamics, though colorations are obvious.



# **THEBEST** EALSA HI-FI CHOICE MAGAZINE **SPECTACULAR HI-FI SPEAKERS!**

# **STORES NATIONWIDE**

LONDON           BROMLEY         020 8466 6565           CHELSEA         020 7552 8496           CITY         020 7525 8496           CITY         020 752 8496           CITY         020 8567 1100           EALING         020 8567 1100           FARRINGDON         020 8567 1020           FARRINGDON         020 732 7374           KINGSTON         020 8549 9999           LONDON BRIDGE         020 7403 1201           SWISS COTTAGE         020 7722 3359           WEST END         020 781 2888           BELFAST         028 9032 1332           BIRMINGHAM         0120 720 380           BRIGHTON         01207 573 333           BRISTOL         0117 973 4397           CAMBRIDGE         0123 304 848           CARDIFF         0290 039 988           CHELTENHAM         01242 572 572           CHESTER         01206 56 31 31           COUCHESTER         0130 226 553 1595           EDINBURGH         0131 226 5544           EXETER         0139 2272 772           GLASGOW         0141 226 5551           GUILDFORD         01483 249 222           ULL         01482 329 289           LEEDS
CHELSEA         020 7352 8496           CITY         020 7626 8006           CROYDON         020 866 4100           EALING         020 8566 4422           FARRINGDON         020 8566 4422           FARRINGDON         020 7329 7374           KINGSTON         020 8566 4422           FARRINGDON         020 7329 7374           KINGSTON         020 849 9999           LONDON BRIDGE         020 7403 1201           SWISS COTTAGE         020 7723 2888           BELFAST         028 9032 1332           BRIMINGHAM         0121 643 1516           BOURNEMOUTH         01202 720 380           BRISTOL         0117 973 4337           CAMBRIDGE         01223 304 848           CARDIFF         0292 039 9888           CHELTENHAM         01242 572 572           COLCHESTER         01204 563 13 1           COVENTRY         024 7655 5939           EDINBURGH         0132 22 727 772           GLASGOW         0141 226 5551           GUILDFORD         01484 349 222           HULL         01482 329 289           LEEDS <i>RELOCATED</i> 0113 245 5777
CITY         020 7626 8006           CROYDON         020 8667 1100           EALING         020 8566 4422           FARRINGDON         020 8566 4422           FARRINGDON         020 7329 7374           KINGSTON         020 8549 9999           LONDON BRIDGE         020 7403 1201           SWISS COTTAGE         020 7722 3359           WEST END         020 7831 2888           BELFAST         028 9032 1332           BIRMINGHAM         0121 631 516           BOURNEMOUTH         0120 720 380           BRIGTON         01273 673 333           BRISTOL         017 973 4397           CAMBRIDGE         01243 502 702           CHEITER         01244 572 572           CHEITER         01244 572 572           COLCHESTER         01322 65 313           COVENTRY         024 7655 5959           EDINBURGH         0132 226 3544           GUISGOW         0141 226 5551           GUILFORD         01484 349 222           HULL         01484 257 577           LEEDS <i>RELOCATED</i> 0113 245 5747
CROYDON         020 8667 1100           EALING         020 8566 4422           FARRINGDON         020 7329 7374           KINGSTON         020 8566 4422           FARRINGDON         020 7329 7374           KINGSTON         020 8566 4422           FARRINGDON         020 7329 7374           UNDON BRIDGE         020 7403 1201           SWISS COTTAGE         020 721 3339           WEST END         020 7831 2888           BELFAST         028 9032 1332           BIRMINGHAM         0121 643 1516           BOUREMOUTH         01202 720 380           BRIGHTON         01273 673 333           BRISTOL         0117 973 4397           CAMBRIDGE         0123 304 848           CARDIFF         0290 39988           CHELTENHAM         0124 572 572           CHESTER         01204 400 102           COLCHESTER         0120 56 31 31           COVENTRY         024 7655 5959           EDINBURGH         0132 226 3544           EXTER         01392 2172 772           GLASGOW         0141 226 5551           GUILDFORD         01483 249 222           HULL         01482 329 289 <tr td="">         113 245 5717</tr>
EALING         020 8566 4422           FARRINGDON         020 7329 7374           KINGSTON         020 8549 9999           LONDON BRIDGE         020 7722 3359           WEST END         020 70723 3288           BELFAST         028 9032 1332           BIRMINGHAM         0121 643 1516           BOURNEMOUTH         0120 720 380           BRISTOL         0117 975 4337           CAMBRIDGE         01223 304 848           CAMBRIDGE         01223 304 848           CAMBRIDGE         01223 304 848           CAMBRIDGE         01224 572 572           CHESTER         01244 400 102           COLCHESTER         01206 56 31 31           COVENTRY         024 765 55959           EDINBURGH         0139 227 2772           GLASGOW         0141 226 5551           GUILDFORD         01484 349 222 728 772           GLASGOW         0141 226 5551           GUILDFORD         01484 249 229 249           UEEDS <i>RELOCATED</i> 0113 245 5777
FARRINGDON         020 7329 7374           KINGSTON         020 849 9999           LONDON BRIDGE         020 7403 1201           SWISS COTTAGE         020 7831 2888           BELFAST         028 9993           BOURNEMOUTH         0120 723 359           BRISTOL         017 973 4397           CAMBRIDGE         0120 720 380           BRIGTON         0120 720 380           BRISTOL         0117 973 4397           CAMBRIDGE         0124 400 102           COLCHESTER         01264 513 13           COVENTRY         024 765 5595           EDINBURGH         0132 25 3544           EXETER         01264 55 3549           EDINBURGH         0132 227 772           GLASGOW         0141 226 5551           GUILDFORD         01484 349 222           HULL         01482 329 289           LEEDS <i>RELOCATED</i> 0113 245 5777
KINGSTON         020 8549 9999           LONDON BRIDGE         020 7403 1201           SWISS COTTAGE         020 7722 3359           WEST END         020 7831 2888           BELFAST         028 9032 1332           BIRMINGHAM         0120 720 380           BURNEMOUTH         01202 720 380           BRIGHTON         01273 673 333           BRISTOL         0117 973 4397           CAMBRIDGE         01223 04 488           CARDIFF         0290 2039 9988           CHEUTENHAM         01242 572 572           CHESTER         012044 000 102           COLCHESTER         01204 7655 5959           EDINBURGH         01322 63 344           CAVERTRY         024 7655 5959           EDINBURGH         01322 26 344           CASGOW         0141 226 5551           GUILSFORD         01484 349 222           HULL         01482 329 229           HULL         01482 35777
LONDON BRIDGE         020 7403 1201           SWISS COTTAGE         020 7722 3359           WEST END         020 7831 288           BELFAST         028 9023 1332           BIRMINGHAM         0121 643 1516           BOURNEMOUTH         01202 720 380           BRIGHTON         01273 673 333           BRISTOL         0117 973 4397           CAMBRIDGE         01223 304 848           CARDIFF         0290 239 9888           CHELTENHAM         01242 572 572           CHESTER         0120 56 31 31           COVENTRY         024 400 102           COLCHESTER         0132 6 3544           EDINBURGH         0132 22 372 772           GLASGOW         0141 226 3544           VETTER         0139 227 2772           GLASGOW         0141 226 3544           ULL         01482 329 289           UEEDS <i>RELOCATED</i> 0113 245 5777
SWISS COTTAGE         020 7722 3359           WEST END         020 7722 3359           BELFAST         028 9032 1332           BIRMINGHAM         0121 643 1516           BOURNEMOUTH         01202 720 380           BRISTOL         017 975 4397           CAMBRIDGE         01223 304 848           CARDIFF         0292 039 9988           CHELTENHAM         01242 572 572           CHESTER         01206 56 31 31           COUCHESTER         0139 225 72 772           GLASGOW         0141 226 55595           GUINBURGH         0132 22 72 772           GLASGOW         0141 226 5551           GUILDFORD         01482 439 222           HULL         01442 239 289           LEEDS <i>RELOCATED</i> 0113 245 5717
WEST END         020 7831 2888           BELFAST         028 9032 1332           BIRMINGHAM         0121 643 1516           BOURNEMOUTH         0120 720 380           BRISTOL         0177 573 333           BRISTOL         0177 37 4397           CAMBRIDGE         01223 304 488           CARDIFF         0292 039 9988           CHELTENHAM         01242 572 572           CHESTER         01244 572 572           COLCHESTER         01204 7655 5959           EDINBURGH         0132 26 3544           EXETER         01392 272 772           GLASGOW         0141 226 5551           GUILDFORD         01484 349 222           HULL         01482 329 289           LEEDS         RELOCATED         0113 245 5747
BELFAST         028 9032 1332           BIRMINGHAM         0121 643 1516           BOURNEMOUTH         01202 720 380           BRIGHTON         01273 573 333           BRISTOL         0117 973 4397           CAMBRIDGE         01223 304 848           CARDIFF         0290 309 9988           CHEUTENHAM         0124 572 572           CHESTER         01246 555 595           DINBURGH         0131 226 5541 31           COVENTRY         024 400 102           COLCHESTER         0130 265 5431 31           COVENTRY         024 455 5959           GUILDFORD         0143 226 5541 31           CULGESTER         0132 25 3544           EXETER         0132 227 2772           GLASGOW         0141 226 5551           GUILDFORD         01482 329 289           ULL         01482 329 289           LEEDS <i>RELOCATED</i> 0113 245 5717
BIRMINGHAM         0121 643 1516           BOURNEMOUTH         01202 720 380           BRIGHTON         0127 373 333           BRISTOL         0117 973 4397           CAMBRIDGE         01223 304 848           CARDIFF         0292 039 9988           CHELTENHAM         01242 572 572           CHESTER         01240 56 31 31           COUCHESTER         0139 226 3544           EXETER         0139 227 2772           GLASGOW         0141 226 5551           GUILDFORD         01482 449 222 292           HULL         01482 239 289           LEEDS <i>RELOCATED</i> 0113 245 5717
BOURNEMOUTH         01202 720 380           BRIGHTON         01273 673 333           BRISTOL         0117 973 4397           CAMBRIDGE         01223 304 848           CARDIFF         0292 039 9988           CHELTENHAM         01244 572 572           CHESTER         01204 572 572           COLCHESTER         01204 400 102           COLCHESTER         01204 765 5959           EDINBURGH         0132 223 727           GLASGOW         0141 226 5551           GUILDFORD         01484 349 222           HULL         01482 5717
BRIGHTON         01273 673 333           BRISTOL         0117 973 4397           CAMBRIDGE         01223 304 848           CARDIFF         0292 039 9988           CHELTENHAM         01242 572 572           CHESTER         01244 400 102           COVENTRY         024 7655 5959           DINBURCH         0131 226 3544           EXETER         01392 272 772           GLASGOW         041 226 5551           GUILDFORD         01482 449 221           PUILL         01482 329 289           LEEDS <i>RELOCATED</i> 0113 245 5717
BRISTOL         0117 973 4397           CAMBRIDGE         01223 304 848           CARDIFF         0292 039 9988           CHELTENHAM         01242 572 572           CHESTER         01206 56 31 31           COVENTRY         024 655 5959           EDINBURGH         0131 226 3544           EXETER         0139 272 772           GLASGOW         0141 226 5551           GUILIFORD         01484 449 222           HULL         01482 239 289           LEEDS         RELOCATED         0113 245 5717
CAMBRIDGE         01223 304 848           CARDIFF         0292 039 9988           CHELTENHAM         01242 572 572           CHESTER         01204 573 572           COLCHESTER         01206 56 31 31           COVENTRY         024 400 102           EDINBURGH         0131 226 3544           EXETER         01392 272 772           GLASGOW         0141 226 5551           GUILDFORD         01483 449 222           HULL         01482 329 289           LEEDS         RELOCATED         0113 245 5717
CARDIFF         0292 039 9988           CHELTENHAM         01242 572 572           CHESTER         01244 400 102           COLCHESTER         01204 563 131           COVENTRY         024 7655 5959           EDINBURGH         0131 226 3544           EXETER         01392 272 772           GLASGOW         0141 226 5551           GUILDFORD         01483 449 222           HULL         01482 329 289           LEEDS         RELOCATED         0113 245 5777
CHELTENHAM         01242 572 572           CHESTER         01244 400 102           COLCHESTER         01206 56 31 31           COVENTRY         024 7655 5959           DINBURCH         0131 226 3544           EXETER         01392 272 772           GLASGOW         0141 226 5551           GUILDFORD         01482 449 222           HULL         01482 329 289           LEEDS <i>RELOCATED</i> 013 245 5717
CHESTER         01244 400 102           COLCHESTER         01206 56 31 31           COVENTRY         024 7655 5959           EDINBURGH         0131 226 3544           EXETER         01392 272 772           GLASGOW         0141 226 5551           GUILDFORD         01483 249 222           HULL         01482 329 289           LEEDS         RELOCATED         0113 245 5717
COLCHESTER         01206 56 31 31           COVENTRY         024 7655 5959           EDINBURGH         0131 226 3544           EXETER         01392 272 772           GLASGOW         0141 226 5551           GUILDFORD         01483 449 222           HULL         01482 329 289           LEEDS         RELOCATED         0113 345 5717
COVENTRY         024 7655 5959           EDINBURGH         0131 226 3544           EXETER         01392 272 772           GLASGOW         0141 226 5551           GUILDFORD         01483 449 222           HULL         01482 329 289           LEEDS         RELOCATED         0113 245 5717
EDINBURGH         0131 226 3544           EXETER         01392 272 772           GLASGOW         0141 226 5551           GUILDFORD         0148 449 222           HULL         01482 329 289           LEEDS         RELOCATED         0113 245 5717
EXETER         01392 272 772           GLASGOW         0413 226 5551           GUILDFORD         01483 249 222           HULL         01482 329 289           LEEDS         RELOCATED         0113 245 5717
GLASGOW         0141 226 5551           GUILDFORD         01483 449 222           HULL         01482 329 289           LEEDS         RELOCATED         0113 245 5717
GUILDFORD         01483 449 222           HULL         01482 329 289           LEEDS         RELOCATED         0113 245 5717
HULL         01482 329 289           LEEDS         RELOCATED         0113 245 5717
LEEDS RELOCATED 0113 245 5717
LEICESTER 0116 255 4656
LIVERPOOL 0151 708 7484
MAIDSTONE 01622 67 70 67
MANCHESTERNORTH 0161 773 0333
MANO-ESTERSOUTH 0161 480 1700
MIDDLESBROUGH 01642 211 115
MILTON KEYNES 01908 608 908
NEWCASTLE 0191 230 1392
NORWICH 01603 620 860
NOTTINGHAM 0115924 1551
OXFORD 01865 243 444
PLYMOUTH 01752 222 256
PRESTON NEW 01772 888 757
READING 0118 959 1111
ROMFORD 01708 747 727
SEVENOAKS 01732 456 573
SHEFFIELD 0114 266 1616
SOUTHAMPTON 0238023 1311
STOKE (HANLEY) 01782 289 009
SWINDON RELOCATED 01793 612 652
WATFORD 01923 218 888
WOLVERHAMPTON 01902 424 442

ns in store sizes and our r

0870 900 1881

e answered in person 10-6pm M 5pm Sats, Bank Holidays 12-4pm.

and give

experies ar item a



Sound and Vision magazine. Also available in black £89.95 and cherry (pictured) £99.95 per pair TSP £199.95 WERE £99.95





"Musical and controlled, but with good punch and drive... in the sub £200 arena the Sony is a striking arrival" - WHAT HI-FI? SOUND AND VISION magazine. Boasting an array of features such as an optical digital output, 24 track memory and a comprehensive remote control, this player will provide years of enjoyment ... and a smile when you think how little you paid for it. TSP £139.95 WERE £119.95 £99.95

95



# Hornucopia

**EXCLUSIVE** Spectacular style, but does this horn loudspeaker deliver the sound to justify its hefty price and bulk?

checked the calendar. No, it wasn't 1 April, though the thought did cross my mind as I surveyed the two monstrous cartons that had turned up. I was expecting a pair of those utterly scrumptious looking Ferguson Hill horn speakers, but wasn't anticipating anything quite this size. One carton was so big it had to be dismantled on the front lawn, and I wondered why the makers hadn't decided to bring this outsize collection of equipment down themselves, if only to make sure the installation was carried out correctly.

I figured out why after struggling to put the things together, discovering that one of the pair had its holes and/or bolts slightly misaligned. That's not very good news for a speaker that costs £6,853 per pair, the excuse being that our samples were from the very

# THE HORN THING

Back in the mono era, when only one speaker was needed and amplifiers had valves and little power, a bulky high efficiency horn was just the ticket. Stereo required two speakers and careful siting, so compactness became a major preoccupation. At the same time higher amplifier powers reduced the need for high efficiency, so direct radiator speakers rapidly took the place of the horns, at least for domestic hi-fi reproduction. However somewhat in the way the valve amplifier has enjoyed a revival - the horn loudspeaker never quite died out, and has been undergoing something of an enthusiast-led resurgence, especially over the past decade.

Horn speakers play to a quite different set of rules from conventional direct radiator types. The horn acts like audio's equivalent of the visual medium's lens, magnifying and focusing the sound in a particular direction. The air in the horn also acts as an 'air transformer', improving the efficiency of the driver-to-air coupling, and also acting as an effective means of damping the driver diaphragm. earliest production, with horns fabricated from 6mm acrylic. Future production will use thicker 8mm acrylic, which handles the moulding and shaping process much better.

Still, we managed to get it all up and running (not without some very un-*HFC* language it must be said), and gazed on the largest but also unquestionably the most stylish speaker system we've ever had the pleasure of using.

A speaker that stands 166cm tall, 90cm wide and 80cm deep sounds very daunting. But nearly all is totally transparent, so the visual impact is both minimised and also rather fascinating. And the rather curious reflections they created were just about sufficient to prevent one from accidentally blundering into them too often! Because of the modus operandum, the back of the speaker can operate quite close to – say within 15cm of – a wall.

A single 'full range' Lowther DX3 driver forms the basis of this Ferguson Hill horn, though the term 'full range' is perhaps a tad misleading in context. The super-light twin-cone Lowther driver can get up pretty close to the top of the audio band, but the very highest frequencies are inevitably projected in a very narrow beam. At the bass end of the band, the actual extension is a function of the dimensions of the horn, not the driver, and seriously low bass requires a horn as big as a typical room – six metres long and six square metre mouth area, in theory at least!

That's not viable of course, short of building the horns into the architecture, so more practical approaches must be considered. One favoured technique for extending bass is to use the corner of the room as the final stage of a folded horn that operates off the back of the drive unit (e.g. Beauhorn, Klipschorn). The alternative, favoured here by

### VERDICT Ferguson Hill FH001 loudspeaker £6.853

• Wonderfully stylish, with magnificent dynamic and temporal coherence from the mid-bass right up into the treble.

Very bulky, so better suited to large rooms. Needs subwoofer accompaniment, and can show up amp hiss. CONCLUSION A speaker that sounds as good as it looks, with realistic dynamic expression and time coherence. But it's very bulky and needs careful amplifier matching, and also a subwoofer.

# **KEY FEATURES** Size (WxHxD):

90x166x8.0cm Very high c100dB/W sensitivity • Needs subwoofer assistance Virtually transparent acrylic horn S+ ohms throughout, an easy amp load Solitary full-range Lowther DX3 driver No crossover network Skeletal metal frame

Ferguson Hill, as well as German brands Acapella and Avantgarde, not to mention the awesome JBL K2, is to use a horn mounted on the front of the driver, and accept the need to supply the bass by some other means.

### PERFORMANCE

Because it uses a relatively large horn, the Ferguson Hill maintains horn-loading well down into the upper bass regions. The company reckons 150Hz, though our in-room measurements show a -6dB bass roll-off point at 180Hz – very similar to the 170Hz subwoofer-to-horn crossover point used in the Avantgarde Duo that *HFC* reviewed five years ago.

The Duo is certainly the closest thing we've previously encountered to this Ferguson Hill design, though there are two significant differences nonetheless. Whereas the (significantly more expensive) Duo used separate horns for the midrange and treble, the FH001 has just the single (Lowther) drive unit with its very large elliptical horn. And whereas the Duo came complete with its own subwoofers (one built into the support frame of each), with Ferguson Hill you're free to make your own choice – using some sort of subwoofery is absolutely essential here.

Which is no bad thing, since the biggest disadvantage with the Duos lay in dubious integration between subwoofers and horns. As a general rule, subwoofers are best left to subwoofer specialists, and we underpinned the Ferguson Hills with a couple of REL Q200Es. There was no prior certainty that the combination would work – these horns require a subwoofer operating to a much higher frequency than normally required, and at a relatively high level too, to match up with their very high (c100dB/W) sensitivity. Happily the combination







EDITOR'S CHOICE





# THE FHOOI LOUDSPEAKER

Ferguson Hill Studios proudly introduce the FH001 loudspeaker, the first in a series of new innovative audio reproduction components. Coming soon the FH002 integrated amplifier, the FH003 powered bass unit / mains conditioner, the FH004 CD player / tuner and the FH005 record player.







www.fergusonhill.co.uk

worldwide patents pending

S worked very well indeed, with no obvious discontinuities when seated in the listening zone.

According to our far-field in-room measurements, the horn alone runs from 200Hz up to 12kHz, though it's necessary to be directly on axis to get 'flat' output above 5kHz. That in turn makes it a rather 'selfish' speaker, with only one ideal listening spot. An otherwise promising overall balance was marred by two obvious suck-outs, centred on 1.1kHz and 3.3kHz. Amp connections are currently made directly to the rather flimsy drive unit terminals here – beefing these up would help handle typical hi-fi speaker cables.

Sonically, 'awesome' is the first word to spring to mind. It's a word that's wantonly over-used today, often to describe the nearly mundane. But this speaker's extraordinarily larger-than-life presentation simply leaves one awestruck, in the way that it directcouples the listener to the musical experience, and in the vividness with which dynamic contrasts are revealed and laid bare.

Its superiority over conventional speakers is most obvious in the brilliant transient reproduction and excellent time-coherence. The images are just a bit too large perhaps, but dynamics sound really, er, *real*. Tenor sax sound is particularly effective – magnificently rich, with a truly realistic reedy quality, while piano also has genuinely believable scale and grandeur.

There is some coloration here, but it didn't seem at all intrusive, and there's no suggestion of boxiness. Rather the stereophony is wonderfully spacious, and sounded quite fabulous with choral and sacred music, such as a Handel

"This speaker's extraordinarily larger-than-life presentation simply leaves one awestruck, in the way it direct-couples the listener to the musical experience."

> oratorio encountered one evening on Radio 3. There's wonderful inner detail and layering on orchestral stuff too, with great textures, even when replaying at very low levels.

Its unusual powers of analysis were well illustrated by the ease and clarity with which it showed up the particular characters of different types of speaker cables. And there's superb insight into the subtle details of musicianship – how well a guitar was being played came through very strongly even on very familiar material.

One consequence of the unusually high sensitivity however is that background hiss can become a significant

issue – it was with Naim amps, and I suspect also with other solid-state models. The natural partner is a modest power valve amp, and Ferguson Hill is currently working on one.

Overall, if you've got the space, and don't mind adding an additional lowend box, this is an outstanding speaker and style statement in one. Ferguson Hill 0207 284 0969 www.fergusonhill.co.uk



The design is centred around a large and beautifully moulded transparent acrylic horn, which front-loads the solitary Lowther DX3 full-range driver.

The horn is fixed in three places, to the hefty aluminium alloy ring on which the driver is mounted, and to two points on the bottom rail of the stand.



# ALSO CONSIDER

TANNOY DIMENSION TD12 £6,500 Big, good value Art Deco contender, its 12-inch dual-concentric driver

gives magnificent authority and neutrality.

#### B&W NAUTILUS 800 £11,000

Great power, grip and dynamic range from the most elegant looking of all the Nautili.

#### NEAT ULTIMATUM £8,500

Smooth, deep, and even, this tall, imposing contender has just about the best bass around.

# Heavenly hybrid

**EXCLUSIVE** A divine balance between natural valve warmth and the pacey power of transistors

t £1,250 a pop, the new Unison Research Unico Pre preamplifier and its more established Unico DM power amp brother are not expensive for high-class hybrid valve/solid-state electronics. But they have the potential for producing highend sounds without spending a fortune.

Unison Research has a reputation for wood-fronted integrated amp designs with exposed valves, like the S2 and S6. But these are very different and a bit more conservative, with thick, brushed alloy front panels and tidy black cases. They are not entirely conventional, though - the two identically sized products can sit together on a single hifi shelf, but they are deeper and taller than most audio gear. They also have two of the biggest knobs in the business (Densen and Musical Fidelity notwithstanding) on the Unico Pre. These have a good feel, though, and are more useful than the two-button, radio-frequency solid wood remote.

The wood-finished amps Unison is best known for are purely valve-based products. The Unico kit, by comparison, is a hybrid design using triode valves and solid state devices where appropriate. This allows Unison to build a 150-watt power amplifier with a valvey-warm sound without having a chassis the size of the Ark Royal, without giving off more heat than a radiator and without draining the national grid each time its turned on. Unison's shiny new Unico Pre is the

POWER GAMES

The Unico duo both sport automatic power on/standby controls – the big pink logo on the front panel. This combines logo, power indicator and power switch in one – the back light is pale pinky-red in standby, then glows brighter when fully powered up. You can switch the devices on manually or make them auto-detect signals. There is even a Unison communications connection that makes the switch-on process more accurate. It needs to be – the auto-detect circuit is a bit 'twitchy', especially on the power amp and tends to turn on and off at random.

### VERDICT Unison Research Unico Pre preamplifier £1,250 Unison Research Unico DM power amplifier £1,250

 A superb mix of valve and solid-state characteristics that doesn't cost as much as a small car. Very natural sounding.
 The DM's autopower on switch can turn on at random; the bass is slightly slow when compared to pacey transistor desions.

OCNCLUSION If you want valve sound but solid-state power, this fine-sounding, great-looking duo are terrific value and well worth investigating.

# KEY FEATURES Pre/power

amplifier

Hybrid valve/solidstate designs
Balanced and single-ended

operation O 3 line inputs

1 tape input/output (no tape monitor circuit)

MM/MC phono stage
 Phono stage loading adjustable

from side-mounted DIP switches 150 watts per

channel O Bridgeable design: 500 watts per channel

in bridged mode



heart of the system. It uses J-FET solid state devices in the input stage and three double triode valves in the amplifier sections. It has a built-in MM/MC phono stage, three line inputs and one tape loop; the trio of line inputs have both balanced XLR and single-ended phono input options. There are both balanced and singleended outputs, too. Adjustment of the loading for the phono stage is done by little DIP switches, but curiously these are on the outside of the case - two little blue rectangles near the back of one of the side cheeks. Since these might prove an irresistible plaything for little hands and could easily get reset the loading instructions are not printed on the casework - you might want to invest in a little strip of black insulating tape and hide them away.

Its bridgeable Unico DM partner is also a hybrid design, but this time sports a single double triode valve in the input stage and a MOSFET transistor driver stage to deliver the power to the speakers. Like the Pre, the DM can be used in balanced XLR and single-ended operation, but the DM has an added bonus in that it can be bridged, turning the DM into effectively a 500-watt monoblock at the flick of a switch. Once again, this switch (on the centre of the back panel) is liable to be accidentally flipped, so be careful when installing the power amplifier.

# PERFORMANCE

In standby mode both products run cool to the touch; when powered up they get warmer, but this is no eggfrying class A device. The combination power switch/status light is useful – running from dull pink in standby to bright pink when fully operational – but there is a lag as the amplifier generally takes a further few minutes or so to make sounds from cold. The first time you experience this lag, it's easy to get panicked.

After the minutes of silence from cold, there is also a ten-minute sweetening period as the amplifier combination gradually reaches its thermal optimum. This makes the difference between a thin, shut-in and weedy sounding amplifier and a rich, warm and powerful one. In fact, the first ten minutes sound so bad, you wonder if something must have broken.





But then, just as you reach for the phone in Mr Angry mode, the sound goes through a metamorphosis and becomes wonderful.

What you get after the Unico pair go through their wake-up call is a sound that fills the room with instruments that are rich and natural, and an image depth that reaches far back into the soundstage. You also get a very smooth, although not over-extended treble which trades a bit of ultra top end fidelity for a polished midrange. Bass is deep and extended, but don't expect Naim-like military precision.

This is a pre/power amplifier duo that is made for playing the likes of Norah Jones's *Come Away With Me*. That rich, slick sumptuous sound through these two amplifier components is a slice of hi-fi heaven. Similarly, Bach piano suites are rich and sonorous. There isn't the sense of speed or tight bass that some pure transistor designs supply, notably with with pacey rock and dance, but *"After the Unico pair go through their wake-up call you're treated to a sound that fills the room with instruments that are rich and natural."* 

the battleship-big sound remains bold, dynamic and satisfyingly substantial.

That natural sound of the Unico duo stems from that dynamic range, the key sonic characteristic the amps take from the valves. Play a piece of music with big dynamic swings – *Siempre Con Swing* by Orlando Cachaito Lopez, for example – and the sound comes alive. That double bass may not have the speed and pace delivered by some solid-state gear, but it makes up for this by making it sound extremely 'there'.

The manual for the Unico Pre is busy being translated into English, so it was impossible to accurately determine correct loading on the phono stage, but the sound was still extremely promising. It may not be the most detailed or precise-sounding phono stage around, but it complements the line stages superbly. Its performance is similarly big and majestic, with a particular penchant for classical and jazz.

A pre/power amplifier combination is designed to be used both in combination and apart. And both components work well in other contexts. Of the two, the preamp adds the most 'colour' to a system, with an attractively warm bloom in the midrange; the power amp is a little less pronounced in this regard. But while the net result may not be strictly neutral, it is muscially beguiling.

It really isn't damning the kit with faint praise, but the Unico duo are an excellent compromise. They aren't as expensive or as unwieldy as stratospherically high-end gear, but they sound much better than entrylevel kit. They balance skillfully between the out-and-out warm valve sound and the speed and drive of transistors. And they work well both separately and together. That's the idea with hybrid kit – a compromise that brings the best of both sides to the party. A bargain! UKD 07000 853443 # www.ukd.co.uk

#### ALSO CONSIDER

AUDIO NOTE M2PHONO/P2SE £2,698 All valve sound is dynamic and natural, but 18-watt output needs efficient speakers. CLASSE CP-35/CA-101 £2,797 Fully solid-state combination with grip and transparency most amps can only dream of. CROFT VITALE/SERIES 5C £2,000 More valve designs with a 'distinctive' styling but a sound that can cativate almost anyone.





· 54 62 70 00

aB

0.

0

N

306







Copland's design team believes that its greatest challenge is to use a scientific approach to create a product which conveys art. Although music has its basis in mathematics, its raison d'etre is to communicate emotion.. Soul. Spirit.

POWER

To achieve this end, Copland has chosen to blend the best of proven technologies - the valve - with the most sophisticated of modern methodologies. Because of this, you will find a compact disc player in a range which also reveres the vinyl LP. You will find stereo playback, which has served pure music for a half-century, alongside multi-channel amplification, designed to recreate the cinematic event in the home.

All of this reaches you, the music lover and cineaste, through components which reflect the most striking of Scandinavian virtues: minimalism, simplicity, clarity.

# 0 14 COPLAND 0

PREV

NEXT

CDA822 - High resolution CD player







CVA535 - 5 channel Audio Video amplifier

# absolutesounds ltd.

58 Durham Road, London SW20 0TW T: +44 (0)20 89 71 3909 F: +44 (0)20 88 79 79 62 info@absolutesounds.com www.absolutesounds.com

# The Akiva connection

**EXCLUSIVE** Linn's range-topping moving coil may have a silly name but it's a very serious cartridge

s a turntable was what made Linn the brand it is today, it's fitting that the company continues to produce top-flight gramophonic accessories in a much smaller market. And a market that's replete with highend cartridges at that, though at £1,800 the Akiva is not in the top rank when it comes to price – you'd have to add another grand to put it alongside many of the offerings from Holland and Japan.

It's based on a solid alloy carcass which supports hand-wound voice coils rigidly connected to a boron cantilever. The stylus itself is a line contact diamond and the combination produces a healthy 0.4mV, which is sufficient for any MC phono stage.

The Akiva has three mounting points, the extra one being specifically for Linn's Ekos tonearm where it provides extra rigidity and greater ease of set up. I used the cartridge with an SME V tonearm on an SME Model 20 turntable and had little difficulty getting great results.

### PERFORMANCE

Drop this beauty into the groove and the first thing that hits you is the bass. It loves the stuff, digging it out in all its earthy glory. Deep and tight, it adds authority and power to every LP you play, be it Aim's hip-hop beats or Him's jazz rock grooves.

In balance terms it's very evenhanded and highly sensitive to the vinyl under its tip – you get as wide a variety of tonal shadings as the LPs you play. John Renbourn and Bert Jansch's acoustic guitars have all the zing and



Transparency and neutrality, bass depth and power, timing, 3D imaging.

# Limited dynamics.CONCLUSION

A superb cartridge that works well in both Linn and third party record players providing a powerful, solid and snappy sound that varies as much as the discs you spin.

# KEY FEATURES

 Line Contact diamond stylus
 Triple-point mounting system
 Machined from solid alloy body
 Ceramic Boron cantilever
 Tracking force: 1.6g-1.9g

Flying wire pin

connection
Recommended
load: 50 ohm
Weight: 7.4g

Output: 0.4mV



snap that you'd expect while heavier tracks are never short on grunt. Highs are as metallic or sweet as the instrument that's making them and very well extended, which has more than a little to do with the powerful sense of three dimensionality to the sound. It resolves depth extremely well, digging out the reverb wherever and however it is used.

Dynamics are perhaps not as broad as some of the competition but they are certainly even, and the better recordings in this respect stand out – it's just that you don't get quite as much variety as is possible.

Timing is precise and on the ball, and one imagines that in a Linn set-up this factor would be more obvious, but in the calming hands of the SME there is a fluidity that has great appeal.

Massive Attack's strikingly guitar-heavy *Mezzanine*  album has tremendous bass power, so much so that lyrics are often buried in the undertow, but the Akiva digs them out with clarity and subtlety.

This is a supremely well-balanced cartridge, powerful and transparent to the music in its grip. You can get more romantic or energetic needles, but rarely does a cartridge offer so much grip and resolution in such a neutral package. Chin Products 0141 307 7777 www.linn.co.uk

# ALSO CONSIDER

VAN DEN HUL MC ONE SPECIAL £699 Lots of energy and spirit not to mention transparency make this well suited to relaxed turntables.

# LYRA HELIKON £1,095

Highly capable and neutral design that draws you into the music and won't let you go.

# CLEARAUDIO SIGMA £580

A nimble and revealing cartridge that prefers low mass tonearms such as those from its own stable.







# The X factor

**EXCLUSIVE** Cyrus has a new set of range-topping amplifiers, but what makes the X factor special?

hoever said that great things come in small packages must have been a Cyrus fan. Any manufacturer that's prepared to put a 150-watt power amplifier into something as compact as Cyrus' casework is either nuts or onto something. In this case it's the latter.

Cyrus launched the X series at the Bristol show in February, this pre/monoblock power combo and a tuner being the first models available. The Pre X replaces the aCA7.5, the Mono X replaces the aPA7.5, and while we reviewed that preamp with the preceding aPA7 power amp, the most recent version of the monoblock evaded our attentions, though the original threesome drew praise for their phenomenal power delivery. The format for the power amps has not changed a great deal - they remain 'zero feedback' designs but the latest models have had their power supplies refined with better filtering. They feature an XLR input

socket marked BAL for balanced, which applies to the input itself rather than the Mono X as a whole.

One might ask why Cyrus doesn't put two monoblock power amps into a bigger, perhaps full-width box and save on casework but I quess when you've engineered a case like theirs it's efficient to use it as often as possible. And there's a lot to be said for the monoblock approach, both practically and sonically. Practically because you can place the amp close to the loudspeaker and make its life easier by shortening the speaker cable, and you can run any amount of channels by adding individual Mono Xs. And sonically because separate channels right back to the mains ensure total elimination of crosstalk and distortion.

You could even use two or more Mono Xs on one loudspeaker without taking up the sort of space usually associated with multi-amping. Cyrus also makes a rather natty rack system

# *"Integrated system control of the kind taken for granted by micro system users is still a luxury to us real hi-fi enthusiasts."*



### VERDICT Cyrus Pre X preamplifier £1,000 Cyrus Mono X power amplifiers £1,200 (each)

 Superb imaging, high power, compact size, wide bandwidth.
 Finish is extremely good but isn't quite as slick as some.
 Multifunction remote

can be confusing. CONCLUSION A lot of resolution and power from a compact set of boxes has got to be a good thing – this Cyrus trio delivers the goods in solid stereo with no sense of strain

### KEY FEATURES

 150 watts per monoblock
 Zero negative feedback
 System remote control
 5 line inputs plus tape loop
 PSX-R upgrade option
 MC bus comms system
 Headphone output called Arbour specifically for these components, its narrow width matching that of the components themselves.

The Pre X is said to be completely different to its predecessor with the latest generation of digital volume controls and a significantly over-specced power supply. You can of course add that Cyrus evergreen – the PSX-R power supply – should higher quality be desired.

The Pre X is designed to be used with a new Cyrus system remote, a device that has a lot more functions than the preamp user will require but should you go for a matching DVD player, will make life a lot easier. Though where a stereo preamp will fit in such a system is less clear. Inputs can be accessed via push buttons with attractive bars of light above them and you can even use your headphones, so long as access to the back panel outlet is not a problem. Oddly, the main outputs consist of RCA phonos alone, and there are no balanced XLRs to match those on the X Monos - apparently because Cyrus prefers the sound of the single-ended phono connection. Also, there isn't the space for them alongside the PSX-R input, headphone socket and MC bus connectors. The latter allows integrated system control of the kind taken for granted by micro system users but still a luxury to us real hi-fi enthusiasts!

# A BRIEF HISTORY OF CYRUS

Cyrus started out in life as a division of Mission, in the days twenty years ago when the brand was one of the biggest players on the scene. It was instigated by Mission's MD Farad Azima who wanted electronics to match the speaker range. The brand was a considerable success and its distinctive half-width die cast chassis design has been its trademark ever since.

Mission and Cyrus are now separate entities and their original creator is behind the NXT flat panel licensing operation – hence the flat panels from both Mission and Cyrus. Though they are autonomous, the old bonds are hard to break.

# the AUDIO CONSULTANTS

# SOPHISTICATED SYSTEMS • ELEGANT SOUNDS

# 1. Avalon Symbol loudspeaker

The soundstage and imaging that you would expect from this manufacturer but in a compact design. The new maple finish at £3795

### 2. Pathos Logos amplifier

The new integrated from this excellent company. High quality sound for its price with good looks as a bonus. Teams well with Triangle and Opera loudspeakers. £2500

### 3. Living Voice loudspeakers

The new improved version of these speakers are now with us with the sonic improvements bringing these popular speakers into an even higher league. Auditorium £1700, Avatar £2700, OBX-R £4000





**4. Shanling CD – T100 player** The amazing, highly flexible CD player with valve output and upsampling. Superb sound and certainly makes a statement with its appearance. £1650





### 5. Resolution Audio Opus 21 CD player

This player now has the improved, quiet drive and the resulting uplift in sound quality has been astonishing. Tremendous value at £2850

### 6. Unison Research Unico R

80wpc integrated valve mosfet amplifier £750. With phono stage £800. Matching valve CD player also on demonstation and sounding amazing. £1095





**7. SME Model 10 turntable/Series IV tonearm** One of our best selling combinations consistently over the last few years. A first class, high-end sound at an affordable price. Turntable £2644. Tonearm £1127. Cartridge shown is Transfiguration Spirit Mk3. £950

Amphion • A.R.T. loudspeakers • Avalon Acoustics • BCD Racks • Benz-Micro • Cardas • Clearaudio • Clearlight Audio RDC conrad-johnson • EAR/Yoshino • Gamut • IsoTek • Kuzma • Lavardin • Lehman • Living Voice • Lyra • Magnum Dynalab • Nordost Nottingham Analogue • Opera • Pagode Equipment Supports • Pathos • Resolution Audio • Rogue Audio • SME • Shanling Shun Mook • Sugden • Transfiguration • Triangle • Trinity Audio • Tri-Planar • Unison Research • VPI • Wadia



Conveniently located between Reading and Basingstoke, we are approximately 15 minutes drive from either Junction 12 on the M4 or Junction 6 on the M3. Free and easy parking, outside the building. We have a home evaluation scheme for those who might find this method more convenient. 7 Comet House, Calleva Park, Aldermaston Reading, Berkshire RG7 8JA

T 0118 981 9891 E info@audioconsultants.co.uk www.audioconsultants.co.uk Demonstrations by appointment, Mondays to Saturdays 10:00 to 18:00. It is advisable to call us before visiting.

Part exchange welcome. Ex-demonstration and previously owned equipment listed on our website.

# Cyrus Pre X preamp & Mono X power amps

# **Statements**

### PERFORMANCE

Both operationally and sonically these Cyrii are smooth operators. Volume can be increased in tiny steps with the remote, the lights on the dial only moving with large changes. The sound is clean, subtle and coherent with considerable fluidity. What's more, despite the not inconsiderable power on tap you never get a sense of 'character' in the bass as is often the case with powerful amps. The bass is a strong point with these amps - it extends all the way down and remains full of texture and shading as it does so. Some amps deliver heavy bass without articulating the notes that make it up, but the Mono Xs remain nimble at all times and frequencies.

One of the elements that Cyrus has sought to achieve with these and the rest of its '03 range is ultra-wide bandwidth. It seems that the new formats are getting manufacturers to think this way and the results are positive whatever source you use. Although vinyl isn't inherently wide bandwidth the smooth nature of its high frequency roll-off can be better appreciated when the sonic window is wide open. Cornelius' Point LP proved the point, the power and dynamics of the track Fly bursting through the system with genuine vigour. Even laidback material such as the Cinematic Orchestra's Everyday works nicely, Fontella Bass' dulcet tones drawing you in to the haunting melodies.

Another standout factor with these amps is the imaging. It can project right back behind the speakers, seemingly through the rear wall when the right track comes along. On this occasion it was the Schidlof Quartet on a Naim disc, where the instruments have an



# "The degree of detail here can on occasion undermine the musical message but the emotional impact seems all the more powerful because of it."



The Pre X has no balanced XLR connections (unlike the Mono X) - Cyrus prefers the sound of the single-ended phono connection.

Shostakovich is not supposed to be comfortable and there's no danger of that, the drama and strife that inspired the piece coming through loud and clear. By way of light relief, another powerful presence, this time Ben Christopher's voice on the Late Junction compilation, displays a very precise definition of reverb, the gating of the various effects brought into tight focus. This degree of detail can on occasion undermine the musical message but the emotional impact seems all the more powerful because of it.

eerie presence and realism.

Timing is neither emphasised nor ignored – it just feels natural. If a track has a strong intrinsic rhythm that much is clear, but there's no tendency to pick this element out.

This Cyrus trio is clearly very accomplished. It covers the bases with little difficulty and manages to put the music first on all occasions, which makes its character hard to pin down. It doesn't have the dynamic enthusiasm of Exposure's XXIII/XXVIII combo or the temporal excellence of Naim's NAC 200/NAP202 pairing. Put a NAD silver series pre/power in its place and you get a greater sense of relaxation but

not the openness. And while the casework may not be quite so chunky as a Primare or Bryston the cast chassis are very neat and attractively compact.

The pressure of deadlines meant that these amps didn't really have enough time to reach their peak, yet the results were impressive after barely three days. This is clearly a classy combination and one that has the power to drive virtually any loudspeaker despite its diminutive stature.

So what is the X factor that sets these silver (or black) boxes apart? Ultimately, it's space - the ability to reproduce the 3D environment around each note and bring it to life, to recreate the full musical picture. Cyrus 01480 435577 www.cyrusaudio.com

#### ALSO CONSIDER

PRIMARE PRE30/A30.2 £1,200/£1,200 Beautifully built with great selection of features and serious power delivery EXPOSURE XXIII/XXVIII £1,395/£395 Highly natural and dynamic amplifier that offer the fluidity and energy of valves via

BRYSTON BP25/4BSST £1,650/£2,350 Extremely transparent, high-power combo you'll listen louder and longer 'cos you can.

transistors.



# **Hexa casts a spell**

Is ProAc's first integrated multichannel speaker system just too good for home cinema?

ome cinema, and this also means multichannel music, has presented challenges as well as opportunities to the loudspeaker industry, that some of the more traditional brands have found hard to reconcile with their purist two-channel mindset. Often when they do dip their toes in multichannel waters, it is with thinly disguised two-channel speakers which fail to address the requirements of a very different marketplace. So how far has ProAc, one of the UK's best regarded specialists which established its reputation in two-channel times, succeeded or failed with its first ever attempt at a fully fledged 5.1 channel speaker system?

The Hexa includes four tiny two-way rear vented satellite speakers with ScanSpeak tweeters and Cobex cone bass unit in enclosures measuring 14x22x15cm. The otherwise similar centre speaker is 33cm long to accommodate an extra bass/mid unit. Also included is a compact powered down-firing subwoofer measuring 36 x34x31cm. All of the enclosures are wood veneered, and the main satellites come supplied with simple wall-mounting brackets which can be attached to pre-drilled holes on the

#### THE WORD FROM PROAC

David Johnston (marketing manager):

"The Hexa system is aimed at those who aspire to ProAc sound for music or home theatre use, but who require a smaller, discrete, dedicated package offering high performance. But the emphasis here is firmly on high quality stereo and multichannel music. Home cinema is catered for on the basis that what is good for music should also be good for home cinema. Tonally, the balance specifically is engineered to be as flat and ProAc Tablettelike as possible."

Stuart Tyler (designer): "Rather than attempt to produce the deepest bass from the smallest box, the idea was to produce a sub/sat package that sounds like a system with full bandwidth satellites, and whose balance is smooth enough for long-term fatigue-free listening." back of the enclosures.

The subwoofer has the usual adjustable parameters, including continuously variable phase, and can be wired at line level in mono or stereo from the LFE/subwoofer output of a multichannel amplifier, or using a balanced input.

With the hardware on offer here, ProAc takes no prisoners. The satellites may be small, but they weigh 3.6kg each (5.6kg centre), and are built like the proverbial brick outhouse, with MDF sides capped front and back with marine ply panels, which because they are not dressed yields the strikingly original appearance you see pictured here. The finish is not entirely convincing. The seams are apparently well sealed, but don't look entirely even, and the subwoofer base cutaway makes it look antiquated - in a Dynatron way rather than a good way. The baffle covers are simply incompetent, aesthetically and sonically. But surface finish and baffle fit and finish are first class.

## PERFORMANCE

The overall balance of the system is claimed to be completely neutral through the band. It doesn't sound this way. However it measures, the perceived balance is a little distant and shut in, with a subjective lack of presence and fine detail at the extremely high frequency end of the spectrum. Using just two channels, the sound is relatively forceful and dynamic, with an almost physical quality to its impact.

It's all very articulate, but not particularly open, and simple well recorded female vocals (Nora Jones's *Come Away With Me* for example) have a sweet upper harmonic structure, but a rather shut-in, chesty quality. There is no mystery here by the way. Differences between objective and subjective can arise because of the character of passive crossover components, directivity (uniformity and absolute) and a number of other factors besides.

### VERDICT ProAc Response Hexa 5.1 channel sub/sat speaker system £2,496 Satellites £599 per pair, centre £499 each, subwoofer £799

Smooth, well balanced sound, built to last, and excellent all round musical quality first and foremost which will also lend itself well to home cinema.

♥ Grille covers, subwoofer styling and some other minor but awkwardly handled aesthetic detail design details – and why no TV-matching silver option?

## 

There is nothing half-hearted about the sound, which is in the heavyweight class, though a little more openness and vitality would have made good even better.

### KEY FEATURES

86dB/watt/metre sensitivity

 Subsat crossover point is around 80Hz
 All passive

speakers have split bi-wirable inputs Satellites supplied

with wall-mounting hardware

• To maximise power handling, set satellites to 'small' in system set-up

Magnetically shielded satellites and subwoofer

Cherry, maple, mahogany or black ash real wood veneers.

In multichannel (surround sound) trim, the system comes into its own. The sound becomes more expansive and better projected. It is very articulate musically, and has real slam, the kind that can hit in the pit of the stomach with big special effects-rich films like Lord Of The Rings and T2. Imagery becomes more forward and enveloping (no surprise there, really) and the voicing of the satellite and centre speaker is such that moving images are handled seamlessly and without discontinuity. One of the best features of this package is that it will do these things even with the volume way up, if the amp is up to the job. The official sensitivity figure is 86dB, but perhaps because of the perceived balance, it seems a little lower, shading 85dB, and these speakers gluttons for power.

The bass is handled very neatly indeed by ProAc's compact subwoofer. Given that it uses a comparatively small 200mm driver in a compact enclosure, it is well extended, and again has a physical quality that matches the satellites well. Crucially, it's also rapidly filtered by the internal active filter, which spills almost nothing that would betray its position, or otherwise pollute the output of the satellites. Most of all, when set up with a degree of sensitivity, the entire system really does sing from the same song sheet, the bass even and well integrated, and almost like an organic extension of the performance of the satellites. Just what the doctor ordered (

DNA Marketing 02392 382 221
 www.proac-loudspeakers.com

## ALSO CONSIDER

SPENDOR S-SERIES £1,650 Ultra tinies lack some drive and loudness capabilities, but beautiful voicing and freedom from boxiness.

#### M&K S-650 SYSTEM £3,196

Untested, but if it follows previous form this should be a bold, muscular sounding system with tightly controlled subwoofer.

MIRAGE OMNISAT/ OM-200 SUB £1,695 Innovative design offers unusually coherent, time aligned sound and stable threedimensional imagery.



*"The sound is very articulate musically, and has real slam, the kind that can hit in the pit of the stomach with big special effects-rich films."* 



They may be small, but they're no lightweights – 3.6kg for the sats and 5.6kg for the centre with build and finish quality at a premium.





# audio EXCELLEN

# audio T

**AUDIO EXCELLENCE** and **AUDIO T** work together to bring you the benefits of buying from a large dealer: highly trained staff, long guarantees, competitive prices and the security of 57 joint years in business. But please don't think we're a chain of clones - each of our stores is run as an individual specialist shop with it's own opinions and stock profile. You'll find us enthusiastic and friendly because we think that buying hifi should be as much fun as listening to it!

C

**CUSTOM INSTALLATION** If you want your Hi-Fi/Home Cinema integrated seamlessly and/or invisibly into your home we have a dedicated team who do this to the highest standards. Call us for advice on how you can enjoy music and films all round your home.



For your FREE copy of **MUSIC AT HOME**, The Ultimate Guide 2003 **FREEPHONE 0500 101501** 

(quote ref HFC03b) or vist our web site at www.music-at-home.co.uk

For the very latest information please check our web sites: www.audio-t.co.uk www.audio-excellence.co.uk

- 57 YEARS JOINT EXPERIENCE
- 3 YEAR GUARANTEE ON HI-FI SEPARATES
- FULL DEMONSTRATION FACILITIES
- PRICE PROMISE
- 10 DAY EXCHANGES
- 30 DAY NO COST PENALTY UPGRADES
- PART EXCHANGES
- INTEREST FREE OPTION ON SALES OVER £250\*
- HOME LOANS AND HOME
   DEMONSTRATIONS
- EVENING DEMONSTRATIONS BY APPOINTMENT

\*Subject to status. Written details on request



BASINGSTOKE 01256 324311 2 Feathers Lane basingstoke@audio-t.co.uk

BRENTWOOD 01277 264730 30 Crown Street brentwood@audio-t.co.uk

BRIGHTON 01273 609431 69 London Road brighton@audio-t.co.uk

BRISTOL 0117 926 4975 65 Park Street bristol@audio-excellence.co.uk

CAMBERLEY 01276 685597 173-175 London Road camberley@audio-t.co.uk

CARDIFF 029 2022 8565 134-136 Crwys Road cardiff@audio-excellence.co.uk

CHELTENHAM 01242 583960 38 Winchcombe Street cheltenham@audio-t.co.uk

CHESTER 01244 345576 88/90 Boughton chester@audio-excellence.co.uk

EASTBOURNE 01323 731336 4 Albert Parade, Green Street eastbourne@audio-t.co.uk

ENFIELD 020 8367 3132 159a Chase Side enfield@audio-t.co.uk

EPSOM 01372 748888 15 Upper High Street epsom@audio-t.co.uk

EXETER 01392 491194 156 Sidwell Street exeter@audio-excellence.co.uk

GLOUCESTER 01452 300046 58 Bristol Road gloucester@audio-excellence.co.uk

HIGH WYCOMBE 01494 558585 30-32 Castle Street wycombe@audio-t.co.uk

LONDON: W. HAMPSTEAD 020 7794 7848 190 West End Lane hampstead@audio-t.co.uk

OXFORD 01865 765961 19 Old High Street, Headington oxford@audio-t.co.uk

PORTSMOUTH 023 9266 3604 29 London Road, North End portsmouth@audio-t.co.uk

READING 0118 958 5463 4 Queens Walk, Broad Street Mall reading@audio-t.co.uk

SOUTHAMPTON 023 8025 2827 10-12 Hursley Road Chandlers Ford southampton@audio-t.co.uk

SWANSEA 01792 474608 9 High Street swansea@audio-excellence.co.uk

SWINDON 01793 538222 60 Fleet Street

# swindon@audio-t.co.uk TUNBRIDGE WELLS 01892 525666

6 High Street tunbridge@audio-t.co.uk

WORCESTER 01905 619059 Independence House The Trinity worcester@audio-excellence.co.uk

All shops are closed on Mondays

# MAIN BRANDS

ACOUSTIC ENERGY

DLID CAM H DESIGN IDIO TECHNICA DIOPHILE NITURE YER DYNAMIC TECHNOLOG FTALK ESTION D COMPANY NAUDIO EYBROOK AMO XICON ACOUSTICS GINEERING CAL FIDELITY O-JECT UADRASPIRE IHEISER HINIAN US SYSTEMS ND STYLE LAREN AL FLECTRO








This is the story of an amplifier which was radical in more senses than one. The Musical Fidelity A1, a compact and striking 'Class A' solid state design was introduced in late 1984 at £199, with a

modest power rating of 20 watts per channel. It was Musical Fidelity's second integrated, after the Synthesis, and it ran for a long time as the base model in the Musical Fidelity hierarchy, selling some 100,000 units by the time it was eventually consigned to the history books in 1991.

The A1 has often been described as a classic, and in certain respects at least it really does bear the mark of greatness. Although not to everyone's taste, its idiosyncratic aesthetic scheme was up there with the greats, including the Cambridge Audio P40 and the original flat (and extremely impractical) Lecson preamplifier and tubular power amps – products that predated the A1 by more than a decade. It featured a unique aluminium top plate with a distinctive corrugated top surface to disperse the heat from the Class A output stage, and a cut-away front panel to minimise visual bulk, with cleverly integrated controls. Unsurprisingly, the A1's masterly visuals were no accident. It came from the studios of Pentagram designer Kenneth Grange, whose other credits include the Kenwood Chef and the Intercity 125.

And then there was the electrical design. Although the A1 was promoted as Class A, in fact it was what many other so-called Class A amplifiers have been over the years, which is a Class AB power amp with more than the usual amount of quiescent bias on the output stage, which allowed it to operate in Class A at low and medium volume levels. Push the output beyond about 6-7 watts however and the A1 fell out of the Class A zone. With a relatively limited heatsink area and convection cooling, even this much heat meant that the amplifier was running within an inch of its life at near 60°C, too hot to touch for more than a few seconds, and high enough to impact on reliability.

Ah, reliability. This was so something that early A1s didn't have in abundance. By the maker's own admission, early production

# "The amplifier was running within an inch of its life at near 60°C, too hot to touch for more than a few seconds, and high enough to impact on reliability."

models had a 15 per cent failure rate, but by 1988, the final year of production, it was down to a more reasonable 1-2 per cent. Even then, switching transients in the phono stage could send the output out of its safe operating area, causing more failures, a problem that was eventually resolved with bigger output transistors. The amplifier was minimalist in features, apart from the MM/MC phono stage. But it was not exactly powerful. The 20 watts rating may have been conservative, but this was an amplifier for small rooms and efficient speakers.

It was also an amplifier with a very distinctive voice. The term usually applied was coloured, which indeed it was, but it was a largely benign, and in some respects a beneficial coloration, the kind that led to the amplifier being described as musical in much the same sense that was often used for valve amplifiers. It had a forward, almost creamy balance, with some loss of presence at the two frequency extremes. Within its admittedly relatively narrow operating range, the A1 was also remarkably consistent, which meant it dealt with musical dynamics with much less of the machine like articulation of competing designs.

So will history regard the A1 as a genuine classic? Probably not. The reality is that the state of the art has improved more than somewhat in the near-20-year gap since the A1 was developed, and this includes Musical Fidelity, whose current designs show the A1 a clean set of heels in virtually every respect, both sonically and technically – A1 distortion and noise levels were always on the brink of acceptability. It was not a great amplifier then, but it was always a thoroughly likeable and enjoyable one, and it was many people's first introduction to the joys and the occasional tribulations of high fidelity. ( *Alvin Gold* 

# Put The Needle



# On The Record



# And The Drum Beat



# Goes Like This



# **Pro-ject,** stunning record playing systems from £115

Distributors: Henley Designs Ltd, 01235 511166 www.henleydesigns.co.uk, e-mail info@henleydesigns.co.uk

### **Centres of Excellence**

The following dealers have been chosen for their exceptionally high standards in customer service, staff training and

demonstration facilities. We recommend them wholeheartedly.

#### Scotland / Ireland / Wales

Glasgow - Glasgow audio 0141 332 4707 Edinburgh - HiFi Corner 0131 5567901 Aberdeen - Sevenoaks HiFi 01224 587070 N Ireland - Kronos HiFi (Dungannon) 02887 753606 Cardiff - Sevenoaks HiFi 0292 0472899 Swansea - Sevenoaks HiFi 01792 465777

#### North East

Hull - Sevenoaks HiFi 01482 587171 Harrogate - Shadwell HiFi 07165 677238 Newcastle - Lintone Audio 0191 460 0999 Newcastle - Global HiFi 0191 230 3600

#### North West

Darlington - HiFi Experience 01325 481418 Doncaster - The HiFi Studios 01302 727274 Preston - Sevenoaks HiFi 01772 82577 Manchester - Sevenoaks HiFi 0161 831 7969 Manchester - Practical HiFi 0161 839 8869 Castleford - Eric Wiley 01977 556774 Leeds - Sevenoaks HiFi 0113 245 2775 Huddersfield - Huddersfield HiFi 01484 544668 Chester - Audio Excellence 01244 345576 Warrington - Doug Brady HiFi 01925 828009 Cheadle - Audio Works 0161 428 7887

#### Midlands

Bedford - Richards A/V 01234 365165 Dunstable - Technosound 01582 663297 Peterborough - Sevenoaks HiFi 01733 897697 Cambridge - The Audiofile 01223 368305 Leicester - Leicester HiFi 0116 2539753 Nottingham - Sevenoaks HiFi 0115 911 2121 Ashby De-La-Zouch - Zouch audio 01530 414128 Lincoln - sevenoaks HiFi 01522 527397 Leamington Spa - Stratford HiFi 01926 888644 Walsall - Sound Cinergy 01922 457926 Solihull - Music Matters 0121 742 0254 Birmingham - Music Matters 0121 429 281 I Kidderminster - Midland Audio 01562 822236

#### London

Euston - Kamla electronics 0207 323 2747 Holburn - Sevenoaks HiFi 0207 837 7540 Swiss Cottage - Sevenoaks HiFi 0207 722 9777 Harrow - Harrow Audio 0208 863 0938 New Malden - Unilet 0208 942 9567 East Sheen - Choice HiFi 0208 392 1959

### South West

Maidenhead - Audio Venue 01628 633995 Reading - Audio T 0118 958 5463 Reading - B & B HiFi 0118 958 3730 Newbury - B & B HiFi 01635 62474 Cornwall - Sounds Perfection 01326 221372 Exeter - Sevenoaks HiFi 01392 218895 Oxford - Oxford Audio 01865 790879 Oxford - Sevenoaks HiFi 01865 241773 Bristol - Audio Excellence 0117 926 4975 Bristol - Radford HiFi 0117 926 4975 Bristol - Radford HiFi 0117 924 0878 Yeovil - Mike Manning 01935 479361 Tiverton - Audio Destination 01884 243584 Southampton - Phase Three 0238 022 8434 Salisbury - Salisbury HiFi 01722 322169 Basingstoke - Audio T 01256 324311

#### South East

Colchester - Grayston S & V 01206 577682 Brentwood - Audio T 01277 264730 Hitchin - David Orton A/V 01462 452248 Rainham (Kent) Progressive Audio- 01634 389004 Ipswich - Sevenoaks HiFi 01473 286977 Norwich - Sevenoaks HiFi 01603 767605 Worthing - Phase Three 01903 245577 East Grinstead - Audio Designs 01342 314569 Sevenoaks - Sevenoaks S & V 01732 459555

CLASSIC ALBUMS

# MARVIN GAYE WHAT'S GDING ON

uhats going on rearour Gaue

When Marvin Gaye released *What's Going On* in May 1971, he not only changed popular music, and rhythm and blues in particular, forever, giving it an increased depth, range and striding ambition

with a single disc, he also changed the business of music. Combining soul, pop and jazz influences with lyrics which dealt with political unrest, social deprivation, the environment, drugs and the ongoing Vietnam war, he created a whole new sound in a 35-minute suite with tracks that segued together to form a seamless, coherent statement on the state of the nation.

As well as writing (with collaborators) all songs on the album, he also produced it, a luxury which until then had never been granted to performers at Motown. But where most producers at 'Hitsville USA' tended to stay in their booth, Marvin spent much of his time in the Snakepit (officially known as Studio A) with Motown house band the Funk Brothers, singing, playing piano, dabbling in percussion (though he was an accomplished drummer, he's playing a cardboard box on the title cut) and casually spreading cannabis ambience.

The Funk Brothers, jazz musos to a man, often had little opinion of the pop hits they churned out in the day while playing jazz clubs at night, but they rose to the occasion and did their utmost to make it work, though not all of it was intentional. Alto saxophonist Eli Fontaine was just warming up when he laid down the album's famous opening melody line and was stunned when Marvin thanked him and told him he was finished for the day. But Motown's normally tacitum rhythm linchpin, bassist James Jamerson, was impressed enough when he returned home to tell his wife that he'd just cut a classic.

Motown president Berry Gordy (also Marvin's dad-in-law at the time) refused to release it, saying that it was uncommercial, the songs were too long and that the public just weren't ready for it. Marvin's typically stubborn response was to refuse to record anything else for Motown unless they put it out. Eventually, Berry relented, and the album proved to be a crossover smash in

# "When Motown president Berry Gordy wouldn't release it, Marvin refused to record anything else for the label until they did."

the pop and soul charts, garnering not just sales, but respect from critics, musicians and public alike.

Stevie Wonder said it was a major influence on his remarkable mid-seventies period of reinvention. But then, it's been an influence on virtually every soul-tinged record that ever tried to aspire to heights above the feet or groin, and not just soul. Chuck D of Public Enemy cited it as his inspiration for the self-styled Black Panthers of rap's sophomore album *It Takes A Nation Of Millions To Hold Us Back*.

The two-CD Deluxe Edition from 2001 features the notoriously stage-terrified Marvin's first live performance for four years (he'd quit after his duet partner Tammi Terrell collapsed in his arms on stage suffering from a brain tumour), at which he debuted the new material. It still took him a year from the album's release in May 1971 to work up the courage. It also restores the original vinyl version's gatefold concept – another first for Motown, as was printing the lyrics and credits for the studio musicians including an unheard-of front cover credit for David Van DePitte's lush orchestral arrangements.

What's Going On is part angry political statement and part love letter to the world. With it Marvin Gaye changed music, changed recording and changed lives. But it was a one-off. None of his other albums sound remotely like it. There was no What's *Going On 2*. It's easy to criticise What's Going On for its easy listening arrangements, its trite name-checking of social ills without solutions, but no-one with a soul can criticise its heart. Marvin often said that it had come from God. Whether divine or not, it's an album of blessed genius. Dave Oliver



Michell Engineering Ltd, 2 Theobald St, Borehamwood, Herts, WD6 4SE Tel: 0208 953 0771 Web:www.michell-engineering.co.uk









Our desire for greater media capacity seems insatiable. Twenty years ago, the 650MB offered by CD seemed pretty generous, although this represented the limit of the technology of the day and was sufficient to deliver over an hour of

uncompressed audio at 16-bit/44.1 kHz. This small silver disc has spawned a family of related products, not least because it was the first mass-market implementation of a digital, non-contact replay and, later, record mechanism. Unlike a stylus dragging through a vinyl groove or tape speeding over a magnetic head, this optical disc would, in theory, never wear out.

Twenty years has seen the technology behind laser pick-up design improve with the development of reliable, shorter wavelength devices. These lasers allow smaller pit structures to be accommodated and discerned on the disc surface which, in turn, may be supported by the improvements in disc pressing technology. Hence the evolution of DVD and SACD, discs that look and feel just like CD but with a finer-pitched groove and reduced pit size that expand its overall capacity to 4.7GB. Dual-layer discs increase this value to 8.5CB.

Blu-ray technology pushes these same boundaries with shorter wavelength lasers and further, structural miniaturisation to deliver a format capable of storing some 27GB of data. Of course, the more space that's available the less data compression is required to squeeze both high-quality digital video and multichannel audio onto a given disc. There would be no need to use either Dolby Digital or DTS compression regimes to code multichannel movie soundtracks, for example. Films could be accompanied by linear 24-bit/96kHz or even 24-bit/192kHz audio soundtracks if there was sufficient commercial pressure.

So is this the future? Shrinking laser wavelengths, increased miniaturisation and, perhaps, increasingly sophisticated data reduction schemes? There is an alternative and one that's as big a leap in applied technology as CD was over vinyl. You see, although the little silver disc remains a non-contact medium, it still relies on mechanical parts – a motor to spin the disc, more

to control the movement and focus of the laser and very sophisticated servos to hold the lot together. So while the discs may last for decades, the mechanisms most certainly do not.

Solid state data storage devices, by contrast, are both 'non-contact' and require absolutely no moving parts. Nevertheless, the development of compact, rewritable silicon flash memory cards has always trailed behind the silver disc, which has typically offered many times the dataspace at far lower cost. Solid state memory is used in digital cameras, MP3 players and, ironically, to buffer the constant interruptions in data caused by shocks to the moving parts of portable CD, MD and DVD hardware.

Nevertheless, seemingly unnoticed by the audio industry, Sony in collaboration with SanDisk, has announced a new generation of rewritable, solid-state flash called Memory Stick PRO. These sticks currently offer some 1GB capacity, with 4GB media (rivalling the scope of DVD) on the horizon. Just 1GB is sufficient to store some 24 minutes of MPEG2-encoded video at 5Mbps, for example. But it's the theoretical maximum capacity of 32GB offered by the MS Pro format that's most exciting. If the cost of the memory becomes manageable then the highly complex digital camcorders based around DVD-R technology could be greatly simplified. Minimum write speeds of 15Mbps and data transfer rates of up to 160Mbps are comfortably ahead of the DVD specification.

Video and PC data products will continue to drive the development of solid state memory, but there's no technical reason why a genuinely 'plug and play' high-resolution multichannel audio format could not be delivered by MS Pro. But two factors argue against it. Compared with the raw cost of a silver disc, which is peanuts, memory remains expensive. Moreover, rather like the apocryphal story of the one-coat, ever-lasting car polish, would the industry ever rally around a format where both the media *and* the hardware might last for decades before 'wearing out'? **()** *Paul Miller* 

# A 24 bit 192Khz 'Upsampling' Valve CD Players For Only £799.95!



The Dutch Valve CD Player that everyone is talking about!

From £400 to £800 in four models the 'New Tube' from AH! Has a breathtakingly relaxed and silky sound that only valves can provide. Discover your CD collection all over again!

"The Njoe Tjoeb is in a totally different league, having an overall cleaner sound, more extended bass and a much clearer and less harsh top end". Neville Roberts Hi Fi World.

### If you are thinking of changing your CD player you owe it to yourself to find out what the 'Njoe Tjoeb' can do for your Hi Fi.

Njoe Tjoeb 'Super Crystal', Digital Transformer	£399.95
Njoe Tjoeb 'Super Crystal', Digital Transformer Njoe Tjoeb 'Super' with more options Njoe Tjoeb 'Ultra' inc Burr Brown op amps	£469.95
Njoe Tjoeb 'Ultra' inc Burr Brown op amps	£619.95
Njoe Tjoeb 'Reference' inc 24bit 192khz Upsampler	£799.95

Order now by phone or ask for our illustrated leaflet.

### Try for 30 days, full refund if not delighted

Demonstrations by appointment. Visa and Mastercard accepted Phone 07787 158791. Email sales@iconaudio.co.uk

icon Audio 351 Aylestone Road Leicester LE2 8TA

# **FREE Hi-Fi Upgrade**

2003

New Edition OUT NOW

hififorsale.com Itd's Audiophile**Candy** 2003 accessories catalogue

### **Our NEW Edition Features:**

- A massive selection of class leading audio accessories from manufacturers throughout the world
- Overviews and advice from leading industry experts
- The Latest Industry News
- 'Your Views' letters page
- Over 65 full colour pages featuring over 350 products

AudiophileCandy 2003 is your FREE essential guide to the very best in audio accessories

# Grab Your Copy NOW

For your **FREE** copy of our latest catalogue visit www.audiophilecandy.com and fill in our contact form or call;

0870 241 246 9

Advertise your old Hi-Fi for **FREE** on-line at **www.hififorsale.com**, or pick up an audio bargain. Every month we have over **30'000 visits** and **1.8 million hits**! - What are you waiting for?

# definitive audio

Peddlers of fine wares, including:

Record players: SME models 10, 20 and 30; Kuzma Stabi, Stabi Reference;
 Nottingham Analogue Interspace, Space Deck, Hyperspace and Dais;
 Michell Orbe; VPI AriesScout; Avid Volvere, Sequel and Acutus.
 Arms: Rega 300/600/900; SME Series IV and V; Kuzma Stogi; Triplanar.

Cartridges: VanDenHul Grasshopper and Colibri; Kuzma KC Ref; EMT; Reson Reca and Elite; Cartridge Man Musicmaker; Benz-Micro including Ruby Open Air; Kondo Io J.

Amplifiers: Border Patrol; Canary, Sugden; Art Audio; Monarchy; Western Electric; Icon; Tom Evans Audio Designs; SJS. CD Players: Wadia; Sugden; Primare; Resolution. Louspeakers: Living Voice; Vitavox; Lowther. Cables and Tables by Living Voice.

Sale of Part Exchange and Ex-dem Items	Sale	New
SME Model 20 / 2 - 5 years old	£1500	£3658
Dynaudio Confidence 3 - Rosewood - perfect, boxed - giveaway	£2300	£4800
Horning Agathon - 98dB 2 way horn - Mahogany	£1500	£3800
Mirage 890i - fine condition - giveaway	£200	
Art Audio Symphony - 300B SE 10 watts integrated - full chrome	£2250	£4000
Art Audio Vinyl 1 - moving magnet phono stage - chrome - fabulous	£1100	£1550
Art Audio VP1 - line pre-amp - chrome	£1000	£2000
Art Audio Concerto - 6550 line integrated	£1200	£2650
Art Audio VP1 special - line pre-amp - full of Hovlands	£1150	£2250
Canary Audio CA 301 - 300B - 22 big watts - very good	£3400	£5400
Canary Audio CA 303 - 300B monos - 22 lovely watts - better	£5400	£7400
Canary Audio CA 309 - 300B parallel p.p 45 mad watts - superb	£9500	£13500
Canary Audio CA 601 - line pre-amp - very, very good	£1900	£2750
Canary Audio CA 300 - single ended monos - valve rect 8 watts	£2000	£3500
Nottingham Analogue Hyperspace - turntable - 2/3 years old	£1000	£1700
Nottingham Analogue Space - tonearm	£250	£450
Nottingham Analogue Mentor - tonearm	£390	£800
Jamo Concert 8 - loudspeakers - 21/2 years old - spotless	£800	£1365
Townsend Seismic - speaker stands - for bookshelf speakers	£450	£695
Tube Technology MAC - mm and mc phono - nearly new	£700	£1400
Audio Innovations L2 - line pre-amp	£350	£750
Audio Innovations Series 1000 - silver circuit - 50 watts class A	£1100	£2500
Audio Research SPLS2(B) - line pre-amp	£1250	
Alchemist Forsetti ADP 15A - integrated amp	£700	£1400
Alchemist Forsetti ADP 20A - stereo power amp	£700	£1400
AudioNote Soro - phono integrated - serviced - new valves	£700	£1900
Sonus Faber Guarneri	£3000	
Unison Research Feather One - line pre-amp	£450	£800
Clear Audio Master Reference - turntable with Master TQI arm.		
2 years old - Incredible. Go on, be crazy! A snip at only	£8000	£13000
Audio Research LS2 B - line pre	£1250	
Pro Ac Tablette - Cherry - cute - perfect	£300	
Meridian 502 - pre-amp - 4 years - techy - spotless	£700	£1385
Meridian 557 - power - 4 years - techy powerhouse lump - spotless	£800	£1525
Voyd Standard - turntable - Black - perfect - collectable joy	£1500	
Sugden Masterclass - CD player - very nearly new	£2000	£2500



### Auditorium Avatar

Hi-Fi Plus *Editor's Choice* Hi-Fi Plus *Product of the Year* Hi-Fi Choice *Editor's Choice* 

"The Avatar is a near perfect balance of size, bandwidth, efficiency and tonal refinement. Its slim lines and small footprint deliver a genuine 94db sensitivity, and excel when it comes to delivering the scale, vibrance and colour of the music. Its unobtrusive quality allows it to cut straight to the heart of a performance, unlocking the music trapped in the recording, whilst its refinement makes it equally at home with both basic and surprisingly expensive amplification."

AMEX VISA MASTERCARD Tel 0115 973 3222 Fax 0115 973 3666 internet: www.definitiveaudio.co.uk email: shout@definitiveaudio.co.uk

# Slack Shodium

FOR LESS THAN £30 A YEAR WHEN YOU SUBSCRIBE TO ECT DEBIT





### S! AS A CRIBER S UBS YOU **GE**<sup>†</sup> IS: ГАІ

# SAVE 36% OFF THE SHOP PRICE

- 13 issues a year delivered FREE to your door (free delivery UK only)
- Every issue hot off the press (on the same) day or before it reaches the shops)
- A satisfaction guarantee or your money back on any unmailed issues



CABLE TEST» THE FINEST WIRES RATED INSIDE
New rest and power analysis
PRECISION PRECISION INSTRUMENT
Complete statistics for any any and any and any and any
THE ULTIMATE GUIDE TO HIGH PERFORMANCE HINTI AND AV

YOU MAY PHOTOCOPY THIS BLANK FORM AND THEN COMPLETE IT. YOU CANNOT FAX OR E-MAIL DIRECT DEBITS

o address shown

YOUR DETAILS (BLOCK CAPITALS)	Instruction to your Bank or Building Society to pay Direct Debits.									
TitleInitialsSurname	Originator's Identification Number									
Address	Model with assister Direct 768195									
Postcode Country Tel no. (inc. code) E-mail address	Media with passion         Debit           Future Publishing Ltd, Cary Court, Somerton, Somerset 1A11 6BR         Please send this form to address show									
I WOULD LIKE TO SUBSCRIBE TO HI-FI CHOICE BY DIRECT DEBIT –	1. Name and full postal address of your Bank or Building Society branch									
ONLY £7.49 EVERY 3 MONTHS – AND CLAIM MY FREE MAINS CABLE Simply fill out your details above and complete the form opposite. Your subscription will start with the next available issue	To: The ManagerBank/Building Society									
Alternatively, if you live outside the UK or prefer not to pay by Direct Debit, select from the options below for a full year's subscription (13 issues)         UK £29.97       Europe £43.00         North America £49.99       Rest of World £62.00         Cheque (£'s sterling drawn on a UK bank account payable to Hi-Fi Choice)	Address Postcode Postcode 2. Name(s) of account holder(s)									
Card no. Ca	3. Branch sort code (from the top right-hand comer of your cheque)     4. Bank or Building Society									
Expiry date	account number									
SEND TO: UK: HI-FI CHOICE Subscriptions, FREEPOST BS4900, Somerton, Somerset, TA11 6BR. OVERSEAS: HI-FI CHOICE Subscriptions, Cary Court, Somerton, Somerset, TA11 6TB, UK ree mains cable offer open to UK Direct Debit subscribers only. You will receive 13 magazines in a one year	5. Instruction to your Bank or Building Society Please pay Future Publishing Direct Debits from the account detailed on this Instruction subject to the safeguards assured by the Direct Debit Guarantee. I understand that this instruction may remain with Future Publishing and if so, details will be passed electronically to my Bank or Building Society.									
period. Gifts are subject to availability. Please allow 30 days for delivery. We may use your contact details to inform you about other offers and reputable companies, whose products	Signature(s)Date									
and services may be of interest to you. Please tick this box if you do not wish to receive such offers Order code: HFCP242 Offer ends: 20/06/2003	Ref No (Office use only) Banks and Building Societies may not accept Direct Debit Instructions for some types of account.									

# **READER CLASSIFIED**

Welcome to Hi-Fi Choice Reader Classified, the UK's premiere free service for second hand hi-fi. These pages are a must-read if you're thinking about buying used kit, and if you want to sell something it's definitely the place to be. It's FREE to place an advertisement - simply submit your ad of up to twenty words, remembering to include your name, phone number and home town. If you can, please help us by emailing ads to: dan.george@futurenet.co.uk Alternatively, mail to:

> **READER CLASSIFIED. HI-FI CHOICE. 99 BAKER STREET** LONDON, W1U 6FP

Please note that this service is only open to private advertisers.

# FOR SALE

CHORD CPA 2200 Preamp, mint, boxed with man £1,500. 1031A1S (HT208) self powered SM speakers, mint with manual £1,200. Panasonic SV3800 Pro DAT machine mint with manual £450. Rob 020 7252 2821 or 07970 791 466 (London).

MUSICAL FIDELITY NU-VISTA CR3D CD, M3 amp, M3 amp, A300CR poweramp, NU-Vista cables all boxed and mint condition £ 6000. Mark 07986 292635 (Acton)

ARCAM ALPHA 8SE CD player (£600), HFC Best Buy, mint condition, new transport. boxed/remote/ manual, £220ono, Dan, 07966 057648 (Bournemouth)

SOUNDSTYLE X105 five-shelf hi-fi stand, dark grey, mint condition £100. 07876 071080 (Oxfordshire)

VDH CS122 speaker cable two sevenmetre lengths with airlock connectors. 07876 071080 (Oxfordshire)

MUSICAL FIDELITY A100 Amp, £200. Marantz CD-63mkII KI signature, £200 Heybrook Heylette Speakers, £100 Dual CS 503-1 turntable, £50 John 020 8249 0693 (Kent).

QUAD 34 preamp excellent condition £150. Quad 33,303,FM3 £200 Mike 01758 613790 (N Wales)

FARADAY SIREN loudspeakers, excellent condition, sounds fabulous. Low density concrete cabinet technology, see faradaysound.co.uk £325.01603 766668 (Norwich) STAX SR007 Electrostatic ear speakers and SRm007 valve amp. (£3,000) Offers around (£1,500) Excellent, boxed, 02920 639052

(cardiff)

SONY ST-SB920 tuner instruction and packaging pristine condition £75. Mick 01707 377090 (W Garden City). AUDIO RESEARCH SP16 valve preamp with phono and remote (£2,500) £1,650. Pathos Twin Towers class A integratec(£3,250) £2.350 Quad 111 speakers £185. All mint and

boxed 01202 767873 (Dorset). LUXMAN CO2 MO2 pre/power 150 wpc £600. Celestion ditton 100 speakers £30. 01708 457691 (Essex). REVOX H6, the ultimate FM tuner, black, mint, £400 no offers, 01707 261279 (Herts)

VTL TANARD valve preamp £120, Sony XE670 SACD player unused £130, Sony monitors LS/5A copy (rare) £170. Eric 01702 612588 (Southend)

NAIM NACA5 white 4.5 metres biwire terminated IF four runs four nickel eight gold £65 ono. Chris 01798 812754 (W Sussex)

**REGA PLANAR 3 ELYS** excellent condition £165. Also Creek phono stage OBH 8 and LP records available for offers. 01908 671372 (Milton Keynes)

AVI S200 M amp, preamp, CD £2,000, ATC SCM20s teak with stands £800 all in excellent condition, owned from new. 01643 704036 (Somerset).

SONY SCD777ES SACD player, top loader champagne gold exc cond £1,200. 01527 873307 (Worcs). SANSUI QR4500 quadraphonic receiver £80, Sony STR 5800 receiver £60, Harman Kardon PM650 amp £60 01708 457691 (Essex) MISSION 782 rosewood (£700)

£300, Castle Severn 2 black ash (£600) £200 0161 345 2017 (Lancs) MARANTZ CD63MKII KI SIG

boxed, complete with quality interconnects. Very little use. £200 ono 01992 572098 (Essex)

AIWA AA-8700 amplifier. Top of range, flagship model, large and heavy, vgc instruction manual £150. 020 8281 0029 (Essex)

PRIMARE PRE 30 AND A30.2 pre and poweramp combination £1,700 (reviewed HFC 225), Sony SCD-555ES CD player, gold £700. Tannoy revolution 2 speakers £200.07713 258836 (Guildford)

### WANTED

KEF REFERENCE 4.2. Andy 0115 912 6424 (Notts)

QUADRAPHONIC HI-FI

equipment, sansui, JVC or Sony. Also Quad records, eight tracks and tapes. 020 8281 0029 (Essex)

TEAC CASSETTE DECK VG030. must be gold coloured. 01704 532296 after 1 pm (Lancs).

VALHALLA POWER SUPPLY for Linn Sondek. Have you recently upgraded to a Lingo? Good price paid. Simon 01702 710260 (Essex). B&W 801 OR 802 matrix speakers. Dal 07967 306916 or email

daljit.sangha@eds.com.

PMC FB1 speakers, cherry £750, musical fidelity poweramp A3CR £700. Terry 020 8482 0363 (Enfield). RUARK TALISMAN II speakers. excellent condition (£749) £300 Colin 020 8644 0138 (Sutton)

MUSICAL FIDELITY TRI-VISTA 300 amp £3,000 MFA308 CD £1,000. Ruark Solus speakers inc stands £600. 01842 751228 (Norfolk).

**OPTIMUM INT** premier four-shelf support stand, stainless steel finish. Five months old, mint condition. (£400) £300. 01633 281436 (Newport)

#### WHARFEDALE DOVEDALE III,

black speakers, recond last year Excellent sounds and condition £50. 01843 847229 (Kent)

#### MICROMEGA T-DRIVE/ T-DAC,

AES/EBU, twin coaxial, optical, mint (£2,000), £900. Arcam Alpha 6 and Trichord output board, mint (£800+) £400 ono. 07740 866218 or 01189 671909 (Reading).

AIWA C22 micro system, comprising C22 preamp, P22 amp, R22 tuner, L22 cassette £50. 020 8281 0029 (Essex)

KEF Q35.2 speakers in dark apple excellent condition and sound. Five

PMRA O'

101 920 8

Russer As

Ston A Silve

MIE Initians + 1000 + AT VI and show made Mu with semicire and preferably manual Rod 01206 345414

star-rated product complete with packaging (£350) £180 07799 374580 after 6pm (W Yorks). REGA 3 plus Rega Cart £80 Sony STS370 £35, Technics A900MK11 £85 Mahogany cabinet £80 97cm wide 42cm deep 72cm high Mr Capel 01202 429623 (Bournemouth) TOWNSHEND ISOLDA DCT speaker

cable 2x3m biwire (£900) £450 ono, mint, still in case. 07899 808918 (Kent)

SHEFFIELD LABS direct to disc vinyl, boxed and sealed: Harry James' Still Harry After All These Years. Amazing sound! Email sifihifi@aol.com

### **DYNAUDIO CONTOUR 1.3 II**

cherry. Two years old, perfect cond £800. Jason 07831 271714 or evenings 01883 345 305 (Surrey).

#### SONY PCM F1 digital

AudioProcessor. Boxed. £695. Alan 02392 453382 (Hants)

MERIDIAN 507 (£1,195) £900 Arcam A85 black (£800) £650. B&W CDM 1NT (£750) £600 All 6 months old and in mint cond. Pete 01793 340688 evenings (Swindon). PIONEER A400 amp, Sony S770ES FM/AM tuner, pristine, £70 each. £130 for both. 020 7498 4841. Or email: amptunersale@linuxmail.org (London)

SPENDOR BC1 speakers with dedicated stands. £75.01305 262615 (Dorset).

HARBETH HL compact 7ES speakers in cherry wood. Perfect. Boxed and with stands. £650. Frank 0151 334 1964 (Wirral, Merseyside).

NAIM NAP500 power amp (10,995) £6995 ono (reviewed HFC 208) Tag McLaren DVD32R DVD player (£4,300) £3,200. Chord DAC 64 D+A converter (£1,960) £1,400 ono. 07719 921262 day or 0118 461421 Eves (Reading).

WILSON BENESCH Orators, dark cherry boxed, £1,500. Rega P9,Exact cartridge, £975. All items as new.

#### Len 01702 558557 (Essex) **MUSICAL FIDELITY XA200R.** 7

months old.Excellent condition, boxed as new with instructions, still under warranty. £399 01253 739195 (Lancashire)

ARCAM ALPHA 8R/ 8P biamp

combo, Cabletalk monitor 2 interconnect, all exellent condition. £270 Dave 01483 892955 eves (Guildford)

#### **MUSICAL FIDELITY A324**

Upsampling DAC, one month old boxed £550. Sony CDP-XA20ES/N CD player gold £150. Marc 07885 334 025 (London)

MERIDIAN 206 CD player, good condition with optional digital output and remote. £250 ono. Simon 07803 508859 (Kettering).

VIDEOLOGIC DRX-601 E DAB tuner, absolutely brand new, in original packaging (still sealed and stapled), genuine unwanted competition prize, £195+p&p (01202) 462837 or email atom2001@ntlworld.com (Bournemouth)

### **CASTLE RICHMOND** speakers,

boxed with manual under 2 years old £150 (£250 new). Atacama SE24 stands £35. Martin 01732 506835 eves or mstandi1@btconnect.com (Kent)

USHER SPEAKERS CP730, floor stander, mint condition, 6 months old. W23.5 x D30 x H100, £650 ono. 07985 048826 (London)

PIONEER PDR509 cd recorder ex condition boxed with instructions £100 contact Paul 01652 636712 (Lincs) or johnsonpaul0@talk21.com. MUSICAL FIDELITY A3CR preamplifier (£1,000) £550, RCF4001 crt

(£4,500) £1000 ono. Hand-built monitors 2.5 way 8" Tannoy D/c 8" bass £250 ono. Dennis 01204 63086 (Bolton)

TEAC REFERENCE 500 AV amp, DVD/CD deck, Tuner and Legacy LSL800 surround speaker system



including sub. As new.£700 ono. 01225 865588 (Bath)

DYNAUDIO AUDIENCE 70 awardwinning floorstanders. (£1,200) Mint boxed as new accept £650 ono. Dal 07967 306916 or email daljit.sangha@eds.com (Derby).

REL STADIUM MK 11 subwoofer light oak mint condition £650, Spendor SP1 factory biwired superb condition £300 01795 522224 (N Kent)

ATC 100A active speaker rosewood, £3,100 ono. or part-exchange, hardly used, good cond. 07960 825849. BRYSTON 2BLP power amps x2, Bryston 0.5 PR, Soundstyle 5 shelf rack.£1,500 ono. Peter 0121 707 7316 (Birmingham).

AUDIOLAB 8000 series CD system, boxed, 8000 CD,C,P,SX and DAC. Monitor Audio PMC703 rosewood speakers. Audioquest interconnects, cable, Apollo rack, reasonable offers, John 01270 501127 or email johnyellowdiamond5901@hotmail.com (Cheshire).

Primare Pre 30 and A30.2 pre and poweramp - £1,700

PAIR OF NAIM INTROS, as new, £300. Naim NAC92R preamp, Naim NAP90 power amp, as new £525. Jim Moy 07818 023554 (Milton Keynes). NAIM 72 PREAMP £350 and 180

power amp £550, both in new condition with boxes etc. 01843 834266 or 07812 757437 (Kent)

CYRUS AV8, as new £725, Sony SCD-XB777, as new, £165. Atacama SE10 £65. Soundstyle 3-shelf stand (XS310), with (XS105), excellent condition. £165 each or £300 for the pair. Alastair (01844) 355906 or e-mail auren@btinternet.com.

KEF CONCERTO 1 speakers. immaculate condition, excellent sound, manuals, fully boxed, upgrade forces sale £150. Andrew 07719 798041 (London)

MICHELL ISO HR (moving coil) with Hera Power supply. Modified by Tom Evans with his Lithos regulation. £450 gpanton@gpanton.evesham.net 01344 621388 (East Berkshire).

# **BUYING TIPS**

Buying second-hand can be a great way to pick up a bargain. A formerly expensive second-hand component might well prove a better long-term bet than a brand-new product if the price is right.

Do some research on which brands have a good service back-up, so if something does go wrong, you can get it fixed. Unless you purchase from a dealer, you're unlikely to get any warranty, so it's up to you to ensure the fitness of any gear that you buy.

Usually, speakers should be less prone to breakdown than amps, and amps should be more reliable than CD players. But any abused component could be trouble - have a proper dem, and judge the seller as well as the goods!

# ANGIOVENME Bespoke Audio Visual Consultants

£550.00

£550.00

£600.00

£800.00

£1295.00

£1700.00

£3795.00

£1500.00

£1200.00

£1300.00

£2500.00 £6500.00

£3000.00

£3700.00

£4500.00

£10700.00

£80.00 £1780.00 Audio Room

Demo Suite 3

Showroom

# System I

Roksan Candy CD Player Roksan Candy amplifier Spendor S3 speakers Atacama SE 24

# System 2

Audio Analogue Paganini Unison Research S2K Sonus Faber Grand Piano

### System 3

Copland CDA 822 CD Copland CTA 305 Copland CTA 520 Vienna Acoustics Beethoven

### System 4

Musical Fidelity Nu Vista 3D CD Krell 300iL Martin Logan Ascent

# System 5

SME IOA Clearaudio Symphono Audio Research LS 25 Audio Research VT IOO MK 3 Sonus Faber Amati Homage £3400.00 £745.00 £5800.00 £6400.00 £11850.00 £28195.00 Showroom

howroom

# The Ultimate Experience in Audio

Above is five of our recommended, in-stock systems covering a range of budgets and styles. Simply call or visit our showroom to arrange a personal demonstration in our audio room. Also be sure not to miss a demonstration in one of our 2 dedicated Home Theatre suites.

# 01628 633995

**36 Queen St., Maidenhead • London O2O 8707 4849**W. www.audiovenue.co.ukE. info@audiovenue.co.uk

Barco Projection • Bose • Denon • Fujitsu Plasma • Krell • Linn • Lutron Lighting Martin Logan • Musical Fidelity • NAD Pioneer Plasma • Quad • Revox • Sonus Faber • Spendor and much more, including equipment supports & accessories.

# INTRO BUYER'S BIBLE

# HI-FICIUCE BUYER'S BIBLE

Welcome to the *Hi-Fi Choice Buyer's Bible* – the ultimate guide to the very best high performance hi-fi and AV gear you can buy. Here you'll find all our favourite current products listed under easy to use categories, together with useful information on what to look for and how to get the most from your components.

#### **Reviews you can trust**

Our test results are the most reliable in the business. We employ the most experienced reviewers and use the most thorough techniques to ensure our ratings are the ones you can trust. All the equipment we rate most highly is contained within these pages, from CD and vinyl to the latest multichannel disc players. Whether hi-fi stereo or high performance surround and vision, these components will take you a step closer to reality.

### How to use this guide

The *Hi-Fi Choice Buyer's Bible* is the best way to make a shortlist of components for your system. Pick the ones that best suit your taste and budget, then use our *Dealer Classified* section to find specialist outlets where you can audition these components with your favourite discs.

### SOURCE COMPONENTS

- 84 CD PLAYERS
- 88 **DVD PLAYERS**
- 90 VINYL
- 95 RADIO TUNERS
- 96 DIGITAL RECORDERS

### AMPLIFIERS

- 104 STEREO AMPS
- 106 **AV AMPS**

### LOUDSPEAKERS

- 110 STEREO SPEAKERS
- 114 AV SPEAKER PACKAGES

### ANCILLARIES

- 117 HEADPHONES
- 118 CABLES
- 121 STANDS AND SUPPORTS
- 123 GLOSSARY

DEALER CLASSIFIED

132 DEALER DIRECTORY

# BUYER'S BIBLE CD PLAYERS

# CD PLAYERS Audio disc players for music only



Despite the emergence of new formats and the resurgence of an old one (vinyl), CD is still the king of formats if you require breadth of choice. And despite the fact that

choice. And despite the fact that other sources will play CDs, if you want to hear your discs at their best there's little substitute for a dedicated CD player.

It's also the most enduring format on the market. Despite high-resolution contenders like SACD and DVD-Audio, nothing has been able to undermine this universally popular format.

CD players work by reading a stream of 1s and 0s off a disc that spins at a constantly changing speed (to counteract the increasing length of 'groove'). This bitstream is then digitally filtered before undergoing digital-to-analogue conversion in the DAC (D-to-A convertor). Thereafter, the signal is filtered



again before being amplified and sent to the output sockets.

The processes of reading the disc and converting the data are sometimes split between a CD transport and separate DAC in socalled two-box players. A popular approach with very high-end kit, this separates the electronically noisy elements from the sensitive analogue stages, but can introduce timing errors known as jitter, therefore one-box players usually offer best results where budget is a consideration.

# **SUPER AUDIO CD**

SACD or Super Audio CD is a relatively new audio-only format introduced by Sony and Philips. It offers higher resolution than CD in the form of considerably greater bandwidth and improved dynamic range. It also has the potential for uncompressed six-channel surround, and most new discs take advantage of this. SACD discs are usually hybrids and will play on normal CD players, but you won't be able to appreciate their highest quality or their multichannel capability without an SACD-compatible player. Some SACD players also play DVD and even DVD-Audio – these are listed in our DVD section.

# Q&A

### WHAT'S A DAC?

A DAC or digital-to-analogue convertor is a fundamental part of any CD player and converts the digits read from the disc into an analogue music waveform which is amplified to line level.

### WHY HAVE SEPARATE TRANSPORTS & DACS?

Discs are read by a transport or disc drive, which creates radio frequency 'noise'. Separating the DAC means the conversion can be done with less interference.

### CAN I USE AN OUTBOARD DAC WITH MY INTEGRATED CD PLAYER?

Yes, if it has a digital output - and most do.

### **DO I NEED DIGITAL CABLES FOR A CD PLAYER?**

No. All analogue cables are suitable for connecting a CD player to an amp. Digital specific cables with 75ohms impedance are useful when connecting the player to a digital recorder or DAC.

### WHAT IS OVERSAMPLING/UPSAMPLING?

Oversampling involves multiplying the sampling frequency by a whole number, usually between four and 32, but sometimes higher, and is designed let the DAC to work in a more linear fashion. Upsampling is where the data stream is stretched out by interpolation and is typically used to refer to large changes in sampling rate such as from 44.1 kHz to 192kHz.

### CAN I PLAY SACDS ON A NORMAL CD PLAYER?

Yes. The vast majority of SACD discs are hybrids, with a CD layer that all CD players can read.

### **CAN I PLAY DVDS ON A CD PLAYER?**

No, the same applies to DVD-As. But you can play CDs and DVD-As on normal DVD players.

# TOP BUYS



#### Marantz CD6000 KI Signature £500 An affordable high-end machine, this very impressive player has it all: brawn, finesse and class. Not to mention the full range of features.



**Meridian** 507 £1,195 The entry-level player from British digital audio specialist Meridian is an absolute peach – a transparent and detailed sound, and superb build quality to boot.

# CD PLAYERS BUYER'S BIBLE

# SOURCES

-			SPECIFICATIONS										
	ID PLA			SACD COMPATIBLE	ELEC DIG OUTPUT	OPT DIG OL	CD-RW COMPATIBLE	0	BAL ANALOGUE OUT	HEADPHONE SOCKET	VARIABLE OUTPUT	ISSUE NUMBER	
	PRODUCT	3	COMMENTS	TIBLE	JIPUT	OUTPUT	ATIBLE	TEXT	OUT	OKET	JIPUT	MBER	
UP TO	£1,000					5.225							
R	Arcam CD92	900	High-resolution player needs a touch of spit and polish to be completely convincing		•	•		۲				212	
EC	Copland CDA 822	1,598	Well built and carefully thought out, if you go for the more sophisticated musical forms it is superb value		۲		•		۲			241	
R	Cyrus CD7	800	New Cyrus player has strong all-round attributes to match its good looks		•							212	
R	Exposure 2010	600	Undistinguished in the final analysis, but the 2010 nevertheless is a return to form for this famous marque		•	•	•					231	
B	Linn Genki	995	Explicit, rather bright-sounding player with strong multiroom appeal								۲	212	
88	Marantz CD6000 OSE LE	300	Detailed, well rounded, at home in any musical context - a real bargain		۰			-		۲	0	217	
88	Marantz CD6000 KI Sig	500	Impressive mid-market player is an unusually accomplished all-rounder, and is also well built		•	•	•	0		۲	•	231	
k	Marantz CD-17 Mkll	800	Sophisticated player with a short but attractive feature set, and a new-found bounce in its step		۲	•		۲	۲	•		206	
88	NAD C541i	330	High-octane player has the occasional rough edge, but is remarkable value for money		۲	۲	۲					231	
R	Rotel RCD-02	375	Against some strong competition in the same price area, the new Rotel generally holds up well				•					231	
R	Rotel RCD-1070	495	Technically sound and well equipped, this player lacks a little excitement but shows excellent precision		۲							226	
ABOV	£1,000				-								
R	Arcam FMJ CD23T	1,200	Refined FMJ series player now boasts CD-RW and CD Text compatibility		•							226	
EC	Audionet ART V2	2,300	Built to last forever, this CD has a dark natural sound with excellent bass and would be cheap at twice the price!		۲		۰					231	
88	Classé CDP-10	1,599	Very natural yet capable of revealing the finest of details in a coherent and engaging manner		۰		۲					238	
R	Exposure XXII	1,175	Natural sounding player, great with voices and acoustic instruments and makes for engaging listening		•	•	•					238	
EC	Gamut CD1R	2,350	Natural, precise and impressively 3D sound that marries precision with emotional communication		۲		۲		•			240	
EC	Krell KPS 25sc	24,998	One of the finest CD players available, this is also a state of the art preamplifier with Cast interface technology		۰	٠	۰		•		•	236	
H.	Marantz CD17 Mkll Kl Sig	1,200	Fabulously built player adds musical integrity to an already impressive basic model (the CD17 Mk II)		•	•						226	
EC	Mark Levinson No390S	6,495	Superbly built and comprehensively equipped with genuinely high-resolution sound		•	•	۲		۰		٠	231	
88	Meridian 507	1,195	Unusually precise and considered performer that sounds as different as the discs you stick in the drawer		۲	۲	٠					238	
EC	Musical Fidelity CD-PRE <sup>24</sup>	2,000	Substantial player incorporates upsampling and extensive analogue and digital preamplification facilities		•						6	229	
EC	Musical Fidelity Tri-Vista	4,000	Limited edition stereo-only SACD/CD player that is simply the best player MF has ever made	•	•	•	۲	۲				237	
R	NAD S500i	1,200	A beautifully built machine that treads the fine line between precision and musicality with aplomb		۲	۲	٠		۲			238	
8	Naim Audio CD5	1,150	Recommended subject to audition - a dynamic machine, yet some physical minuses									212	
EC	Naim CDX2	2,650	Fine quality one-box CD player, but its best feature is upgradeability via outboard XPS supply				۲					238	
98	Primare D30.2	1,499	Superb high-resolution player gives a strong taste of musical structure and physicality		•				۲			226	
EC	Sony SCD-XA333ES	1,200	High-end multichannel SACD player is excellent with CD, impressive in surround	۲	•	•		•				224	
EC	Sony SCD-XA777ES	2,300	Superb multichannel player that set the benchmark for the format at its launch	•	•		-	۲	•			223	
EC	TEAC D-70/P-70	13,000	This two-box solution is one of the best CD replay systems available, with a fantastic range of facilities		•	۲		۲	۲			239	
EC	Wadia 301	3,650	Insightful player with digital preamp options and good onboard volume control. Try it direct for maximum effect			•			۲		۲	228	

Our favourite 🖻 group test best buy 🗄 group test recommended 🖲 editor's choice ▷ New gear review

SPECS XEY SACD COMPATIBLE Plays high-resolution SACD discs in two and multichannel modes. ELEC DIGITAL OUTPUT Electrical coaxial output for digital connection to a DAC or digital recorder. OPT DIGITAL OUTPUT Optical Toslink output for digital connection to a DAC or digital recorder. CD-RW COMPATIBLE Will play CD-RW (rewritable) discs, most CD players can cope with CD-Rs. CD TEXT Will display album and track titles from inserted disc. BAL ANALOGUE OUT Balanced XLR output connections for similarly equipped amplifiers. HEADPHONE SOCKET Quarter inch (6.3mm) headphone jack fitted to the CD player. VARIABLE OUTPUT Player features both fixed level and variable, volume adjustable outputs.



Copland CDA822 £1,598

A beautifully built Scandinavian player with an equally attractive sound. If natural, fluid music-making sounds up your street, make sure you give it a spin.





Run Power Balancego

### www.midlandaudiox-change.co.uk

#### Krell FPB400cx/700cx

The Full Power Balanced X Series Stereo Amplifiers offer the greatest performance possible from a stereo amplifier. All X Series amplifiers me circuit topology, from the 300 Watt Full Power Balanced share th I-level FPB 400cx at 400 Watts, to the awesome 700 300c Watt he most powerful stereo amplifier ever offered by Krell. fiers have much in common, there are also some reasons for investing in the additional power. Each amplifier es a massive power supply, doubling in size with each step. When he powering eases from 300 Watts to 400 Watts and 700 Watts, the power supplies increase from 2000 Watts to 4000 Watts to 8000 Watts, respectively. More power delivers more authority on the low end, greater, ease through the critical midrange frequencies, and effortless highs. In short, with every significant increase in power, there is a palpable increase in the believability of the sonic presentation. We are pleased to announce that Midland Audio X-Change is the exclusive Krell dealer for the Midlands, and will be hosting a Kre evening within the next few months. To hear how good these really are - call John Roberts for an appointment

### Krell KPS 28c

The KPS 28c Compact Disc Player reveals the ful compact disc format. The KPS 28c is noted for i finest musical details-many listeners boast g collections "for the first time" upon introducin systems. CAST, Krell's proprietary current along with Current Mode, Class A, and d power supply, featuring several stages er the Krell Current Tunnel preamplifier. The assis is finished to complement the Full Pow fiers. right down to the elegant convex c ined remote control, hand finished and la

### **Krell KCT Preamplifier**

The Krell Current Tunnel (KCT) CAST stereo preamplifier holds the distinction of being the finest sounding, most technologically advanced, and most system friendly stereo preamplifier ever designed by Krell. It derives its name from the way the signal is routed from its input to its output. The signal is brought into the KCT in the current domain from a CAST source such as the Krell KPS 28c Compact Disc Player. The signal stays in the current domain as it travels through the KCT, protected from extraneous noise and unwanted signal interference as if it were in a tunnel. Using CAST technology and power supply regulation that is a MAX MORAL BALANCE OF MALE AND A CONTRACT OF A CONTRACT OF

# Midland Audio X-change MAX

#### **Sonus Faber Cremona Auditor**

In the best of Sonus Faber tradition: precise timbre, sta components, and a superb finish combine to create the heir to the history of creating compact, versatile speakers. The Auditor meets the most demanding listener's insistence on superior sound. Please book for your demonstration of this fine loudspeaker



#### Verity Audio Tamino II

Building on the worldwide success of its prestigious products, Verity Audio is pleased to introduce a new high-quality loudspeaker – The Tamino. It sets new standards of sonic excellence at a sensible price of £3999.

The Tamino is a unique reduced-size floor-standing loudspeaker that incorporates the same attention to detail, exquisite lacquer and level of execution, which granted the Verity Audio

loudspeakers an enviable notoriety

The Tamino definitely answers a growing need for a system that offers a fine musical experience to more music lovers while being a luxury piece of furniture Book now to hear this amazing loudspeaker.





#### Bel Canto eVo2/4

The Bel Canto eVo2 represents the true potential of modern digital amplification — providing a transparent and musical path to the original performance for stereo and multi-channel systems. The eVos present a naturally sweet and extended sound quality that transcends older amplifier technologies in both efficiency and sonic quality. With the advent of new and emerging digital technologies, this is an amplifier design whose time has truly come. Guided by the musicality of Bel Canto design, the eVos mark a remarkable step forward in digital stereo amplification.



www.midlandaudiox-change.co.uk call John Roberts Tel 01562 822236 181 Franche Rd • Kidderminster • Worcs • DY11 5AD e-mail sales@midlandaudiox-change.co.uk Fax 01562 750246 Mobile 07721 605966

> Suppliers and installers of High **Quality Audio Systems** 47 Laboratory Accuphase ATC **Audio Physic** Audio Research **Avalon Accoustics** Avid bel canto **Benz Micro** Cardas Clearaudio **Conrad Johnson** Densen DNM/Reson Electrocompaniet **Finite Elemente** Graaf Gryphon

**JMLabs** Krell Kuzma Lavardin Mark Levinson Martin Logan Michell Nagra Primare ProAc Rega Siltech Sonus Faber Spectral Nordost Sugden **Transparent Audio** Verity Audio Wadia

# HI-FICHOICE BUYER'S BIBLE DVD PLAYERS

# DVD PLAYERS Disc players for audio and video

DVD has proved a phenomenal success in commercial terms and has virtually extinguished the market for budget CD players – you can't really beat a multiformat player when it comes to features. Early DVD players were not particularly good CD spinners because of the enormous amount of RF interference produced by video circuits, but as this problem has been identified manufacturers have begun to tackle it. Nowadays, most DVD players are competent CD players and a few are remarkably good – often as not they are the ones that play DVD-Audio discs as well.

The great advantage of DVD, apart from being the first digital video format for the home, is that it offers discrete multi-channel sound. In the case of plain DVD video discs, this music is encoded in either the Dolby Digital or DTS format, both of which use 'lossy' compression to fit onto the disc alongside the video data. You



can use a DVD player with your stereo system by connecting the stereo outputs, though this won't give the surround benefits that the format specialises in.

### **DVD-AUDIO**

DVD-Audio is a high-resolution format that offers multichannel, stereo and Dolby



Digital tracks on dedicated DVD-A discs. The discs can be played on any DVD player, but the CD-beating high-fidelity sound can only be

appreciated with a DVD-A player. While offering similar benefits to SACD, it has the advantage of on-screen display for information – lyrics, images and so on. To save you having to decide which format to go for, a few brands are bringing out universal players to cover SACD and DVD-A, and this would seem to be the best route if you want to enjoy high-resolution digital audio. If you're after a high-end model, look for one with a 'high bandwidth' digital audio output as well as 5.1 analogue outputs.

qualitatively between the two.

### Q&A

### WHICH AUDIO OUTPUTS GIVE THE BEST QUALITY?

Use the analogue outputs for CD, DVD-A and SACD, and the coaxial digital output for DTS and Dolby Digital movie soundtracks.

### WHICH VIDEO OUTPUTS GIVE THE BEST QUALITY?

The best connection is component video closely followed by RGB Scart, which is clearly superior to S-video and the basic composite video option.

### DO I NEED A MULTICHANNEL AMP TO USE A DVD PLAYER?

Only if you want to hear the benefits of surround sound. DVD players can be used with stereo amps to great effect, but you won't be able to decode the Dolby Digital and DTS soundtracks on movies.

# DO I NEED PROGRESSIVE SCAN VIDEO?

Not unless you have a progressive scan/NTSC compatible monitor or TV – as yet there is no PAL version.



audio bitstreams.

SCART CONNECTIONS: These are a goodquality option for video, especially ones that output RGB.

DVD-Audio, SACD and CD.

# DVD PLAYERS BUYER'S BIBLE

HEADP

OP ELE SACI

# Our favourite Group test best buy Group test recommended Contribution in the device in the second se

Aud	io/Video disc play	ers		A COMPATIBLE	D COMPATIBLE	C DIG OU	PT DIG OU	HONE SO	SSUE NUM
STATUS	PRODUCT	£	COMMENTS	TIBLE	TIBLE	OUTPUT	OUTPUT	SOCKET	NUMBER
UP TO	£1,000	1			100	100			
EC	Arcam DiVA DV88 Plus	1,000	The first DVD player (just) enabled to deliver progressive scan with UK-spec PAL discs. Superb picture and good sound			•	۲		238
R	Cyrus DVD 7+	1,000	Typical Cyrus style - open, vivid and bouncy sound, with moderate picture quality to match						237
80	Denon DVD-2800 Mkll	750	Excellent Silicon Graphics processing, a wide range of features and sharp pricing make this a winner			۲	0		237
88	Denon DVD-3800	1,000	High and progressive DVD-Video player with good CD and DVD-Audio capabilities, priced below its station	۰			۲		234
R	Pioneer DV-656A	400	Astonishing value for money, although not great hi-fi, this player comes alarmingly close to the heavyweight competition	۲	۲	•	۲		240
33	Pioneer DV-757Ai	800	State of the art universal player with iLink digital interface provides performance stretch currently unavailable to others	۲	۲	۲	0		240
88	Pioneer DV-656A	400	'Universal' SACD/DVD-Audio/Video player does everything moderately well or better, and is an excellent buy	0	۲	•	۲	•	234
R	Primare V25	1,000	Bold pictures on screen are matched to easy, likeable sound quality and a huge range of outputs	0		•	۲		237
88	Sony DVP-NS905V	400	DVD-Video and SACD is a distinctly superior package, with above average performance	0		•		0	234
ABOVE	£1,000			6 6 6	135				200
>	Cyrus DVD8	1,200	An impressive step up from the DVD7+, which includes component video outputs			0	0		238
EC	Denon DVD-A1	2,500	A convincing case for the DVD-A format, battleship construction combined with sonic and visual finesse	0			0		230
EC	Marantz DV-12S1	2,500	THX Ultra-progressive DVD-A player is a classy all-rounder, and absolutely top notch in legacy CD mode	۲		•	۲		229
EC	Meridian DVD596	2,485	Very classy player with DVD-A upgrade potential, one of the few that is also a superb CD player			•			218
EC	Meridian 800	10,805	The ultimate in DVD replay, modular construction, buffered ROM drive, upsampling and high-res digital outputs	۲		۲		۲	230
R	Roksan Caspian DVD	1,195	A good all-rounder - a solid and propulsive sounding DVD player which is also a surprisingly capable picture-making machine			•	۲		237
EC	TAG McLaren DVD32R	3,995	An engineering tour de force. It's pricey and plays neither DVD-A nor SACD, but performance - especially video - is top notch			0	۲		212
EC	Townshend DV-747A	2,899	Major upgrade to Pioneer machine turns it into a giant slayer of a disc player, available as an upgrade to existing owners	۰	0	۲	0	_	232

SPECS XXY DVD-A COMPATIBLE Plays high-resolution DVD-A discs in two and multichannel modes. SACD COMPATIBLE Plays high-resolution SACD discs in two and multichannel modes. ELEC DIGITAL OUTPUT Electrical coaxial output for digital connection to a multichannel amplifier or receiver. OPT DIGITAL OUTPUT Optical Toslink output for digital connection to a multichannel amplifier or receiver. HEADPHONE SOCKET Quarter inch (6.3mm) headphone iack fitted to the DVD player.

# **TOP BUYS**



# **VINYL** Turntables, cartridges and phono stages

Record players or turntables offer the digital revolution serious competition when it comes to sound quality. Even a modest model can turn musical tricks that most CD players struggle with. Some call it vinyl warmth, but in reality it's a lack of digital hardness that makes the format so engaging. True, the software requires a bit more care, but even a knackered LP is more playable than a scratched CD.

Record players are made of three, perhaps four, fundamental parts. The turntable is the plinth and platter, usually also containing the motor and any suspension system. A tonearm sits on the plinth and allows the cartridge to trace the vinyl groove by pivoting or parallel tracking over the record. The cartridge contains the means of turning the mechanical movement of the groove wall into an electrical signal.

A fourth element is an amp dedicated to the delicate job of amplifying and equalising the cartridge's insubstantial output. This is called a phono stage and can be found in some integrated amplifiers and preamps, but is increasingly purchased separately for use with line-only amps.



There are two types of phono cartridge: moving magnet (MM) and moving coil (MC), and with a few exceptions the latter outperforms the former. But MCs produce a lower output and require better-quality amplification to be heard at their best. As a general rule, MCs offer a broader bandwidth, greater dynamics and more detail, but the better moving magnets do most things well enough to distract you from your CD collection. Setting up a turntable varies from model to model, but the general principle is to level the platter by adjusting the suspension or, as with solid platters, the surface it sits on. Sprung suspensions sometimes require a bit of fine-tuning to sound their best, but the principle is to achieve a smooth, pistonic bounce. Cartridge set-up is even more critical, as the angles at which the stylus traces the groove affects its tonal balance and levels of distortion. A good alignment protractor is essential if you are intending to set up your own cartridge, as is a degree of patience. In essence, there are two angles you need to get right: the tracing angle as the cartridge crosses the record if you are looking from above, and the vertical tracking angle (VTA), which is adjusted by raising or lowering the arm base to bring the arm parallel with the record surface.

# TOP BUYS



**Rega** P3 £298 Latest version of a hi-fi classic is a very capable deck for a very modest price, with very little serious competition from other makes. A great turntable for the money and a very safe buy.



Audio Note TT1/ARM1 £594 Simple, unpretentious and relatively inexpensive, Audio Note's TT1 delivers a real taste of high-end performance at a realistically affordable price.



Michell Orbe SE £1,825 A fine example of the turntable art, the stripped down SE version of Michell's flagship now features a DC motor. Does justice to the best arms and cartridges.



Avid Volvere Sequel £3,500 A beautifully made turntable that delivers a high-end vinyl experience without costing the earth. Neutral, even-handed, detailed and frankly spellbinding.

# VINYL BUYER'S BIBLE

SPECIFICATIONS

SPECIFICATIONS

# 

	URNTA		LES		SUSP SUBCHASSIS	SWITCHABLE SPEED CHANGE	SUPPLIED WITH ARM	SUPPLIED WITH CART	ISSUE NUMBER
	ord players			SPEEDS	HASS	HANG	THAR	H CAF	UMBE
STATUS		£	COMMENTS		-	mm	Ξ	2	
88	Audio Note TT1/ARM1	594	Simple and unpretentious, it delivers a real taste of true high-end performance at an affordable price	33/45	0	•	۰		203
EC	Avid Volvere Sequel	3,500	Heavyweight turntable that will deliver more of what's in a vinyl groove than most of the competition	33/45	۲	۲			229
EC	Avid Acutus	5,000	Extremely capable design with no apparent shortcomings. Don't sell your vinyl 'til you've heard it on this!	33/45	۲	۲			194
B	Bluenote Bellavista/Borghese	1,594	Charming in appearance and sound if not particularly practical. Start your love affair with vinyl here	33/45			۲	opt	239
R	Clearaudio Champion Level 2	1,955	Neutral balance, great looks, but only so-so detail. Benefits greatly from isolation	33/45			۲	۲	223
R	Linn LP12 Basik	1,100	Trails the full LP12 significantly, but pace, rhythm, timing etc are still top rank	33	۲		٩		103
688	Michell Gyro SE	1,058	New DC motor-equipped Gyro offers great looks and even better sound. Price includes RB300 arm	33/45	0		۲		239
EC	Michell Orbe SE	1,825	A superb turntable, able to mix it with the best at virtually any price. Now features new DC motor.	33/45	•				235
>	Pro-Ject RPM 6	500	Basic, very neutral turntable and arm combination that can take a very expensive cartridge. A high-end bargain!	33/45			۲		236
B	Pro-Ject RPM 9	1,000	Capable deck with some unusual features. Highly engaging sound with an essentially neutral character	33/45			0	opt	239
98	Rega P2	198	Updated Planar 2: just as much fun as ever and now even better value as the competition falls away	33/45			۲		214
R	Rega P3	298	Updated Planar 3, building on the strengths of the P2 with added subtlety and detail	33/45			۲		214
ñ	Rega P25	619	The contemporary aesthetic wins admiration, the sonic assurance turns it into your own personal music shrine	33/45			0	opt	239
EC	Rega P9	2,248	Exceptionally elegant hi-tech player with complex outboard supply, ceramic platter and wonderful RB1000 tonearm	33/45		۲	0		228
EC	SME Model 10A	3,411	Elegant and extremely capable design with Series V/309 hybrid arm, superbly built	33/45	۲	۲			195
EC	SME Model 20.2A	5,274	Beautifully built, extremely neutral damped and suspended deck with superb sound, Inc V arm	33/45/78	۲	۲	۲		186
EC	Well Tempered Reference	5,500	Superb mechanical stability and unflappability result in clean, clear reproduction	33/45	0	۲	۲		205

# Our favourite PHONO CARTRIDGES

#### REPLACEABLE STYLUS ISSUE NUMBER MM and MC cartridges M MC PRODUCT COMMENTS Audio Technica AT110E 0 . 214 29 Excellent performance for the price, with little more than some mild coloration and a touch of hardness at high levels 0 223 270 Clearaudio Aurum Beta S Clear improvement over cheaper Alpha, and good sound all round by any standards Clearaudio Sigma 580 A nimble and revealing cartridge that is more at home in lower mass arms 0 235 Goldring Elite 250 A remarkably subtle and persuasive design that should tempt anyone ۰ 235 214 Grado Prestige Black 40 Offers admirable detail and treble extension, with good bass and ambience too 0 0 Grado Prestige Gold 110 Produces rich, open and expansive music with the minimum of fuss . 0 235 0 Lyra Helikon 1095 Highly capable and highly neutral, this is a cartridge for all seasons, albeit fussy about vinyl quality 215 250 ۲ 192 If you're after a high-quality moving magnet cartridge, they don't get much better than this 63 Reson Reca 485 223 Reson Etile Plenty of life and detail, and refined with it 6 Sumiko Blue Point Special 250 A no-nonsense performer with engaging musical properties - one of the best around for less than £300 0 192 Van den Hul MC One Special 699 A gorgeous cartridge that's worth the price every time you hear a familiar track in a whole new light æ 235

# Our favourite PHONO STAGES

Phono stages			HONO INPUTS	HONO INPUTS	adj. gain	J. IMPEDANCE	SUE NUMBER
PRODUCT	£	COMMENTS	SIL	SLI	NN	Œ	5
Creek OBH-8SE	160	Neutral, relaxed and involving sound from this neat little unit	۲				223
Lehmann Black Cube	275	Creates a well balanced sound that has few limitations and plenty of good qualities. Very flexible for the price	0	٥	0	۲	234
Pass Labs XOno	2,995	Not absolutely neutral, but the overall result is so beguiling it's hard to resist	•	۲		۲	201
Pro-Ject Phono Box	40	Moving-coil compatibility is a dubious extra in a way, but MM performance is acceptable at this giveaway price	۲	۲			201
Tom Evans Microgroove	400	For dynamics and real bass extension alongside good tonal colour this is the one to beat, excellent value for the money		۰			234
Tom Evans Microgroove Plus	700	Stunning detail, gives new insights into familiar discs		•			223
Tom Evans The Groove	1,800	Plenty of detail, excellent imaging and almost flawlessly neutral: a good choice for maximum information retrieval off any LP		0			201
Trichord Dino/Dino+	498	Relaxed yet resolute with very good image depth and natural balance, not to mention great flexibility	۲	۲	۲	۲	234

TURNTABLE SPECES KEY SPEEDS Speeds offered in rpm. SUSP SUBCHASSIS Turntables with a sprung or suspended support for the platter and arm. SWITCHABLE SPEED CHANGE Some decks require manual lifting of the belt from one pulley to another to change speed, but not these ones. SUPPLIED WITH ARM Deck is supplied complete with tonearm – some require a separate purchase in this department, but the dealer will fit it for you SUPPLIED WITH CARTRIDGE Some decks are supplied with a starter cartridge and this is included in the price shown

CARTRIDGE SPECS KEY MM Moving magnet cartridge – see amp and phono stage features to match this type. MC Moving coil cartridge – see amp and phono stage features to match this type REPLACEABLE STYLUS Some cartridges have separate styli for ease of replacement, but it compromises sound quality.

MMF

AD



\* ALL OFFERS, PRICES AND STOCK ARE SUBJECT TO AVAILABILITY AND ARE SUBJECT TO CHANGE ALL GOODS REMAIN THE PROPERTY OF SOUND & YISION UNTIL PAID IN FULL INLINE WITH THE DISTANCE SELLING REGULATIONS 2000 YOU MAY CANCEL YOUR ORDER WITHIN 7 WORKING DAYS. THIS MUST BE DONE IN A STORE OF A LETTER, FAX OR EMAIL, A TELE PHONE CALL DOESN'T CONSTITUTE CANCELLATION ALL GOODS ACCEPTEO FOR RETURN UNDER THIS REGULATION 4110 EX PAYLOADING BOX & PACKAGING AND RETURNED YN JOOR OWN CARRIERS. WE EXPECT SUCH (SOODS TO BE BRAND NEW WITH ALL ACCESSION FOR WITHIN 1 WORKING DAYS. THIS MUST BE DONE IN ASTRONG FOR THE THE IN THEIR DIRGINAL BOX & PACKAGING AND RETURNED YN JOOR OWN CARRIERS. WE EXPECT SUCH (SOODS TO BE BRAND NEW WITH ALL ACCESSION FOR MISSION CONSTITUTION CONST THAT ARE NOT KEPT IN THIS MANNER WILL BE SUBJECT TO 25 MUNDING FEO TH THE PROCEMBLE RADIO CONSTITUTION OF SALE ARE AVAILADADATOSION IN CONSTANCE FEORY OF SALE CONSTITUTION FORMST. IN THIS MANNER WILL BE SUBJECT TO 25 MUNDING FEO TH THE PROCESSION FOR CHARLER AT WWY SOUNDADATOSION IN CONSTANTISTIS MICHTON FORTS.

SOUND & VISION A HOME ENTERTAINMENT AWARD WINNING COMPANY



T: 01204 861861 F: 01204 439024



\*AL OFFEK, PRICES AND STOCK ARE SUBJECT TO AVAILABILITY AND ARE SUBJECT TO CHANGE. ALL GOODS REMAIN THE PROPERTY OF SOUND & VISION UNTIL PAID IN FULL INLINE WITH THE DISTANCE SELLING REGULATIONS 2000 YOU MAY CANCEL YOUR OWDER WITHIN 7 WORKING DAYS. THIS MUST BE DONE IN A FORM OF A LETTER, FAX OR EMAIL, A TELEPHONE GALL DOESN'T CONSTITUTE CANCELLATION. ALL GOODS ACCEPTED FOR RETURN HORE: THIS REGULATION MUST BE IN THER ORIGINAL BOX & PACKAGING AND RETURNED VIA YOUR OWN CARRIERS. WE EXPECT SUCH GOODS TO BE BRAND NEW WITH ALL ACCESSORES BUT ON DIA THIS MUST BE ONTER THE ONE FOR THE PROFILE SUCH AND STATUTORY ROHTS. IN THIS MUNREMENT IN LES SUBJECT TO A 25% MADRING FEE OF THE PURCHASE PRICE. FULL TERNS AND CONDITIONS OF SALE ARE ANALIMABLE AT WINSDOMADVISIONAUXICATIONAL TESTERTS OF JALE DO NOT AFFECT TO DO STATE THE ONE STATUTORY ROHTS.

SOUND & VISION A HOME ENTERTAINMENT AWARD WINNING COMPANY

# TUNERS BUYER'S BIBLE

# **RADIO TUNERS**

FM and DAB hi-fi separates

Radio is a fantastic musical resource that's in danger of being taken for granted, but whatever your tastes there's someone out there catering for it. If you haven't got a decent tuner hooked up to your hi-fi already, you're missing out!

### DAB or FM?

Digital Audio Broadcasting (DAB) is said to be available to 80 per cent of the population and the long-term plan is to switch public broadcasting over to digital, but hardware prices have yet to come down to a point where this would be acceptable. Its advantages over FM include hiss-free reception, the potential for a wider range of stations and the ability to display comprehensive programming information. FM's RDS system means that station name and occasionally track titles are displayed, but the range of information is fairly limited.

Where FM scores over DAB is in the lower cost of hardware and the greater reception

area. It can also provide higher sound quality if reception conditions are favourable. Absolute sound quality judgements are muddied by the fact that you are listening to different forms of compression and processing at the studio for each station.

What is clear, however, is that there are more and more radio stations broadcasting on DAB that aren't available on FM. So if it's variety of programming you're after, they have a lot to offer.

### RECEPTION

The quality of signal you feed a tuner will dictate its sound quality. So serious FM listeners should get a decent external aerial and connect it with as few junctions and splits as possible. Every time you split the cable (ie take a feed for another tuner) you halve signal strength! With DAB the same applies but get a DAB-specific aerial. See www.bbc.co.uk/digitalradio for details.



**Denon** TU260L II £130 The benchmark for all other budget AM/FM tuners, with great sound and features.



**Pure** DRX-701ES £250 This 'budget' DAB model can meet more expensive digital alternatives head-on.



NAD S400 £600 A nicely judged performer that maximises the potential of FM broadcasting.



Magnum Dynalab MD102 £2,200 If you're serious about radio this superb FM tuner is about as good as it gets.

SPECIFICATIONS

<b>Our favourite</b>	GROUP TEST BEST BUY GROUP TEST RECOMMENDED	📧 EDITOR'S CHOICE ≥ NEW GEAR REVIEW
<b>TUNERS</b>		

	UNEK			WA			REMOTE	SIG. STRENGTH METER	ROT. TUNING KNOE	ISSUE
FM	& dab hi-fi sepaf	RATES		WAVEBANDS	PRESETS		CONTROL	THME	ING KI	NUMBER
	PRODUCT	£	COMMENTS	NDS	ETS	RDS	ROL	TER	ŴВ	BER
FM TU	IERS									
B	Cambridge T500	180	Very capable tuner suited to good and less good reception conditions	FM,M,L	64			0	0	193
R	Creek T43	399	Quality UK-made tuner offering classy sound in all areas at a very fair price	FM,M,L	64		۲	۲	۲	193
R	Cyrus FM7,5	400	Beautifully made and presented, with sound that's a small but worthwhile advance over budget models	FM	7			۲	۲	211
88	Denon TU-260L II	130	The return of the all-time favourite, now enhanced with RDS and sounding as fine as ever	FM,M,L	40	۲			•	193
88	Harman Kardon TU940	180	Good sound and particularly good signal recovery under tricky reception conditions	FM, M	30	•		۲	۲	221
EC	Magnum Dynalab MD102	2,200	Unique remote control analogue FM tuner delivers a superbly transparent sound that makes radio fun	FM	5		۲	۲	۲	241
88	Marantz ST6000	180	Another budget killer from Marantz, with sound well above its class and useful features	FM, M, L	90	۲		۰		121
R	Myryad T-30	400	Attractive product that produces attractive sounds too: capable of very musical performance with a good aerial	FM	29		۲	0		193
BB	NAD S400	600	One of the best around - bass and treble are both well extended and detail is excellent	FM	30	0	۲	۲		230
BB	Primare T21	600	Identical to NAD S400 and likewise a very fine tuner	FM	30	۲		۰		230
R	Sony ST-SE570	130	Good, honest, budget tuner - loads of features, just a trifle bland	FM, M, L	30	۲		۲	۲	221
DAB TU	NERS					_				
R	Arcam DT-81	650	A very smart and polished DAB performer	DAB	16		۲	•	۲	221
>	Pure DRX-7 01 ES	250	An excellent introduction to DAB, fine value, simple to use and feature loaded	DAB	99		•	•	۲	234
12	Pure DRX-601ESM	330	Cheap, small and capable, but with major tonal variations from neutral which confuse the issue	DAB	90		۲	۲		230
18	TAG McLaren T32R+DAB	2,290	Classy hi-fi at its best: top sounds on FM and DAB, and a joy to own and use	DAB,FM,M,L	99	۲	۲	۲	۲	230

**SPECS KEY** WAVEBANDS Which bands are supported: FM, M – medium wave, L – long wave, DAB – digital audio broadcasting. **PRESETS** How many stations can be stored in memory. **ROS** Radio Data System – station names and program titles can be displayed among other facilities (FM only, DAB has more comprehensive display potential). **REMOTE CONTROL** For the couch potato. **SIGNAL STRENGTH METER** Useful for setting up an aerial. **ROTARY TUNING KNOB** An ergonomic alternative to buttons.

# **DIGITAL AUDIO RECORDERS**

CD, MiniDisc and hard drive recorders

### MiniDisc

MD's strength is versatility. You can record and then re-record many times over. Editing facilities are second to none – you can erase mistakes, name tracks and re-order a disc's contents with a few simple button pushes, making it ideal for building compilations. They're pretty robust too.

Sound quality is below that of CD-R/ CD-RW. The format uses a Sony-developed compression technology called ATRAC, which discards part of the data in order to squeeze it on the disc. If you're copying from CD to MD, the result tends to sound a little cold in comparison, lacking a degree of detail and ambience. But to most people it still sounds light years ahead of cassette – clean and hiss-free.

### **Recordable CD**

With recordable CD you have a choice of two disc types: CD-R discs are the cheapest, but you can only record once; and CD-RW discs are a little more costly, but you can rerecord on them *ad infinitum*.

Though the latest machines incorporate some useful editing facilities, CD-R/RW is not as flexible as MD. However, sound

quality is higher – if you're recording from a CD, the best models will give you a copy that is very close to the original. In terms of compatibility, most CD players will play back a CD-R disc, but older models might have trouble with CD-RW (though you can, of course, play the disc back on your own recorder). If you want to play a CD-R/RW on a DVD player, check for compatibility.

### Hard drive

The latest contender on the digital recording scene is also the most flexible. Some HDD (hard drive) recorders can store whole music collections if you use a compression format such as MP3. HDD recorders are taking over from multidisc CD changers as sound servers in multiroom installations, where their ability to play more than one piece of music at a time is a great boon. HDD also offers impressive editing facilities on a par with MD, and they can also record from CD (or to CD-R/RW) at high speed.

At present, sound quality isn't the driving force behind the format – flexibility and storage capacity being bigger issues – and a plain CD-R/RW machine will outperform an HDD recorder in fidelity terms.



Philips CDR802 £300 Multidisc recorder that's slick and accomplished, albeit with a slightly flaky build.



**Marantz** DR6000 £400 Quality in a box - it eschews gimmickry, but it does a simple job very well.



**Sony** MDS-JE480 £130 Entry-level MD recorder that does exactly what it says on the tin, at a bargain price.



Impressive implementation of hard drive technology for home audio applications.

SPECIFICATIONS

HD CAPA

ELEC IN

# 

### CD-R/RW. MD and HD recorders

CD-	CD-R/RW, MD and HD recorders		R	VCITY (GB)	OUTPUTS	OUTPUTS	NUMBER	
STATUS	PRODUCT	3	COMMENTS	CKS	(GB)	UTS	UTS	BER
CD-R/	RW RECORDERS	الك وعالية المراجع			NO.			
R	Denon CDR-1000	400	A respectable player and recorder, though some midband congestion was noted when recording	1		•	۲	218
BB	Marantz DR6000	400	No frills, but in its fundamentals this is one of the finest CD recorders on the market	1		۲	۲	233
B	Marantz DR-17	1,500	Highly recommended, but with a jitter problem that, resolved, would improve sound quality	1		۲	۲	205
88	Philips CDR802	300	Tacky looks and build notwithstanding, this is a well-equipped and technically sound 3-to-1 autochanger/recorder at a good price	2		•	•	233
BB	Philips CDR951	380	An improvement on previous models, it delivers the musical goods in some style	1		0	۲	205
R	Philips CDR785	350	Ragged play quality, but a good record performance from this well-equipped, well-priced CD-R/RW deck	1		۲	۲	218
88	Pioneer PDR-609	280	Classy single-deck CD-R/RW burner is also a good, if characterful, player	1		۲		218
R	Pioneer PDR-W839	350	Good-quality twin CD burner makes recordings that can be hard to distinguish from the original. Good value too	1		۲	۲	218
	Sony RCD-W3	250	Superb Sony build and ease of use complement great recording ability and amiable CD playback	2		۲		238
MD RE	CORDERS			1 decem	100			
R	Pioneer MJ-D508	200	Well equipped, but musically sleep-inducing player that receives its Recommendation owing to the price	1		۲	•	205
R	Sony MDS-JE480	130	Straightforward and effective, but the three real killer features are price, price and price	1		۲		233
HDD R	ECORDERS							
	Yamaha CDR-HD1300	600	CD-R/RW and hard drive in one - a flexible beast, one of the best of its ilk thus far though just short of formal recommendation	2	80	•	•	237

SPECS KEY DECKS Amount of drive mechanisms on board – twin-deck recorders use one to play while the other records. HD CAPACITY Amount of gigabytes of storage capacity, for HD only. OPTICAL IN/OUTPUTS Optical Toslink in and outputs for digital connection to a CD player or DAC. ELEC IN/OUTPUTS Electrical coaxial in and outputs for digital connection to a CD player or DAC.

# Sevenoaks SOUND & VISION

Sevenoaks Sound & Vision stocks a wide range of DVD players, amplifiers, speakers, plasma monitors, televisions and projection systems from all the leading manufacturers.

From starter systems to custom designed multi-room and home cinema installations, our friendly staff are available in all outlets to advise, demonstrate and guide you through the home entertainment jungle. If you're interested in home entertainment and want to avoid the confusion, contact your local Sevenoaks Sound & Vision outlet and experience more. 0% interest free option\* is available on most products. "Written details on request. Licensed credit brokers. Minimum balance £400. Subject to status.

# **B&W** Bowers & Wilkins



Combining cutting-edge technology with contemporary styling, the VM1 delivers the kind of uncoloured clarity and crispness of sound for which B&W is famous. Place it anywhere using the speaker's optional tall stand or its wall bracket and it looks the part from any angle. Magnetically-shielded, this multi-application speaker can occupy all five positions in a home cinema system, including the centre channel, when laid horizontally or mounted on its supplied foot on a television, but is equally at home within a two-channel hi-fi system.

Recently, when partnered with the AS1 Subwoofer, the combination received top honours in a What Hi-Fi? Sound and Vision supertest (\*\*\*\* February 2003).



# Custom Installation

Are you are looking to neatly and seamlessly integrate a Home Cinema or Hi-Fi System into your home? Our Custom Installation experts are fully trained in all areas and provide a prompt, reliable and professional service. Whether you're looking for lighting control systems, a dedicated home cinema installation with a retractable screen and built-in speakers or an integrated control system, Sevenoaks Sound & Vision has the solution.



# harman/kardon

Since 1953, Harman Kardon has focused on improving the home entertainment experience by combining innovative technologies, meticulous engineering and the finest sound quality.

Two recent additions to the Harman Kardon range are the THX Ultracertified AVR8500 AV receiver and the DVD 25 DVD player. Featuring 'Progressive Scan' for enhanced picture guality for plasma/projector users, What Hi-Fi? Sound and Vision magazine concludes (March 2003) - "You'll have gathered by now that we're impressed. As a premium video source for a reasonable price, the Harman Kardon is currently peerless."

### **Outlets Nationwide** 48

Aberdeen • Bedford • Birmingham • Brighton • Bristol • Bromley Cambridge • Cardiff • Chelsea • Cheltenham • Crawley • Croydon Edinburgh • Epsom • Exeter • Glasgow • Guildford • Holborn • Hull Ipswich • Kingston • Leicester • Leeds • Lincoln • Liverpool • Maidstone Manchester • Newcastle • Norwich • Nottingham • Oxford • Peterborough Plymouth • Poole • Preston • Reading • Sevenoaks • Sheffield • Solihull Southampton • Southgate • Swansea • Swindon • Swiss Cottage Tunbridge Wells • Watford • Witham (Essex) • Wolverhampton

Please refer to Page 7 for full address and telephone number details.

experience more

www.sevenoakssoundandvision.co.uk

# **PRO-JECT**

# **Turntables & Tuners**

Arcam DiVA T61 Tuner	£199.95
Cyrus FM X Tuner	£499.95
Denon TU260L MKII Tuner	£109.95
Marantz ST4000 Tuner	£109.95
Michell Gyro SE/RB300 Turntable	£1049.95
Michell TecnoDec Turntable	£599.95
Project Debut Phono SB Turntable	£169.95
Project Debut II Turntable (Colours)	£134.95
Project RPM4 Turntable	£349.95
Pure Evoke 1 DAB Radio	£99.95
Pure DRX-701ES DAB Tuner	£229.95
Sony ST-D777ES FM/DAB Tuner	£499.95



Up to £150

This is a fine turntable, and it clearly reveals the benefits of listening to vinyl, with a rich and detailed soundstage, and a good dynamic response.

It's available in six funky colours, so you should find one to suit your decor, and at just a smidge over £100, you can have no excuse not to keep that old vinyl collection in employment for a good few years yet."

#### 

Selected outlets are Project Turntable Centres. Colour Options are available at additional cost

**Debut II** Turntable (Black) £119.95

"The original Debut turntable romped away with a Product of the Year Award in 1999, and the MKII version continues the extremely good work. It's a simple affair, that's easy to set up, but don't let the price fool you - it sounds a whole lot more expensive than that



Michell Gyro SE/RB300 £1049.95

# **STARTER SYSTEM**

### marantz<sup>®</sup>

CD4000 (Black) CD Player PM4200 (Black) Amplifier

> m71i Speakers



£299.95 • SAVE £100

TOP BRAND NAMES AT A BARGAIN PRICE!



# RCD-02 CD Player £379.95 RA-02 Amplifier £349.95

RA-02 Amplifier "The amp has a fast, detailed and yet satisfyingly full presentation. That allows it to make a fine job of the beats of Groove Armada's

Goodbye Century set without losing sight of the fine details of the mix, and also husking out Marianne Faithfull's deliciously smutty vocals on Kissing Time with real

Best Buy 2002 £251.£500

relish. Add in decent levels of equipment - and the convenience of remote control, and we reckon Rotel has a winner on its hands."

HALLER \*\*\*\* August 2002



Speakers £179.95 "The original Aegis Ones were great speakers, to the extent that they were category winners in our 1998 awards. Since then a host of new models have raised the standards in the sub-£200 category, and the Aegis Ones soon went from stunner to

Aegis Evo One



Up to £200

also ran. AE's response to that is an EVO version.

The Aegis Ones genes are clearly evident. The original's refinement and bass weight are preserved and backed up

with better openness and more free-flowing dynamic ability. The old speakers would have delivered a cool and calm version of Pink's Missundaztood set they'd be enjoyable, but would lack a little drive and excitement.

The new speakers, however, address those limitations... Add authority and good stereo imaging to the list of plus points and it comes as no surprise to find these speakers at home

with classical, too. Indeed, running through our test room's extensive CD library we couldn't find a



KEF Q1 • £249.95



Please Note: Some products may not be available at all outlets. \*From our selection in-store - Not in conjunction with any other offer. Advertisement valid until at least 4th June 2003. E&OE

**CD** Players

£369.95

£449 95

£599.95

£949.95

£699.95

£999.95

£129.95

£994.95

£99.95

£369.95

£1194.95

£1999.95

£3994.95

£999.95

£994.95

£494.95

£99.95

£1949.95

£1299.95

£599.95

Arcam DiVA CD62T...

Arcam DiVA CD72T

Arcam DiVA CD82T ...

Arcam DiVA CD93T ....

Cvrus CD7

Cvrus CD8......

Arcam FMJ CD33T

Cvrus CD6

Denon DCD485 .....

Linn Ikemi

Meridian 507.....

Quad 99 CD-P

Roksan Caspian...

Rotel RCD1070

Sony CDPXE570.....

Linn Genki

Marantz CD4000.....

Marantz CD6000Ki Signature.....

Musical Fidelity A308<sup>cr</sup>

Musical Fidelity Tri-Vista SACD.....



# experience **more**

# **Amplifier** Selection

	And the second
Arcam DiVA A65 Plus Amplifier	£369.95
Arcam DiVA A75 Plus Amplifier	£429.95
Arcam DiVA A80 Amplifier	£599.95
Arcam DiVA A85 Amplifier	£799.95
Arcam FMJ A32 Amplifier	£1149.95
Cyrus 6 Amplifier	£599.95
Cyrus 8 Amplifier	£799.95
Denon PMA355 Amplifier	£199.95
Harman Kardon HK670	£299.95
Linn Kolector Pre Amplifier	£494.95
Linn LK85 Power Amplifier	£494.95
Marantz PM4200 Amplifier	£149.95
Musical Fidelity A3.2 Pre Amplifier	£999.95
Musical Fidelity A3.2 Power Amplifier	£999.95
Musical Fidelity A308 Amplifier	£1999.95
Musical Fidelity Tri-Vista 300 Amplifier	£3994.95
Quad 99 Power Amplifier	£549.95
Roksan Caspian Amplifier	£894.95
Rotel RA-01 Amplifier	£249.95

# Claim £200 Off the Speakers\* of your choice

When purchased together with any Arcam CD & Arcam Amplifier combination Min Spk Value £400 - Offer excludes 'Grand System'





### GRAND SYSTEM £999.95 Save £320

**CD72T** CD Player A75 Plus Amplifier T61 RDS Tuner List Price £1189 • Arcam Grand System not available in conjunction with any other offer



# **B&W** Bowers & Wilkins DM602S3 Speakers £299.95

Speaker Cable\* worth £50 with ALL Speakers over £280

"But the B&W 602 S3 are our winners They're big and not particularly beautiful, yet if it were our money they're what we would buy. No rival can match the wide ranging dynamics or low frequency performance of these not so compact

standmounters. Add all-round sonic excellence and the choice is easy. Give them sufficient space to breathe, then sit back and enjoy Martin \*\*\*\* Supertest Winner August 2002 the music."

Also Available (Pictured Right) B&W CDM NT Series • Prices start from £749.95



Save £20 **PURE DRX-701ES** Digital Tuner £229.95

This new tuner from the recently renamed Pure is based on the 2001 Award-winning Videologic DRX-601ES, but under the lid is an allnew third-generation digital radio engine, in the form of Frontier Silicon's Chorus

FS1010. Its biggest advantages are lower energy consumption and above all cost - it's the major reason why the DRX-701ES is £100 less than last year's model.

The tuner uses 24-bit/192kHz conversion with 4x upsampling and data interpolation, and is powered by a low-noise toroidal transformer - such

attention to sonic detail pays off. Digital outputs are provided on electrical and optical feed, but most people will use the

analogue out, and these sound very good indeed. As usual the tuner is subject to the signal quality off-air, but when it's fed from a high-quality outdoor aerial and a good signal it's capable of a crisp, powerful and detailed presentation. Even more populist music stations like Radio 6 benefit from the mix of a neutral balance and fine weight, while speech is also neutral and easy to follow... If you want a quality home tuner for digital radio, you need look no further." market \*\*\*\*\* October 2002





**pricing** DOUCY We always try to ensure our prices are highly competitive. In the event you can find the same products and excellent service at a lower price, please bring it to our store managers' attention.

## Claim £200 Off the Speakers\* of your choice

When purchased together with any Cyrus CD & Cyrus Amplifier combination. Min Spk Value £400



### CD8 CD Player £999.95 8 Integrated Amplifier £799.95

Cyrus has been developing high performance hi-fi systems for nearly 20 years. Today their upgradeable, modular product range includes multi-room systems, home cinema and some of the world's finest hi-fi systems. Cyrus products are hand finished, half size die-cast enclosures and include a hidden digital command system that allows simple operation of any size system.

Joining the new Cyrus 8 amplifier is the stunning new high performance, upgradeable CD player, the CD8. Other new models in the 8 series include the AV8 digital AV processor and a new disc player, DVD8, featuring specially tuned video and audio circuitry

Cyrus 8 Amplifier "The 8 is a large step forward from older generations of Cyrus amplifiers, and takes the company back into the leading pack in the sub-£1000 integrated amp sector... The Cyrus 8 is a must-audition product." \*\*\*\* January 2003



T HI-FI?

Best Buy

£501-£799

2002

# ROKSAN Kandy KA1 MKIII Amplifier £544.95

Claim £150 Off the Speakers\* of your choice When purchased together with any Roksan CD & Roksan Amplifier combination. Min Spk Value £300

"When we last reviewed Roksan's Kandy integrated amp in February it fought off serious competition to come top in a Supertest. This is its replacement, the MkIII Internal changes include an uprated power supply for the preamp section and identical mono modules for the left and right power amp sections. Roksan also

claims 50 percent lower distortion on line-level inputs and a whopping 150 percent less on the phono input. The rated power output is an impressive 120 watts per channel into 8 ohms, and this amp has a confident, muscular way with music that bears this out. But don't be fooled into thinking this amp is raw but unrefined. With Van Morrison's Down the Road the Kandy has the guts to render the performance

VRLE

exciting and dynamic, but also the guile to deliver subtle details

The upgraded Kandy MkIII is an excellent

amp; the MkII version was impressive, but MkIII is a stunner. It betters all the amps here in the timing department, and has a wonderfully robust character that works well with all types of music. It manages to retain the good points of the MkII while adding extra resolution and subtlety. All the amps here have a place in the market. It's just that at £550 the Kandy really does set the pace." mana \*\*\*\* October 2002



Product

2002

oage four

001

Musical Fidelity Tri-Vista 300

Amplifier • £3994.95

# Free Speaker Cable\* worth £50 with ALL Speakers over £280 **11L** Speakers **£379.95**

"Quad is best known for its superlative electrostatic designs, which start at £3500. So any £379 pair of speakers that carries the company's name has to be going some to avoid tarnishing the family reputation. The first surprise is that the

11Ls come in real-wood veneers covered with piano-gloss lacquer. This type of finish is almost unheard of at the £1000 mark, let alone at this price. Has anything been sacrificed for such a luxury finish? Here's the second surprise: apparently not.

The final surprise? Well, saving the best for the last, the sound quality of the 11Ls is phenomenally good. These are small speakers at just

> 33cm tall, but the scale and authority of their performance is terrific. The laws of physics dictate

bass extension limitations, but thanks to a clever dual rear firing port arrangement the 11Ls plumb the depths with the determination of a rottweiler, even when placed in free space.

If you're in the market for a pair of top quality standmounters these Quads are a must listen. Quite simply, they're good enough to scare the competition big time.' \*\*\*\* August 2002



Prices From £1699.95



Please Note: Some products may not be available at

all outlets. \*From our selection in-store - Not in conjunction with any other offer. Advertisement valid until at least 4th June 2003, E&OE.



# experience more

0

ROKSAN

# Speaker Selection

Acoustic Energy Aegis Evo Three,	£349.95
Acoustic Energy AE1 MKIII from	
B&W CDM 1NT.	£749.95
B&W CDM 7NT	£1249.95
B&W DM303	£179.95
B&W DM601 S3	£249.95
Cyrus CLS70 (Black)	£799.95
KEF Q1	£249.95
KEF Q3	£399.95
KEF XQ1	£999.95
Linn Katan (Cherry/Maple)	
Linn Ninka (Cherry/Maple)	
Mission 780SE	
Mission 782SE	
Mission m74i	
Monitor Audio Bronze B2	
Monitor Audio Silver S1	
Monitor Audio Gold Reference 10	
Monitor Audio Gold Reference 20	
Quad 22L	
Ruark Epilogue II	
Ruark Etude	
Wharfedale Pacific EVO 30	£649.95





# MUSICAL FIDELITY A3.2 Series

### A3.2 CD Player £999.95 A3.2 Amplifier £979.95

Replacing the WHAT HI+FI? SOUND AND VISION Award Winning A3 CD and Amplifier, the new A3.2 models have been further refined and re-styled. The A3.2 CD Player now incorporates the same DAC, filter assembly and control mechanism as the highly-acclaimed Nu-Vista CD Player. The A3.2 Amplifier draws on experience gained through the development of the Nu-Vista M3 amplifier and as such has inherited many of its gualities, producing a sense of ease and flexibility that is normally only associated with far more expensive designs

# Claim £300 Off the Speakers\* of your choice

When purchased together with any MF CD & MF Amplifier combination. Min Spk Value £600







# **MONITOR AUDIO** Silver S6 Speakers £599.95

Free Speaker Cable\* worth £70 with ALL Speakers over £500

British loudspeaker manufacturer Monitor Audio has introduced a replacement series for its acclaimed and award winning Silver Series speakers. "The aim has been to offer real advances in performance and

value", says technical director Dean Hartley. " New models include the S1 and S2 standmounters, the S6, S8 and S10 floorstanders.

"With a close-miked track such as James Taylor's Line 'Em Up from SACD they really deliver the character of the singer's voice and they're just as expressive with the cultured rhythms of Groove Armada's latest outing, having just the right mix of rhythmic control and fluidity... But amazingly the best is yet to come: these are simply beautiful speakers for classical music, once a few days' thrashing has tamed their initial rawness. With the latest release of Holst's The Planets on DVD-Audio, they thunder out Mars with true conviction.



These are rather magical speakers, with a poise and grace that belies their ability to turn on the power when required. Pair them with a good CD player and suitably accomplished amp, and you won't go far wrong." The second secon

# Pioneer PDR609 CD-RW Recorder £199.95

"While it looks simple, the Pioneer has an impressive array of features, including the handy double-speed disc finalization and CD-Text compatibility. Internally, the PDR609 is a big step up from the Award-winning PDR-509 it replaced: the DAC is now a 24-bit/96kHz number, aided and abetted by Pioneer's Legato Link conversion technology, and it has 24-bit A-to-D conversion, which is ideal for copying your vinyl onto CD. If this is your plan, you'll appreciate that the Pioneer makes it easy to create first-rate copies from any source, helped by the manual recording-level controls. It was hard to tell our copy of Jim White's No Such Place from the original.

While the Pioneer's replay quality can't match the Marantz, it costs £120 less, which would buy you a lot of blank discs. If you've already got a dedicated CD player, we'd go with this recorder."

# **Recorder** Selection

00

Also Available

Marantz DR6000

CD Recorder • £279.95

Harman Kardon CD-R30 CD-RW	£499.95
Marantz DR6000 CD-RW	£279.95
Sony RCDW3 CD-RW	£219.95
Yamaha KX393 Cassette Deck	£119.95
Yamaha KX580SE Cassette Deck	£199.95
Yamaha CDR-HD1300 CD-RW	£499.95





**pricing** poic We always try to ensure our prices are highly competitive. In the event you can find the same products and excellent service at a lower price, please bring it to our store managers' attention.





# AE1 MkIII Speakers Prices From £1699.95

Best remembered for introducing innovative metal cone driver technology, the original AE1 was met with much critical acclaim and has since become a classic among hi-fi enthusiasts

Introduced in the late 1980s, the AE1 was originally designed to satisfy the needs of the professional audio sector where it quickly gained a reputation among studio engineers and recording artists world-wide. However, audiophiles soon discovered its transparent and accurate sound, and so the hi-fi market rapidly became the focus of attention.

During the mid 1990s a Series II version was developed introducing relatively small-scale revisions and enhancements. The new MKIII model, however, is the borne out of an intensive R&D programme, it completely re-appraises the design and technology and brings significant performance improvements in all areas. The result is an ultra-compact, two-way speaker of exceptional quality. Sensitivity is 87db/w/m and impedance 8 ohms. The custom-built tweeter uses a 32mm ring-dome radiator and a doped-fabric diaphragm, while the mid/bass driver has a 120mm magnesium die-cast chasis with a ceramic coated alloy cone. Frequency range is from 38Hz to 30kHz. Standard finish is black ash, with cherry, maple and piano black finishes available at extra cost.



# AV30R AV Processor £1799.95 100x5R Power Amplifier £2994.95

TAG McLaren's AV30R AV Processor is aimed at the home cinema enthusiast who is concerned with keeping up-to-date with the latest surround formats. When partnered with TAG's 100x5R Power Amplifier it makes an exceptional combination.

According to What Hi-Fi? Sound and Vision magazine in their October 2002 issue: "In use, the AV30R, connected to TAG's 100x5R power amp, is superb. True, it can't quite match the clarity and power of the latest-specification TAG flagship, the AV32Rbp-192, but by any AV standard this is a very high-end piece of kit, with excellent impact and fine detail across a range of movie soundtracks from Once Upon A Time In America to the explosive actionfests. Channel steering is immaculate, and the sense of a soundfield wrapped around you - even in 5.1-channel mode - entrancing, with spine-tingling rearchannel effects. The fine Pro Logic II implementation serves music as well as it does non-discrete AV soundtracks, and with an SACD machine hooked up via the 5.1 channel inputs, the lack of coloration and sheer bass oomph is extraordinary."





Claim Free Tivoli Model One Radio worth £99 When You Purchase any REL Subwoofer over £700



Strata IIISubwoofer (Wood)£799.95Q150ESubwoofer£499.95

REL is an audiophile company who take great pride in designing and building their highly acclaimed subwoofers. Because of their total commitment to performance, REL sometimes adopt unusual solutions to otherwise straight-forward problems.

"The aggression of Rage Against The Machine's Take The Power Back is near-tangible, the midrange a spitting, spiteful companion for the tight, deep, air-agitating bassline. As for the more deft creations of Chick Corea, the REL's articulate nature serves subtly to underpin basslines, rather than swamp them. The

adaptability makes the Strata III a highly recommended subwoofer - it's a very versatile, musical piece of kit, and it doesn't cost the earth."

REL Q150E

Please Note: Some products may not be available at all outlets. Advertisement valid until at least 4th June 2003, E&OE. \*From our selection in-store - Not in conjunction with any other offer.



experience more

Sevenoaks Sound & Vision



# who are sevenoaks?

Founded in 1972, Sevenoaks Sound & Vision is one of the largest and most successful hi-fi and home cinema retailers in the country.

Each Sevenoaks Sound & Vision outlet stocks a wide range of quality products, covering all categories of specialist home entertainment, from DVD Players to Widescreen Plasma Televisions and Projection Systems, all at highly competitive prices.

Friendly staff are available in all stores to advise, demonstrate and guide you through the home entertainment jungle.

# new outlets now open

We are delighted to announce that we have opened new stores in the following locations. **Poole** 01202 671677 • **Solihull** 0121 733 3727 • **Swindon** 01793 610992 and **Wolverhampton** 01902 312225. Also, our **Leeds** store has re-located to larger premises.

# custom installation

Sevenoaks Sound & Vision's Custom Installation Service enables the integration of a home cinema or hi-fi system into your home as neatly and seamlessly as possible. All electronics can be hidden away, speakers discreetly mounted either in the wall or ceiling and the complete system operated via remote control.





Our installation experts are fully trained to the highest standards in all areas and provide a prompt, reliable and professional service. Whether you're looking for a multi-room system, a dedicated home cinema installation with a retractable screen and built-in speakers or an integrated control or lighting system, Sevenoaks Sound & Vision has a diverse range of products available to cater for all your requirements.

# sevenoaks online

The Sevenoaks Sound & Vision website has news and information on the Sevenoaks group and its 48 outlets nationwide. The website is designed to provide you with answers to the questions you may have when buying new equipment.

There are regularly updated stock clearance lists with hundreds of products on offer and detailed pages to help you locate your nearest outlet.

For impartial advice and information, just click on sevenoakssoundandvision.co.uk

# stock clearance

With 48 outlets nationwide, the Sevenoaks Sound & Vision group stock and display a wide range of products. As individual models and product ranges are changed or superseded, the preceding models are made available at a reduced price, for clearance. Visit our Website for an up-to-date list of the clearance stock, listed by outlet, within the Sevenoaks Sound and Vision group.

# 0% finance option<sup>+</sup>

Spread the cost of buying. 0% finance option is available on the vast majority of products we stock. <sup>†</sup>Written details on request. Licensed credit brokers, Minimum balance  $\pounds$ 400. Subject to status.

# pricing policy

Whilst we do not claim always to be the cheapest, we try to ensure our prices are highly competitive. Take into account the expert advice, unrivalled product selection, demonstration facilities and excellent pre, during and after sales service and the lower price might not look such good value.

In the event you can find the same products and excellent service at a lower price, please bring it to our store managers' attention. We will always endeavour to offer you the best deal.

# OUTLETS NATIONWICE Aberdeen 491 Union Street 01224 587070

Bedford 29-31 St Peters Street 01234 272779 Birmingham Arch 12. Livery Street 0121 233 2977 Brighton 57 Western Road, Hove 01273 733338 Bristol 92b White Ladies Road, Clifton 0117 974 3727 Cambridge 17 Burleigh Street 01223 304770 Cardiff 104-106 Albany Road 029 2047 2899 Cheltenham 14 Pitville Street 01242 241171 Crawley 32 The Boulevard 01293 510777 Edinburgh 5 The Grassmarket 0131 229 7267 Exeter 28 Cowick Street 01392 218895 Glasgow 88 Great Western Road 0141 332 9655 Guildford 73b North Street 01483 536666 Hull 1 Savile Row, Savile Street 01482 587171 Ipswich 12-14 Dogs Head Street 01473 286977 MOVED Leeds 62 North Street 0113 245 2775 Open Sunday Leicester 10 Loseby Lane 0116 253 6567 Lincoln 20-22 Corporation Street 01522 527397 Liverpool 16 Lord Street 0151 707 8417 Maidstone 96 Week Street 01622 686366 Open Sunday Manchester 69 High Street, City Centre 0161 831 7969 Newcastle 19 Newgate Street 0191 221 2320 Norwich 29-29a St Giles Street 01603 767605 Nottingham 597-599 Mansfield Road 0115 911 2121 Oxford 41 St Clements Street 01865 241773 Peterborough 36-38 Park Road 01733 897697 Open Sunday Plymouth 107 Cornwall Street 01752 226011 NEW Poole Latimer House, 44-46 High Street 01202 671677 Preston 40-41 Lune Street 01772 825777 Open Sunday Reading 3-4 Kings Walk Shopping Centre 0118 959 7768 Sevenoaks 109-113 London Road 01732 459555 Sheffield 635 Queens Road, Heeley 0114 255 5861 Open Sunday **NEW** Solihull 149-151 Stratford Road 0121 733 3727 Southampton 33 London Road 023 8033 7770 Swansea 24 Mansel Street 01792 465777 Open Sunday NEW Swindon 8-9 Commercial Road 01793 610992 Tunbridge Wells 28-30 St Johns Road 01892 531543 Witham (Essex) 1 The Grove Centre 01376 501733 NEW Wolverhampton Burdett House, 29-30 Cleveland St. 01902 312225

# within the M25

 Bromley
 39a East Street
 020
 8290
 1988

 Chelsea
 403 Kings Road
 020
 7352
 9466

 Croydon
 369-373 London Road
 020
 8665
 1203 Open Sunday

 Epsom
 12 Upper High Street
 01372
 720720 Open Sunday

 Holborn
 144-148 Grays Inn Road
 020
 7837
 7540

 Kingston
 43 Fife Road
 020
 8547
 0717
 Open Sunday

 Southgate
 79-81 Chase Side
 020
 8886
 2777

 Swiss
 Cottage
 21 Northways
 Parade, Finchley Rd
 020
 772
 9777
 Open Sunday

www.sevenoakssoundandvision.co.uk

Please call to verify hours of business. Contact our outlets via E-Mail outlet@sevenoakssoundandvision.co.uk

# HI-FICHOICE BUYER'S BIBLE STEREO AMPS

# STEREO AMPLIFIERS

Amplifiers come in two basic forms: integrated and preamplifier (pre) plus power amp combinations. Integrated simply means that both pre and power sections are in one box. There are definite advantages to separating the low level, delicate signals in the preamp from the radiations of a power amp, so the more ambitious designs come in two or more cases. In some cases, each channel has its own power amp called a monoblock.

Amplifiers use two basic technologies: transistors or valves. Transistors are popular because of their practical and technical advantages, but valves – aka tubes – live on owing to aspects of sound quality that trannies can't replicate. If you want to play your music loud, use trannies; if you appreciate acoustic music, try valves.

The fundamental of amp/speaker interfacing is power rating and speaker sensitivity. You can drive a high-sensitivity speaker with a ten watt valve amp, but it takes a 200W behemoth to get the best out of speakers which present a difficult load. As a rule, you can't have too much power.

### How to choose an amp

The main areas in which amps vary are: timing, dynamics, stereo imaging and transparency. Timing is the ability to present the attack and decay of each note precisely; amps with strong timing have a snap and coherence that is very appealing.

# HOME CINEMA STEREO

Stereo amps can be used in home cinema set-ups as well. You don't get the surround and centre channels, but well set-up stereo speakers do a remarkably good job of creating atmosphere for movies. Stereo amps tend to be better at reproducing music as they don't have the (electrical) noiseinducing digital processing of AV amps. AV amps cost three to four times as much as stereo models of a similar quality.

### Q&A Should I leave my amp on All the time for best results?

All audio electronics perform better when they are warmed up, and this is particularly the case when it comes to amplifiers. If there's no way that you can leave it on all the time, make an effort to switch it on at least 20 minutes before listening.

# WHAT IS BI-WIRING AND BI-AMPING?

Bi-wiring is when you run separate cables to the treble and bass/mid terminals on the speaker. In most instances, this improves sound quality so long as identical cables are used. Bi-amping is using two stereo amps to drive one pair of speakers, using one amp to drive the treble and the other for the bass/mid sections of the speakers.

# WHY DO VALVE AMPS HAVE SO LITTLE POWER?

Valve amps are inherently low powered in absolute terms – at least when you compare them to their transistor-based cousins. But when partnered with high-sensitivity loudspeakers, they are quite capable of producing perfectly adequate head-banging levels.

# TOP BUYS



RA-02 £349 A terrific budget integrated from Rotel's latest line-up. Offers pace, guts and finesse, wrapped up in a prettier package than one might traditionally expect from the marque.



120 £750 This revised version of Primare's A20 MkII sounds significantly more engaging, with genuine punch and rhythm coursing through its circuits. A real musical maestro.



AVI Type S21 MI £1,399 This AVI's full name is Lab Series Integrated Amplifier Type S21 MI – a lengthy moniker for such a neat little amp with a hugely accomplished sound.





XXIII/XXVIII £2,790 A beautifully natural and dynamic sounding pre/power amp combo – a transistor design with a touch of the valve amp sound.



Dynamics is a general term for the ability to portray variations in level between individual notes and is different to dynamic range (the difference between the loudest and softest notes). Dynamically strong amps tend to have more life and energy.

Stereo imaging is how solid or three-dimensional an instrument or voice sounds. The point of having two rather than one speaker is to make it possible to recreate the soundstage of the original recording, thus amps that have strong imaging skills can create a sonic space that seems to extend the room.

Transparency of detail is the most obvious difference between amps. One amp will present more subtlety than another, but the drawback with using this as your main criterion is that a forward or 'bright' sounding amplifier will emphasise detail at the expense of overall musical coherence.

# STEREO AMPS BUYER'S BIBLE

# Our favourite 🔲 group test best buy 🗄 group test recommended 🖪 editor's choice 🖻 new gear review **STEREO AMPLIFIERS**

	grated amplifiers	J	AMPLIFIEKS	LINE INPUTS	PHONO INPUT	REMOTE CONTROL	HEADPHONE SOCKET	POWER OUTPUT (M)	ISSUE NUMBER
STATUS	PRODUCT	£	COMMENTS	SINc	<b>VPUT</b>	TROL	CKET	F (M)	ABER
UP TO	£1,000							8.4-3	
118	Arcam DiVA A65 Plus	370	Highly articulate and fluent, offers unusual insight for its price	5	0	•	۲	40	232
88	Arcam DiVA A75 Plus	470	Quick, lively and well-presented amplifier, bass is sharper and more tuneful than its predecessor	5	•	۲	•	50	224
88	Arcam DiVA A85	800	Powerful, engaging amplifier with extensive non-intrusive features, and strong upgrade potential	7		۲	۲	85	239
2	Cyrus 6	600	This entry-level Cyrus offers all the subtlety and much of the power of the 8	5		0	۲	40	240
R	Cyrus 8	800	Superb at low to medium volumes, and a clear improvement on its predecessor, but deteriorates at high power levels	7		۲	۲	70	239
88	Denon PMA-255UK	140	Great beer-budget buy, with everything necessary for basic but decent high-fidelity operation	5			٠	30	208
Ř	Exposure 2010	599	Neatly turned-out amplifier with mainstream appeal, but a bit on the bland side	6		•		50	214
R	Marantz PM8200	599	Warm, solid and likeable sound, with the occasional flash of steel when under pressure	5		۲	۲	60	224
ß	Myryad Z140	450	Slimline beauty with genuine integrity and coherence, if relatively limited power	5		0	•	50	232
B	NAD C320BEE	220	Spirited and enthusiastic amp with slight bass hump and a sound that will suit relaxed speakers	7		0	0	50	232
88	NAD C370	450	Flexible, ultra high-power integrated amplifier delivers a real punch, but is not without finesse	6		0	۲	120	217
R	Naim Nait 5	825	As always with the Nait, less is more, and the Nait 5's 30 watts seem to go a lot further with some sources	6		۲		30	214
ß	Primare A10	500	Beautifully made, smooth and easy sounding, and though not overtly detailed it is well organised musically	6		۲		50	208
88	Primare I20	750	An amplifier with attitude: punchy fast and secure sounding, with excellent build quality for the money	4		•		70	239
R	Roksan Kandy KA-1	475	Power with control, barely compromised by a small degree of dryness	6		•	0	120	205
R	Roksan Caspian Mkll	895	An excellent all-rounder, with an articulate, assured delivery and excellent drive capability with a wide range of loudspeakers	6				70	239
>	Rotel RA-01	250	Take a Best Buy amplifier and rip out the remote control to save £100. No wonder we love it!	4	۲			40	237
<b>(38</b> )	Rotel RA-02	349	Agile and capable slimline design with an engaging sound that draws you into the music	4	0	0	•	40	232
88	Sugden A21a	899	This single-ended, Class A transistor amp has exquisite resolving ability and presence - an authentic classic	5				25	224
ABOV	£1,000						133		
23	Arcam FMJ A32	1,150	Remarkably flexible and well-featured, with excellent sound quality for the price	7	•	۲	0	100	228
88	ATC SIA2-150	2,375	Starkly revealing powerhouse that eats most integrateds for breakfast	5		۲		150	228
88	AVI Lab Series S21 MI	1,399	Terrific power, control and resolution but effortlessly musical and fine value	6	opt	0		200	241
R	Canary Audio CA-608	2,250	If you value the grand scheme of things and appreciate a bit of dynamic vigour this could be the amp for you	4				24	202
EC	Karan KA-i180	3,900	Lean, sharp and articulate, this impressively constructed heavyweight is almost up there with the audiophile pre/power elite	4		0		180	236
R	Marantz PM-14 Mkll Kl	2,000	Highly sophisticated and well equipped, with a refined and relaxed sound quality that's hard to resist	7	•	۲	0	100	228
EC	Musical Fidelity Tri-Vista 300	3,999	If you audition one, you will want to be one of the handful of Tri-Vista owners	5	۲	۲		350	239
88	Primare A30.1	1,500	Smooth, detailed singing quality, elegant appearance and healthy power yield	6		•		100	214

# Our favourite 🗉 group test best buy 🗉 group test recommended 📴 editor's choice 🖻 new gear review

					SPECIFICATIONS						
Pre/	power amplifiers	Ar	MPLIFIERS	PREAMPLIFIER	POWER AMPLIFIER	LINE INPUTS	PHONO INPUT	REMOTE CONTROL	POWER OUTPUT	ISSUE NUMBER	
	PRODUCT	£	COMMENTS	53	9	SLI	ů	10L	3	ŝ	
	£2,000					e. ()					
88	Arcam DiVA A85/P85	1,330	Integrated/power amp combo won't suit all systems, but delivers classic A85 virtues plus extra gravitas and range	۲	0	7		٥	85	225	
EC	Arcam FMJ A32/P35	1,980	One of the few correctly matched integrated/power combinations, the sound has real gravitas and sophistication	۲	•	7	0	۲	100	227	
EC	ATC CA2	750	Stripped-down version of ATC's range topper delivers considerable transparency and bandwidth. Excellent value	۲		5		•		221	
88	Creek P43R/A43	900	Great value, with a particularly impressive way with dynamics	۲	0	6		۲	140	212	
88	Croft Vitali/Series 5C	2,000	Oddball retro style and ergonomics, but truly magical voice coherence and projection, great transparency	0	0	3			30	216	
R	Densen Beat 200/300	1,985	Classy jet black cast boxes pack plenty of punch with good total musical coherence (remote £300 extra)	۲	۰	6	opt	opt	100	216	
EC	Musical Fidelity A308CR	3,898	Bold-looking design with an absence of sonic signature that proves there is life after Nuvista	۲	•	4		•	250	231	
R	NAD Silver Series S100/S200	2,000	Beautifully built kit that sounds as good as it looks, with heaps of power	•	•	7		•	200	200	
EC	Naim NAC112/NAP150	1.425	Clean, clever simplicity, plus a very well-balanced sound that's much sweeter than earlier Naims	۲	۲	6		•	50	213	
BB	Rothwell Indus/Rubicon	1,488	Quirky valve combo with passive pre-amp has a lovely neutrality and consistency across a wide dynamic range	۲	۲	6			10	216	
ABOV	£2,000								353	18 - 19 - 19 - 19 - 19 - 19 - 19 - 19 -	
ß	Audio Note M2Phono/P2SE	2,698	Wonderfully natural and inviting sound with great warmth and drama, but limited loudness capability		•	4	•		18	216	
EC	Audio Research LS25/VT100	12,199	This is not so much a fine valve amp, as a fine amplifier, full stop (LS25 MkII/VT100 MkII)	۲	۲	6	•	۲	100	216	
EC	AVI S2000M	2,398	This preamp/monoblock pairing does most things very well and images better than most	۲	•	5		۲	150	221	

SPECS KEY LINE INPUTS Input sockets for source components with a line level output: CD players, DVD players, tape decks, tuners, phono stages etc. PHONO INPUT Input sockets and onboard phono stage for a cartridge. Either MM (moving magnet) or MC (moving coil), occasionally both. REMOTE CONTROL A remote control is supplied with the amplifier. HEADPHONE SOCKET To drive your cans with. POWER OUTPUT Manufacturer's rated output in watts per channel.

SPECIFICATIONS

# Our favourite 🔲 group test best bly 🗌 group test recommended 🖽 editor's choice ≥ new gear review STEREO AMPLIFIERS continued

Pre	power amplifiers			PREAMPLIFIER	WER AMPLIFIER	LINE INPUTS	PHONO IN	NOTE CONTROL	ER OUTPUT (M)	ISSUE NUMBER
STATUS	PRODUCT	£	COMMENTS	Ē	B	SID	INPUT	P	3	ËR
EC	Border Patrol P20	6,750	Muscular 300B P-P design with fluidity and dynamics to match the best	۲	۲				20	231
R	Bryston BP25/4BSST	4,000	Extremely transparent, high-power combo, you'll listen louder and longer because you can	•	0	8	opt		300	241
EC	Classé CP-35/CA-101	2,797	Very classy Canadian pre/power combo with a natural, open and no-nonsense sound	0	٥	4		۲	100	237
68	Electrocompaniet EC4.7/120DMB	3,448	Bulky Norwegian combo has wonderful transparency, wide dynamic range and fine musical tension	0	0	6		•	120	216
88	Exposure XXIII/XXVIII	2,790	Highly natural and dynamic amplifier that offers the fluidity and energy of valves via transistors	۲	•	6	opt	•	70	241
EC	Krell FPB 700cx	14,998	Reference class amplifier may represent overkill in many systems, but when no compromise is called for, this is it		•				700	234
EC	Linn Klimax Kontrol	6,000	Beautifully executed example of Scots audio art, sounds as clean as it looks and is a lot more transparent than most	•		4		٠		238
EC	Linn Klimax Twin	6,000	Super-slim stereo power amp uses advanced switch-mode power supplies to fast, engaging effect		•				125	230
EC	Mark Levinson No380/No334	9,490	Pre has precision and warmth with unusual configurability, power has refinement, authority and transparency to spare	0	۰	6		۲	125	195
R	Naim NAC 202/NAP200	2,720	More sophisticated than its forebears with a fleet-footed sound that draws you into the music	•	•	8		٠	70	241
EC	Naim NAP500	10,995	Wonderful neutrality, bandwidth and dynamic range, plus Naim's traditional leading-edge definition		0				140	208
EC	Naim NAC552	11,750	Extremely expensive preamp, but still solid value. Magnificent sound with fine flexibility and convenience	0		6		0		233
R	Primare PRE30/A30.2	2,400	Beautifully built with great selection of features and serious power delivery		۲	7		0	120	241
B	Primare A30.1/A30.2	2,700	Powerful, smooth, though slightly uneven with some speakers, but excellent control and separation in others	•	0	6		•	100	225
EC	Steinhart DVP 2XR/Fidelio 102 DD	7,440	Brilliantly musical, making even difficult material enjoyable, but gets hot and has ergonomic foibles	۲	•	7	•	•	100	236
R	TAG McLaren DPA32R/250MR	4,940	In a class of its own for extendibility and it's tremendously subtle, though it can sound constrained dynamically		۲	6		0	250	230

# **AV AMPLIFIERS** Surround sound amps for music and movies

The multichannel, surround sound or AV amplifier is a popular option, thanks to the success of the DVD player and home cinema. Now you can buy five channels or more of amplification for the price of two. Now that multichannel music is also on the agenda, there's a lot to be said for a good AV amp or receiver (an amp with a radio tuner built in).

So if you fancy hearing what DVD-Audio, SACD or even music DVD-Video can do, then check out a multichannel amp and speaker set-up - they're stunning with movies and none too shabby with music.

AV amps are usually designed primarily for movies and come with digital processing for the various soundtrack formats - Dolby Pro-Logic (analogue), Dolby Digital and DTS, which offer discrete surround sound in 5.1 and 7.1 channel formats. More ambitious designs also offer THX post processing, designed to emulate the sound of the mixing theatre at home.

Processing in AV amps is needed because the surround formats on DVD-Vs are compressed, limiting their high-fidelity

high-quality multichannel music,



potential. This is why new formats SACD and DVD-A, which don't use 'lossy' compression, were created for music.

All this processing power can take its toll on analogue formats. The best multichannel amps for music are often the simplest, but any that offer a complete bypass option with six-channel input are suitable. It's also worth looking at real power - five or seven channels of amplification are not easy to produce with a feeble power supply, and the cheaper amps in particular often fail to live up to the claims.

# 0.&.A

POW

### **HOW MANY CHANNELS?**

Depends on how many speakers you want. Multichannel music discs come with six or 5.1 channels, but for new movies, 7.1 systems are where it's at. 7.1 set-ups also mean you have speakers directly behind you preferable for music discs.

### WHAT'S THE DIFFERENCE **BETWEEN A PROCESSOR** AND AN AV AMP?

Processors don't have amplification on board and you need separate power amps. AV amps and receivers have processing and amps in the same box.

### WHAT DOES THE .1 IN 5.1 STAND FOR?

This is the LFE (low frequency effects) or bass channel that is reproduced by a subwoofer.

HI-FI MEETS SURROUND SOUND

their movie DVDs justice, and the number With DVD-Audio and SACD offering of AV products delivering sufficient surround sound is no longer just a home quality is on the increase. But most aren't cinema thing. An increasing number of cheap - building a top-quality system people want to build a multichannel with five or more channels is inevitably system that will do their music as well as more expensive than sticking with stereo.

There are some very decent integrated options below £1,000, though the best (and most costly) route is to buy a separate processor and power amp(s). Or you can add AV amplification to a stereo model you can't bear to part with.

# AV AMPS BUYER'S BIBLE

# TOP BUYS



#### Pioneer VSX-D2011 £900 A feature-packed receiver, and a great sounding one to boot. Only Denon's new AVR-3803 currently competes at the price.

.



Marantz SR9200 £2,000 Few AV receivers manage to sound as musical as this one. A top all-rounder and an excellent multichannel solution.



AVC-A1SR £3,000 Denon's AV behemoth is arguably the best integrated multichannel amp to date - superbly cinematic and one of the very few with genuine 'hi-fi' music credentials.



AV8/P7 £5,498 A fantastic achievement from this respected UK brand – an AV processor and seven-channel power amp par excellence.

			up test best buy 🔄 group test recommended 📧 Editor's choice ≥ New Gear Review		SPE	CIFIC	ATION	IS
A	V AMP		IFIERS		_	7.1 0	5-CHANNEL POWER (M)	ISSI
Mul	tichannel amplifiers			RECEIVER	LINE INPUTS	COMPATIBLE	OWEF	ISSUE NUMBER
STATUS	PRODUCT	£	COMMENTS	IVER	SIDe	IBLE	R (M)	IBER
	GRATED AV AMPS			1.000	5.1	8.3		
B	Arcam AVR200	800	Upgraded AVR100 with Dolby Pro-Logic II and some bass management. Great for stereo, a bit bass-light for multichannel	۲	6		70	229
>	Denon AVR-3803	899	Feature packed 7.1 channel AV receiver which needs a lot of studying but does everything well	۲	11	۲	110	23
R	Denon AVC-A11SR	1,800	Feature-packed with superb spatial processing, combined with powerful, though slightly opaque overall audio quality		11	•	۲	23
C	Denon AVC-A1SR	3,000	An AV amp with genuine high-res hi-fi credentials. Includes a ground-breaking 'wide bandwidth' digital audio link		8	۲	170	232
2	Harman Kardon AVR 5550	850	The upgrade to the AVR 5500 comes with features that are actually of some use to the audiophile and a meaty sound to boot	0	9	0	85	24
8	Marantz SR9200	2,000	Powerful, cool-running UK-customised THX receiver with spacious, relaxed sound quality with music and movies alike	۲	9	0	۲	23
8	NAD T761	650	First-rate home cinema amp that sounds more powerful than its specs imply, and competes with specialist stereo amps	۲	9		80	223
>	Pioneer VSX-D2011	900	Outstanding sonic performance for the price and a remarkable features list to boot	0	10	•	140	23
C	Pioneer VSA-AX10i	2,700	Seven channel tour de force with automatic speaker set up and eq, excellent with music, movies and DVD-A/SACD		8	0	150	22
R	Sony VA-777ES	1,500	Smart circuitry gives this model unusual precision and transparency, and it is a fine all-rounder		9		100	21(
IV PR	IOCESSORS AND POWER AMPS						1977	
C	Arcam AV8/P7	5,498	State-of-the-art processor (£2,999) and seven-channel power amp (£2,499). An excellent fusion of stereo and surround sound		7	•	180	235
C	Bryston SP1/9B THX	7,100	Stripped-back 5.1 channel processor/amp combo reaches genuine audiophile heights		6	opt	120	21
С	Copland CVA306/CVA535	3,748	Tube analogue six-channel pre transforms multichannel audio from a novelty into a genuine advance for the high fidelity art		5		125	23
2	Cyrus AV8	1,100	A refined and listenable processor that will integrate into an existing hi-fi system with ease		9			235
R	Cyrus AV8/3x Smartpower	2,900	Classic Cyrus sound translated to a multichannel arena, limited features and power, but civilised sound		3		105	238
E	Marantz PS-17/2 x SM-17	3,400	Classy and capable system, great steering, warm solid sound and high detail resolution, and some great gadgets		10		60	238
C	Meridian 861	9,833	Powerful surround processor with flexible modular construction, marvellous versatility to drive any speaker configuration		6	0		230
R	Myryad MDP500/MA240/360	3,799	Superb three-box, five-channel AV amplifier. Great with movies and beats most multichannel amps hands down with music		9	opt	120	215
R	Naim AV2/NAPV175/NAP150	4,175	First truly credible multichannel system from Naim is idiosyncratic but offers excellent basic sound with modest spatial steering		5	0	50	238
6	Primare SP31.7/A30.5	4,200	Great all-round system which brings the qualities of good stereo high fidelity to a multichannel world		5	0	120	238
B	Roksan DSP/5ch amp/VSU	2,440	Clean, powerful stereo expanded seamlessly, if without distinction, to 5.1 channels		4		80	210
EC	TAG McLaren AV32R EX	2,994	Flexible AV processor, unusually good with music. Excellent for multichannel system in standard or seven-channel 'EX' form		6	0		215

SPECSICEY RECEIVER Integrated multichannel amp with built- in radio tuner. LINE INPUTS Input sockets for source components with a line level output: CD players, DVD players, tape decks, tuners, phono stages etc 7.1 CHANNEL COMPATIBLE The amp either has seven-channel in and outputs or in some instances is equipped with seven channels of amplification 5-CHANNEL POWER (W) Power output in watts per channel of all channels driven by the amp

tartic ns new Sound Fantastic range of units are specifically designed for both the home and professional hi-fi a dio markets Each unit is fitted with a 10A mains R.F.I. filter with earthline choke and trai nt suppre filter mains-borne transie nts, switching surges, R.F. interference, intermittent spikes and other st steel construction OVERALL LENGTH TYPE NO. NO. OF SOCKETS PRICE ¥ 13A Sockets unt Fuse HF 4 4 446mm £83.72 Panel Mo ¥ RFI 10A Mains Filter & Surge Suppressor HF 6 £92.47 6 557mm al Earth Stud HF 8 8 670mm £98.70 d Cable 2m v 1 5mm Scree Call 020 8905 ne Entertainment — Power 🖌 Erdica ne Enter ent, May 2001



# Five Stars for Value

Does the best price always mean the best deal? Ask the UK's top twenty specialist hi-fi dealers.

"I thought I had this buying hi-fi business sorted out. I bought all the hi-fi magazines and read them thoroughly, because I reckoned their experts knew exactly what they were talking about - at least a lot more than I did! It was reassuring to see the same product names cropping up regularly and I figured the writers' experience and guidance would steer me straight to the system of my dreams. The trouble is I've ended up more confused than when I started".

ne reviewer said a product I fancied was absolutely brilliant but another said it was nothing special at all. How can that be? Surely one CD player is pretty much the same as another? And how can a loudspeaker that's one magazine's top recommendation not get so much as a mention in any of the others? I don't mind admitting it, I'm completely lost."

### Plan B - I'm going for a deal

"So, I've decided to adopt plan B. I'm sure there can't be any really dramatic differences between all this gear and it's all bound to work together properly, so I'm going to check the price lists and the adverts and shop around for the best deal. I know getting the right hi-fi is important hey, I'm as mad about music as anyone but if I can get close to the mark and save a few quid, I'm sure I'll end up with a good system and be happy. I know there are specialist shops out there that do demonstrations and reckon they've got all the solutions but, to be honest, I'm a bit scared of going to one. I'd really welcome some advice and guidance but I don't know all the technical jargon and I'd feel daft sitting there trying to 'hear the differences' if I couldn't. Anyway, a friend told me that these shops only sell the really expensive gear and that they're not interested if you don't have loads of money to spend." And so another hi-fi buyer starts his journey down the road to dissatisfaction, endless upgrades and a permanent overdraft.

There is only one way to buy a hi-fi system that will prove satisfying, reliable and

deliver true value for money, and that's through a specialist hi-fi dealer. Let's face it, you wouldn't think about buying a car if you couldn't take it for a test drive. You wouldn't buy a house solely on the strength of seeing the estate agent's details and a photograph. Even if you're spending far less, say buying a jacket or a pair of shoes, you want to try them on to make sure they fit you.

Buying a hi-fi system is no different. It doesn't matter what the specifications say or what the 'experts' think: if it doesn't measure up to what you want from a system, then it's not the right choice. Knowing that you've bought a room full of five-star favourites or best-buys is no consolation when you can't bear to listen to them for more than five minutes. Even that ten per cent discount on the price won't make them sound any better.

### Buying or being sold to?

Mind you, most of us are easily suckered when it comes to buying hi-fi. Given the choice of venturing into the unknown territory of a specialist dealer's shop and exerting some influence over what we buy, or taking what looks like the easy route having adverts and magazine reviews push us along a path sweetened with discounts and special offers - we opt for the latter. We don't buy a system, we allow ourselves to be sold one. We side-line our own ideas about quality and personal satisfaction and buy someone else's opinion of what's good for us and good value for our money.

### Take control!

Now there's a group of long-established, independent specialist dealers who are
**C** You wouldn't think about buying a car if you couldn't take it for a test drive. You wouldn't buy a house solely on the strength of seeing the estate agent's details. **9** 

totally committed to putting the customer back in the driving seat. They're encouraging the buyer to take control with a little help and guidance provided where required. They know how difficult it can be to establish the true quality and worth of hifi and home cinema systems. They know that without experiencing the performance of the systems they offer, you can't possibly assess the value of them. That's why their idea of 'selling' is to play the systems for you and allow you to be the judge.

Listening to your choice of music in a peaceful, well organised demonstration room, you may be surprised and, almost

certainly, relieved to discover how easy it is to hear the differences between components and between systems. With the dealer's help and advice you will be able to make a clear and informed decision about what to buy. It comes down to trusting your own judgement rather than the opinion of a reviewer you've never met ... and who won't refund your money if you're not satisfied or be at the end of a phone to sort out any problems you might encounter.

The story doesn't end there. These shops won't abandon you once you've put your hand into your pocket. They won't leave you to set up the system you've selected as best you can. They'll install it in your home, make sure it sounds great, and make sure that you're entirely happy with the way it works.

#### Why bother?

There is, of course, one question that hasn't been answered: why should you and these dealers go to all this trouble? Well, from your point of view maybe it's because a good deal is about a great deal more than just price. unless you've got money to burn,

## **STAR QUALITIES**

VALUE FOR MONEY	*	*	*	*	$\star$
SERVICE	*	*	*	×	*
FACILITIES	*	$\star$	$\star$	$\star$	*
VERDICT	*	*	*	*	*

you'll be living with your new system for years - years during which most of those five star products will probably stop shining quite so brightly. As far as the dealers are concerned, maybe they believe that taking care of their customers properly is a nicer way of doing business than just handing over boxes.

Listed below are 20 of the best hi-fi shops in the country. They all have lots of stars. You'll find them on the shop floor: they're the people waiting to guide customers towards hi-fi that will give them years of musical enjoyment and total satisfaction.

# **TOP 20 UK SPECIALIST HI-FI DEALERS**

LONDON N1 GRAHAMS HI-FI 190a New North Road 020 7226 5500 SW11 ORANGES & LEMONS 61/63 Webbs Road, Battersea 020 7924 2040 W4 MARTIN-KLEISER 109 Chiswick High Road 020 8400 5555

#### SOUTH

Ashford, Kent SOUNDCRAFT HI-FI 40 High St. 01233 624441 Beaconsfield MARTIN-KLEISER 9 London End 01494 681300 Chelmsford RAYLEIGH HI-FI 216 Moulsham Street 01245 265245

East Grinstead AUDIO DESIGNS 26 High St. 01342 314569 **Kingston-upon-Thames** INFIDELITY 9 High Street Hampton Wick 020 8943 3530 Lakeside Retail Park RAYLEIGH HI-FI Dansk International **Furniture World** 01708 680551 **Rayleigh**, Essex **RAYLEIGH HI-FI** 44a High St. 01268 779762 **Ringwood, Hampshire** PHONOGRAPHY Star Lane 01425 4<u>61230</u> Southend-on-Sea **RAYLEIGH HI-FI** 132/4 London Road 01702 435255

Worthing PHASE 3 HI-FI 213-217 Tarring Road 01903 245577

MIDLANDS Banbury OVERTURE 3 Church Lane 01295 272158 Birmingham SOUND ACADEMY 152a High Street, Bloxwich 01922 493499 Leicester CYMBIOSIS 6 Hotel St. 0116 262 3754 Northampton LISTEN INN 32 Gold St. 01604 637871 Shrewsbury CREATIVE AUDIO 9 Dogpole 01743 241924

NORTH Cheadle THE AUDIO WORKS 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 York SOUND ORGANISATION 2 Gillygate 01904 627108

SCOTLAND Edinburgh RUSS ANDREWS HI-FI 34 Northumberland Street 0131 557 1672 Glasgow STEREO STEREO 260 St. Vincent Street 0141 248 4079

N. IRELAND Belfast LYRIC HI-FI 161 Stranmillis Road 028 90 381296

# STEREO SPEAKERS Speaker pairs for stereo sound

While loudspeakers are relatively straightforward in construction, they have one of the most difficult jobs in hi-fi – turning an electrical signal into an acoustic one. Most consist of two or more drive units in a box that usually has a port in it to make life easier for the cone in your mid and/or bass driver. Alternatives to this arrangement include panel speakers, which use electrostatic or ribbon technology, and horns, which use drive units in complex cabinets that greatly improve efficiency.

Box speakers are either designed to stand on the floor (floorstanders) or on a stand (stand or shelfmounts). Floorstanders have greater internal volume which can translate into greater efficiency and/or bass extension, but less substantial designs also introduce cabinet resonance and thus distortion. But they don't need stands and therefore have the aesthetic edge. Standmounts have less cabinet to vibrate and often score in terms of imaging and timing, but need good stands to work well.

## Positioning

The closer the speaker is to a wall, the greater the reinforcement of bass. As all rooms differ, there's no simple formula for placement and experimentation will yield the best results. Altering the angle at which the speakers face the listener can also make a difference to balance and stereo image.

### **Going multichannel**

Many stereo speakers can be augmented with centre and surround channels from the same brand to create a multichannel system. The most important element is a centre channel, which needs to match the stereo pair as closely as possible. For the best musical results, surrounds should be as per the front left and right channels, but if space or funds don't permit, smaller designs can be used quite effectively.

Though some speakers have a power rating, this isn't as informative as a rating for how difficult they are to drive, nor does it indicate wattage extremes for the partnering amp. In practice, an amplifier cannot be too powerful. Our listings quote ease of drive to indicate how much power



## **Choosing speakers**

Because speakers and the rooms they are used in vary so much, choosing a pair tends to be quite subjective. To find some that will suit you, try to listen to a good variety to hear how they differ, and if possible, audition some at home. Tonal balance tends to vary the most, but is less important than more subtle factors such as timing and dynamics. Finally, listen with your ears not your eyes – great-looking speakers aren't necessarily great sounding.

### Spikes

POWER

Floorstanding speakers and stands have threaded inserts for spikes that allow rigid coupling with the floor. These have the advantage of draining resonance from the speaker and giving tighter bass, but can result in more vibration getting back to the electronics and often cause the floor to resonate as well.

your amp needs to avoid a mismatch. An above-average (A+) speaker will work with amps rated at 25W plus, while an average (A) speaker will need 50W or more, and a below average (A-) speaker could require 100W plus to sound its best. These are guidelines rather than rules.

# Q&A

### IF SPEAKERS ARE RATED AT 75 WATTS, DOES THAT MEAN 1 NEED A 75 WATT AMP?

No, see the box on power for the full story.

### WHICH SPEAKERS ARE BEST FOR SMALL ROOMS?

Those designed to work close to the wall will be smoother in confined spaces. Speakers that have relatively dry, tight bass will also sound better.

### WHICH SPEAKERS ARE BEST FOR BIG ROOMS?

Big, efficient, easy-to-drive designs are more likely to be able to fill a room better than compact models.

### DO I NEED TO BUY CENTRE AND SURROUND CHANNELS FROM THE SAME BRAND AS MY STEREO SPEAKERS?

Yes, assuming that you're wanting to create a homogenous surround sound experience, where voices don't change when they move from one channel to another.

# STEREO SPEAKERS BUYER'S BIBLE



Audience 42 £400 It might be expensive for a vinyl-covered miniature, but it's an aristocrat among the breed, and we'd be surprised if there's a better small speaker around for the price.



#### Castle Conway 3 £930 A great success with its lovely real wood finish and beautifully balanced sound, along with fine dynamics and transients. A kingly sub-£1,000 floorstander.



B&W Signature 805 £2,250 You won't get this degree of resolution out of a wider bandwidth speaker at anywhere near the price, and most of your music will sound considerably better through them.



Ultimatum MFS £2,995 A standmount speaker that sounds much bigger and more spacious than it looks. A touch bright-sounding perhaps, but superbly informative.

CTEDI		CDEAVEDC		SP	ECIF	ICATI	DNS		
<b>Stereo speakers</b>		SPEAKERS	SIZE W,H,D (CM)	FLOORSTANDER	EASE OF DRIVE	BASS FROM (HZ)	FREE SPACE	CLOSE TO WALL	ISSUE NUMBER
STATUS PRODUCT	£	COMMENTS	D (CN	ANDE	DRIV	M (H2	SPAC	WAL	JMBE
UP TO £1,000	~	ouminicatu	-	R	m	12	m	F	
Acoustic Energy Aegi	s Evo 1 180	An unusually classy and sophisticated performer for the price; laid-back sound and good looks too	19,36,24		Α	30	0		226
AR S20	150	Might not have the most dynamic sound around, but it's an honest and effective musical communicator	20,37,28		А	28	0		215
ATC SCM12	999	Transparent, engaging and quick - a revealing, high-fidelity performer that's not afraid to bare all	22,39,25		A	62	0		237
Audio Note AZ One	449	Delivers music with great gusto and enthusiasm, but also more than its fair share of coloration	23,83,29	•	Α	30		0	215
AVI Biggatron Red Sp	oot 599	Good bass coherence and timing, but the lean and decidedly forward balance won't be to every taste	19.5,37,30		A	30		0	211
B&W DM303	180	Chunky looking and lively sounding, with deep bass, a fine midband and a restrained top end	20,33,23		А	23		0	226
B&W DM602 S3	300	Old-fashioned size/shape, but this timeless design has a rare combination of grip, authority and headroom	24,49,29		A	25	0		234
B&W DM309	330	All the grace and punch of the smaller DM303 – a suberb floorstander for the money	20,91,30	0	Α	60	0		235
B&W DM603 S3	600	Excellent all-rounder, smooth for its price with fine bass and mid, though top might be more refined	20,91,29		A-	25			231
B&W CDM-1NT	750	An uncommonly stylish and sonically self-effacing standmount that should be very easy to live with	22,40,29		Α	30	•		208
Blueroom Minipod	249	Wonderfully blobular styling aside, it's hard not to fall for the Minipod's openness, expression and detail	18,34,17		A	50		•	225
Castle Durham 3	399	A very attractive near-miniature wallmount with a lively and communicative disposition - lots of fun	19,37,22	0	A	45	•	-	227
Castle Conway 3	930	Lovely real wood finish and a beautifully balanced sound, fine dynamics and transients, but might have more 'air'	22,91,27	0	A+	30	0		237
Dali Royal Tower	750	Cutely compact floorstander has a delightful liveliness and lightness of touch to match its luxury real wood finish		•	A	25		0	237
B Dynaudio Audience 4	400	An aristocrat of the vinyl-covered miniature breed. A terrific small speaker for the price	17,29,24		A	40	0		215
R Dynaudio Audience 6	52 729	Pricey but cute vinyl floorstander that is a class act sonically - lightweight, but clean and dextrous	20,86,26	0	A	30	۲		231
Elac JET 205	650	Sweet, smooth, clean and delicate tweeter justifies hefty price tag, but a little lacking in warmth and body overall	20,33,29		A	40			231
Energy Connoisseur	C-5 600	Has a marvellously even and neutral overall balance, if a little too laid-back with restrained dynamic expression	20,95,37	۲	A+	23	0		240
Epos ELS3	200	Few affordable speakers sound as clean and convincing while taking up so little real estate	18,27,19		A-	60	0		241
Epos M12	499	Retains the beguiling midband coherence that made the ES12 such a favourite. A genuine class act	20,38,26		A	40	0		215
Infinity Alpha 30	300	Some sharpness and nasality, but fine musical literacy plus a good measure of dynamic expression	22,86,29	0	Α	30		•	215
Jamo E 850	400	A tad bright perhaps, but a cleverly conceived and good-looking speaker at a very reasonable price	18,87,34	۲	A-	30	0		224
JMLab Chorus 715	529	A fine all-rounder, this compact floorstander is lively and well balanced with good dynamic drive and grip	20,94,28	0	A-	22		0	227
JMIab Cobalt 816	899	A little lean, cool and bright, but has righteous dynamic expression and lively communication skills	22,99,29	0	Α	22	۲		224
R KEF Q1	250	Stylish if slightly small-sounding stand-mount with fine midband coherence; works well close to a wall	22,35,30		Α	30		۲	234
Mission m71	129	Neat-looking and very discreet-sounding at a very nice price; experiment for best placement	17,29,28		Α	40		•	226
Mission m73	199	Good-looking floorstander. Dynamics are a little limp, but it has a good overall balance. Excellent value for money	20,88,31	•	А	25	•		215
Mission m51	300	Distinctive and dynamic - not the last world in subtlety but enjoyable with both music and video sources	21,32,34		A+	58		۲	228
Monitor Audio B2	200	A lively and entertaining speaker with tight controlled bass and pronounced midband	18.5,35,25		A	42		•	238
Monitor Audio Silver	S1 300	Super-quick sonics thanks to the C-CAM metalised drivers. Resolution and speed – a great value box	18,30,24		Α	45			236
Monitor Audio Silver	S8 800	A thoroughly impressive all-rounder, notable for its wide dynamic range, excellent imaging and fine neutrality	19,90,27	۲	А	20	0		237
Mordaunt Short MSS	300	An even and open loudspeaker that is both detailed and precise. A budget gem	21,90,27	•	А	50	۲		234
Neat Petite III	845	The treble is peaky, but this is still one of the most coherent and communicative miniatures around	20,31,20		A	30		•	211

SPECS KEY SIZE WXHXD (CM) Width, height and depth of one cabinet in centimetres. FLOORSTANDER Speakers that don't require stands. EASE OF DRIVE How much power the amplifier needs (approximately) to drive the loudspeaker effectively. A+ 25 watts plus A 50 watts plus A- 100 watts plus A- 100 watts plus ACT Active – the speaker has its own in-built amplifier. BASS FROM How low the speaker goes – the smaller the number the deeper the bass. FREE SPACE The speakers work best away from wall(s). CLOSE TO WALL The speakers will work best when up against a wall (but avoid corners).

# Super System Savers

web: billyvee.co.uk mail: sales@billyvee.co.uk • f5 extra off Speaker Stands. & f10 extra off any Equipment Stand with all advertised systems

# Arcam/Mission CD62/A65+/M72



Complete with 6m QED spkr lead For speaker alternatives look right.

📀 Save £15 more, Add a Project Debut Turntable for only £99

# ➡ Linn - B&W Classik+B&W600s3



# Arcam - KEF CD72/A75/T61/KEFQ1



📀 Save £25 more, Add a Rega Planar 2 Turntable and AT95e cartridge for only £195



O Add Arcam T61 Tuner for only £219 and Save £30 extra!

• Naim - B&W - with free flatcap2 worth £489 CD5/Nait5/B&W CM2



 Don't want the speakers? Save over £460 when you buy CD5/Nait5/Flatcap for only £1999 (Full Price £2464)
 Want different Speakers? - Linn Katan Add £85 - AVI Pro Nine or PMC TB1 Add £150. Call for further options. Limited stock offered on a first come basis. Total saving of £634 on May prices. Credit offered subject to status. E&OE

€ / 59 Want different speakers? Upgrade to KEF Q1 speakers add £70 Upgrade to B&W 601s3 spkrs add £70

Upgrade to Mission M51 spkrs add £115 0% Interest Free options, see top right

# Save £200.00 **£1029**

Want different speakers?
Upgrade to KEF Q1 add £49
Upgrade to B&W 601s3 add £49
Upgrade to Mission M51 add £99
Upgrade to Quad 11L add £179
0% Interest Free options, see top right

# Save £329.00 **£1075**

📀 Want different speakers?	
Upgrade to KEF Q3 add	£149
Upgrade to B&W 602.5s3 add	£149
Upgrade to Quad 11L add	£129
Upgrade to Mission M52 add	£199
0% Interest Free options, see top	right
🔸 Limited Quantity- while stock	s last

(Closed Thursday)

248 Lee High Rd London, SE13 5PL Mon/Sat 10 - 6.30



# Auditions?...

We supply the finest hi-fi, A/V & DVD in London and you can be sure that any of the products you see advertised here are on display and available for audition directly in the shop or in our comfortable listening rooms. Helpful experienced staff are always on hand to help explore the many new possibilities open to you. Warranty?...

All hi-fi and A/V is covered by our no nonsense two year minimum warranty with many ranges incorporating a five year in house cover. And... if you want to upgrade, we offer a part exchange service so you are not left with your old hi-fi **Where?...** 

We are on the main A20 road between Lewisham and Blackheath BR Stations. Buses: 122 321. Local parking is available.

# When?..

We are open between the hours of 10am to 6.30pm Monday - Saturday (Closed Sunday and Thursday)

To your door Next day delivery £5 call 020 8852 1321



TEMS

O U N D · S Y S

S

\* Interest free credit or deferred credit is available for purchases of £400 or above over 6 - 12 mths. Call for details single or combined purchases included

## PRODUCT RANGE

Arcam \* AVI \* B&W \* Chord Co \* Denon Linn \* Mission \* Naim \* PMC \* ProAc Pro-ject \* Pioneer \* Rega \* REL \* Spendor Sennheiser \* Sugden \* TAG \* Yamaha

# **Display Clearance** up to 60% off normal price

Arcam FMJ DV27 DVD Player (was 1599) £119	5 00
Arcam A85 Amplifier (was 799) £599	
Arcam DV88 DVD Player (was 999) £499	
Arcam DT26 DAB Tuner (was 999)£69!	
Elac CL82 Speakers (was 399)60%£159	
<b>KEF Q5</b> Speakers (was 599)£419	
Lexicon MC1 Processor (was 5500) £279	
Linn Classik Music (was 999)	
Linn Classik Movie System (was 1995)£149	
Linn LK85 P/Amp (was 495)	
Linn Majik (Line) Amplifier (was 650)£350	
Linn Kairn Line Preamp (was 1400) 50%£699	
Linn Kairn Phono preamp (was 1700) 50% .£850	
Linn Sizmik Sub Woofer (was 995)£69	
Marantz DV7000 DVD (was 599) 60%£239	
Marantz RC5000 Prog Remote (was 499)£29	
Naim NAC 52 Preamp (was 3850)£279	
Naim NAPSC Power Supply (was 195)£9	
Naim NAXO 2/4 Crossover (was 893)£469	
Naim Credo Speakers (was 1350)£890	
ProAc Tablette 2000 Speakers (was 649)£450	
Rega Mira Amplifier (was 498)£32	
Rotel RV985 DVD Player (was 625) 60%£249	
Sugden A21 Amplifier (was 949)£67	5.00
Sugden Bijou CD Master (was 1299) £89!	5.00
Sugden Bijou Ampmaster (was 689) £49	5.00
Yamaha DVD520 DVD Player (was 229) £149	9.00
2 yr G/tee on most goods U.K. 24hr Del £5 per item. E8	BOE

# **Pre-Owned Bargains**

_
Arcam Alpha 8P Power Amp (new 250) £149.00
Arcam Alpha 10P Power Amp (new 599)£359.00
B&W CDM1 Speakers-Blk (new 699)£395.00
Epos ES11 Spkrs-Blk inc Stds (new 425) £199.00
Linn Mimik CD Player (new 875)£395.00
Linn Karik 3 CD Player (new 1850)£899.00
Linn Wakonda Preamp (new 845.00)£479.00
Linn Kairn Preamp (new 1400)£599.00
Linn Kairn Phono Preamp (new 1700)£849.00
Linn 5103 AV Contoller (new 4500)£1795.00
Naim NAC72 Preamp (new 745)£299.00
Naim Flatcap Power supply (new 360)£229.00
Naim NAC 82 Preamp (new 2345)£1595.00
Naim NAP 135 Power Amps (New 3600) .£1795.00
Naim SBL Spkrs - Black (new 2362)£995.00
ProAc Response Centre Spkr (new 450)£195.00
Rega Luna Amplifier (new 498)£269.00
Rega Ela Speakers (new 498)£125.00
All S/H goods carry 1 year warranty ILK Delivery £5 per item



📀 Want different speakers?	
With KEF Q5 or Mission M53	N/C
With Spendor S3	N/C
Upgrade to AVI Pro9 add	£99
Upgrade to B&W CDM1 NT add	£149
Upgrade to B&W CM4 add	£345
0% Interest Free options, see top	right

<sup>9</sup>, <sup>10</sup> *Save £585.00* <sup>10</sup> **£2499** 

Only limited stock of this fantastic deal available. We will give you a flatcap power supply for free with this stunning system to increase your performance further. Plus £70 worth of NAC 5 speaker lead. Want 9 months Interest Free Credit 2 See Below. Deposit £252.50 & 9 payments of £252.50

# STEREO SPEAKERS BUYER'S BIBLE

SPECIFICATIONS

# 

	reo speakers	£		SIZE W,H,D (CM)	FLOORSTANDER	EASE OF DRIVE	BASS FROM (HZ)	FREE SPACE	CLOSE TO WALL	ISSUE NUMBER
R	Opera SP-1	525	A strong case for serious hi-fi with curves. Sound is clear, crisp and detailed	16,29,23	R	A	50	m	•	-∞ 225
88	PMC DB1	555	Lacks a little weight and authority, but beautifully balanced, free from boxiness, and loads of fun for a tiny	16,29,24		A	50		0	240
28	PMC TB2	700	A worthy successor to the TB1, which sets a high standard in its size/type for neutrality and transparency	20,41,31		A	30			211
ß	Sonus Faber Concerto Home		Looks good and sounds better. Great midband communication skills, well aligned for close-to-wall sitting	24,36,34		A	40		0	233
6	Spendor S3	600	Beautifully voiced, unboxy, lacks some dynamic and loudness capabilities. Best suited to small rooms	17,31,21		A-	30		0	223
	Spendor SR5	1,000	This wall-mount very cleverly avoids the usual colorations, delivering a very dynamic if rather dry sound	31,31,18		A+	50		0	240
86	Tannoy Mercury mX3-M	229	Beautifully balanced and voiced, with low coloration and good transparency, but could be more dynamic	19,87,25	0	A+	45	0		234
R	Tannoy Eyris 1	600	Pricey but very cute wallmount miniature; oddball, but has marvellous midband subtlety and delicacy	17, 35, 26	-	A+	10		0	227
ß	Tannoy Eyris 2	999	This super-slim and cutely different-looking floorstander is very communicative, despite weak treble	17,91,26	0	A	20	0		231
88	Triangle Antal XS	875	Ugly duckling has a rather tasty sound, with plenty of vigour and excitement	22,108,30	0	A-	40	0		219
AROV	£1.000	010	ogy donning has a rather tooy board, war pinky of rigori and choroninit	221100100			10		194000	ETO
8	Arcaydis Concept 2	1,199	Solid oak floorstander is a little lazy sounding, but is well balanced and smooth with modest coloration	19,90,26	0	A-	25	0		211
EC	ATC SCM10A	1,269	Stylish, active powerhouses with plenty of subtlety when required (balanced connection only)	23,39,31		A	45	0		221
ş.,	ATC SCM20 SL	2,051	Not too transparent, but has great dynamic grip and bass to die for. Needs a powerful amp	24,44,33		A-	65			219
EC	ATC Active 20	2,538	30k + 300W equals resolution and bass that most amp/speaker combinations dream about – a bargain	56,28,36		ACT				240
EC	ATC SCM50A SL	7,255	350W of power combine with superb drive units and a 48kg cabinet to provide alarming resolution	35,72,48		A	38	0		218
R	Audio Note AN-E/D	1,520	This classic large standmount might have throwback aesthetics, but it delivers an exceptional all-round sound	36,79,28		A+	20	0		204
R	Audio Note AN-J/SPe	1,675	Retro styling, but a vigorous and dynamic performer that creates fine musical tension	33,59,25		A	38	0		219
R	B&W Nautilus 805	1,400	A small-sounding loudspeaker dynamically, but very stylish, clean and 'unboxy', delivering loads of detail	24,42,31		A	28	0		199
EC	B&W Nautilus 802	6,000	Outstanding example of the high-tech speaker builder's art. Needs real power, but gives real sound	39,111,55	•	A-	34	0		183
8	B&W Nautilus 801	8,500	The 801 is a magnificent loudspeaker in nearly every respect, but it is one that likes to play loud	52,111,69	0	A-	34	•		186
EC	B&W Nautilus 800	11,000	Unequivocal challenge for world domination. One of the most revealing speakers around	45,120,65	0	A-	<20	0		231
EC	B&W Signature 805	2,500	Staggering transparency and resolution for the money, one of the best standmounts money can buy	24,42,34		A-	42	0		232
R	BC Acoustique Araxe	1,300	Neat compact floorstander is a very lively communicator, if a little short on deep bass grunt	21,92,30	0	A-	40	0		204
38	Castle Harlech S2	1,000	Improved Harlech is slightly aggressive, but lots of fun, and very good-looking too	20,96,33	•	A	50	۲		219
R	Castle Howard S3	1,350	A solid all-rounder with uniquely spacious imaging, bit pricey compared to some though	21, 99, 32	0	A+	38	0		229
R	Dali Noble	1,059	Easy on the eye and the ear, but unerringly musical. Some might prefer harder-hitting dynamics and bass	18,117,23	0	A	41		0	225
R	Dali Evidence 870	1,249	A real heavyweight, sonically and physically, and good for movies as well as music	25,106,36	•	A-	20	۲		204
88	Dynaudio Audience 82	1,460	Bulky, with vinyl finish, but offers exceptional neutrality, bass extension, power handling and loudness potential	22,106,36	0	A	30	۲		229
5	Dynaudio Contour 1.3 Mkll	1,198	Outstanding performer among compact standmounts; neutral, with fine punch and dynamic range	20,38,29		A-	45	•		219
į.	Excel 202A	1,795	Very pro-styling, a compact active monitor in the BBC tradition - neutral, unboxy and laid back	15,21.5,36		act	25	•		214
В	Harbeth Super HL5	1,699	Looks old-fashioned, but classic monitor combines authority and transparency with good neutrality	33,64,31		Α	30	0		233
88	Infinity Intermezzo 2.6	1,600	Bi-amp speaker sounds laid back and 'disappears' acoustically; highly enjoyable, looks and sounds great	25,38,29		A+	27	0		233
EC	JBL Ti-2K	1,250	Solid standmount with boat-tail rear end and highly detailed, spacious sound alongside weighty bass	42,28,42		Α	45	•		230
88	JMIab Cobalt 826	1,279	Big three-way French floorstander is lively, informative and mostly neutral, if a tad bright	22,103,34	•	A-	35	0		219
EC	JMIab Micro Utopia	3,349	Superb top-of-the-line standmount with magnificent powers of analysis and communication; no deep bass	26,43,41		A-	50	0		220
R	Linn Katan Aktiv/LK140	2,325	Too small to have much grunt or loudness, but bright top is very sweet, clean and detailed	17,34,23		act	40		۲	214
EC	Living Voice Auditorium	1,700	New improved version even better than before. Beautifully natural and expressive - a real universal soldier	22,97,28	0	A+	35	0		239
EC	Living Voice Avatar	2,700	Dynamic and highly resolved, yet physically discreet design with a relaxed balance	22,104,27	0	A+	40			218



# Our favourite Group test best buy Group test recommended to editor is choice new Gear Review STEREO SPEAKERS continued

Ster	eo speakers		<b>SFEARENS</b> continued	SIZE W,H,D (CM)	FLOORSTANDER	EASE OF DRIVE	BASS FROM (HZ)	FREE SPACE	CLOSE TO WALL	ISSUE NUMBER
	PRODUCT	£	COMMENTS	) (CM)	NDER	DRIVE	V (HZ)	PACE	WALL	MBER
EC	Living Voice Avatar OBX-R	4,000	Discreet, but extremely fine design with external crossover and an affinity with great amps and sources	22,104,27		A+	45	0		196
BB	Meridian M33	1,560	Compact active wallmount packs remarkable dynamic vigour into a very discreet package	15,38,22		act	45		۲	214
8	Naim Allae	1,990	Chunky little floorstander has a 'cold' overall balance, but remarkable powers of musical analysis	24,94,28	۲	Α	40	۲		229
EC	Naim NBL	6,925	Elegant, large floorstander is exceptionally informative, with an awesome dynamic range and dry, forward balance	29,116,47	0	A-	20	۲		200
EC	Naim SL-2	4,995	Delivers magnificent musical analysis and communication skills in a notably discrete physical package	28,103,33	۲	A-	20		0	232
EC	Neat Ultimatum MFS	2,995	Wonderful five-driver standmount sounds bigger than it looks. Very spacious and informative, if a little bright	22, 38, 37		A+	25	۲		241
EC	Neat Ultimatum MF9	8,500	Superb musical communicator with splendidly deep and agile bass and fine open neutrality	22,150,40	۲	A-	20	0		228
R	PMC LB1	1,150	Still fully competitive eight years after our original review, this genuine compact monitor is now a modern classic	17.5,53,26		A-	40	۲		199
88	PMC FB1	1,410	Has the lively coherence of a simple two-way, alongside impressive bass weight and extension	20,105,31	0	Α	20	0		204
R	PMC AML1	3,700	Sparkling active Pro monitor with serious attitude, 'in yer face' balance and great dynamics	20,40,32		А	25	۲		214
EC	PMC IB2	6,150	Stunning in an understated way, this speaker creeps up on you and hooks you with its transparency and power	33,74,47		A-	25	0		237
EC	Royd Revelation RR2	1,199	Pretty little floorstander delivers genuinely deep bass without 'thump'; lovely clean, open midband too	19,89,18	۲	A-	20	۲		221
B	Ruark Prologue II	1,250	Attractive shape with a punchy and unusually open and neutral sound that's impressively free from harshness	22.5,96,24	۲	A+	40		0	229
8	Ruark CL20	1,650	This punchy rock'n'roller has plenty of drive and enthusiasm, but can sound aggressive	23,93,34	۲	Α	38	•		219
68	Snell E.5 Mk2	1,520	Large floorstander has serious deep bass extension, and also a delicate midband with low coloration	22,109,30	۵	А	20	۲		211
R	Spendor SP2/3e	1,295	Large standmount is polite to a fault, but has beautiful 'hear-through' transparency - a genuine classic	28,55,33		A+	50	0		219
8	Spendor S8	1,700	Classic midband neutrality and transparency, the S8 has great subtlety and fine bass grunt too	23,92,32	۲	A+	40		۲	229
EC	Spendor S9	2,500	Meaty three-way with superb bass and explicit mid - one for detail fans	24,99.8,38	۲	A+	37			223
EC	TAG McLaren F1	17,995	Oddball aesthetics with accurate, unflappable, controlled and consistent sonic neutrality	40,127,48	۲	A-	25	۲		202
EC	Tannoy Dimension TD8	4,000	This stylish speaker is a splendid all-rounder, with fine dynamics, precise imaging and minimal coloration	30.5,85.5,30	•	A-	25	۲		240
EC	Tannoy Dimension TD10	5,000	Extremely competent and rhythmic speaker, a futureproof supertweeter and detail to die for	35,101,37	0	A-	38	۲		215
EC	Tannoy Dimension TD12	6,500	Art Deco-inspired style, plus magnificent headroom and genuine monitoring neutrality - a tour de force	42,126,41	۰	A-	23	٠		225
B	T+A Talis TLS3	1,799	Super-slim and beautifully engineered metal towers deliver marvellous musical results with superb imaging	15,130,17	۲	А	30	۲		225
R	Vandersteen 2Ce Sig	1,990	Very superior midband neutrality, impressive freedom from boxiness and splendid stereophony. A classic	41, 109, 26	۵	A-	30		۲	229
ß	Waterfall Victoria	1,500	Glass enclosures go with any decor. The Victorias make music in a confident and involving way	21,100,21	۵	А	45	•		225
EC	Wilson Benesch Chimera	15,000	Elegant with lovely sonic delicacy and plenty of weight too. Works best at low levels, but a difficult load to drive	24,145,55	۲	A-	20	٢		234
EC	Wilson benesch Discovery	5,500	Innovative three-way with built-in stand, combines great subtlety with weight and headroom	23,47,38	0	A-	45			212

# **AV SPEAKERS** Speaker solutions for multichannel surround sound



speaker solutions for multichannel surround soul

Multichannel speaker systems have a front left/right (L/R) stereo pair, a centre or dialogue channel, two (5.1) or four (7.1) surround speakers and often a subwoofer. For best results, each of these speakers bar the sub should be identical. The problem is that few surround systems are dedicated to music and perform a home cinematic role as well, meaning the centre speaker has to sit above or below a video monitor. Centre channels are usually wide and short for this reason.

This should not be a barrier to great surround for music and movies however, as many brands make centre channels with a very close sound to their L/R designs.

### **Music vs movies**

High-resolution SACD and DVD-A music recordings tend to be mastered with

Ideally you should set up surround speakers with as much care as you would stereo systems, but practical issues tend to have a significant bearing on surround and centre speaker placement. Surround channels can be floorstanding or wallmounted, and centres usually have to perch on the TV or underneath it. Given these limitations, adjust your L/ R front

# SET-UP

speakers to give the best tonal match with the centre. If there's more than just you listening, 'toe in' the speakers so that their axis crosses in front of the listening position – this gives a wider stereo image. And if there's a subwoofer it should be placed near the front speakers. Use a sound pressure metre (available from Tandy among others) to accurately set levels. surround speakers in the ITU standard position which is as far behind the listener as the front channels are in front. 5.1 movie soundtracks tend to place surround channels not so far behind and to the side of listeners. Usually, practical limitations will dictate a limited range of placement options, but if you are a dedicated music fan, check out the ITU set-up regulations in the booklet supplied with SACD discs.

SPECIFICATIONS

# **SUBWOOFERS**

Subs start working where stereo speakers run out of steam at low frequencies. The idea is to create deeper, better-controlled bass rather than more of it. They usually have onboard amplification (active) and connect to either the LFE (Low Frequency Effects) channel in a home cinema set-up or the speaker terminals in a stereo set-up.

# AV SPEAKERS BUYER'S BIBLE



B&W 600 S3 package £750 Incorporates 602s, 601s and an LCR 600 centre speaker. Great in both stereo and multichannel surround modes.



Q AV7 £1,300 With the latest Uni-Q refinements, this system is astonishingly accomplished and amazing value.



Mission m5 package £1,450 A five-speakers-plus-sub package giving a strong performance with both music and film soundtracks. Excellent value.



Mirage Omni 2 £2,650 Dark tonality but superb imagery makes this an excellent all-round choice for music and movies alike.

NUMBER OF S BASS FF

EASE

SPECIFICATIONS

Ŧ

SPECIFICATIONS

РО

SIZE W,H

BASS FF

ISSUE

CLOSE

USSI

# Our favourite 🔟 group test best buy 🗉 group test recommended 🔟 editor's choice 🖻 new gear review **AV SPEAKER PACKAGES**

	PRODUCT	£	COMMENTS	OF DRIVE	PEAKERS	ROM (HZ)	E SPACE	TO WALL	NUMBER
R	B&W 300	900	An excellent compromise between the requirements of music and those of home cinema	A-	6	27	0		241
68	B&W 600 S3 package	900	Unquestionably delivers the sonic goods. High-quality drivers in standmount enclosures (uses 602 S3s at the front)	A-	5	22	0		224
R	Castle CAV Sterling	1,250	Lovely real wood veneers. Sound has fine dynamic drive and expression, but can sound a little hard	Α	5	28		۲	224
R	Dynaudio Audience 42	1,142	AV package for hi-fi purists with real authority and imaging, but needs subwoofer for full-bore movie sound	B-	5	53	0		241
R	JMLab Cobalt	1,797	A little lean and bright, but with righteous dynamic expression and lively communication skills	A	5	22	•		224
R	JMIab Electra	3,017	Bold, solid system, tremendous consistency and easy to expand with an added subwoofer	Α	5	50	۵		232
88	KEF Q AV7	1,300	With latest Uni-Q refinements, this system is astonishingly accomplished and amazing value	A+	5	35	۲		232
R	Mirage Omni 2	2,650	Dark tonality, but superb imagery makes this an excellent all-round choice	Α	5	30	0		232
BB	Mission m5	1,450	Main m52 is a clean, attractive full-range stereo speaker, while the m5as does big bass for movie fans	В	6	28	۲		241
R	Mordaunt-Short Declaration 500	1,600	Good value vinyl THX Select package with Power Towers. Good authority, but must be 5.1-connected	A	5	25		۲	210
R	PMC FB1/TB2	2,485	Classy, if bulky and pricey, package has good transparency, coherence and weight	А	5	20		۰	210
В	Rega Jura/Ara/Senta	938	Classy real wood package does a good all-round job, but sounds bright and might have more surround weight	A	5	25		۲	210
R	Spendor S-Series	1,650	Ultra-tinies lack some dynamic and loudness capabilities, but beautiful voicing and freedom from boxiness	A	5	30		۲	224
88	Tannoy mXAV4	500	Lacks some grunt, but smooth and refined with seamless surround coherence. Excellent value	Α	5	20		۲	210

SPECS KEY EASE OF DRIVE How much power the amplifier needs (approximately) to drive the loudspeaker effectively: A+ 25 watts plus A 50 watts plus A- 100 watts plus. NUMBER OF SPEAKERS The amount of individual loudspeakers in the package. BASS FROM How low the speaker goes, the smaller the number the deeper the bass. FREE SPACE The speakers work best away from wall(s). CLOSE TO WALL The speakers will work best when up against a wall (but avoid corners).

# Our favourite 🖾 group test best buy 🔄 group test recommended 📧 editor's choice 🖻 new gear review **SUBWOOFERS**

Bass	speak	ers
------	-------	-----

Bass	Monitor Audio ASW100       300       For the price, this compact subwoofer performed well         REL 0150E       500       Great value compact 'cube' sub adds genuine weight and drive thanks to superior filtering	H,D (	WER	MON	NUMBER		
STATUS	PRODUCT	£	COMMENTS	CM)	3	(HZ)	BER
8	Acoustic Energy Aesprit 308	650	Tuneful and dynamic sound with music or movies from this compact sub, which comes with a handy remote	41,37,30	200	35	225
R	Monitor Audio ASW100	300	For the price, this compact subwoofer performed well	32,32,34	120	27	225
88	REL Q150E	500	Great value compact 'cube' sub adds genuine weight and drive thanks to superior filtering	29,32,33	150	20	239
R	REL Strata III	700	A little more bottom octave might have been preferable, but in terms of agility and coherence, this is a fine hi-fi subwoofer	42, 52, 33	100	20	210
R	REL Storm III	900	Excellent sub with powerful, detailed and deep bass. Comprehensive facilities, including flexible filter adjustment	42,62,33	150	18	225
EC	REL Stadium III	1,500	It's a bulky piece of furniture, but offers superior filtering as well as an ability to delve deep into the bass nether regions	59, 56, 39	200	16	217
88	Ruark CL300	2,000	Shows what a good subwoofer can do: controlled, detailed and dynamic. A delight with music and movies alike	60,52.5,40	300	30	225
R	Titan Saturn	800	Very bulky sub has curious styling, but decent filtering gives good weight and headroom	72x48x72	200	20	239

SPECS KEY SIZE WXHXD (CM) Width, height and depth of one cabinet in centimetres. POWER (W) How many watts the onboard amplifier of active models delivers. BASS FROM How low the sub goes, the smaller the number the deeper the bass.



Agencies include: ARCAM NAIM REGA **B&W NAUTILUS** PROCEED M+K

NEAT

FUJITSU

GRADO

DYNAVECTOR

SHAHINIAN

STAX

XLO

PMC LOEWE

SONY PRO ORTOFON

**EXCEED EXPECTATIONS** 

If choosing your new hi-fi or home cinema in a civilised and relaxed atmosphere from a well-chosen selection of genuine performance equipment appeals, then we are for you.

See and hear the very best with us.

# Infidelity INDECENTLY GOOD HI-FI

9 High Street, Hampton Wick, Kingston upon Thames, Surrey KTI 4DA



020 8943 3530 Full custom installation of home cinema, distributed audio/video and home automation products Email: infidelity@compuserve.com www.infidelity.co.uk

Open: Tues - Fri 10.30am - 7pm, Saturday 10am - 6pm

# **Cable performance breakthrough** will make your system sing or your money back\*.

Cables are vital to the performance of your Hi-Fi or AV system. If you want the very best then Wireworld cables are the only choice.

Interconnect cables from £29.97 to £1500 per 1m pair Loudspeaker cables from £5.47/m to £1500/m Optical cables from £49.97/m. Video & Digital cables from £19.97/m



Wireworld cables outperform all others due to their unique Symmetricoax patented construction. This circular configuration distributes the electromagnetic field of the music signal evenly throughout the conductor to produce the highest fidelity of any cable design.

#### Free Cable Comparator CD

Find out the difference for yourself by ordering the Free Cable Comparator CD. This CD provides an objective demonstartion of the breakthrough performance of Wireworld cables. The CD also includes comprehensive data on various other brands of cables and a full Wireworld catalogue to view on your PC.



Distributed in the UK & Eire by Axcelle



Fax: 020-8997 4060 Email: info@wireworldaudio.co.uk www.wireworldaudio.co.uk \*7 days money back guarantee programme

# WWW.Lektropacks.co.uk

**PREMIUM QUALITY AV ACCESSORIES** 

# **Remove Disruptive Sync signals**

**Digital Video Stabilizers** 

Removes all copy protect signals, distorted horizontal and vertical sync signals plus teletext information - all of which may affect signal stability. Allows perfect viewing and recording of DVD, Videotape and Satellite movies.



Available in 2 versions giving you a choice of simple Phono or Scart in/out connections. Supplied with suitable DC power supply.

**Order code** CP-2 (Phono) £34.95 CP-2S (Scart) £39.95

# **Two equal RGB Scart Outputs**



Active 2 way Scart Splitter Two equal Scart outputs from any source. Ideal for

connecting to the output of any DVD or Satellite/Cable box when you need to retain an equal signal and feed to 2 separate monitors. Works with RGB, S video, Composite video + Stereo audio signals. Also useful for making 2 video copies. Complete with DC power supply. Order code SC-AMP2 £39.95

## **EVERY CABLE YOU NEED**



# HEADPHONES BUYER'S BIBLE

# HEADPHONES



For your ears only

Headphones come in several varieties and some are designed for particular usage. The majority of 'cans' use dynamic cone and coil-type drive units and can be used with anything from a personal stereo to a dedicated amplifier. Other types also exist, most significantly electrostatics that use a charged panel membrane to produce a distinctly refined sound. These are supplied with their own dedicated amplifiers, which tends to increase the price.

Cans are split into several types. There are open and closed-back designs, the latter being best for noisy (or noise sensitive) environments as they minimise leakage and intrusion. Open-back types tend to have a more open, less 'in-head' sound. There are also three variants of earpad design: circumaurals enclose the ear and press on your head, supra-aurals press on the ear and intra-aurals sit in the ear and are particularly popular with personal stereo users.

## Getting the best from your cans

Getting a good result with headphones is not quite as straightforward as it should be. Merely plugging them into the output on your CD player or amp will not give particularly engaging results unless you are very lucky. If you are planning on serious listening, invest in a dedicated amp – the increase in dynamics is not in the least bit subtle. A variety of models are made and prices start at around £80 for a QED, a little more for designs from, say, Creek or Musical Fidelity. And if you're really into cans, look up the valve-powered Earmax.

# Our favourite **HEADPHONES**

		UNES	ELECTROSTATIC	SUPRA-AURAL	CIRCUMAURAL	OPEN	CLOSED BACK	WE	MM JACK ADAPTOR	ISSUE N
Stereo headphones			ISTATI	AURA	AURA	OPEN BACK	) BAC	WEIGHT (g)	APTO	NUMBER
PRODUCT	£	COMMENTS	C	F	F	×				1
AKG K44	20	Lively, enjoyable and remarkably detailed: a bargain			0		۲	190	۲	219
AKG K100	36	Leather-clad groover with bags of power and clarity, for a respectable asking price		۲		۲		190	•	205
AKG K270 Studio	129	Pro oriented design which is very transparent and great with acoustic material			۲			270		230
Audio Technica ATH-D40fs	105	Detailed and involving sound with a professional 'studio' quality appeal					۲	250		194
Beyerdynamic DT931	150	Nimble, well resolved and extremely comfortable, this is a cracking pair of cans			۲	۲		295	۲	240
Grado SR60	90	For sheer musical enjoyment these are hard to beat. Retro styling may not be to everyone's taste		۲		•		200	0	194
Grado SR80	110	Not perhaps as neutral as some but they communicate well and that's the point of the exercise.		۲				200	•	230
Philips HP890	70	A remarkably sophisticated and very comfortable headphone			•	•		330	•	219
Sennheiser HD590	160	Assured and confident player with very low coloration and great comfort			۲	۲		270	۲	205
Sony MDR-CD480	40	Generally neutral and nicely detailed - comfortable too			۲	•		250	۲	219
Technics RP-F800	50	Comfortable budget model that sounds sublime with great dynamics		۲			•	160	•	205
Stax System II	400	Luxury option at its price, but the sound delivery is five-star quality all the way	۲		0	0		295	0	205

SPECSIVEY ELECTROSTATIC Uses electrostatic film instead of more common cone or dome dynamics. SUPRA-AURAL Earpads sit on ear rather than around it. CIRCUMAURAL Earpads rest on the head around the ears OPEN BACK Vented capsules let sound in and out. CLOSED BACK Sealed capsules. WEIGHT In grams. 3.5MM JACK ADAPTOR Allows connection to personal stereos, computers etc.



Tel: 020 8348 5676 (2-7pm) Fax: 020 8341 9368 Email: ConnectionCable@aol.com 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

... in YOUR system ... for YOUR ears ... in YOUR home

Contact us by phone, fax, or email and we'll do our best to help you achieve your goal. (Auditions may be subject to a handling charge)

**CONNECTIONS** (A division of Connection 90' Travel Ltd.)

3.5

# HI-FICHOICE BUYER'S BIBLE CABLES

# CABLES



# Wires to hook your system together

Hi-fi cables come in two varieties: interconnects and speaker cables. Interconnects come in preset lengths, generally with RCA phono plugs attached, though some equipment uses XLR connectors for balanced connection. Speaker cable is sold by the metre and can be used without plugs or can be fitted with screw or solder-on types.

Choosing the best cables is not quite as

# **Our favourite**

straightforward as it might seem. One problem is that components interact with the cables you use and this often results in audible effects, but there are few cables that are fundamentally incompatible with any components, and we recommend the advice of a good dealer. In any case, you should look to spend as much as you can afford.

Digital cables come in two flavours: electrical and optical. In most instances electrical varieties sound better than optical. but if you are after a smoother sound the light carriers have the advantage, as they do if long lengths are needed (10m+). Optical outputs tend to have Toslink connectors (around 99 per cent), but some electrical digital outputs are of the superior BNC type, which uses a bayonet-type socket. Check which type your digital component has before buying a digital interconnect.

CRECIEICATIONS

					SPECIFIC		IONS		
CABLES			STF	SOLI	-		DIGITAL CABLE TYPE	ISSUE NUMBER	
Interconnects and spe	eaker	cables	STRANDED	SOLID CORE	COPPER	SILVER	ETYP	UMBE	
PRODUCT	3	COMMENTS	0	m	B	R	m	R	
ANALOGUE INTERCONNECTS	30	Informative, clear sound at a decent price			0		1000	211	
Chord Calypso DNM TBB75	75	Bass not always completely consistent, but sound has great clarity and insight	-		0			241	
Ecosse The Composer	30	A high degree of realism and delicacy, and a fantastic price (0.8m)	0	494				211	
Ecosse Reference Diva	100	Very good performance in all areas, with particularly fine, tuneful, bass (0.8m)	0					224	
Ixos Gamma Audition II	30	Detailed and neutral, with just a hint of pleasant mellowness			0			211	
Kimber Silver Streak	242	Not the cheapest around, but more than justifies itself with terrific poise and balance of virtues	0					241	
Monster Interlink 400 Mk2	70		0	-	0			224	
QED Qunex 1	20	Really lively and enjoyable sound Well balanced and easily rivals more expensive cables			0			211	
Townshend Audio DCT100	99	Unusual construction with copper strip conductors, giving very detailed sound, but just an occasional hint of hardness	-	0	0			241	
Townshend Isolda DCT	300			0	0			234	
	45	Unusual construction and cryogenically treated too: whatever the reason, a remarkably capable wire			0			234	
van den Hul The Bay C5	40	Terrific detail, nice balance – a great cable Hybrid cable with carbon-fibre conductors added. Very slight bass coloration does little to detract from fine performance	0		0			24	
van den Hul The Well			0					24	
van den Hul D102 Mk III	79	Hybrid conductors (carbon and copper) and intelligent construction give strong bass and excellent detail			۲			234	
DIGITAL INTERCONNECTS	25	A paytral and capable cable that adde little or as observator to the sound			0		F	207	
Audioquest Digital One	35	A neutral and capable cable that adds little or no character to the sound					E	20	
QED Qunex P75 QED Qunex SR75	25 50	A superbly capable interconnect that's highly detailed and well balanced	-		0		E	201	
Ross OP004	20	Lots of bass and good clear midrange and treble at a sensible price	۲		0		E 0	207	
	40	Sounds much like most other Toslink leads: slightly lacking detail, but good value	0		0				
Supra Trico		Very well made digital/video cable which noticeably improves the sound of a cheap DAC					E	241	
van den Hul Optocoupler Mkll	49	Noticeably has the edge over other optical leads, but still second best to electrical types					0	234	
SPEAKER CABLES PRICE PER METRE	00	Di wise ankle with second lifely in the base through the table and second deviced second						007	
Black Rhodium Aero Space S130	20	Bi-wire cable with great kick in the bass, though the treble can sound dry and recessed	0		•			227	
Black Rhodium S300	18	Tight, precise and extended bass makes this a great cable for rock 'n' roll	0		•			241	
Ecosse Reference MS2.3	23	Favours excitement over refinement: can be slightly bass-shy, but plenty of life	0	-	•			227	
Electrofluidics Monolith 2020	45	Excellent bass extension and very fine performance elsewhere – one of the best all-round cables available		۲	•			24	
Ixos Gamma 6003	3	A little midrange dryness, but bass is among the best at this price; strong and consistent	٢		•			200	
Kimber 4PR	5	Considering the price, this cable's very slight dryness is forgivable when everything else is so right	•		•			192	
Kimber 8VS	18	Beautifully full, open and transparent sound right across the board. Price for 1m terminated pair	•		۲			227	
Kimber 8TC	39	Very capable in all areas, particularly good at imaging and with firm bass. Price for 5m terminated pair	0		۰			203	
Kimber 8PR	21	Bass very full, just occasionally a touch flabby, but detailed and sweet upper frequencies make this a good value cable	٥		0			24	
QED Silver Anniversary	5	A few minor flaws, but overall performance is very assured for this price	0		0			192	
QED XT300	10	A natural and well controlled sounding cable that's cost effective for mid-priced systems		۲	0			234	
QED Profile Silver 12	15	Very slightly laid back, but good tone and detail - wears its achievements lightly	۲		•			215	
Supra Ply 3.4/S	8	Good in all areas, with rich bass and just a touch of treble roughness	•		•			203	
Townshend Isolda DCT	150	Cryogenically treated 'impedance matched' cable with stabilising components added: great sound all-round		۲	۲			241	

SPECS KEY STRANDED Cable has a number of (usually) twisted strands to conduct the signal. SOLID CORE Cable has one or more individually insulated strands to conduct the signal COPPER Material used to form the conducting element of the cable. SILVER Alternative material used to form the conducting element of the cable. DIGITAL CABLE TYPE E - electrical, O - optical Cables are one metre length unless otherwise stated.

# ULTIMATE SONICS

# DISTRIBUTORS OF QUALITY & AFFORDABLE HIGH END HI-FI AND HOME THEATRE EQUIPMENT

# The Ultimate Solution for all electrical mains problems – Hear the difference



Tel: 020 7435 1222 Fax: 020 7435 1300 Email: sales@ultimate-sonics.com



# **Ends Saturday May 31**

WAITROSE

5.

UNILET

Γ

# **Eye Openers**

The prospect of owning a really superb item of hi-fi or home cinema equipment for a fraction of its normal price is just too much for some people. Yet hundreds benefit from just that every year when they come to the Unilet Blue Murder Sale. It's all legit, and it's all in this year's free catalogue. Our Sale List is crammed with bargains on new, ex-demo, factory seconds and second-hand items. Famous brands, famously-low prices. If you want to get one over on your friends, get on over to New Malden and pick up some stunning gear at stunning prices.

For your copy of the price list phone us on

020 8942 9567

or check our website

**FREE SALE** 

CATALOGU

REQUEST

www.unilet.net

# **The Usual Suspects**

Acoustic Energy (AE), Apollo, Arcam, Atacama, Audio Research, Audiovector, Beyer, Boston, Bryston, B&W, Cable Talk, Celestion, Cerwin Vega, Chord, Chord Cables, Denon, Denon Gold, Ecosse, Heybrook, Insert Audio, IXOS, JAMO, JBL, KEF, Koetsu, Krell, LAT, Lexicon, Marantz, Marantz Premium, Marduant Short (MS), Michell, Mission, Musical Fidelity, NAD, Nakamichi, Nordost, Optimum, Ortofon, Panasonic, Parasound, Pioneer, PMC, Polk, Primare, ProAc, Project, Pure, QED, Quad, REL, Roksan, Rotel, Sennheiser, Shure, SME, Sonus Faber, Sonus Systems, Sony, Soundstyle, Spendor, Stands Unique, Stax, Sunfire, Supra, Tag McLaren, Talk Electronics, Tannoy, Target, Teac, Technics, Thule, VDH, Wilson Benesch, Yamaha.

> Unilet Sound and Vision 35 High Street, New Malden, Surrey KT3 4BY

Address:	
Add1000.	

# STANDS AND SUPPORTS BUYER'S BIBLE

# **STANDS AND SUPPORTS**

# Equipment racks and speaker stands

In hi-fi there are two types of stand. One is a rack that holds turntables, amps, CD players and so on and is described as an equipment support, and the other is a speaker stand. The latter comes in three basic varieties, two for standmount speakers: lightweight, multilegged types; and heavy designs with fewer legs and the ability to be mass-loaded for extra solidity. The lighter variety is said to have a quicker sound, while heavyweights give deeper bass and a calmer sound. The third speaker stand type is a platform that sits under floorstanding speakers or speaker/stand combinations, the pneumatic Townshend Seismic Sink being an example.

There are two speaker-to-stand interfacing options: spikes or Blu Tak in each corner of the top plate. Try both and take your pick.

SPECIFICATION

# Our favourite **EQUIPMENT SUPPORTS**

Equipment supports				PLATE SIZE	W	ER OF SH	SHELF	ISSUE NL
			HEIGHT	E (CM)	WELDED	SHELVES	TYPE	NUMBER
PRODUCT	3	COMMENTS	-	3	0	S	m	30
Aavik Furniture A4	350	Good sound and stylish Scandinavian looks at an affordable price	80.5	47		4	MDF	193
Atacama Equinox	280	Stable, modular design with style. Excellent bass transients and a fresh design concept	81	50,50	۲	4	Glass	217
Audiophile Furniture Base	615	Price is justified by its earth-shattering sonic abilities - a worthy upgrade	82	43		4	MDF	193
Avid Isoschelf	1,100	An enthusiast's equipment support stand free from coloration, if a little fiddly to set up	87.5	48		5	MDF	193
Clearlight Audio RDC Aspekt	550	Stunning neutrality and detail from a well-damped design. Its performance makes the price tag good value	75	53.5,45		4	MDF	217
Custom Design Aspect 650	270	Smart looks and practical thanks to adjustable shelves. Sound is fair with some loss of detail	66	46	۲	4	Glass	206
Naim Fraim	1,825	Pricey but very classy looking and sounding, with modular flexibility	96	45,34		5	Glass	232
Quadraspire Q4	280	Simple, but modestly effective and very attractive	52	49		4	MDF	206
Quadraspire Q4 Reference	480	Excellent performance from the school of wobbly racks. Natural sounding and plenty of detail	51.5	49,39.5		4	MDF	217
Russ Andrews Torlyte Rack System	988	Attractive modular system made of very light Torlyte: a touch of added warmth is its only vice	68	54, 49		4	Torlyte	240
Sound Organisation Z560	195	Excellent value rack, five shelves too! Well balanced and under 200 quid!	92	50,40		5	Glass	217
Standesign Design 4	190	An all-in-one support at a budget price, with good sonic performance	88.5	50.8	۲	4	Glass	193
Townshend Seismic Sink Stand Mkll	1,140	multi-shelf air-suspension support which isolates like few others. Recommended	92	58, 45		5	MDF	240

# Our favourite SPEAKER STANDS

SPEAK		R STANDS		TOP PLATE			NUMBER	ISSUE
Speaker stands				SIZE	FILLABLE	WELDED	유	E NUMBER
PRODUCT	3	COMMENTS	HEIGHT	(CM)	Ē	E	LEGS	Ĥ
Atacama Nexus 6	60	An excellent all-round performer and a genuine hi-fi bargain	60,50	14.5,18	٢		3	202
Cyrus CLS50 Stand	200	Unusual combination of style and performance, and a definite contender in the right environment	64	17,19			1	220
Custom Design R/S300 MkII	100	A solid stand improving on the original, with better focus and detail	61,56,51	16.5,18	8		2	202
hne Cableway	399	Looks great, sounds great, so start saving! Clean and sweet, and neutrality is exceptional with orchestral material	63	17,20	۲		1	220
Kudos S50	115	Formidable bass with real authority, and a wide dynamic range across a broad bandwidth	61	15, 20	0		1	220
Partington ANSA 60	90	Elegant flat-packer 'disappears' sonically; restrained but neutral and coherent	62	18,15	۲		4	232
Partington Dreadnought	100	Fully welded high-class engineering gives a very clean, open sound at a sharp price	61	17,15	0	۲	5	220
Partington Dreadnought Ultimate	299	Super heavyweight stand that is an open window to the speaker placed on it	63	21,24	۲		1	202
Sound Organisation Z522	95	Very hefty build for the price helps to deliver a solid sound with good authority and drive	60	16	۲		4	220
Townshend Seismic Sink	499	Unique inflatable plinth that works wonders with decent floorstanders, as well as standmounted speakers	4	38,48			0	202

EQUIPMENT SUPPORTS SPECE KEY HEIGHT OF complete stand. TOP PLATE SIZE (CM) Width by depth of the supporting platform(s). Single figures indicate a square platform. WELDED As opposed to bolt-together construction. NUMBER OF SHELVES To put your kit on (different configurations are often available). SHELF TYPE Material that shelves are made of

SPEAKER STANDS SPECS KEY HEIGHT OF each stand, not including spikes. TOP PLATE SIZE (CM) Width by depth of platform. Single figures indicate a square platform. Speakers generally overhang top plates FILLABLE The stand can be mass-leaded with sand and/or lead to stop inging, WELDED As opposed to bolt-together construction. NUMBER OF LEGS That support the stand.



# Scratched Discs?

When you have your set-up just how you want it, there is nothing worse than a scratched or marked disc to spoil it, and no amount of frantic rubbing with the sleeve of your jumper is going to help. Well now there is a product that is scientifically proven to repair your CDs, DVDs, SACDs, and DVD Audio discs. The GameDr is simple to use and highly effective and with the attached voucher you can go to any Virgin store and get £5.00 off of the retail price of £29.99.



# **MEGA TEST: TOTAL TV & DVD SYSTEMS RATED** PLUS: THE BEST AV RECEIVERS FOR £800-£1,000

**ON SALE NOW** 



# TECHNICAL & DESCRIPTIVE TERMS BUYER'S BIBLE

# GLOSSARY

# **TECHNICAL TERMS**

5.1-CHANNEL AUDIO Six discrete channels, typically front left and right. centre, surround left and right, and LFE (Low Frequency Effects) for a subwoofer. BALANCE Most loudspeakers have a characteristic frequency balance resulting from emphasising parts of the audio range and/or de-emphasising others. BASS The lowest three octaves of the audio band - hence 'low bass' refers to the bottom octave (20-40Hz): 'mid-bass' the middle octave (40-80Hz); and 'upper bass' the 80-160Hz octave.

BI-AMP (sometimes tri-amp) Loudspeakers equipped with separate access terminals to each drive unit can be driven by separate (matching) power amplifiers for each driver.

BI-WIRE (sometimes tri-wire) Loudspeakers with separate access terminals to each driver can be driven by separate cable runs between the amp and each driver

CD-R Recordable CD that cannot be erased, though discs that have not been completely filled can have tracks added until the disc is finalised.

CD-RW Re-writable or re-recordable CD, incompatible with older CD players. CLASS A The operation of an

amplifying stage or device in which current always flows, as opposed to Class B. where some of the devices are effectively turned off some of the time. Class A tends to have the advantage of offering lower distortion while Class B tends to generate less heat.

CLASS AB Most practical amps operate in Class A for the first fraction of a watt and Class B thereafter.

CLIPPING An amplifier's output waveform is 'clipped' if the volume is advanced too far and no more 'volts' are available to sustain ever-increasing power levels. Distortion increases dramatically at this point. CLOCK Any electronic oscillator that is used to generate a timing reference signal. Used to synchronise the data

being taken from a disc. CROSSOVER A simple electrical network which divides the full bandwidth signal received from the power amplifier, apportioning appropriate parts of the spectrum to the various drive units. DAB (digital audio broadcasting). Digital radio using frequencies in the band 217.5 - 230MHz. Broadcasters use varying degrees of compression and offer a broad range of programming. DAC or Digital-to-Analogue Converter. The stage in any digital component at which incoming digital data is used to reconstruct a recognisable analogue (music) waveform.

#### DOLBY DIGITAL DD (AC3)

A compressed digital audio format that typically contains five or more entirely discrete channels, eq 7.1 EX where side and rear channels are used.

DOLBY PRO-LOGIC, DPL Forerunner to DD that 'steers' information to the front L/R, centre and mono surround channels via an analoque matrix.

DRIVE UNIT/DRIVER A transducer which converts electrical energy into acoustic energy, eq bass driver, tweeter DSD (direct stream digital) The coding format used for SACD offers a frequency response of over 100kHz and a dynamic range over 120dB, it has over four times the data capacity of CD.

DSP or Digital Signal Processor. Integrated circuit that handles the decoding of digital audio streams. In 5.1 processors it separates the left from right and front from rear while managing the various bass options.

DTS or Digital Theatre Sound Competitor to Dolby Digital with a reduced 41 compression ratio that, ostensibly, promises higher quality. DVD-A High-resolution variant on DVD offering up to 192kHz bandwidth and 24-bit dynamic range. Discs are compatible with standard DVD players

**ELECTRICAL DIGITAL** Any digital connection that uses an electrical cable rather than optical. Includes the balanced

('AES/EBU') interface. FILTERS Filters are intrinsic to digital audio, both analogue and digital. These are often very sophisticated in design, and in total they probably have rather more to do with the 'personality' of CD player sound than most other factors.

FREQUENCY RESPONSE The range of frequencies, from low to high, which a loudspeaker will reproduce. IMPEDANCE With speakers, the

complex electrical load that a loudspeaker presents to the amplifier which is driving it.

JITTER An insidious distortion specific to digital audio caused by the clock, used to regulate the conversion of data into analogue audio, being imprecise. KBPS (Kilobits per second) Digital data rate measurement system used primarily with highly compressed formats such as MP3. DAB etc. The higher the amount. the better the quality

LINE LEVEL Practically every modern source component (except phono car-

tridges) gives an output in the region of 1-2V, referred to as 'line level', It follows that all inputs labelled 'CD' 'tuner' 'aux' or 'tape' are designed for this input level and are thus interchangeable.

#### LOSSLESS COMPRESSION A

method of reducing the number of data bits (density) without corrupting the original description of the musical signal. LOSSY COMPRESSION Reduction in data density by recourse to a psychoacoustical model that predicts what is, and what is not, 'audible' within a seauence of music

MIDRANGE The middle three or so octaves of the audio band, where the ear is most sensitive, covering the approximate frequency span from 160Hz up to 3kHz.

MP3 (MPEG layer 3) Lossy compression format for digital audio that drastically reduces data content in order to squeeze music through internet connections or allow hundreds of CDs to be stored on a hard disc

**OUTPUT IMPEDANCE** A measure of resistance to alternating current, a source with low output impedance (below 100 ohms) helps ensure compatibility with most amplifiers, even with long interconnect cables.

PCM (pulse code modulation) The digital coding system for analogue waveforms used for CD and DVD. Quality is limited by the oversample and bit rates used - CD is 44.1kHz/16-bit while DVD-A is capable of 192kHz/24-bit. PRESENCE BAND Critical section of

the audio band at the point where midrange and treble meet.

QUANTISATION NOISE A form of distortion or noise resulting from errors in the description of the musical signal by the digital code.

SACD (super audio CD) was launched in 1999 and is a Sony/Philips format based on DSD coding that offers high resolution stereo and multichannel sound from hybrid discs that can also be played on ordinary CD drives.

SAMPLE RATE The rate at which the musical waveform is sliced up into discrete chunks. For CD this is 44.1kHz or once every 0.023msec. DVD will also support 48kHz and 96kHz.

SENSITIVITY The relative loudness that a speaker generates for a specific voltage input. Expressed in decibels per watt (dB/W).

THX Standards system for home cinema set-ups which includes amplifier power and speaker dispersion characteristics. THX Ultra is more stringent than THX Select

TOSLINK The proprietary name given by Toshiba to the optical fibre signal transmission system it invented for

consumer applications TRANSISTOR/MOSFET The two main types of power semiconductor used in solid state amplifier output stages. TREBLE High frequencies, the top end of the audio band, ie above 3kHz

TWEETER Treble driver TWO/THREE-WAY Loudspeaker

crossovers split the signal into two or three frequency bands, a two-way speaker can have more than two drive units.

WATTS (per channel) The watt is the unit of electrical power and the WPC rating is the maximum average undistorted power that an amp can deliver to a typical speaker. However, speaker sensitivity variations can make more difference than amplifier output.

# **DESCRIPTIVE TERMS**

AGGRESSIVE Forward and bright sonic character

AMBIENCE The impression of an acoustical space, such as the performing hall in which a recording was made

ANALYTICAL Highly detailed. ARTICULATE Intelligibility of voice(s) and instruments and the interactions between them.

ATTACK The leading edge of a note and the ability of a system to reproduce the attack transients in music

BALANCE Essentially tonal balance, the degree to which one aspect of the sonic spectrum is emphasised above the rest Also channel balance the relative level of the left and right

BODY Fullness of sound, with particular emphasis on upper bass.

BOXY The sound of a loudspeaker

upper midrange/lower treble

downwards with increasing frequency.

DECAY The fadeout of a note, it

**DEFINITION** (or resolution) The ability of a component to reveal the subtle information that is fundamental

DEPTH (of image) The perception of music being reproduced behind the loudspeakers and inhabiting a reproduction of the acoustic space of

DETAIL The most delicate elements of the original sound and those which are the first to disappear with lesser

equipment. DRY A sound that is devoid of 'juice', which usually comes across as finegrained and lean. Also a loss of reverberation as produced by a

damped environment.

DYNAMIC The suggestion of energy and wide dynamic range. Related to perceived speed as well as contrasts in volume both large and small.

EUPHONIC An appealing form of distortion that generally enhances perceived fidelity, often ascribed to the harmonic elaborations of some valve amps.

FAST Good reproduction of rapid transients which increase the sense of realism and 'snan'

FOCUS A strong, precise sense of image projection.

FORWARD(NESS) Similar to an aggressive sound, a sense of the image being projected in front of the speakers and of music being forced upon the listener.

**GRAINY** A slightly raw, exposed

sound which lacks finesse. GRIP A sense of control and sturdiness in the bass GRUNT See grip. HARD Uncomfortable, forward,

aggressive sound with a metallic tinge HARSH Grating, abrasive.

IMAGING (stereo) The sense that a voice or instrument is in a particular place in the room.

JUICY Sound that has joie de vivre, energy and life.

LOW-LEVEL DETAIL The quietest sounds in a recording.

MUSICAL or musicality. A sense of cohesion and subjective 'rightness' in the sound

NATURALNESS Realism. **OPAQUE** Unclear, lacking transparency.

**OPEN** Sound which has height and 'air', relates to clean upper midrange and treble.

PACE Often associated with rhythm, a strong sense of timing and beat. **PRESENCE** A sense of an instrument or voice occupying a place in the

listening room PRESENCE RANGE The upper midrange

SEISMIC Very low bass that you feel rather than hear

SIBILANCE An emphasis of the 'S' sound, often heard on radio.

SNAP A system with good speed and transient response can deliver the immediacy or 'snap' of live instruments.

SPEED A fast system with good pace gives the impression of being right on the money in its timing. STURDY Solid, powerful, robust

sound THICK A lack of articulation and

clarity in the bass. THIN Bass light.

TIMBRE The tonal character of an instrument

TIMING A sense of precision in tempo. See speed and pace. TRANSIENT The leading edge of a percussive sound. Good transient response makes the sound as a whole more live and realistic.

TRANSPARENCY, transparent, A hear-through quality that is akin to clarity and reveals all aspects of detail. TWEAK To tune a system or

component in an attempt to get the best performance from it.

TWEAKER Someone who enjoys this process

VEILED Loss of detail due to limited transparency.

WARM A fullness in the lower midrange/upper bass.

WEIGHT A sense of substance and underpinning produced by deep, controlled bass.

stereo channels.

Opposite of thin

with audible cabinet resonances BRIGHT A sound that emphasises the

DARK A tonal balance that tilts

Opposite of bright.

follows the attack.

to high fidelity sound.

# the original recording.





# WE GROW OUR OWN

JPS developed Alumiloy wire to deliver sound like no other. Our proven cable designs bring a live performance to your ears with proper timbre and an impeccable balance. Try any one of our unique cables to hear why JPS truly has.....

# The Worlds Finest Cables • Power cords and AC wiring • Speaker Cables • Interconnect Cables • Digital Cables • Video Cables • Video Salon

5 Crown Terrace, Hyndland Glasgow, G12 9HA Scotland Email:info@audiosalon.co.uk Tel: 0141 357 5700

Fax: 0141 339 2432

>>>>0141 35



www.JPSLABS.com
5700<<<<

### **TURNTABLE DUST COVERS**









2 years guarantee.

Shop prices are expensive because of rent, rates, wages, etc. Buy direct & save £££. We have signed testimonials to prove that customers prefer our amplifiers to

- £8,000 preamp + 320 watts power amplifier,
- £4,000 pre/power amp & power supply,
- £2,600 pre/power amp & power supply,
- £1,400 well reviewed 150 watts amplifier.

Money back guarantee (less £30 UK or £100 overseas) that you prefer :-

£1,000 or £1,450 **"KT88 Triode Connection"** amplifiers to *most* transistor amplifiers, *most* transistor / valve hybrid amplifiers, *most* Single Ended valve amplifiers, *most* Ultra Linear valve amplifiers selling for £2,000 to £20,000

£2,500 or £1,800 **"10 inch High End" speakers** + our £1,450 amplifiers to overpriced pretentious £100,000 systems (at realistic life-size volume)

£700 EL34 valve amplifiers (40 watts + 40 watts) to *most* transistor amplifiers and transistor / valve hybrid amplifiers costing £1,000 to £2,000

£500 EL34 valve amplifiers (40 watts + 40 watts) to most £700 amplifiers.

£380 to £800 valve phono stages to most transistor phono stages

Telephone 01634 268662 anytime or 01634 373410 for Mr Andrew Everard's review in Gramophone Magazine and Summary of 21 testimonials from satisfied customers.

www.affordablevalvecompany.com

Amplifier shown without CE safety cage, to prove that these are genuine valve amplifiers. Customers must not remove CE safety cage.

Free UK delivery. Subsidised £50 UPS delivery to other countries.







AUDUSA - OOM Silverlink Mono Crystal balanced speaker cable conductor of 3mm diameter (approx 8 gauge), stranded silver on OFHC, plus three strands of Mono Crystal Copper for improved bass performance. Mylar infill and with designed in protection against RF and EMI. Cable OD 14.72 mm Priced at £12.95 per meter



**GNLM 05/04 and GNLM 05/2.5** (CSA 2.5) Cable with **FERRITE TECHNOLOGY** - A polymer material mixed with a considerable quantity of homogeneously fine high quality ferrite powder.is extruded around the copper conductors. As a ferromagnetic material, it will go through hysteresis loops when-



ever it is under influence of an alternating magnetic field. Consecutively magnetizing and demagnetizing the material will cause considerable losses of high frequency energy. This ener-

gy is absorbed in the ferrite grains and converted into heat. This effect is more or less proportional to the field frequency; high frequencies will be strongly attenuated, because their energy will be absorbed by the ferrite powder. The GNLM cables which in addition to the above described ferrite technology is further protected with a foil shield and a drain wire and **specifically** manufactured for High End audio use. **Said by some to be the most neutral sounding mains cable on the market** 



AUDUSA - Eupen GNLM 05/2.5 (CSA 2.5) shown with Marinco IEC 320

> GNLM 05/2.5 (CSA2.5) £48 for 1.0m,£58 for 1.5m, £68 for 2.0m, Off the reel £30 for 1st meter, £20 per m thereafter. GNLM 05/04 £58 for 1m, £68 for 1.5m, £78 for 2.0m Also off the reel.

> Both GNLM cables available for export

Fitted with IEC (Martin Kayser) and MK Tough Cable can be supplied fitted to our all steel 4, 6 and 8 way distribution blocks. We can rewire the distribution blocks with Eupen cable as an extra cost option. Refer to our web site for details.

AUDUSA - Eupen and LAT AC-2 mains cable available with 16 amp IEC (for certain models of amps by Krell, MF, Levinson etc), Marinco 320 IEC, Figure of eight, Bulgin, USA Hubble,European Schuko, Australian, Swiss, Danish, and Neutrik plugs. SILVER SILVER SILVER - Upgrade the cable with silver plated contacts on IEC and and MK plug for an extra £6. IEC's and MK plugs with silver plated contacts available seperately at £6, £8 and £9 Why Silver plated contacts? Simple, silver is THE BEST conductor of electricity.

# LAT AC-2 HI-FI CHOICE - SEPT 2001 - RECOMMENDED MAINS CABLE

We have developed a cabling (weaving) pattern along with an unusual shielding/filtering system that gets rid of the garbage that contaminates your components. The difference you hear with our cord is astounding. Our power cord takes advantage of silver in its design through use of our proprietary Silverfuse conductors. The conductors are 10 gauge and with PTFE; the best insulation available. Fitted as standard with IEC / MK Toughplug. . 60cm £62, 90cm £75, 1.2m £88, 1.5m £101, 1.8m £112 etc Other lengths available and.off the reel. 4,6 and 8 way all steel mains distribution blocks fitted with UK, Schuko or USA sockets.CE tested & approved mains distribution units manufactured of heavy gauge steel, finished in black and fitted with high quality 13amp sockets. It has no filters, circuit breakers, surge protection, transformers, resistors, capacitors, LED's, on/off switches, chokes, regulators, just fitted with 1m of AC-2 mains cable. From £166 for 4 way, £198 for 6 way, £229 for 8 way



SILVERFUSE is a near alloy of sil-

ver and copper. IT IS NOT SILVER PLATED OR SILVER CLAD. Plating (or clad, which is the same thing as plating) causes a dioding effect when signal is passed through resulting in brightness and distortion. The Silverfuse process starts with seven nines OFHC copper wire with a diameter that is slightly larger than the required size. It is then pulled through a trough of molten silver. The wire with a silver deposit, is then forced through a compacting die where it is subject to tremendous pressure. The silver and the high purity copper are fused together into a near alloy. The compacting fusion also reduces the wire diameter to the desired size. No dioding subsequently occurs with this process. The result provides for the benefits of silver; which are excellent definition and clarity, with the high purity copper benefits of warmth and mellowness

LAT INTERNATIONAL - Analogue, Digital and Video interconnects and Speaker cable- better than most others at double the price Refer to www.audusa.com for further details or ask for reviews



# SUNFIRE CORPORATION - Snohomish USA

**New for 2002 Sunfire True Sub Woofer MKIV - 11 inch cube.** Signature True Sub-Woofer 13 inch cube and Junior Sub Woofer 9 inch cube -all with two drivers, to as low as 16hz, 116 SPL and 360 cu ins of air movement, 1200 or 2700 watt patented amp technology. Classic Tube Pre-amp, Solid state power amps 2 channel (300 x 2 or 600 x 2) and 5 channel (220 x 5 or 430 x 5 - yes total of 2150 watts into 8 ohms or 4300 watts into 4 ohms) patented amp technology (no heat sinks) and Theatre Grand II processor pre-amp.



WWW.AUDUSA.COM

Tel: 020 8241 9826, 020 8264 0249 Fax 020 8241 0999 Email: sales@audusa.com

# audio salon

established 1979 (formerly the Music Room) • 4 demo rooms in dedicated premises

5 Crown Terrace, Hyndland, Glasgow, G12 9HA, Scotland

*"we demonstrate a wide selection of speakers from all walks of life …. "* 

" meet the Gryphon Cantata Loudspeakers -



the striking looks are only half the story "





Art Audio • Art Loudspeakers • ATC • Audiostatic • Ayre Acoustics • BC EAR/Yoshino • Heart Audio • JPS • Lyra • Mark Levinson • Michen

open 9am-6pm (mon-sat)

by appointment please

# tel 0141 357 5700 fax 0141 339 9762

you need

demonstrate a wide range of specially selected products that offer exceptional sound and value for money

stock a wide range of cables from specially selected manufacturers from JPS, Nordost and Audio Note Japan

Audio Source are a range of exceptional cables designed by the Audio Salon, which start at £125 and outperform cables that cost many times more

demonstrations are by appointment only so that you can take your time to choose exactly what is right for you

late evenings or Sunday demonstrations can be arranged by appointment if required

in-house Audio Engineer can check, service, and up-date most equipment

special offers, informative web site and newsletters are all part of our commitment to long-term customer care

ontact Jack or Dale for a service tailored to you the individual - for every customer is different

" every great business is built on friendship "

Pathos • ProAc • Proceed • Revel • Shanling • Simon Yorke • SME Stax • Sugden • Sumiko • Trichord • Unison Research • Zingali

info@audiosalon.co.uk www.audiosalon.co.uk

# DIRECTORY

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 vour area.

### **BATH/ BRISTOL**

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. CD: Accuphase, Advantage, Audio Synthesis, Balanced Audio Technology, dCS (Elgar etc), Meracus, Pass, Sugden, Wadia. Vinyl: Audio Synthesis, Basis, Clearaudio, DNM, Graham, (The) Groove, Lehmann (Black Cube), Michell, Sumiko, Transfiguration. Amps: Accuphase, Advantage, Balanced Audio Technology, CAT, DNM, Gamut, Lumley, Meracus, Michell, Nagra, Pass, Sonneteer, Spectral, Sugden. Speakers: Audio Physic, BKS, Ethos, Harbeth, Lumley, Magneplanar, NEAT, Totem, Verity Audio. Tuners: Accuphase, Magnum Dynalab. Cables: Argento, Chord Co, DNM, Hovland, Nordost, SonicLink, Siltech, Yamamura Churchill. Mains: Accuphase.

### BEDFORDSHIRE

RICHARDS AUDIO VISUAL, 4 Greyfriars, Bedford MK40 1HP. Tel: 01234 365165. Email: richavbed@aol.com. FRIENDLY PERSONAL MULTI-ROOM HOME INSTALL SERVICE. SPECIALISTS. FREE HOME SURVEYS. Stockists of Arcam FMJ, Audioquest, B&W, Bose, Cabletalk, Cyrus, Denon, Marantz, Mission, Moth. Optimum, Ortofon, Pioneer, Pro-Ject, QED, REL, Rotel, Ruark, Sennheiser, Soundstyle, Stands Unique, Talk Electronics, Tannoy, Target, Teac, Van den Hul, Yamaha and more. LISTENING ROOM. 0% FINANCE. Open 6 days 9.30-5.30. CAR PARK AT REAR OF SHOP.

#### BIRMINGHAM

SOUND ACADEMY, 111 The Parade, Sutton Coldfield, Birmingham B72 1PU. Tel: 0121 321 2445. Audio equipment from leading and specialist brands, with 3 demo floors, home trials, home cinema with instore demo theatre, evening demos 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. Also at 152a High Street, Bloxwich, Nr Walsall, W Midlands. Tel: 01922 493499/ BADA 473499.

#### BUCKINGHAMSHIRE

NORTHWOOD AUDIO. 98 Cambridge St., Aylesbury. Tel: 01296 428790. Established since 1992. Independent specialist retailer. Extensive Hi-Fi, A/V and Multiroom experience catering to your needs. From Vinyl to SACD, Valve to Solid State, from LCD to Plasma. Audiomeca, Audio Note, Cable Talk, Castle, Chord, The Chord Company, Cura, Denon, Elac, Epos, Exposure, Heart, JM Labs, KEF, Linn, Marantz, Michell, Micromega, Monitor Audio, NAD, Nakamichi, PMC, ProAc, Quadraspire, Rega, REL, Revox,

Roksan, Rose, Rotel, Ruark, Sony, Sennheiser, Sonus, Talk Electronics, Tannoy, Teac, Tube Technology, Videologic, Vienna Acoustic. Export orders welcome. 2 demo rooms. Credit facilities available. Website: www.northwoodaudio.co.uk. Email: info@northwoodaudio.co.uk

### CHESHIRE

ACOUSTICA, 17 Hoole Rd, Chester CH2 3NH. www.acoustica.co.uk. Tel: 01244 344227. All that's best in Hi-Fi and Home Cinema from quality manufacturers including Naim, Rega, Bowers & Wilkins, Sugden, Musical Fidelity, Rotel, Primare, Teac, Harman Kardon, JM Lab, Spendor, Quadraspire, Royd, Michell, Sonus Faber, SIM/Seleco Projectors & Yamaha. We offer friendly, helpful advice, interest-free credit and trade-in facilities, and deliver and install systems through Cheshire, Merseyside and North Wales. Open Tues. - Sat . 10-5.30, evenings by arrangement.

AUDIO COUNSEL, 26 High Street, Cheadle, Cheshire. Tel: 0161 491 6090, fax: 0161 491 6990. Please see entry under Greater Manchester.

DOUG BRADY HI-FI, Kingsway Studios, Kingsway North, Warrington WA1 3NU. Tel: 828009 Email: doug.brady@ 01925 dougbradyhifi.com. Website: www.dougbrady hifi.com. For the widest range of high quality hi fi in the Northwest. Family business est. 42 years. 3 demo rooms, inc. home cinema, home trials; deliveries throughout NW; Mastercard, Visa, credit facilities. Open 10.30 - 6. Send for free map. BADA

ACTON GATE AUDIO, 4 Ruabon Rd., Wrexham. Tel: 01978 364500. Audio Visual specialists. AAD, Arcam, Audio Analogue, Bose, Celestion, Castle, Denon, Harman- Kardon, Jamo, JBL, Marantz, Michell, Mission, Mordaunt-Short, Musical Fidelity, Myryad, NAD, Quad, Roksan, Ruark, Tannoy, Teac, UKD, Unico, Vibe, Videologic, AV Specialists. Demonstration room, installation service. Easy parking and motorway access. Mastercard, Visa etc.

THE AUDIO WORKS, 14 Stockport Road, Cheadle, SK8 2AA Cheshire www.theaudioworks.co.uk. Email: larry@theaudioworks.co.uk. Tel: 0161 428 7887. Stockists of Spectral, Accuphase, DCS, Sugden, Creek, Epos, Mark Levinson, Roksan, Musical Fidelity, Focal JM Lab, MusicWorks, Monitor Audio and Quadraspire. Loewe TV, Plasma & Projector systems. Hi-Fi and Home Cinema demonstration rooms. All major credit cards accepted, interest free credit available.

THE HI-FI SHOWROOMS, 12A West Str, off West St Car Park, Congleton, Cheshire. 01260 280017. E-Tel E-mail: mail@hifishowrooms.co.uk. Web site: hifishowrooms.co.uk. Naim Audio, Audiolab, 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 A/V with 8ft screen, customer car park. The North West's Premier Audio Visual Specialist. Mastercard, Visa, Amex, JCB. 9.15-5:30, Closed Sun/Mon.

### DORSET

MOVEMENT AUDIO, 588 Ashley Road, Parkstone, Poole. Tel: 01202 730865/380018 www.movement-audio.co.uk. Arcam, Audio Vector, B&W, Castle, Chord Electronics, Cyrus, Denon, Densen, Lavardin, Marantz, Mission (inc. FS series), NAD, Pioneer, Roksan, REL, Rotel, Tannoy (inc. Dimension), Yamaha. 3 demo rooms. Hi Fi and Home Cinema specialists, easy parking on site, high quality used equipment, massive range of audio and video leads and connectors etc. Credit facilities. Open Tues-Sat BADA 10-5.30.

MOVEMENT AUDIO, 926 Wimborne Road, Moordown, Bournemouth, Dorset. Tel: 01202 529988/ 520066 www.movementaudio.co.uk. Arcam, B&W, Celestion, Denon, KEF, Marantz, Michell, Musical Fidelity, NAD, Opera, Pioneer, Project, Quad, REL, Roksan, Rotel, Tannoy, Teac, Yamaha. Home cinema and Hi Fi specialists, full demo facilities, friendly expert advice, home demo and installation, easy parking, credit facilities, Visa/Mastercard. Open Tues-Sat 9.30-5.30 BADA

SUTTONS HI-FI, 18 Westover Road, Bournemouth. Tel: 01202 555512. Acoustic Energy, Arcam, Atacama, Celestion, Cable Talk, Denon, Definitive Audio, KEF, Linn, Meridian, Mission, M+K, QED, Rotel, Sennheiser, Teac, Sony, Talk Electronics, Tag Mclaren, Wharfedale, Yamaha, DTS & Dolby Digital, DVD. 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. Tel: 01305 785729/766345 www.movement-audio.co.uk. Arcam, B&W, Castle, Celestion, Denon, KEF, Meridian, Mission, Musical Fidelity, Panasonic, Pioneer, Project, Quad, Rotel, Technics, Yamaha plus large range of P.A. and DJ audio and lighting, multi room and commercial installation specialists, Home Cinema and DVD, Projection TV and plasma, 2 demo rooms, credit facilities, Visa/ Mastercard. Open Mon-Sat 9.30-5.30 BADA

#### ESSEX

CHEW AND OSBORNE, 148 High Street, Epping, Essex CM16 4AG. Tel: 01992 574242. 26 King Street, Saffron Walden, Essex CB10 1ES. Tel: 01799 523728. Specialists in home entertainment equipment for over 35 years. Demo facilities in all branches with extensive range of Hi-Fi & A/V products including Yamaha, Pioneer, Sony, Arcam, Bose, B&W, Marantz, Tannoy, Cable Talk, Pro-Ject. Plasma screen specialists. Installation service available. Interest free credit facilities. Service department

### HEREFORDSHIRE

ENGLISH AUDIO, 37 Whitecross Road, Hereford HR4 ODE. Tel: 01432 355081. www.englishaudio.co.uk. Acoustic Energy, Arcam, ATC, B&W, Castle, Cyrus, Denon, Elac Exposure, JM Lab, KEF, Loewe, Marantz, Mission, Musical Fidelity, NAD, Naim, Pink Triangle, Pioneer, Primaire, Pro-ject, REL, Rotel, Ruark, Stax, Tannoy, Teac, Tivoli, Vienna Acoustics, Wharfedale, Yamaha and others. Single speaker demo room. Home trial. Free install. Service dept. Mastercard, Visa, Credit arranged. Open Mon-Sat 9.30am-5.30pm. BADA BADA

### HERTFORDSHIRE

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. BADÁ

THE AUDIO FILE, 27 Hockerill St, Bishops Stortford, Herts CM23 2DH, Tel: 01279 506576. 9-5:30 open 6 days, 9-8pm Thursdays. Absolute Sounds, Acoustic Energy, Arcam, Bose, B & W Nautilus, Cyrus, Denon, KEF, Linn, Loewe, Marantz, Mission, Miller & Kreisel, Naim, Onkyo, Pioneer, ProAc, QED, Rega, Sony, Tag McLaren, Yamaha. 0% credit. Web www.audiofile.co.uk BADA

#### KENT

JOHN MARLEY HI-FI CENTRES LTD. DOVER HI-FI, 43 High Street, Dover. Tel: 01304 207562. Acoustic Energy, Musical Fidelity,

# Members of the British Audio Dealers Association are able to offer:

- Two year guarantee, transferable to another BADA dealer should the pur chaser move more than 30 miles from his/her original address low cost five year guarantee option proper demonstration facilities

- 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 ත 020 7226 4044





**INDICATES MEMBERSHIP OF THE BRITISH AUDIO DEALERS ASSOCIATION** 

Monitor Audio, NAD, Pioneer, Pro-Ject, Roksan, Rotel, Tannoy, Technics, Yamaha. A/V demo room. Full service department. Open Mon-Sat 9-5. Closed Wednesdays. Credit facilities, major credit cards accepted. Established 30 years. Expert advice. Friendly service

### LANCASHIRE

ADVENTURES IN HI-FI, 5 Bishopsgate, off Hallgate, Wigan WN1 INL. Tel: 01942 234202. For the best hi-fi and home cinema products from quality manufacturers including B&W, Royd, Bryston, Neat, Michelle, Naim, Rega, Cyrus, NAD, KEF, Denon, Dynavector, Shahinian, JM Lab, PMC, Project, Quadraspire. We offer friendly advice, excellent demonstration facilities, 0% finance, free delivery and installation throughout the North West. Opening hours 10.00 - 5.30 Tuesday to Saturday, evenings by appointment.

DOUG BRADY HI-FI, Kingsway Studios, Kingsway North, Warrington WA1 3NU. Tel: 01925 828009. Email: doug.brady@ dougbradyhifi.com. Website: www.dougbrady hifi.com. See our main entry under Cheshire. FFAD2A

### LEICESTERSHIRE

LEICESTER HI FI CO, St Martins Square Leicester LE1 5EW. Tel: 0116 253 9753 Fax: 0116 262 6097 Website: www.leicesterhifi.co.uk Email: info@leicesterhifi.co.uk. Acoustic Energy, Arcam, Atacama, B&W/Nautilus, Bryston, Celestion, Chord Electronics, Creek, Crimson, Cyrus, Denon, Greig, IK Loudspeakers, Marantz, Michell, Mission, Mordaunt-Short, Musical Fidelity, NAD, Optimum, Pioneer, Plasma TV, Projectors, ProAc, Project, Pure, Quad, Rotel, Roksan, Tag McLaren, Yamaha, and more. 4 Listening areas/rooms over 3 floors. We can Deliver Demonstrate. and Install. Hi/A/V/Multi-room/Custom Installation/Design DAB radio specialists. Bargain Bin on Website. Open Mon-Sat 9.30-5.30 BADA

### 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

**CORNFLAKE.CO.UK**, 37 Windmill Street, London W1T 2JU. Tel: 020 7631 0472, fax: 020 7436 7165. E-mail: help@ conflake.co.uk. Open Tues-Sat 10-6, Thurs 10-7. The specialists in 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, Naim, Origin Live, Proceed, PMC, Rega, Royd, Yamaha and more. Service department. Amex, Mastercard, Switch, Visa and worldwide mail order service. Still the coolest Hi-Fi shop in London. www.cornflake.co.uk.

GRAHAMS HI-FI, Canonbury Yard, 190a New North Rd, London N1. Tel: 020 7226 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 demo rooms, service dept, open Tues-Sat. Ring for appointment.

**ORANGES & LEMONS,** 61-63 Webbs Road, Battersea SW11. Tel: 020 7924 2040. Juicy fruit from London's newest, freshest hi-fi/home cinema retailer. Telephone for 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, NAD, Naim, Neat, QED Multiroom, Quad, Rega, Roksan, Rotel, Royd, Ruark, Soundstyle, Stands Unique, Wilson Benesch, Yamaha with more to come. The innovative AudioVisual retailer.

#### **GREATER MANCHESTER**

AUDIO COUNSEL, 12-14 Shaw Road, Oldham OLI 3LQ. Tel: Ol61 633 2602, fax: Ol61 633 2502. www.audio-counsel.co.uk. Stockists of Arcam, Rega, Naim, Rotel, Royd, Denon, Yamaha, Quad, B&W, NAD and more. Agencies to Fugitsu, Sanyo and Sellec. We offer extensive knowledge and experience with high quality demo rooms for both Hi-Fi and AV. After sales service includes free installation. Major credit cards accepted and interest free credit available. Open Tuesday-Saturday 10-5:30, 8pm on Thurs.

DOUG BRADY HI-FI, Kingsway Studios, Kingsway North, Warrington WA1 3NU. Tel: 01925 828009. Email: doug.brady@ dougbradyhifi.com. Website: www.dougbrady hifi.com. See our main entry under Cheshire. EFADA

**ADVENTURES IN HI-FI**, 5 Bishopsgate, off Hallgate, Wigan WN1 1NL. Tel: 01942 234202. See main entry under Lancashire.

#### MERSEYSIDE

ACOUSTICA, 17 Hoole Rd, Chester CH2 3NH. Tel: 01244 344227. See our main entry under Cheshire.

DOUG BRADY HI-FI, Kingsway Studios, Kingsway North, Warrington WA1 3NU. Tel: 01925 828009. Email: doug.brady@ dougbradyhifi.com. Website: www.dougbrady hifi.com. See our main entry under Cheshire. EFADA

#### -741-7

#### MIDDLESEX

MUSIC MATTERS, 344 Uxbridge Road, Hatchend, Middlesex HAS 4HR. Tel: 020 8420 1925. Arcam, Audio Research, B & W, Castle, Celestion, Chord, Cyrus, Denon, Dynaudio, Jamo, KEF, Krell, Marantz, Martin Logan, Meridan, Michel, Mission, Monitor Audio, Musical Fidelity, Naim, Panasonic, Pioneer, ProAc, Project, Quad, REL, Rotel, Ruark, Sennheiser, SME, Sonus Faber, Tag McLaren, Tannoy, TEAC, Technics, Theta, Yamaha. Excellent demonstration and home trial facilities. Free installation. Customised multiroom systems. All major credit cards accepted. Full credit facilities available. Tues - Sat 10.30-5.30, Thurs 10.30-6.30.

#### WEST MIDLANDS

**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 demos 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. Also at 111 The Parade, Sutton Coldfield, Birmingham B72 1PU. Tel: 0121 321 2445.

MUSIC MATTERS, 363 Hagley Road, Edgbaston, Birmingham B17 8DL. Tel: 0121 429 2811. Arcam, Audio Research, B & W, Castle, Celestion, Chord, Cyrus, Denon, Dynaudio, Jamo, KEF, Krell, Marantz, Martin Logan, Meridan, Michel, Mission, Monitor Audio, Musical Fidelity, Panasonic, Pioneer, ProAc, Project, Quad, REL, Rotel, Ruark, Sennheiser, SME, Sonus Faber, Tag McLaren, Tannoy, TEAC, Technics, Theta, Yamaha. Excellent demonstration and home trial facilities. Free installation. Customised multiroom systems. All major credit cards accepted. Full credit facilities available. Tues - Sat 10.30-5.30, Thurs 10.30-6.30

MUSIC MATTERS, Hobbs Moat Road, Solihull, W. Midlands B92 8JL. Tel: 0121 742 0254. Tues - Sat 10.30-5.30 Thurs 10.30-6.30

MUSIC MATTERS, 9 Market Street, Stourbridge, W. Midlands BY8 1AB. Tel: 01384 444184. Tues - Sat 10.30-5.30 Thurs 10.30-6.30 EADA

MUSIC MATTERS, 10 Boldmere Road, Sutton Coldfield, W. Midlands B73 5DT. Tel: 0121 354 2311. Tues - Sat 10.30-5.30 Thurs 10.30-6.30 F32D2A

**ACOUSTICA,** 114 Wolverhampton Road, Stafford ST17 4AH. Tel: 01785 258216. See our main entry under Cheshire.

#### NORFOLK

BASICALLY SOUND, The Old School, School Rd, Bracon Ash, Norwich NR14 8HG. Tel: O1508 570829. Audio Analogue, Bayer, Bryston, Cabletalk, Chord Co., Creek, Opera Speakers, Denon, Dynavector, Epos, Grado, Heybrook, Naim, Opera, ProAc, PMC, Sound Organisation, Rega, Royd, Soundstyle, Teac, etc. 2 comprehensive demo rooms. Home trial. Free installation. Visa, Mastercard, HP facilities. 0% Finance. Tues-Fri 9.30-1, 2-5.30. All day Sat.

AUDIO IMAGES, 128 London Road North, Lowestoft NR32 1HB. Tel: 01502 582853. See main entry under Suffolk.

### NOTTINGHAMSHIRE

DEFINITIVE AUDIO serves the first time buyer and the seasoned audiophile with the same high level of care and interest. Our aim is long term customer satisfaction. We achieve this with impartial advice, quality back-up service and a genuine interest in your needs. We have an established reputation for delivering sound quality benchmarks with innovation. Our range of carefully selected brands includes Art Audio, Border Patrol, Living Voice, Musical Fidelity, Wadia and many more. We have extensive partexchanged stock. Open Mon-Fri 9.30-6.30, Sat 10.00-1.30. Visa/Mastercard /Switch/Amex For more information call 0115 973 3222 or fax 0115 973 3666.

NOTTINGHAM HI-FI CENTRE, 120-122 Alfreton Road, Nottingham. Tel: 0115 978 6919, www.nottinghamhifi.co.uk. We are the area's leading specialists. Relax in our superb demonstration rooms and enjoy the very best in Hi-Fi, multi-room and home cinema solutions. Our outstanding customer service means a twoyear parts and labour guarantee, an on-site service department and a full delivery and installation service. Home trials and free easy parking are also available. Established in 1968, we have been giving sound advice for over 30 years. Open Mon-Sat 9 - 5.30.

#### OXFORDSHIRE

ASTLEY AUDIO LTD, 3 Marketplace, Wallingford OX10 0EC. Tel: 01491 839305, fax: 01491 825024. Founded 1975. Great deals on B&W, Denon, KEF, Marantz, Mission, Panasonic, Pioneer, Project, Sony, 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. Mastercard, Visa, Amex, Diners. Instant credit. Tues-Fri 9-5.30, Sat 9-5. CDs and DVDs stocked.

OVERTURE HI-FI, 3 Church Lane, Banbury OX16 8LR. Tel: 01295 272158. Arcam, Bose, Cura, Denon, Linn Products, Mission, Naim Audio, Quad, Yamaha. For sensible unbiased advice, call Oxfordshire's audio experts. Superb demo facilities. Home cinema, multiroom & commercial installations. No appts nec, service dept, free install, home trial. Mastercard, Visa, instant credit. Mon-Fri 10-6, Sat 9:30-5:30. FADA

OXFORD AUDIO CONSULTANTS, Cantay Hse, Park End Street, Oxford OX1 IJE. Tel: 01865 790879, fax: 01865 791665. E-mail: oxford.audio@btinternet.com. Quad, Denon, B&W, Pink Triangle, Krell, Sonus Faber, NAD, Rotel, Musical Fidelity, Pioneer, Marantz, Copland, Teac, Audio Analogue, Castle, Yamaha, Proac, REL. Demo room. Home trial and free installation. Instant credit, Mastercard, Amex, Visa. 10-6 Mon-Sat.

#### SHROPSHIRE

**CREATIVE AU DIO**, 9 Dogpole, Shrewsbury SY1 1EN. Tel: 01743 236055. Email sales@creativeaudio.co.uk, www.creative-audio.co.uk. One of the largest ranges of quality HiFi/Audio Visual equipment outside of London. Arcam, Ash, Atacama, Cabletalk, Celestion, Chord, Cura, Cyrus, Denon, Dual, Heybrook, KEF, Mission, Onkyo, Optimum, NAD, Naim, QED, Quad, Rega, Soundstyle, Stands Unique, Teac, Wharfedale. Large selection of bargain special purchases available on most makes. Comfortable listening room, expert installation (including multiroom and DVD home cinema), free 2 & 5 year warranties, selected used equipment, partexchange welcome, specialist workshop facilities. Mastercard/Visa/Switch/Amex and low cost finance from £250 up to £15,000.

#### SOMERSET

MIKE MANNING AUDIO, 110 Middle Street, Yeovil, Somerset BA20 1NE. Tel: 01935 479361. 54 Bridge Street, Taunton. Tel: 01823 326688. www.mikemanning audio.co.uk. The HiFi and A/V specialists. The best in HiFi from: Arcam,



B&W, Castle, Denon, Densen, Heybrook, JM Lab, KEF, Loewe TV & Video, Marantz, Naim Audio, NAD, Pioneer, PMC, Rega, Rotel, Royd, Shahinian, TDL, Teac. Dedicated listening lounge for relaxed and unpressured demonstrations. Home installations on most systems. Full service department. Mastercard, Visa, Instant Credit Closed Mondays

#### STAFFORDSHIRE

ACOUSTICA, 114 Wolverhampton Road, Stafford STI7 4AH. www.acoustica.co.uk Tel: 01785 258216. All that's best in Hi -Fi and Home Cinema from quality manufacturers including Naim, Rega, Bowers & Wilkins, Sugden, Musical Fidelity, Rotel, Primare, Teac, Harman Kardon, JM Lab, Michell, Ruark, Kef, NAD, Onkyo, SIM/Seleco Projectors, NEC Plasma & Yamaha. We offer friendly, helpful advice, interest -free credit and trade-in facilities, and deliver and install systems throughout Staffordshire and the Midlands. Opening hours Tues. - Sat. 10.30-6.00, evenings by arrangement

#### 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. A/V from £100 to a £100,000 custom install. Projection systems, DVD players and movies. Separate demo room, range of credit facilities, free fitting & the best and friendliest service available.

EASTERN AUDIO, 41 Bramford Rd, Ipswich IP1 2LU. Tel: 01473 217217. Email: HiFi@easternaudio.com. Giving sound advice for over 25 years. Parking. Demo room. Lots of free advice. Arcam, Meridian, Denon, Quad, NAD, B&W, Celestion, Project, KEF, Castle, Technics, Top Tape, plus all the usual and unusual leads, cables, stands, racks, headphones, cartridges & styli etc.

STOWSOUNDS, 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, Magnat, 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

COSMIC HI-FI SUPERSTORE, (Est 1962) 244-256 Station Road, Addlestone, Surrey KT15 2PS, LARGE FREE CAR PARK Tel: (01932) 8545227 8324007 851753, Fax 01932 832432. Open 7 Days a week, Mon-Sat 9-6pm, Fri till 8pm, Sun 10-4pm. Fully equipped service department on site, Massive Showrooms Available Brands Acoustic Energy, Alphason, Apollo, Arcam, Audio Quest, Cable Talk, Denon, Dual, Elac, Harman Kardon, Jamo, JBL, Marantz, Mission, NAD, Ortofon, Panasonic Plasma, Pioneer, Pro-Ject Turntables, Pure Digital, Quad, REL, Roksan, Sennheiser, Sonus Systems, Sony, Tannoy, Technics, Thorens, Wharfedale, Yamaha Home cinema. Wide screen TV Projection & LCD TV TV. Plasma free available. Interest credit

All major credit cards accepted. www.cosmicuk.com

INFIDELITY, 9 High Street, Hampton Wick, Kingston Upon Thames, Surrey. Tel: 020 8943 3530. Arcam, Densen, B&W Nautilus, Musical Technology, Meridian, Linn, Naim Audio, Neat Acoustics, Royd, Rega Research, Rotel, Shahinian, Proceed & more. Single speaker listening room. Appts pref, free installation, service dept. Major credit cards. Closed Mon, Tues-Fri 10.30-7. Sat 10-6.

PJ HI-FI, 3 Bridge Street, Guildford GU1 4RY. Tel: 01483 504801/ 304756. Mon-Sat 9am-6pm. Arcam, 8&W, Denon, Linn, Meridian, Mission/Cyrus, Kef, Marantz, NAD, Pioneer, Primare, Proac, Quad, REL, Rega, Rotel, Tag Mclaren, Yamaha. Demo rooms for Hi-Fi/home cinema, parking, delivery & installation. Service department on premises. Call now.

### SUSSEX (EAST)

THE POWERPLANT, 40 Church Rd , Hove , East Sussex, BN3 2FN, Fax: 01273 748419 F-mail email@powerplant.co.uk Whatever your budget we can help you choose from our carefully selected range of today's finest hi-f i and home cinema equipment. Recommended agencies include Arcam, ATC, B&W, B&O, Cyrus, DEF Tech, Imerge, Linn, Living Control, M&K, PMC, ProAc, QED Systemline, Reqa, Revel, Seleco, Stewart, Taq Mclaren Audio. Yamaha. Excellent demonstration facilities, knowledgeable and friendly staff. Multiroom specialist. CEDIA member. Open Tues - Sat 10.30 am- 5.30 pm. 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: 01342 328065. www.audiodesigns.co.uk. Hi-Fi, home cinema & multiroom specialists. Authorised stockists of: Arcam (inc. FMJ, DIVA & Alpha), ASH, The Chord Company, Cyrus, KEF (inc. Reference), Linn (inc. CD12 & Klimax), Loewe (inc. Spherros), Marantz, Mission, Naim (inc. CDS & NAP500), Pioneer, PMC, Primaire, ProAc, Project, QED, Quadraspire, Rel, Rotel, Ruark, SIM2 (inc. DLP), Sennheiser, Soundstyle, Stands Unique, Tag Mclaren, TEAC, Thorens & more Probably the largest demonstration stock in the South, with three dedicated demonstration rooms together with a friendly team of staff and service facility. Finance available. 9.30-6 Mon-Sat.

BOWERS & WILKINS LTD, (Est 1945), Littlehampton Road, Worthing, (near Thomas a Becket). Tel: 01903 264141. E-mail: sales@bowersand wilkins.co.uk. Web site: www.bowersandwilkins.co.uk. 1 minute from A24 & A27. Free local parking. Acoustic Energy, B&W, Denon, JBL, Marantz, NAD, Optimum, Philips, Tannoy, Teac, Technics, and many more in 4 demo rooms. Systems, Hi-Fi and home cinema, DVD and projection TV. Service dept, installations. Open 6 days a week. Mastercard, Visa, instant credit to £1,000 subject to status.

### TYNE AND WEAR

GLOBAL HI-FI CENTRE. HI-FI & HOME THEATRE SPECIALISTS. 87 CLAYTON STREET, NEWCASTLE NEI SPY. TELEPHONE : 0191 230 3600 FAX: 0191 222 0286 EMAIL: N F 0 @ G L O B A L H I FI C E N T R E. C O M WWW.GLOBALHIFICENTRE.COM. GLOBAL HI-FI



CENTRE FOR THE PERFECT SOLUTION IN HI-FI, HOME THEATRE, HOME AUTOMATION & LIGHTING CONTROL SYSTEMS, THREE SUPERB STATE-OF- THE-ART DEMONSTRATION ROOMS. AUTHORISED DEALER FOR ALL MAJOR MANUFACTURERS, INCLUDING ALL THE THE LATEST THX SURROND SYSTEMS. GLOBAL HI-FI CENTRE BRINGING SOUND AND VISION HOME.

### WILTSHIRE

15 Catherine SALISBURY HI-FL Street. Tel: 01722 322169/330841 Salisbury. www.movement-audio.co.uk. Arcam, Audio Analogue, B&W, Celestion, Chord Company, Denon, Harmon Kardon, KEF, Marantz, Meridian (inc. Digital theatre), Mission, Michell, Musical Fidelity, NAD, Nordost, Opera, Project, QED, Rotel, REL, Teac, Yamaha. Home Cinema and Hi Fi specialists, multi room and commercial installation specialists, service dept. on site, high quality used equipment, projection TV and 2 demo rooms, credit facilities, plasma. Visa/Mastercard. Open Mon-Sat 9.30-5.30 BADA

### YORKSHIRE (EAST)

THE AUDIO ROOM, 2 George Street, Hedon, Hull, HU12 8JH. tel 01482 891375. www.theaudioroom.co.uk. The North East's premier dealer. We have three stunning showrooms together with a dedicated listening room and are authorised agents for Linn Products, Naim Audio, Cyrus, Sugden, Rega, Unison Research, Pathos, Graaf, Audio Analogue, Rotel, B&W, Spendor, PMC, Sonus Faber, Ortofon, Base, Quadraspire, Stands Unique, The Chord Company, QED, Townsend, Black Rhodium, Loewe television.Open Mon-Sat, 9am-7pm (later if required). Credit facilities and home demonstrations available. Free and easy car parking as well as a relaxed and comfortable environment assured. The North East's friendliest hi-fi dealer.

**ZEN AUDIO**, 35 George St, Hull HU1 3BA. Tel: 01482 587397. Hull's best Hi-Fi store! From entry-level systems to high-end exotica. Friendly service, impartial advice, home demonstrations, free installations, car parking, and the best range of quality products including...Audio Analogue, Acoustic Energy, Audio Note, Audion, Densen, Denon, Dynaudio, EAR, Graff, NAD, Naim Audio, Musical Fidelity, Musical Technology, Michell, Pioneer, Pro-Ac, Rega, REL, Ruark, Sugden, Teac, Unison Research, Yamaha and many others. Open Mon-Sat. Instant credit facilities available. Feel free to call for more details.

#### YORKSHIRE (SOUTH)

#### DONCASTER

THE HI-FI STUDIOS, The Long Barn, Wakefield Road, Hampole, Doncaster DN6 7EU. Tei: 01302 727274/ 725550, fax: 01302 727274. Email: info@thehifistudios freeserve.co.uk. Hi-Fi, home cinema and multi-room experts. Musical Fidelity, Tag McLaren, Electrocompaniet, ProAc, Ruark, Castle, Teac, Unison Research, John Shearne, Impulse Horns, Monitor Audio, Harbeth, Alchemist, NAD, Michell Turntables, Nottingham Analogue Studios, Audio Analogue, Living Voice, Exposure, Densen, Lynwood Electronics, Celestion (A Series only), Opera, Trichord Research, Nordost, Stands Unique, Stax Electrostatics, Ortofon, Project, Goldring, REL Subwoofers, Yamaha A/V, Proceed Digital Cinema, Tag McLaren & Denon Home Cinema products, plus others. Viewing and demonstration by appointment. Home trials and free installation on hi-fi equipment. Mastercard, Credit card and finance facilities. Phone for more information. 10am-6.30pm Tues-Fri, 10am-5pm Sat. Closed Sunday, & Monday. THX BADA

### YORKSHIRE (WEST)

VIDEOTECH, 14 Cross Church Street, Huddersfield HD1 2PT. Tel/Fax 01484 516670. Opening hours Mon-Sat 9am-5:30pm. We are the main dealers in the area for Mirage, Energy, Tag McLaren, Jamo, Onkyo, also major stockists of Philips. We boast 2 demo rooms, and 1 main demonstration area, free installation, honest and expert advice based on 17 years experience, and after sales service. All major credit cards accepted. FOLLOW THE SOUND, SEE THE VISION!

#### SCOTLAND

**LOUD & CLEAR,** now in Glasgow and Edinburgh, find out more at www.loudclear.co.uk. Scotland's finest and friendliest Hi-Fi stores, combining knowledgeable advice with specially selected products and exceptional customer service. Comfortable hi-fi and home cinema demonstration rooms, dedicated multiroom and home cinema installation team, full service and repair facilities. Naim Audio, DNM, Crimson, Primare, Musical Fidelity, Tag McLaren, Rega, NAD, Marantz, Denon, ProAc, Kef Reference, Living Voice, Ruark, Dali, Monitor Audio, Tannoy, JM Labs, VDH, Nordost, Chord Go, Ash Design, Optimum, Quadraspire, etc, etc. Open Tues-Sat I0am-6pm. Thurs till 7pm. 520 St Vincent St, Finnieston, Glasgow. Tel: O141 221 0221 and 26 Hamilton Place, Stockbridge, Edinburgh. Tel: O131 226 6500.

### DUNDEE

**SOUNDS PERFECT.** Hi-Fi at it's best. 26 St. Andrews Street, Dundee. Tel: 01382 266592, fax: 01382 229994, E-mail: sales@soundsperfect.co.uk. Exceptional quality and professional service at Dundee's premier Hi-Fi store. Open 6 days a week. 10 - 7 Mon - Thurs, 10 - 6 Fri & Sat. Demonstrations are available outside of these hours by appointment. Main dealers for Arcam, Rotel, Marantz, Technics, Roksan, Sony, Musical Fidelity, Tannoy, Mission & B&W.

### WALES

### **NORTH WALES**

ACOUSTICA, 17 Hoole Rd, Chester CH2 3NH. Tel: 01244 344227. See our main entry under Cheshire.

ACTON GATE AUDIO, 4 Ruabon Rd, Wrexham. Tel: 01978 364500. Demonstration room, installation service. Easy parking and motorway access. Mastercard, Visa etc. See main entry under Cheshire.



# **BACK ISSUES**



AWARDS 2002/ISSUE 236 The best gear of the year Copland CVA306/CVA535 AV amp Karan KA-i180 stereo amplifier Pioneer DV-757Ai 'universal' player



MARCH 2003/ISSUE 239 Group Test: Stereo amps Group Test: Turntables Test Feature: Subwoofers Special Feature: high-fidelity video



JANUARY 2003/ISUE 237 Group Test: Speakers Group Test: DVD players Test Feature: DACs Musical Fidelity Tri-Vista SACD player

BUYER'S BIBLE

Group Test: Speakers

Round-up: headphones

APRIL 2003/ISSUE 240

Group Test: Universal DVD players

Test Feature: Equipment supports

CO STARS

LAY H



FEBRUARY 2003/ISSUE 238 Group Test: CD players Group Test: AV amps and processors Test Feature: Mains cables & filters Ways to improve your listening room



Group Test: Pre/power amps
 Group Test: Speaker packages
 Test Feature: Audio cables

Copland CDA822 CD player

## **HI-FI CHOICE BACK ISSUES**

YOUR DETAILS					
Name					
Address					
	Po	ostcode			
E-mail address					
Card Number					
Expiry Date					
Signed					
UK READERS Hi-Fi Choice back issues, FREEPOST BS4900, Somerton, Somerset, TA11 6BR	OVERSEAS READERS Hi-Fi Choice back issues, Cary Court, Somerton, Somerset, TA11 6TB, UK				
WHICH ISSUE(S)	DO	YOU RE	QUIRE?		
MONTH & YEAR ISS	SUE NU	MBER	AMOUNT		
HOW WILL Y		RE PAYI	NG?		
Make cheques/POs paya		CHEQUE	20 🗆		
to Future Publishing Ltd (PLEASE TICK RELEVANT		SWITCH			
(PLEASE IICK RELEVANT	DUX)	VISA POSTAL ORI	DER 🖸		
HOW MUCH	WIL	L IT CO	ST?		
UK £4 (per issue), Overs	eas £6.	.95 (per iss	ue)		

#### **BACK ISSUES**

Back issues from 2000 onwards are available by mail order. They cost £4.00 (UK) or £6.95 (overseas). Both prices include p&p. You can order by phone on 0870 444 8650 - we accept Mastercard and Visa credit cards, and Switch debit cards. Alternatively, send a cheque or postal order made payable to Future Publishing Ltd using the form on the left. **ORDER A REVIEW REPRINT** If you're interested in an HFC review of an older component and the back issue has sold out, we can usually send photocopies of individual reviews to any UK address for a flat fee (inc. p&p) of £5 per review. You must know in which issue the original review appeared; we are unable to search back issues for old reviews. Send a written request, enclosing a cheque for £5 made payable to Future Publishing Ltd. to: Hi-Fi Choice Reprint Service, Future Publishing Ltd, 99 Baker Street, London W1U 6FP. PLEASE NOTE: THIS SERVICE IS ONLY FOR OTHERWISE UNOBTAINABLE REVIEWS.



#### Arcam CD33 CD player



**DIGITAL AUDIO RECORDING UNCOVERED** 

Digital recording is changing faster than Michael Jackson's face. On the one hand there's the direct-copy convenience of CD-R/RW. On the other, more and more hard disk recorders are emerging as a convenient solution for storing and playing back music. We give you the lowdown, test the more interesting hard drive systems from **Imerge** and **Yamaha** and rate the latest CD-R decks from the likes of **NAD** and **Pioneer**. We also test the latest portable recorders from brands like **Sony** and **Sharp**, that can be plugged in anywhere – car, hi-fi, home PC, work...

## TOP 40 DEMO DISCS OF ALL TIME

Don't try another bit of kit without our indispensable guide to the 40 top demo discs in the world, ever. Our esteemed reviewers give away all their secrets and reveal the music they use to assess all manner of hi-fi wonders.

### **STATEMENTS**

The force will be with us next month as **PMC's** Bristol Show stunner, the OB1 prepares to wow our ears and empty our savings accounts. **Arcam's** long-awaited upsampling CD33 joins the FMJ series bringing, the company's CD replay bang up to date, and **Orelle** unveils a new pre/power amp combo. Plus stunning amps from **Halcro** bring joy to *Hi-Fi Choice* towers.

### IN-DEPTH

Parasound's cutting-edge processor is here and we've whisked it off to the lab for interrogation.

### PLUS

New kit from **Cambridge**, **Denon**, **Marantz**, **NAD** and much more!

*Hi-Fi Choice* 243 on sale 20 June





**Style 'r' us** 

David Vivian looks east to the last bastion of obsessive stylus perfection

nly one component can truly claim to be at the sharp end of hi-fi – the phono cartridge. There's an odd temptation to prefix it with 'humble', a hangover, I guess, from the not-so-distant past when it was merely 'the needle'.

It's a needle still, of course, but now more in the sense of a pinnacle, one on which the passions, hopes and, indeed, belief systems of millions of music lovers rest. Not even cheap cartridges are 'humble' these days. With a decent deck, they fight the case for analogue's sonic supremacy to startling effect. The embarrassing ease with which, say, a Rega Planar 3 buries a comparablypriced CD player for outright musicality is an education to anyone who's swallowed digital hype's more extravagant boasts.

But the symbolism runs much deeper. In a world were digital is thought of as a kind of *de facto* super-technology, old techniques should have been rendered obsolete by now. But, on the contrary, the old ways have become the new enlightenment. Numbers and profit margins don't really matter, here. It's a classic case of old v new, craft v computers, inspiration v industry and, in some eyes, good v evil.

Thank God for opposites. Who stands in the way of a future more digital than the cascading machine code of *The Matrix*? Why, the wise old phono cartridge masters of Japan. They probably know kung-fu.

Indeed, the making of exotic cartridges in Japan isn't so much hi-fi as high art. And at Koetsu – arguably hi-fi's greatest cult brand – it's clearly on a transcendent plane, fringed with dry ice and mystic chanting. It stems back to Yosiaki Sugano. Now in his nineties, Yosiaki early on decided he wanted to be an artist, musician, swordsman and calligrapher as well as a business exec. In post-war Japan, he rose to prominence in one of Japan's largest industrial companies,



"The Jade Platinum costs as much as a car and, as you might expect, is made out of jade and platinum."

and acquired a new passion – hi-fi.

In pursuit of this, he started fitting his own tweaked parts to commercially available cartridges. Then he built his own from scratch. He named it after his hero – Koetsu (the Japanese characters for which translate as 'light' and 'pleasure').

Koetsu became a family business involving Sugano's sons in the meticulous and painstaking process of executing their father's uncompromising designs and workmanship. By the early 1990s, Sugano stopped making the cartridges himself and passed on production entirely to his sons (under his personal supervision). Today 'hand-crafting' cartridges out of exotic materials is pretty much *de rigueur*. At Japanese rival Lyra, for instance, a man called Yoshino Mishima assembles and tunes every cartridge the company makes. At Benz-Micro in Switzerland, Luis Pires sources specially aged ebony wood from Mozambique for the Ebony LP cartridge's outer shell. This dense tonewood, takes over 100 years to grow and mature and is, understandably, extremely scarce.

But nothing can quite prepare you for Koetsu's latest creation. The Jade Platinum costs as much as a car and, as you might expect, is made out of jade and platinum. A set of very tightly matched platinum-alloy magnets is extraordinary. A body carved out of a solid block of jade is more remarkable still. But, as an optional extra, you can even have a stylus/cantilever assembly made out of a solid piece of diamond. And that's outrageous.

Sugano-san calls it the best way to eliminate interface problems between the stylus and the cantilever. Romantic analogue types might prefer to think of it as the last retreat of the true believer. <sup>(B)</sup>



The Confidence C2 is more than a consequent improvement of the legendary Dynaudio driver technology. The C2 is more than the innovative new Esotar<sup>2</sup> tweeter. The Confidence series is in itself a wholly revolutionary concept. A unique Dynaudio concept embodying a refined design comprised of a functional background. Uncompromised

construction was formed from clear-cut aesthetics to deliver state-of-the-art sonic performance, offering visual beauty and audible perfection. Acoustical expertise. The Confidence C2 by Dynaudio.





## ACOUSTICAL EXPERTISE. CONFIDENCE C2.



www.dynaudio.com



★★★★ WHAT HIFI, March 2002



Hi-Fi Choice, April 2002

# "In the final score the Exposure scores as a definite success"

SSS Hi-Fi World, June 2002



Exposure 2010 CD Player

# Need we say more?

Exposure 2010 series. Now performing in major hi-fi stores





www.exposurehifi.com



Exposure Electronics Ltd: The Works, 59 North Street, Portslade, East Sussex BN 41 1DH, England. Tel: +44 1273 423877 Fax: +44 1273 430619 Exposure Asia Pacific: The Works Two, 117A, Jalan SS2/24, 47300 Petaling Jaya, Selangor, Malaysia. Tel: +603 7875 8181 Fax: +603 7875 2833 high fidelity engineering