



Rotel RA-05 integrated amplifier. You will have noticed that a pattern has developed over the past 25 years or so. When Rotel launches a new amp, the buttons and knobs tend to stay in the same place. It's what is inside that changes. We continuously evaluate and select components that offer the best possible performance, such as UKdesigned metal film resistors. We keep refining circuit board layouts and signal paths to maintain the purity of the signal. We even manufacture our own power supplies, which generate our uniquely vital sound. We may even add an additional feature or two. And every time, it's a better amp. www.rotel.com

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# frome to the issue.

#### HI-FICHOICE OCTOBER 2006 ISSUE 285

Future Publishing Ltd, 2 Balcombe Street, London NW1 6NW 🙁 +44 (0)20 7042 4000



This issue, we're delighted to feature important 'exclusives' from two of Britain's best-loved hi-fi brands. First up, it's NAD; a company that almost single-handedly invented the concept of no-frills, sound-first hi-fi at budget prices with the legendary

3020. Launched on an unsuspecting British public in 1979 with an £80 price tag, this ground-breaking, low-cost amp set the standard for entry-level hi-fi separates, forming the basis of first-rung systems up and down the country and spawning a host of imitators in the process.

But while NAD is still best-known as manufacturer of 'budget' hi-fi separates, the brand - now owned by Canadian firm Lenbrook - is stretching its wings with the launch of its most ambitious components to date. The Masters Series is distinctly 'high end' in looks, build, price and performance, and we're proud to publish the first-ever in-depth review of two critical components from the range - the M5 CD/SACD player and M3 integrated amp (see p44).

Naim is a brand that is more usually linked with hi-fi of a more aspirational kind, but not everyone may be aware that this Brit-fi stalwart also runs a record label. *Hi-Fi Choice* has a unique relationship with The Naim Label; in the past three years, we've covermounted several exclusive Naim Label compilation CDs, and this issue comes with what we think is our best disc yet. Featuring a diverse range of music, this special free gift shows why we're the No.1 read for hi-fi fans - along with the in-depth reviews of the latest, most vital components, unbeatably thorough group tests, up-to-the-minute news, views and interviews... Enjoy!



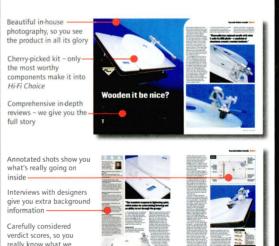
Tim Bowern Editor

#### WHY WE'RE NO.1 FOR HI-FI...

- Since 1975 Hi-Ei Choice has delivered the world's most thorough no-nonsense guide to buying high-performance hi-fi.
- · We now publish 13 issues a year, including two special editions: The Collection, an issue dedicated to the finest high end components, and The Hi-Fi Awards - the most important annual awards in the hi-fi calendar.
- · Every issue contains a potent mix of the latest hi-fi news, views, music, interviews and in-depth tests, brought to you by a prestigious team of expert writers from the UK and around the world
- We only review the most interesting and worthy new hi-fi components - high-performance audio products across a wide range of price points. We obtain more genuine hi-fi exclusives than any other magazine - if it's worthy of your attention, you'll read about it first in Hi-Fi Choice.
- Our tests are the most rigorous in the business, conducted by the UK's most experienced team of hi-fi reviewers.
- · Alongside in-depth component reviews and accessory round-ups, every regular issue of Hi-Fi Choice features an Ultimate Group Test on a core hi-fi product category - from source components to amps and speakers
- Each Ultimate Group Test is conducted using a uniquely thorough three-step test regime. This consists of carefully controlled 'blind' and sighted listening sessions, a full set of laboratory tests and extended 'hands on' testing by the primary reviewer. No other magazine goes to such lengths to ensure accurate comparative reviews.
- · Components that best meet our exacting standards are listed in the Buyer's Bible section - the world's most reliable reference quide for the hi-fi buyer.

The Essential Guide To Audio Excellence In The Home

• That's why Hi-Fi Choice is...



THIS ISSUE'S EXPERT WRITERS AND REVIEWERS INCLUDE.



PAUL MESSENGER A former HFC editor, Paul has been writing about his beloved hi-fi hobby for nearly 30 years. In that time he has become one of the world's most respected scribes and probably the UK's foremost loudspeaker reviewer



DAN GEORGE

he became HFCs

ensures that only

make it into HFC.

RICHARD BLACK Dan is a hi-fi nut whose Richard is a professional dream came true when musician, recording engineer and a highly reviews editor. Armed knowledgeable hi-fi with a bristling contacts analyst to boot. He has a knack for writing book and a pair of razor-sharp ears, he about complicated subjects in a readable interesting products way - and he only writes for HEC



MALCOLM STEWARD Former editor of Hi-Fi Review magazine, Malcolm was one of the best known and most outspoken reviewers of the 1980s and 1990s. He currently edits hi-fi industry bible The



**ALVIN GOLD** Alvin has been writing about his obsession for more than 20 years. In that time he has contributed his encyclopaedic knowledge to almost every hi-fi periodical you can think of (and several more besides)



think of a product

DAVID VIVIAN An award-winning iournalist. David's sharp ears and equally sharp powers of description are a valuable mix for HFC. He also writes about cars, but who needs the latest Lotus when you've got the finest hi-fi to test drive



found in the wilds of

himself with the very

best hi-fi money can

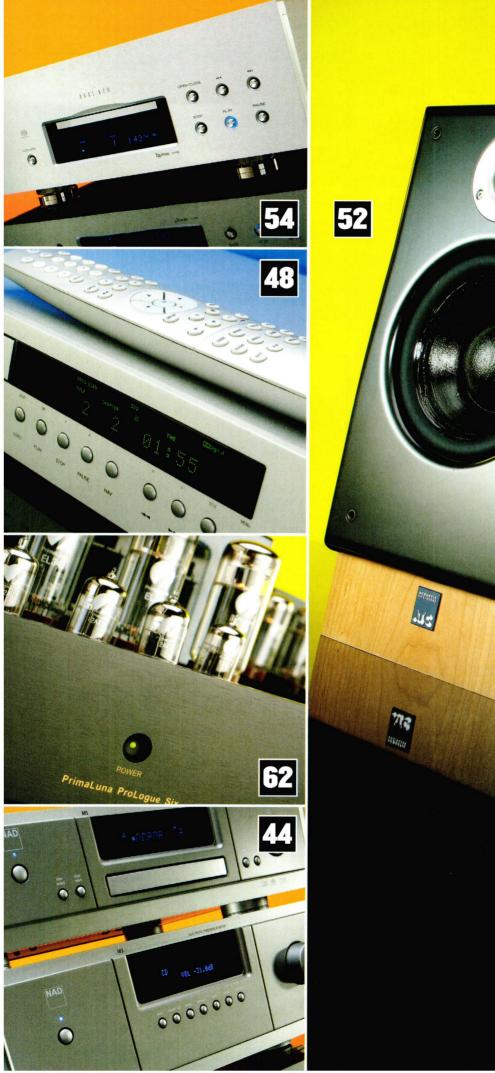
Sussex indulging

no bounds



One of the most respected commentators on the American hi-fi scene. Art has written for Hi-Fi Heretic, Sounds Like and Listener buy. His own system is Among other things, simply sensational and he is currently US his love of music knows journal Stereophile's 'editor at large'

British Audio Journa To ensure you get the best information, opinion and advice, Hi-Fi Choice employs the most knowledgeable and experienced hi-fi writers in the business.





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

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# TRUST YOUR SENSES



#### BLIND FAITH

"Superb value for dollar, rich and full sound at lower volume levels, engaging detail and musicality,"

#### Stereophile

"There is much to like about this speaker, most obviously its impressive suppression of cabinet coloations, but also in the high-class drive unit technology it employs."

#### Hifi Choice

"Indeed a terrific loudspeaker...somewhat more "joyful" than its little brother (MS4), yet unmistakably superior." "In terms of measured performance an almost perfect transducer."

Stereo

IN ADMIRATION OF MUSIC



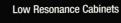
### FEATURES



Wide Dispersion



3D Audio





Time Coherence



Hand Crafted

Amplifier Optimized







# naim

# **The Naim Label**

You've heard the hi-fi ... now hear the music!

or hi-fi fans, equipment made by Naim Audio is the stuff of aspiration. The brand is synonymous worldwide with a sound that is crisp, clear and beautifully defined – yes, all those hi-fi things – but also, crucially, perfectly in tune with the music.

You see, where other hi-fi components may make beautiful 'sound', Naim Audio equipment makes pure, unadulterated 'music'. Pace, rhythm and timing – elements that are critical to the intrinsic enjoyment a piece of music may bring – are conveyed in a way that cuts to the heart and soul of all genres, from rock to classical. For Naim, the most successful of all British high-end hi-fi brands, it really is 'all about the music'.

It makes sense, therefore, that Naim should also have a record label to run alongside the hi-fi business, and The Naim Label is just that. With a roster of artists that spans rock, jazz, acoustic, classical and beyond, the label's aspirations are simple: to complement Naim hi-fi with a broad spread of titles that are both beautifully recorded and musically far-reaching.

This issue of *Hi-Fi Choice* comes with a free CD of material from The Naim Label, drawing together new releases and old favourites to form an exclusive 'best of' compilation called *Pure* – a suitable title, we hope





you'll agree. Details of all the

featured tracks (and the albums from which they're taken) can be found on the opposite page. And below there's an exclusive interview with Anna Tooth, who manages The Naim Label. Now, just load up your CD player and enjoy!

# Q&A

We asked Anna Tooth, The Naim Label's manager, to tell us more about the past, present and future of this important member of the Naim family

#### HFC How did The Naim Label start?

**AT** The very first disc that Naim did was a free classical sampler for *CD Review* in 1991. Then, Julian Vereker (Naim Audio's founder) re-mastered *Electric Glide* by Gary Boyle for CD, which was the favourite dem LP of the time. After that, there was no looking back! To launch The Naim Label as it exists today, we recorded some free jazz, an album called *Earwax Control* with Paul Wertico.

What does Naim Audio achieve by having a record label? Initially, we wanted to prove that the digital format could be done really well; at the time, there were quite a lot of inferior sounding CDs around. So we got all the skills under our belt and then concentrated on finding some great musicians.

What's more important – music or recording quality? Both! There's not much point in having impeccably recorded CDs if no one likes the content. Likewise, we can't build up a reputation as a label that produces beautiful-sounding discs, and then release recordings that aren't up to our high standards.

#### How do you achieve such high-quality recordings?

Our 'True Stereo' cuts are unprocessed, analogue recordings by Ken Christianson. He uses two AKG 414EB microphones set in a natural acoustic, direct to a two-track Nagra IV S open-reel tape recorder. For Antonio Forcione's albums, we use a studio for multi-track recordings.

#### Who are your most successful artists?

As a result of our long-term relationship and hard work all round, our most successful artist is Antonio Forcione. The albums we have recorded with Charlie Haden have done well, too – it's great to be able to record with such a big name.

How do you go about signing up an artist? We investigate anything that catches our ears!

How many albums do you release each year? On average, we release eight or nine discs per year, a pretty good number for a relatively small label.

Do you have any exciting new releases in the pipeline? We've just finished recording Antonio Forcione and his quartet playing live in a theatre, and the result will be our first DVD. It'll have Dolby 5.1, DTS 5.1 and LPCM streams; there'll be a two-channel CD of this concert, too. We've also just recorded Antonio with Charlie Haden in True Stereo... all these discs will be available this year.



#### Special CD Offer!

For a limited period only, *Hi-Fi Choice* readers can purchase the CDs featured on our *Pure* compilation at the special price of £9.99 each. Visit www.thenaimlabel.co.uk for details.



# n dui

### A track-by-track guide to your free CD from The Naim Label



#### TRACK 1 DANIEL MULHERN Fallen Angel

Taken from the album Pigeon Coup (Naim CD096) Pigeon Coup is British singer-songwriter Daniel Mulhern's debut album. Recorded at Ray Davis' Konk Studios with a group of hugely talented musicians, the end result is a set of melodious and perfectly crafted pop songs. Fallen Angel features Dan on guitar and vocals, Phil Ward on electric upright bass and a rising star, Adam Stringer, on percussion.

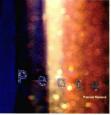


#### TRACK 2 PAUL WERTICO TRIO Sticks and Stones

Taken from the album Another Side (Naim CD093) Sticks and Stones is a gem of an improvised piece. taken from Paul Wertico's new album with The Naim Label, Another Side. With John Moulder on quitar and the 21-year-old Brian Edwards on bass, Paul's drumming is provided with the perfect musical platform to show his quirky and melodic creativity at its very best.

#### TRACK 3 ANTONIO FORCIONE Sahara Rain

Taken from the album Tears of Joy (Naim CD087) Described by The Scotsman as "one of the most satisfying guitarists around," Antonio Forcione wowed his fans and critics alike with the release of Tears of Joy, his most recent studio album. Sahara Rain features Adriano Adewale, the quartet's abundantly talented percussionist, playing drainpipes (cut to different lengths) with his flip-flops.



#### TRACK 4 PATRICK NOLAND Prelude

Taken from the album Peace (Naim CD065) Solo piano doesn't get much more relaxing and beautiful than Patrick Noland's last release on the Naim label. Peace was written and dedicated to the memory of Naim Audio's founder Julian Vereker and Prelude sets the melodic and positive tone for the album. This is so much more than simple chill-out music, it's an ethereal masterpiece.

# DREAMHOUS a 🛛 👘 🚺



#### TRACK 5 FRED SIMON Poetsneak

Taken from the album Dreamhouse (Naim CD044) Dreamhouse was the brilliant Fred Simon's first album on the Naim Label. Simon is an American pianist, who has previously recorded for the Wyndham Hill label. His musical cohorts for this album are Sarah Allen on drums and Kelly Sill on double bass, and Poetspeak perfectly reflects Fred's skills as a graceful composer, arranger and performer.

#### TRACK 6 REUBEN HOCH AND TIME Question and Answer

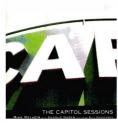
Taken from the album Of Recent Time (Naim CD088) Reuben Hoch is a jazz drummer from Florida; seminal jazz pianist Don Friedman spends every winter out there. When the Naim Label's engineer, Ken Christianson, flew out to record their collaboration with bassist Ed Schuller, the results were fabulous. Question and Answer is a delightful Pat Metheny composition, and these musicians do it fine justice.













#### TRACK 7 HELD LAMPI PROJECT Pitjala Wangkanyi HLP Version

Taken from the album Digital Dreaming (Naim CR03) Digital Dreaming came to us via Jim Lampi, master of the Chapman Stick - a curious instrument that sounds like a guitar and bass being played simultaneously. Frank Yamma provides passionate vocals in his native Pitanjatjara on Pitjala Wangkanyi, and the track features the hypnotic grooves and beats that form the basis of the album.

#### TRACK 8 NICOLAS MEIER Alone

Taken from the album Orient (Naim CD091) Alone is a track of Eastern fusion, a theme that weaves its way through much of the album. Listen out for bright performances by world jazz saxophonist Gilad Atzmon and Middle Eastern drummer Asaf Sirkis. Guitarist Meier has recently won the prestigious Guitar and Grand Jury prizes at the Jazz a Juan competition in the South of France.

#### TRACK 9 DANIEL MULHERN With The Times

Taken from the album Pigeon Coup (Naim CD096) The second track taken from Daniel Mulhern's lovely debut album. With The Times is reflective and thoughtful. The beautifully orchestrated Hammond organ and cello maintain the dreamy quality, while the philosophical chorus of backing vocals builds into an uplifting crescendo. If you like Damien Rice or David Gray, you'll love Daniel Mulhern.

TRACK 10 ANTONIO FORCIONE

#### Tango Nights

Taken from the album Dedicato (Naim CD013) Taken from Dedicato, Antonio Forcione's first album on the Naim Label, Tango Nights showcases Forcione's delicate guitar work - it sparkles and catches the light with every twist and turn of his fingers. That his playing weaves in and out of a melancholic cello only serves to add to the enticing beauty of the rhythm that is the Tango.

#### TRACK TO CHARLIE HADEN & MIKE MELVOIN I Never Told You

Taken from the album The Capitol Sessions (Naim CD025) Pianist Mike Melvoin has performed with everyone from Frank Sinatra and the Beach Boys to Barbara Streisand and Tom Waits. It's interesting, then, that he should describe pop as "what I do," versus jazz as "what I am". It's not surprising that he was Charlie Haden's choice of pianist for The Capitol Sessions, the album from which I Never Told You is taken.

#### RACKS 12-15 TRIO HOLLOWAY, TER LINDEN AND MORTENSEN

Handel - Sonata in D: Grave, Allegro, Adagio, Allegro Taken from the album A London Concert (Naim CD037) The last four tracks on our Naim Label compilation are Grave, Allegro, Adagio and Allegro from Handel's Sonata in D. They're taken from A London Concert - a violin, cello and harpsichord album by Trio Holloway, Ter Linden and Mortensen, featuring work by baroque composers who either lived or worked in London.

















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Hi-Fi Choice, December 2005



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What Hi-Fi? Sound and Vision, December 2005

Stereophile

"...an exceptionally stylish loudspeaker...beautifully finished and stuffed with innovations..."

Stereophile, September 2005

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www.mordaunt-short.com

# ■ NEW PRODUCT SPOTLIGHT

Entre Auto

# CAMBRIDGE AUDIO 840C CD PLAYER

Here's something to get excited about – Cambridge Audio's launch into the CD player middle market. Its 840C heads up the Azur range and, if it's anything like its class-leading peers, it'll be the CD player to beat at £800. Central to the player's performance is Adaptive Time Filtering, or ATF. This new proprietary technology effectively upsamples CD's 16-bit/44.1kHz signal to 24-bit/384kHz, using an Analog Devices DSP chip, which then feeds the datastream to two DACs (one per channel). Cambridge Audio's system is said to be different from the norm and uses a special algorithm that intelligently interpolates the data.

It also boasts digital inputs, allowing the upsampling and playback of other digital sources, plus a recording digital output, meaning bit-for-bit or even upsampled data can be recorded by a suitable device.

To find out more, see our exclusive in-depth review in the next issue of Hi-Fi Choice

PRODUCT Cambridge Audio Azur 840C
TYPE CD player
PRICE £750
<b>KEY FEATURES</b> ATF (Adaptive Time Filtering) unsampling • 32-bit Analogue Devices Black Fin DSP • Two digital inputs, one output • Dual differential DAC mode
CONTACT @ 0870 000 1000

CONTACT 22 0870 900 1000

0





"Indeed, box coloration is exceptionally low here, and this little speaker proves remarkably effective at generating generous and spacious stereo images with a degree of weight and scale that's entirely surprising from such a compact device."

"...DX-5's excellent overall coherence, fine expression, good solidity and superior dynamic range all add up to an impressive 'budget' newcomer, representing excellent value for money."

Ultimate Group Test, Hi-Fi Choice UK, September 2006.



To experience how we can enhance your listening pleasure, visit your nearest dealer. Details can be found on our website : www.nbien.com or you can email us at info@nbien.com.



# **B&W CM7 LOUDSPEAKER**

We've been patiently waiting for an exciting new B&W speaker and this is it, the CM7 floorstander. You may recognise the Nautlius tube-loaded tweeter and other touches from the £500 CM1 standmount, reviewed in *HFC* 277. That's because this is the CM1's new three-way big brother, complete with an additional 165mm paper/Kevlar bass unit in its floorstanding enclosure.

It retains the features common to the CM1, such as B&W's unique 'flowport' bass port,

ear-tuned crossover networks and its trademark woven fabric Kevlar cones, said to help dissipate standing waves. Driver and crossover technologies were passed down from the flagship 800 Series, according to B&W. Like the CM1 standmount and matching CM Centre speaker, the CM7's cabinets have been made in B&W's Danish factory. Will this newcomer make the grade for our forthcoming 2006 Awards?

To find out more, see our exclusive in-depth review in the next issue of Hi-Fi Choice

#### PRODUCT B&W CM7

TYPE Floorstanding loudspeaker

PRICE £999 per pair

KEY FEATURES Three-way speaker with ear-tuned crossovers ○ Nautilus tube-loaded tweeter ○ 130mm Kevlar midrange driver ○ 165mm Kevlar/paper bass driver ○ 88dB sensitivity CONTACT ② 01903 221500 www.bwspeakers.com

# audiofile :

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## NEW PRODUCT HIGHLIGHTS

## VINCENT CD-S6

Vincent, the Thorens-owned valve hybrid hi-fi specialist, is now available in the UK through Ruark Distribution. Vincent offers a range of predominantly two-channel electronics, designed and developed in Germany, with Chinese manufacture. The company's hybrid valve components will remain the focus of Ruark's UK distribution. The first available products hail from the seven-strong Design Line Three series, which comprises several hybrid amplifiers, an FM tuner, a headphone amp and an £899 CD player called the CD-S6. This new disc spinner employs a Class A configured valve output stage, combined with a 24-bit/192kHz Burr-Brown DAC and Philips VAM 1202 mechanism. A balanced version is also available for £999. Further features include a Pacific Microtronics HDCD decoder, oversized power supply and acoustically damped chassis. Expect a review soon. **Price** £899 **Due** now **a** 01702 601410 **#** www.ruark.co.uk



### DENON DVD-3910

Denon is about to replace its *HFC* Award-winning, mid-range DVD-3910 universal disc player with an updated model, called the DVD-3930. The new player will have 1080p upscaling and many of the high-end video features available in the flagship DVD-A1XVA. On the audio side, Denon has specified new high-end audio stages, Burr-Brown 24-bit/192kHz DACs, plus DenonLink3 – the latest Gigabit version of its proprietary digital audio output. It also has beefed-up casework with a three-layer anti-vibration bottom cover and two-layer top cover.

Price £1,000 Due September ☎ 01234 741200 ⊕ www.denon.co.uk

# **KEF 5005.2**

KEF's latest addition to the KHT speaker series is a 5.1 system called the KHT5005.2. It will replace the KHT5005 system launched in 2003 and brings several key upgrades including new drive units, grilles and a new subwoofer. KEF says the latest incarnation of its Uni-Q equipped speakers will play twice as loud, and in addition there's a healthy 250 watts of Class D power available from the HTB2 sub. **Price** £1.250 **Due** now

■ 01622 672261 ⊕ www.kef.com

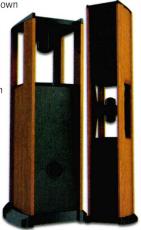


# **BOLZANO VILLETRI BELLAGIO**

Bolzano Villetri is a new name to the UK loudspeaker market. The high-end Italian manufacturer's objectives are to create omnidirectional loudspeakers capable of mimicking a live concert sound. It offers two ranges, the most recent of which being the more real-world Bellagio line, a four-strong line-up that use the semi-counter-aperture principle (where opposing drivers fire sound simultaneously from all sides) to deliver the music. Heading the Bellagio range is the BG 780 two-way floorstander, a 90dB-efficient speaker, designed to partner a matching passive subwoofer, which is said to offer extension down

to an impressive 26Hz. **Price** from £346 to £1,167 per pair **Due** now 2020 7244 8240 # www.bolzanovilletri.com





### **GRADO GS1000**

If space is at a premium, Grado's new Statement headphones could be for you. The new flagship GS1000 – an open-back design – has been described by Grado as "a listening room for the ears". It goes on to say that the product is its finest effort to date, featuring a redesigned drive unit, larger wooden housing and a new cushion for the ear cups. With a sensitivity of 98dB, the headphones

boast a claimed frequency response of 8Hz-35kHz. The design is said to offer a larger soundstage and a greater spatial experience. **Price** £995 **Due** now **201279 501111** www.gradolabs.com



#### **QUADRAL SPEAKER RANGE**

German loudspeaker manufacturer Quadral has returned to the UK after a short absence with a colossal range. Wireworld UK, the cable specialist, is now working in association with Quadral to distribute the brand on these shores. Although Quadral's



### **RUARK CRUSADER III**

Ruark has relaunched its popular 1980s Crusader loudspeaker, to celebrate the firm's 20th anniversary. Sitting at the top of the Heritage Series, the new floorstander - now in MkIII guise embraces many elements of the original, fused with contemporary technology. The three-way, sloping baffle design utilizes an aluminium ribbon tweeter, 7.5cm damped fabric dome bass/mid driver and an 18cm composite carbon/pulped fibre woofer. The units are housed in a hand-built cabinet that has been partitioned and optimized for the driver compliment. A 24mm veneered plinth is fitted to the base to provide a larger footprint and extra stability. Expect a review in the next issue of Hi-Fi Choice. Price £2,799 per pair Due now 

### **FERGUSON HILL FHO07**

If you love Ferguson Hill's distinctive £9,950 FH0001 transparent horns as much as we do, the affordable new FH007 system could be the ideal compromise. Described by Ferguson Hill boss Tim Hill as a scaled down version of the *HFC* Editor's Choice-winning FH0001, the FH007 mini speaker system is available at a fraction of the price. It comprises two 43cm horns, two bass speakers and an integrated Class A/B amplifier. The package is capable of just 16 watts, and is said to offer a frequency response of 75Hz to 20kHz and compatibility with all kinds of hi-fi music sources. **Price** £595 **Due** now

☎ 020 7284 0969 ⊕ www.fergusonhill.co.uk



# Soundbites

ONKYO has begun to UK-tune some of its latest electronics. The first products to be tweaked include the new £230 CS-515 DAB mini system and the £500 TX-SR674E 7.1 receiver. The entry-level receiver packs in HDMI switching, auto set-up and Audyssey's new 2EQ correction system. ☎ 01494 681515



PLINIUS has a new phono stage called the Koru. At £1,750, it replaces the Jarrah model that has enjoyed a ten-year production run. Inside the curved casework, the power supply has been fully separated from the amplification electronics and employs a virtual battery approach to help ensure accurate power delivery. 20 01803 226104

TCI's latest high-end mains cable, the King Constrictor, starts at £250 for a one-metre length and features a rhodium-plated plug and an IEC socket with 16 PTFE insulated silver-plated copper conductors. It offers voltage spike and transient protection and is said to have excellent RF rejection thanks to its braided construction. **2** 07710 196 949



CUSTOM DESIGN is celebrating its 20th year as hi-fi furniture specialist with the launch of the company's new Expression range. Features include adjustable shelving, toughened safety glass and a visual combination of hardwood mixed with contemporary design. The range starts at £300. ♀ 0191 262 4646

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# ⊘ The Insider

#### THIS MONTH, HFC TALKS TO ...

NEIL WILSON Job Title: Managing Director Company: NAD Electronics



# What is your most exciting product in development?

An amazing Masters Series digital amplifier with very new cutting-edge digital technology. But don't phone for delivery details just yet.

What is the future of hi-fi in the home? Certainly the stack of equipment in the corner will be replaced by better looking gear and more total home system integration – custom installation is seeing more and more products getting hidden in racks inside cupboards.

# Are hard-disk audio servers the source of the future?

I said in a recent *Hi Fi Choice* industry forum that many brands will be forced into this part of the business. As to them being the exclusive source of the future, I'm not so sure.

What type of products will consumers be buying from you in five years time? I think we will still be selling AV receivers, Blu-ray DVD players and some CD players (but less than now) and good, old-fashioned amplifiers. We will also have new categories and a number of cosmetically appealing products.

Are we experiencing a resurgence of two-channel stereo? Yes. People want a dedicated two-channel system for serious listening.

# **Apple assualt**

Microsoft is planning to take on the Apple iPod with a new music and 'entertainment' player dubbed Zune. The first hard-disk player will incorporate wi-fi and should be available this year, but whether it will get to these shores in time for Christmas is uncertain. On a Microsoft blog, Cesar Menendez (who is working on the project) said: "Under the Zune brand, we're looking to build a community for connecting with folks, all to discover new music and entertainment." The company's Zune website is a teaser containing a cartoon with music by Regina Spektor; so far no further details or product images have been released.

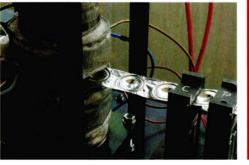




On the other side of the coin, Universal is taking on iTunes by pricing its CD albums to compete with Apple's online music store. Prices will start at £7 for 'Slide Pac' paperback versions of 55 back catalogue titles, less than the £7.99 that iTunes charges for the same thing. What's more, you avoid DRM anti-copy technologies and get better quality sound.

# **French trickler**

Focal, France's largest loudspeaker manufacturer, has been trickling down the technology used to develop beryllium tweeter domes to create a new way of producing an aluminium and magnesium alloy dome. The jealously guarded secrets of Focal's impressive ability to make high frequency drive units out of super-thin layers of beryllium has been used to develop an alloy dome tweeter for the upcoming Chorus V series. Focal has designed a machine that can stamp out an entire tweeter dome and surround using high temperatures and pressures. The end result is a strip of Focal's distinctive inverted domes, made of 75 per cent aluminium and 25 per cent magnesium.



# **In-wall activity**

Meridian, long-time advocate of active loudspeakers, has brought this approach to the in- and on- wall marketplace with a range of three models. One of the biggest problems with in-walls is that the tweeter cannot be oriented for best stereo results at the listening position. Meridian has got around this with a wide dispersion ribbon tweeter, horn loaded to aid efficiency and give it the power to penetrate wall coverings or grilles. The company achieves active operation by installing the amplification in a separate outboard case that can be rack mounted with the system electronics. The G41 Powered

Crossover provides 8x100 watts and is configured for different models in the speaker range with slot in cards. Those with solid walls can use Meridian's 'W' on-wall range.



# 🛇 Hi-Fi Diary

#### SEPTEMBER 1-6 IFA 200

IFA 2006 Messe Berlin, Germany Europe's biggest consumer electronics showcase hits Berlin

- 22-24 The London Sound & Vision Show 2006 Park Inn Hotel, Heathrow, London 01829 740650 www.chestergroup.org The new, independent London show
- 22-24 Hi-Fi News Show 2006 Renaissance Hotel, Heathrow, London 020 8726 8000 London's longest-running hi-fi show

# **Wireless fidelity**

High-fidelity multiroom without the hassle is what Digital Plumbers/SMC is promising with its Free loudspeaker. This custom install specialist has got together with speaker firm PMC to build a high-quality wireless loudspeaker system with built in digital amplification. Free is a transmission-line loaded design based on the PMC GB1 and supplied with an Apple Airport Express or Sonos wireless system. It's said to have a range of 20m and forms a 'mesh network', so that signals are sent from pair to pair. Each pair also has a line input for a local source, which can be shared. While most of these elements are available separately, Digital Plumbers/SMC is the first to combine them with and within high-quality loudspeakers. The Sonos based system includes ZP80 units in each speaker, a handheld controller, NAS drive and local input leads. It will cost £3,350.



# **Online flower power**

In a reaction to the BPI's continuing threats to sue music fans that download music without paying for it, fledgling record label Flowerburger Records is gathering a petition, which aims to encourage the record industry to find a more creative means of earning money from online music sharing. The petition states: "Flowerburger Records fully supports the proper payment of musicians and the creators of music, but believes there are better ways of achieving this than suing fans." The company is also encouraging those that agree to sign its petition on its website: www.flowerburgerrecords.com.

If the deals being struck by Mashboxx are anything to go by, it looks like the US music industry at least is thinking along the same lines as

Flowerburger Records. EMI Music and Sony BMG have both signed up to make catalogue available to the forthcoming Mashboxx P2P service. This Windows Media software lets music fans download and audition tracks prior to purchase, giving listeners five chances to hear the entire track before it expires and is restricted to a 12-second sample.



# **JIMMY'S TWEAKS #45**

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



One simple way to improve the sound of your hi-fi is to make the listening environment as quiet as possible. If there are things in the room with fans running, such as computers, turn them off. You'll find that the sound is much clearer and easier to listen to if the ambient noise is low. Many enthusiasts find their systems

In the quiet of the wee small hours

sound best late at night. There are many reasons for this - one is that the mains quality is often cleaner as people switch off TV sets and computers and go to bed. But it's also the case that ambient noise reduces in the wee small hours, and this makes it easier to hear the subtle low-level detail that creates the impression of spatial depth. With lower levels of background noise, you don't have to play your hi-fi quite as loud to create a sense of the sound filling the room. This in turn produces a smoother, cleaner and more effortless sound.

- 1. "Your Koetsu looked dirty, so I wiped it on my sleeve"
- 2. "Do you have any batteries for an iPod?"
- 3. "Do you get woofers with it?"
- 4. "I reckon I can spend up to a tenner"
- 5. "I'd love a demo. Do you have any Golden Earring?"
- 6. "Don't ask me, I'm tone deaf"
- 7. "Do you do 8-track?"
- 8. "I think my gramophone needs a new thorn"
- 9. "I need glasses. You need to fix the flush on your turntable"
- 10. "Can I get a discount?"

# New Music

#### IN THE STUDIO

ARTISTS RECENTLY ABSENT FROM THE CUT AND THRUST OF SHOWBIZ HYPE DUE TO FINISHING THEIR LATEST ALBUMS



#### AIR Title: tbc Release date: early 2007 Jean-Benoit Dunckel of the French

electronic duo says of the work-in-progress follow-up to 2004's Talkie Walkie. "It's another direction, for sure. It's still Air but we like to change all the time. Our fans want to be surprised and they will be. Meanwhile, Dunckel has a self-titled solo debut album out on 18 Sept.

#### PORTISHEAD Title: tbc Release date: early 2007

Trip-hop originals Portishead are gearing up for their first release since 1998's Roseland NYC Live. The band's Geoff Barrow says: "The tracks are in a right mess but sounding like an album for the first time in years. It's nice to think us old gits have a few tunes in us without sounding like coffee table Zero 7/Moby chill-out shit."

#### NICKY WIRE Title: I Killed The Zeitgeist Release date: autumn

After the July release of the first solo album from Manic Street Preachers singer James Dean Bradfield, the band's Nicky Wire has now announced his debut solo release. However, Manics fans need not fear the disintegration of the band. Away from their solo projects, they are all continuing work on the follow-up to 2004's Lifeblood.

#### **IRON MAIDEN** Title: A Matter Of Life And Death **Release date: September 11**

After two months in the studio with British heavy metal's finest, producer Kevin 'Caveman' Shirley says: "Producing Iron Maiden is like driving one of those mammoth automatons from Star Wars or Saturday morning cartoons. And there's nothing that can stop it!" The entire album was reportedly recorded live with no click tracks or computer manipulation.



#### **DEVENDRA BANHART** Title: Smo

**Release date: late 2006/ early 2007** The king of American psych-folk is recording his new album in California and Rio De Janeiro with producer Noah Georgeson. "It's half mellow-breezy, one quarter melancholic drone-bummer and one quarter equatorial pop. It's been a rough year and the album is about simple hopes," he says. The album will be accompanied by a film of the same name, chronicling its writing and recording.

# ALSO COMING SOON

Thelonius Monk & John Coltrane Complete Riverside Recordings (Sep); Erich Kunzel/ Cincinnati Pops Gershwin: Rhapsody In Blue/An American In Paris (Oct); Jahja Ling/ Scottish Chamber Orchestra Trumpet Concertos of Haydn, Hummel, Tartini (Oct); Concerto Köln Mozart (Oct)

#### SACD/ DVD-AUDIO

Ann Hampton Callaway Blues In The Night (SACD, Aug); Grdina, Peacock and Motian Think Like Waves (SACD, Aug); Rome Orchestra Verdi: La Traviata (SACD, Sep); RCA Italiana Puccini: Madama Butterfly (SACD, Sep); The Doors Perception - Box Set (DVD-A, Nov)



# audiofile :





# **Romanes eunt domus?**

We could still learn a lot from Latin 'hi-fi'

recently spent 36 hours or so in the company of Focal, in and around its St Etienne HQ in France. This whirlwind tour took in some marvellous fodder, two factory tours and a visit to the nearby Jazz a Vienne festival for the funk night. This festival is staged in a Roman amphitheatre on a hillside in Vienne and lasts for about a month, with concerts most evenings. Last year, I saw Oscar Peterson there and was astounded by the quality of sound, which was about the best I have heard at a concert anywhere. The amphitheatre has a remarkable ability to deliver the same volume level to up to four thousand people sitting on tiered stone seating that rises high above the stage, so whether you are 20 metres from the stage or 200 metres, the level doesn't seem to vary. It works a bit

# "It works a bit like a horn, providing natural amplification through a carefully expanding volume. Clever buggers, those Romans."

like a horn, providing natural amplification through a carefully shaped expanding volume. Clever buggers, those Romans.

This is not the only reason for the great sound, of course; the on-stage PA has to be good, otherwise you just have naturally amplified distortion. Focal's designer and former hi-fi journo Dominic Baker was, of course, happy to point out that the midrange drive units in the PA are made by his company. In fact, he showed us some while we toured the factory. They have paper cones with very rigid surrounds of the folded cloth variety. A classic old-school style of cone that is still very hard to beat it would seem, albeit not sexy enough for Focal's domestic speakers, where hi-tech solutions are much more saleable.

At this year's concert, we heard three ostensibly jazz funk bands play largely electric music through much the same PA system. The sound was not as sweet or relaxed as it had been with Peterson, but neither was it overly loud or distorted. In fact, it was not all that different to the balance that Focal achieves with its Utopia Be loudspeaker range. A little bit 'up front', but very resolute and tight in the timing department. I asked Dominic (who voices Focal speakers) and he said that it was a group decision by the engineers in charge, people who had undoubtedly been to Vienne to hear live music. It's unlikely that they consciously tried to emulate the balance at that venue, but this point of reference could well have informed their decisions.

Loudspeaker voicing is a very fine art. You can make a speaker that measures virtually flat in an anechoic chamber, but this is said to result in a pretty awful sounding result in the real world. This is because room boundaries cause bass variations that can be significant, and wall, floor and ceiling surfaces can increase high frequency energy by reflection. So the speaker designer needs to make careful choices when selecting crossover components to achieve a neutral response that stays approximately that way from room to room. For example, ATC says it eschews any form of trickery that might make its speakers a little more accommodating of lesser recordings or associated hardware. As a result, its speakers can seem over analytical until genuinely great recordings come along, as we discovered with the new SCM19 reviewed in this issue. You'd never mistake an ATC for a Focal, even though both tell you an awful lot about the signal. But it would be fascinating to hear a Grand Utopia Be voiced by ATC!

Jason Kennedy began working on Hi-Fi Choice over 15 years ago, eventually rising to the position of editor. He's currently indulging his passion as a freelance hi-fi writer



### Naim, IP and the future

Naim Audio learns Internet Protocol

have always been lukewarm about custom install because it initially struck me as being more about convenience, than ultimate quality. But this year's CEDIA UK Expo, the trade show for the CI fraternity, lifted my spirits somewhat and gave the music-lover in me some cause for celebration.

Among the list of exhibitors was an unexpected inclusion: high-end, high fidelity specialist, Naim Audio.

Naim had decided that it was about time that those who wanted multiroom sound should be able to enjoy a much higher level of fidelity than that which has traditionally been available. In order to achieve this, it has applied its decades of audio expertise to a range of products – including hard-disk based music servers – that communicate using Internet Protocol, the IP of TCP/IP, which is the mechanism used to deliver web pages, email and all other data that your PC (or Mac or Unix/Linux box) might wish to transport from the internet or your local network.

IP (which itself is 40 years old) forms the basis of StreamNet, the enabling technology being used by Naim in NaimNet (and Polk in its IP loudspeakers), which was developed by the Texan company, NetStreams. Herman Cárdenas, the President and CEO of the operation, explained how StreamNet can transport vast amounts of data around an Ethernet network without running into the

# HI-FI REVISITED

2ETR

Before the marketing men started laying down the law about product styling and insisting on the boring oblong boxes we're stuck with today from almost all major manufacturers, we used to have some quite extraordinary hi-fi, much of it highly individualistic and undeniably stylish – even beautiful. One of the best examples of this is the Lecson brand of the early 1970s. Admittedly,

Lecson brand of the early 1970s. Admittedly, Lescon didn't last long; like many manufacturers of the time, it suffered from reliability issues – and the stunning looks appear not to have been entirely unrelated to the problems.

The two landmark Lecson products were the AC1 preamp and the AP3 power amp. The latter was a nominally 100-watt design, but there was a smaller, but otherwise almost identical model – the AP1 – that delivered 35 watts a side. Even in 2006, more than 30 years since they were introduced, they've hardly dated visually at all, and they remain to this day almost as startlingly science fiction like as they were when they first saw light of day. The design was an early project from Alan Boothroyd's Cambridge Design Consultants. It was a direct precursor to Meridian, which Boothroyd later founded jointly with Bob Stuart.

The AC1 preamplifier was equipped with two phono (MM) and three line-level inputs, which between them offered a tape output and off tape monitoring. The Lecson was introduced before compact disc, so the line inputs were labelled tuner and auxiliary, and socketry was DIN based, which reduced space consumption on the cramped back panel. Facilities included tone and filter controls (three HF, one LF), stereo/mono and a separate headphone volume control that when used revealed the headphone socket.

The packaging was a novel combination of black anodised aluminium and glass, with coloured indicators for the slide controls that covered much of the top surface. The preamp was designed to be used either free standing or bolted to a wall, while the AP family of power amplifiers inhabited free standing cylindrical aluminium enclosures, fluted externally with the cylinder acting as heatsink.



### "By all accounts, the owner discovered a pile of little glass 'fingers' on the floor just below the unit."

The best story I heard about the AC1 concerned its glass covered controls, which were visually striking, but which had at least one unexpected problem when one unsuspecting owner decided to follow the recommendations by wall mounting it in the approved manner. All went well until the following morning, at which point the owner discovered a pile of little glass 'fingers' on the floor just below the unit.

Various accessories were available for the Lecson combination, but even at the time they were very rare. A wired remote control allowed access to input switching and volume control; a matching radio tuner, the TF1, was made only in very tiny numbers; and there was even a matrix four-channel 'surround' decoder.

Lecson products had a considerable reputation as giant killers, and the amps were commonly teamed with ambitious ancillaries. The Transcriptors Reference turntable, which was no less striking visually, was a common partner, and speakers used ranged from the JR149 (which had a cylindrical form factor very like the AP1/3) to the Spendor BC3 or Cambridge Audio R50. As John Atkinson, Editor of US hi-fi journal *Stereophile* has put it, The Lecson equipment was one the few examples of the maxim: "If it looks good, it will sound good." **HFC** 

Alvin Gold



Synchronisation problems that typically bedevil audio and video distribution systems. This is worse in 'Party' mode, because delays cause the same stream to arrive with a disturbing time difference in different rooms.

Being based on a system that was designed to transport computer data, StreamNet naturally lends itself to other applications within the home. As well as distributing audio and video, it will, of course, handle the control signals for heating, lighting, screen-lowering, curtain-closing and myriad other functions deemed necessary in the 'intelligent' home, using the same interface that one uses to choose the music.

This all seems a very desirable and well thought-out scenario for anyone who wants a 'smart home' with high-quality audio. I have to say, though, to a committed and fully paid-up anachronist such as me, it all sounds a wee bit OTT. I may not be becoming any sprightlier as the years advance, but I can still muster the energy to get out of my chair to flip a light switch or draw the curtains. However, the thought of being able to play music stored anywhere on my home or office computer network though my Naim system in the living room is very appealing and might well prove the tipping point that entices me into the 21st Century. And that's before I think about the potential of ripping my de-clicked LPs to the server's hard disks. The future's starting to look bright... and for once it has nothing to do with phone companies or global warming.

Malcolm Steward was one of the country's best-known and most outspoken hi-fi reviewers of the 1980s and 1990s. He currently publishes the hi-fi industry trade bible, the British Audio Journal



Ear peace All you need is goo to protect your ears

usic is a wonderful thing, and any hi-fi that can closely approximate it is a pleasure to clap your lobes on. But there are times to enjoy its corollary.

After a long day pounding the keyboard and staring square-eyed at a PC monitor, rounded off by a sardine-can close encounter with a tube-load of other commuters, music can be a salve for sore ears. There's something satisfyingly cathartic about the vinyl ritual of groove, needle and then feet up, but I find that sometimes what I really crave is a dose of genuine peace and quiet.

If you're fed up of being assaulted by next door's home cinema system, or plagued by testosterone-fuelled teenagers scorching up and down your road at 3am on 120dB scooters, then refuge is a pair of earplugs. It's not just to achieve a Zen-like state of calm that people rely on earplugs, but because having your eardrums battered by a headbanger of a hi-fi is a sure-fire way to cause permanent damage to your treasured hearing.

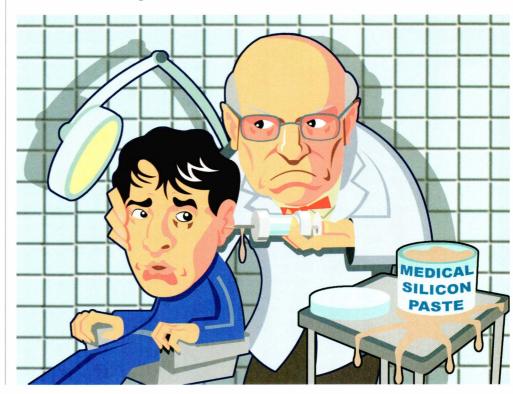
In my case, I decided to indulge in a set of custom earplugs cast from moulds of my ears. Having medical silicon paste injected into your ear is a bit like having your ear canal grouted, without being told you need a new boiler as well. What emerged once the silicon had set was a pair of impressions, which looked unsettlingly like one of those mutant carrots so beloved of Esther Rantzen and the *That's Life* squad, or one of the shapes you'd expect to find in a packet of Nik-Naks.

More and more musicians are wearing plugs in order to avoid doing passable impressions of very deaf posts in their middle years, thanks to years of over-exposure to high SPLs. I decided to go for the medium, strong and thermonuclear options with a set of ear plugs from Advanced Communication Solutions (www.hearingprotection.co.uk). The outer shells of their earplugs can be fitted with interchangeable filters and even headphone drivers for music on the move. Arriving in the post a few weeks after I had the moulds made were the ER15s (15dB reduction in SPL) and the ER25s (no prizes for guessing the degree of attenuation). Constituting the thermonuclear approach would be a wodge of Blu Tack or similar pressed into the plugs' empty filter cavities for maximum effect.

Ah, being wedged into a sweaty carriage on the District Line will never be the same again. If you still want to be able to eavesdrop on one of those perennially riveting mobile conversations ("Just calling up to let you know I'll be home in three minutes"), 15dB is fine. For a sense of splendid isolation without the risk of being run over by a bus, 25dB is good. Finally, if you fancy a short haircut courtesy of a 747's jetstream and don't mind spending your journeys saying "Eh?" a lot, Blu Tack looks like it's the way to go.

Jon Marks has been happily addicted to hi-fi for 20 years, especially since becoming a member of the hi-fi press in the mid-1990s

# "Having silicon paste injected into your ear is a bit like having your ear canal grouted, without being told you need a new boiler."





### No-fi choice

Try listening to the real thing sometimes

recent concert made me wonder, just how often do those interested in hi-fi actually listen to live musical performances? To make, evaluate or properly appreciate a piece of hi-fi equipment, you have to know exactly what you're meant to be reproducing. Don't you?

The concert in question took place during the Munich-based High End hi-fi show and the difference between the two events was startling. Such a statement isn't meant to belittle what is a very fine event indeed. Nor is this a dig at hi-fi engineers at large, as the majority I know through my line of work either are or have been employed as musicians and sound engineers at some point in their careers. They know what a note should sound like, far better than I do that's for sure.

Yet in Germany, the gap between the live event and its reproduction was huge.

The concert I describe saw Sir André Previn conduct the Münchner Philharmoniker playing Schuman's *Symphony No. 3.* It was a visceral experience. Rasping brass and jarring string sections fought with huge resonating double basses in an often chaotic way. It was frequently plain dirty. Throw in huge scale and massive dynamics, and the result was an aural experience to test the senses and send you away on a wonderful high.

The contrast between the concert and the show could not have been more different and, frankly, depressing. Every demonstration room at IFA felt utterly antiseptic in comparison.

Take the choice of music. Manufacturers seemed utterly obsessed with reproducing the perfect note, in all its squeaky-clean glory. It was amazing that in room after room you could hear the same type of acoustic material. The concert seemed but a distant memory. In fact, had the concert been perfectly reproduced, I could imagine visitors leaving the demonstration room in disgust at what they would have perceived as the 'horrible' sound.

But it wasn't only the choice of music that created this insipid atmosphere.

More worryingly, the products themselves made the problem worse, seemingly forcing the midrange forward at the expense of all else. Sure, voices and guitars sounded

# CLASSIC ALBUMS

BJÖRK DEBUT

By 1992, Iceland's biggest-ever group, the Sugarcubes, had disbanded after four years. But the uniqueness of the singer's voice singled the band out from standard chart fodder and in fact, virtually anything else.

But that diminutive vocalist, one Björk Gudmundsdottir, had absolutely no intention of calling it a day. She enlisted the help, not of an indie producer as might have been expected, but that of electro dance producer Nellee Hooper, along with Graham Massey from Manchester electro bleepers 808 State and Asian underground tabla maestro Talvin Singh to help her develop a sound for her first solo album. Establishing a pattern that she has more or less stuck to ever since, she approached people she admired and respected for their musical abilities rather than for any promises of chart success or hip cache.

The result was like the transformation of an interesting-looking caterpillar into a new breed of butterfly, with a wealth of new promise. The widescreen pop and loping rhythms of album opener *Human Behaviour* gave full reign to that extraordinary voice, and set out her future public persona of endearingly bewildered space alien from the planet Reykjavik.

Her change in direction from the indie scratchings of her former band is often described as 'dance-influenced', but while there are dancefloor-friendly grooves aplenty, including *Big Time Sensuality, Violently Happy* and the slow-burn *One Day*, she also turns a mirror on the genre with *There's More To Life Than This.* Recorded 'live' in London's Milk Bar toilets, the track comes complete with background club noise and slamming cubicle doors, and manages to capture both the intensity and banality of the dancefloor.

But there are many more flavours to Björk's brew and it's the more romantic, quietly expressive songs that really stand out. The hit single Venus As A Boy is a gorgeous, shimmering love letter that fairly sparkles with lust and wide-eyed fascination, while the album's sole cover, jazz standard *Like Someone In Love*, becomes her own with a little help from harpist Corky Hale and that enormously



### "It set out her public persona of endearingly bewildered space alien from the planet Reykjavik."

expressive voice, which can bend and stretch a melody almost infinitely.

There are also the dissonant horn passages which crop up on *Aeroplane* and especially the closing *Anchor Song*, a heart-stopping affirmation of self and belonging, which could refer to her homeland, to a relationship, to a place in her head, anywhere she feels safe.

Debut has been issued in various forms over the last 13 years, including 180g vinyl, MiniDisc and cassette, and later versions of the CD added *Play Dead*, her collaboration with current Bond composer David Arnold from the soundtrack to the movie *The Young Americans*. The album has most recently been re-released as part of a massive box set incorporating all of Björk's albums in their original stereo mixes and also in remastered DVD-Audio, bringing her past output up to date with her most recent albums, which have already appeared in the surround format.

Since *Debut*, Björk has released six solo albums (not counting remixes, live, greatest hits and other contributions), each one demonstrably different from its predecessor, taking her first into the charts, and then beyond, on a quest that has led her in a variety of startling directions. But, while *Debut* may not have been her first album, it was certainly a new beginning. **HFC** 

Dave Oliver



absolutely stunning, and timed impeccably well. But the majority of live music simply bears no relation to that kind of sterile sound. Live music is often confused, grating and, in strict hi-fi terms, unpleasant. Hell, that's frequently the point!

In the end it was all too much like *The Stepford Wives* for me. Although the way the hi-fi replayed music bore some semblance to reality, it was all too perfect, too spotless, to be entirely convincing.

And, like the good women of Stepford, although hi-fi on these terms is strangely blissful, it is also ultimately doomed. This is because it's missing the spark that is at the heart of all music. So, get thee to a concert and hear how far your hi-fi comes to the real thing. Or, in a very few cases, how close.

Henry Griffiths is a former hi-fi journalist who has since worked for the likes of Cambridge Audio, Mordaunt-Short and now, Marantz. His passion for hi-fi is, er, scary...



### **Toon army**

Duo descend into the savage heart of hi-fi

ometimes a different perspective is useful. Many years ago, just after I went freelance, I used to drink in the same pub as Ralph Steadman, the cartoonist, satirist and close friend of the late Hunter S Thompson. I could always be certain that, whatever the subject, Ralph's take on it would be skewed, funny and often quite dark. Well, just take a look at his illustrations for *Fear and Loathing in Las Vegas*.

It struck me that it might be fun to get the great man to try his hand at a spot of hi-fi reviewing. Hell, crime novelist Ian Rankin used to be a hi-fi reviewer, why not Ralph? He liked the idea, so I arranged for a handful of systems at ascending price points to be set up at The Listening Room in Knightsbridge.

The first system comprised a Copland CD player and amp and Sonus Faber speakers. Steadman: "Nipple clean facades. The Coplands look stripped bare of unnecessary bits and bobs. Professional functionalism. The sound is as clear as a mountain stream yet gets muggy at high volume. William Burroughs *Thanksgiving Prayer* (from the CD *Dead City Radio*, produced by Hal Willner) is a must on



# "I could always be certain that, whatever the subject, Ralph's take on it would be skewed, funny and often quite dark."

this system, bumping the sound around the room and seating William right there with you. On *Whatever Happened to the Blues* (Phil Upchurch), the depth of bass is amazing. It holds aggressive riffs and leaps with percussion. James Van Buren's vocals are earthy and right down your throat. Reminds me of the time I tried to sing with flu."

Next up we listened to a Bang & Olufsen BeoSound 9000 six-disc CD control unit with BeoLab 8000 speakers. Steadman: "Three standing stones from the planet Electronica. Function sacrificed to design. Traffic lights, lift shafts and lollipops come to mind. Hal Willner's *Weird Nightmare* got stuck in a pipe somewhere, seemed at home for a moment, then the elevator that manipulated the discs slipped to the basement and left the music's vital organs on the top floor. There appears no aura of sound one might expect from such self-consciously designed icons. I can see them standing proudly in a penthouse suite in Canary Wharf – all glass and aluminium with no knobs on."

Finally, The Listening Rooms laid on an all-Quad combo consisting of a 77 CD player and preamp, Quad II Anniversary valve monoblocks and a pair of ELS63 electrostatic panels. Steadman: "I've never seen cutting edge wireless technology look more appetising than the Quad IIs. Purely for their beautiful intrinsic selves they are sculptures with enough class to be worthy of the name Bugatti. You would buy them for real sitting down music, not merely background. You would buy them for a lifetime of use and love. The acid test for the Quad system came with an excerpt from *Plague and the Moonflower*, because I wrote the libretto in a collaboration with composer Richard Harvey, who wrote the music. And? It is the next best thing to hearing it live. This system gives all sound engineers the credit they deserve." Not bad, huh? Ralph, if you ever feel like giving the drawing a rest...

David Vivian has been wallowing in gorgeous hi-fi and then describing its virtues and vices in Hi-Fi Choice since 1990



## **Mothers of invention**

DIY tweaking for fun and (no) profit

was bored, so I made up a tweak. I looked around the house and found the leftover bits of carpet mat I'd bought for the runner in the hall, to keep the elderly from falling: nubby, rubbery stuff that looks like it was woven by plastic Hawaiians. I laid it out on the table, put the felt mat from my LP12 on top of it, traced the outline feebly with a pen, and cut it out with my daughter's scissors. Then I folded it in two and cut a hole more or less in the middle.

I tried it with my friend, Phil: "First we'll listen to a song in the normal way, and then we'll see how it sounds with this special mat."

"What's it made out of?"

"The company isn't saying. The stuff has been kept under wraps for a long time."

We played a song on the regular mat – Tony Rice's version of *Old Train*, from the *Manzanita* album – then I installed the new one while the platter was still spinning.

"It looks off-centre," said Phil.

"Of course it's off-centre. A precise amount of eccentricity is engineered in, to act as an energy sink for unwanted vibrations." I was just hitting my stride. "Hear the difference in the bass?" I asked.

My friend exclaimed, in wide-eye tones, "I can't believe the difference in the bass!"

Neither could I, so I smiled knowingly and pressed further, "Ever hear a record mat add half an octave of bass before?"

"Good lord!"

"Wait 'til you hear what it does for imaging," I said, and then I replaced the Tony Rice LP with an audiophile chestnut so utterly devoid of artistic merit that I'm ashamed to mention its name. I sat back again, let the music sink in for a minute, and observed with calm erudition: "It's almost unbelievable, isn't it?"

"Like she's in the room. Like she's right there in the room."

Our session over, Phil asked: "How much?"

"Not sure. It won't be cheap, though." I made the finger-and-thumb movement. "Takes half a day to make just one." Assuming, of course, it takes four hours to find your pen and scissors.

My wife came home from work and I tried it on her: "First we'll listen to a song in the normal way, and then we'll see how it sounds with this special mat." We listened to *Old Train* and then I swapped out the mats.

"It's off-centre."

"Just listen."

"Okay." A minute went by. Two. "What should I be listening for?"

"Increased image dimensionality and an extra half-octave of bass."

"Half an octave? Three or four notes that weren't there before?"

"Well, maybe not quite half an octave. More like an eighth. Still..." I trailed off, ever hopeful.

"Sorry." She gave me the exasperated smile she reserves for all such nonsense, and went outside to water her tomato plants. And I thanked God – not for the first time – that I don't have to sell high-end audio for a living. Art Dudley has written for Hi-Fi Heretic, Sounds Like and Listener. He lives in the US and works as Stereophile's editor-at-large

# TECHNOLOGY EXPLORED

A DYNAMIC BUSINESS

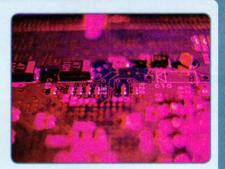
Dynamics are like wealth and health: you can never have too much. The variation between loud and soft in music is of

paramount importance in audio reproduction, as it makes the whole recording appear live. But dynamics are not always what they seem. In live music, it's a bit easier to be sure what's going on, but even here experienced performers know how to trick the ear into hearing bigger dynamics than are actually used in reality.

Recorded dynamics are not always honest, and in fact engineers have for many decades used more or less sophisticated tricks for maximising apparent dynamics in the face of technical restrictions on dynamic range. By that, we mean the ratio (in decibels or dB) between the highest level that can be recorded before gross distortion and the lowest level before the signal is lost in noise: CD has a dynamic range of 90-odd dB, LP around 70dB-80dB depending on exactly how you measure it, cassette 65dB or so. It's an axiom among recording engineers that cassette, FM radio and LP, and some would say even CD, require some degree of dynamics compression to capture a real musical event.

That's actually untrue, however. In the 1970s and 1980s, plenty of classical concerts were recorded on cassette with no dynamics manipulation at all. And, while the peaks are below 'crunch point', the quietest bits are still audible. Plus, the dynamics sound perfectly reasonable on a home hi-fi when the tape is played back at a realistic overall level, though admittedly the hiss is a bit noticeable.

Part of the trouble is that recordings are, and have always been, aimed not just at audiophiles but at those folks who like a bit of vaguely musical sound in the background. If you play music at such a low level that the loudest bits don't interfere with conversation, the quietest bits will indeed disappear from view. The extreme example is music played in a car, where the available dynamic range really is very small. To cater for this, and also to make their station 'the loudest on the dial', most broadcasters hammer dynamics practically flat,



### "Perhaps surprisingly, Radio 3's peaks are exactly as loud as anything on Radio 1 or XFM."

boosting even momentary quiet bits to full level. BBC Radio 3, the only national station broadcasting anything like real dynamics, always sounds quiet simply because the average level is indeed low. Perhaps surprisingly, Radio 3's peaks are exactly as loud as anything on Radio 1 or XFM, though!

What in fact is the dynamic range of a real instrument? It depends a lot on how you define it. Take piano: the variation between the loudest chord a good player can produce and the quietest note that can reliably be played is actually not much more than 40dB.

The decay of either, though, will sink into noise if held long enough. In reality, there is no useful concept here. The loudest level may vary between a clavichord and the Grateful Dead meets the Who in Motorhead's playroom, but the quietest bit is defined by what we hear as silence. Recordings should aim to capture it all. Sadly, few reach this goal and many pop recordings don't even try.

There's another aspect of dynamics that affects audiophiles. A little momentary distortion on transients can make them sound a little louder than they really are, boosting dynamics. Small speakers, and some valve amps, 'benefit' from this on occasion. Real world dynamics are often quite civilised. But, audition dynamics with care! **HFC** 

**Richard Black** 

# 

# The world according to... NetStreams

In the first of a new series of interviews, Hi-Fi Choice talks to **Herman Cárdenas**, CEO of Naim Audio's new technology partner NetStreams. Interview: Malcolm Steward

aim Audio isn't a company that indulges in jumping on bandwagons, making rash decisions or churning out what it regards as 'me too' products. Simply looking at its history will attest to that: it took the best part of a decade after the release of Compact Disc for the British high-end specialist to introduce its first ground-breaking CD player, the CDS. The company has taken the same approach to custom install products – biding its time, watching the market and researching ways through which it could bring something genuinely worthwhile to the party.

In June this year, Naim Audio announced its intention to deliver a true audiophile quality distributed audio system, called NaimNet, to the market. Apart from giving users an unprecedented level of sound quality around the home, the system promises integration with other home automation technology. It also offers previously unattainable facilities to those already invested in Naim equipment.

The fascinating technology that enables Naim Audio to accomplish this comes from an American company called NetStreams. We met its extraordinarily businesslike, but equally affable, President and CEO, Herman Cárdenas – during a visit to Naim's headquarters shortly after the CEDIA UK Expo 2006 – to talk about NetStreams, its technology and the philosophy that will help propel Naim into the world of the 'connected' home.

HFC: Two years ago you said that distributed audio was in its infancy. Do you still believe that, or has NetStreams and its technologies already succeeded in making it more mature? Herman Cárdenas: From the technology perspective, distributed audio has advanced significantly. When I made that statement, I was talking more about its progress in the marketplace: multiroom audio, although it had been around for quite some time, still hadn't travelled very far. It was a very small part of what manufacturers were doing. In those two



# "NetStreams and Naim Audio share the same philosophy: both simply want to be the best at distributing audio and video."

years, that has changed. Multiroom audio has grown significantly and multiroom video will follow the same growth pattern. **HFC:** What exactly does NetStreams provide;

## hardware, software or both?

**HC:** We don't sell software, although probably more than two-thirds of our engineers are software engineers writing the code that makes our products function. And, as Naim can attest, anything that is as easy to install and operate as our hardware is nearly always extremely complex on the inside.

HFC: Do you manufacture products under your own company's name, as well as producing OEM equipment for other companies to include in their products? HC: Yes, but let me give you a little of NetStreams' history to put everything into context. The company started around four years ago as a spin-off from a group owned by General Electric, Microsoft and me. That company, GE-Smart, was focused on three areas: the first was technology that turned the power lines in your home into a computer network. That went well and GE purchased the business, minus the audio/video group, which I relocated to Austin, Texas. The third category, which we entered in 2001, was IP (Internet Protocol) audio and video.

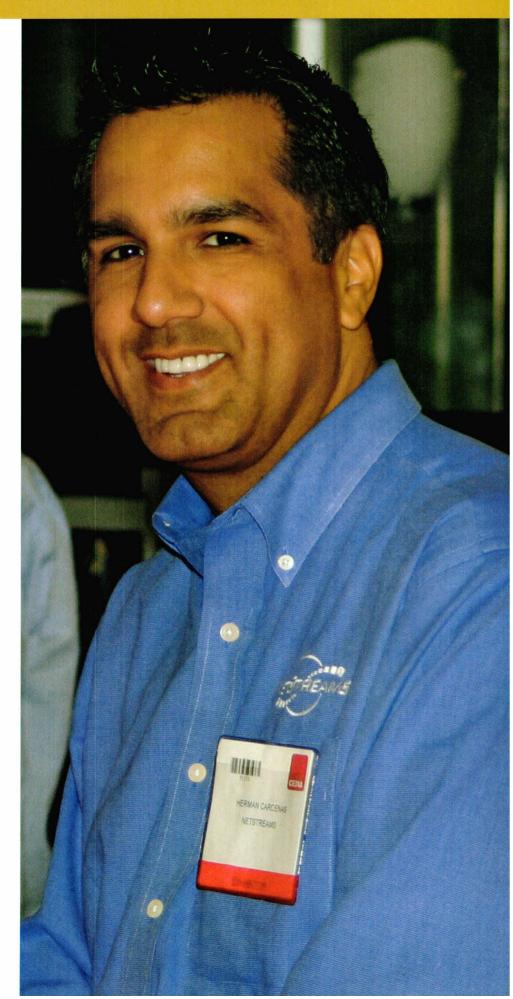
Microsoft had already told us about a project where it attempted to do IP audio streaming to speakers that were connected to motherboards, and it didn't work too well. The problems were bandwidth-related: as soon as you started to send streams to more than two or three rooms in the house, the computer networks slowed right down. But the biggest problem came when you were using Party Mode: when you wanted to play the same stream everywhere around the house, the audio arrived in different rooms at different times – up to several seconds apart, which was horrible.

It was Dolby, in fact, that told us that in order to develop technology that would be acceptable to audiophiles, as well as less discerning consumers, we would have to guarantee a maximum delay between rooms of 10mS. That's quite a mountain to climb when you're dealing with a network that already has delays of anything from hundreds of milliseconds up to whole seconds. We initially didn't want to develop this technology; we wanted to develop cool, compelling products for our customers, again focusing on audio and video distribution. This would allow companies such as Naim, Polk and others to do what they did best and develop wonderful amplifiers, sources and speakers, while we focused on taking their one-room experience into multiple rooms. But we could not find the technology. We then came across a solution in the UK that would allow you to take audio from point A to point B on a network using IP. However, that was all it did, and it didn't do a very good job of taking audio to multiple locations, because it wasn't perfectly in sync.

We managed to solve all those problems and, in 2002, I started NetStreams, realising that we were going to be two companies in one and that we were going to have to both develop the technology and then use it to develop products that people would want.

We began to develop an entry-level multiroom system, Musica, which outperformed its competition and sold at a very low price. All you had to do was to plug in speakers and sources and you were good to go. Where our competitors were doing 16-bit, we did 24: where our competitors were putting amplifiers at the head end, we put our amplifiers in the keypads in the rooms; where our competitors used analogue, we used digital; where our competitors were not using DSPs, we were; and where they were using DACs that they bought for pennies, we were using devices that cost us dollars - Burr-Brown, the best. NetStreams and Naim Audio, as you can see, pretty much share the same philosophy: both simply want to be the best at distributing audio and video.

Then we developed DigiLinX, our completely IP-based range of products. We were the first company to offer audio distribution systems that were completely IP controlled. We've been the first at many things: for example, several years ago we demonstrated IP speakers, then we introduced IP-based audio that you could





control from a keypad – or from a computer or a touch-panel. At that point, we realised that NetStreams was really a control company – our expertise was in AV distribution and control but we were fundamentally a control company – and that many manufacturers would want the technology that we had developed for ourselves, to create cool and compelling products.

That's where NetStreams is today. We finally completed the technology in 2004, and we continued to improve it in 2005 to add all these control functions, so that we can, for instance, auto-discover cameras and thermostats. We made some critical decisions that I think are paying off big dividends: we decided that we weren't going to be an everything-to-everybody type of company, but that we were going to be the best at infrastructure and that we were going to partner with other best-of-breed companies for success, such as Panasonic for IP cameras, Naim Audio for electronics and Polk Audio for speakers.

# **HFC:** Could you explain your company's interest in speakers a little more?

HC: Speakers are an exciting area because with our technology you can think about introducing functionality that you could previously only dream about. You can make the speakers intelligent enough to adjust their performance according to the changing acoustics of the room - even so far as to adjust themselves when you close the curtains or when more people come into the room. Over the last year, we began to develop this idea and now Polk Audio has released the first true IP speaker. The speaker can work in a stand-alone active fashion, but with the NetStreams StreamNet card, it takes on a different role and ceases to be 'just' an audio air-pusher and takes on the ability to manage the room. This means not just audio but video, lighting and HVAC (Heating, Ventilation and Cooling); the speaker can reach out onto the network and talk to the sources, pull up information and display it in any user interface in that or any other room in the home. Ultimately, we've set a new flag in the ground for speakers, which we view as growing more and more intelligent and, eventually, absorbing the role of many of the other intelligent boxes in the home.



NS REF audiophile music server







# "We view speakers as growing more intelligent and absorbing the role of many of the other intelligent boxes in the home."

Then, we recognised the value of partnering with Naim and it became the second manufacturer we chose to enable with the technology, so that its sources and electronic products could be native in a network.

We're now building an OEM group, which will ultimately adopt a Dolby/DTS-like role to serve manufacturers who incorporate StreamNet technology. Its role won't be to make audio or video better but to make it the best it can be when you distribute it.

StreamNet technology can be described as an operating system that overlays TCP/IP, takes control of the network and allows products to get the synchronisation accuracy on audio and video. That is required for the experience to be the same in multiple rooms as it is in one room. But it also handles all the network administration. It allows speakers to identify themselves as speakers and identify what they do. It allows a CD player to say 'Here I am and here are all my functions and what I can do' while the lighting system can say 'Here I am and I have this many switches, this many buttons and here's what I can do.' All these products can configure themselves to a certain

level and then the installer comes in and just adds the 'icing on the cake' in terms of user interface configuration.

# **HFC:** So are you effectively doing away with the concept of a central control point?

**HC:** Yes. It's always bad to put all your eggs into one basket, because that means one point of failure. Think about when you used to have a central station controlling a whole city's traffic lights. One lightning strike could take out every traffic light in the city. Nowadays, the lights are controlled on the basis of individual intersections, with control boxes installed at each junction. They are programmed to run without relying upon a central controller. That is much the same as the system we have engineered, which can currently handle up to 1.8 million zones.

The partnership between Naim and NetStreams promises a great deal. Purist Naim fans may raise and eyebrow or two, but the prospect of hi-tech, flexible, multizone entertainment with Naim-quality sound is truly exciting. The first StreamNet-enabled, NaimNet products will emerge at the end of the year and we can't wait to see what impact they're going to have. **HFC** 



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# **Crimson tide**

**Bill Bruford** was the prog drummer for behemoths Yes and King Crimson, then forsook giant egos for the life of a jazzer. Following the release of an eight-disc retrospective, he reflects on a life in prog

n 22nd July 1972, as Yes's masterpiece Close To The Edge reached No.4 in the US, Bill Bruford spectacularly announced he was quitting the group to join the distinctly lower profile King Crimson. "I'm the only guy that has ever become famous for leaving a band. I helped create Yes and I get no thanks for that!" Still, his polyrhythmic drumming dominates the title track until it reaches a glorious crescendo eight and a half minutes in, followed by a pervasive ambience that's still the main selling point of this classic album.

"We had a limitless budget and block-booked Advision Studios for weeks at a time. Everything was multi-tracked with

edits appearing every few seconds. A short passage was recorded, then we'd discuss it, do a trial edit onto the previous passage and then go and record an alternative. Pretty soon the wall was covered in edit options and almost at completion a major portion of Close To The Edge didn't work because we'd edited back the wrong section. This was a white-out and it turned out the cleaning lady had binned the relevant tape section, which was duly retrieved from a trash can in Gosfield Street.

"In Crimson, it was assumed you could play and it was a more improvised music, not in the Afro-American pentatonic sense but closer in a way to European classical music."

Despite that assertion, 1973's Larks' Tongues In Aspic begins with the subtle sound of an African kalimba (thumb piano). According to Bruford, 1974's Starless And Bible Black was

equalization. We had 24-track tape but outboard effects, automatic double-tracking, tape loops, reverb and phasing were all limited." Red was also torturously recorded in Olympic studios, yet it's Bruford's favourite Crimson album. "The prototypical heavy metal album - Starless is my favourite track, a beautiful ballad with sinister overtones."

In 1981, Bruford rejoined King Crimson for their best album, Discipline. "Robert (Fripp) had been hanging out in New York and getting into Balinese music and Chopi music from Mozambique. So we started talking about the gamelan (Balinese percussion) and maybe having two guitar players playing single notes and no chords (the interlocking guitars are a feature throughout the album). Then I was into re-pitching drums using new electronic drums, and there was talk of a new synthesized bass. So in came Tony Levin and Adrian Belew, who'd have a beer and then play like crazy.

# "According to Bruford, 1974's Starless And Bible Black was live, with the applause taken off."

actually live with the applause taken off.

"Well, King Crimson was more budget-conscious than Yes, which led to the rental of the appalling Command Studios in Piccadilly." Bruford contends that the almost block-like sound of these records is due to "sitting in a room, shouting '1,2,3,4...' and playing all at the same time. Stereo was played with and there was far too much

"Yet the world of digital was an unimaginable world away. The listener argues now in favour of the warm crankiness of analogue versus the cool sheen of digital, but for us musicians, once we'd got over the absence of tape hiss, the computer age has brought an unsurpassable ability to manipulate the material without having to fish bits of it out of trash cans. Looking back over the recent King Crimson box sets, I think they represent the best of both worlds - the warm analogue source material being available for digital re-mastering to bring it into the 21st Century."

> Mark Prendergast More info at www.billbruford.com

#### **ESSENTIAL KING CRIMSON**

#### Red (1974)

At the time considered an album that would cause

brain damage, Red is now seen as a masterpiece. Starless And Bible Black is probably King Crimson's high-water mark



#### Discipline (1981)

A bit of minimalism, a bit of gamelan. Discipline set the standard for the 1980s quitar sound. Contains the incredible Paul Bowles instrumental ode The Sheltering Sky.



The 21st Century Guide To King Crimson Vols 1 & 2 (2005) Ninety-six tracks fully rebuffed over eight 5500000 CDs of pure Crimson in fabulous packaging. Includes much rare and unreleased material.



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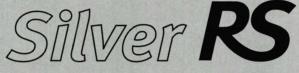
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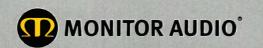


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Reviews by Alvin Gold, Jason Kennedy, Dave Oliver, Mark Prendergast, Phil Strongman and Nigel Williamsor

#### **AUDIOPHILE VINYL** SONNY CLARK Cool Struttin'

Blue Note/Classic Records



Music: Sonny Clark was a pianist of the relaxed school, but not an overly smooth one. On this outing, he has an effortless vitality that is rare, his unusually strong feel for the blues combined

with a quality that Art Farmer described as playing "with no strain in it... some people sound like they're trying to swing, Sonny just flows." This four track 1958 session brings together Miles Davis' rhythm section of Joe Jones and Paul Chambers with trumpeter Art Farmer and alto sax Jackie McLean. An ensemble that doesn't disappoint with its vivacity, subtlety and flare. ★★★★ Sound: Classic has done a beautiful

job, here. The recording shows its age, through the single-channel recording of brass and drums and occasionally recessed piano. But nothing stands in the way of the music.  $\star \star \star \star JK$ 

#### JOHN LEE HOOKER

Get Back Home In The U.S.A. Black and Blue/Pure Pleasure

Music: This 16-track double LP from 1969 finds the man alone with his electric guitar delving deep into staple blues themes of wine, women and loss but doing

so in a way that is entirely honest and without artifice. John Lee

was the original article - he may have come after the peak of blues popularity, but this was irrelevant to him; there was no other style he could have played. All but two tracks are self penned and at least two are Hooker classics: When My First Wife Left Me and Boogie Chillun. Essential stuff for the Hooker acolyte. ★★★★

Sound: The relatively late period of recording means markedly better recording quality than you hear with most bluesmen. It is a natural and spacious cut, and the live nature of certain tracks adds genuine atmosphere and depth.  $\star \star \star \star JK$ 

LPs were supplied by Classic Records and Pure Pleasure. www.classicrecords.com

#### 32 HI-FI CHOICE october 2006

#### **COMPACT DISC & VINYL**



#### JAH WOBBLE

Alpha One Three

30 Hertz Records Music: Bass ace Jah Wobble has become a bit of an institution over the vears - he's the one man whose music has been listed under indie. dance. roots, world, reggae and dub. This latest, self-produced effort rides in on the dub ticket but its original arrangements and relevant, at times poignant, lyrics make it more than just another rhythm album. Also, tracks like Decline Of the Music Industry show that Wobble still doesn't shy away from dark humour - or from sacred cows. It's so good that maybe even TV bods like Jools Holland might now wake up and take notice... \*\*\*\*\*

Sound: Most of this was done in the small but cosy 30 Hertz Studio yet the sound is as wide as ever - and with just the right amount of 'oomph' to give your woofers some exercise. \*\*\*\* PS



# Mandala Symphony, Bugaku,

NAXOS 8.557693

Music: More or less a contemporary of Takemitsu, Mayuzumi (1929-1997) was one the best known post-WWII Japanese composers. His output, of which this is a representative selection, is eclectic (often electric too), highly rhythmic, and covers a broad expressive range. Although broadly contemporary, his music is far from derivative of any of his influences and is completely tonally centred and frequently exciting in its internal contrasts \*\*\*\* Sound: This budget release is well

and open sound. Once again, the budget Naxos label takes the risk factor out of what could have been a difficult buying decision.  $\star \star \star \star \star AG$ 



#### THEA GILMORE Harpo's Ghost

Music: Forget Dido, Katie Melua. Sandi Thom et al Thea Gilmore has blossomed into the finest British female singer-songwriter of her generation on Harpo's Ghost. This is an album of mature and often exhilarating songs characterized by memorable melodies and intelligent lyrics, wonderfully sung in a voice full of warmth but capable of bite. Mike Scott of the Waterboys co-wrote a couple of the songs, including We Built A Monster, the anti-globalisation anthem.  $\star$ Sound: Fans of the lo-fi charm of previous albums might find Harpo's Chost over-produced. It isn't - with a bigger budget she's simply found a way of presenting the songs in the more expansive context they deserve \*\*\*\* NW



**IOHN CALE** Paris 1919 Rhino UK

Music: With Cale off heroin and relocated to LA, 1973's Paris 1919 is often seen as his best pop record. It comes between his avant-garde experiments with Terry Riley and his more rockier work with Eno. Lyrically influenced by literature, the music wafts between beautiful acoustic ballads and more robustly orchestrated fare. Inspiring endless re-listens, Cale attributes the album's musical success to meticulous preparation and Chris Thomas' detailed production. \*\*\*\* Sound: Now remastered, this Rhino version has been expanded to feature eleven session tracks. Assisted by Little Feat in the studio, you can immediately hear that it's Cale's classical precision and sonic lyricism that make the album sound so good.  $\star \star \star \star MP$ 



#### LARS DANIELSSON Mélange Bleu

Music: This Danish bass player and composer has been making excellent modern jazz records since 1984, both as a sideman and under his own name. He's one of the major players on the Scandinavian jazz scene (no mean feat, this is



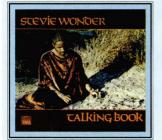
one of the most important outposts of modern jazz today). Here he's joined by some other big nu-jazz names including pianist and electronics manipulator Bugge Wesseltoft, trumpeter Nils Petter Molvaer and guitarist Eivind Aarset for this moody and evocative record. Quiet, contemplative and subtle, it's an album that often threatens to disappear into the background but rewards close listening with its subtle textures and harmonic richness, mixing virtuoso playing with ambient samples and programmed beats to create an understated gem. \*\*\* Sound: There's a mellifluous, gently enveloping feel to the warm and inviting sound of this record that easily draws you into its many, often darkly shaded corners. A blue mix indeed.  $\star \star \star \star DO$ 

TOSHIRO MAYUZUMI

Symphonic Mood, Rumba Rhapsody Takuo Yuasa (conductor), New Zealand Symphony Orchestra

Sanctuary

served by an orchestra and a very clean



#### THIS MONTH'S CLASSIC HI-FI TEST DISC "The density of textures and sounds"

#### STEVIE WONDER Talking Book Tamla Motown

Music: Talking Book was the first of Stevie Wonder's quartet of brilliant 1970s albums and contains two huge hits in You Are the Sunshine of my Love and Superstition, plus four other simply phenomenal tracks. Apparently, the producers deliberately riled and irritated Wonder in an attempt to get him to express himself more forcefully. Whatever they did, it worked. This is a powerful album with genuine torgue, emotional impact and an undertow that cannot be ignored. His talent may have arguably passed its use by date today, but here he's on top form.  $\star \star \star \star$ Sound: The key to the light but heavy sound on this album is the density of textures and sounds, with loads going on virtually all the time, and a good system will reveal as much. But beware – a bigger, better system could bring down the house with the weight of synth found on the heaviest tracks.  $\star \star \star \star JK$ 



#### DIANA KRALL From This Moment On

Music: How do you turn the most exciting new jazz singer of recent years into just another cabaret chanteuse? Easy. You set her lose on a hunch of standards and change of standards

cabaret chanteuse? Easy. You set her lose on a bunch of standards and show tunes. Of course, it's high-class stuff, brilliantly sung and Krall's phrasing is as impeccable as you'd expect. But versions of Irving Berlin's *Isn't This A Lovely Day*, Cole Porter's *From This Moment On*, Gershwin's *I Was Doing Alright* and Johnny Mercer's *Day In Day Out* – however sophisticated and

Alright and Johnny Mercer's Day In Day Out – however sophisticated and skillfully delivered – can't help sounding like an easy option after 2004's The Girl In The Other Room, a set of fascinating original material co-written with husband Elvis Costello.  $\star \star \star$ 

Sound: Swinging big band arrangements featuring a full jazz orchestra alternate with a smoky, after-hours quartet, highlighting Krall's own gifted and mellow piano-playing. Diana Krall is fast becoming the darling of the high-end hi-fi demonstrator, however, and we suspect this disc will follow in the same footsteps regardless of the musical content.  $\star \star \star NW$ 



#### **BUSONI**

Music for Two Pianos Allan Schiller and John Humphreys NAXOS 8.557443

Music: Busoni was a one of the early 20th century's most remarkable piano virtuosi as well as composer, and this disc explores his passion for Bach and Mozart, in two piano arrangements of some of their works. In many cases, the arrangements appear to meander and are almost unrecognisable from the originals, though there is much to admire intellectually. \*\*\*

Sound: The decent but not exceptional recording was made using two Steinway Model Ds at the Northern College of music. The playing is firm and positive, but with occasionally scrappy passages where the music simply fails to gel. Ironically, it is the two more straightforwardly poetic Mozart-derived works that work best. **\* \* \* \* AG** 



#### VARIOUS ARTISTS Reggaeton: The Cuban Revolucion Petrol/EMI

Petrol/EMI Music: Reggaeton, a fusion of

dancehall reggae and Latin rhythms with a hip-hop sensibility, kicked off in Puerto Rico in the 1990s, although it has now spread far beyond its home. While typical reggaeton is full of hard beats and harder lyrics, the tunes on this album are in a much lighter vein, concentrating on dancing and partying. But it's none the worse for that, and this Cuban version of the dancehall revolution features relaxed yet elastic grooves offering a terrific soundtrack for the summer. \*\*\*

Sound: Generally rough, though not as rough as typical reggaeton recordings, and the rapping tends to win points for enthusiasm rather than polish. But crank it up loud to paper over the cracks and let the beat grab you.  $\star \star \star DO$ 

#### **DVD-AUDIO & SACD**

#### **MUDDY WATERS**

#### Folk Singer

HDAD DVD (24/192 stereo, 24/96 surround) Chess/Classic Records

Music: Folk Singer is the best-sounding Muddy Waters album ever cut. Made in 1963, it sees Waters return to his country blues roots with all-acoustic instrumentation and backing from a young Buddy Guy

and blues songwriter extraordinaire Willie Dixon (upright bass), with spare drumming provided by Clifton James. They offer a wonderfully open stage for the most powerful voice in blues; everything takes a back seat to



a larynx that needs no amplification. The 11 tunes include *Good Morning School Girl* and *Feel Like Going Home*, all imbued with feeling and soul. **\*\*\*\*\*** Sound: Classic Records' DAD discs pre-empted DVD-Audio by putting 24/96 on standard DVD discs. When DVD-A players came along it brought in HDAD, offering 24/192, the highest quality PCM currently available. This clean and open disc has an unusual but natural reverb and phenomenal dynamic range. Digital don't get much better. **\*\*\*\*\*/***K* 

#### BRUCKNER Symphony No. 7

SACD (stereo/multichannel SACD plus stereo CD) Pentatone PTC 5186051

Music: Don't feel shortchanged because this recording is not from the more celebrated Vienna Philharmonic. The playing here is just as immaculate, and as ideomatic as the VPO on top form, and Kreisberg's hand is that of a real Brucknerian at the peak of his form. This is arguably Bruckner's most



popular work, as well as being among his greatest, from the canon of this monumental and magnificent late 19th century orchestral master.  $\star \star \star \star \star$ Sound: The live recording is dynamic and powerful yet it is also supremely sensitive, and the band sustains a measured pace while maintaining the internal tensions of the score. An excellent example was what DSD emgineering (the recording isn't converted from a PCM source) can do to illuminate the textures of a large scale orchestral sound, without messing up the spatial elements in the multichannel option.  $\star \star \star \star AG$ 

#### JACKIE LEVEN

#### Shining Brother Shining Sister

DualDisc (one side CD stereo, the other DVD-Audio) Silverline

Music: Scottish folk singer Jackie Leven started work in the coalfields of Fife before his talent and inclination drew him elsewhere, first around the world as the main man in rock miserablists Doll By Doll, and later as a heroin addict after that band sundered in 1982. Pulling himself back from the brink, he's since turned in a handful of acclaimed records

notable for their uncompromising examinations of the male psyche in general and of one lost and searching soul in particular. His latest is more cuts from the same fine cloth, blending heartfelt emotion, poetry and a mix of simple and sophisticated arrangements into a very moving whole.  $\star \star \star \star$ 

Sound: Generally sparse, relying on Leven's acoustic guitar and rich tenor, with room for occasional horn and keyboard colours and vocal contributions from Pere Ubu in chief David Thomas and singer-songwriter Ron Sexsmith. Not much has been made of the surround option, which seems to throw almost all of the mix into the stereo speakers with the satellites providing little more than a whisper of ambience.  $\star \star \star DO$ 





Totem has spared no expense in making the Forest one of the best speakers available at any price... It's a two-way floor standing model that is surprisingly affordable, considering that it is a true super-speaker. The woofer and its aluminium dome tweeter, allow it to cover the full auditory range. Those aren't mere paper specs, either! The response is down only 6 dB at 28 Hz, a frequency most speakers can't reach. Its lock-mitred monocoque chassis, its slanted rear baffle, and its fine hand-crafted construction place it above lesser speakers of its size and price. Much of this is invisible, though by no means inaudible. As usual with Totem speakers, the fine wood veneer is also placed inside the cabinet, to equalise forces on the two sides of the walls. Why it's called the Forest? Well, where would you expect to find a totem? Well, a forest would be a good place to begin your search. However, a forest imbues also mystery, auietness and unpredictable, unexplainable power. In a real forest you are surrounded with sound, which can suddenly appear, surprise and then disappear. It can happen anywhere around you. Let the Totem Forest surprise you in the same way...

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#### DIGITALIA

As a hi-fi enthusiast, I'm afraid that we are being lured into the digital age by manufacturers who believe that digital innovations sound better. They might sound good, but do they sound right? During a visit to the Bristol Sound & Vision show earlier this year, I listened to many different set-ups and was surprised to find a lack of emotion in many expensive systems. Clean yes, detailed certainly, but no warmth or emotion. Even when listening to the new Linn Majik setup, I found the LP12 turntable to be by far the better source. Am I



and power amp

alone in this belief? Are we losing sight of why we buy hi-fi? It's the enjoyment of listening to music, not listening to the equipment.

Bob Reed via email

HFC Have you ever been to the High End show in Munich, Bob? You might find it more suited to your tastes with its analogue bias and nod towards vinyl and valves. Having spoken to many manufacturers, we know Bristol is not any easy venue to make music sound good.

You mention digital innovation and there have been a pleasing number of new digital sources (and amps) coming to market recently, but it's also really exciting when a cracking analogue product comes along. The Funk Firm's excellent Funk turntables are a case in point.

#### VINYL APPLAUSE

I have read your turntable *Ultimate Group Test* from 2005 (*HFC* 268) more than 10 times now. It was the first time I had seen blind listening tests combined with proper lab testing on turntables anywhere – including this magazine (I have been reading since 1998). I think congratulations are in order, even if it is a bit late! With SACD slowly withering away, I'm getting interested in my old records again. While I do have more CDs

# "Are we losing sight of why we buy hi-fi? It's the enjoyment of listening to music."

than LPs, I find that I enjoy vinyl more despite preferring the convenience of CDs. I hope you will do another turntable group test again.

I notice that you are reviewing less affordable gear and moving more upmarket. This is unfortunate as I think our hobby is slowly dying and the upcoming generation is not interested in hi-fi as we know it. By doing more group tests of affordable components, there is still hope that it will last for another 50 years. **K. Fonseka** via email

HFC We're glad you liked the turntable *Ultimate Group Test* and we'll try and schedule another one in soon. You're seeing more upmarket products in *Hi-Fi Choice* because it's a reflection of the marketplace. The majority of hi-fi sales in the UK are in the mid range – the budget market is 'dead', we're told. The amount of new hi-fi at traditional 'budget' prices is more of a trickle than a stream, but the likes of Cambridge Audio are keeping the entry-level flame alive. ▷

# **Letterofthem**Anth

#### **HISSY FIT**

I am getting hacked off with the compression used on many DAB stations. I listen through my hi-fi, which exaggerates the problem even more. If I'm channel hopping, the effect is even more pronounced with noticeable shifts in output quality and tinny, hissy sounding 'music'. I've been recently reading about the first town in the UK to have its analogue TV signal switched off, and it (again) filled me with dread about the long-term future of our much-loved analogue FM radio.

Graham Thomas via email

HFC Pulling the plug on analogue radio is not an easy task for a government. There are far more radio sets per person than TV sets and – although DAB now features in portable players – it's not as highly mobile (or as cheap) as FM radios... yet.

It seems sad that a format that was touted initially as offering better quality than FM has ended up so compromised. But, if FM is switched off one day, perhaps the best way to get good radio in the future will come from digital TV sources.



The author of our letter of the month receives a one-metre pair of Crystal Cable Connect Piccolo interconnects worth £260, featuring a silver/gold conductor with Kapton insulation, plus a transparent Teflon jacket. So get writing! (150 words max please...)

## [Choice Mail] Readers' letters

#### BRASS IN POCKET

*Hi-Fi Choice* so often stresses that the best way to judge a system is to listen too it. I recently bought some Sonus Faber Grand Piano Domus speakers, auditioned with a Musical Fidelity amp and my own Arcam CD92, which impressed. I was more impressed, however, with the cables suggested. I was startled to find out how much of a difference the addition of balanced interconnects made; more than the addition of a CD36! I was once cynical of the contribution of cables, but no more. To further support the merits of auditioning, I also



tested a well-known mains filtering system to find that it actually detracted from the overall presentation, saving me hundreds of pounds. How's that for a result?

Jeff Nun via email

HFC It just goes to show that auditioning can sometimes save you money as well as encouraging you to part with it. There's a certain amount of self-satisfied smugness when leaving a hi-fi shop content with the system you already have at home. You can always buy music instead.

#### FIENDISH FARMHOUSE

As a hi-fi novice, I have a large and bright-sounding room that I need to fill with sound. Inside my 300-year-old French farmhouse is a 20x22 foot room with stone walls, a quarry-tile floor and a 20 foot ceiling sloping into the roof eaves. This 'chapel-like' room has a fair volume of air and is devoid of any soft furnishings or curtains, save a couple of sofas. With a mere £2,000 budget to spend on an amp, CD player and floor standing speakers, the choice is bewildering. Could you point me in the right direction?

Robert Reid Cognac, France

HFC Stone walls, a tile floor with a high ceiling and an almost square floor plan, huh? Have you got any other rooms? You'll definitely need some kind of soft coverings and furnishings in there, otherwise any kind of system will sound reverberant, bright and harsh. Once the room's reverberation is (slightly) tamed, you'll be able to determine whether the room is still so bright and energetic that it needs a soft-sounding system to compensate, or that the system needs to be extremely powerful to punch through the limits entailed within the room. If the former, try a Rega Apollo CD, with a Primare 121 integrated amplifier and a pair of PMC GB1 speakers.

If you need the power option, go for a Rotel RC-06 preamp with one, or perhaps two RB-06 power amps. Add Focal's Chorus 726 S floorstanders and choose a player with your change, either from Rotel's new 06 range, or try Cambridge Audio's Azur 640C v2, Creek's Evo or – once again – Rega's superb Apollo.

#### DO YOU WANT TO BE FAMOUS?

Now's your chance! We're looking for avid hi-fi fans to appear in a new feature called *System File*, in which we aim to explore, explain and experience the hi-fi system of one lucky reader per issue.

The idea is this: first, you send us a letter or an email, explaining why you and your hi-fi should be featured. Then, we pick one reader and arrange one of our reviewers to visit, with notebook and camera in hand. Finally, once the lucky reader and our reviewer have finished listening, describing, discussing and recommending, we publish the results – for the benefit of all!

If you'd like to be considered for this feature, simply write a 'review' of your system – good or bad – using 500 words or less and send it to: System File, *Hi-Fi Choice*, Future Publishing Ltd, 2 Balcombe Street, London NW1 6NW. Alternatively, you can email it to: tim.bowern@futurenet.co.uk. If we pick you, you'll not only receive a visit from one of our reviewers – you'll also get a special *Hi-Fi Choice* goody bag thrown in, too! So get writing... the first instalment of *System File* will appear in a few issues' time.

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EE searc

# **Chipe for a few choice comments plucked from our online** forum. Join in the fun at www.hifichoice.co.uk

What are the best CD players under £1,500? Celeron333

...It's difficult to better the Naim CD5x, which has the advantage of getting even better with an outboard power supply. ArthurK74

Arthurn

...I bought a Densen 400+, which is also

upgradeable and my second choice was a CD5x. I think in reality I'd be happy with either; Densen and Naim are not a dissimilar brew.

#### Sobryma

I just got a NAD 3130 amp and 4130 tuner from a boot fair for a tenner! Both work perfectly, apart from the LED panel on the

tuner, which is easily I n fixed. Has anyone else pio bought super-budget kit th

at boot fair prices, or am I just a lucky audiophile? Springer

...I got my first system from a boot sale, too – KEF Coda 3s and a Rotel amp, all for £20, which I couldn't believe.

SometimesUK

I notice on various pictures of equipment that many CD players and amps are placed on sound platforms of one type or another. Do these platforms produce a real sonic benefit?

#### Falconer

HI·FICHO

...I'd say it depends whether your equipment is on a dedicated stand or not (unless you use a turntable, in which case a dedicated stand is vital). I noticed a distinct change when I first installed mine: there was a wider sound stage and a greater 'placement' of instruments in the soundstage. This meant that I could more easily pick out individual strands of music.

Whole Site \$ GO

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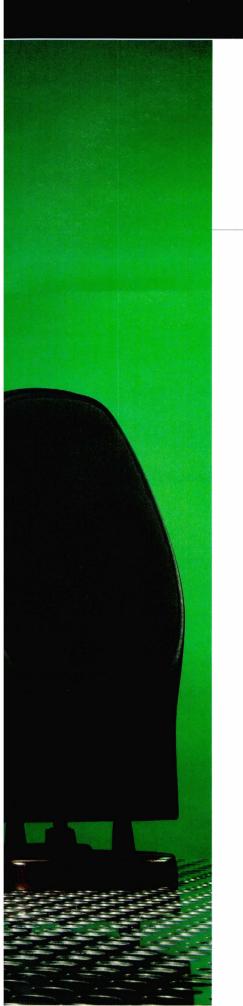
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MCINTOSH MC201 CD/SACD PLAYER | MCINTOSH MR85 AM/FM TUNER | MCINTOSH C220 PREAMPLIFIER MCINTOSH MC402 POWER AMPLIFIER | GREEN MOUNTAIN AUDIO CALLISTO LOUDSPEAKERS | £16,800

## [Beautiful Systems]



# **Supersized**

The story of Big Mac and Green Mountain. American high-end makes its mark over here... and it's a big one

ome hi-fi looks... well, apologetic. It's kind of sucked in. Thin. With iddy-biddy buttons (if it's got buttons, that is). It strives to merge with its surroundings, fearful of snagging anyone's attention or inviting comment. It may indeed possess the aural charm of angels gently weeping on harp strings and cost as much as a four bathroom barn conversion, but even inquisitive door mice will merely walk all over it. So if you're fed up with skinny stereo, we understand. Step back a couple of paces and try this for size.

This is a full-sized hi-fi system. It's big because it's American but, most of all, it's big because it's big. All right, the speakers aren't big, but they are exceptionally heavy and made by a company based in Colorado Springs called Green Mountain Audio (which sounds big).

But big isn't the half of it. Just look at all the knobs: proper radiogram-style knurled knobs. And rows of thumb-sized buttons that wouldn't look out of place in a post-War Riley. And that Golden Age of Wireless styling. And, good grief, those enormous power meters. Glorious. This, ladies and gentlemen, is what a real stereo system actually looks like. It's an expression of the very idea of high fidelity: full-scale, sumptuous, unapologetically Old School, comfortable in its own, heavy-duty skin. It isn't hiding, it isn't trying to be something else and it doesn't blend in with your decor (unless, for some reason, you've decorated your house to look like a 1950s Coney Island milk bar).

McIntosh explains its unabashed full-fat approach thus. Established with its very first amp back in 1949, it's simply this: that every component will be created with capacity so great that it will never be operated at or near its stress point. In other words, good ol' over engineering. The principle extends well beyond the electronics. For example, the fibre optic backlit black glass panels that contribute so significantly to the solidity of the McIntosh look and feel are cut to within 1/200th of an inch and silk screened on the inside of the glass with 12 layers of ultraviolet-cured ink.

### NO RUB GUARANTEE

That's why the McIntosh logo on each of these components will never rub off or fade, even if the system is still being used in 100 years time. Which it probably will be. The glasswork alone takes three full days to complete and if, at any stage, the slightest microscopic imperfection is discovered, the whole panel is rejected. You get the picture. McIntosh's global reputation for precision engineering, bomb-proof build quality, reliability and longevity wasn't dreamed up in a marketing department, even if the company slogan 'A Tradition of Excellence' was.

So to business, and first on the equipment rack is the MCD201 CD/ SACD player, which notched up an impressive overall score of 88 per cent in last month's review (HFC 284). Like all McIntosh components, it inspires confidence straight out of the box with a solidity that belies its modest 10.4kg weight. Once you've taken on board the fact that, with its built-in 214-step, fine-resolution volume control it can (if you wish) be used as a one-source preamplifier, there's little need to refer to the manual. The knobs and buttons may look quaint, but they're a dream to use and the substantial remote is just as ergonomically sound.

As well as the variable option, the MC201 offers the usual fixed-level output. Connection choice, in both cases, is by phono (single-ended) or balanced (XLR). For most of the test, we

### "Like all McIntosh components, the MCD201 inspires confidence straight out of the box with a solidity that belies its modest 10.4kg weight."



### MC201 CD/ SACD player £3.400

Mac's 'mainstream' stereo disc spinner is wonderful with CD and SACD alike.



MR85 AM/FM tuner

**£2,200** With just 18 presets and no RDS, it's not feature-packed, but this modular tuner is built to last.



McIntosh C220 preamplifier

**£3,300** A feast of features, this is more preamp than you could wish for. Valve stages mix resolution and grace.



MC402 power amplifier £5.400

Cool-running monster amp that shifts a conservative 400 watts a side. Don't try to lift it!



Mountain Audio Callisto speaker £2,500 per pair This odd-shaped standmount is heav, but sounds completely divine.



S went for the balanced fixed output feeding the C220 valve preamp with DH Labs Revelation interconnects.

Inside is a 24-Bit/192kHz PCM/DSD DAC from Cirrus Logic. Unusually, but not uniquely, the digital servo-controlled mechanism reads CD data off the disc at four times normal speed, and SACD data at twice normal speed. According to McIntosh, this gives the laser multiple chances to extract and refocus when playing imperfect discs, resulting in fewer errors and less need for processing correction. Indeed, the claim is that the MC201 will handle previously unplayable discs. Except, perhaps, *The Best of Kenny G*.

### **KNOBS YES, WADERS NO**

There is a reason, of course, for all those knobs and buttons. McIntosh's customers – a loyal bunch if ever there was - prefer them to wading through layer upon layer of on-screen menus. You can't help but admire the straight-ahead thinking. That's why the MR85 radio tuner is so deceptively simple: one knob tunes the thing, the other racks through the nine AM or nine FM presets. The row of buttons are all single-function devices, controlling secondary operations like switching to mono. Cleverly, though, the tuner is modular - you can add a completely separate tuner stage to make this a two-zone multiroom radio.

Controls appear in wondrous profusion on the facia of the C220 preamp, too. This is described by McIntosh as an amalgamation of its 56 years of expertise in tube design and newly developed control circuits.

It's undoubtedly a flexible beast. You get seven unbalanced line-level inputs, two balanced (XLR) inputs plus a moving magnet phono stage incorporating 12AX7 valves, three pairs of unbalanced outputs, two pairs of switched and one pair of fixed outputs, plus one pair of balanced (XLR) outputs. And, as with the CD player, there's a high-quality headphone jack in the bottom left corner of the front panel. All signal switching is done inside glass cylinders filled with inert gas located adjacent to the input/output jacks, a technique said to virtually eliminate crosstalk. Each of the eight source inputs can be adjusted for level individually. And, far from being there just to improve the look (if you're going to have knobs, you might as well have a lot of them), the C220's low distortion bass and treble controls might prove just the ticket for older hissy, rumbly recordings. Besides, they can be bypassed.

Last onto the equipment rack – in my dreams, even if I could lift it – is the truly supersized MC402 stereo power amp. Let's talk figures. As well as being implausibly tall and wide, it weighs the best part of 60kg and pumps 400 watts per channel (or 800 watts in mono). Its a 'quad-differential' design, which consists of four complete amplifier circuits, each a mirror image of the other, whose outputs are combined in McIntosh-made output transformers or 'autoformers'. These avoid the problem of having to optimize an amplifier design to work with a particular range of speaker loads. The MC402 has separate connections for two, four and eight-ohm rated speakers, guaranteeing full power, without stress, into any speaker regardless of impedance. You can even see it happening. The illuminated peak-responding meters show the true output, regardless of load. Fab.

### **MOUNTAIN DEW**

Not that the Green Mountain Audio Callistos require huge gobs of grunt to do their special thang. (It is special, too.) GMA founder and designer Roy Johnson recommends 7 to 170 watts. Claimed sensitivity is 90-91dB and impedance is 4.1 to 5.3 ohms from 100Hz to 20kHz, so absolutely no sweat at all for the impedance-indifferent MC402. These are not, as we've already noted, particularly large speakers, but they are very particular small ones. They ship in three necessarily sturdy boxes – two containing the speakers, the third the real-wood trimmed bases – which sit





# "Naturalness always seems like a glib concept in the context of a hi-fi review: too simplistic, too unachievable. But when you hear it, it's unmistakable. On this system, music breathes."

under the speakers but on top of the stands (24-inch Slate Audios in this case). The enclosures are remarkable for two reasons. First, they look like giant thumbs. And second, they're constructed of Q-Stone, a composite material containing fine marble dust suspended in proprietary polymers with a very low, er, Q (a material's tendency to vibrate). It's inert all right and phenomenally heavy for its size. Twin ports (cast in marble) are located on the underside and fire down onto the supporting base, designed to prevent resonances between base and cabinet bottom.

The Aurasound-built, 150mm bass/mid driver has a paper/carbon-fibre cone with ultra-linear suspension, vented underhung Kapton voice coil and a shielded, radially magnetized neodymium-iron-boron magnet. Sourced from Morel, the tweeter is a 28mm polymer-coated linen dome with a large rear chamber. It's encased in a bonded marble chamber and mechanically damped. The crossover is – in accordance with Johnson's firm conviction that time coherent driver alignment is essential – a first-order design electrically and acoustically, consisting of a Sonicap film capacitor and Solen Litz inductor.

Naturalness always seems like a glib concept in the context of a hi-fi review: too simplistic, too unachievable. But when you hear it, it's unmistakable. On this system, music breathes. Its greatest gift is a 'natural fibre' sort of sound rather than the 'man-made' alternative. A resolute refusal to become grainy or harsh - whatever the disc, whatever the volume - undoubtedly contributes to its listenability. It doesn't matter how long you spend in this system's company and it doesn't matter whether your source is a CD, the radio or the latest stereo SACD, you'll listen for hours without the slightest hint of the fatigue. And it has nothing to do with 'euphonic coloration'.

### FORENSIC SCIENCE

And just as some hi-fi seems to be focusing too hard on resolving detail, this one effortlessly captures the bigger picture. It never sounds as if it's getting all forensic and never, ever sounds forced or strained. Some might even argue that it comes across as being a little too easy going, that it's too polite to rough it up with Metallica. The amp's actually a gentle, but humorous giant with the power to burn Metallica to a crisp, the small but oh-so solid Callistos taking time out of their usual transparency, timing and 3D imaging gig to whip up a storm of prodigious proportions. Pump up the volume and excitement most definitely gets out of bed.

So, to recap. This big American combo has a tonal palette close to reality, enough headroom to make it seem as if it's not trying (which it seldom is) and the kind of dynamic compass you've probably only dreamed about. It has weight and control. It has a fabulously 'architectural' bass performance. There's definitely something of the proverbial iron fist in a velvet glove about the McIntosh approach. People who say it's all a bit too laid back can't have listened for long enough. As far as we're concerned, this one has a sense of presence and life that is seldom matched. **HFC** 



David Vivian

### PRIMARE



### | 130

"It has the kind of performance that products in the next price class upwards would envy, yet has sacrificed nothing in build, finish or usability in the process." What Hi Fi? Sound & Vision Awards 2005





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### **OUR RATINGS EXPLAINED**

Percentage ratings for various different criteria, point here is like sound quality and p to the job of value for money

recommend you pare uns with maraniz's ±800 player, the 17 MkII M, which has excellent build and ·e a very good impression in HFC 243. At same price there's also the Cyrus 7, a ng all-rounder in a compact case. fter trying the Heart with the standard itched over to the Sie de, a comparison somewhat muddied by e fact that it was a cold for hot swap - the had he n on for several days with the after a livelier

', nor an

r we liked

Our overall conclusion w tubes shone hrough. The Siemens-equipped player has an 'n snappier sound with better timing that es with dense material with remarkable fidence and ease. It even seems to be



You can find more civilised players for the

money. But few combine dynamics with fine



The things we like most

taken into account but the emphasis is on performance. Components scoring more than 85% may qualify for an HFC Award Badge

### HI-FICHOIC HI-FICHOIC Editor's Ch Rest Ruy

**OUR AWARD BADGES EXPLAINED** 

A component receiving the coveted Hi-Fi Choice Best Buy Badge has been judged to deliver excellent performance at its price point, thereby offering outstanding value for money.

This Badge is awarded only to those components that are judged to deliver reference-standard performance, regardless of cost. These products may be considered among the very best of their kind.

Turn the page for the most rigorous tests of serious hi-fi in the business...

# Masters degree

M5

NAD

M3

NAD

Graduating from budget kit, NAD's latest Masters Series duo is more than an academic exercise

CDISACD player

dual mono integrated amp."

UOL -31.0dB

0000000

00

PRODUCT NAD Masters Series M5 and M3 TYPE CD/SACD player and integrated stereo amplifier

PRICE (M5) £1,299; (M3) £1,899

BEST BUY

HI-FICHOICE

magazine

KEY FEATURES (M5 player) Size (WxHxD): 43x10x30cm
Weight: 9kg ○ Compatible with CD, SACD, CD-R, CD-RW, plus HDCD, MP3 and WMA ○ Balanced (XLR) and single-ended (RCA phono) stereo analogue outputs
○ AES/EBU balanced, coaxial and TosLink optical digital outputs for PCM sources ○ (M3 amp) Size (WxHxD): 43.5x14.7x43.5cm ○ Weight: 23.5kg ○ One XLR and six RCA phono outputs
○ Rated power: 180 watts per channel (8 ohms)

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hese two gorgeous hi-fi components simply ooze class, even before you risk spinal injury by trying to pick them up. Play 'guess the price' and we reckon even experienced observers will over-estimate the actual £1,899 and £1,299 price tags by two or three times. That's provided the maker's name has been covered up, of course, because the little NAD logo, top left, is a dead giveaway that these units are probably less expensive than you might expect, as NAD has been the doyen of budget amplification, going right back to the late 1970s.

For many – possibly even most – hi-fi enthusiasts, a NAD amplifier or system was a first step onto the hi-fi separates ladder. NAD has an interesting history. It was founded in 1977 by an international consortium of hi-fi dealers, who saw the opportunity to combine European hi-fi sensibilities and design expertise with low-cost Far East manufacturing.

The company really hit the jackpot in 1979, when the legendary 3020 amp comprehensively smashed the price/performance barrier. It proceeded to dominate the budget amplifier market for several years, bringing audiophile







## "These components represent an important new direction for NAD; they're the most expensive the company has ever produced."

values to the budget arena at a time when the UK was just waking up to the importance of amplifier sound quality. Indeed, this model was so influential, it rated second (out of 50) in our recent survey of *Hi-Fi That Rocked The World*. Only the Linn LP12 turntable fared better.

The designer responsible for the 3020 was Erik Edvardsen. Although NAD has gone through a number of changes of ownership over the years – it is currently owned by the Canadian Lenbrook operation, but is very multi-national in the way it operates – Erik has remained at the heart of the engineering side. He is also a key individual behind the brand new Masters Series components, two of which are the subject of this review.

These represent an important new direction for NAD; they're the most expensive components the company has ever produced, pitched well above its traditional entry-level hunting ground and without the shackles on component quality imposed by tight price constraints. This really reflects the dynamics of the shrinking hi-fi separates marketplace, which has seen a drift away from the budget sector in recent years, and steadily increasing interest in more upmarket components.

This isn't quite NAD's first foray into more costly territory – the Silver Series came first, launched in the late 1990s – but the Masters Series stretches further upmarket and features both two-channel and multichannnel products. The initial line-up comprises five components: the M15 AV preamp/processor and M25 seven-channel power amp are strictly for those seeking top-quality AV surround sound, and therefore of only marginal relevance to a hi-fi magazine, while the multi-role M55 universal disc player is also more home cinema than hi-fi oriented. However, the £1,299 M5 CD/SACD player and £1,899 M3 integrated stereo amplifier, the joint subjects of this review, are much more interesting for the hi-fi fraternity. That said, the M5 does support multichannel SACD, though naturally our review will concentrate mainly on regular stereo replay, in combination with the M3 stereo amp.

At these prices, the M3 and M5 components slot comfortably into the wide gap between the budget sector and the true high end. In terms of build and finish they certainly look and feel very much part of the high-end scene. Philosophically, however, the company's regular consumer electronics roots are still visible in the very generous feature count in both products. Inevitably the extra complexity brings improved flexibility, but in so doing compromises the easy-to-use simplicity that is often a feature of today's 'high-end' components.

Both units have proper vibration-isolating feet and chunky, two-part cast alloy fascias in silver and gunmetal. Massive heatsinks with kind-to-fingers edges and corners help cool the amplifier, as does the ventilated top cover, and the 2mm steel casework of both units is much more substantial than usual. The styling of both the units and their accompanying remote handsets is nicely coherent, though the similarity of the two handsets may cause minor confusion. Both components have informative central fluorescent status displays and the M3's main handset also provides basic operation of the M5, though not vice versa; the M3 also comes with a second smaller and simpler ZR3 handset, which can be used to control various functions in and from a second zone. Although most users will probably use the M3 handset most of the time, the front panel offers a similarly wide range of features using seven pushbuttons and the solitary (default to volume) knob.

Seven separate handset buttons select the all line-level inputs – six phonos plus one balanced (AES/EBU) XLR pairs – and other buttons supply muting, cycle between stereo/ mono/left/right modes, and adjust balance. There are comprehensive tone controls – bass, treble and also a 'spectral tilt' option – and an electronically controlled discrete-resistor matrix is used to adjust volume across a wide range without compromising noise performance. Other features include an adjustable high pass filtered output, which can be used to protect small main speakers from low bass signals when used alongside a subwoofer or two.

The two-channel power amp section is strictly double-mono in construction, even down to the special twin custom-wound transformers, and has a very generous 180 watts per channel of even conservatively rated power, along with considerable dynamic headroom.

The matching M5 drawer-loading disc player is deliberately more audiophile-oriented than its M55 stablemate, and was so new there wasn't even an instruction manual, so the description is inevitably a little sketchy.

### Q&A

Greg Stidsen, NAD's product development director, talks about the creation of these important components from the new Masters Series



#### HFC It's interesting that the

home cinema-oriented M55 and the hi-fi oriented M5 players are so similar in presentation and price. What percentage of sales do you expect the M5 to take? And how would you rate its audio performance compared to the M55?

**CS** The Masters Series concept is to produce the highest expression of NAD engineering and performance in each product category. While the home cinema products play music very well, the M3 and M5 are more purely focused to the music lover. We expect to sell more M55 because it is a universal solution, but for the serious music listener, the M5 is clearly a better choice.

For the M5 we stripped out the expensive video processing parts and dropped in an audio stage taken directly from the M3. We went to the very top shelf for the M5's audio DACs, which have about 7-8 dB better noise performance, and the audio stage has a separate linear power supply.

#### Why did you decide to create an integrated audiophile-oriented M5 hi-fi amplifier, especially as you've opted for a separate preamp/ power amplifier approach with the Masters Series home cinema components?

The biggest market for separate power and preamps was always North America, but this has really changed in recent years, and American tastes are more in line with the Europeans now.

The situation is different with high-end home cinema. Since the power amp technology is very mature and stable, the M25 will remain valid for years to come, but we know that surround sound and video formats are still rapidly evolving. So, even though we add as much

upgradeability as possible in the M15, there will be reason to replace this before the power amp.

How do you see the future for traditional stereo hi-fi, as distinct from multichannel audio and home cinema equipment? I think the future for stereo hi-fi is great. I love sharing music videos with my friends and family in our home cinema, but when I want to close my eyes and really listen, there is nothing like the sweet spot in a good stereo hi-fi system. Mine's an M3 and M5 - naturally!



## "It shows fine consistency throughout that dynamic range, because this amplifier's loudness capability is prodigious."

■ Besides its prime stereo task of replaying stereo CDs and SACDs (via separate signal paths), it also supports HDCD encoding and handles CD-R, CD-RW, MP3 and WMA type discs. Multichannel SACD phono outputs are also fitted, accompanied by a useful set of digital bass management options.

The stereo outputs are available on either phonos or balanced XLRs, and digital PCM is available electrically (phono or XLR) or optically. All the usual controls are available on handset or player, though our sample did seem reluctant to skip backwards through tracks.

### SOUND QUALITY

The M3 amplifier is a thoroughly impressive component. It takes a little time to get used to the ergonomics, but that is usually true of any

feature-rich device, and the remote handset has rather a lot of buttons, with labels that could have been easier to read. But their layout and shape is intelligent and varied, which does assist navigation. The volume control is a joy to use, either on the fascia or the remote, though right-handers might have found the up/down rocker easier to use if it had been positioned on the left hand side of the handset.

Hooked up to a pair of B&W 800Ds via Vertex AQ Moncayo speaker cables, it was easy to appreciate the M3's exceptionally low noise and wide dynamic range. It also shows fine consistency throughout that dynamic range, the more so because this amplifier's loudness capability is quite prodigious.

The bottom end is solid and powerful – a shade *too* assertive at timed, perhaps – but it



### NAD M5 CD/SACD player and M3 integrated amplifier [Review]

always provides a firm foundation to underpin the musical architecture. However, the real strength of this amp lies in a midband that is both explicit and highly informative, delivering voices with warmth and involvement.

The overall sound is pleasantly restrained and relaxed, due to a degree of time-smear through the midband and top. This does somewhat restrict the vividness and tension in the musical dynamics, but also makes for a very well mannered sound that's easy on the ear yet robust and powerful across a wide range of music sources. The extreme top end is also restrained and lacks some incisiveness, muting consonants and sibilants.

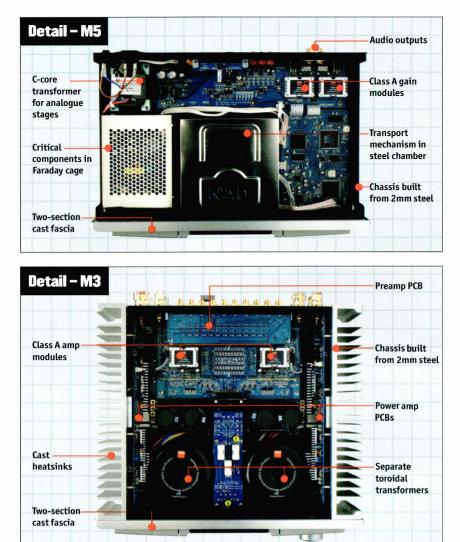
A live Albert Hall Prom of the Halle orchestra, performing an occasionally rather hectic rendition of Sibelius' Symphony No1, provided good evidence for fundamentally classy stereo imaging, with notably precise lateral focus and positioning, but slightly limited depth and transparency that constrained the full acoustic signature of this large reverberant venue.

Assessing the M5 disc player must inevitably involve some discussion of the merits and prospects of SACD. This 'super' CD format uses a very different digital coding system from regular CD to offer a significantly wider dynamic range and bandwidth. While a case can be made out for a better-than-CD optical disc format, a major problem arose when an alternative and again incompatible 'high-band' format called DVD-Audio launched at around the same time. Without a united front, growth in both these formats has been painfully slow, and although there are more titles on SACD than DVD-Audio, the numbers for both formats are still small and largely consist of 'classic' back catalogue music.

While the future for SACD must remain somewhat uncertain, there's no denying the M5 does a fine job with the limited software that is available. Most SACDs are hybrid two-layer discs, capable of replaying both SACD or CD layers, and there was no question that when listening to these discs, the SACD layer has the significantly sweeter and more open top end.

But the comparison is not necessarily valid, as the mastering processes are quite different, and those responsible for the hybrid discs naturally have a vested interest in promoting SACD. When compared to vinyl originals, SACD's advantage was less clear-cut. Obviously the digital disc had a pristine clarity and freedom from noise, clicks and pops, but it also seemed more sterile and less interesting from the point of view of musical textures.

With normal CDs, which will probably represent the M5's regular diet, the player's character seemed very like that of the amplifier. Once again the bass showed fine authority and drive, and the dynamic range was impressively wide with good low-level resolution and fine consistency.



The overall balance favours midband projection, because the upper registers are cautious and restrained. And although one might wish for more sparkle and 'edge', the innate politeness of this player makes long-term listening both relaxing and inviting.

That very much sums up this player/amp combination as a whole. It looks and feels much more costly than the price tag might suggest and is easy to use yet usefully flexible. It also delivers a solid yet relaxing sound, with considerable power and poise. Neither component delivers the sort of 'pace, rhythm and timing' that would turn a Naim fan's head, but there are plenty more who will enjoy their more easy-going sonic style.

Considered separately, the amp is marginally the stronger component – perhaps no surprise given the brand's heritage in the amp department. But the impressive thing is that NAD has succeeded in taking its talents upmarket, producing two products that look, feel and sound 'expensive', and that work well together, too. On this evidence, NAD's foray into 'affordable high-end components' should be judged a considerable success. **HFC**  VERDICT - M5 CD/ SACD PLAYER SOUND >> 85% This beautifully built player does a fine job with SACD. FEATURES >> 88% und has superior dynam ge and fine authority, but replay needs more span BUILD >> 92% VALUE >> 85% VERDICT - M3 INTEGRATED AMP SOUND >> 88% Solidly built and flexible amp lex, but goes very lo FEATURES >> 92% with fine authority and a notably wide dynamic range. Timing not for beat-mongers. BUILD >> 93% VALUE >> 85% 

Paul Messenger

# Hidden revolution

Inside Arcam's familiar DiVA box lies a hi-tech 'universal' player - the first from the brand

PRODUCT Arcam DiVA DV137

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ARCAM

Hotios Adaptive Progressive Scan

HERE DE MORIESENS 2000

TYPE CD/SACD/DVD-Video/DVD-Audio player PRICE £1.250

OVC.

KEY FEATURES Size (WxHxD): 43.5x8x35cm ♥ Weight: 5.1 kg ● Analogue outputs: RCA phono (stereo audio, 5.1 audio, composite and component video), S-Video, Scart ● Digital outputs: coaxial S/PDIF, Toslink, HDMI ● Communications connections: RS232 port, Remote mini-jack input, 12v trigger input CONTACT ✿ 01223 203203 ↔ www.arcam.co.uk

n the DV137, Arcam finally has a full-on 'universal' player that can cope with just about any disc type you can throw at it, apart from HD DVD, Blu-ray and DVD-RAM. It also has the technical prowess to deliver stunning picture and sound quality, thanks to high-performance onboard audio and video processing and video scaling, along with a rich variety of features designed to allow the player to sit happily in multiroom systems.

From the start of the DVD era, Arcam has been one of the very few manufacturers to design and build their own DVD players from the ground up. This is a costly and difficult enterprise that in the early days produced high-performance hardware, but with fairly mundane feature sets and at relatively high prices. Few such criticisms could be levelled at the DV137, but as usual Arcam hides its light under a bushel. Only 'Arcamoraks' will be able to tell the DV137 apart from previous Arcam DiVA disc players just by looking, though the rear panel is gratifyingly well endowed.

The day we found out about the DV137, the first ever SACD-compatible Arcam player, was the very same day Naim Audio announced that it would put no further effort into DVD-Audio. But the apparent shift of direction is not quite 180 degrees in either case. Naim will continue to sell their existing DVD-Audio players. Also, when first demonstrated to the press, the Arcam DV137 was a full multichannel SACD player, but there were problems that led to audible distortion. So, the specifications have now been throttled back so that the player now plays SACDs in stereo only. Arcam intends to reinstate multichannel SACD if a fix can be found, in which case it will be made available to existing owners as a firmware upgrade, but no promises are being made

You may reasonably ask how – or even 'if' – this disadvantages Arcam, when so many even

more costly players are also limited to playing SACD in stereo. The answer is that they are invariably dedicated stereo players, where SACD is simply a better quality alternative to CD. The DV137 is an all-singing DVD player, which started life as a multichannel player for all major formats. It plays DVD-Video and DVD-Audio discs in multichannel; only SACD is restricted in this way. Whether you consider this a disadvantage depends on your personal pattern of use. Stereo CD users who want a DVD tool for home cinema purposes - and to play high-resolution stereo sources - will find nothing wrong with the Arcam, but those interested in multichannel audio at the highest level may be more upset with the omission.

DV137 DVD PLAYER

The audio section of the player is impressively equipped, and includes six of Wolfson's highly regarded WM8740 24-bit 192kHz DACs, one per channel, with an HDCD digital filter. The player will output up to 24-bit/96kHz PCM from stereo CD and 6x 24/192 PCM from HDMI, plus DTS and Dolby Digital datastreams. Plug the Arcam into an HDMI v1.1-equipped amplifier (like the Denon AVC-A1XV used for this test) and the signal from CD, DVD-A and SACD remains digital for much of the way









## "Arcam's intention with this player was to produce a jack-of-all-trades without sacrificing quality in the process."

through the amplifier, though DSD data is converted to PCM at an early stage. Lip sync adjustment is available up to 150mS, and the player includes a fair range of bass management and speaker settings, though there's nothing here to compete with a well equipped amplifier or processor.

Video capabilities include the ability to upscale 480p or 576p data from DVD to any of the standard HDTV resolutions up to 1080p across the HDMI link, for use with your new HD-ready display. The player boasts a high-performance motion adaptive progressive scan engine - the brand new Zoran Vaddis 888S chipset - with the ability to output most interlaced and progressive video outputs simultaneously to different displays (a similar simultaneous output is available from the stereo and multichannel audio outputs). Of course, it should be stressed that this is not a native HD source (like HD DVD or Blu-ray), but the Arcam does take standard DVD-Video images and translates them to near-HDTV quality.

Like many very new players, there was a minor software display glitch, which was reported back to Arcam. But this should have been ironed out by now.

### SOUND QUALITY

Arcam's intention with this player was to produce a jack-of-all-trades without sacrificing quality in the process. And with the obvious exception of multichannel operation from SACD, it does indeed come surprisingly close to being a master of all it surveys. Leaving video performance to one side for a moment, the declared intention was to ensure that the DV137 would be a first-rate audio player across all relevant audio formats (it was not tested with data reduced codecs like MP3) and in this it succeeds in style.

CD replay is fast and assured, and the player makes light work of some quite difficult recordings, a good example being Janácek's *Cunning Little Vixen* Suite (Reference Recordings), which can sound strained and messy in the opening passage. The Arcam's DVD decoder helped here, as like other Reference Recordings titles this one is HDCD encoded. In CD mode, the Arcam is capable of a realistic sense of image depth, though mainly in or forward of the plane of the speaker, which gives it more of a sense of presence than some Arcam players, but less depth. Timing appears good, too.

Of course, there are better universal players than this one, but they come from companies like Ayre and Esoteric, and they are invariably very expensive. The Ayre player, the C-5xe (reviewed in *HFC* 282) is stereo-only from all formats and has no video capabilities, plus it costs nearly £4.5k, which helps underline just how ambitious the DV137 is at its more modest price. Generally, the tendency of some Arcam players to sound a little lacking in grip was less apparent here, and this is one DVD player that can be used more convincingly as a CD player than most DVD-playing hardware, without sounding out of its depth.

We have acquired few new DVD-Audio discs in the recent past (other than some reissues in the Silverline label), but of the material we threw at it, the Arcam sounded completely convincing, as have previous models from the same source. Sound quality is similar to CD, but sometimes apparently a little bolder and

### [Review] Arcam DiVA DV137 universal disc player

### Q&A

We spoke to Geoff Meads, Arcam's brand manager, about technologies involved in the development of the DV137



HFC Is this a great CD player with SACD/DVD-A bolted on,

or has money been spent evenly to make it an 'all-rounder' with only average CD playback?' JM Our customers tell us CD is a priority for them and thus a great deal of effort is put in to achieve true audiophile performance from CDs on the DV137. The SACD and DVD-Audio performance of the player is extremely good, too. After all, signals from such discs share most of the signal path through the DV137 with signals sourced from CDs.

#### Can you quantify the advantages of ABT1010 video scaling and 'Mask of Silence', both of which feature in the player?

Anchor Bay Technology, the company behind the ABT1010 chip, is one of the leading producers of scaling algorithms, which are clearly superior to many offerings in AB comparisons. The advantage in the ABT1010 is in what you don't see rather than what you do. Jaggies, smearing, motion artefacts and such simply disappear.

The exact details of the 'Mask of Silence' technologies are indeed vague and remain company confidential. However, I can confirm they act to reduce residual EMC noise within the chassis which otherwise masks audio detail.

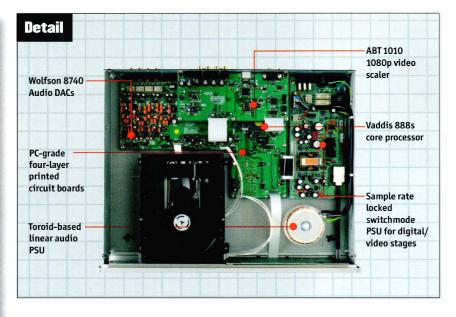
#### What will the DVD player of the future look like?

The format war that is just beginning will be a major headache for the industry and will probably remain so for some time. Buying a high-resolution DVD player of either type in the next couple of years will be a high-risk purchase. Manufacturing a fully universal machine - one that will have to include the very latest HD DVD and Blu-ray formats, alongside existing ones like SACD and DVD-Audio, DVD-Video and CD - would be a monumental task for any company, so don't expect one of those anytime soon!

### What imminent developments do you see for the HDMI digital interface?

There is no doubt the HDMI is the most powerful interface the AV world has ever seen. Although not perfect yet, HDMI's performance benefit means it is with us to stay.

Inevitably, the lower priority features (such as digital multichannel audio and product-to-product communications) will improve in time. HDMI has been labelled the 'digital SCART' somewhat inaccurately, but it will likely become just as ubiquitous as SCART is right now.



d more architectural. Of course, the multichannel element adds its own interest - a sense of space and involvement that is harder to achieve in stereo - but this is dependent on the good taste of the recording engineer. For every disc that has been recorded sensitively (mostly classical, it has to be said), we have at least one that just sounds a mess, with instruments pan-potted apparently at random into the larger soundstage.

The Arcam manages to evade the common criticism of SACD sound from universal players, which are strong on grace (to avoids the traps of 'digitisis') but weak on the more dynamic elements of music making. This is a fair criticism of many of the lower cost universal chipsets used in budget universal players, which are often disappointing in long term use. However, the Arcam's audio engine is clearly made of sterner stuff, and the Arcam played its role here powerfully and with great gusto.

### **VIDEO PERFORMANCE**

Just as HD video finally launches in the UK using platforms like SKY HD+, the Arcam offers an impressive half-way house through high-quality upscaling of the picture from DVD, a process that has an obvious parallel with audio upsampling. Sure, the results are not in any way comparable to true HD, which represent a paradigm shift when done properly. Nevertheless, the Arcam's scaling was clean, with very stable and well-defined static images, and excellent suppression of motion artefacts. The player's on-board video set-up wizard helps sort the apparent brightness and



contrast settings without the need for a dedicated test disc, and an unusually large internal buffer memory ensures that there is no playback gap when changing DVD layers.

This is a first-rate player that has all the features and all the performance you could wish for at the price across all disc types, with the solitary exception of multichannel SACD playback. Arcam's first universal machine was worth the wait; it's a welcome, accomplished and realistically priced newcomer. HFC

Alvin Gold

FORMAT COMPATIBILITY			
DVD-AUDIO	~	DVD+R	<b>v</b>
DVD-VIDE0	~	DVD-RAM	*
SACD (stereo)	~	MP3 AUDIO	¥
CD	~	WMA AUDIO	*
HDCD	~	AAC AUDIO	*
CD-R/RW	~	VIDEO CD	V
DVD-R/RW	~	JPEG PICTURES	¥ .



VERDICT SOUND >> 86% PRO >> SUB RATINGS CD 84% SACD 86% DVD-AUDIO 87% VISION >> 90% FEATURES >> 88% CON 

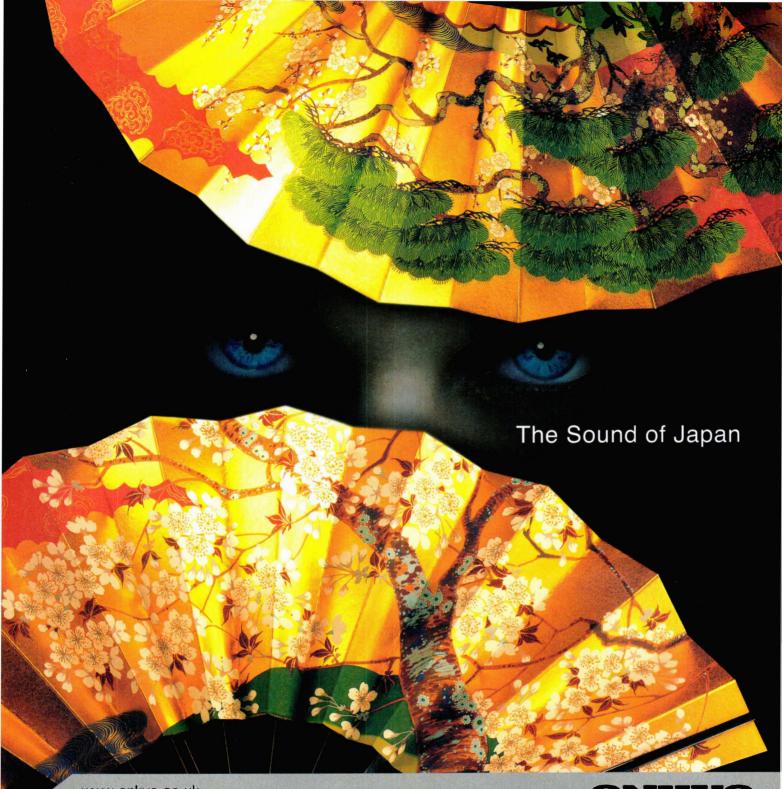
Clean user interface, fluorescent display and crisp disc handling enhance the user experience. This is a very polished universal player, and a high achiever in all key operating modes.

VALUE >> 88% 

No multichannel SACD playback and some minor firmware glitches, both of which may be corrected soon

CONCLUSION This accomplished mid-price player offers near-state-of-the art video playback and high-grade CD replay, with the added benefit of DVD-Audio and SACD (stereo), plus a host of features designed to help it live happily in a multiroom system.



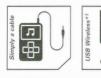


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\*1 Transfer music stored on your PC via a wireless USB unit.
\*2 iPod is a trademark of Apple Computer. Inc.







Release your music from your iPod\*<sup>2</sup> or PC with Onkyo's full function iPod dock and wireless adaptor.

Looking for a sound that's crisp, clear and utterly honest? Try ATC's new entry-level range for size

PRODUCT ATC SCM19

6

**TYPE** Standmount loudspeaker

PRICE £1,499 per pair

KEY FEATURES Size (WxHxD): 22.3x44x31.5cm ♥ Weight: 16kg ♥ 25mm soft dome tweeter ♥ 150mm bass/mid driver ♥ Sensitivity: 85dB ♥ Impedance: 8 ohms (nom) ♥ Frequency Response (-6dB): 54Hz-22kHz CONTACT ♥ 01285 760561 ↔ www.atc.gb.net

t's not often that ATC launches a whole range in one go, but that is precisely what it has done with its new Entry Series speakers. Gone are the SCM12, 20 and 35, and in come the SCM11, 19 and 40; only one original model number remains, although the new SCM7 bears little similarity to its predecessor. These are the Stroud-based company's most affordable products and are passive designs with, for the most part, standmountable dimensions. The new SCM7 kicks things off at £499 per pair and the price rises slowly to £1,999 for the SCM40. The SCM19 tested here is the biggest standmount of the bunch, with its 19-litre volume.

In fact, the 19 is same size as the SCM20 it replaces, but had a name change to avoid confusion. But never mind the nomenclature... feel the girth. This back-breaker weighs in at 16kg, thanks to a motor assembly on the main driver that itself tips the scales at 9kg.

The key to ATC's impressive reputation in the 'pro' audio industry lies with its mid and bass drivers. These are built in-house and without compromise, and are designed to be played long and hard. The company's finest drivers are dubbed Super Linear (SL) and the SCM19 is the least expensive speaker that incorporates an SL unit, in **this case a 150mm design with a large** 75mm soft dome. This large diameter also represents the size of the voice coil, which gives you some idea why the speaker is so heavy.

BEST BUY HI-FICHOIC magazine

The main change to this speaker's predecessor is in the new high-frequency unit, which has a neodymium magnet and a faceplate that ATC machines in-house. This carefully curved aluminium plate has been designed to give greater and smoother high frequency dispersion. The tweeter itself is a 25mm soft dome with a second-order Butterworth crossover, incorporating metallised polypropylene capacitors, large air-cored inductors and ceramic wire-wound resistors. These are all high-quality ingredients that give the speaker superior power handling and inspire the sort of confidence that ATC underpins with its six year guarantee.



## "With this speaker, any description of its 'sound' is intrinsically reliant on discussing the nature of the rest of the system."

The hefty infinite baffle cabinet is constructed out of 18mm MDF, damped with 5mm bitumen pads; an extra 18mm is added to the front and painted in a 'grey' that's so dark, it's virtually black. This top baffle is profiled to make for smoother high-frequency dispersion and has the additional benefit of adding some curves to an otherwise very rectangular box.

Unusually for ATC, the speaker is balanced for use without a grille in place; one is supplied but for best results, leave it off. We suspect that ATC is, or was, the last bastion of grille-on 'voicing' and it's a little sad, if entirely logical, for them to give up this classic tradition.

A lot of hi-fi companies claim to go for absolute neutrality, but as speakers never have a ruler-flat response, there's always a degree of tonal tailoring. ATC eschews any sweetening of the mid or boosting of the bass, but aims to deliver as flat a response as possible. This spells success in the 'pro' audio world, but can lead to a result that is not as flattering as it might be.

### SOUND QUALITY

The SCM19 is an analytical, revealing loudspeaker and it's not hard to imagine it sounding abrasive in the wrong company. As such, what you put in is what you get out in terms of sound, with nothing in the way of smoothing in between.

Given the low 85dB sensitivity, high power is essential. ATC suggests anything between 50 and 300 watts, but you'd need a pretty stiff power supply in an amp at the bottom end of that scale.

With this speaker, any description of its 'sound' is intrinsically reliant on discussing the nature of the rest of the system. This is a particularly analytical and precise speaker with a 'warts 'n' all' sound that can reveal the shortcomings of many recordings. But this is a price well worth paying for the ability to hear so far into the good recordings. It's a variation on transparency that can take a bit of getting used to, however, and anyone considering this speaker should hear it with a few of their favourite albums first.

In the imaging department, the SCM19 is a slave to the signal and while only the best recordings create a sound that totally escapes the cabinets, the vast majority come across in open and honest fashion. So, Brendel's piano playing is holographic and entirely beguiling, while early stereo recordings are patently crude in the way the engineers placed certain instruments exclusively in one channel.

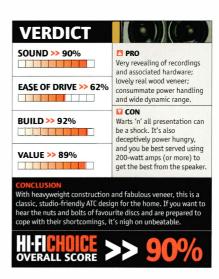
As with previous ATCs, this model does

a phenomenal job of differentiating between recordings. Because it has a genuinely wide dynamic range, you can hear the effects of compression all too easily... and on some occasions, this can come as a bit of a shock. Take the first two tracks on *Led Zeppelin III*, for example. The opener, *Immigrant Song*, is squeezed severely, which gives it a sense of power and allows all the different instruments to be heard, but it could be distinctly more expansive. The next track, *Friends*, is far more open, with the acoustic guitar strings clattering and the soundstage opening out in rather more convincing fashion.

This transparency to the signal extends to timing, which is never other than on the money. In the bottom end, the specs suggest a 54Hz bass roll-off, but that is a misleading figure. In room, the speaker can shift remarkable amounts of air for its size thanks to the natural reinforcement of room boundaries. Then there's power handling – the choice of a second rather than ATC's preferred fourth-order crossover limits things only by 'pro' standards, and you won't find many other domestic speakers that will go this loud without distortion.

This is a speaker for the purist who wants to hear what the band *really* put on tape, rather than a smoother, sweeter version of events. It offers uncanny transparency for the money but takes no prisoners. **HFC** 

Jason Kennedy





VROS NED

Esoteric redefines the word 'cheap' with its cheapest UK-distributed CD/SACD player to date

### PRODUCT Esoteric X-03SE TYPE CD/SACD player

6

HI-FICHOICE magazine

### PRICE £4,995

KEY FEATURES Size (WxHxD): 44.2x15.3x35.3cm ● Weight: 23.6Kg ● Compatible with SACD, CD and CD-R/RW ● Analogue outputs: balanced (XLR) and single-ended (phono) ● Digital outputs: electrical and optical ● WBT NextGen RCA phono connections CONTACT ② 01727 865488 ↔ www.teac.com/esoteric

he Esoteric X-03SE is a gorgeous CD player in all respects. It looks great, it is built to a standard that Rolls Royce would be proud of and it sounds superb. All things you might hope for of a CD player that costs nearly five grand, and all things you would expect in a range-topping machine. But this is no range topper; in fact, it's Esoteric's new 'UK entry-level' CD/SACD one-box player in what must be the most extensive range of high-end audio disc players on the planet. Esoteric is the resolutely audiophile arm of the already partly audiophile TEAC of Japan, acknowledged creator of the most heavily engineered disc transports in the business – the VRDS mechanism.

OPEN/CLOSE

EQUTERIC X-03

In our recent high-end special edition called *The Collection*, we looked at the X-01 Limited (alongside the G-0s Master Clock Generator), a £9,500 player of spectacular ability. The X-03SE is the next player down the range and it too can be partnered with a G-0s, but as it stands is an CD/SACD player of considerable capability.

Engineering quality has always been the cornerstone of the Esoteric brand and this 23.6kg player takes this ethos very seriously. At its heart is the massive VRDS-NEO transport – a high-precision turntable and Hall-effect, three-phase motor built into what Esoteric calls a "rigid bridge chassis". The term 'turntable' might seem odd for a CD player, but the platter clamps down on the disc from above, providing damping and a black non-reflective surface to cut out stray reflections. This is far removed from standard issue CD transport mechanisms. The main difference between the X-01 Limited and this player is that the dearer machine has multichannel analogue outputs and the X-03SE has stereo only. Both machines have an IEEE 1394/i.Link digital output, however, and thus can play multichannel tracks with an appropriate processor.

Internally, the mechanical differences are that the bridge is a bit lighter (which in Esoteric speak means substantial rather than capable of supporting a Chieftain tank) in the X-03SE and the platter is duralumin (an alloy of aluminium, copper, magnesium, and manganese) rather than pure magnesium Component wise, the more costly machine has four DACs per channel rather than the two found here. So, in fact there are more similarities than variations - both models, for instance, use high-purity 6Ns copper for both power and signal connections, have upgraded components over the base versions and are built with solid aluminium top and side panels rather than folded steel. The engraving of the





Esoteric brand in the top plate is particularly attractive; reason enough, perhaps, to pay the small premium for 'SE' status, even if the base model were available in the UK – which it isn't.

The final Special Edition twist is the use of WBT NextGen RCA phono sockets. These connectors are pretty rare and differ from the norm in having relatively little metal in their construction in order to reduce eddy currents. They work with both regular and NextGen plugs but should give best results with the latter. The second analogue connection option is balanced XLRs, for which the paired DACs produce a differential output. The converters in this case are 24-bit Burr-Brown PCM1704 devices; you have the option of bypassing these by using the optical or electrical digital outputs, of which the latter variant also has a NextGen socket, but the chances of finding an outboard DAC to better the onboard option are pretty slim.

There is one extra socket on the player – a BNC, for an external word clock such as Esoteric's G-Os. This provides a master clock that will run the player so precisely that it virtually eliminates jitter. But, as the G-Os costs more than the player itself, it would only make sense where multiple Esoteric sources are used.



## "Engineering quality is the cornerstone of the Esoteric brand and this 23.6kg player takes this ethos very seriously."

If you place this hefty player on a surface, you notice that its three feet are not solid but a two-part construction with a point and retained cup design that Esoteric calls 'Pin-Point'. These are made in tool steel, to keep almost all resonances at bay.

### SOUND QUALITY

As we had managed to persuade Living Voice to terminate a pair of its interconnects with WBT NextGen plugs a while back, it made sense to use these with the X-03SE, at least when we weren't taking advantage of the theoretically superior balanced outputs. Like the last £5k CD player that found its way into our test system (Classé's CDP-202 – see last issue), the Esoteric took its time to come on song; its sound was a little on the clinical side for at least the first week. This was a characteristic that started to sound more like precision, once the player had been run-in. In terms of presentation, it provides an interesting contrast with the Classé – both are high-resolution machines but, if the CDP-202 is warm and smooth, the X-03SE is clean and tight. The Esoteric player initially provided a more precise sound with greater vivacity but not perhaps as much subtlety, but by the time it started to sing the Classé had left the building. This means that unfortunately we couldn't compare the two at their best directly, but could get down to the important business of playing as many discs as time and heatwave (remember that?) would allow.

This proved a highly entertaining procedure as you might imagine, Alfred Brendel's fingers sounding more eloquent and expressive on the keyboard than is usually the case, thanks to a tremendous transparency that reveals fundamental and harmonics in truly three-dimensional form. For all their fantastic build, big TEACs of yore have not always

### [Review] Esoteric X-03SE CD/SACD player

### Q&A

We asked TEAC Esoteric's R&D manager, Mr Tetsuya Kato, about the engineering choices made for the X-03SE CD/SACD player



HFC What are the sonic benefits to the WBT NextGen RCA phono sockets?

TK Rock-solid imaging. Not only nice, smooth harmonics of sound but also we can hear the important fundamental sound of each instrument.

## How has the high-purity 6Ns copper changed the sound of the standard player?

The change of internal wire results in smoother sound reproduction and higher resolution.

## How do the 'Pin-Point' feet help to isolate the player's circuitry?

The contact area between component and floor (or audio rack) is minimised to the contact point provided by the pin-point feet. The resonant vibration induced by the component or floor should be transformed to rotational movement at the contact point, thus the vibration should be effectively attenuated compared to a player with conventional feet. Another beneficial aspect of the three-point support system is that the component is stabilised with no adjustment needed.

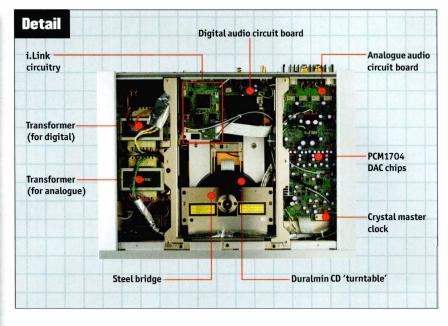
### How would a standalone word clock benefit a one-box player?

The Master Clock Generator in the X-03SE is on the DAC PCB and provides the Master Clock to the DAC circuit and VRDS-NEO Drive Unit. It will be the same situation when they are Word synched between drive unit and DAC inside of the X-03SE.

When we switch the Word sync mode to 'On', the Master Clock on the DAC PCB is synchronized with the external Master Clock, and that clock signal is sent to the VRDS-NEO Drive Unit. This then is the same situation as under recording studio conditions, because transport and convertor act as separate entities.

#### Are there any plans for a lower priced Master Clock Generator for players such as the X-03SE?

We have the G-25U Upconverter/Clock generator in our development program. The G-25U contains a highly accurate, internal crystal oscillator known as a 'master clock.' This 'clock' reduces system noise and digital artifacts (digital jitter), dropping the noise level between a DAC and a digital transport to less than 1/100th of non-synchronized devices.



■ been able to combine transparency with musicality, a rare trick at any price point with digital sources, but one that it has managed to pull off with this beauty. The way that the music flows, its changes in level and attack, are all preserved in a soundstage that can seem holographic with a good recording. One such – Fink's *Biscuits for Breakfast* – really surprised us with the way that the reverb took sounds way back behind the B&W 802D loudspeakers.

A more natural recording, Keith Jarrett's *Survivor's Suite*, demonstrated how the stage expanded width ways and delivered very real sounding acoustic instruments, completely eliminating any cues about the placement of the speakers. You wouldn't think that such substantial speakers could disappear, but close your eyes, turn around twice and you'll struggle to locate them. You'll also look daft.

These qualities are even more apparent with SACD, where the extra detail delivers even greater finesse and a colouring of instrument tone. This gives recordings real vibrancy and realism. There's energy to the sound, which drives rhythmically strong material along in a dynamic and timely fashion. For example, the *Lingua Franca* disc produced a result that made you wonder what more can be done with the player. Compared to Townshend's £3,000 TA 565 CD, one of our reference machines, the

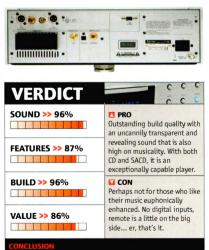


X-03SE has greater apparent high-frequency reach and a shade more transparency, the less costly player sounding almost smoothed off and warmer in balance by comparison.

Back with CD, the energy and vivacity of recordings is still not lost. Led Zeppelin ably demonstrated this, as the band (and audience) provided the energy back in 1972 on *How the West was Won.* On this recording, the guitar strings zinged and the auditorium expanded to allow the band's power and rocktastic majesty blow you away. With a sound like this, it's not hard to hear why this album got its title.

The Esoteric X-03SE is a fabulously built player that leaves no stone unturned in its quest to reveal as much detail as it can. The balance is open and vibrant, while the depth of information is stunning. If only all entry-level players were as good. **HFC** 

Jason Kennedy



#### Esoteric's own X-01 notwithstanding, this player has a level of resolution and musicality that would seem to be at the top of the game. Some will prefer a smoother sound but it's hard to criticise the transparency of this precisely executed machine.



# with age comes wisdom







viola audio laboratories (5 years)

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# **Discount duo**

Rotel sticks by the budget pre/power amp concept with this new, competitively priced pair

PRODUCTS Rotel RC-06 and RB-06 TYPE Stereo preamplifier and power amplifier PRICE (RC-06) £299; (RB-06) £299

 KEY FEATURES (RC-06) Size (WxHxD): 44x7x33cm
 Weight: 4.3kg ● Inputs: Five line inputs, one phono/ line ● Headphone sockets ● (RB-06) Size (WxHxD): 44x8x34cm ● Weight: 7.5kg ● One set speaker terminals
 Pated power: 70 watts per channel (eight ohms)
 CONTACT ☎ 01903 221800 ⊕ www.rotel.com

otel is one of the few manufacturers currently offering a 'budget' preamp and power amplifier combination. There are plenty of integrated amps costing more than these two boxes together, though, so just what is Rotel's point?

Until relatively recently, any system with even the slightest pretension to high-end status automatically included a preamp and power amp. But that was in the days when vinyl was the main domestic sound source. The coming of CD made a lot of people realise that a power amp with the addition of a selector switch and a volume control was, basically, an integrated design. By this point in history the quality of integrated amps had risen pretty high anyway, and so when integrated amps invaded and conquered the £500-£2,000 market, there wasn't much resistance.

All the same, a few two-box solutions persisted, and there are some real advantages despite the obvious drawbacks of extra shelf space, more mains sockets, more boxes and so on. Most obviously, you can mix and match brands, which can be fun especially when upgrading. You can put the power amp near the speakers and significantly reduce speaker cable lengths – you'll need long interconnects, of course, but the quality loss associated with this is generally less. And if you use vinyl as a regular source, you'll often find that hum levels are lower when the large transformer invariably associated with a power or integrated amplifier is physically remote.

Manufacturers also have more room to do fancy things with circuitry inside two boxes. We're not sure that's a major justification in this particular case, since neither the RC-06 or RB-06 is especially crowded inside, but even that can be welcome as crowding electronics together is hardly ideal for minimising noise and interference. And on top of that, the RB-06 power amp can be set to work in bridged mode, putting out up to 200W or so, which makes for a cost-effective power upgrade simply by buying a second RB-06 for the other channel. So, there are plenty of reasons why a pre/power combo may well be the answer in preference to a similarly-priced integrated.

In this particular case, specifications closely match those of a typical integrated amp at about £600. Output power of nominally 70 watts per channel (more like 90 watts, actually) and six inputs, plus remote control of input and volume – it's a familiar recipe. There are a couple of rather clever variations in the RC-06, though, the first being the built-in phono stage. As shipped, this is a perfectly normal moving-magnet, RIAA-equalised type, but it can be reconfigured internally to operate as another line input if you don't have a turntable. The front-mounted socket for a 'media player' is handy, too. It doesn't add to the input count, by the way, as it functions instead of 'Aux 2'.



### Rotel RC-06 preamplifier and RB-06 power amplifier [Review]







# "As a result, one is tempted to put on something noisy, turn the volume up a bit and get out the old air guitar."

Astonishingly, the balance control cannot be bypassed - this must be the first amp lacking a 'source direct' or similar button that we've seen for some time. This arguably undermines the use of a very high quality ALPS volume control, though the latter's other advantage of enhanced reliability is still valid. Input switching is via a good-quality integrated circuit that is happy with high-level inputs, while amplification is carried out by high performance op-amps supported by passive components of uniformly good quality. The power amp likewise uses good components, amplification here being by discrete transistors with two pairs of output devices per channel on generous heatsinks. Build guality is good if electronically rather dated - single-sided circuit boards are so passé!

### SOUND QUALITY

Whether due to the separation of preamp and power functions or simply to the details of Rotel's design, this is one gutsy-sounding combination. There are amps around capable of putting out 100 watts and more that don't sound as powerful, and no, we weren't running the RB-06 into clipping. A large part of the reason for this must surely be the powerful, driving and very well extended bass, which convincingly combines grace and grunt, but the midrange sounds pretty dynamic, too.

Treble isn't really called on for reserves of power, so those considerations don't apply to it, but it certainly seems suitably unconstrained. As a result, one is tempted to put on something noisy, turn the volume up a bit and get out the old air guitar. In the end it does run out of steam, but even then the RB-06 overloads quite gracefully as long as it's only momentary. We can imagine the fun one might have with a bridged pair...

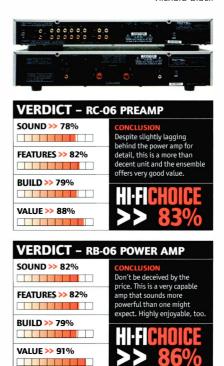
If there is a down side, it's fine detail. Those little clues as to which of two near-identical instruments is playing, the last few centimetres of positioning accuracy within a stereo image, little things like that – we've heard better. Not by much at this kind of price, admittedly, but just now and then we wished for a little more.

To an extent, then, this amp sets out a great stall on first audition, but doesn't keep up the impression in the longer term. While a serious lack of detail information can significantly hamper one's involvement over protracted listening sessions, in this case the lack is minor and we found that the general character of the sound kept us playing tracks through to the end, even when we had only intended to sample some choice audiophile moment.

In terms of tonality, the sound has a slight bias towards the bass, or perhaps the treble is mildly recessed. But this is not enough of a shift to remain directly audible for long. The all-important midrange is admirably neutral. This supports Rotel's belief in the virtues of extended bandwidth, and is much in evidence

as measured response is flat to miles above audio (over 200kHz) Strangely, this meaty-sounding combination may not appeal to those for whom rhythm and timing are paramount. But Rotel needn't worry because that simply means that listeners who find allegedly 'fast' amps aggressive are much more likely to favour the Rotel duo. Their performance is consistent across a range of musical styles, from grand opera to solo piano to electronica to jazz ensemble. It also seems consistent between the units, though the power amp is the more detailed of the two.

Warm, fun and engaging – those are the key words here. If you hanker after an analytical sound, you may return empty-handed from an audition of these amps. But we do strongly recommend hearing them against the many fine integrated-amp options around the same price. Practical considerations (upgrading and so on) aside, there is some distinguished and enjoyable music-making going on here. **HFC** *Richard Black* 







"...an extremely transparent, almost 'glass clear' cable that scythes through the mix with tremendous alacrity...Overall, an absolutely super product that's ideal for those with smooth systems, and want to get to the heart of musical matters."

HI-FI WORLD IXOTICA IX1 REVIEW

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# Up against the wall

Can this ingenious hang-on-the-wall speaker compete with conventional freestanding designs?

PRODUCT PMC Wafer 2	
TYPE Hang-on-the-wall loudspeaker	
PRICE £1,650 per pair	
CONTACT 2 08704 441044 @ www.pmc-speakers.com	n

The typical comment made by industry insiders was "they can't possibly work!" when they saw these hang-on-the-wall PMC speakers. They were wrong: the Wafer 2 most certainly is a real hi-fi speaker, even though it looks unlike the stereotypes.

Conceived primarily as partners for flat video displays, there's no obvious reason why they shouldn't be used for stereo music – especially this larger (33.5x57.5x10cm) Wafer 2, which uses a similar 170mm bass/mid driver to PMC's more conventional FB1+ floorstander and TB2+ standmount, both Best Buys in our reviews.

Despite the enclosure being a totally different shape, it still uses PMC's trademark transmission-line bass loading, featuring an H-pattern twin-line arrangement. It also incorporates several radical and interesting innovations. Two tweeters are fitted, and you can switch between either, or use both at once. Using just one tweeter enables the speakers to be mounted vertically or horizontally. Using both together 'steers' the treble upwards or downwards, so the speaker can be positioned well below or above ear level (for off-axis centre channel duties). A special absorbent 'stealth baffle' front reduces secondary radiation from the surface next to the drivers.

Finished in silky white, grey or black, both Wafer models come in two styles. One is intended to be flush mounted by being recessed into a stud-type wall; the other – reviewed here – fixes onto a solid wall, so that it stands proud by a modest 11cm.

Installation is straightforward: a couple of cleverly tapered wall brackets lock the speaker firmly onto the wall. An oversize grille helps to disguise the box behind, and connection is made via a single terminal pair.

### SOUND QUALITY

Although most hi-fi speakers are intended for free-space siting, close-to-wall is by no means unknown, especially in



recording studios where flush 'soffit' mounting is widespread. Both are trade-offs, and while true flush-mounting is preferable, knowing the exact position of a rearward wall means you can take its acoustic influence into account.

The Wafer 2 delivers a far-field in-room averaged balance that holds within a very acceptable + /-4dB, from 50Hz up to 1.3kHz. It's not particularly smooth through the bass register, and emphasises the 100-120Hz zone. The balance is much smoother above 400Hz, though the broad presence, 1.2kHz-4kHz, looks too restrained. While the bass rolls off (gently) below 50Hz, the measurements also confirm this is an easy to drive speaker, thanks to the generous 90dB sensitivity and eight-ohm load.

Sound quality was an immediate and very pleasant surprise, confounding preconceptions predicting wall-reflected midband colorations. It isn't entirely neutral and free from coloration, but the midband is very smooth and even.

Criticisms are minor. There's some mid-bass thickening, which can make bass lines sound strong and add chestiness to male voices. And the presence band can sound restrained, requiring some volume to improve diction.

These are relatively minor reservations in view of the fine midband sweetness, delicacy and transparency. Then, there's the imaging, with surprisingly good depth perspectives. Ultimately, the Wafer 2's bass performance is closer to a TB2+ than an FB1+, so there is a price premium to pay for its physical discretion. But the sound is comparable with PMC's conventional speakers, and that makes the Wafer 2 a very impressive achievement. **HFC** *Paul Messenger* 

31	57	
VERDICT		
SOUND >> 87%	<ul> <li>PRO</li> <li>Exceptionally unintrusive and discreet, taking up zero floor space, yet there's very little compromise in a sound that's impressively transparent with fine imaging and a very smooth midband.</li> </ul>	
PRACTICALITY >> 97%		
	CON Genuine deep bass is limited,	
VALUE >> 84%	and midbass can sound heav Laid back and restrained for some, perhaps.	
CONCLUSION This is an exceptionally clever 's unintrusiveness towards invisib shows mild bass thickening, but and smooth midband, and impr	ility. The restrained sound has a beautifully even, delicate	
HI-FICHOICE	N 000/	

OVERALL SCORE

october 2006 HI-FI CHOICE 61

# **Power of valves**

Great build quality and a competitive price... but do these valve monoblocks deliver a sound to match?

### PRODUCT PrimaLuna ProLogue Six TYPE Valve monoblock power amplifier

PRICE £788 (£1,576 per pair)

KEY FEATURES Size (WxHxD): 28x19x39.5cm
 Weight: 19kg ○ Inputs: single RCA phono socket
 Rated power: 70 watts per channel into two, four or eight ohms ○ Signal/noise ratio: 101dB (unweighted) at full rated power ○ Input impedance: 100k ohms
 CONTACT ♀ 020 8971 3909 ⊕ www.primaluna.nl

he ProLogue Six is the latest in an expanding range of valve amplifiers based on a common circuit architecture and external design. It's available in two versions, with either KT88 or EL34 output valves. The KT88-equipped model (not tested here) commands a £200 premium.

Although the brand was only recently established (in 2003), the three individuals behind PrimaLuna have been involved in high-end audio for a long time in retail, service and design. The company is of Dutch origin but Chinese manufacture helps keep prices in check, and value for money is written all over the PrimaLuna range in big letters.

If any valve amplifier was designed for the first-time valve user, this is it. The design is fundamentally simple (although there are some novel tweaks), with a phase splitter and driver stage. Rated at 70 watts, each monoblock includes a complement of two 12AX7 dual triodes and two 12AU7s in addition to the four EL34s. The output valves work in an enhanced Ultralinear Class AB mode, which is presented as offering performance and power output somewhere between conventional pentode mode and pure Class A. There is no black magic here - just choose the appropriate output tap (two, four or eight ohms), connect your input to the single phono socket and you're ready to rock.

In common with other PrimaLuna designs, the ProLogue Six goes all out for practicality, particularly with Adaptive AutoBias, which constantly adjusts bias levels in the output stage according to circuit conditions. This is the only major part of the circuit that is produced on a board, rather than hard-wired. Adaptive AutoBias eliminates the need for manual biasing of the output valves, and is claimed to reduce distortion, increase valve life. and eliminate the need for matched valves in the output stage. It is also said to eliminate the need for conventional negative feedback, but if this means that the amplifier has a higher than normal output impedance, the amplifier will be load sensitive. This is because its output impedance will interact with the reactive component of the loudspeaker impedance, with the possibility of unpredictable sonic balances when switching between speakers. Some of the listening tests (see below) were designed to assess whether such effects would be audible.

It would be remiss not to acknowledge build quality, which at the price is exceptional, both in terms of finish, general solidity and even such thoughtful details as the cleverly

PrimaLuna ProLogue Six





## "It has a smooth, easy-on-the-ear style, with a warmish and slightly loose balance – a quintessentially 'valve' type of sound."

decoupled valve cage cover. Internal highlights include a heavy power supply and hardwired construction. The only user control is the power switch, which is awkwardly positioned on the left hand side of the unit. The socketry all looks like WBT-sourced components, though they may be pattern parts.

### SOUND QUALITY

Different speaker designs expose changes in system voicing, due to the high output impedance. During our test, for example, Mordaunt-Short's Performance Six sounded light in balance through the midband and upper bass, while Monitor Audio's GS10 was significantly sharper and more substantial. But there are common factors, too. The amp has a smooth, easy-on-the-ear style, with a warmish and slightly loose balance – a quintessentially 'valve' type of sound. In every system combination tested, there was a lack of articulation and separation. There is no real shortage of detail, but the overall effect was as though listening to the music through a very

faint fog. Nor is there a global lack of dynamics, despite some smudging of the subtle differences that separate out members of an instrumental group. In its favour, the amp sounds fluid and easy going, and is electrically quiet, with no obvious indications of microphony.

## **PROLOGUE THREE PREAMPLIFIER**

The obvious partner for the ProLogue Six monoblocks is PrimaLuna's matching ProLogue Three preamplifier (£1,099). It's housed in the same narrow format casing, and is a similarly 'keep it simple' design. Facilities are limited to four identical line-level inputs, a single tape output pair and two pairs of preamp level outputs, all single-ended, and with control limited to the smooth as silk ALPS analogue volume control.

There is no balance control, no remote control and no global feedback, despite which the amplifier is said to offer a low and constant output impedance without the need for a cathode follower output. An internal MM phono stage is available as an extra cost option. The valve complement includes two 12AX7, two 12AU7 and two 5AR4 valve rectifiers, in a non-inverting circuit. The design is quiet and well-behaved at switch on and in operation.



But ultimately there is not enough excitement, either. It's a clean and presentable sounding amplifier, and an engaging one in its own way. Power output is impressive, though the amplifier can become shrill in the midrange and treble when played at too high a volume (not a traditional valve characteristic). What it doesn't do musically, however, is to explore the depths and complexities of really fine recordings, represented for much of this test with large-scale orchestral and small-scale female vocal material. Ultimately it doesn't really make music *sing*.

This is a highly interesting design, which has many features to its credit, especially when it comes to price and build. It also has certain qualities that will not endear it to some. **HFC** *Alvin Gold* 



Great material value for a valve monoblock, but it invites the question of what musical benefits such an amplifier offers. The ProLogue Six is impressive in many ways, but it lacks the sonic analysis and transparency of the best amps at the price.



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# Boxing clever

IsoTek's new middleweight mains filtration box. No frills, no gadgets... just the mains event

PRODUCT IsoTek Sigmas	
TYPE Six-outlet mains distribution box	
PRICE £995	
CONTACT @ 0970 240 7229 @ waway is otoksy	toms co

10 aleka

he damage that can be wrought on a sound system by poor mains should not be underestimated. But, like so many of those 'intangibles' in audio (cables being the most obvious example), it has really only been by a process of trial and error that both the nature of the problem and efficient strategies for tackling it have become apparent.

Sigmas is a new, mid-range, six-outlet mains distribution box from IsoTek, one of the best established names in mains filtration. It features techniques seen in previous models in the company's GII range, including the 'Polaris-X', 'Direct Coupled Design' and separate filtration of each of the six output sockets.

Internal inspection of what all this means in practice reveals a single circuit board spanning the case, with inductors, capacitors and Voltage Dependent Resistors aplenty doing the donkey work. Wiring is thick and high quality and the soldering is apparently done with silver solder. The case is very solid with a thick alloy front panel. Two circuit breakers, one each for the high current and current portions of the unit, are mounted underneath and are reasonably easily accessible. Two three-pin sockets at the rear are each rated at 16A output, the other four at 6A, and the input is via a pro-grade bayonet-lock socket, for which a special mains lead is supplied. We wouldn't mind if this was just a *little* more flexible....

### SOUND QUALITY

We were lucky to be able to try Sigmas on a wide variety of source and amplification components in three locations, two urban and one semi-rural. The last of those, with by far the most modest audio equipment, proved the most revealing of just what mains filters can bring about. We must stress that it didn't turn a basic budget system into a high-end dream set-up, but it did have a remarkable effect in terms of opening up images and revealing a small but important extra level of detail. Whether it represents value for money in such a system is a bit of a close call, though.

In more upmarket systems, the absolute effect may be less marked but there still is one and its nature seems to be consistent, much as with the budget system. With even modestly priced electronics offering highly credible sound these days, the law of diminishing returns is perhaps more obvious than ever, but it is no less true that top performance doesn't come cheap. In the circumstances, £995 on mains filtration can indeed, we reckon, outperform similar expenditure on 'traditional' equipment upgrades or on cables or supports. But what about putting the Sigmas against competing products? Our listening notes suggest that compared with IsoTek's own GII Mini Sub, the Sigmas offers basically more of the same, not surprisingly. But other brands have differing approaches to filtering that make for fascinating listening. A Russ Andrews filter, for instance, gave less detail improvement but seemed to produce a 'blacker' background. Perhaps there are still some undiscovered secrets to mains filtration, but as things stand the benefits are considerable and the value of this unit is not hard to confirm. **HFC** 

Richard Black

VERDICT	
SOUND >> 88%	<b>PRO</b> Improvements in detail, precision and soundstaging
FEATURES >> 84%	are clear to hear across a suprisingly wide range of components and systems.
BUILD >> 92%	Quite pricey; if low subjective noise is more important to you than detail it may not be
VALUE >> 82%	the ultimate solution. If you have good hi-fi and great mains, it's not so vital.
its cheaper ones arguably bet	er better overall performance and ter value, this fills a specific lift in performance, especially

# HI-FICHOICE >> 85%

with mid-priced electronics

# **TCI Tiger**

TYPE Analogue interconnect cable PRICE £30 (1m pair) CONTACT ☎ 07710 196949 ↔ www.true-colours.com

Ver the last 20 or so years, we've all become pretty much accustomed to the idea of high cable prices, so that an interconnect at £30 is considered a budget buy. Despite that, TCI's list of specifications bears comparison with that of many higher-priced cables out there, including silver-plated copper, PTFE insulation, twisted-pair construction (connected in 'pseudo-balanced' mode with the screen terminated at one end only) and own-brand phono plugs. No cheapo links here: the phono connectors are nice metal-bodied ones with grippy collars and split centre pins. The cable is thin and therefore quite flexible.

Differences between interconnect cables are often not vast, but we were able to put a finger on some consistent characteristics of this wire. For a start, it is a very 'clean' sounding cable, with very low levels of haze and grain, and detail is good as a result. It's not quite what we would call excellent, however, because although it doesn't seem actually contaminated, there is something in



the way of a light veil between listener and music. At the same time, images are brought a little forward in the soundstage, compared with their familiar positions.

In fairness, these comments can be applied to quite a few cables at, or even above the Tiger's price. Tonally, however, it's something of a star, with bass extension that is very nearly limitless and a neutral midrange that leads on up to a very natural treble. There's next to none of the dreaded dryness that affects many budget cables and as a result, low frequencies are rounded, resonant and tuneful without seeming out of control. All things considered, a fine result. **HFC** 

Richard Black



# Shure E500PTH

TYPE Sound isolating earphones PRICE £495 CONTACT ☎ 020 8808 2222 ↔ www.shure.com

hese are almost certainly the world's most expensive earphones, and they're aimed at the portable audio market. But is compressed digital audio worth good-quality earphones? Given that the side-effects of compression are most marked through inferior transducers, we'd say 'yes', though arguably if you can stretch to these, you can afford a player with a big drive and the use of uncompressed audio. Apple Lossless through a big iPod is the obvious partnership for the Shure E500PTH.

Shure has its justifications for the price, of course. First among these is the unique inclusion of three drivers in each of the tiny earpieces. Two woofers and one tweeter are somehow fitted in there, the sound being blended in the little pipe that opens into your ear canal. Various ear-fitting adaptors are supplied, the ideal pair for your ears not only improving sound quality but cutting out ambient sounds as well. Press a little button on the inline adaptor, though, and you are reconnected to the world via a microphone, while the music plays on, attenuated. Clever, given that removing and refitting the earpieces can be a bit of a performance.

Obviously, the sound is a whole lot better than via giveaway alternatives, but we're not utterly convinced. Yes, detail is very good and treble is clearer than we've heard from the vast majority of in-ear devices, but bass, while clean and quite powerful in a rhythmic kind of way, lacks some of the extension we expect from the best conventional headphones. There's also some coloration in the upper midrange. There's no doubting that these 'phones are immediately impressive compared to average in-ear models, but at £495 there's a hefty price to pay. **HFC** *Richard Black* 



# **Clearer Audio Silver-Line Alpha**

TYPE Loudspeaker cable PRICE £15 per metre (termination £200) CONTACT 얍 01702 543981 ↔ www.cleareraudio.com

While the same company's 'Copper-Line Alpha' equivalent (see review, *HFC* 283). Usually, plain copper cables and silver (or silver-plated) variants from the same company turn out to have more differences than just the metal, but here it seems everything (aside from the silver-plated cable) is really identical. The exception is the banana plugs, but even here Clearer Audio has been true to theme in using silver Eichmann plugs where the copper cable uses copper ones, albeit gold-plated.

To recap, the basic cable construction is figure-eight with large diameter conductors, within which a fairly healthy cross section (three square mm) of metal lies buried. There are evidently some fine details to each conductor involving polythene tube spacers and insulation of both PTFE and PVC, but overall behaviour is basically that of figure-eight and that means low capacitance and quite high inductance.



Silver-plated cable is said to need extensive burning in compared to regular copper cables, but Clearer Audio does this as part of its termination process (as well they might at £200 – hardly cheap, even including the silver plugs). Despite this, we added a bit more just in case. The next result was... no reliably detectable difference. At first, we thought we heard slightly more treble detail and 'air', but each time we swapped cables over the difference seemed less marked and a brief, informal blind test confirmed it. It shares the vitues of the Copper-Line Alpha wire – great bass, decent tonality and detail, and slightly constricted treble. It is decent value at  $\pm 15$ /m; but with a very similar cable at  $\pm 10$ , we know what we'd choose! HFC

Richard Black



# **Denon DL103R**

TYPE Moving coil phono cartridge
PRICE £200
CONTACT 😫 01234 741200 🏶 www.denon.co.uk

enon's DL103 is one of the real survivors of hi-fi – it first appeared on record players about the same time as The Beatles. But, from time to time, Denon unveils a variant on the 43-year-old design and here's the latest. The changes are basically to the generating coil, which uses 'six nines' copper (99.9999% pure) in a slightly different winding arrangement from the basic DL103. This results in a slightly lower output voltage from a considerably lower source impedance. The actual numbers are 0.25mV from 14 ohms. In power terms, this results in a slight gain in output, though you'll only derive any benefit from that when using an optimally matched step-up transformer.

Mechanically, this is absolutely the standard item, with a bulky, squared-off plastic body, medium weight at 8.5g, and a long aluminium cantilever, linking diamond to generator coil. The stylus has a round profile, which in principle is a bit of a limitation on ultra-high frequency tracing ability, though plenty of



long-term 103 users don't seem to find it very worrying in practice.

We've plenty of affection for the DL103 and are delighted to find that the new R version preserves its excellent bass, imaging and lower-frequency precision, while adding an extra level of insight across the band. This all helps to plumb new depths in familiar discs. There's still some slight roughness in the treble when comparing the cartridge with references (including Denon's own DL304 – for some, the best cartridge available irrespective of price), but that's less obvious with high-energy music, where the 103 has always scored very highly. Be aware, though, that the cartridge's low compliance (standard or R version) makes it pretty critical of poor arms. **HFC** 

Richard Black



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### **GROUP TEST AND LAB REPORTS: RICHARD BLACK**

# **CD PLAYERS**

The super-budget CD player has effectively disappeared, but between £250 and £650 there are some cracking new players to listen to



hatever you think of new formats – or newish, or even allegedly forthcoming for that matter – CD is unquestionably the principal source for decent-quality home music systems. It stands to reason, then, that a good CD player is an essential part of any such system. Or does it? You could use a multi-format player, or a music server, or even an iPod or similar... in each case alone or with an external DAC to bump up the sound quality a bit.

There's not necessarily anything fundamentally wrong with any of those options, but none has the sheer convenience of a dedicated CD player and, after a bit of an uncertain blip in the market caused by people wondering whether the time was indeed right to opt for some more hi-tech source, the breed is once again clearly established as the source component that one has to have. Plenty of folks have one of the others as well, but very few lovers of high-quality home music replay exist without CD.

The really cheap CD player market has pretty much collapsed, and we're not that sorry to see it go. There's nothing that can't be made a little cheaper and a little nastier, but if you were the type to play a well-loved music collection on a £40 CD player you wouldn't be reading this. So just where, then, does sensible sound quality start on the price scale?

Within the following group, we consider players ranging from £250 to £650. To most audiophiles, that's the budget-to-midrange market sector. To the manufacturers, it's a critical proving ground. Given the volume of sales within that price range, even now, there's a strong incentive to try very hard indeed to outstrip the competition. As a result, there is every reason to believe that some pretty decent sounds can be had for £250-£500. It's enough money to allow for the use of decent parts and build quality, and none of the players in this group requires any apology or special pleading on grounds of appearance or ergonomics.

You may be looking to upgrade a cheap or elderly player, or simply to build a system from scratch. In any case, unless your budget permits the unhesitating purchase of a Wadia, a range-topping Meridian or similar (if only!), we recommend you peruse our findings on the following pages and listen to any or all of the equipment with the help of your friendly local dealer. You'll be glad you did! **HFC** 

### **EQUIPMENT USED**

- Exposure 3010 integrated stereo amplifier
   EAR802 preamp/519 monoblocks
- ATC SCM20 loudspeakers
   Kimber, OED and custom hi-fi cables

### **MUSIC USED**

 Damien Rice O
 Bertouch Trio Sonatas
 Dick Hyman Dick Hyman plays Fats Waller
 Rossini Stabat Mater

Se Alan Bush Woman's Life

### EARS USED

Selley (Cambridge Audio)



### **STRUCTURED LAB AND LISTENING TESTS**

Each of the players in the group was subjected to a rigorous programme of listening and laboratory tests. Measurements were made using a combination of custom-made CD-Rs, devised specifically for these tests, and a high quality ADC which converted the analogue output of each player back to digital for analysis on a PC, using principally Cool Edit Pro and Mathcad. To test aspects of SACD performance, since SACD test discs are not widely available and impractical to generate, commercial music discs were used and analysed by inference and comparison. Our methodology provides a searching analysis of a multitude of aspects, the most important of which are summarised in the bar graphs (with other significant findings mentioned in the text). A few measurements were carried out which are not reported unless results were alarming, for instance absolute speed accuracy - quite beyond reproach for all the players here.

Our comprehensive listening tests were no less rigorous, conducted under blind, level-matched (to 0.05dB) conditions with some of the industry's most experienced hi-fi panellists. In addition, there were extended sighted listening tests by the author, using a wider variety of equipment and music and under a varied range of volume levels to attempt to determine real-world performance.

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No other magazine offers an equivalent test and listening programme for comparative tests.

### LAB REPORTS: THE BAR GRAPH

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1

Our 3D bar graphs are a simple way of showing how the products compare across five key technical measurements. A percentage is given that falls above or below the group average. In this test, the five measurements are:

**1] Total harmonic distortion:** The classic distortion criterion, measured as the purity of a single sine wave at various frequencies and levels.

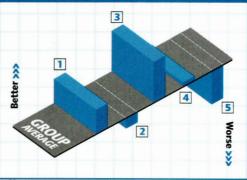
**2] Jitter:** A measure of how stable the timing clock is. Measured at the analogue output, this distortion shows up as increased noise and/or low-level interfering frequencies which can contribute to sonic 'grunge'.

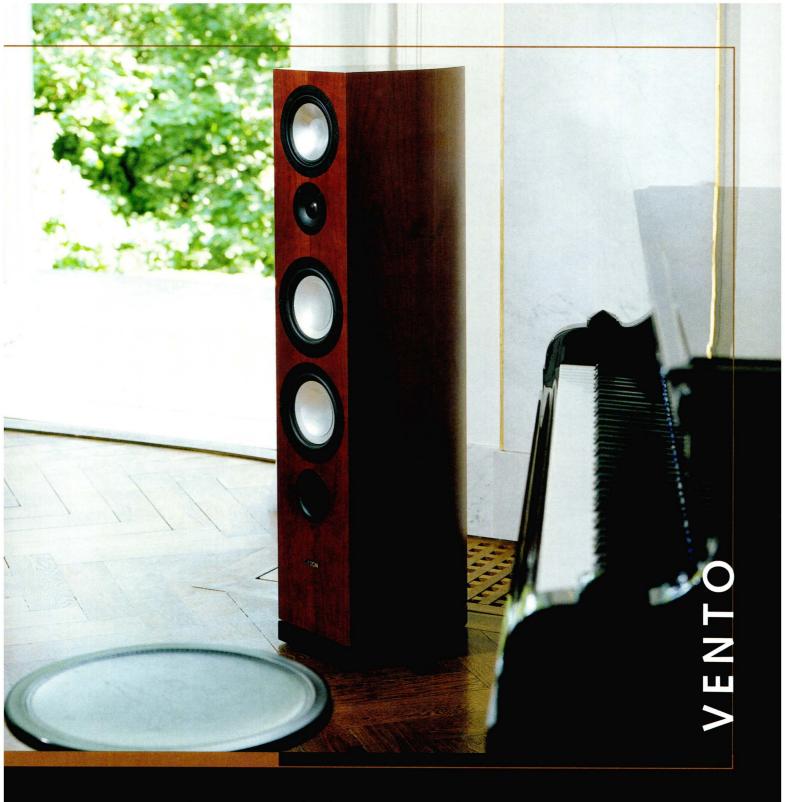
3] Linearity: How accurately the output behaves at very low levels. Poor figures can lead to distortion rising considerably in quiet musical passages.

**4] Dynamic range:** This is effectively the same as signal-to-noise ratio, the difference between full output and the practical noise floor of each player.

**5] Digital filtering:** Frequencies above half the sampling frequency should be efficiently filtered off. The filter is tested by playing tones at various frequencies and looking for ultrasonic spurious ('alias') tones that appear in the output.

### **OUR BAR GRAPHS: AN EXAMPLE**





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## £250 № 0870 900 1000 @ www.cambridgeaudio.com

Is the Award-winning Azur 640C v2 still a budget bargain?

he Azur range feels shiny and new even now, but this 'version 2' model has itself been around for the best part of a year it arrived just in time to scoop a gong in last year's HFC Awards. It was intended as a mild electronic revision of the first 640C, adding a second DAC (a recent Wolfsen part) so that each channel now operates in differential mode - a well-established way of knocking an extra couple of dB or so of noise and distortion on the head. In similar vein, the analogue stages use differential mode and as a result, the circuit features a large number of op-amp chips. Surprisingly, these are the time-honoured NE5532 type, a component out of favour with many, but certainly not all, audio designers.

These are mounted on a dedicated audio board, fed from a separate PCB bearing the drive-related components; Cambridge proudly claims on the screening cover to have made its own servo electronics and thus must be commended on achieving gratifyingly fast disc loading at barely two seconds from pressing 'close'. The mechanism looks as if it's been built, or at least modified, by Cambridge, as it has a substantial rubber damping layer on it, with the aim of reducing jitter at source.

The power supply uses a medium-size toroidal transformer and modest smoothing capacitors. The various elements of the player are linked internally by a lot of wiring, not all of it amazingly neat. The LCD display isn't to everyone's taste but is clearly visible under practically any conditions and the machine is smart overall.

#### SOUND QUALITY

As the cheapest in the group by a large margin, this player ran the risk of flailing in the wake of the others, but in fact nothing in the listening notes made by our 'blind' panel suggested that was the case. It wasn't the favourite of the day, but it also received its share of praise. One listener found it bland and uninteresting in the first two tracks of the test sequence but



seemed to warm to it in the third and fourth. Others were more sympathetic, but the 640C appears not to be an "exciting" performer.

What it does well is the subtler side of things. The initial presentation may not grab you, but after a while one is apt to realise that the sound is registering almost subconsciously with your brain. It's clear that where the music had more to offer in terms of subtle interplay than immediate impact – this was most true in the Rossini excerpt – the sound was consistently better liked.

Consistent with that, the character of the player was described several times as "soft" and also "dark", though there were also a couple of comments about a trace of harshness in the treble when it gets busy. Very little was said, most of it mildly positive, about detail, while a lone comment on bass suggested that it had good extension and reasonable control.

Though these 'blind' listening notes are far from overtly negative, our sighted tests left us feeling considerably more enthusiastic, particularly in the context of price. It may not beat the best in this test in terms of musical impact, but at half the price its understated and natural style of music making is truly impressive. If your budget won't stretch beyond £300, the Azure 640c v2 remains the player to beat for lovers of civilised sounds. **HFC** 

VERDICT		
SOUND >> 79%	Some pricier players may offer more raw excitement, but if you value the	
FEATURES >> 79%	effortless flow of musical information, you should certainly hear this one.	
BUILD >> 81%	Plus, there's that super low price to take into account.	
VALUE >> 95%	HI-FICHOICE 87%	



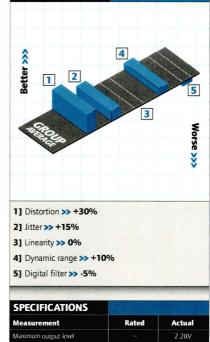
### LAB REPORT

There's no guarantee that every sample will be similarly perfect, but the review unit at least was flawless in regard to speed accuracy. Probably more significantly, its measured performance in other areas was also very hard to fault. Distortion hovers around the practical measurement limit at a little below 0.001% worst case and noise and jitter are also about as good is they get.

As with many CD players we've tested, though, the 'brickwall' filter doesn't cut in as sharply as it should and there is some aliasing distortion evident for signals above 20kHz. This is widely assumed to be harmless, but as it's effectively the dominant distortion mechanism in most modern players we'd still like to see it reduced, which should be perfectly possible. Even including that, though, the Azur 640C v2's measured performance would not in any respect embarrass a player at twenty times the price.

#### HOW IT COMPARES

otal harmonic distortion



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Creek's first Chinese-built CD player keeps the price in check

The Evo range made its *HFC* debut in issue 283, when we looked at this player alongside its amplifier stablemate. These units mark Creek's transition to overseas manufacturing (for its cheaper ranges), which has allowed the company to put some very high-end-y stuff into them, not least the heavyweight metal casework.

Creek has elected to use a 'proper' CD-Audio transport rather than some variety of ROM drive, a decision we wholeheartedly endorse on account of its swift disc loading and low levels of mechanical noise. Following the transport mechanism, a Burr-Brown chip performs digital-to-analogue conversion and analogue filtering, while the output stages are courtesy of some familiar, high-performance op-amps. The economies achieved through Far East manufacture have evidently allowed Creek the luxury of separate op-amps, something audiophiles often regard as worth the effort.

Construction inside and out is very good, with passive electronic components ranging from good commercial grade to a couple of tweaky audio output capacitors, while the power supply relies on an R-core transformer with several regulators feeding the various sections of electronics. The display is a nice blue colour but can be a bit garish of an evening – luckily it is dimmable. Interestingly, the promotional literature candidly admits that upsampling has been deliberately avoided, as Creek believes it is not viable to do it correctly at this kind of budget. Creek also tells us that, to avoid interference, the control chips are fed from the same clock source as the converter.

#### SOUND QUALITY

Our listeners all agreed that the Evo's treble was boosted, relative to the rest of the band. The extent of this, however, is so small that it doesn't really manifest itself as brightness, appearing instead in the form of seemingly enhanced reverberation, a shift of emphasis from one instrument to another, or even very



mild blurring of high frequencies. This also depends on the programme material and also on how each listener reacts.

The baroque chamber music track was a critical arbiter of this. Harpsichord and violins are treble-rich instruments, and compared with the other players, they seemed a little more 'present' though not always quite as neatly defined on the Evo. On the other hand, they were well placed in a believable acoustic space and had a generally natural tonality: one listener thought the violins a little hard, but the others were untroubled.

Bass from this player is excellently controlled and fully extended, with a really taut quality, though few listeners would describe it as 'fast'. One of our listeners felt the piano track lacked percussiveness. Fair enough perhaps, but another listener pinpointed the upside of that during the very same track, when he praised the player's cohesiveness.

As for detail, the panel's notes suggest that this is good but perhaps not excellent. Then again, they didn't mention it very often, and we were inclined to think it better than par for the course. Once again, detail is not thrust at you, more offered in an understated kind of way, and that takes time to register as the major plus that it is. Imaging is also good, with a nice sense of depth. **HFC** 

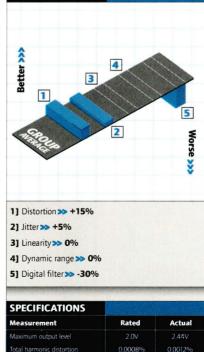
VERDICT		
SOUND >> 83%	A minute degree of subjective lift in the treble	
FEATURES >> 82%	different (subtle) ways, but for most music and in most	
BUILD >> 87%	systems, this is a very capable player that offers fine value.	
VALUE >> 88%	HI-FICHOICE 86%	



At 2.4V, the Evo's output level is a couple of dB higher than the notional standard and thus liable to be misleading in A/B demonstrations – although this is such a big difference that one is at least more likely to spot it for what it is! It is sourced from a particularly low impedance, too, so we would have no qualms whatever about hanging long leads on the outputs, if necessary.

For the rest, there is very little to worry about. Distortion is once again very low and varies little with frequency, though it did creep up slightly on just one channel in the extreme treble. It soon sinks into obscurity at output levels below -10dB, though, and frankly, if one adheres to the 'first watt is the most important' rule, the player can be regarded as effectively distortion-free. Jitter is low, speed accuracy impeccable and apart from the near-perpetual gripe about filter performance about 20kHz we have few real criticisms at all.

#### **HOW IT COMPARES**



108dB

>100dB





Q

"SOUND-PER-POUND, these might be the best speakers we've ever heard."

(Model 1010, What Hi-Fi? Magazine, July 2006)



1050 September 2006





WHAT HI-FI?

1020 September 2006



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### CD players £250-£650 [Ultimate Group Test]



## **£500** № 01234 741200 @ www.denon.co.uk **DENON DCD-1500AE**

Denon goes back to its two-channel roots with this purist player

ooking at current Denon CD players, one might be forgiven for thinking that the brand had given up on SACD – nothing in the model numbers suggests anything to do with the format. But Denon's top models all handle SACD, if only in stereo. This is the cheapest of them. It's minimalist, offering little beyond the bare essentials. You do at least get a headphone output and a 'Pure Direct' switch, which kills the display and digital output.

Seen from inside the case, the transport is a bit bulkier than most current CD-only drives; it's mounted amidships, with audio circuits to its right. Astonishingly in this day of multi-layer printed circuit boards, it sports single-layer boards made of cheap laminate, with dozens of wire links – perfectly workable, but we're surprised to learn it's still viable. There's nothing old-fashioned about the D/A converter chip, though, which is a modern DSD-ready part from Burr-Brown, surface-mounted underneath the circuit board. Joining it are the output buffer amplifiers, while passive components are through-hole mounted.

The power supply is also traditional, with a good old frame transformer feeding the rectifiers, capacitors and regulators. Component quality throughout is basic commercial grade, apart from a few Silmic audiophile-grade electrolytic capacitors.

SACD players can sometimes be pretty slow to load any kind of disc, but this one is tolerably prompt and mechanical noise levels are low. Oddly, the display doesn't display CD Text, though SACD Text does appear.

#### SOUND QUALITY

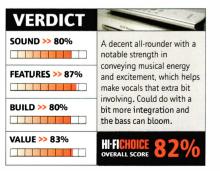
A lively, rhythmic and dynamic presentation is the most outstanding trait of the DCD-1500. All our panellists were agreed that it made the most of contrasts of every sort within the music and really got on with things, no messing about. Of course, combining that with the more softly-softly approach required by gentler music would be the true mark of



greatness, and there the outcome was a little equivocal. One listener even used the word "ragged" to describe the instrumentalists co-operating in the Rossini excerpt, which flies against other experience with what is in fact a very sophisticated recording.

We're certainly not talking about a one-trick player here, though. There is plenty of detail and insight in the sound, and imaging is also good, though a little behind some of the other decks in terms of depth. Tonally the balance is good and in most material one has no feeling that any frequency band is being unduly emphasised or suppressed. The one exception to this seems to be the very deep bass – when severely provoked, it develops a bloom, as if control is less than perfect.

The listening panel was on the whole taken with the Denon's attitude to voices, and in sighted tests afterwards we were even more so, as they are communicative and arresting. There is a price to pay sometimes in integration with the instrumental backing. But, where there is a voice, it's usually the most important single strand so we won't complain too bitterly. Finally, the sound from SACD largely matches that of CD, though the bass is better controlled and there's more refinement overall. **HFC** 



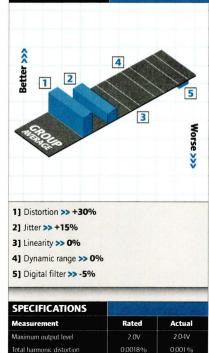


What can we say? Another set of measurements that pretty much preclude criticism on any sensible technical grounds. The usual amount of post-20kHz aliasing is there (and the word 'usual' is employed advisedly – most CD players have very similar amounts, so while we persist in finding it a flaw, it's hard to see how it directly influences audible differences between players) and in SACD mode, there's the usual amount of ultrasonic noise. But all the usual criteria of noise, jitter and distortion are excellent and in line with the results obtained from other players in the group.

In fact, distortion from this player does seem slightly better at high frequencies than the average, but we're talking about the difference between 0.003% and 0.002%, and even then under conditions of output voltage that are probably getting unrealistic. In and out of band, we struggle to find anything to blame!

HOW IT COMPARES

ignal-to-noise ratio



108dB

>110dB

your current system isn't terminal... it just needs some ayre to breathe



vre



D-1xe DVD CD Player

K-5xe Preamp

9

V-5xe Power Amp



V-6xe Multichannel Amp



CX-7e CD Player

F. |

C-5xe Universal Player

10.



AX-7e Integrated Amp



DX-7e DVD Player



P-5xe Phono Preamp

Multi-format Player DVD Players CD Player Pre/Integrated Amplifiers

CEC

K-1xe Preamp

V-1xe Power Amp

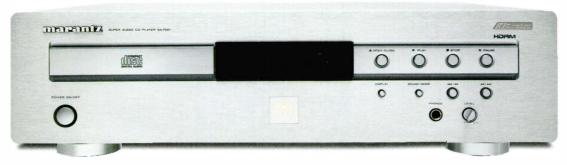


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### CD players £250-£650 [Ultimate Group Test]



## £600 № 01753 680868 # www.marantz.com

Marantz brand ambassador breathes on the latest CD/SACD player

I stands, of course, for Marantz 'brand ambassador' Ken Ishiwata, whose special attention has graced those models that bear his mark. Typically, this means adding features to the basic item along the lines of better passive components, toroidal instead of frame transformers, and so on. Both apply to this model, and the chassis has been reinforced and copper-plated, and higher-quality phono sockets have been fitted – mind you, they connect to the circuit board via some undistinguished push-on connectors, so we're not sure if that's an obvious net gain.

Rumours abound that this model is internally very similar to the Denon DCD-1500AE, but that's clearly not the case. The transport mechanism looks similar, but it behaves differently, giving a slower loading time, and all the following circuitry is different. Marantz has chosen a Cirrus Logic DAC chip and follows it not with the near-invariable handful of op-amps but with a dense assemblage of discrete transistors, which perform filtering, buffering and output functions.

Assembly is very neatly done and the player has a good standard of finish. It seems a little noisy mechanically, especially when playing SACDs, and on the ergonomics front we found the identical and adjacent 'Open' and 'Play' buttons a bit of a nuisance. As with most SACD players currently around, it's a stereo-only machine and features are fairly frugal – select the SACD or CD layer, programme track order, dim the display. That's about it.

#### SOUND QUALITY

Taking our first look at this player in *HFC* 284, we felt that its bass was not quite all it might be in terms of energy and immediacy. It would seem that our listening panel broadly agreed with this, for while there was praise for the way the player handled midrange and (mostly) treble, there was also more than the odd mention of a slightly thin quality to the sound, especially in busy musical textures.



By contrast, when there's not too much going on, the bass has weight and warmth. The Damien Rice track has some moments of deep bass, which brought forth descriptions of a "big sound", though it also had traces of sibilance. On the orchestral track, some lack of precision and space around the performers was noted.

The most successful track overall was the baroque chamber music, where the limited bass extension of all the instruments and the natural acoustic space around the instruments was neatly and believably portrayed. Solo piano did well, too, with praise for the dynamic and full-bodied sound.

SACD replay seems on the whole to share the characteristics of CDs, though once again bass appears to have a little more detail, insight and control. Overall, the sound is just a shade more relaxed.

All of which largely boils down to a matter of taste. The player's relaxed sound and lovely midrange tonality are highly commendable, and there are definite strengths in the detail and imaging departments. In many respects it's a player that's easy to live with, sonically speaking, but while the 'KI' adds a touch more refinement in some areas, we suggest that the standard £430 SA7001 offers better value overall. **HFC** 

VERDICT	0.00
SOUND >> 82%	A player with many fine qualities and a few minor
FEATURES >> 87%	flaws that may bother some listeners a little, others not at all. Much of the bother
BUILD >> 85%	concerns the bass, so you really should see how the bottom end grabs you!
VALUE >> 85%	HI-FICHOICE 84%



### LAB REPORT

We would hesitate to call Marantz's 'HDAM' modules flawed, but by current CD player standards they add just enough 'character' to show in measurements of distortion. 0.003% of mostly second and third harmonic distortion at full output hardly constitutes alarming levels, however.

What's really rather intriguing about this distortion is that it declines not only at low frequencies but also at high ones. Usually, the midband frequencies around 1kHz show lowest distortion, which is why manufacturers like quoting them! (Distortion at such frequencies is typically most audible, so it's not unfair).

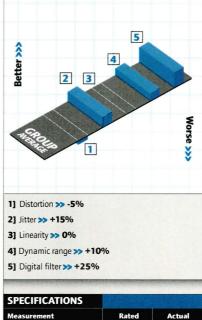
Anyway, performance here is at worst only borderline, at best harmless, and noise and jitter are again very low. There's the usual amount of near-20kHz aliasing but apart from that the ultrasonic band is very clean. Speed accuracy is perfectly acceptable at 25ppm slow.



Maximum output level

fotal harmonic distortion

al-to-noise ratio



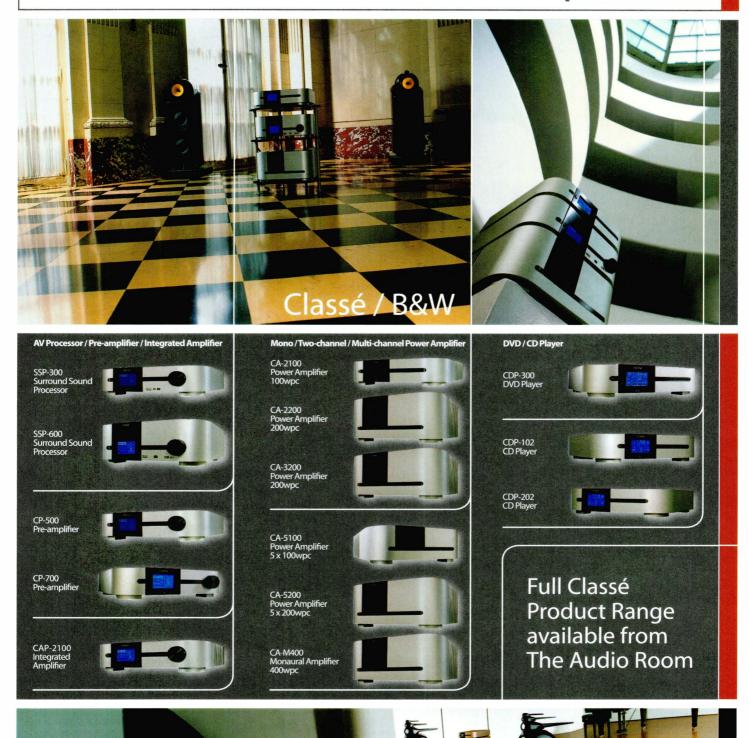
0.0009%

109dB

0.003%

>109dF

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" It delivers CDs with the skill of an accomplished artist, and offers the bonus of excellent two-channel DVD-Audio/Video replay, too. For the depth of its sonic resolve, this player is almost in a Classé of its own." Jason Kennedy, Classé CDP-202 Review Hi-Fi Choice September 2006



### CD players £250-£650 [Ultimate Group Test]



## £498 № 01702 333071 # www.rega.co.uk

Rega reaches for the stars with its distinctive new CD player

Rega's products usually stand out from the crowd visually, and this top-loading player is certainly no exception. Top loaders tend to be quicker to use once one gets accustomed to the routine. In this case, opening the lid is simplicity itself, as there is no door catch: one simply flicks up the lid and places or removes the disc. The disc is retained by a trio of spring-loaded ball-bearings, and this gives rise to our one reservation about the system as it's impossible to remove the disc without slightly bending it. Still, we loaded and removed a spare disc a couple of dozen times with no detectable ill effects....

The player still takes about five seconds to recognise a disc, thanks partly to an 'initialising' routine that Rega claims is more sophisticated than the usual laser-focusing process and improves data retrieval off each individual disc. The transport itself is simple and is resiliently mounted on the thick metal top cover of the player, linked with flexible wires to the circuit board below. Most of the components on the single circuit board are surface-mount types, even including the Wolfson DAC chip. The output circuits are based on discrete transistors operating in Class A, while the power supply starts with a small toroidal transformer and features unusually small smoothing capacitors. Rega makes no mention of this in its promotional literature, but there are reasons why big capacitors are not always better.

#### SOUND QUALITY

Using regular audio CDs, our panel reacted well to the Apollo's sound – indeed, it came out overall with the most praise and least blame of any player in the group. One listener who seemed to be having a rather miserable morning's listening, thanks at least in part to uncomfortably hot weather, suddenly become singularly enthusiastic, gratefully acknowledging sound with some real speed, soundstage and dynamics after what had



evidently seemed a rather lacklustre session so far. The other listeners, who had probably derived more pleasure from preceding players, greatly enjoyed the sense the Apollo gave of "being there", its well judged and neatly presented levels of detail and its overall high degree of realism.

Just about the only reservation expressed concerned the tonal balance, which seeme to favour the treble. Or, as one listener suggested, were some of the other players bassy?

Our subsequent tests, listening carefully for that quality against some very high-flying references, suggested that the Apollo is bright, but we're far from convinced that it's enough to worry about in the long term – maybe if you already have bright amps and speakers, but scarcely otherwise. Indeed the bass is hardly lacking in impact and the precise control exerted by this player is most welcome.

Meanwhile, the treble is clear, open and airy – exceptionally so at this price point – and images open up in a natural manner. It's possible to hear the little intricacies of different lines within a musical whole and at the same time to appreciate the overall effect; voices likewise are clearly differentiated yet not divorced from their environment. This is clearly a very musical piece of electronics. **HFC** 

VERDICT		
SOUND >> 87%	We were hugely impressed when we first tested this	
FEATURES >> 84%	new Rega in HFC 279, and its first Ultimate Group Test outing has not diminished	
BUILD >> 85%	our admiration. At the price, this is an exceptionally musical CD player.	
VALUE >> 94%	HI-FICHOICE 91%	



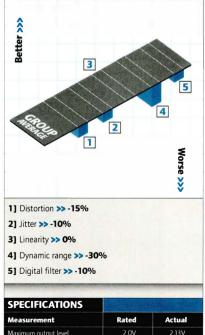
Received wisdom among hi-fi designers and reviewers has it that low-harmonic-order distortion is audible around the 0.1% level and may subtly colour the sound somewhat below that. The Apollo puts out something like 0.005% of (mostly) second harmonic: could this be a case of the fabled 'euphonic' distortion that listeners prefer to perfect neutrality? It's hard to believe, considering that this distortion drops below 0.001% for levels below about -12dB and that most amps produce more and speakers far more of the same.

There's a trace of jitter, too, with some spurious tones popping up around the -110dB level – again, surely not audible? Speed accuracy is well outside specification at 280ppm fast, which will give problems with most high-quality external DACs. Otherwise, the measured performance is nearly indistinguishable from the other players in the group and, as such, excellent.



lotal harmonic distortion

gnal-to-noise ratio



0.006%

105dB

### DEFINITIVE AUDIO



### Main image: Resolution Audio OPUS 21 CD player £2950.



Left to right: 1. Living Voice IBX R2 (Burr oak) £4400 2. KSL Kondo -Vz £750 1m pair 3. Living Voice OBX RW (Santos) £7400
4. KSL Kondo Neiro Integrated Amplifier £23,500 5. SME 10, Series V £4515 6. Mactone 300B Stereo Power Amplifier £6500
7. Kuzma XL £10,000, SME Series V gold plated £3300, KSL Kondo IOj £10,000 8. Art Audio Quintet Stereo Amplifier £3800
9. Magnum Dynalab 106T FM Valve Tuner £3600 10. Art Audio Concerto Stereo Amplifier (GE) £4400



## £650 ☎ 0870 909 6777 ⊕ www.shanling.com

A player with valves and great build quality... at just £650!

The days are long gone when a 'Made in China' badge implied something flaky, but even by 2006 standards, this is an impressive bit of machinery. For a start, its considerable weight suggests care has been taken with assembly, and while the very thick front panel is arguably more to do with cosmetics than sound, the construction should do no harm when it comes to suppressing mechanical vibrations in the player. The way it's all designed, with flat panels screwed to substantial side pieces, is very nicely done.

That theme continues inside the player, with a substantial metal case enclosing the transport. Removing the lid of this case reveals that the transport itself (basically a Philips model) has been beefed up with a metal bridge piece. Also, factor in the large and well made circuit board, which is glued into place at its edges, and it becomes apparent that physical construction is simply first class.

Bodywork apart, the player's particular selling point is its use of valves in the audio output. Elsewhere, the circuitry uses a familiar DAC chip from Burr-Brown followed by a familiar selection of op-amps, and then suddenly there's a valve, or rather (since the two bottles are in fact both double triodes) a pair of them. Both sections are connected in parallel as a cathode follower, with the valve getting caned pretty hard in terms of power dissipation – over 2.5W per envelope.

In case valves aren't enough to whet your appetite, the CD-T80 also offers digital volume control and switchable upsampling to 96kHz, both accessed exclusively from the remote.

#### SOUND QUALITY

There's evidence from our panel's listening notes that they each tried hard to like this player but failed in the end to warm to it fully. Something about its sound just kept getting in the way of the music. How else to explain the frequent appearance of favourable comments about specifics – "nice tone on strings", "more

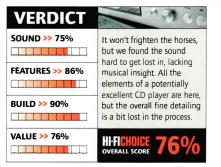


detailed" and so on – followed a line or two later by words to the effect that there wasn't much sense of emotional connection?

It seems to tick all the boxes yet fail to fill in the big picture. All the frequency range is clearly there, with the bass consistently found full if occasionally a little uncontrolled. Treble is extended and midrange presumably neutral as no one commented on it specifically – we certainly found little fault with it after the panel had left. Rhythm and pace are not alarmingly lacking, and dynamics seem reasonably lively.

For all that, and despite some decent detail (though this is one specific that did get queried a few times), the sound just doesn't seem to gel. Some of the comments on imaging help explain this, for the orchestra was heard more as a single block rather than several neatly defined sections of players, and Damien Rice's backing was also a little homogenised. In fact, it seems that what is really lacking is insight, the way the best audio components have of picking out separate strands of a texture and preserving their tonal, dynamic and spatial individuality.

This player is too general in its approach. While there's always something pleasant there to hear, the details that get one closely involved are not always present. **HFC** 





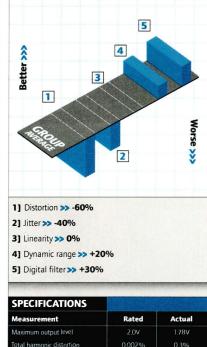
### LAB REPORT

The valve output is undoubtedly responsible for this player's high level of distortion – at some 0.3% it's a couple of orders of magnitude higher than most of the others. Yes, it's mostly second harmonic and yes, it declines with level, but it's certainly at a high enough level to colour the sound. Valves don't have to be quite so obvious, but the operating conditions selected by Shanling make it inevitable here.

Once again, speed accuracy is a problem, at 195ppm fast beyond the range where most DACs will lock to the digital output. Jitter is also the highest of the group, though still perfectly decent in the scheme of things. Otherwise, results are typical of the group. Noise is low and the frequency band above 20kHz shows, yet again, some aliasing. This varies only a tiny amount between upsampled and non-upsampled modes (and other parameters vary imperceptibly if at all) so it's hardly surprising that we couldn't reliably hear differences between the two.

### HOW IT COMPARES

ignal-to-noise ratio



110dB

>115dB

## CONCLUSIONS

Once more, the level of CD performance is very even... with a couple of exceptions

he last time we examined CD players in a group, in HFC 280, we considered players at twice the price of this bunch, and concluded that, while there were no duffers among them, there were still grounds for choosing between the machines. And this time? A broadly similar outlook holds true, but we are forced to concede that between at least four of the contenders the differences are really not major. Frankly, they shouldn't be. CD technology is mature and pretty well understood.

As long as manufacturers are aiming straight down the middle with their designs, there is not really that much scope for going wrong. Therefore, unless some accident has happened between concept and production, most of the players should be largely right... and what's left is little more than t-crossing and i-dotting, plus those little details of finesse that tend to belong well down the road of diminishing returns (along which even the dearest player here has not progressed very far).

So read as much or as little as you like into our hair-splitting analysis of the Cambridge, Creek, Denon and Marantz players, but be sure that, were we marooned on a desert island with a random selection from among them, we would not weep bitter tears.

Clearly the Cambridge offers the best raw value but the Denon and Marantz play SACDs and the Creek looks and feels to us more 'high end' than the others, so they all have merit.

Rega and especially Shanling seem to have played the game a

>> When auditioning players, be aware

perfectly matched: louder often sounds

microphonic, but any problems can be

minimised by putting them out of the

'better' in quick-fire demonstrations.

that output levels are not always

>> CD players aren't particularly

direct line of fire of the speakers.

HINTS AND TIPS

little to the side and yet we find Rega's approach very much to our taste. The Apollo is everything we would look for and a little bit more, the most involving of the group to listen to and also an arresting visual statement. An obvious Best Buy. And the Shanling? Give it a spin, but we couldn't help feeling that its designers have wandered from the path of neutrality, doubtless looking for some of what Rega has achieved, but instead losing immediacy and detail. It does look great, though! HFC

>> Some players need a little warm-up

time to sound at their best. If there's a

mains switch unless you're sure you won't be listening for a few days.

'standby' switch, use that instead of the

>> If the option exists to switch off the

display and any other circuits, take it.

The sound may well improve a touch.

#### TRY THEM WITH THESE

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**REGA R1 £298** 

78dB A

96dB G

#### AMPLIFIERS

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LAB CO

CAMBRIDGE AZUR 640A V2 £300 With or without the matching CD, this amp can get to the heart of the music.

ARCAM DIVA A90 £850 This amp adds a degree of civilisation, while packing an iron fist when needed. the music and is never less than fun. MONITOR AUDIO SILVER RS8 £800 Floorstander that offers a large, fresh sound with fine dynamics.

This diminutive model draws you into

### CD PLAYERS AT A GLANCE

		HI-FACTOR	0 • 0	ATTENDO		
MAKE MODEL	Cambridge Audio Azur 640C v2	Creek Evo	Denon DCD-1500AE	Marantz SA7001 KI	Rega Apollo	Shanling CD-T80
PRICE	£250	£495	£500	£600	£498	£650
SOUND						
FEATURES						
BUILD						
VALUE						
OVERALL						
NCLUSION	Fine value, with effortlessly flowing music and considerable subtlety, though not overly punchy.	There seems to be a hint of subjective treble boost but on the whole this player succeeds in putting itself second to the music.	This player's strengths are in musical excitement and drive, but bass lacks a degree of control.	The bass is at times a little inconsistent but there's lots to enjoy, especially the excellent imaging.	A highly musical player, with an exceptionally informative top-end for the money. Cracking value.	It's all rather mellow, perhaps too mellow, with a lack of detailed insight.
Y FEATURES						
ELEC DIG O/ P	Yes	Yes	Yes	Yes	Yes	Yes
OPT DIG O/ P	Yes	Yes	Yes	Yes	Yes	No
CD R-W	Yes	No	Yes	Yes	Yes	No
CD TEXT	No	No	No	No	No	No
ALANCED O/ P	No	No	No	No	No	No
ONCLUSIONS	E = EXCELLENT • G = GOOD •	A = AVERAGE • P = POOR				
DISTORTION	0.0009% <mark>E</mark>	0.0012% E	0.001% E	0.003% G	0.006% <mark>G</mark>	0.3% P
JITTER	<0.08ns E	<0.09ns E	<0.08ns E	<0.08ns E	<0.15ns G	<0.2ns A
LINEARITY	<0.1dB E	<0.1dB E	<0.1dB E	<0.1dB E	<0.1dB E	<0.1dB E
S/N RATIO	109dB E	108dB E	108dB E	109dB E	105dB G	110dB E

110dB E

95dB G

110dB E

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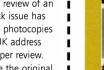
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## INTRO BUYER'S BIBLE

## FICHOIGE BALANCE BUYER'S BIB

Welcome to the *Hi-Fi Choice Buyer's* Bible – the ultimate guide to the very best high performance hi-fi and multichannel gear you can buy. Here, you'll find our favourite current products listed under easy to use categories, plus 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 stringent 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.

Products that score more than 80 per cent overall are automatically considered for inclusion in the *Hi-Fi Choice Buyer's Bible*. Any Best Buy or Editor's Choice Badges awarded are also displayed.

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## 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 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 so-called 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 surround sound using up to six channels, 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.

### A&Q

### 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 44.1kHz 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**





**Cyrus** CD8x £1,000 The latest diminutive CD spinner from Cyrus is an absolute stormer. Highly detailed and supremely musical, it's more than a match for many more outwardly exotic machines.

## CD PLAYERS BUYER'S BIBLE

# SOURCES

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Our fa	vouri	te 🗆	BEST BUY 📧	EDITOR'S CHOICE
CD	<b>PL</b>	Y	ER	S

			LNJ	SACD COMPATIBLE	ELEC DIG OUTPUT	OPT DIG OUTPUT	CD-RW COMPATIBLE		BAL ANALOGUE OUT	EADPHONE SOCKET	VARIABLE OUTPUT	ISSUE
Aud	io-only CD and SA	CD pl	ayers	INPATI	GOUT	GOUT	OMPAT	CD TEXT	DGUE (	E SOC	EOUT	ISSUE NUMBER
BADGE?	PRODUCT	£	COMMENTS	BLE	PUT	PUT	BE	EXT	0 III	Ē	PUT	BER
UP TO	£1,000						1		ale, 4			
88	Cambridge Azur 640C v2	250	Does most things extremely well and has a remarkably good sense of poise for the money		•	•						274
86	Creek EVO	495	Excellent bass, good imaging and tonal neutrality are barely compromised by a shade of treble dryness		•	•	•					283
BB	Cyrus CD6s	650	Small, efficient and cheerful, with plenty of energy and just the smallest lack of detail			•				•		276
BB	Cyrus CD8x	1,000	Impressive mix of detail, musicality, analysis and appearance. Even better with the PSX-R power suppy (£400)		•	٠						270
80	Denon DCD-700AE	250	Excellent entry level quality CD player lacks for nothing. Musicians please note: even has variable speed replay		•	٠				•		284
88	Marantz SA7001	430	Easy, relaxed sound arguably lacks true grit, but is extremely listenable from CD and SACD	•		•		•			•	281
68	Marantz SA7001 KI	600	Very musical results off both CD and SACD: not the most urgent rhythmically, but detailed	•	•	٠	٠			•		284
88	Naim CD5i	825	As idiosyncratic as ever, but sonically the CD5i is the definitive player at the price				•					259
88	Rega Apollo	498	Outstanding top-loader has sweet, clean top end that makes voices magical and difficult discs listenable		•			٠				279
BB	Sony SCD-XA3000ES	800	A good, if not truly great, all-rounder with CD and fine multi-channel SACD performance	٠	•	٠	٠	٠	•			276
ABOVE	£1,000											
88	Arcam FMJ CD36	1,200	Fine detail, extension, dynamics and neutrality: 'bland' or 'honest' according to listener taste!		•	٠	•					280
EC	Audio Research Ref CD7	8,000	Top of the CD playing tree, with a sound as open and musically accomplished as you'll ever find from the format		۲	۲			٠			279
88	Ayre CX-7e	2,195	If you want a clean-sounding, revealing and entertaining player with fabulous build this is a strong contender									281
EC	Classé CDP-202	4,750	CD/DVD-A player with brilliant sound, if sophistication is your bag. Includes S-video and composite outputs		•	•	•		•		•	284
88	Copland CDA823	1,750	Don't let the laid-back character fool you - this player has plenty of insight too		•		٠		•			280
	Creek Destiny	1,200	Our listeners failed to connect intimately with this player, though essentials all seem excellent		•	•	•	•				280
88	Cyrus CD Xt/DAC X	1,900	Greater resolve than the single box competition, and DAC X has six digital inputs for whole system conversion		•	•	•		0			279
EC	Krell SACD Standard	4,244	A landmark SACD player and an excellent CD player at what by Krell standards is a relatively affordable price	•	•	•	٠		•			251
	Linn Majik	1,950	Compact and capable of most CD formats, it's musically communicative with fine pace and enthusiasm			٠	٠					283
88	McIntosh MCD201	3,400	Superb CD performance and even better with SACD which has its own output level control.	•	•	٠	•			٠	•	284
BB	Marantz SA-15 S1	1,200	Some inconsistency over imaging, but enjoyable performance, strong on detail	•	•	٠	•					276
88	Meridian G06	1,695	Great combination of all-round attainment with superb looks and build quality, plus superb remote control		•	٠	•	•				281
EC	Meridian 808i Signature	8,250	Stunning CD player with added preamp functions. Versatile and quite delightful			•	•		۲			263
88	Myryad MXC6000	1,400	A highly listenable player with excellent tonal balance and very fine detail		•		٠					270
BG	Naim CD5x	1,450	Unique design nicely complements a sophisticated and highly capable performance				•					280
EC	Naim CDX2	2,800	Fine quality one-box CD player, but its best feature is upgradeability via outboard XPS supply									238
	Primare CD31	1,500	A well made player that may not appeal to timing freaks but does lovely things with large musical forces		•	۲	•		•			270
EC	Resolution Audio Opus 21	2,850	Dynamic, well timed and 3D performance with an analogue volume control and digital input for a second source				٠			•	•	244
	Roksan Caspian M Series-1	1,100	The newly tweaked Caspian remains a smooth, cohesive and informative player		•	•	٠					278
BB	Sugden CD21SE	1,395	Delivers its particularly musical touch brilliantly and warrants the attention of all true music lovers		•							271
BB	Shanling CD-T100	1,650	Stunning-looking player that offers various operating modes: in any, sound is clear and assured		•					٠	•	270
	T+A CD1230R	1,500	Filter options make this a player for all tastes, aided by top quality engineering			•						280
EC	Wadia 302	3,999	A dynamic and gripping player, with bass to die for and resolution to change your listening habits		•	•	•		•		•	253

SPECS KEY SACD COMPATIBLE Plays high-resolution SACD discs in multichannel and/or two-channel mode. 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. OD-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.







## 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 very good – often as not they are the ones that play DVD-Audio discs as well.

The great advantage of DVD is that it offers sufficient capacity to hold a feature length movie or music concert *and* discrete multichannel sound on a disc the size of a CD. In the case of plain DVD-Video discs, the audio is encoded in either the Dolby Digital or DTS format, both of which use 'lossy' compression to fit the audio 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 sound 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, alongside CD and DVD-Video – a neat and relatively future proof route into high-resolution multichannel music. Higher-end models featuring high-bandwidth compatible digital audio links are now also appearing, enhancing DVD-A/ SACD sound when used with similarly equipped amps.

### Q&A WHICH AUDIO OUTPUTS GIVE THE BEST OUALITY?

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?

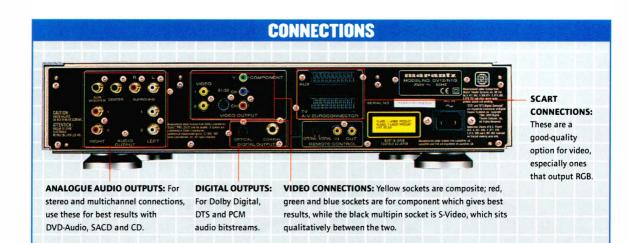
The best connection is component video closely followed by RGB Scart, which is clearly superior to S-video and the basic composite video option.

### DO I NEED A MULTICHANNEL AMP TO USE A DVD PLAYER?

Only if you want to hear music and movie soundtracks in multichannel surround. DVD players can be used with stereo amps and just two speakers to great effect, but you'll only get stereo, not surround sound.

### DO I NEED PROGRESSIVE SCAN VIDEO?

It's worthwhile for the very best picture quality, but make sure your DVD player and display device support PAL progressive.



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### Our favourite I BEST BUY E EDITOR'S CHOICE **NVN DI AVFR**C

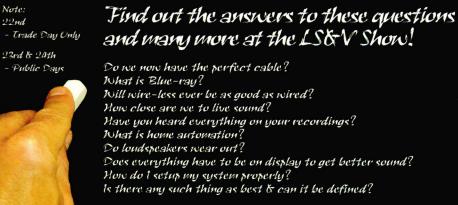
Aud	Audio/Video disc players		VD-A COMPATIBLE	SACD COMPATIBLE	elec dig ou	OPT DIG OU	ADPHONE SO	ISSUE NUMBER	
BADGE?	PRODUCT	£	COMMENTS	TIBLE .	<b>TIBLE</b>	OUTPUT	OUTPUT	SOCKET	ABER
UP TO	D £1,000								12.000
BB	Arcam DiVA DV78	700	Imagine almost all of the DV88 Plus at a knock-down price. Top picture and sound performance for the money		•	•			254
88	Denon DVD-1920	250	Respectable (if unexciting) and flexible audio player, but something of a star from its HDMI equipped upsampling video subsystem	•	•	•	•	•	276
88	Denon DVD-2910	600	Denon's entry-level universal player lives in the shadow of the '3910, especially on CD, but is a fine overall model	•	•	•	•		262
88	Marantz DV7600	600	A mid-market cracker, with sound and picture quality that generally exceeds expectation	•	•	•	٠		274
88	Onkyo DV-SP503E	300	Budget Onkyo universal player is a straightforward Pioneer based implementation, which performs well with audio and video	٠	•	•	•		275
88	Philips DVP9000S	400	Philips proves it hasn't lost its touch with mid market DVD players. Includes SACD and HDMI for quality video, and it's a star		•	•	•		274
	Sony DVP-NS9100ES	1,000	Video playback is foremost, with the iLink delivering significantly better sound than the analogue counterparts				•	•	274
BB	Yamaha DVD-S2500	700	Universal player, slightly stronger with video than audio, but well turned out with a wide range of analogue and digital in and outputs	•	•	•	•		280
ABOV	E £1,000			21.55					
88	Arcam FMJ DV29	1,600	An excellent DVD player, very fine with both CD and DVD-Audio music discs and superb in its video role	•	۲	۲			263
	Cyrus DVD8	1,200	An impressive step up from the DVD7+, which includes component video outputs		•	•			238
EC	Denon DVD-A1XV	2,500	Sophisticated universal player with state of the art video processing, high class disc replay, especially SACD	•	•	0	•		266
EC	Linn Unidisk SC	2,995	Groundbreaking universal player with built-in preamplifier, with excellent picture for home cinema and sound for hi-fi	•		•			259
88	Marantz DV9600	1,500	With excellent, next-generation picture and impressive sound quality on CD and SACD, this sets a very high standard to beat	۲	۲	•	٠	•	280
EC	Meridian G98AH	3,625	Meridian's most widely compatible G-Series DVD player - groundbreaking DVD-Audio replay and a fine CD player too	•		۲	۲		265
EC	Naim DVD5	2,565	Naim's first DVD player is a real success, notable for its class-leading sound with CD and (optional) multichannel DVD-Audio	۲					263
88	T+A SACD 1245 R	2,000	Dedicated stereo only/SACD/CD player avoids the usual compromises. It does a limited job, but it does it with fine fidelity		•	•	٠		279
EC	Townshend TA 565 CD	3,000	A universal machine that excels with music and is quite exceptional with good ol' stereo CD		•	۲	۲	•	270

SPECS KEY 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 jack fitted to the DVD player.

Note: 22nd







Organisers of The London Sou

october 2006 | HI-FI CHOICE 95

## BUYER'S BIBLE VINYL

### 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.

# AVIE VID

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.

### TURNTABLE SET-UP

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.

### 11



GR2 £265 This Rega-derived design is stunning value for money. Supplied with an RB250 am and Goldring 1012GX cartridge, it'll blow most budget CD players into the weeds.



Michell Tecnodec £767 A distillation of all the good things from some of Michell's past masters, all knitted together beautifully. Understated looks and a full-bodied sound make this a star.



Clearaudio Champion £1,475 Current king of acrylic, the Clearaudio deck, arm and cartridge combination turns in a beautifully well-balanced delivery, but choose your support wisely.



Avid Volvere Sequel £3,500 Avid has been one of the most impressive exponents of the vinyl arts in recent years, and this mid-range deck is a stunning example of analogue engineering.

## VINYL BUYER'S BIBLE

PECIFICATIONS

SPECIFICATIONS

REPLACE ISSUE NU 

### Our favourite I BEST BUY I EDITOR'S CHOICE

	URNTA ord players		SLES	SPEEDS	SUSP SUBCHASSIS	SWITCHABLE SPEED CHANGE	SUPPLIED WITH ARM	SUPPLIED WITH CART	ISSUE NUMBER
BADGE?	PRODUCT	£	COMMENTS	EDS	SIS	NOE BLE	RM	ART	BER
88	Avid Diva	1,100	A solid and powerful sounding deck with fine build, requires a smooth, relaxed cartridge for best results	33/45	•			_	247
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	•	•			229
88	Clearaudio Champion	1,365	Smart, practical and good-sounding, with impressively 'dead' arm. Isolation recommended	33/45			•		268
EC	Clearaudio Ambient	4,220	Innovative use of materials leads to a fast, precise and thrilling sound (tonearm extra)	33/45		•	•	۲	271
EC	EAR Disc Master	7,695	Combines new 'no contact' drive technology and high quality materials to bring state of the art resolution	33/45/78	۲	•	opt		276
BB	The Funk Firm Funk	450	You won't find another turntable at the price that can touch the Funk for dynamics, tone colour or detail	33/45		•	opt		279
BB	The Funk Firm Funk V	750	Vector drive brings a refinement to the standard Funk that increases resolution. For high-class analogue sound, it's a killer	33/45		•	opt	opt	284
68	Goldring GR2	265	Nicely finished Rega-manufactured deck with RB250 arm and an open, engaging sound quality	33/45			•	•	266
B8	Michell Tecnodec	767	Simple and smartly understated, performs above expectations - full-bodied and highly detailed	33/45			۲		268
BB	Michell Gyro SE	1,058	New DC motor-equipped Gyro offers great looks and even better sound. Price includes RB300 arm	33/45	۲		0		239
EC	Michell Orbe SE	2,015	A superb turntable, able to mix it with the best at virtually any price. Now features new DC motor	33/45	•				235
BB	Nottingham Analogue Horizon	529	A fluid midrange and nimble but rich bass are two of the many attributes of this bargain deck (price inc RB250 arm)	33/45			•		253
BB	Pro-Ject Debut SE	200	The best Debut has a quality cartridge and easy upgrade arm cable, it delivers a scale, energy and resolve with ease	33/45			0	0	276
38	Project RPM 5	400	Great looks plus an on the ball, engaging sound that puts it in the serious league, needs good isolation for best results	33/45			•	•	279
88	Pro-Ject RPM 9 X	1,000	A gorgeous turntable that sounds as good as it looks - vital and transparent! Price includes carbon-fibre arm	33/45			•		268
83	Rega P5/RB700	698	Combines a great sense of timing with market-leading resolution and a phenomenal tonearm - a hard act to beat	33/45			•	opt	257
100	Rega P7/RB700	1,298	A highly capable player that could hold its own in the most exalted company - a vivid and natural performer	33/45			0	opt	257
EC	Rega P9/RB1000	2,498	Exceptionally elegant hi-tech player with complex outboard supply, ceramic platter and wonderful RB1000 tonearm	33/45		•	•		228
88	Roksan Radius 5/Nima	850	Sophisticated design with accomplished sound quality, excellent imagery and good isolation (acrylic version tested)	33/45	۲		•		248
EC	SME Model 10A	3,411	Elegant and extremely capable design, tested here with Series V/309 hybrid arm	33/45	•	•	•		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	0	•	•		186
EC	Townshend Rock Anniversary	4,900	If you want to get to the meat and bones of the music this is a great tool for the job (price inc. Excalibur arm)	33/45			•		259

### Our favourite BEST BUY CE EDITOR'S CHOICE **PHONO CARTRIDGES**

MM	and MC cartridges			MM	MC	ABLE	MBER
BADGE?	PRODUCT	£	COMMENTS				
BB	Cartridge Man MM III	625	The MM III challenges MCs at twice the price, it produces detail, space and energy and has stunning resolve in the right arm	•			266
	Grado Prestige Black	40	Offers admirable detail and treble extension, with good bass and ambience too	•		•	214
88	Grado Prestige Gold	110	Produces rich, open and expansive music with the minimum of fuss	•			235
EC	Lyra Helikon	1,095	Highly capable and highly neutral, this is a cartridge for all seasons, albeit fussy about vinyl quality	۲			215
83	Sumiko Blue Point Spec Evo III	239	High output MC with refinement at high frequencies and a nimble, articulate and revealing sound		•		270
86	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		•		235
EC	van den Hul Colibri XGP	2,699	Phenomenal resolution, custom building to suit hard and software, but needs 500 ohm loading and is vulnerable to damage		•		244
EC	van den Hul Condor XCM	2,400	A stunning cartridge with stereo imaging, dynamics and detail resolution to die for		•		265
EC	Wilson Benesch Naked Analog	1,450	With its smooth clean highs, transparent midband and nimble bass, this is a lot of performance for the money		•		253

### Our favourite 🗆 BEST BUY 📧 EDITOR'S CHOICE **PHONO STAGES**

Phono	stages
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ľ	HUNU	3	IAGES	MM PHONO	MC PHONO		ADJ. IN	ISSUE
Pho	no stages			INP	NO INPUTS	ADJ. G	IMPEDANCE	E NUMBER
BADGE?	PRODUCT	£	COMMENTS	SIL	SIL	GAIN	R	æ
88	Cambridge Audio 640P	60	Tested with the almost-as-good £40 540P, this remarkable phono stage brings refinement and bass weight to budget vinyl					277
	Clearaudio Smart-Phono	250	Minute and very practical unit with slightly bright, but very detailed and low-noise, sound		•			268
88	NAD PP2 phono stage	50	A fine buy for turntable users on a tight budget - open tonality and clarity is distinctly impressive for the money	۲	•			245
88	Tom Evans Microgroove	400	For dynamics and real bass extension with good tonal colour this is the one to beat. The Plus version (£700) is even better!		•			234
EC	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	۲				201
88	Trichord Dino/Dino+	498	Relaxed yet resolute with very good image depth and natural balance, not to mention great flexibility		•	•	•	234

TURNTABLE SPECS 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.

SPECIFICATIONS



Model 10

Model 20/2

Model 30/2

Series M2

masche hon

Series 300

Series IV



Series V

**KRELL EVOLUTION 202 NEW AND JUST IN:** The only preamplifier this beauty plays second fiddle to is its four-chassis big brother the mighty Evolution Two, which we also have. Preamplifiers are vitally important, yet often overlooked in favour of juicy power amps. But the

have. Preamplifiers are vitally important, yet often overlooked in favour of juicy power amps. But the fact is that once a signal loses its integrity, no power amplifier can right that wrong. With the 202, there is no wrong to be righted.

**PINEWOOD** 

**MUSIC** 

**HIGH END BABIES** 

FOR THE BOOKSHELF

considered to be compatible bedfellows - until now. If you are looking for the ultimate compact designs to work in tight surroundings, then you must turn your ears to the WILSON AUDIO DUETTE or KRELL LAT-2000. We are the only UK dealer to have both - and we love them to bits. A simple high guality integrated amplifier like a Krell 400xi is fine.

### MARTIN LOGAN VANTAGE

This has to be the best value electrostatic available. Works virtually anywhere, and with an onboard powered woofer doesn't want or need massive horsepower. It's slim, it's elegant and it's ours. Why not make it yours, too?

### SONUS FABER CREMONA

No newcomer, but a lovely alternative to the Vantage if you prefer dynamic floorstanders. The Cremona, like all Sonus fabers, is renowned for its magical music-making. Available in Maple or Graphite finishes.

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## **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?

Ann forconsite -

Digital Audio Broadcasting (DAB) is now said to be available to more than 80 per cent of the population and the long-term plan is to switch public broadcasting over to digital entirely, 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** TU-1800DAB £250 Combines DAB with FM/AM reception and good all-round design at a tempting price.



**Creek** T50 £550 A thoroughly accomplished AM/FM tuner with a substantial and detailed sound.



**T+A** T1210R £1,000 This FM tuner looks, feels and sounds top-notch – great detail and imaging.



MD 90T £1,195 FM tuner with valves – 'affordable' for an MD, but still streets ahead of most radios.

	ir favourite	-			FM       7       •       •       •       28         FM,M,L       100       •       •       •       28         AB,FM,M       200       •       •       •       28         FM       opt       opt       •       •       28         FM       opt       opt       •       •       28         FM       opt       opt       •       •       28         FM       30       •       •       •       28         FM,M       30       •       •       •       23         AB,FM,M       99       •       •       •       28         FM,M       30       •       •       •       28         FM,M       100       •       •       28       28         FM,M       100       •       •       28       28 <t< th=""><th>1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1</th></t<>				1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	
	UNER	5		5			REMOTE	SIG. STRENO	ROT. TU	ISSI
-M	& DAB HI-FI SEPAR	ATES	3	AVEB <sub>4</sub>	PRES		CON	STH M	NING K	JE NUN
BADGE?	PRODUCT	£	COMMENTS	NDS	SETS	RDS	ROL	ETER	NOB	IBER
FM TU	INERS					24.70	10 M			
88	Creek T50	550	Very fine results indeed with precision, polish and insight added to excellent basics	FM,M,L	128	0	0	٠	۲	251
88	Cyrus FM-X	500	A classic no-nonsense FM tuner that achieves gratifying sonic results. Upgradable with PSX-R power supply	FM	7		•	٠	•	283
90	Denon TU-1500AE	130	Well attuned to the crowded modern FM band, this tuner produces clear, detailed sound with plenty of gusto	FM,M,L	100	٠				281
313	Denon TU-1800DAB	250	There's a little grain on FM, the generally decent performance on both bands makes this an great dual-band choice	DAB,FM,M	200	٠	٠		٠	283
EC	Magnum Dynalab MD 90T	1,195	No remote or presets as standard, manual everything and valves but its sound is simply sublime	FM	opt		opt	٠	•	257
	Marantz ST7001	300	FM reception could offer a little more detail and insight. DAB is fine, but near-identical Denon 1800 is cheaper!	200	•	•		٠		283
38	NAD C422	180	Admirably free of roughness or other obvious nasties, with just a slight lack of clarity	FM,M	30	•		•		250
<del>.</del>	Primare T21	600	A very fine tuner - bass and treble are both well extended and detail is excellent	FM	30	•		٠		230
	Pure DRX-702ES	210	Apparently good value is restricted by persistent veiling on FM: 'PAC' on DAB mellows sound a little	DAB,FM,M	99	•	•	٠	•	283
	Rega Radio 3	398	Strong bass, clear treble and a high enjoyment factor make this an appealing FM performer	FM,M	20		•			283
	Rotel RT-02	279	A highly competent tuner which always sounds appealing and fuss-free	FM,M	30	•	0			242
38	T+A T1210R	1,000	High-end looks are matched by the sound, which is detailed and sophisticated, with useful features too	FM	100	٠	•			283
DAB T	UNERS	312.00			3:			3.2	14	
88	Arcam DiVA DT91	450	As good as any on DAB, with serviceable FM, this one-box solution offers good build and value	DAB,FM	16		•	٠	•	269
BB	Cambridge Audio DAB500	150	Very good sound, plus optional response tweaks, and slickest operation yet	DAB	10		•	٠	•	248
	Cambridge Azur 640T	200	Slightly ahead of the pack in DAB performance, though FM is never better than decent	DAB,FM	60	٠	٠	٠		260
<b>3</b> 8	Denon TU-1800DAB	250	DAB reception is as good as any and FM performance clearly benefits from Denon's long experience	DAB,FM,M	200	•	•		•	274
	Pure Digital DRX-702ES	330	Very flexible DAB (inc L-band) and FM tuner. DAB is good, FM a touch disappointing	DAB,FM,M	99	•	•	•	•	242
	Sony ST-SDB900	200	Nicely designed UK-tuned model is a touch bright with both DAB and FM but generally insightful and clear	DAB,FM,M	60	0	•		•	259

**SPECS XEY 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. **RDS** 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 TURING KNOB** An ergonomic alternative to buttons.

### In a world where so much looks the same, we take pride in being different !



### Lifetime warranty is a natural part of our philosophy

Densen products are built for life and for long-lasting state-of-the-art performance. That's why all Densen products come with an exclusive lifetime warranty. The warranty is a global carry-in warranty that lasts as long as you own the product. At this time in history, Densen is the only manufacturer to offer lifetime warranty on high-end Hi-Fi. However, the warranty is no longer valid if you want to find out if the products float on water. Believe us, they don't...

It is our intention to make complete products. Not just products that are sonically superior, but complete like a perfect circle. As you learn about Densen, you'll discover that we go the extra mile in every aspect: design, user-friendliness, quality, warranty, upgradeability, production methods and of course sound quality. But you really won't have a clue about it all until you get to hear and see what we're talking about in real life. Then you will know what we mean when we say Air-Guitar factor (say what? check our website). There is one Air-Guitar / Air-Baton included with every Densen product. LIFE IS TOO SHORT FOR BORING HI-FI

This is some of the awards our products have received from the most respected magazines in the world:



#### Authorised dealers:

Acoustic Arts, Bedfordshire, Tel. 01923 245250 - Adams & Jarrett, East Sussex, Tel. 01 424 437165 - Glasgow Audio, Glasgow, Tel. 01413 324707 - Hi-Fi Studios. Doncaster, Tel. 01302 725550 - Holburn Hi-Fi. Aberdeen, Tel. 01224 585713 - New Audio Frontiers, Loughborough, Tel. 01509 264002 - Phonography, Ringwood, Tel. 01425 461230 - Practical Hi-Fi, Lancaster, Tel. 01524 39657 - Practical Hi-Fi, Manchester, Tel. 01618 398869 - Practical Hi-Fi, Warrington, Tel. 01925 632179 - R.J.F, Cornwall, Tel. 01209 710777 - Sound Seduction, Sevenoaks, Tel. 01732 456573 - VideoTech, Huddersfield, Tel. 01484 516670

> Densen Audio Technologies - Phone: (+45) 75 18 12 14 - E-mail: mail@densen.dk w w w d e n s e n c o m

## **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 re-record 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 disk 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.



Multidisc recorder that's slick and capable, albeit with a slightly flaky build.



CDR-HD1500 £599 Combining hard disk with CD-R adds flexibility to digital audio recording.

HI-FI **Cambridge Audio** Azur 640H £600 Rip and store CD tracks on hard disk, create playlists, connect to a PC and more.



OPTICAL IN HD CAP

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<b>Our favourite</b>	BEST BUY EC EDITOR'S CHOICE
DIGITAL	. RECORDERS

CD-R/RW.	MD	and	HDD	recorders

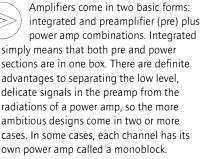
CD-	R/RW, MD and HDD	) rec	orders	DE	ACITY (GB)	VOUTPUTS	VOUTPUTS	E NUMBER
BADGE?	PRODUCT	£	COMMENTS	DECKS	(GB)	SID	SID	BER
CD-R/	RW RECORDERS							
	Denon CDR-1000	400	A respectable player and recorder, though some midband congestion was noted when recording	1		٠	•	218
§41.	Marantz DR6000	400	No frills, but in its fundamentals this is one of the finest CD recorders on the market	1		•	•	233
	NAD C660	500	Audiophile twin deck offering high-speed copying, HDCD replay and notably fine recording from analogue	2		•		243
BB	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		•	•	205
88	Pioneer PDR-609	270	Classic CD recorder with outstandingly good sound for the money on both record and replay	1		•	•	243
	Pioneer PDR-W839	350	Good-quality twin CD burner makes recordings that can be hard to distinguish from the original. Good value too	1		٠	•	218
MD RE	CORDERS							
	Pioneer MJ-D508	200	Well equipped, but musically sleep-inducingyer that receives its recommendation owing to the price	1		٠		205
	Sony MDS-JE480	130	Straightforward and effective, but the three real killer features are price, price and price	1		•		233
HDD R	ECORDERS			19.28				200
555-	Cambridge Audio Azur 640H	600	Not so much a HDD recorder, more a complete audio computer and nerve centre in one useful box. Complex, but worth it	1	160	٠	•	276
86	Hermstedt Hifidelio Pro	850	Can be used as a CD player, but also as a recorder, and can encode MP3, play AAC and form the heart of a distributed audio system	1	160	•	•	280
88	Yamaha CDR-HD1500	599	Great for archiving a music collection or making compilations without compromising on flexibility or sound quality	1	250	•	•	278

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.

## BUYER'S BIBLE STEREO AMPS

## **STEREO AMPLIFIERS**

Integrated and pre/power amps



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



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.

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.

### 0.2.1

#### **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.

### 



If you thought the PM7200 was a great budget amp, just wait until you hear this! Its sound is so detailed and involving, vou'll think it costs twice the price.



Arcam DiVA A90 £890

Top dog in Arcam's DiVA range is this excellent integrated amp. Its strengths include a slick, flexible user interface and beautifully smooth and detailed sound.



NAC 112x/NAP 150x £1,475 Naim's new entry-level pre/power amp is a fabulously engaging combo. As you'd expect, rhythm and timing are to the fore, with a healthy dollop of finesse to boot.



PRE30/A30.2 £2.400 Beautifully made and with a sound to match, this Scandinavian pre/power combines warmth and body with energy and detail - a truly musical performer.

## STEREO AMPS BUYER'S BIBLE

### Our favourite BEST BUY BE EDITOR'S CHOICE STEREO AMPLIFIERS

Inter	grated amplifiers			LINE	PHONO INPUT	REMOTE CONTROL	EADPHONE SOCKET	POWER OUTPUT	ISSUE NUMBER
	PRODUCT	£	COMMENTS	LINE INPUTS	INPU	NTROL	OCKE	UT (M)	UMBEF
	0 £1,000		ommerro	0.					~
	Arcam A65 Plus	400	Occasionally a touch bright, but a good all-rounder with decent detail and plenty of life	5	٠		٠	40	278
	Arcam DiVA A80	600	A very competent mid-range amp with a sophisticated control system and crisp, detailed sound	6	0		•	90	251
BB	Arcam DIVA A90	850	Very well specified, well built, a delight to use and a real musical all-rounder	7	opt		•	90	273
88	Cambridge Audio 640A V2	300	Nasty-feeling controls are the only real downside to this powerful and lively little amp	6		•	•	75	279
88	Cambridge Audio Azur 540A	200	A well built and fully featured amplifier that costs this little should not sound this revealing	6	opt	•	•	50	255
88	Cambridge Audio Azur 840A	750	A very fine amplifier, practical, smart and well made; offers some of the best sounds we've heard at this price	7		•	•	120	281
BB	Creek EVO	500	Not the most accurate, strictly, but its lively, energetic musical presentation is entirely lovable	5	opt	•	٠	85	283
	Cyrus 6vs	600	Best seen in a Cyrus rack but capable of sweet sounds elsewhere too. Impressively clean and agile but lacking musical grunt	7		•	۲	40	262
	Cyrus 8vs	800	Slightly inferior to Cyrus 6vs, but the tables are turned with the add-on PSX-R power supply - in that form it's a real Best Buy	7		•	•	70	261
88	Denon PMA-1500AE	500	Well set up to make the most of big-scale music, with copious power and drive, though slightly bright	5	•	•	•	70	278
88	Denon PMA-700AE	250	One of a growing number of new low cost amps, it offers good timing and analysis at up to moderately high volume levels	4	MM	•	•	50	284
58	Marantz PM7001	350	Detailed and highly communicative amp with fine treble and good bass extension - exceptional value for money	5	•	•	•	70	279
BB	Marantz PM7001Kl	550	Building on an already fine amp, the KI variant offers superb bass and bags of detail	5	۲	•		70	283
88	NAD C352	350	A dynamic and musical amp at a bargain price – another budget classic from NAD	7		•	•	55	253
88	Naim Nait 5i	699	A trade-off of more power and better connectivity against less inputs works surprisingly well in a grunty, musical manner	4		•		50	252
BB	Onkyo A-933	500	Puts the music first, with sound that delivers the basics correctly but above all involves the listener	5	•	•	•	80	278
88	Primare I21	750	A confident and energetic amp, with just a touch of veiling at times. Great build quality	4		•		75	273
BB	Roksan Caspian M Series-1	1,000	Improved version is as involving as ever but now with added focus and bass depth	5		•		85	278
96	Sugden A21a	899	This single-ended, Class A transistor amp has exquisite resolving ability and presence - an authentic classic	5				25	224
ABO	VE £1.000							1	
ES	Arcam FMJ A32	1,200	Ultra-civilised amp with plenty of features that's also highly revealing and musical	7	•	0	•	100	266
EC	Audia Flight TWO	2,500	Quirky, but musically highly effective model which is expressive and analytical, with some minor operational quirks	8		•		100	280
	Ayre AX-7e	1,995	High end sound at a sensible price. Lacks the balls of less revealing designs but has precision in the timing department that is rare	5				60	284
EC	Bryston B100-SST DAC	3,850	A remarkable amplifier which is greatly enhanced by the inclusion of an impressive onboard DAC	6	•	•	•	100	275
EC	Chapter Précis	3,995	Tight, nimble and dynamic across the board and unusually articulate in the bass, but the ergonomics could be refined	6		•		130	281
69	Copland CSA29	1,900	A hybrid valve/solid state amplifier that gets close to offering the best of both worlds	6	opt	•		85	255
(B2)	Creek Destiny	1,100	Adds impressive high-end virtues to the excellent basic performance we've come to expect from Creek	6	opt	۲		100	277
68	Denon PMA-2000AE	1,200	Unusually refined and detailed medium power design with the attributes necessary for good stereo only SACD replay	5	•			80	275
EC	Densen Beat B150	3,000	Gorgeous bass: slight treble dryness detracts only a little. Good sense of scale and rock-steady rhythms appeal too!	6	opt	opt		100	277
EC	Gamut DI 150	5,700	Serious contender for the best integrated amp ever. The DI 150 takes on pre/power combos on their own terms	6		۲		180	275
EC	Krell KAV-400xi	2,698	The best integrated Krell yet is quick, agile, solid and finely detailed	5		•		200	247
EC	McIntosh MA2275	5,400	A valve amplifier that doesn't patronise. It's not soft-centred and it understands dynamics	5	•	•		75	271
32	Marantz PM-11S1	2,500	A good-looking, well-endowed, high-quality amp that's a great match for the impressive SA-11S1 stereo CD/SACD player	6	0	•	•	100	265
36	Primare I30	1,500	A smooth, sophisticated yet agile performer, and beautifully built too	6			•	100	267
EC	Sugden A21SE	1,995	Hot-running Class A amplifier that sounds more delicious than most. A definite step up from the classic A21a	4		•		40	268
105	Unison Research Unico 200	3,000	Hybrid integrated with high power/quality low power modes combines much of the best of solid state and valve design	5			•	200	269

### Our favourite BEST BUY RE EDITOR'S CHOICE STEREO AMPLIFIERS

Pre/	power amplifiers			REAMPLIFIER	R AMPLIFIER	LINE INPUTS	VII ONOH4	TE CONTROL	OUTPUT	SUE NUMBER
BADGE?	PRODUCT	£	COMMENTS	FIER	FIER	SID	INPUT	ROL	3	IBER
UP TO	£2,000	S. Mark			0.5	1215			1	
BB	Arcam FMJ A32/P35	1,980	One of the few correctly matched integrated/power combinations, the sound has real gravitas and sophistication	•	•	7	•	•	100	227
EC	Cyrus DAC XP	2,200	A knockout DAC/pre with naturalness and resolution to die for and six digital inputs for signals up to 96kHz	0		2		0		266
EC	Densen Beat B-250/B-350	8,200	Upgradeable to surround, with sweet preamp and slightly coloured power amp, but sound is big and assured	۲	•	6		•	125	270
88	Exposure 2010 S Integrated/Power	1,098	Bi-amping with the additional power amp increases the musical communication of an already fine integrated	۲	•	6		•	75	264
88	Naim NAC 112x/NAP 150x	1,475	Uprated entry-level Naim pre/power is a master of musical communication	۲	•	6		•	50	262
BB	Quad 99/909	1,650	Well thought out and well executed, with a strong, engaging sound and just a little veiling	0	٠	5	•	•	136	256
ABOVE	£2,000						Sec.			
BB	Arcam FMJ C31	1,200	Professionally presented, beautifully built and exceptionally revealing, this preamp achieves much by doing little	۲		5	opt	•		273
EC	Border Patrol Control Unit	2,995	Bluff looking valve preamp, with one of the most neutral yet dynamic sounds around	۲		5	opt			277

EVENCE VIEW STATES IN THE INPUTS IN PUT STATES AND A COMPARENT A 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

POW

POWER REMO AMPLIFIER

P E P

## Our favourite is est ev c entor's choice STEREO AMPLIFIERS continued

Pre/	power amplifiers			PREAMPLIFIER	VER AMPLIFIER	LINE INF	PHONO INPUT	OTE CONTROL	R OUTPUT (M)	SSUE NUMBEF
BADGE?	PRODUCT	£	COMMENTS	FIER	FIER	INPUTS	IPUT	ROL	S	BER
EC	Bryston BP26 DA/2B SST	5,550	Bryston's top preamp is now a serious competitor. The power amp reveals a lot of signal and delivers serious grunt	•	•	6	opt	٠	100	278
EC	Chapter Preface/II+	9,800	Among the finest amps available, the resolution of this preamp and power amp challenges the best at any price	•	٠	6			300	249
EC	Chord Prima/Mezzo 140	6,100	Small, muscular, beautifully made and styled and sounds like a dream	•	۲	5		•	120	269
EC	Conrad-Johnson ACT2/Prem 350SA	20,000	Valve preamp and solid-state power deliver some of the most transparent and naturally dynamic sounds around	•	۲	5		•	350	264
88	Densen Beat B-200/B310	2,300	Lively, energetic combination that bring a great sense of scale to familiar recordings	•	۲	8		opt	80	276
	EAR 864/534	4,156	Valve combo delivers fine measured and subjective performance and inspires great confidence	٠	۲	6	•		50	254
EC	ECS EA-1	6,000	Understated monoblocks with real transparency to the fine detail, passion and energy in your record collection		•				180	253
EC	Gamut D3	3,430	Creamy smooth, yet lets you hear all the fine detail that goes to making a tonally rich, dynamically strong sound	۲		5	opt	•		265
EC	Gamut D200 Mk3	3,950	A great power amp that's now even better - one of the best regardless of price						200	247
EC	Halcro dm10/dm68	25,550	Extravagant, extreme and massive amp combo will probably polarise opinions, but delivers stunning midrange clarity	•		5	۲	•	225	243
EC	Hovland HP-100/RADIA	12,745	Uncommonly musical valve/transistor hybrid transcends stereotypes, one of the genuine high achievers	٠	٠	9	opt		125	250
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		۲				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		•		238
EC	Naim NAP 500	11,875	Wonderful neutrality, bandwidth and dynamic range, plus Naim's traditional leading-edge definition		۲				140	208
EC	Naim NAC 552	12,100	Extremely expensive preamp, but still solid value. Magnificent sound with fine flexibility and convenience	•		6		•		233
88	Primare PRE30/A30.2	2,400	Smart kit that lives up to the visual promise with gorgeous sound - a really musical performer	•	•	7		•	128	256

### **AVAMPLIFIERS** 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

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.

### Q&A HOW MANY CHANNELS?

POWE

Depends on how many speakers you want. Multichannel music discs come with six or 5.1 channels, but for new movies, 7.1 is 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 built-in amplification 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

With DVD-Audio and SACD offering highquality multichannel music, surround sound is no longer just a home cinema thing. An increasing number of people want to build a multichannel system that will do their music as well as their movie

DVDs justice, and the number of AV products delivering sufficient quality is on the increase. But most aren't cheap – building a top-quality system with five or more channels is inevitably 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**



DSP-AX757SE £499 If you're looking for a multichannel amp that's good with music as well as home cinema, this is your best bet below £500.



DiVA AVR300 £1,300 Here's one for those who value great sound over numerous gizmos and gadgets - an integrated AV amp for audiophiles.



AVC-A11XV £2,500 A splendid 7.1-channel amp that packs in the latest digital links and processing formats without sacrificing sound quality.



FMJ AV8/P7 £5,750 A fantastic achievement from this respected UK brand -a top-ranking AV processor and seven-channel power amp.

	r favourite				SPE	ATION	S	
A	V AMP		IFIERS			7.1 (	5-CHANNEL POWER (M)	SSI
Mult	tichannel amplifiers			REC	LINE INPUTS	COMPATIBLE	POWE	ISSUE NUMBER
BADGE?	PRODUCT	£	COMMENTS	RECEIVER	PUTS	TIBLE	R (M)	MBER
MULTI	CHANNEL INTEGRATED AMPS					Sard S	3.00	
88	Arcam DiVA AVR350	1,500	Sets the standard for music and movie performance at the price, although features count low and HDMI limited	•	7	•	100	284
С	Denon AVC-A11XV	2,500	Sensible, real world derivative of AVC-A1XV, but still immensely flexible, and well endowed with digital i/o		11	•	140	273
EC	Denon AVC-A1XV	4,000	Inelegant, but powerful and effective tool with excellent auto set-up and capable of driving two 5.1 systems simultaneously		•	•	170	266
EC	Lexicon RV-8	5,000	Classy multi-zone receiver lacks high tech digital attributes (HDMI etc) but majors on very effective audio engineering	•	10	•	140	267
	Marantz SR-12S1	3,000	A multichannel amp that can be taken seriously in stereo too. Resources are in the engineering rather than the gimmickry	۲	3	۲	160	258
С	Pathos Cinema-X	4,750	No processing, just sexy Italian style, a sextet of valves and the chance of 450 watts in stereo! Cultured sound, too		5		110	270
С	Pioneer VSA-AX10Ai	3,000	State of the art one-box amplifier with enhanced sound quality, auto set-up and other enhancements		10	•	150	260
38	Sony STR-DB798	250	Cheap but effective, and passably good with pure audio sources, but control system messy	۲	7	۲	100	273
8	Sony STR-DB795	300	A superb value little amplifier, well appointed technically and successfully tuned for UK ears	•	7	٠	100	260
С	Sony TA-DA9000ES	2,600	Arguably the first convincing fully digital amplifier, an excellent match for players with i.Link encrypted outputs	•	10		200	253
88	Yamaha DSP-AX757SE	499	Exceptional sounding budget/mid price receiver offers brilliant sound per pound; ergonomics could be better	•	9	•	100	273
MULTI	CHANNEL PREAMPS/PROCESSORS	AND POWE	R AMPS		100			
8	Arcam A90+7.1 mod, P90/3	1,920	Add Arcam's multichannel module and a P90/3 power amp to the A90 stereo integrated and you've got got superb purist 5.1		8		90	250
	Arcam AVP700/P1000	3,000	Cutting-edge processor/tuner with HDMI sounds great, but the matching Class H power amp lacks finess to match its power	۲	8	•	135	275
C	Arcam FMJ AV8/P7	5,750	High-quality preamp/processor (£3, 150) and seven-channel power amp (£2,600). An excellent fusion of stereo and surround sound		7	•	180	23
С	Classé SSP-600/ CA-5200	11,900	Subtle, exacting sound, tremendous flexibility and high power audiophile standard amplifier - lacks hi-tech digital interfaces		11	•	200	278
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	236
	Linn Exotik	1,750	Is hi-fi ready to make the jump to multichannel music? Linn think so with this musical preamplifier		4			260
С	Meridian 861	9,833	Powerful surround processor with flexible modular construction, marvellous versatility to drive any speaker configuration		6	•		230
	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	•	50	238
C	Parasound Halo C1/A51	7,500	Powerful and flexible processor/power amp combo with impressive sound. Excellent value - processor includes onboard screen		11	•	250	243

Primare SP31.7/A30.5 SPECS KEY 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

4,200 Great all-round system which brings the qualities of good stereo high fidelity to a multichannel world

5-CHANNEL POWER (W) Power output in watts per channel of all channels driven by the amp.



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### Find out the answers to these questions and many more at the LS&V Show!

How much should 1 spend? Why has vinyl made a renaissance? Just how much do domestic acoustics influence performance? How many channels do 1 need? Does the age of a brand have any bearing on quality? Who are the worlds real innovators? Do reviewers listen to music when they're not working? What is isolation? Can quiet be good?

Note: 22nd- Trade Day Only

5 • 120 238

23rd & 24th - Public Days



# Bring your music back to life

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- $\rightarrow$  To recommend performance upgrades
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### Arcam DiVA plus Monitor Audio

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Floorstanding Design
Choice of Finish Options
Divisional

Biwirable

"The Silver RS6 is a success: it looks dressed to kill, delivers plenty of detail and punches like a heavyweight"

1

## SEVENOASS

## the leaders in quality hi-fi



### Marantz

Marantz is introducing a host of new products ranging from high-end hi-fi to HD-ready DVD players and AV receivers.

Latest additions to its hi-fi range include the entry-level **CD5001** CD player and **PM4001** amplifier offering a taste of high-end audio at an incredibly competitive price.

### Cyrus

If you've enjoyed listening to music before, try listening to it through a Cyrus system. With every product tuned by ear, Cyrus represents a quality of sound, which is rare at any price. Invest in a Cyrus system and you'll be rewarded with a wealth of sound you wouldn't have thought possible.





### Primare

With class-leading build quality, and a unique blend of sophisticated Scandinavian design, Primare build elegant, reliable, easy-to-use systems that promise years of high quality performance.

 The Range includes the What Hi-Fi? Award-winning CD31 CD player and I30 Amplifier





### Arcam solo All-in-one music system

- Amazing sound from an integrated system
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- and DAB digital radio
- Integrated iPod connection hear how good your iPod can sound
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### KEF IQ5

- Uni-Q Technology
- Finish Options
- Floorstanding
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### В&W см1

Behind its exterior of real wood veneer and familiar two-way arrangement of tweeter and bass/midrange lie innovations, engineering and a sound that are far from conventional.



"When B&W moves into the luxury miniature sector, it's time to sit up and take notice" HI-FI CHOICE • MARCH 2006



### Project

Revive your record collection with Project turntables. The range includes the Awardwinning Debut, Xpression II, Perspective and RPM Series.

### QED

How much difference can cables make to your system? With QED's range of audio and video cables the answer is probably much more than you think.



### MAKING THE RIGHT CHOICE

MAKE THE INFORMED CHOICE TO ENHANCE YOUR LISTENING PLEASURE

### Denon New AV Receiver

Denon has established an enviable reputation for the performance of both its hi-fi and home cinema products, winning numerous awards and accolades over the years. Its stylish systems have succeeded in becoming the benchmark by which all others are judged.



#### Denon's range includes the awardwinning DVD-2910 DVD player and the New AVR-2807 AV receiver.



SMART LIFE S-301 AV SYSTEM "For many people this could be the future of home cinema." WHAT HI-FI? AWARDS 2005

### New 50" PLASMA DISPLAY



### Pioneer PDP-50000EX

- 50 inch Plasma Display
- Class Leading 1920 x 1080 Resolution
- Twin HDMI sockets
- Wall or Stand Mount

"Big, beautiful and brilliant... If you want the best... here it is"



### Arcam

Arcam offers the movie and music lover the most complete range of highperformance home entertainment solutions.



"Exceptional sound performance with music and movies... Arcam's best sounding AV receiver has landed"

### New DiVA

- The new DV137 universal player from Arcam is their first to feature SACD as well as DVD-Video and audio playback.
- The **AVR350** takes the traditional Arcam virtue of great sound and adds HDMI switching.

### New REL R SERIES

The R-Series is designed to augment the performance of "full range" speaker systems and to provide linear response down to below 20Hz.

- R-205, R-305 and R-505
- Class D amplification
- Piano Black Lacquer Finish



"Tight, controlled bass of great musicality" (R-505) HOME CINEMA CHOICE • AUGUST 2006

### INFOCUS IN76 DLP PROJECTOR

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### B&W

HINEMA

With a combination of the latest R&D techniques and a passion for music, B&W produces a diverse range of products befitting the largest audio manufacturer in the UK.

WHAT HI-FI?



MINI THEATRE MT-30 "Talented, covetable and worth every penny, the MT-30 (and especially the PV1) could well be heading for iconic status"

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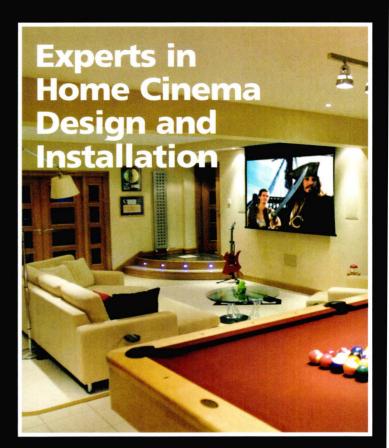
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# **STEREO SPEAKERS**

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

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.

#### POWER

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.

#### 0&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

## TOP BUYS



Rega R3 £448 A neat little floorstander that really knows

how to communicate with music. Its sound is crisp and agile, and what it lacks in sheer bass weight it makes up for in energy.

# Our favourite BEST BUY CO EDITOR'S CHOICE STEREO SPEAKERS

KEF

i09 f800

This superbly judged floortstander delivers

a clean, powerful and transparent sound,

with impressively taut bass. A very fine

all-rounder for the money



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 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).



B&W 8055 £1,600 Pr A superbly well-engineered standmount Th that's capable of delivering magnificent pin musical communication, alongside ra superior subtlety and delicacy. im

**Mordaunt-Short** Performance 6 £3,500 This extraordinary speaker stands at the

Performance 6 £3,500 This extraordinary speaker stands at the pinnacle of Mordaunt-Short's current range. State of the art resolution and imaging are among its many attributes.

SPECIFICATION

		BEST BUY		Ayre Bel C Chap
MC252	C2200	MCD201	Dides Dides NON B	Cairr Chor Graa Gran IsoTe Leem Lexio
2 x 250 watts solid state power amplifier.	Amazing Valve preamplifier with superb phonostage.	CD/SACD Player with volume control for direct connection to a Power Amp.	Advanced optomechanical design means its the last CD transport you will ever need.	McIn Moni Moor Nord Path
				Prim Proje Roks Stax Tann Teac
MC2102 2 x 100 watts valve power amplifier.	MA2275 2 x 75 watts valve integrated amplifier	MA6300 2 x 100 watts integrated amplifier with superb	MDA1000 DAC. 768 kHz Sampling rate with 7 digital inputs and	Thiel Toter Unise VDH

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SPECIFICATIONS

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# Our favourite est RUY est EDITOR'S CHOICE STEREO SPEAKERS continued

Ster	eo speakers	£		Size W,H,D (CM)	FLOORSTANDER	EASE OF DRIVE	BASS FROM (HZ)	FREE SPACE	CLOSE TO WALL	ISSUE NUMBER
DADGE	PMC DB1+	625	Now with sweeter treble, this fun-size tiny lacks some weight and authority, but is beautifully balanced	16,29,24	20	A	50		•	261
12	PMC GB1	995	Ultra-compact floorstander is beautifully clean, articulate and free from boxiness, with a notably delicate top end	16,92,24	0	A+	30			257
BB	PMC TB2+	795	Classy transmission line stand-mount has superior midband, restrained presence and a bright clean top end	20,40,30		A	28	•		275
68	ProAc Tablette Ref Eight	699	Stunning standmount with electrostatic-like imagery. Its Signature brother costs £200 more and is even better!	15,27,23		A+	40	•		267
88	Q Acoustics 1050	330	Great value, the sound lacks smoothness but has fine dynamics and impressive transparency	19.5,97.5,30		A+	28	•		284
88	Rega R1	298	Cute baby sounds busy, coherent and involving, if a touch thin. Sweet and delicate treble with even bass	15,32,24		A	50		•	269
BB	Rega R3	448	Discreet, pretty and fine value. A little lightweight but impressively open, it delivers music with great agility	20,76,28	•	A	40		•	265
88	Revel Concerta F12	900	The money has gone into the active hardware, so cosmetics are plain. Performance is on par with more costly designs	25,108,37	•	A-	28	•		283
BB	Triangle Antal ES	975	Neither pretty nor smooth but a very exuberant and involving communicator, with plenty of scale and expression	20,108,34	•	A	20			263
88	Triangle Titus ES	370	Not pretty but busy, coherent and involving, if a little thin. Sweet and delicate treble with even bass	18,37,30		A-	40		•	269
BB	Triangle Comete ES	500	Bulky standmount lacks style but delivers engrossing musical coherence and vivid dynamics	20,42,34		A	40	_	•	265
	E £1,000			,						
88	A2T Mezzo	2,000	Seamless overall coherence, with persuasive monitoring capabilities. Sounds a little mid-forward. Top could be sweeter	27.5,40,26		A+	40	۲		281
	Acoustic Energy AE1 MkIII	1,900	Luxury miniature has a laid back but bouncy sound, fine dynamic range and very superior imaging	18.5,31,25		A-	30	0		281
68	ALR Jordan Classic 5	1,200	Slim, laid back floorstander has sweet sound with fine coherence, imaging and dynamic range	17,99,26	•	A	28			275
86	Audio Physic Spark 3	1,499	Classy and discreetly laid back floorstander has delightfully neutral balance and surprising bass weight	15,98,22	•	A+	27			271
88	Audiovector Mi 3 Super	1,596	Dynamically very expressive, clear and intelligible voices, arguably even better value than the Signature version	20,100,29	•	A	20			267
BB	Aurum Cantus Leisure 3SE	1,200	Fabulous lacquer finish and a classy ribbon tweeter. Sounds smooth and sweet, if a touch laid back	25,40,30		A	28	•		263
88	AVI Duo	1,299	Sophisticated floorstander, a natural partner for AVI's electronics. Unusually clean and honest musical presentation	19,77,28		A	50	•		280
88	B&W 704	1,400	Cleverly tapered enclosure and external tweeter delivers superior bass and treble, with a laid-back midband	22,96,32	۲	A	20	0		257
EC	B&W 802D	8,000	Great timing, superior dynamics and a sweet top end all enhance musical communication. Makes sweet music	37,115,56	0	A	<20			267
<u>1</u>	B&W 805S	1,600	Classy standmount with excellent coherence and imaging. Can sound laid back but otherwise a real delight	24,39,33	-	A	25	•		271
88	B&W 703	2,000	Bass is immensely powerful and even, and the overall sound is lively and dynamic, though not overly smooth	23,101,36	•	A-	20	•		260
	B&W XT4	1,800	Gorgeous, silver, super-slim floorstander has notably clean bass, but sounds a little too polite and lacks dynamic grip	15.2,114,20	•	A-	25	•		281
	Beauhorn B2.2 Revelation	3,984	Magnificent midband and fine overall balance but limited bass is best with small-scale material	34,130,75	•	A+	80	0		244
88	Canton Vento 809DC	1,800	Quick, lively and agile, with fine overall coherence and expressive dynamics. A thoroughly impressive allrounder	25,112,35	•	A	30	•		267
	Canton Vento Ref 5DC	3,499	Strikingly handsome speaker has a studiedly neutral balance with delightful midband analysis	25,112,35	•	A	40	•		283
	Chario Cygnus	1,200	Beautiful solid walnut sides. Port tuning suspect, but laid back sound has fine delicacy, imaging and refinement	20,96,27	•	A-	28	0		275
EC	Dali Helicon 400	2,999	Advanced drivers and enclosure give a generous sound with wide dynamic range and no boxiness	22,103,46	•	A	20			264
調	Dynaudio Focus 220	1,850	Cleverly tapered floorstander has a brilliantly smooth, neutral balance and very sweet treble. Could be more dynamic	20.5,98,29.5	•	A-	<20	•		281
EC	Eclipse TD510	1,200	Replacement for the TD512 does astonishing things with musical timing. £600 floor stands also recommended	24,36,26		A	45	0		277
	Elac FS 607 X-Jet	5,000	Highly revealing and capable, the mid/tweeter provides impressive detail and depth of soundstage	29,108,33	•	A	28	•		269
EC	Focal-JMlab Alto Utopia Be			37,121,53	•	A-	20	•		248
EC	Focal-JMlab Diva Utopia Be		Lovely slimline speaker combines remarkable transparency with fine dynamics and gorgeous bass	25,110,53	•	A+	30	•		255
EC	Focal-JMLab Electra 1027 Be		Outstanding mid and top with fine delicacy and low coloration, but lacks some bass grip and drive	26.5,111,35	•	A-	25	0		276
EC	Focal-JMlab Micro Utopia Be		New 'Be' version is clearly an exceptional standmount, capable of revealing the innate quality of the music	25,42.5,38		A	50	0		245
	Focal-JMlab Profile 908	1,300	Open and revealing especially of spatial and atmospheric detail, makes up for its bass restraint with joi de vivre	23,39,27.5		A	50	•		274
EC	Gamut L5	5,900	Impressive build and sophisticated driver design make the L5 a stunning speaker with rare transparency levels	20,116,43	•	A-	32			271
EC	Jamo Reference R909	7,500	Top model (in a class of one) is open, full and easy on the ear, and surely a classic in the making	48,127,54	•	A-	25	•		280
EC	Krell Resolution 2	6,497	Large., but good looking with Sonus Faber type elasticated front. Musically a great full bandwidth all-rounder	122,29,61	•	В	28	•		273
-	MartinLogan Mosaic	1,799	Curious hybrid construction marries many panel speaker-like attributes with moving coil simplicity	24,102,30		A-	46	0		257



After 5 years in production, the Dino is still one of the most popular phono stages around. Highly versatile with accessible switches on the baseplate to facilitate a wide range cartridges.

'Never Connected' power supply technology virtually removes all incoming mains noise allowing only the music to be heard. Visit our website to learn more about this exciting product and the high performance Diablo phono stage.





# Our favourite est buy en EDTOR'S CHOICE

0				SIZE	FLOC	EASE	BASS		CLOS	ISSI
Ster	eo speakers			Size W,H,D (CM	FLOORSTANDER	E OF DRIVE	BASS FROM (HZ)	FREE SPACE	CLOSE TO WALL	ISSUE NUMBER
BADGE?	PRODUCT	£	COMMENTS	(CM)	DER	DRIVE	(HZ)	PACE	VALL	IBER
88	MartinLogan Clarity	2,498	Relatively affordable and easy to live with electrostatic hybrid with class-leading resolving power	26,135,31	0	A-	46			245
H.	Meridian M3100	1,850	Attractive and capable active (125w) with great imaging and strong bass. High neutrality and good power handling	19,39,25		ACT	45	•	opt	280
<mark>88</mark>	Monopulse 82	2,495	Could be more neutral, but excellent coherence, lively dynamics, fine imaging and a wide dynamic range	27,110,25	0	А	<20	0		281
EC	Mordaunt-Short Perf 6	3,500	Revolutionary enclosure design and aspirated tweeter make for a fast, hi-res ride	24,121,37	0	A-	35	•		264
	Naim Ariva	1,275	Cute and discreet floorstander has superb bass and a wide dynamic range, but it could be smoother and sweeter	23,88,31	۲	А	25		۲	259
88	Neat Elite SE	1,499	Smooth and natural performer with notably expressive midband. Fine voice articulation and unusual sweetness	20,90,18	•	Α	25	•		267
88	Neat Motive 1	1,200	Beautifully neutral balance sounds open without aggression. Fine midband but could be more authoritative	16,92.5,20	•	A-	20	0		276
88	PMC FB1+	1,695	Nicely proportioned floorstander has a sweet top and a beautifully natural, open and restrained midband	20,100,30	•	A	20	•		260
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	•		237
EC	ProAc Response D25	2,995	The traditional ProAc high-end detail mixed with greater efficiency and more pace - a splendid speaker	22,107,25	•	A+	20	۲		254
88	Rega R7	1,498	Super-slim and super-smooth floorstander has fine agility with a slightly bright overall character	27,98,35	•	А	25	0		27
88	Rega R9	2,498	This subtle, laid back but very informative performer has a very superior dynamic range, especially in the bass	17,103,39	•	A	20	۲		25
EC	Revel F32	3,200	Meticulously balanced, tonally neutral design makes for a taut, well disciplined sound	22,105,39	•	А	30	٠		265
EC	Revel M22	1,800	A remarkably clean and revealing speaker with superb tonal and microdynamic capabilities	22,37,30		A-	48	•	0	274
58	Roksan Caspian FR-5	1,995	Sharp looking speaker sounds exceptionally open and lively without aggression. Could be warmer	20,100,25	•	А	<20	•		279
88	Ruark Talisman III	1,499	No bass demon, but a sophisticated and agile speaker epitomising Ruark's design ideals	22,84,31	٠	А	22	٠		259
30	Sonus Faber Concerto Domus	1,799	Great choice, especially for acoustic material, which performs significantly above its price level	21,99,31	٠	А	35			270
58	Sonus Faber Cremona A.	2,149	Standmount 'Auditor' version of the Cremona makes a soundstage bigger and better than its size suggests	19,35,32		А	48	۲		246
EC	Sonus Faber Grand Piano Domus	\$ 2,498	Fabulous physical appearance, and clean, refined sound especially well adapted to acoustic music and voice	21,106,31	0	A-	32	•		283
EC	Tannoy Dimension TD8	4,000	This stylish speaker is a splendid all-rounder, with fine dynamics, precise imaging and minimal coloration	31,86,30	•	A-	25	۲		240
88	Totem Model 1 Signature	1,595	Expensive, but very seductive miniature delivers a beautifully smooth and balanced midband	17,31,23		А	35	0		277
88	Triangle Celius ESW	1,395	Not the smoothest sound around, but has great vigour and enthusiasm, plus good scale and weight	20,117,34	0	А	22	0		277
EC	Triangle Magellan Concerto	9,995	Scintillating midrange and treble, with tuneful, well-timed bass - a thoroughly engaging musical ride	28,149,34	0	А	35	٠		262
88	Usher Compass CP-6381	2,500	Lots of speaker for your money, with plenty of deep bass, unusual styling and massive build	35,127,65		А	20	0		270
EC	Vivid Audio B1	7,750	Impressive cabinet design combined with hi-tech drivers to make truly world class speaker	27,110,38	۲	A-	40	0		261
	WEGG3 Stelar 1	4,995	A full-range sound from a small(ish) box is possible, but only if you are very careful about set up, room and amps	35,97,45	0	A-	28	0		275
EC	Wilson Benesch Curve	5,000	Much (but not all) of the ACT's performance in a much more compact and affordable package	23,91,37	0	А	28	0		254
EC	Wilson Benesch ACT	8,400	Superb enclosure gives uncanny freedom from 'boxiness'. Well balanced, but top end might be sweeter	23,108,36	۲	А	20	0		252

# **AV SPEAKERS**

#### Speaker solutions for multichannel surround sound

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.

#### 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

#### :111



600 S3 package £900 Incorporates 602s, 601s and an LCR 600 centre speaker. Great in both stereo and multichannel surround modes.

Our favourite 🖃 BEST BUY 📧 EDITOR'S CHOICE



n-SAT/CENT/SUB £3,385 Five n-SATs, and n-CENT and an n-SUB make a highly engaging and (for Naim) discreet multichannel package.



ATC Concept 3 £4,877 It might not look as flashy as some, but the quality of engineering in this ATC package ensures superb all-round performance.



Linn Akurate package £13,750 Linn has worked wonders with its new multichannel speaker system - it's not cheap, but its performance is breathtaking.

-					S	PECIF	ICATI	ONS	
A	<b>V</b> SPEA	K	ER PACKAGES	EASE	NUMBER OF	BASS	-	CLOSE	ISSUE
Mult	tichannel speakers			9	- SPEAKERS	FROM	FREE S	SE TO WALL	UE NUN
BADGE?	PRODUCT	£	COMMENTS	DRIVE	KERS	(HZ)	SPACE	VALL	NUMBER
88	ATC Concept 3	4,877	Extremely engaging, revealing and musical multichannel system providing 360 degrees of full-on entertainment	A-	6	12	0	opt	255
	B&W 300 package	900	An excellent compromise between the requirements of music and those of home cinema (inc. subwoofer)	А	6	27	0		241
88	B&W 600 S3 (602/601/LCR 600)	900	Unquestionably delivers the sonic goods. High-quality drivers in standmount enclosures	А	5	22	٠		224
	Castle CAV Sterling	1,250	Lovely real wood veneers. Sound has fine dynamic drive and expression, but can sound a little hard	А	5	28		•	224
	Dynaudio Audience 42 package	1,142	Multichannel package for hi-fi purists with real authority and imaging, but needs subwoofer for full-bore movie sound	A-	5	53	•		241
	Final Sound Electrostatic system	4,875	Slim, attractive, electrostatic panels have clever connections, limited loudness but a breathtaking transparency	A-	6	20	•		251
	Focal-JMlab Electra package	3,017	Bold, solid system, tremendous consistency and easy to expand with an added subwoofer	А	5	50	•		232
EC	Linn Akurate (242/212/225/221)	13,750	An extremely capable system that offers new insights into the potential for multichannel audio	A-	6	18	•		253
	Mirage Omni 2	2,650	Dark tonality, but superb imagery makes this an excellent all-round choice	А	5	30	•		232
88	Mission m5 package	1,450	Main m52 is a clean, attractive full-range stereo speaker, while the m5as sub does big bass for movie fans	А	6	28	•		241
	Mordaunt-Short Genie	800	A prince among sub/sat packages - good integration and impressively little compromise compared to full-size models	A-	6	38		0	262
	Mordaunt-Short Declaration 500	1,600	Good value vinyl THX Select package with Power Towers. Good authority, but must be 5.1-connected	А	5	25		0	210
88	Naim n-SAT/n-CENT/n-SUB	3,385	Priced here as a 5.1 package, Naim's neat n-SATs and matching sub/centre make an exceptional compact ensemble	А	6	20		•	268
	Tannoy Arena	1,200	Fabulously stylish sub/sats with Dual Concentric drivers. Unusually revealing for the breed, but sub lacks refinement	А	6	29		۲	269

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 🖃 BEST BUY 📧 EDITOR'S CHOICE **SUBWOOFERS**

#### Rass sneakers

_	S speakers		LNJ	SIZE W,H,D	POWER	BASS FROM	ISSUE NUMBER
BADGE?	PRODUCT	٤ (	COMMENTS	(CM)	(M)	(HZ)	ABER
88	B&W PV1	950	Gorgeously styled sub shakes the air but not the floor, delivering a very clean sound with negligible coloration	29,34,35	500	20	259
EC	B&W ASW850	2,000	Does all the things subwoofers should do with music and movies alike, but transparently and seamlessly	53,56,52	1000	) 18	246
	Monitor Audio ASW100	300	For the price, this compact subwoofer performs particularly well	32,32,34	120	27	225
EC	REL 305	795	Landmark mid-price sub, works particularly well with low crossover frequency, looks great too	32, 36, 34	300	25	284
88	REL Stampede	550	Few subs at this price match the Stampede's subtlety and ease of integration. Much more hi-fi than AV	28,40,29	100	18	257
88	REL Strata 5	700	Highly musical sub that integrates well but the REL Stampede offers near-identical performance for less money	32,46,33	150	18	257
	REL Storm III	900	Excellent sub with powerful, detailed and deep bass. Comprehensive facilities, including flexible filter adjustment	42,62,33	150	18	225
	REL Storm 5	1,000	Well engineered, good bass depth, appropriate for mixed hi-fi & home cinema/multichannel systems	34,52,37	200	15	267
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
	Titan Saturn	800	Very bulky sub has curious styling, but decent filtering gives good weight and headroom	72,48,72	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.

SPECIFICATIONS

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# HEADPHONES BUYER'S BIBLE

the ear and intra-aurals sit in the ear and are

Getting the best from your cans

particularly popular with personal stereo users.

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

very lucky. If you are planning on serious listening,

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.

not give particularly engaging results unless you are

invest in a dedicated amp – the increase in dynamics is not in the least bit subtle. A variety of models are

# 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



h	EAUPI	Πl	UNES	ELECTROSTATIC	SUPF	CIRCL	OF	CLOS	5	5MM JACK ADAPTOP	ISSUE
Ster	eo headphones			ADSTA	SUPRA-AURA	CIRCUMAURA	OPEN BACK	CLOSED BACK	WEIGHT (g)	ADAPT	NUMBER
BADGE?	PRODUCT	£	COMMENTS	TIC	ž	Þ	Ç	ç	(g)	0R	55
88	AKG K44	20	Lively, enjoyable and remarkably detailed: a bargain			۲		٠	190	•	219
88	AKG K270 Studio	129	Pro oriented design which is very transparent and great with acoustic material			•		٠	270		230
EC	AKG K1000	650	Neutral, analytical and completely out of the head sound, suitable for connection to speaker outputs only				٠		270		244
	Audio Technica ATH-D40fs	105	Detailed and involving sound with a professional 'studio' quality appeal			۲		٠	250		194
68	Beyerdynamic DT990	160	Impeccable balance, very extended bass and treble, and bags of detail place this model ahead of the pack				٠		250		245
88	Grado SR-60	90	For sheer musical enjoyment these are hard to beat. Retro styling may not be to everyone's taste		۲		٠		200	•	194
88	Grado SR325i	310	Highly sophisticated and detailed sound with great extension: check for comfort		۲		٠		200	٠	270
08	Philips HP890	70	A remarkably sophisticated and very comfortable headphone			٠	٠		330	•	219
	Sennheiser HD595	150	Technology from upmarket HD650 model makes this a very revealing headphone that's also extremely comfortable			•			270		266
EC	Sennheiser HD650	300	Astonishing resolution and hardly less impressive tonal balance make this a true hi-fi experience			۲	6		260	٠	252
EC	Stax SRS-2020 Basic Sys. II	349	Luxury option at its price, but the sound delivery is five-star quality all the way	•		•	•		295	•	205
EC	Stax SR-001 Mk II	239	Expensive and power hungry, but this electrostatic drags personal stereo into the world of high fidelity	•	0		۲		280		268

SPECSIXAT 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.



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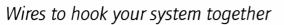
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## CABLES **BUYER'S BIBLE**

# CABLES



Hi-fi cables come in two varieties: interconnects and speaker cables. Analogue interconnects come in preset lengths, generally with RCA (phono) plugs attached, though some equipment uses XLR connectors for balanced connection - this can be sonically advantageous, especially over longer runs. Speaker cable is commonly sold by the metre and can be used without plugs or can

92

88

Wireworld Solstice 5

Wireworld Oasis 5 Biwire

20

38

be fitted with screw or solder-on types.

Choosing cables is not quite as 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, given the choice, but optical cables may be a better bet over long runs (10m+). Optical inputs/outputs usually use Toslink connectors, while most electrical types use RCA plugs, but some opt for BNC connection instead – check your components before you buy.

ISSUE NUMBEF CABLE TYPE

> 270 275 255

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U		5		S	SO			DIGITAL CABLE TYPE
Inte	rconnects and spe	aker	cables	STRANDED	SOLID CORE	COPPER	SILVER	BLE T
	PRODUCT	£	COMMENTS	Ξ	R	Ŕ	ĒR	PR
	IGUE INTERCONNECTS	0.05						
EC	Black Rhodium Concerto	225	This DCT cable from the Polar range gives a distinctively dark timbre, rich in detail, with low subjective noise	•	-	•		-
_	Brilliance Hi-Fi Synergy	83	High quality materials help give this cable fine imaging: bass not as extended as some	•		•		
	Chord Company Signature	499	Silver plated, triple screened. Some granularity but great resolving ability, a good match for Chord Signature loudspeaker cable		•	•		
88	Chord Company Chorus	215	Very even-handed balance with notably extended bass	•		•		
88	Clearer Audio Silver-Line	244	Complex, well-screened cable which offers good sound all round with exceptional bass - at a price!	•		0		
BB	Ixos Ixotica IX1	200	Notable for its relaxing sound, this cable still presents plenty of analytical detail	•		0		
88	Kimber Timbre	89	Typical Kimber construction with ditto sound – clean, extended and detailed	•		•		
BB	Monster Interlink 400 Mkll	70	Really lively and enjoyable sound at a sensible price	•		•		
88	Monster M350i	45	Few cables at this price reveal so much about the recording space. Clear treble, too	•		•		
BB	Monster M1000i	200	Very capable, with only a hint of bass dryness to set against excellent results elsewhere	•		•		
EC	Nordost Heimdall	370	Micro-monofilament cable, silver plated more affordable alternative to Valhalla, sounds transparent, detailed and neutral	0		•		
88	Oehlbach NF214	63	The bass is a matter of taste, but suits many smaller speakers. Very good mid and treble	•		•		
88	Oehlbach Silver Express +	70	Good, firm bass is accompanied by clear treble and well defined stereo imaging	•				
EC	Townshend DCT300	300	DCT wire with hum-busting ferrite sleeves. Packed with enough detail to make rivals sound flat		•	٠		
25	van den Hul The Well	85	Hybrid cable with carbon-fibre conductors added. Very slight bass coloration does little to detract from fine performance	•		•		
88	Wireworld Luna 5	30	Authoritative bass and clear treble outperform many cables at twice the price	•		•		
88	Wireworld Solstice 5	70	A cables with all-round appeal - treble is slightly 'dark' but bass is excellent and the overall balance very good indeed	•		۵		
DIGIT	LL INTERCONNECTS					122		
EC	Clearer Audio Silver-line	125	Very satisfying performance with finely-etched detail and sweet treble	۲		0		Е
EC	Kimber Select KS2020	629	Provides a subtle but rewarding lift in musicality with any DAC, justifying the price		•	۲		E
EC	QED Qunex Signature 75	80	First-rate balance and imaging - ever so nearly as good as it gets at any price			•		E
88	van den Hul Optocoupler II	49	Noticeably has the edge over other optical leads, but still second best to electrical types					0
EC	Wireworld Starlight 5	90	Clear gains in detail and imaging precision are this cable's main strengths: good value and near-high-end performance	0		•		E
SPEAK	ER CABLES PRICE PER METRE	a start			2 - 02			
	Black Rhodium Tango	15	A little bass-heavy but with smaller speakers, but that's no bad thing: mid and treble are detailed and clear	٠		٠		
	Chord Odyssey 4	34	This biwire version of Odyssey offers excellent speed and impact, with low listener fatigue	•		•		
	Clearer Audio Copper-Line Alpha	10	Strong, ringing bass and neutral tonality are plus points: treble is not the purest we've heard	•		•		
88	Kimber 8VS	18	Beautifully full, open and transparent sound right across the board	•		•		
	Monster MCX-1s	8	Notable for its bass, which is perhaps a touch overdone at times but could be a good foil to small speakers. Good mid and treble	•		•		
EC	Nordost Heimdall	162	Alternative to Valhalla, silver plated, micro-monofilament construction, low colouration, high res and suitable for exacting systems	•		•		
-	QED Silver Anniversary XT	5.50	Full bass and nicely detailed treble combine with good imaging - a budget bargain	•		•		
38	QED X-Tube XT300	10	A natural and well controlled sounding cable that's cost effective for mid-priced systems	-	•			
EC	Townshend Isolda DCT	50	Cryogenically treated 'impedance matched' cable with stabilising components added; great sound all-round		•	•		
	van den Hul The Bridge	6	Lively, energetic and possessed of fine midrange detail and imaging	•	-	•		
	Wyrewizard Spellbinder	5.50	Sold off the reel, this entry-level cable is a surprisingly purist performer, lean yet powerful, with good detail resolution.		•	•		
100	Wireworld Terra 5	5.50	Deep powerful bass, clear treble and very solid imaging add up to above-class performance		-	•		
<u></u>	WINGWUNG TENA J	0	Deep powerui bass, ciear trebie and very solid imaging aud up to above-class performance					

#### 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, 0 - optical Cables are one metre length unless otherwise stated.

Unfriendly to handle, but makes up for it with very assured sound - heaps of bass and great insight

Full-bodied and precise sound across the board – an excellent performer in bi-wire or single-wire mode

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## STANDS AND SUPPORTS BUY ER'S BIBLE

# **STANDS AND SUPPORTS**

## Equipment racks and speaker stands

If you want to get the most from your source and amp components, it's important to consider good quality support. Dedicated equipment supports are racks and tables made specifically to hold hi-fi gear, and the best can have a profoundly positive effect on sound

because, for example, they can help to isolate kit from ground-borne vibrations and mechanical or electrical interference. Equally, if you own a pair of small 'bookshelf' or 'standmount' speakers, it's important to place them on good quality, purpose-built speaker stands.

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# Our favourite 🖻 BEST BUY 📧 EDITOR'S CHOICE IPMENT SUPPORTS

Equi	pment	supports	
BADGE?	PRODUCT		£

	pinent supports		2014/20170	IT CM	E (CM)	ELDED	IELVES	F TYPE	IMBER
BADGE?	PRODUCT Alphason A5-G	£ 399	COMMENTS Nice looking, very solid and practical with a pretty well balanced sound, but lacks a little detail	80	66.46		5	Glass	247
	Atacama Equinox	280	Stable, modular design with style. Excellent bass transients and a fresh design concept	81	50.50	•	4	Glass	217
EC	Audiophile 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
88	Clearlight Audio Aspekt	650	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	•	4	Glass	206
88	Custom Design Icon 400	600	Beautifully built, conveniently adjustable and with little sound of its own, a very classy rack	75	57, 41		5	Glass	263
88	Custom Design Concept 400	700	Slightly drab looks, but great sound and efficient use of space ('Acoustic' version tested - standard version £300)	74	48,40		4	Metal	247
90	Custom Design Vantige	449	'Acoustic Aluminium' shelves plus steel supports equal practicality plus musical satisfaction: just a shade bright	62	49,44		4	Metal	271
	Partington Minim	389	Looks good, sounds good and is impressively flexible to boot	75	45,36		5	Glass	261
EC	Naim Fraim	1,825	Pricey but very classy looking and sounding, with modular flexibility	96	45,34		5	Glass	232
	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	988	Attractive modular system made of very light Torlyte: a touch of added warmth is its only vice	68	54,49		4	Torlyte	240
98	Sound Organisation Z560	195	Excellent value rack, five shelves tool, Well balanced and under 200 quid!	92	50,40		5	Glass	217
EC	Townshend VSSS	1,300	The Seismic Sink goes all glassy and attractive, yet retains the same excellent vibration-killing sound quality	76	35,50		4	Glass	273

# Our favourite 🗵 BEST BUY 📧 EDITOR'S CHOICE SPEAKER STANDS

Spea	aker stands			IT (CM)	TE (CM)	LABLE	ELDED	Ē	JMBER
BADGE?	PRODUCT	£	COMMENTS	3	<u>s</u>	Ē	8	_EGS	\$
	Alphason Aragon AG60	80	Good separation and imaging, with just a little coloration and bass looseness	60	16,14.5	٠		3	280
BB	Custom Design RS300	110	An attractive stand whose lack coloration and ringing makes suits it to high resolution systems, at a tempting price	56	16.5,18	•		1	281
EC	Custom Design SQ404	200	Robust four-pillar design gives very low coloration and maximises performance of speakers great and small	61	18,16.3	•		4	283
EC	hne Cableway	395	Looks great, sounds great, so start saving! Clean and sweet, and neutrality is exceptional with orchestral material	63	17,20	۲		1	220
88	Kudos S50	159	Formidable bass with real authority, and a wide dynamic range across a broad bandwidth	61	15, 20	•		1	220
88	Partington Ansa 60	99	Elegant flat-packer 'disappears' sonically; restrained but neutral and coherent	62	18,15	۲		4	232
EC	Partington Dreadnought BS	249	The Dreadnought Broadside is a superb stand for high-class standmount speakers - and it looks great too!	61	17,15	٠	٠	5	261
EC	Russ Andrews Torlyte	299	Very relaxed sound from this metal-free design, with excellent imaging too	60,50	15,21			3	280

EQUIPMENT SUPPORTS SPECS 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-loaded with sand and/or lead to stop ringing. WELDED As opposed to bolt-together construction. NUMBER OF LEGS That support the stand



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# 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 – 'low bass' refers to the bottom octave (20-40Hz), 'mid-bass' the middle octave (40-80Hz) and 'upper bass' the top octave (80-160Hz).

**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 drive unit 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 217.5-230MHz band. 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 component at which incoming digital data is used to reconstruct a recognisable analogue (music) waveform.

**DOLBY DIGITAL** A compressed digital audio format that typically contains five or more entirely discrete channels, eg 7.1 EX where side and rear channels are used **DOLBY PRO-LOGIC, DPL** Forerunner to DD that 'steers' information to the front U/R, centre and mono surround channels via an analogue matrix.

DRIVE UNIT/DRIVER A transducer which converts electrical energy into acoustic energy, eg 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 canacity of CD.

DSP (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 4:1 compression ratio that, ostensibly, promises higher quality.

DVD-AUDIO 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

complex electrical load that a loudspeaker presents to the amplifier driving it.

JITTER An insidious distortion specific to digital audio caused by imprecision in the clock, used to regulate the conversion of data into analogue audio.

**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

cartridges) 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 complex psycho-acoustical model that predicts what is, and what is not, 'audible' within a sequence 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), measured 1m from the speaker.

THX Standards system for home cinema set-ups which includes amplifier power and speaker dispersion characteristics. The latest THX Ultra 2 standard 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. **WOOFER** Bass driver.

#### **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 stereo channels.

**BODY** Fullness of sound, with particular emphasis on upper bass.

Opposite of thin. BOXY The sound of a loudspeaker

with audible cabinet resonances. BRIGHT A sound that emphasises the

upper midrange/lower treble. DARK A tonal balance that tilts

downwards with increasing frequency. Opposite of bright.

**DECAY** The fadeout of a note, it

follows the attack.

**DEFINITION** (or resolution) The ability of a component to reveal the subtle information that is fundamental to high fidelity sound.

DEPTH (of image) The perception of music being reproduced behind the loudspeakers and inhabiting a reproduction of the acoustic space of the original recording.

**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 fine-grained 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 'snap'.

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.

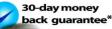
**WEIGHT** A sense of substance and underpinning produced by deep, controlled bass.

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other speakers and in most cases you'll find one aspect, one area that you wish you could change to create that perfect loudspeaker. Listen to the Hyperion 938 and the first thing you'll ears will tell you is just how balanced the 938 is. You really cannot fault its performance in any area.



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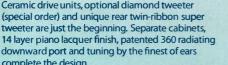
" If you want the best and don't want to pay silly money for it, buy the Plato ... its the best loudspeaker we have heard! "

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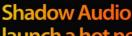
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" For the life of me, and this is the true test of the kW 250S versus separates, I cannot find a way to duplicate what this unit offers at £4999." Ken Kessler, HFN Aug 2006





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McIntosh is one of our best selling brands and its easy to hear why...



HECO9/04 2

# WhatHow &How &Under the systemWhereTO BUY YOUR HI-FI SYSTEM

**C** ...too many people today know the price of everything and the value of nothing.

Oscar Wilde

Isn't it easy to buy a new system? You read the magazine product reviews, you find out who sells the recommendations, five-star favourites or best buys at the cheapest price, you order the system, get a friend who knows his onions to install it - and live happily ever after.

This is a fairly well-trodden path but it leads to dissatisfaction, endless upgrades and a lot of wasted money. It's likely that the system will help you lose interest in music pretty rapidly. The problem is that there are more myths about hi-fi than Aesop's Fables. system for your CD gives you perfect sound. All CD players sound the same. money by asking A £50 CD player plays high our Top Twenty UK fidelity music. All magazine reviewers are experts. Big specialist hi-fi speakers are always better than small ones. More watts per channel is everything. MP3 format dealers. gives you high quality. A collection of 'Best Buy' components will be a great system. And so on and so on. All myths.

#### Music - the real aim

Our aim must be to buy a hi-fi system that will prove musically satisfying, reliable and deliver true value for money. If the system doesn't excite you musically you've wasted your money. What is even worse is that you may not even realise you've bought a bad egg – you'll just switch the TV on instead and your desire to listen to music will gradually diminish. Have you ever been in a pub or club where you realise it's very difficult to

read the<br/>kho sells<br/>or best<br/>system,<br/>lit - andconduct a conversation, even to the extent of<br/>being really tiring? A poor quality system<br/>continuously distorts but I don't mean it<br/>necessarily reaches the point of audibly breaking<br/>up. With a top quality system you can play music<br/>very loudly and still hold a conversation because<br/>it's free of distortion. A poor system is tiring to<br/>listen to even when it's played at low volume.<br/>If you want proof, go into a shoe or<br/>clothes shop where they play<br/>background 'music' and try to<br/>enjoy listening. It's odds on you'll<br/>fail.

## What and Where to buy

K The system you think you want may not be right for you. So where do you start? Here's an important tip... don't start with WHAT – start with WHERE. There is only one way to give yourself the best

chance of getting it right first time, and that's through a specialist hi-fi dealer. Now it's likely you have preconceived ideas that may put you off visiting one. Although you would welcome the advice and guidance, you don't know the technical jargon. You don't want to be talked down to. Your friend has said they only sell expensive gear and they're not interested if you don't have a big budget. They're expensive. Again, just myths. Most specialist hi-fi dealers are running their business because, above all, they love music. They spend a large portion of





their time listening to music and comparing systems to get the best possible results. They know the component combinations which don't gel together and, conversely, they know the combinations which give the best performance within a given price range. But they all also know the system must suit you.

#### Buying or being sold to?

Now there's a group of long-established specialist dealers who are totally committed to putting the customer first. Their idea of 'selling' is to discuss your requirements, offer their advice, give you the best options, then 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. You'll 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 problem you might encounter.

The story doesn't end there. These shops won't abandon you once you've put your hand in 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 you're entirely happy with the way it works. Why? Because a high proportion of these dealers' custom comes through people who have bought from them before, either directly or by commendation. It's vital to them to get it right for you.

#### Getting the best deal

Oscar Wilde wrote "...too many people today know the price of everything and the value of nothing." Specialist retailers know that not all potential purchasers will seek them out. They tend to attract the more discerning, thoughtful customers. Let's face it, a good deal is about a great deal more than just price. After all, unless you've got money to burn, you'll be living with your new system for years. Most of these dealers offer much longer equipment guarantees than provided by the manufacturer, a very worthwhile benefit, but it also makes it in the dealer's interest to ensure high build quality and reliability. Maybe you could save a few pounds by buying piecemeal but you'll lose out on the overall package. 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 hifi shops in the country. They have been selected because they are known to do an excellent job in guiding customers towards hi-fi that will give them years of musical enjoyment and total satisfaction.

VALUE FOR MONEY

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Chelmsford RAYLEIGH HI-FI 216 Moulsham Street. 01245 265245 Colchester RAYLEIGH HI-FI 33 Sir Isaac's Walk. 01206 577682

Horsham AUDIO DESIGNS 7-9 Park Place. 01403 252255

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mcd1000: As demands of CD players grow ever finer, those seeking the ultimate in sonic purity find salvation through separation — one box for the transport, one box for the converter. The MCD 1000's advanced optomechanical design makes it the last CD transport you may ever need.





mcla1000: The proliferation of digital sources argues for the use of one, superior, multi-input D/A converter. The MDA1000 features a break through balanced/parallel design for unparalleled clarity. With 7 digital inputs and automatic selection of the correct sampling frequency from 32 to 96 kHz, the McIntosh MDA1000 will ensure uniformly excellent sound from all of a system's digital sources.





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ma2275 : Combines the world class performance characteristics of our highly acclaimed tube control and power amplifiers into one, compact chassis. Created to make the most of both new and venerable technology, the MA2275 relies on vacuum tubes for all signal amplification, with incredible results.

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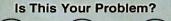


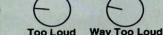


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The Denon DL-103 Moving Coil cartridge is a true classic, not just because its been in production since 1963 but because it still offers a performance to rival designs costing much more than its low £100 Also now in the DL-103R version: £200 price tag would suggest.

Audio Note to 1 MC cartridge. Surely one of the best cartridges in existence, the lo uses Alnico magnets and pure silver coils to extract everything from your LP's in the most musical way possible: £1,595.





The Nottingham Analogue Dais turntable is the result of many years of research by the companies founder. Tom Fletcher. In our opinion it offers unmatched performance at its £3,519 price level. It's pictured here with the 12" Nottingham Analogue Ace Space tonearm which costs £710.

J.C. Verdier Platine This spectacular turntable uses a high mass platter suspended by magnetic repulsion and an externally housed high quality DC motor. Its performance is as magnificent as its appearance suggests, offering a completely stable basis for the finest arms and cartridges. Prices start from £5,000.





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Audion Silver Note One This is a specially commissioned amplifier exclusive to Noteworthy Audio. It uses a single 2A3 directly heated triode per channel in an ultra purist single ended zero feedback design. It produces 3.7 of the finest watts available, if you have high efficiency speakers you need to hear this remarkable amplifier: £2,500.

The Usher CP6371 offer astonishing value for money. These very substantial speakers (they weigh 60kg each) and cost only £2,000 for a pair. A pair of wonderfully natural sounding carbon fibre filled paper cones are used in a two way configuration with a 1" soft dome tweeter covering the high frequencies. Their sound is potent yet not overblown, and the very rigid boxes mean that cabinet colouration is extremely low





The Avantgarde Duo's use horns for the high and mid frequencies and as a result offer 104dB sensitivity. They produce all the speed and dynamics you'd expect from such a design and are effortlessly musical. These speakers really do have the most astonishing mid band performance, if you in the market for a pair of speakers at this £9,995 price point then you really must hear them.

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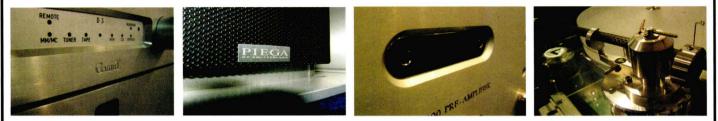
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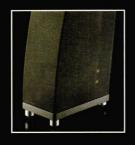
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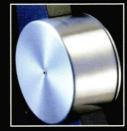
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Andy Ford group publist andy.ford@futurenet.co.u andy.tord Nick Merritt group et co ul Dom Beaven pu e Dove a Jim Douglas edito on Wear inte Robert Price managi

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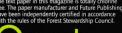


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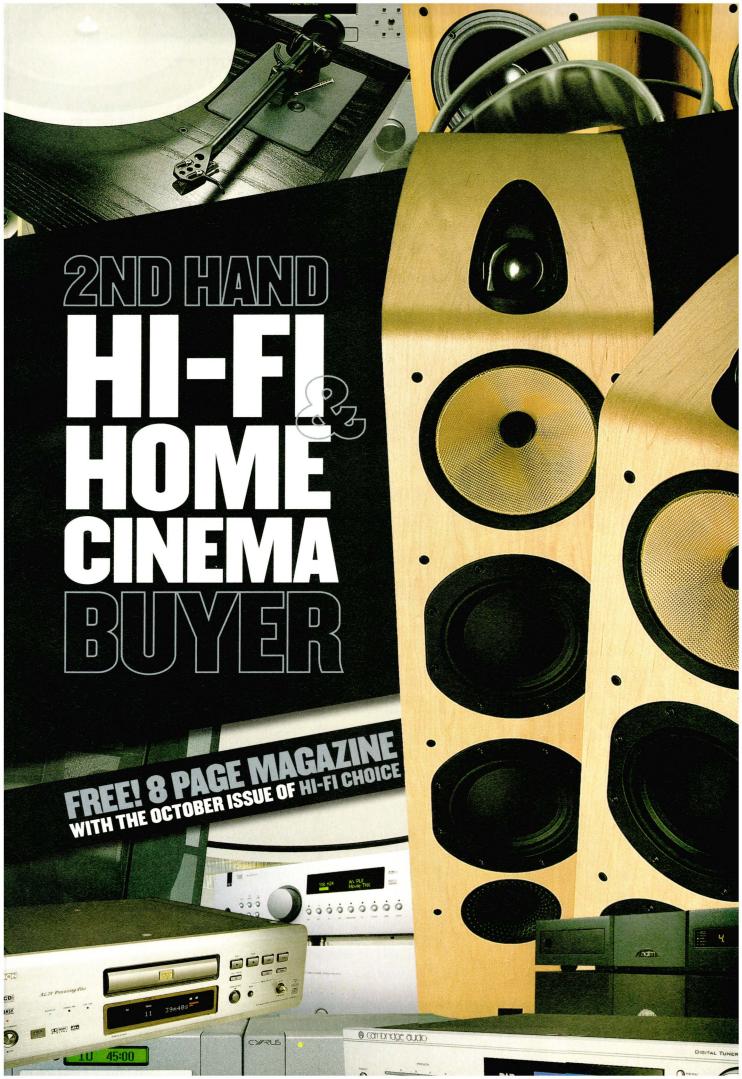




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THE P

# **2nd-hand shootout**

So, you've got £500 to spend on a second-hand CD player. Which should you buy?

CHORS CPA220 Dearth I LIAN

n 10.250, Rossan Alt 1525 John 01629 R (Johnschie) KLIPSCN MERESY J As 119861 birch pl

pending £500 on a second-hand CD player presents many options. There's the exotic player from many years ago that originally cost more than £2,000, or the safer option of a more recent machine, originally costing less than £1,500. After much deliberation, we've gone for a mixture of both. Representing the safe and sensible corner are the Marantz CD17 KI Signature and Meridian 506.24. Then, from the somewhat older and rather more distinctive sounding corner, we have the Naim CD2.

The original Marantz CD17 KI Signature was launched in 1997, cost £1,300 and received numerous awards. For our budget,



valve output. It's dynamic, too, but just don't expect holographic insight.

While the Marantz is superb with jazz, folk, rock and pop, if your tastes veer more towards classical, then you'll probably be better served by the Meridian 506.24. With its Burr-Brown developed 24-bit DAC, modified data-grade transport and discrete

# "Spending £500 on a second-hand CD player presents many options."

however, you should now be able to get a five year old model - conveniently enough, that was about the time when the player was tweaked into MkII guise. All CD17 KI players were completely rebuilt by hand, and used upgraded power supplies, OFC cabling and liberal use of copper plating over and above the standard, non-KI version. Sadly, the very fact that they were handbuilt meant that some were not as well re-assembled as others - our original review sample, with its skewed casing, demonstrated this. Nevertheless, reliability has turned out to be good and parts are available. With regard to sound quality, the CD17 KI has an expansive, fluid sound that gives the impression of the player having a



Class A output, this Meridian's spec is still highly competitive. Although not quite as rumbustious sounding as the CD17 KI, the 506.24 will dig up detail that the Marantz passed by. Richly detailed and highly musical, this is another ear pleaser. A textured enamel and glass finish makes this easily the classiest CD player here and, like the others, reliability and spares shouldn't present a problem.

There is one important fact to bear in mind when buying the Meridian second hand. When the 506 was upgraded from 20-bit to 24-bit status (hence the '.24' in the name), the company offered an upgrade path to existing owners. It's impossible to tell from the outside whether a 20-bit Above: Marantz CD17 KI Signature CD player

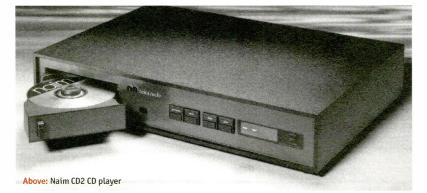
player has been upgraded or not, but an upgraded player with the 20-bit logo on the front could be even better value than a functionally identical model featuring the right screen-printing.

Last up is the Naim CD2. We know there are plenty of these on the second-hand market, as Naim offered owners a £650 trade-in allowance against a new machine last year. You may have to pay above our £500 budget to secure a ten year old CD2 (they ran from 1995 to 1998) but a well looked after example will be worth it.

The CD2 was one of the last Naim players that offered a seat-of-the-pants listening experience. Match it incorrectly and it will sound brash, forward and none too subtle. Partner it sympathetically, though (a Naim system is always a good bet) and it will beguile and entrance like few others. With acoustic music, this is the most believable machine here, although heavy orchestration is better handled by the Meridian.

If the system fits, then our choice would be the Naim. If not, or you simply don't like the idea of buying a ten year old CD player, then either of the others would make a fine buy. Choose the Meridian for classical music and the Marantz for the rest and you're unlikely to be disappointed. **HFC** 

Dominic Todd



2 SECOND-HAND BUYER | october 2006

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## **Blue Note**

Stibbert uses the latest Bluenote digital technology and output proprietary filter called Zero-Cloc™. Electro-Power™ voltage power supply is the first self adjusting power supply installed in a consumer CD Player. It is without doubt the most stunning £3,500 CD Player we have ever heard!



#### Emille

The 4 different new Emille models each with diverse tubes will expand the range of your speaker choices and bring your music to life like never before! Call us for more details and to arrange a demonstration.



#### Gershman

Gersman The attractive stylist inherent in any Gershman model is immediately evident. The exotic shape of the top three designs is no accident. Based on the strongest architectural design known to man, the pyramidal enclosures, these speakers from Canada are more than a little special.



#### Luxman

A range of products are available and we just have to mention the L-509F Integrated model.

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| Audio Artistry Dyvorak Speakers (£1,500)   | £6k        |
|--------------------------------------------|------------|
| Audio Note DAC 3.1X Signature (£2,000)     | £5k        |
| Audio Research VT200 MK III (£2,500)       | £l0k       |
| Audio Research SPII Preamp (£1,400)        | ENA        |
| Audio Research Classic 120 Mono (£2,500)   | <b>£8k</b> |
| BATVK-55 Poweramp (£1,500)                 | £2,900     |
| Canary 303 Signature Monos (300B) (£2,995) | £8k        |
| Conrad Johnson Premier 8 Monos (£3,995)    | £18k       |
| Hyperion HPS-938 Speakers (exd) (£2,500)   | £3,800     |
| Jadis JPS-2 Preamp (£2,600)                | £12k       |
| KEF 107 Speakers (£400)                    | ENA        |
| Krell KSA-100S Poweramp (£1,200)           | £6k        |
| Krell KPS20IL CD Player (£2,995)           | £12k       |
| Krell FPB300 Poweramp (£2,500)             | £8k        |
| Linn Sondek LP12 (black/basic plus) (£350) | £N/A       |
| Mark Levinson 333 Poweramp (£2,000)        | £6k        |
| Musical Fidelity CD/Pre (£800)             | £2,500     |
| PMC BB5 Professional Monitors (£3,500)     | £14k       |
| Reference Veena Speakers (£1,600)          | £2,800     |
| Revel F50 Speakers (£2,995)                | £6,500     |
| Sumo Model Ten Monos + Pre (£1,500)        | £5,995     |
| Tannoy Canterbury (latest models) (£3,750) | £9,500     |
| XTC Pre/Power Amps (£1,200)                | £3,750     |
|                                            |            |



#### EX DEMO AND SECOND-HAND ITEMS

ade 22 Bit Balanced S/H ade 22 Bit Single ended S/H S/H t-DAC S/H t 3D Player S/H anagram x-dem r x demo \* x-demo emo r S/H ted S/H to Scom/Balanced S/H MC Cartridge 100hrs ackage x-demo no stage x demo ANALOGUE /H MC step up S/H able Newft Boxed DA XPSII S/H mplifier X-de fier S/H 5/H lier x-demo ed valve x-demo PREAMPS Black S/H ono S/H ier S/H fier x-demo eamplifier x-demo rence Preamplifier S/H etti Mono Power Amplifiers X-dei Re Built S/H O Valve mono Amplifiers x-demo MKIII Valve Power Amplifier S/H amo Valve Amplifier S/H ISOSA x demo IU S/H reo Power Amplifier S/H reo Power Amplifier S/H ower Amplifier S/H slifier x-demo fier S/H rry x-OUDSPEAKERS ast pair! New NIB ry 4 months old S/H er upgrade y ubwoofer x-demo amore S/H nds S/H ds, fixed height, x-demo d stands S/H J AN Spa Speaker cable S/H /EBU balanced Digital S/H tier Stand S/H MD 0.75m RCA S/H CA S/H BU 1100hm Digital Cable new bo erconnect S/H Striva Zm mains cable s-demo FTI 2G 32x0.8m Silver Speaker cable x-demo SIS8E Cassic Z-Sun Silver & Gold Speaker cable BNIB Signature GS 0.75m ASY/EBU Balanced Digital Cable S/H regarisation Becord Rates Autor Que Ademo M330 Dzm RCA BINB M-350 Dzm (Harcy cables) Z-Azo ganisation MI330 2m R MI-350 20ft Chord III NB connect RCA-RCA x-demo ains cable x-demo tra 1m RCA-RCA S/H tra 2m RCA-RCA S/H uper 2x 4,62m x-demo RID 2x3m pair Speaker o 300b Valves 1Pair NEW n Beat 800 AM/FM Tuner x demo im Dynalab FTR remote/Tuner for Etude 5/H tz DVD400 DVD Player 5/H dio Powerplant 300 with multiwave x-demo radio 3 Silver X-demo n 821 AM/FM Tuner x-demo Midland Audio X-change are looking for Audio Research, Krell, Mark Levinson, Naim Audio, SME, Wadia.

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£895

£695

£395

£2400

£649

£1095

| Wadia 861b in silver, immaculate condition, 1 owner, just over a year old (£6950)<br>Micromega Aria, black, ex HiFi Choice review model (£2150)<br>Audio Research CD3 Mk II, silver, as new condition, boxed (£5190)<br>Shanling CD-T200 SACD, full UK version, superb cond, boxed (£2150)<br>Primare D30.2 CD Player, black, 1 yr old, boxed, excellent cond (£1500)<br>Musical Fidelity DM25 DAC + Transport, only a few months old (£4000)<br>Avl Lab Series CD, current spec, boxed, factory sealed box (£4000)<br>AVI Lab Series CD, current spec, boxed, unmarked condition (£1499)<br>Consonance 2.2 Linear, brand new!, stunning, boxed (£1400)<br>Audio Analogue Maestro MkII, 3.5yrs old, excellent cond, boxed(£1500)<br>Jungson Magic Boat v2 CD/SACD player, silver, ex dem (£995)<br>Kell MD-10 CDTransport, excellent cond, boxed, nare opportunity (£9995)<br>Shanling CDT300 Omega Drive, ex-dem, immaculate cond (£4000)<br>Resolution Audio Opus 21, 2 box cd player, boxed, black/silver (£2950)<br>Unison Research Unico Valve output CD, latest spec 24/192 model (£1250)<br>Wadia 302 in silver, 1 owner from new, superb condition, boxed (£4000)                                                                                                                                                                                                                                                                                                                                                                          |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Qinpu A1.0x, ex What HiFi review model, boxed in immac cond (£300)<br>Qinpu A-8000 MK II, ex HiFi World review model, boxed as new (£1295)<br>Musical Fidelity A5 Int, 250wpc, 6 months old, boxed, immac (£1499)<br>AudioZone Amp-2 MK1 Monoblocks, 6mnths old, perfect cond (£1800)<br>JVC AX-SD1 Integrated, Pure Class A, very rare, in mint cond (£2000)<br>Bryston B-100 SST Int amp, unmarked condition, boxed (£2750)<br>Consonance Cyber 800 Monoblocks, immac, boxed (£2300)<br>Gamut D200 Power Amp, silver, immac condition, boxed (£2500)<br>Quad II Forty Mono Blocks + QC24 Pre, 2yrs old, boxed (£4000)<br>Art Audio Jota Power Amp, ex-dem, boxed, immac cond (£1000)<br>Musical Fidelity KW500 Int new in Dec'05, boxed, mint, 500wpc (£4000)<br>Eastern Electric M520 Int, What Hi-Fi 5 star review, 4 mnths old (£139)<br>McIntosh MC2102 Valve Power Amp, immac cond, boxed (£3700)<br>McIntosh MC252 Power Amp, boxed as new, 6 mnths old (£1812)<br>Eastern Electric Minimax Pre, ex-dem, mint condition, boxed (£769)<br>Marantz PM1551 integrated, 1 owner, boxed, exc cond (£2400)<br>ATC SCA2 pre amp, boxed, fully serviced by ATC only 7mths ago (£3900)<br>Border Patrol SE300b Power Amp, boxed in exc cond, 300b'sill(£4995)<br>Croft T51 hybrid power amp, boxed, exc cond, (£2400)<br>Bow Walrus Power Amp, boxed, exc cond, (£2400)<br>Bow Walrus Power Amp, boxed, exc cond, (£2400)<br>Bow Walrus Power Amp, boxed, exc cond, 1500pr (£3995)<br>Bow Walrock Pre, boxed, exc cond, fully balanced, r/c (£3495) |
| Hyperion 938, gloss black finish, immac cond, very low hours (£3750)<br>Acoustic Energy 1 MkIII, 8 stock, slight mark to front right corner (£1995)<br>Triangle Antal, approx 7yrs old, good cond, boxed (currently (£975)<br>Triangle Antal Esprit ESW, new spec, 8 stock, very minor blemish (£975)<br>Living Voice Auditorium, maple, immac cond (£2100)<br>Wilson Benesch Discovery, ex-d, 3 yrs old, boxed, as new, silver (£5700)<br>Mission Elegante E82, 1yr old, boxed in superb condition.(£1300)<br>PMC FB1+, cherry, boxed, immac cond, few mnths old! (£1695)<br>PMC FB1, upgraded to + spec in 2005, oak finish, boxed (£1695)<br>PMC IB2 in cherry, immac cond, boxes, 2 yrs old, awesome (£6995)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

digita

amplifiers

Linn LP12, Lingo PSU upgrade, Ittok Arm, including Klyde cartridge, exc cond, Isotek 2K Qube2, boxed, in silver, sensational mains conditioning unit. (£1595) Isotek GII Minisub, silver front, current spec, immac cond (£545) Pioneer PDP436-XDE 43" Plasma + stand. Brand new sealed box (£2900) Townshend Supertweeters, titanium finish, boxed as new, exd (£800) Isotek Titan mains conditioner, few months old, boxed (£1500)

Trichord Diabio phono stage, exc cond, only 9mths old, boxed (£750) Wilson Benesch Full Circle, boxed as new, exc cond (£2100) Tom Evans Groove Plus phono stage, boxed, mint cond (£3600) Mark Levinson JC-1 phono stage, very very very rare Eastern Electric Minimax Phonostage, ex-d, mint, boxed (£1099) VPI Scout inc. JMW-9 tonearm, immac cond, boxed, very little usage (£1300) Linn LP12, Ekos Arm, Arkiv cartridge, lingo PSU upgrade, exc cond

Innersound Isis Hybrid Electrostatics, exce cond, incredible £2300) B&W 805 Signature, tiger eye veneer, factory stands in silver (£2900)

Living Voice OBX-R2, 1yr old, cherry, slight mark, utter bargain (£4400) Mirage OM7 Omnipolar in black gloss, boxed, good cond (£2000) JAS Audio Orsa, ex HiFi Plus review model, poplar tumor (£1399) KEF Reference 1.2, black, 2yrs old, excellent condition (£1000)

Audio Physic Tempo 4, cherry, exd model, immaculate condition. (£2199) Triangle Titus, ex-dem, mint condition, boxed, very low hours (£370) Audio Physic Virgo III, cherry, 6mnths old, boxed, as new (£3999)

List is updated daily on our web site.

## DEFINITIVE AUDIO

Sale of part exchanged and ex-dem items

| ITEM DESCRIPTION                                                                                                        | SALE           | NEW         |
|-------------------------------------------------------------------------------------------------------------------------|----------------|-------------|
|                                                                                                                         |                |             |
| 47 LABORATORY Gaincard MKII 25 watts + Humpty PSU + Input                                                               |                |             |
| Chooser + 3m Kishermon speaker cable - 12 months - hip 'n' groovy                                                       | £2760          | 00010000000 |
| VAN DEN HUL Colibri. New - unused                                                                                       | £1800          |             |
| MUSICAL FIDELITY Nu-Vista M3 CD player (2001) - vg condition - boxed                                                    | £1200          |             |
| FINITE ELEMENTE HD 12. 3 tier table - double width - new - boxed - perfect                                              | £3750          |             |
| AUDIO AERO Capitole CD player - current specification                                                                   | £2250          | £4500       |
| LINN LP12 - Itok - Aformosa. Age unknown - old but very nice condition                                                  | £300           |             |
| VOYD REFERENCE turntable. Unique example of this benchmark design.                                                      |                |             |
| beautiful satin rosewood plinth. Includes AudioNote wired Helius Cyalene                                                |                |             |
| tonearm and ANUK IO-limited field coil cartridge with PSU                                                               |                |             |
| (15 hours use). Comes with manufacturers warranty on turntable.                                                         |                |             |
| MCINTOSH 2000 Anniversary power-amp. 6550 Parallel push-pull monster                                                    |                | £13500      |
| CANARY 303 monos. PP 22 watts 300B with Living Voice upgrade                                                            | £4800          | COX: ISSNES |
| ROGUE AUDIO M99 Magnum pre amp. 3 years old                                                                             | £1000          |             |
| ROGUE AUDIO M120 Magnum. 120 watts - 6550 monos - cosmetic seconds                                                      | £1500          |             |
| PLACETTE passive line stage - 3 inputs - 120v. Remote control - 6 mths old                                              | £900           | £1600       |
| GOTHAM Type 39 monos (Western Electric version of Canary CA 309)                                                        | £1000          | £13000      |
| AUDIO INNOVATIONS P2 - completely standard classic unit - collectable                                                   |                | 00500       |
| PATHOS 2 box pre-amp with remote control - spotless                                                                     | £1500<br>£3500 |             |
| CANARY 903 4 box pre-amp - champagne facia - 3 mths old - boxed<br>AUDION Golden Night 3008 monos - very good condition | £3500<br>£1500 |             |
| BORDER PATROL 300B SE. Western Electric 300B valves - 8 watts - charmer                                                 | £3250          |             |
| AUDIO NOTE JAPAN ANS6 - cartridge transformer - mc - Classic                                                            | £3250          | £3000       |
| SUGDEN Bijou mm/mc phono stage - 100 ohms                                                                               | £450           | £650        |
| ART AUDIO PX25 - 5 watts - single ended stereo                                                                          | £2500          | 252000000   |
| NOTTINGHAM ANALOGUE Spacedeck Inc. RB300 & Living Voice Mystic Mat                                                      | £650           | £1350       |
| TUBE TECHNOLOGY Prophet pre-amp - 30 hours use                                                                          | £1250          |             |
| TUBE TECHNOLOGY Unisis Signature integrated - 30 hours use                                                              | £1250          |             |
| TOM EVANS Microgroove Plus & mm phono stage                                                                             | £450           |             |
| <b>ROGUE AUDIO</b> Metis pre, Atlas power, Ex dem - less than 20 hours use                                              | £1250          |             |
| CANARY 608LV integrated amp. 25 watt integrated - Living Voice upgrade                                                  | £1000          |             |
| BORDER PATROL P21 power amp with volume control - mahogany - lovely                                                     | £3200          | 2022 22     |
| EXPOSURE VI-VII-VIII. 3 box Pre-power - 8 years old - v. good condition                                                 | £400           |             |
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| AUDIO INNOVATIONS Series 1000 monos silver edition - fully serviced                                                     | £900           | £2500       |
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| SUGDEN A21 SE CD player - very tidy                                                                                     | £750           | £1400       |
| UNISON RESEARCH Smart 300B class A power amp - 1 year old                                                               | £2250          | £4500       |
| AVID Acutus - 1 lady driver, fine looking example - excellent condition                                                 | £3500          | £6000       |
| ALOIA pre-amp - beautifully made - very little use - boxed                                                              | £900           | £2800       |
| REVEL M20 bookshelf loudspeakers -Santos Rosewood - with stands                                                         | £850           | £2000       |
| SUGDEN Masterclass Integrated amplifier inc' phono - marvellous - beefy                                                 | £1900          | £3300       |
| MACTONE power amp - 300B push/pull - waffle maker styling - 50 hours use                                                | £4000          | £6500       |
| MACTONE XX330 stereo line pre amp - Japanese hand built - 50 hours use                                                  | £4000          | £6000       |
| MAXELL 35-180B professional polyester 35 micron metal reel tapes 3600ft x33                                             | £150           |             |
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| Elac CL330 Jet speakers with stands                  | £995         |
| Revel Salon black gloss aluminium side panels (mint) | £9995        |
| Living Voice OBX R2 Speakers                         | £2,800       |
| Dynaudio Audience 7 speakers & stands                | £395         |
| Hales Transcendence 5 Loudspeakers                   | £2900        |
|                                                      |              |
| Pre-amps:                                            | 0205         |
| Conrad Johnson MC 10 FET pre-amp                     | £395<br>£595 |
| Naim Nac 92 with Nap 90/3 amp<br>Proceed PAV pre-amp | £1395        |
| Rotel RC-995 pre-amp                                 | £295         |
| Mark Levinson 380S                                   | £2995        |
|                                                      | 12775        |
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| Mark Levinson 431 amp (ex demo)                      | £3850        |
| Audio Research D130 power amp                        | £995         |
| Audionote Neiro mono-blocks                          | £5495        |
| Parasound HCA 1000A amp                              | £345         |
| Audionote Kegon mono's (new)                         | £11995       |
| Perreuax 200ip int. amp                              | £1095        |
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| Classe CA201 amp                                     | £1995        |
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| Mark Levinson 432 Power Amp                          | £4995        |
|                                                      |              |

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Linn Genki, nr mint boxed boxed REDUCED ex remote REDUCED REDUCED

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Musical Fidelity XDACv3 as new boxed Musical Fidelity X-Hay, GAUS Musical Fidelity 3.2, nr mint boxed REDUCED

NAIM CD3 as new ported incurrence NAIM CD3, ex boxed with remote NAIM CD31, ex with power supply, remote etc NAIM CD51, ex with power supply, remote etc QUAD 67, excellent boxed with remote Rega Jupiter, as new boxed Resolution Audio Opus 21, excellent, crated Rokson Kandy 3, ex dem REDUCED

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#### FOR SALE

**AMERICAN MAGAZINES** (49)

The Perfect Vision, The Absolute Sound, Surround Professional, Widescreen Review and Stereophile Guide to Home Theater. Buyer collects, make an offer for the lot. Plus 1x5mtr, 1x2mtr Chord Chamelion interconnects, phono to phono, ideal for active subs, can separate. Make me an offer, buyer collects or pays postage. Scottie 07762 021618 (Sussex)

ARCAM 8R £250, 8P £150. B&W DM602 S2 speakers, £150. Four lengths DNM Reson MkII speaker cable, call for details. Mike 07710 737232 (East Lothian).

**ARCAM FMJ AV8** P7 Silver, immaculate, four year warranty, five days of use only, boxes etc, coffee and biscuits when you collect<sup>1</sup> (£5,749) £4,500. Please email showsound37@hotmail. com (Sussex).

ATC SCM100 TSL Anniversary limited edition speakers. Burr magnolia piano finish. Active or passive. Reluctant sale, as new. Five months old, (£13,000) £8,000. Contact Ian on 07941 424322 or try 01789 261585 or email ian.brunt@zen.co.uk (Warwickshire).

AUDIO RESEARCH LS5 pre amp, good condition, used rarely, (£5,290) £1,290. ATC 20TASL, active speaker, (£4,800) £2,190ono. Part exchange welcome for both. 020 8504 1638 (London).

#### AUDIOQUEST EMERALD

interconnects 1m pair, (£260) £90. QED Silver Spiral Qunex 1m pair, (£90) £40. Campaign Audio 2m Silver power cable, (£75) £35. All mint and boxed. 01278 782622 (Gwent) **B&W 805V** and Partington stands. Dynamic, musical soundstage, mint, £400. Sony CDP-X3000ES. Tri-digital filter, champagne gold, £200. Matching tuner ST-S3000ES. Hardly used, £150. Peter 01227 794817 (Kent).

**CHORD CARNIVAL** silver plus biwire speaker cable, four metres, £20. Cable Talk 3.1 biwire cable six metres, £12. Cambridge Audio Pacific interconnects x2, £10 07723 652769. (Birmingham). **CHORD DAC 64** Mk1, mint condition, (£1,999) £999. 07748

485668 or email pbjernkl@yahoo.co.uk (London). **CYRUS 8VS** amplifier award winner mint condition, hardly used, boxed fantastic sound and power 8 months old, but only used for 4, £550. 07739 822360 (East London).

**ELECTROCOMPANIET EC1-2** integrated amplifier, £400. Audiophysic Step speakers and factory stands, £500. Work great together, just add a decent CD player. Can demo, discount for both, Chris. 07903 844609 (Worcester).

**EPOS/ ROTEL** system, Epos M5 speakers plus RCD-02 CD player and RA-01 amplifier, (£980) £580. All items in original boxes, owned from new and in mint condition. Lee, 01384 412234 (West Midlands).

IMF TRANSMISSION LINE Mk III monitor loudspeakers, vgc for age, £250. Tag McLaren 60p power amplifier, 72wpc, (£850) £400. US Amps 300w valve car amplifier, £300ono. 07837 428254 (Devon)

**KEF Q35.2** boxed as new in black, £140. 07760 120668 (West Yorks).

LINN KARIK CD player, Numerik D/A, Kairn preamp, LK100 power amps (x4), Keltik Speakers. All mint, call for more info, £4,000ono. 07759 432451 (Merseyside).

LINN KLIMAX 500 solo power amps, good condition, boxes, £7,500. Barrie 01323 487781 (Sussex).

LINN PEKIN tuner, mint, £350ono. Alex 01189 834894 or 01256 304242 (Reading).

MARANTZ PM7200KI £250 ovno. Denon TU260L II, £50ono. Both black, mint, boxed. Cable Talk 3.1 bi-wire, 2x9ft, £25. Sony TC-PX100 drawer loading tape deck, £30ovno. 01355 248467 (Glasgow).

MARANTZ PM7200 six months old, £185. Mission 752F speakers, rosewood, £225. TCI Viper interconnects, £25. DNM Reson speaker cable, £5 p/m. 01582 724414 (Luton)

MARTIN LOGAN AERIUS I oak trim, £650. REL Stadium II, rosewood, £350. Paul Pascoe, 01743 289240 (Shrewsbury). MCINTOSH MCD201 SACD∕ CD player. just eight weeks old, mint, boxed, as seen in HFC May, (£3,400) £2,300. 01904 708382 or 07716 141986 (York). □

#### WANTED

APOGEE STAGE speakers, ribbons and electronics must be A1 appearance, reasonable or better. Steve 01761 434651or email s clements@homerall.co.uk (Bath)

ARCAM ALPHA 10 tuner must be good cond. Karl 01942 234927 karl138ufft@msn.com (Wigan). ATLAS OR NORDOST Red Dawn interconnect. 07810 1039008 (Yorks).

**B&W NAUTILUS HTM1** centre speaker, any finish considered, discontinued model required 01782 256087 (Stoke-on-Trent).

GOODMANS MAGISTER Will pay good price, but must be working. 01280 860221 (Bucks).

JECKLIN FLOAT headphones, prefer Float Two, but any Jecklin or Ergo considered. John 07855 121587 or email john.

boys444@ntlworld.co.uk (W Yorks). LEAK STEREO 70 amplifier

working or needing attention. 01938 553559 (Welshpool).

MISSION 773E floorstanders in cherry and mint. LPT spares also wanted. 01323 487640 (Sussex). SONY SCDXA3000ES SACD

player, must be unmarked as new cond. Good money for mint. 01766 781211 (Porthmadog).

## **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!

#### FOR SALE

C MERIDIAN 507 24-bit CD with MSR, £675. 501 preamp, £395. 556 Amp (100w), £425. All in superb, mint condition with original manuals, leads and boxes. Steve 07963 232638 (Herts).

MICHELL GYRO SE turntable, SME IV tonearm, van den Hul One special cartridge, Michell QC power supply, Dino phono stage/ power supply. Excellent, £2,000 (will not split). Kevin, 07884 226964 (London).

MICHELL ODYSSEY turntable with matching NC PSU and Techno arm. Very rare, only 100 units made, (£2,150) £1,150. email alan395shona@btinternet. com (Scotland).

MICROMEGA STAGE 6 CD player, perfect cond, with remote, manual, original packing, £350. Ken 0141 571 0851 (Glasgow). MIRAGE MSSI audiophile loudspeakers, floorstanding with black fabric grilles and piano black gloss trim. Frequency response of 35Hz to 22kHz. (£2,000) £650ono. 01628 524869 (Bucks).

#### MONITOR AUDIO GOLD

Reference 20 speakers, piano black, as new, boxed, (£1,800) £650. 01491 613760 (Oxford)

#### MOON HARBOUR CD player

HDCD. This is identical in appearance to the Katana Oem HDCD. Wood feature remote control. As new, can demonstrate, £700ono. Buyer collects. Living Voice Auditorium speakers, Mk1 good condition. Can demonstrate, £800ono. Ian G Young 0131 334 4881(Edinburgh).

#### **MUSICAL FIDELITY A1000**

classic British pre/main amp. 50 wpc of pure Class A with separate twin power supply box. Immaculate condition, beautiful deep gloss black casework. Magnificent weight and authority, £750. Peter, 01227 794817. (Kent)

#### **MUSICAL FIDELITY X-A2**

integrated amplifier, £250. Musical Fidelity X-Ray CD player, £400. 01752 291703 or 07815 648512.

**MUSICAL FIDELITY A5** power amp, two months old, 250 watts per channel, (£1,500) £900. Boxed and mint. 0161 681 1583 (Manchester).

#### **MUSICAL FIDELITY F19**

(£4,000) £1,100. B&W Nautilus HTM1 black, (£1,700) £700. Cardas Golden Cross speaker cable, two metres, (£2,000) £500. 07900 394165 (London)



Above: Marantz PM7001 integrated amplifier

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**STANDS UNIQUE** cherrywood speaker stands, boxed as new, £120. Speaker cables, (all 5.5 metres), Cable Talk Symphony, £200. Chord Odyssey 2, £140. Nordost Flatline Gold, £80. Call for more info. 01932 853789 (Weybridge, Surrey).

WHARFEDALE PACIFIC EVO 30 speakers in winter maple, still in boxes, £500. Sennheiser HD590 headphones in box, £150. 01493 665761 (Norfolk).



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