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Product of the Year 2003-2004

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Hi-Fi News (99Series and 11L Loudspeakers)



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Intro

HI-FICHOICE

JULY 2004 ISSUE 255

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



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





Richard is one talented guy: a professional musician, experienced recording engineer and a highly knowledgeable hifi enthusiast to boot. He's particularly nerdy about cables. It's probably freudian.



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



An awardwinning journalist of considerable experience, David's sharp ears and equally sharp powers of description are a valuable mix for *Hi-Fi Choice*. He also writes about cars, but who needs to take the latest Lotus for a spin when you've got the finest hi-fi to test drive? popped by the BFA's annual general meeting the other day. A motley gathering of the industry's great and good was present, all key members of the British Federation of Audio, captains of the good ship hi-fi and custodians of our sonic future. Throughout this keynote occasion, the message was clear and direct – in such challenging times as these for the British audio industry, the need to work together to promote our passion has never been greater.

Rapidly changing technology and shifting market conditions have brought their own challenges to purveyors of hi-fi artistry, but the desire to create opportunities from such threats and push forward the sonic arts remains undimmed. And we, the music lovers, sonic acolytes and hi-fi end-users, are the beneficiaries.

A steady stream of gorgeous kit continues to stream towards *HFC* Towers for our perusal, cherry-picked by our reviewers to ensure our readers enjoy the juiciest fruit from the hi-fi tree – all rigorously tested as only *Hi-Fi Choice* knows how. This issue's highlights include our main cover story – two new CD and amp pairings, one from Britain, the other from Italy, both intended to provide compact, desirable and beautifully engineered solutions to high-quality, hi-fi sound – as perfectly formed as a Breitling watch or a Lotus chassis.

Innovation, quality and service are prerequisites for manufacturers looking to sell their wares in this day and

age, but any lack of demand will stifle supply. You and I, dear reader must take the role of evangelist, spreading the hi-fi gospel. If you love music, you owe it to yourself to love real hi-fi – so keep on spreading the word...



i im Bowern editor

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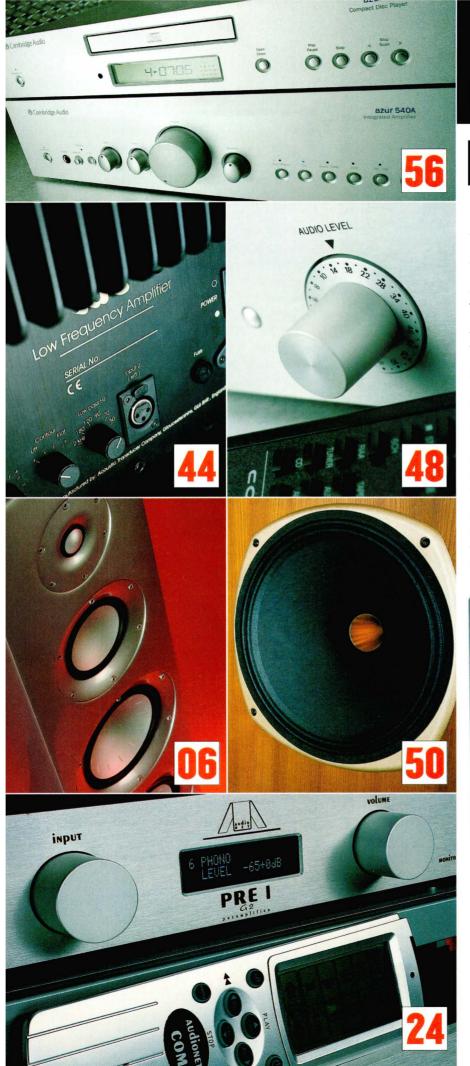
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Hi-Fi Choice is your essential guide to audio excellence in the home, from vinyl records to the latest digital music formats. For 29 years, our unique tests have brought you the most thorough and reliable hi-fi journal around. And our mix of rigorous group tests and in-depth solo reviews continues to ensure that HFC is the magazine you can trust. Published 13 times a year, it's the *smarter* hi-fi read...

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PRODUCT NEWS FOR THE STATE OF T



PUKKA PERFORMANCE

MORDAUNT-SHORT FINALLY READY

After three years in the making, Mordaunt-Short is launching its new high-end Performance loudspeaker range at last. The line-up consists of two floorstanders and a standmount, plus a dipole surround speaker, centre channel and subwoofer.

Three significant features form the backbone of the range. The first is a proprietary polymer resin cabinet construction that allows quite radical sculpting of the enclosure. In addition, an injection-moulded 'monocoque' design is said to offer an inherent mechanical strength along with improved sound quality. Equally innovative is the ATT (Aspirated Tweeter Technology) – an elongated metal diffuser that floats freely from the cabinet as a mechanically isolated structure. The shaft is vented along its length, allowing the tweeter to almost literally 'breathe'.

All Performance models use M-S's CPC (Continuous Profile Cone) alloy drivers - with the £3,500 flagship Performance 6 floorstander (pictured) sporting a single 100mm bass/mid unit and twin 165mm bass drivers, all mounted on a sound-deadening steel chassis with bespoke silver wiring throughout. Each driver on the Performance 6 has its own enclosure and is mounted on the rear of the chassis, isolated from baffle coloration. The products will be officially launched at the High-End 2004 Show in Munich, Germany later this month (20-23 May). • 01753 680868

www.mordaunt-short.co.uk

BIG BRITISH DIPOLE DIVAS

A new high-end speaker range featuring dipole operation is on the way from British brand MCA. The flagship system is the Segovia Trueno 38 (pictured), featuring a pair of three-way dipole floorstanders called the Segovia, two Trueno 38 dipole bass units, an electronic crossover and equaliser, plus a set-up kit. The Segovia features a ribbon tweeter and aluminium mid and upper bass drivers, while the Trueno uses a 380mm Kevlar and paper driver. Priced from £9,700 for the full rig, Segovia Trueno38 has been created to combat room-induced bass effects through the use of an open, dipole design said to offer a true 20-40kHz response. Dealerships are still under negotiation, but the speakers are available online with a 30-day home demo. 2 020 8670 3770 www.design3dw3.co.uk



PICTURE PERFECT ARCAM LAUNCHES FIRST BRITISH DVD PLAYER WITH HDMI CONNECTIVITY

Class-leading sound and picture quality is the promise made for Arcam's new £1,000 HDMI-equipped DVD-Audio/Video player, the DV79. This bold claim may be substantiated by the HDMI (High Definition Multimedia Interface) output, which allows digital video data to be streamed directly to suitably equipped plasma screens and projectors, alongside the latest audio processing componentry. Included in the spec is the Zoran Vaddis 5 decoding engine with its built-in progressive scan video capability, plus four-layer circuit boards and improved power supplies.

For audio, the DV79 uses the latest Wolfson DACs and boasts comprehensive bass management and low-jitter audio clock circuitry. The DV79 is also HDCD-compatible and will play MP3 and WMA files from CD. The player is available now.

RADIO GA-GA RED OR DEAD – THE LATEST DAB TUNER

Design guru Wayne Hemingway, of fashion label Red Or Dead, has teamed with Pure Digital to design an extraordinary new DAB tuner. Called The Bug, it's said to be the most fully featured DAB product available. It allows replay and recording of MP3 files via an SD (Secure Digital) memory card, and also sports an optical digital output for external recording. A key feature of the tuner is the ReVu technology, which enables users to pause, rewind and record live DAB radio. The stereo Bug also has alarm functionality, timer recording and a scrolling radio data display. It's available this month, priced at £150. O1923 260511
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 www.thebuq.com



BEST ORTON HIGH-END AMPLIFIER FROM SMALL-SCALE BRIT OUTFIT

UK hi-fi specialist Soneteer has unveiled a new high-quality 30-watt stereo integrated amplifier called the Orton, priced at £1,700. Developed over several years, it's a remote controllable, dual mono design with three power supplies - one for each channel and one for the control circuitry. Key features include programmable input sensitivity for each channel from the remote, and preout/ line-out connections. The Orton also rather thoughtfully has an IR remote sensor at the rear for custom install applications. Soneteer has hinted at a forthcoming power amp to match. 2 020 8286 6661 www.sonneteer.co.uk

RETRO POWER MF'S 'MU-VISTA' 500-WATTER

III ▲▲ @ 20:35 HH

Digital Radio ow playing: Be

PURE

Musical Fidelity's meaty new integrated amplifier carries on the firm's tradition for high-power ampage. The kW500 is a hybrid design based around a



newly sourced tube, the mu-vista, (or 6112). Don't let its retro looks fool you – the kW500 can deliver 500 watts into eight ohms, and almost a kilowatt into four ohms! The amplifier will be limited to

bug

500 units at a cost of £4,000 each. ☎ 020 8900 2866 ↔ www.musicalfidelity.co.uk

BLING BASS UPMARKET LOW END FROM FRANCE

Focal-JMlab has added a matching active subwoofer, the Sub Utopia Be, to its flagship Utopia Beryllium range. It's said to offer reference-grade bass performance and can deliver a 20Hz signal at 120dB of sound pressure, with further extension to 16Hz. Focal's sandwich composite cone technology has been employed in a massive 400mm (16-in) woofer, claimed to be ten times stiffer than the best alternative driver material. Onboard electronics provide 1,000 watts of power from a BASH digital hybrid amp under licence from Indigo. It's available now, weighing in at 55kg and requiring the weighing out of £4,000.



audiofile ⊗ product news

⊘ Soundbites



ERRATEC the German electronics specialist has just released a new 7.1 FireWire external PC sound card aimed at gamers, musicians and home cinema enthusiasts. The Aureon has 24-bit/ 192kHz signal processing, various analogue linelevel inputs, including phono, and a digital optical input. There's also a headphone connection and microphone input with front-mounted volume control. The Aureon costs £245. @ 01252 870726

CAMBRIDGE AUDIO will be adding a 6.1 receiver to its acclaimed budget Azur electronics range. The 540R (£250) is the brand's first foray into the home cinema receiver market. Under the lid lie Crystal multichannel DSPs and 24-bit/192kHz DACs with on-board decoding for Dolby Digital and DTS formats. Power delivery is 6x80 watts, and further features include an AM/FM tuner and a full complement of connections. ☎ 020 7940 2200

MONSTER CABLE is one of a handful of brands now offering a

range of aftermarket HDMI cables. The Monster 400 range includes long lengths, backwardscompatible HDMI-to-DVI solutions and a number of format adapters. Lengths range from one to 15 metres, with pricing between £90-£150, depending on length and configuration. ♀ 01923 431634

EPINX.COM is the latest online consumer electronics store promising a wide range of electrical items at low prices. It's said to offer consumers a personable and easy-to-use website. Find out more at www.epinx.com

CANTON has unveiled two new speakers designed to complement plasma and LCD screens in AV systems. Hailing from Germany, both the floorstanding CD300 (front) and CD360 F (flat rear and centre channel) speakers use aluminium drivers in a two-and-ahalf-way configuration. Prices start at around £390. ☎ 02392 501888

audio PRODUCT NEWS

Soundbites

🗶 amplifiers and loudspeakers will be reduced in price by 20 per cent for the foreseeable future, according to UK distributor Precious Music. The cuts have been enabled because of the strength of the pound against the dollar, and they apply across the entire product range. 2 0141 353 0509

TTAN speakers of Essex has a new £400 subwoofer called the Mercury Mk2. With bass extension to 30Hz, the new sub is reflex-ported with a downward firing 250mm (10-in) driver. Output power from the onboard MOSFET amplifier is rated at 75 watts and the product comes with a three-year guarantee. O1702 206870

CD GIVEAW/ Twos On 2, a double CD



celebrating the singles that never quite made it to No 1, brings together Oasis, Roxy Music, Simply Red, The Jam and (of course) many, many more including quite a

few surprises. For your chance to win, write in to: I Love Number Twos, Hi-Fi Choice, Future Publishing, 99 Baker Street, London W1U 6FP. Closing date is 11 June.

Hi-Fi diarv

20-23 High End 2004 Munich, Germany The dog's danglies at the former Frankfurt show

1-4 Cedia Expo 2004 ICC, Birmingham 01462 627377

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Heathrow, London 020 8774 0847 London's established hi-fi show

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Audio Jumble Leatherhead 07730 134973 Go for a rumble in the Audio Jumble



AFTERBURNER HARD DISK PLAYER/RECORDER WITH CD-R DRIVE

Home recording just got easier thanks to Perception Digital's new 40GB hard disk jukebox player/recorder, which comes complete with a CD-R burner. The PD-480 costs just £300 and can copy CDs to the hard disk in linear PCM for optimum quality. The huge 40GB hard disk also allows you to store and organise up to 10,000 songs if compressing files to MP3 at the popular 128Kbps

rate. The unit also allows recording to MP3 (up to 320Kbps) from any line-level audio source, plus there is a USB 2 connection for the fast transfer of music files from a PC. The model replaces the original PD Jukebox and allows users to burn audio to CD-R/RW directly from the hard disk, in either compressed on uncompressed form. 2 0870 900 1000 @ www.richersounds.com



WATTS **COOKING? NEW SUNFIRE SUBS** AND AMPS HIT UK

US marque Sunfire is back in the UK with a new multichannel amplifier and subwoofer range, courtesy of distributor Veda UK. The Sunfire product range starts at just £1,500 and contains some immensely powerful products such as the flagship True Sub-woofer EQ Signature - a compact sub with a 330mm (13-in) driver, which boasts 2,700 watts of on-board amplification. Equally competent is the range-topping Cinema Grand Signature 400 power amp, capable of 7x400 watts (continuous) into eight ohms and 7x800 watts into four! The full range of products is available now. ☎ 01279 501111 @ www.veda-uk.co.uk

GALLO'S POLE SPHERICAL SPEAKER SPECIALIST'S NEW REFERENCE

Reference 3 is Anthony Gallo's striking new reference speaker. Priced at £2,400 per pair, it combines two 100mm carbon fibre midrange drivers with a huge 250mm side-facing bass driver. Both midrange units are mounted independently in their own steel enclosures, with the bass driver acoustically loaded into the speaker's cast aluminium chassis.

The patented CDT treble unit (Cylindrical Diaphragm Tweeter) has a 300-degree radiation with extension to 50kHz - beyond the range of many integrated super-tweeters. Additional bass reinforcement can be achieved with a bass augmentation module - a 2x240-watt amp that can power a second voice coil, independent of the units driven by the main amplifier. O870 3501348
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ACOUSTIC ENERGY ALPHASON ALR/JORDAN AMX APOLLO ARCAM ARCAM FMJ ASH DESIGN ATACAMA AUDIO TECHNICA AUDIONET AUDIOPHILE BASE AUDIOVECTOR AVI B&W B&W NAUTILUS BANDRIDGE BEYER DYNAMIC BLACK RHODIUM BOSTON BRYSTON CABLE TALK CELESTION CHORD COMPANY CHORD ELECTRONICS CLASSE CRESTRON CYRUS DENON DYNAUDIO DYNAVECTOR ELAC EPOS GOLDRING GRADO ISOBLUE ISOTEK IXOS JAMO KEF LEXICON LINN LIVING CONTROL LUING CONTROL LOEWE LUTRON MJ ACOUSTICS MANA ACOUSTICS MARANTZ MERIDIAN MICHELL ENGINEERING MILLER & KREISELL MISSION MUSICAL FIDELITY NAD NEC NORDOST ONKYO OPTIMUM ORTOFON PANASONIC PARASOUND PIONEER PMC PRIMARE PROAC PROAC PRO-JECT QED QUAD QUADRASPIRE REGA REL ROBERTS ROTEL ROYD RUARK SELECO SENNHEISER SHARP SIM 2 SONANCE SONUS SYSTEMS SPEAKERCRAFT SPENDOR STANDESIGN STANDESIGN STANDS UNIQUE SYSTEMLINE TAG McLAREN AUDIO TALK ELECTRONICS TEAC TEAC TIVOLI RADIO TOM EVANS TOTEM ACOUSTIC TOWNSHEND AUDIO VAN DEN HUL WHARFEDALE WHICON DEMESCU VILSON BENESCH stocked at all stores Please check before travelling

MAIN BRANDS





IAG BUYS TAG MCLAREN

The International Audio Group (IAG) which owns both Wharfedale and Quad has acquired the business and intellectual property of TAG McLaren Audio (TMA). Under the terms of the deal, IAG is now responsible for the sale of all remaining TMA stock, along with the servicing and repair of existing products.



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However, the deal only allows IAG to use the TMA brand for a year, so the company will not

be manufacturing any new components under the TMA banner. According to IAG's Julian Maddox, the long-term plan is to use

its Chinese facility to manufacture TMA's range of AV components under the Audiolab brand, the latter being included as part of the deal. So just as Audiolab products were once rebuilt as TAG McLaren Audio devices, now the opposite could be on the cards.

For TMA-related enquiries, customers should now call 0845 458 0011 or +44 1480 447700, or email: tmahelpdesk@internationalaudiogroup.com.

MICROSOFT TAKES DAB TRAIN

Computing giant Microsoft has joined the World DAB Forum and is currently involved in trials broadcasting multichannel audio in London and Cambridge using the L band. By using Windows Media 9 Professional encoding (compression), it's possible to transmit a 5.1-channel signal using a bit rate of 128Kbps. Capital Radio will be supplying the content for the trials which will also include broadcast of

digital TV services via Windows Media Video 9 on DAB. Nick Jurascheck from Pure Digital, which is supporting the trial said: "The software we have developed for the trial enables our digital radio tuner to receive the 5.1-channel audio stream from the DAB data broadcast and to send compressed audio from the tuner over a USB connection to the user's PC." The current Pure DRX-702ES DAB tuner features a USB port so users who have

> downloaded WM9 Pro software will be able to enjoy this first-time experience.

DOLBY PC

PURE

Expect to see the Dolby logo next time you are shopping for a PC. The company has formed a joint venture with Intel to promote the latter's High Definition Audio codec for creating improved sound quality from a PC. HD Audio will be able to utilise Dolby's Headphone, Virtual Speaker, Digital Live, and Pro Logic IIx technologies for up to 7.1-channel surround sound. Intel states that the format allows for up to 193kHz



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sampling and 32-bit resolution,

putting it on a theoretical par with the best that traditional audio formats can offer. Dolby will be licensing Intel HD to PC makers, hence the likelihood of its logo joining the increasing numbers of such things to be found on contemporary computers.



BETTER WEB WIRELESS

Higher quality web radio will soon be available thanks to Virgin Radio's agreement with RealNetworks to broadcast a live AAC signal over the internet. Offering higher sound quality than MP3 streams, AAC can be decoded by the recently released RealAudio 10 player. Virgin, which claims to be the UK's only commercial rock music station (something that DAB station Planet Rock might take issue with) will be streaming AAC at 128Kbps and higher.

HAYDEN LABS A-GO-GO

Hayden Laboratories is about to become Denon UK. Although Hayden Labs became a subsidiary of Nippon Columbia and latterly Denon Ltd in the early nineties, it has stuck with its original, well-established name, until now.

CYRUS OF A

Cyrus Electronics has officially launched Cyrus Audio and CyrusLink products in North America. A major distribution contract with the Sound Organisation of Dallas, Texas means that this long-established brand will finally be available in the US.

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BARGAIN DOWNLOADS

The price of music downloads is coming down thanks to Wippit.com. Offering 150,000 songs supplied by record companies BMG and EMI, Wippit's prices start at just 29p for selected tunes, rising to a standard rate of 49p for most songs and a still extremely reasonable 79p for premium titles. For download junkies, £50 per year gets you access to the full catalogue.



PROVOnance



SYSTEM 7 HIGH-END PRODUCT OF THE YEAR

THE WILSON AUDIO



Provo, Utah's hi-fi artisans, the speaker builders of Wilson Audio, have now been at the top of the high-end tree for three decades. Recent recognition of their achievements tells us that complacency has yet to affect David A. Wilson's enthusiasm. As if challenged by rave reviews and countless awards, David has launched a new flagship to supplant the legendary WAMM – surely the longest-running, true high-end speaker design of all time. The Alexandria has already been acknowledged as the greatest cost-no-object speaker available today. Its sister speakers in the WATCH range achieve the ultimate in home theatre sound

As the Alexandria paves the way for new and exciting advances in music reproduction, so, too, does the Wilson WATT Puppy System 7 remain the benchmark for consumers who desire compact speakers that demonstrate zero compromise. It is with great pleasure we note that the WATT Puppy, closing in on 20 years of production, was awarded the honour of High End Product of the Year 2003 by Hi-Fi News. Now that's what we call provenance.



58 Durham Road, London SW20 0TW T: +44 (0)20 89 71 39 09 F: +44 (0)20 88 79 79 62 www.absolutesounds.com info@absolutesounds.com



TIME MACHINE FIVE YEARS AGO

Hi-Fi Choice July/August 1999

Arcam's Alpha 8R was on the cover as the winner of our amp group test (our mailbag frequently confirms that



many of you are still enjoying them). We also tested the current crop of turntables with Wilson Benesch's Circle and Michell's Orbe SE stepping

up to the podium. Elsewhere, Panasonic/Technics announced details of the first DVD-Audio players to hit the UK market, predicting that the format would take over from CD by 2007. Hmm... And PMC's still current and still cracking FB1 floorstander received its first ever review, while ATC's SIA2-150 integrated amp earned our coveted Ed's Choice badge.

TEN YEARS AGO Hi-Fi Choice July 1994

HFC wasn't afraid to dip its toe into the AV lake (then, just a puddle really). We tested the latest receivers



when Dolby Pro-Logic was at the cutting edge, and elsewhere in the issue, Paul Messenger questioned the need for 5.1

speakers in audiophile circles – the debate still rages. Meanwhile, Kenwood publicly attacked the International Federation of Phonograph Industries (IFPI) after claims it had acted to prevent the launch of Kenwood's latest CD-R recorder. The IFPI was concerned about copyright issues, and with hindsight, it may have been right.

SYSTEM BUILDER

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



THE FACES

A Nod Is As Good As A Wink ... Warner

Before Rod Stewart started chasing the middle-aged spend, and Ronnie Wood got lured into the Strolling Bones, they were at the most musically exciting stages of their careers. It was 1971 and The Faces' third album, an authentic, raw, rock 'n' roll record drew influence from the band members' former outfits -The Small Faces and the Jeff Beck Group. Stewart's glass paper vocals suited the distorted electric blues of the young musicians and this album spawned the unforgettable Stay With Me, which became something of an alternative seventies rock anthem - and their only real hit. Produced over three decades ago, it's displaced from high fidelity but rich in musicality and organic charm. To hear it at its best, we've assembled a balls-out system that won't tip-toe around the unrefined production and gritty presentation, a system worthy of some of Britain's best-loved rock stalwarts.



CD PLAYER

CYRUS CD8/ PSX-R £1,350

The brilliant optional power supply is undoubtedly a key factor in the success of Cyrus's latest disc spinner. It's one of the best players for detail and dynamism around.



AMPLIFIER

NAIM NAIT 51 £699 With grit, grunt and musicality, the 5i takes no prisoners in its quest for an emotive and animated message for the listener. This is hi-fi with rhythm, yet also no shortage of finesse – a true Brit-fi hero.

SPEAKERS

PMC FB1 £1,410 A lively, transparent and dynamic sound from this domestic speaker with pro tendencies. Easy to drive, it's another really solid musical performer.



WEBSITE OF THE MONTH

www.enjoythemusic.com

This quirky US site is an amusing blend of music and product reviews, news, tweaks and show reports from our American allies. Associated with US mags such as *The Audiophile Voice* and *The Absolute Sound*, it's great for keeping up to date with hi-fi happenings from across the pond and for staying abreast of some of the more serious brands that make all the right noises. The site has a real enthusiast's feel and there are some useful features such as a hi-fi glossary as well as more light-hearted guides like the Dude/English dictionary. The show reports stretch from several years back up until the present day and cover virtually all of the US shows that we'd all like to attend!

READERS' DEMO DISCS YOUR FAVOURITE MUSIC FOR HI-FI AUDITIONS



MICHAEL JACKSON

Thriller (Remastered) Have you heard the remastered version of Thriller? It's not as if the original needed any polishing, but someone did it anyway. From *Billie Jean* with its rapid transients and tight bass to the uncoloured crooning on The Girl Is Mine, Thriller is a complete

hi-fi audition disc with unrivalled production values and wide dynamic range. It's also got Eddie Van Halen's guitar on Beat It, and a title track that's just loaded with effects which I find gives systems a thorough workout. I'll bet anyone who reads this either owns it or knows someone who does, so there's no excuse not to use it at your next dealer demo. Barry English via email

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

JIMMY'S TWEAKS #21

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



Lights out! Although the Display Off facility on many CD players (and some amplifiers and receivers) is often included for reasons which are more aesthetic than sonic, it's nevertheless the case that sound quality improves when the lights go out. Why? Well one reason is that the light places a very small drain on the power supply.

But a more significant reason is that lights create noise which finds its way to the supply rails. The result is a slightly fuzzy, edgy sound. Get rid of the lights and sound quality improves, becoming firmer and cleaner with superior focus and fine detail. It's probably true to say that the adverse effects of lights and displays is far less than it used to be, as manufacturers now take steps to minimise any potential problems. But you can often still hear some benefit with the lights switched off. Try it!

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

Todd Rundgren Liars Loretta Lynn Van Lear Rose

Kathryn Williams Relations Sun Kil Moon Ghosts Of The Great Highway Youssou N'Dour Egypt The Veils The Runaway Found Sweet Laredo Sweet Laredo Kenny Dope Strange Games And Funky Things III The Charlatans Up At The Lake Joss Stone The Soul Sessions



audiofile BEATS'N'PIECES

EW MUSIC IN THE STUDIO

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



VE ATTACI Title: tb

Release date: late 2004 1,000th Window was in effect a

Robert del Nadja (3D) solo album. But the good news is that he's now back in the studio with fellow Massive founder Grant Marshall (Daddy G) working on the follow-up. There are even unconfirmed rumours that Andrew Vowles (Mushroom), the third member of the original triumvirate who quit two years ago, may get re-involved.

Title: th

Release date: autumn According to Michael Stipe, after an extended spell of recording in the Bahamas, REM have completed 16 tracks out of 22 written for the followup to 2001's Reveal. Clearly not all will make the final cut. But Stipe says having so many songs to chose from is a luxurious position for the band.

Title: t

Release date: July

Incredibly, it's seven years since The Fat Of The Land. That album made the Prodigy one of the few British acts to top the American charts in recent years, so they could clearly afford to take their time. "We now sound sexier," is singer Liam Howlett's only terse comment.

PJ HARVEY Title: Uh Hul Release date: 7

The long-awaited follow-up to Harvey's 2001 Mercury Music Prize-winning Stories From The City, Stories From The Sea was recorded in Devon and



co-produced with long-term collaborator Head. The album finds Harvey playing everything except drums. Suitably scary song titles include The Life And Death Of Mr Badmouth, Who The Fuck?, The Slow Drug and The Darker Days Of Me And Him.

THE HIVES Title: tbc Release date: s

Sweden's Hives have been somewhat overtaken by other garage noise

merchants such as The Vines and The Strokes since 2002's Your New Favourite Band. That was actually a compilation of their Swedish releases so their forthcoming album is their first since 2000. "It's fairly basic stuff again," says the band's frontman, Howlin' Pelle Alqvist. Which is exactly why their fans love them.

ALSO COMING SOON...

Lenny Kravitz Baptism (June), The Bees tbc (June), Kid 606 Who Still Kill Sound? (June), Badly Drawn Boy One Plus One Is One (June)

CLASSICAL/ JAZZ McCoy Tyner Illuminations (June), Nancy Wilson RSVP (Aug), Robert Spano Berlioz Requiem (Aug), Ali Farka Toure tbc (late 2004)

LIFE IS TOO SHORT FOR BORING HI-FI

Acoustic Arts Watford Tel. 01923 245250

Audio Counsel Cheadle Tel. 01614 916<u>090</u>

Audio Counsel Oldham Tel. 01616 332602

Hi-Fi Studios Doncaster Tel. 01302 725550

Kevin Galloway Audio Kilmarnock Tel. 01563 574185

Midland Audio Exchange Kidderminster Tel. 01562 822236

Mike Manning Taunton Tel. 01823 326688

Mike Manning Yeovil Tel. 01935 479361

New Audio Frontiers Loughborough Tel. 01509 264002

Phonography Ringwood Tel. 01425 461230

Progressive Audio Gillingham Tel. 01634 389004

Zen Audio Hull Tel. 01482 587397

The new Densen B-350 monoblock

For all at Densen the birth of the B-350 is a significant moment. For Densen the B-350 has for several years been the internal reference, and therefore is a pleasure to be able to show audiophiles all over the world the true musical world of Densen. The design process has taken a staggering 4-5 years. And in periods Thomas Sillesens insisting on a true breathtaking product has delayed the process, which has been further enhanced by the fact Thomas seemed more interesting in listening to the B-350 than finish it for production.

The B-350 is build using surface mounting techniques, and the components are mounted with a precision of 0,02mm (!) using silver solder. All solderings are made in an artificial atmosphere, consisting of nitrogen, to avoid oxidation of the solderings. The powersupply is massive and consist of a 750VA transformer and a storage capacity of 100.000uF with 4 separate rectifiers of which the 2 of them are capable of 3.000VA. All resistors are laser trimmed metalfilm from Vishay with a precision of 0,1%. The B-350 delivers 125W at 8 ohm and 250 W in 4 ohm.

The B-350 also represents a new direction in cabinet design at Densen. It is the first time the heatsinks of a Densen products are visible. They integrate with the cabinet, and allow perfect cooling of the outputstages.

The B-350 will be retailing for GBP 2500/per unit.

Like all Densen products the B-350 comes with lifetime warranty.

Densen • Lundevej 10 • 6705 Esbjerg Ø • Denmark Phone: (+45) 75 18 12 14 • www.densen.com



SESSENTIALS Our regular round-up of hi-fi accessories



Clearaudio Music-Pickup Test Record **£25**

The term 'test record' could be misinterpreted here: there are no test tones and no mid-Atlantic accents saying "left channel", just a pleasantly mixed bag of musical excerpts from the respected Opus3 label. Clearaudio usefully points up in the notes exactly what each track can tell you about the performance of your system and what the salient characteristics of the sound are – transients, dynamic range and so on. All very nice, though what's as much of a draw for most vinyl junkies is the sheer pleasure of owning such a beautifully produced and presented document. Pressed on fine-quality 180g vinyl and served up in a chunky gatefold sleeve, it shows just what vinyl can achieve when care is taken at all stages of production. One to cherish and haul out when some doubting visitor needs convincing about black discs! A ChoiceBits 0870 240 7228 twww.choicebits.co.uk

Kimber V21 antenna lead £12 (3ft – other lengths available)

Not all antenna cables are created equal. Size is a pretty good indicator, but for a given size differences still exist thanks to the usual cable variables – screening quality, materials and so on. The standard stuff used to connect an outside FM twig to the wall outlet isn't bad, but some of the cheap bits to connect from the wall to your tuner are pretty poor, with crummy connectors shoddily assembled.

This is quite the converse – a good bit of cable supplied with your choice of high-quality connectors, professionally fitted. Apart from anything else, having the right connectors on each end is worth a good deal, as any type of adapter will lose a little RF signal. In short, at its modest price this very rugged cable is a steal, and if you've any need at all for an aerial lead it's hard to see how you'll better this.



Kontak contact cleaner £15

Unlike Caig's contact treatment products (like DeoxIT – see Choice Bits, p117), Kontak is designed to remove contaminants and chemical impurities from the surface but not to leave any kind of residue, merely a squeaky-clean surface with nothing to impede electron flow. Re-oxidation will slowly occur, but if male and female connectors are treated at the same time and then firmly mated, it will take a while – Kontak recommends reapplication about every six months.

Light tarnishing is quickly banished, along with fingerprints and general grime. Older tarnishing on long-unused phono plugs took a little scrubbing, while two decades of black sulphide accumulations on some lab connectors (silver-plated) weren't completely removed. Aged mains plugs will need emery paper first, but in all reasonable cases the sonic benefits are quite audible, with an improvement in resolution and those details that help with imaging. A little more work than Caig, but similarly effective.

Russ Andrews ClearFM Antenna £35

If you're stuck with the requirement for an indoor FM antenna, you probably won't be over-enamoured of the standard wire 'T' draped untidily around the curtain rail. To the rescue comes Russ Andrews, with this tastefully attired indoor antenna disguised as, er, a picture of a radio set.

The picture is purely ornamental and can be replaced within the hardwood frame. Behind it, a flat antenna is terminated in an F link, which is ideally piped to the radio with a bit of V21 (see above). This picks up less signal than the wire 'T', but is easier to site (wall hanging may not give the best signal, but you can have it freestanding and orientate it to suit conditions) and more attractive. A practical, cost-effective solution to a widespread problem – just don't expect it to transform reception in difficult conditions. **22** Russ Andrews O800 373467 ew www.russandrews.com

Because we got H

Can Sony's new Hi-MD digital recording technology bring genuine high fidelity to MiniDisc? **Richard Black** investigates

iniDisc has been around for a decade and has always struggled for true hi-fi acceptance. Nor has it managed to dominate the portable market, with many potential users going straight from cassette to MP3. Given the prodigious amount it must have spent developing and promoting MD in the first place, Sony doubtless viewed the prospect of its early demise with alarm – but not with despair. The Sony labs have been busy and MD has emerged with more than just a facelift – more like an entire new physique. Enter Hi-MD...

There are so many new aspects to the new system that it's hard to know where to begin, but the most exciting news for the soundconscious is that Hi-MD now includes Linear PCM recording. Uncompressed, un-ATRAC'ed, full CD-format digital, from analogue or digital input to 64mm disc. What's more, data density has been given such a boost that you can record for over an hour and a half.

In addition, the same pocket-sized recorder has been made to function as a USBconnected external back-up device for any PC, squeezing a whole 1GB of data in any format you care to use on to a single removable disc. As usual with USB, no special drivers or software are needed, just connect up and drag 'n' drop data.

For sheer convenience this is hard to beat. At the end of a day's work, connect your Hi-MD to your office computer and copy all the files for tomorrow's presentation or working-athome day, then plug your earphones into the same little device and toddle off to the train with full-fidelity music playing.

What's the catch? Apart from the fact that like everything else portable and sophisticated this gets through batteries a bit (not too bad, though, several hours – depending on model and operation mode – from rechargeables or disposables), there isn't one. In fact there's a good deal more to rejoice in. Before we get too deeply into that, let's have a little look at how this has all been made possible.

TECHNOLOGY

Recordable MiniDisc has always been based on 'magneto-optical' technology. Recording is done to disc with the aid of both a laser light spot and a magnetic head, while readout is

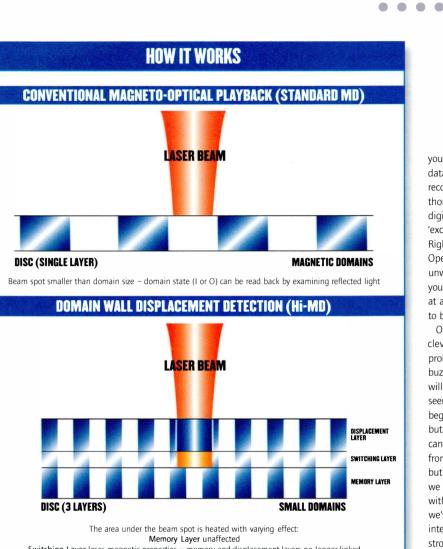
NUALA

SONY

purely optical. With available lasers, the limit on data density was set by the wavelength of light to much the same as on a CD, which is why MDs never stored as much data as CDs and hence relied on data compression to get a reasonable amount of music in there. However, magneto-optical recording is capable of recording much finer details than it can read back, at least using conventional methods.

The breakthrough that has enabled Hi-MD to store and read back 1GB (against MD's 170MB or so) is a trick called 'Domain Wall Displacement Detection'. The subject of patents by both Canon and Sony, it is in essence a means to enlarge the tiny spot representing each data bit as it passes under the reading laser. The disc is a three-layer sandwich, one layer of which is heated by the laser sufficiently to change its properties so that the state of the area underneath affects the top layer, over a somewhat larger area large enough to be readable by the laser. This whole process of heating and transfer happens in fractions of a microsecond so that a data rate of several Mb/s (Megabits per second) can be supported, enough for data and Linear PCM (the term for CD-format digital audio, uncompressed) applications.

That's the revolutionary part. Evolutionary developments in data storage have also been applied so that data is packed and read back more efficiently too, and these are also applied when a Hi-MD machine is used with conventional discs, resulting in a substantial increase in capacity to 300MB. Yes, Hi-MD players and recorders are fully compatible with existing recordings and blank discs, though the new Hi-MD blanks (1GB) and recordings made by a Hi-MD recorder on regular MDs will not play on old-style MD machines. Along with the hardware developments, new software has been applied to give more efficient data compression. ATRAC was originally intended to use quite modest compression ratios (around 5:1) but in the years since it was introduced new compression tricks



Switching Layer loses magnetic properties – memory and displacement layers no longer linked Displacement Layer domain under spot stretches to larger than spot size – information now readable

In any magneto-optical storage system data is written magnetically and read back optically. It is possible to write data very small indeed by magnetic means but the size that can be read back depends on the wavelength of light used. Domain-wall displacement detection (DWDD) is one means that can be used to magnify minute magnetic data temporarily so that it can be read back. Data density can be increased by as much as ten times.

and more precise criteria have enabled 'codecs' (coder/decoders) to offer higher compression with little or no sacrifice in quality. We've already had some experience of ATRAC3 in MD recorders (in Long Play modes) and hard disk recorders. Hi-MD devices will play ATRAC3 MDs but record in ATRAC3Plus, with a choice of compression ratios. For highest quality (short of Linear PCM) there's a 256Kbps mode with about 5:1 compression, while for vast playing times at something like MP3 quality one can use 64Kbps (20:1) or even, taking a slight quality hit, 48Kbps (30:1), at which rate a single disc will store 45 hours of audio.

The other bit of new software is 'SonicStage', a PC-based application that encodes audio files to ATRAC3Plus and downloads at high speed to the Hi-MD deck via USB. Transfer speeds of up to 100x are claimed (that's a CD in 40 seconds) at the highest compression ratio, but even using 256Kbps it should be possible to download an hour of music in under four minutes. It also allows uploading from Hi-MD to PC, so if you've been doing a spot of field recording you can easily upload it to the PC for editing.

POTENTIAL

There are some restrictions, mostly based around copyright control and Digital Rights Management. For instance, you can't download Linear PCM files to Hi-MD via USB. But if you're an audio professional wishing to transfer audio from one computer to another you can transfer the files as (non-playable) data. Apparently it's not possible to upload recordings made on an old-style MD via USB, though they can be copied to the PC via a digital link. All recordings are protected from 'excessive' copying with Sony's own Digital Rights Management system, MagicGate and OpenMG: doubtless some will find this an unwarranted intrusion on civil liberties but if you think intellectual property has any validity at all it seems reasonable for copyright holders to be granted some means of protecting it.

audiofile

SPECIAL REPORT

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On the whole, then, this looks like a very clever solution to a number of related problems. 'Convergence' is a bit of an overused buzzword but if Sony is hoping that our lives will to some extent converge on Hi-MD it seems to have good reason. Yes, things are beginning to converge on the home computer but, immensely capable though that device can be, it's not very handy. Even a laptop is far from being the pocket-sized gadget of choice. but an MD player is a lot nearer the mark. If we can integrate it swiftly and conveniently with the PC, thereby bringing together music we've bought on CD, downloaded off the internet and recorded off the radio, it's a very strong contender to be an essential gadget. That it also stores data off the same PC (and in future incarnations may turn out to include a camera and who knows what other features - the possibilities are near endless) is some pretty serious icing on an already tasty cake.

So far we've had no opportunity to sample the sonic delights of Hi-MD, most intriguing of which, perhaps, is the 'Hi-SP' mode, 256Kbps ATRAC3Plus - will this fulfill the promise of near-indistinguishability from Linear PCM? With over seven hours on a disc it's very attractive. Availability of Hi-MD is promised around June, with machines starting around £150 and discs apparently near a fiver. And as a final mouth-waterer, consider this - even now, Sony's research papers point towards 2GB and even 4.7GB capacities using the same disc size. Of course, there's no reason to restrict this to MD applications, and the implication is that CD-sized discs with DVDgrade optics could store something like 50GB, maybe even more. Blue lasers? Mmmm, loadsa gigabytes. Feature films on MD, super-hi-res video - the possibilities are endless! HFC

Beauty

The new home cinema series from Vienna Acoustics

The ultimate combination of style and power, in a word

awesome

and the Beast

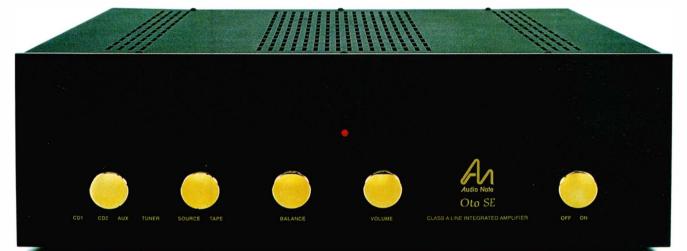
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HI-FICHOICE COMPETITION

WIN Audio Note's fabulous Oto SE valve amplifier worth £1,600!

udio Note put in a class-leading effort in our valve amplifier Ultimate Group Test last month, romping home with a Best Buy accolade for the sublime Oto SE integrated amplifier. The company's affinity for valves has been well documented over the years – its proprietor, Peter Qvortrup, is an enthusiast of immeasurable proportion, whose distinctive range of electronics and loudspeakers has earned an enviable reputation within the hi-fi fraternity. During our group test, the Oto SE amplifier charmed our panel's ears with its

exceptionally clean and coherent midband, and seemingly 'right' sound. Its particular strength lies towards the sparser, more acoustic end of the musical spectrum, with voices and simple accompaniment sounding gloriously fluid, open and real. But with any kind of music, few amps at its price point are able to match its blend of delicacy, coherence and dynamic integrity, making the Oto SE a firm Best Buy and a real taste of valve heaven. For your chance to win one, simply answer the question below correctly – a winner will be drawn from the hat. Good luck!



HOW TO ENTER:

Answer the question by circling the correct answer, then fill in your name, address and daytime telephone number below. Please also take the time to fill in our small questionnaire – we want to make *Hi-Fi Choice* as good as you deserve, dear reader.

QUESTION

What did the Oto SE do to our panel's ears?

- a) Charm them
- b) Clean them

c) Make them more appealing to the opposite sex

_____ Daytime tel number

Surname

YOUR DETAILS (BLOCK CAPITALS)

Initials

Title____

Address

Date of Birth

What type of hi-fi product you intend to buy next? ____

Which brands would you most like to read about?_

Would you like to see more expensive or less expensive kit reviewed?

What would you like to see more of in Hi-Fi Choice? _

Please tell us if there's anything you don't like. _

COMPETITION RULES

The closing date for this competition is 11 June 2004. Winners of the Audio Note competition will be judged from all correct entries submitted, and drawn at random after the closing date. Winners will be notified by post. The Editor's decision is final and no correspondence will be entered into. The Audio Note competition is not open to employees of Audio Note, Future Publishing Ltd, nor their suppliers, agents or associates. We regret this competition is only open to UK residents. No cash alternatives will be offered. By entering the competition you will be bound by the rules. We reserve the right to substitute alternative prizes with equivalent value to those shown, in the unlikely event of stock being temporarily unavailable. All entries must be on this official coupon, but photocopies are acceptable. Only one entry per household. **Send your entry to:**

Audio Note Competition, Hi-Fi Choice, Future Publishing, 99 Baker Street, London, W1U 6FP.



AUDIOPHILE VINYL

NIRVANA

UMPLUGGED

Unplugged In New York Geffen/Simply Vinyl 180g vinyl Music: Part of MTV's remarkably successful Unplugged series, this 1994

recording is once again available on vinyl ten years after Kurt Cobain decided to end it all, big time. Compared to the studio cuts this is Nirvana lite but taken afresh it's an extremely good collection of songs, which

have strengths that aren't always apparent on the original cuts. The use of acoustic bass guitar is a particularly nice touch and not one that many Unpluggers dared try. There are a couple of unusual cover versions, including Jesus Doesn't Want Me For A Sunbeam and Bowie's The Man Who Sold The World. Though fans will no doubt feel the DVD brings the event closer to home, the lack of visual distraction makes this collection all the

more compelling. ******* Sound: A live recording using acoustic instruments, this couldn't really sound much better. The Scott Litt production is rich and deep with superb bass. ********* JK

JEFF BECK Blow By Blow

Epic/Simply Vinyl 180g vinyl Music: This 1975 album preceded the apex of Beck's career, *Wired*, and is a

fine example of his work. A George Martin production, it combines funky tracks like You Know What I Mean, soulful tunes like Stevie Wonder's Cause We've Ended

I Mean, soulful tunes like Stevie Wonder's Cause We've Ended As Lovers and moments of sheer genius like Diamond Dust. Beck was and still is a musician who is capable of

great things and was once ranked third in the guitar universe behind Clapton (?) and Hendrix. This album reveals why with its breadth of styles and power of expression, yet at its heart it's a fun and melodic record with a band that plays as a cohesive and fluid unit. An album for more than just jazz rock enthusiasts. ********

Sound: Not as compressed as many of the recordings from this period, this Simply Vinyl pressing has plenty of energy and decent bandwidth. It has a very seventies sound but that's no bad thing. ******* JK

These and other audiophile LPs are available from Simply Vinyl: **2** 0208 545 8580 # <u>www.simp</u>lyvinyl.com

COMPACT DISC & VINYL



MICHAEL NYMAN The Draughtsman's Contract Virgin/EMI

Music: Michael Nyman's first score for film director Peter Greenaway proved to be one of their best. All burping horns, relentless grounding basses and sonorous strings, it's still one of Nyman's most striking scores, produced by David Cunningham and fullsounding in its spritely, immediate way. Listen to the wafting beauty of The Garden Is Becoming A Robe Room to get the picture. It's reissued as part of the 'Nyman at 60' remastered series which includes a first CD release of Decay Music (1976), plus of course The Piano (1993). ★★★★ Sound: The original sounded up there but the 24-bit digital remastering at Abbey Road has really brought out all the baroque nuances - a crisp, clear sound that captures all the music's atmosphere. $\star \star \star \star MP$



JONATHAN RICHMAN Jonathan Richman & The Modern Lovers Beserkely

Music: This was the 1976 album when Richman signaled that he weren't no ordinary Joe. While everyone was expecting a set that followed the classic modern rock lines laid down by the Roadrunner (Once)/It Will Stand 45 - thankfully both sides are included here - he instead offered 11 cuts of pure melodic fun aimed at youngsters of all ages (Here Come The Martian Martians, Abominable Snowman In The Market, anyone?). The credits even announce the fact that he "sings" in inverted commas. Tongue in cheek pop? Maybe, but what cheek - and what pop. ****

Sound: Crystal clear separation, despite the deliberately thuddy drums, that actually lets you hear Johnnyboy's vocal reeds. $\star \star \star \star PS$



WILCO A Ghost Is Born

Nonesuch Music: Wilco have come a long way since their days as American alt-country pioneers. 2002's Yankee Hotel Foxtrot was an experimental sonic adventure into the avant-garde. The follow-up is more straightforward but no less thrilling. There are piano ballads on which frontman Jeff Tweedy sounds not unlike Ryan Adams (At Least That's What You Said), crunching Crazy Horse-style guitar excursions (Hell Is Chrome), jaunty Beatlesque orchestrations (Hummingbird) and outrageous garage rockers (I'm A Wheel). The diversity is dazzling and the tunes gorgeous. **** Sound: Co-produced by Sonic Youth's Jim O'Rourke, there's a definite George Martin feel - then you read the credits and discover the album was mixed at Abbey Road. **** NW



PATTI SMITH Trampin'

Columbia Music: To maintain your poetic vision over 30 years is some achievement. To continue to marry your art to an uncompromisingly punk attitude over that time is probably unique – at least, now that Joe Strummer has gone. At 58, Patti



Smith is still one of life's militants, summoning the troops to arms on such roaring, semi-improvised epics as *Radio Baghdad* and *Ghandi*. The first is a gripping, 12-minute anti-war tirade that builds to an insurrectionary climax as she repeatedly sings, "They're robbing the cradle of civilisation". The latter recalls The Doors as she howls, "Long live the revolution!" There's plenty else, but those two alone are worth the admission price.

Sound: Yin and yang. Raw and visceral on *Radio Baghdad* and *Ghandi*. Languid and pretty on *Mother Rose* and *Trespasses*, which even features pedal steel guitar. But her sense of poise between them is masterful. ****** *NW*



GRAND NATIONAL Kicking The National Habit Sunday Best

Music: The first album by the west London production duo is a quietly uplifting mix of dancefloor beats, indie guitars and unexpected instrumental treats. The album recalls prime era New Order more than anything else, but it's New Order with less angst, and a more catholic attitude to the dancefloor, picking and choosing from a range of styles, from the deft electric pulse and Happy Mondays-esque stoner vocals of Talk Amonast Yourselves, through the pop ska of Boner, to the electrified Northern soul stomp of Cherry Tree. **** Sound: Less than high-tech, the blend of samples and analogue instruments is for the most part deftly handled but with enough rough edges to benefit from a forgiving system. *** DO



THIS MONTH'S CLASSIC HI-FI TEST DISC "Atmosphere so thick you can almost smell it."

HOT TUNA Hot Tuna RCA Victor 120g ving

Music: This live all-acoustic recording marked the inception of a band that was originally formed by two members of Jefferson Airplane, Jorma Kaukonen and Jack Casady, who fancied playing some blues in smaller venues. Originally called Hot Shit they clearly rated themselves, and listening to these tracks you can hear why as they play a loose, natural white blues that is immediate and full of warmth. This album is particularly appealing because it dispenses with electric instruments – Casady plays an acoustic bass, as well as drums – making it more akin to a folk album yet clearly it ain't. And the atmosphere is so thick you can almost smell it.

Sound: This album has provided our myriad systems with a source of great sounds for many years. The acoustic bass is rich and juicy, great for finding out just how natural those speakers really are. $\star \star \star \star \star \star JK$



PRINCE Musicology

NPG/Columbia

Music: Widely regarded as having 'lost it' sometime after or even possibly during the time of *Sign O' The Times* (back in 1987, in case you'd forgotten), Prince seems to have finally found something worth listening to on



Musicology. The pulsating purple ego is still omnipresent but for the most part he's reined in the excessive funk workouts and paranoid lyrical obsessions to concentrate on getting back to what he does best. So there are killer grooves on *Life O' The Party* and the title track, and even a successful return to the psychedelic pop of his late eighties heyday on *A Million Days* and *Cinnamon Girl.*

Sound: Slick of course, but heavily nuanced with a stripped-back, basic sound that you know took ages to achieve, it sounds like the best of Prince has always sounded – like a modern take on Sly Stone's future funk, underlaced with some smart pop hooks and his own distinctive sense of import. $\star \star \star \star DO$



ELLIOTT CARTER

Holiday Overture, Symphony No 1 Kenneth Schermerhorn (cond), Nashville Symphony Orchestra, Mark Wait (piano)

NAXOS American Classics 8.559151 Music: Expanding the scope of the excellent American Classics series to Elliott Carter brings in one of America's most challenging composers. The early *Holiday Overture* is reminiscent of Bernstein's ebullient *Candide Overture*, but is marked by an extraordinary rhythmic inventiveness. The symphony uses a similar but wider expressive canvas, but still firmly tonal. The piano concerto however is uncompromisingly atonal, with a vital, astringent quality. ****

Sound: The playing is always polished, and the soloist sounds very secure in a recording which has great presence and clarity of line. ******** *AG*



BRAHMS, STRAUSS, SCHUMANN Brahms Cello Sonata in F, Strauss Cello Sonata in F, Schumann Adagio and Alleoro

William De Rosa (cello), Li Jian (piano) Audiofon CD72045

Music: These three were known to each other, and as fine lieder composers, appear to have had a special affinity for the baritonal richness of the cello. The Brahms is a particularly assured and mature work of real stature. The Strauss is slighter, but lively and interesting, while the Schumann is a subtle, elegiac piece originally written for French horn, but which perfectly suits the expressive range of the cello. $\star \star \star \star$ Sound: A first-rate recording by Peter McGrath, capturing the finely structured and expressive playing of the soloist and accompanist. $\star \star \star \star AG$

DVD-AUDIO & SACD

ELEANOR MCEVOY

Early Hours

SACD (stereo/multichannel SACD plus stereo CD layer) Market Square

Music: Following the success – in hi-fi circles at least – of Yola, McEvoy's latest album has gone straight to SACD with a multichannel mix for good measure. Sounding significantly more relaxed and at one with herself, her Irish accent comes through noticeably more strongly on all 13 of these songs. There's a good variety of styles on offer here, from romantic to rock 'n' roll to



folksy, and an outstanding cover version of *Memphis Tennesee* taken at a much more languid pace than Chuck Berry would have considered. The playing is still as polished but seems more emotionally confident and this is a much more engaging album than *Yola*. $\star \star \star$

Sound: A purebred DSD recording is still a rare thing these days and the result is pretty impressive even if you can't use the surround mix – heck, it even sounds great on a CD player. If you can play the multichannel though, you'll find it subtle but very effective. $\star \star \star \star JK$

MAHLER

Symphony No 3

Benjamin Zander (conductor), Philharmonia Orchestra, Lilli Paasikivi (mezzo-soprano), Ladies of the London Philharmonia Choir, Tiffin Boy's Choir

SACD (stereo/multichannel SACD plus stereo CD layer) Telarc 3SACD-60599

Music: Mahler's third is the longest of his symphonies, but it's also the most mercurial in mood and structure, which makes its enormous scope, spread here over two discs and involving a massive orchestra, two choirs and a

solo mezzo-soprano, seem if anything too short. Good news then: this Super Audio CD set (which sells for the same price as a single SACD) comes with a third discussion disc, narrated by the conductor and illustrated with orchestral and piano excerpts. It's a work of often exquisite beauty and tremendous stature – "laughing through tears" is a memorable phrase quoted in the discussion. ★★★★

Sound: This version features great ensemble playing and passion from the Philharmonia, and a generally spacious and very truthful sounding, if not always very elegant multichannel SACD mix. $\star \star \star \star AG$

TEXAS

Careful What You Wish For SACD (stereo / multichannel SACD plus stereo CD layer)

Mercury Music: The way Texas reinvented themselves in the late

nineties was genius, renouncing their wannabe stadium rock image in favour of laid-back grooves and catchy soft soul tunes. Their latest album is a high-energy electronic rock and dance epic with a mixed flavour and plenty of diversity. There are some great crowd-pleasing

spiteri has an ear-hugging voice and here it's alluring as ever, carefully laid over a collection cunningly engineered new tunes. ***

Sound: A shining example of how contemporary rock/pop/dance can be manipulated for engaging 5.1 sound. The engineer has got the vocal just right – it's placed bang in the middle of the music with the other instruments radiating from all angles. The rear channels chime into song right on cue, yet slip away to nothing come the ballads. $\star \star \star \star DG$







The pick of this month's best letters Write to: Hi-Fi Choice, Future Publishing Ltd, 99 Baker Street, London W1U 6FP Or email your letters to dan.george@futurenet.co.uk

"It seems that in Holland MD is dying – what's the situation in England?"

DYNAMIC HEARING

One of the key features of SACD/DVD-Audio with its 24-bits to describe amplitude is an improved dynamic range over CD. But given the huge variety in dynamic range found on CD, is it possible to notice the difference? The best moments on CD are already so impressive, what can SACD give us to top it?

I was playing John Elliot Gardener's recording of the *Holst Planets* on CD and actually got to the seventh movement without getting bored. The dynamic range on offer was awe-inspiring – in seconds the orchestra went from full-on explosive sound to almost silent, without so much as a twiddle of the volume knob. This got me wondering if an SACD from the master tapes would give me anything more than I already have?

N Thornhill via email

HFC: The term dynamic range is much abused. All it means in this context is the difference between maximum level and residual noise level. CD can manage a weighted figure of around 100dB, while SACD and DVD-A can better 110dB. Most amps can't beat that, so all the high-res formats give you (apart



from greater bandwidth, which is another thing) is lower noise; that is, the ability, in principle, to hear more details within the music. Musical dynamic range such as you describe is completely unaffected.

AUDIOPHILE AUTOMOBILES

I currently use MiniDisc in the car, but here in Holland it is difficult to buy the software. It seems that MD is dying – what's the situation in England? Is it better to buy a CD-R recorder and make CDs for the car? **Robert Holland** via email

HFC: Sony says MiniDisc is doing well – 20 million discs have been sold since launch and hardware sales grew 17.2 per cent in 2003. There's also the new Hi-MD technology (see p16), which should inject more life into the format as a recording/ storage medium. We feel the background noise when driving will limit the small difference between ATRAC compression on MD and bit-for-bit audio on CD-R. But it's worth noting that CD is still the dominant format for the car, and audiophiles can get excellent results with Nakamichi's class-leading CD-400/500 head units (around £500).



Right: If music in the car is a must, the Nakamichi will give you excellent results

LETTER OF THE MONTH

BOLD IS BRAVE

I'm going to stick my neck out and say that the law of diminishing returns kicks in at around £800. Think of all the hot new product out there at this sort of money – Denon's DVD-2900 (Best Buy, *HFC 248*) Arcam's DiVA A90 (BB, *HFC 250*), Roksan Radius 5 (BB *HFC 248*) and Rega's Ela speaker (BB *HFC 250*). Create a system for this sort of money and you'd have to spend a lot more to get a substantial difference. Fork out £1,500-£1,700 on one component and is it twice as good? Of course not, you'd be lucky to get a 50 per cent improvement, and don't even get me started on cables! I challenge anyone to pick out a £250 interconnect from a bunch of £30 cables under blind conditions.

Clive Burr via email



HFC: It's true to say that there's some very strong product on the market for around £800, and we've also seen a solid performance from some much lower cost gear in recent times. Actually, diminishing returns probably kicks in even earlier than you suggest – you can't expect a £400 component to be exactly twice as good as a top £200 one – but there are undoubted and significant improvements to be had all the way up the audio price ladder: sound, build, 'desirability'...



WIN IXOS INTERCONNECTS!

The author of our letter of the month receives a free pair of Ixos XHA606 interconnects worth £60, featuring Gamma Geometry and silver plated OFC conductors for superior sound. So get writing! (250 words max please...)

WIRELESS FOR SOUND

I'm looking for some good-quality wireless headphones. I like clarity as well as depth, so what should I look for? When manufacturers say products have a range of 30 metres, does that mean the signal can go through walls? **Ken Banks** via email

HFC: Try Vivanco's wireless headphone range and Sennheiser's new RS110/120s. The 30-metre range manufacturers describe will be reduced by walls and large objects, though the radio signal will go through, so check how far you need to go. Interference is common with wireless systems, so there's no substitute for conventional wired cans. One of our favourites is Bever's superb DT990 (*HFC 245*).

CRYSTAL BALLS

I got into an argument with a friend about the future of audio. We each took sides on stereo vs multichannel, but agreed that, in the future, entertainment would move to a central computer/server with internet connectivity, and away from discs. He argued that stereo is about to die and that multichannel music will be the next big thing. He even claimed his simple DVD player sounded better than his CD player, citing that being enclosed by the music was better than the 2D presentation from stereo. I argued that having multiple speakers playing the same instruments isn't natural, as involving as it may seem. Who is right and what does the future hold? **Carl East** via email

HFC: Fascinating though its potential is, multichannel music is still a niche pursuit. However, arguments for the involving experience 5.1 music provides are valid, and if mixed well, an album needn't sound unnatural. We find it hard to believe that stereo is about to die, considering the extent of UK consumers' CD (and vinyl) collections. CD sales rose a further 7.6 per cent (to 121 million) in the UK in 2003, according to *Music Week* Multichannel sound doesn't yet offer consumers the incentive to replace all their existing albums.

SWEET AND LOWDOWN

I have been considering getting a second-hand Sugden Masterclass integrated amp and some B&W Nautilus 804s. But I'm not sure if the 34 watts per channel from the Sugden will be enough to power these speakers? Because of neighbours, I'm never likely to get vast volume out of this set-up, so it would be useful to know how the Nautilus 804s cope at lower volume levels.

HFC: We like your style. Both are excellent and the Masterclass's 34 watts should be adequate for most low-level listening. But remember that the 804 likes to be played loud. It would be like buying a Porsche and never going over 70mph. Stick with the Sugden and get something a bit easier for extra dynamism at neighbour-friendly levels. Consider the Castle Howard 3 at £1,350, the Graves Audio Koronglay (a valve lover at £2,000) and the Spendor 'S' series.

Spanner via email

GARBAGE IN...

After ditching my home cinema system, I decided to go back to stereo. I had an Arcam CD72 connected to my AV amp, which I retained as the starting block

ONLINE FORUM

A few choice comments plucked from our online forum. Join in the fun at www.hifichoice.co.uk

I listened to a few tracks on my iPod using my Grado headphones. I then listened to the same tracks through my Musical Fidelity X-Ray CD player and X-Can^{v2} headphone amp and I could barely tell the difference. How can this be? **Ted**

HFC: Try plugging the iPod into a conventional system with speakers and re-examine. We suspect that the headphones might be masking the limitations of Apple's portable darling.

The Canadian Government has passed into law at the request of the music industry that in return for allowing free copying of music, the recording industry would get a royalty from the sales of blank media (something that was only an understanding in other countries, including the UK). **Mikehit**

HFC: It's true – The Canadian Copyright Act has made provision for a levy on blank media sales to compensate authors and performers who own musical copyrights. The total runs into tens of millions, though how much of that will actually make it back to the artist is another matter.

Try to listen to your CDs starting from track six – I'm pretty sure that you will find quite a lot of interesting tracks you never reached. **Croc**

for a new system. After reading many hi-fi magazines and visiting countless dealers, I was getting more confused. My wife suggested I buy a budget amp and speakers until I found the kit I liked. So I did, and when I connected them to the Arcam the results were unreal. The system sounded a million times better and started me thinking about an issue I read about in one of my father's hi-fi journals: spend the best part of your budget on the source, and any old amp and speaker will do, as 'garbage in' surely is 'garbage out'. What do you think? **G Hatcher** via email

HFC: The old turntable-derived wisdom of 'garbage in, garbage out' still carries some weight, although these days CD sources are more consistent in performance terms, so we'd take a more balanced view on how to spend a budget. The 'source first' principle is valid, but equally, we value spending money on speakers – the most influential part of a hi-fi system tonally. As a general rule, split your budget three ways; that is, CD, amp, speakers and allow ten per cent for cables. "Spend most of your budget on the source, and any old speaker and amp will do."

HI-FICHOICE -

Below: A Sugden amplifier shows a classy taste in product





WILSON-BENESCH CURVE LOUDSPEAKERSAUDIONET ART V2 CD PLAYERAUDIONET PRE 1 G2 PREAMPAUDIONET AMP 1 POWER AMP£12,200



Hard Act to follow

Wilson-Benesch's 'half price ACT' anchors this high-performance, high-tech combo

ou want solid? Here's solid. You want heavy? The CD player in this Anglo-German ensemble is so heavy, you'll feel like a seven-stone weakling just lifting it on to the stand. (If you're a seven-stone weakling, welcome to the immovable object.) You want sharp lines? The power amps could splice a human hair at 20 paces. You want high-tech? Any higher and you'd need an oxygen mask.

What we have here is a high-end stereo system dedicated to function, form and performance in pursuit of the musical truth, and nothing but the musical truth. If it's romance you're after, you've come to the wrong place. Likewise wood: this is essentially a timber-free zone (unless you really insist on veneer trim panels). Aluminium and carbon fibre composite sound like a fair swap? Yeah. does to me. too.

It's what Sheffield-based, high-end speaker and turntable manufacturer Wilson-Benesch uses to build all of its speakers - and it's what makes them so distinctive, both visually and sonically. Innovative design and advanced materials are very much the foundation stones on which W-B has built its reputation. Moreover, the speakers (and, indeed, its Full Circle turntable) are all engineered from raw materials under the one roof. And with painstaking precision - carbon and aluminium demand nothing less and W-B's CNC machining facility is capable of repeatable tolerances of down to 0.005mm, Ask any Formula 1 team how important that is.

The lean and gracefully understated Curve is Wilson Benesch's latest loudspeaker design and something of a landmark product for the company, borrowing numerous design elements from its acclaimed, and rather fabulous, circa £10,000 ACT floorstander, but fascinatingly costing only half as much. Another way of looking at it is as an elongated version of its entry-level Arc standmounter (they have the same plan view). But as the Arc comes with its own dedicated stand, the Curve is actually slightly shorter and just as room-friendly though, at 48kg, it's remarkably weighty for its size.

PINPOINT ACCURACY

Perhaps the greatest endorsement for the Curve, though, lies in its maker's claim that, along with the ACT, it's the most accurate transducer it's ever made. The ACT's main contribution to the Curve is its Active Composite Technology 'monocoque' curved-back carbon cabinet, which is enormously rigid and has near ideal internal damping properties. W-B reckons the structural integrity is an absolute benchmark and delivers clarity and precision that would be impossible to achieve with conventional speaker materials and technology - and in the light of last month's HFC review we'd be inclined to agree. As well as its advanced composites, the Curve uses steel, Neodymium Iron Boron magnets for the 170mm Tactic bass and bass/mid drivers and advanced polymer diaphragms.

the driver complement of this

"You want sharp lines? The amps could splice a human hair at 20 paces. You want high-tech? Any higher and you'd need an oxygen mask."

A 25mm silk dome tweeter completes



Benesch Curve loudspeakers £4,900

Drawing heavily on technology from the twice-the-price ACT, the Curve remains true to its maker's high-end ideals.



£2,300 One of the heaviest CD players available, there's nothing flabby about the ART's sound, which is extremely transparent, fast and detailed



£2,000

Slim casing doesn't stint on features. with six inputs, microprocesso control, balanced/ unbalanced connects, tape loop and twin outputs



amp £3,000 A juggernaut of a power amp with oodles of power on tap. What really impresses is its transparency, resolution of detail and unerring poise.



two-and-a-half-way design which, with its rear-firing port, is designed for free-space siting. W-B claims an on-axis frequency response of 36Hz to 24kHz +-2dB, 88dB sensitivity and a nominal six ohms impedance.

PERFECT PARTNER

What to use upstream of the Curves is a decision Wilson-Benesch is only too happy to take for you. After all, it was keen to discover complementary electronics itself, both to demonstrate its speakers to best effect at shows and recommend (even sell) to its customers. The search for a philosophical and sonic soul mate ended in Germany with a company you probably wouldn't otherwise have heard of – Audionet.

Audionet's mission statement is to provide an engineering solution to an emotional pursuit, a sentiment that might have been written by W-B itself. True, it's a very Teutonic thing to say, but what blew W-B away was the build quality, the engineering and, of course, the tell-it-like-it-is sound quality.

The thing that strikes you first though, is the way these things are put together. In the $\pounds 2,300$ Audionet ART V2, for instance, we have a top-loading

CD player of truly terminator-class build, and it's something to savour. The manual sliding lid and magnetic stabilising puck are quirky and nice, but it's the ART's sheer weight that makes it such a singular product. At 18 kilos, it isn't just by far the heaviest CD spinner ever to be included in a Beautiful System, it's heavier than most serious power amps. Blame the resonancekilling ten-kilo slab of granite that forms part of the bass, on to which the electronic components and the clock circuit are mounted in 'floating' form. The idea is that the mass damping gets a stranglehold on error-inducing vibes at their root.

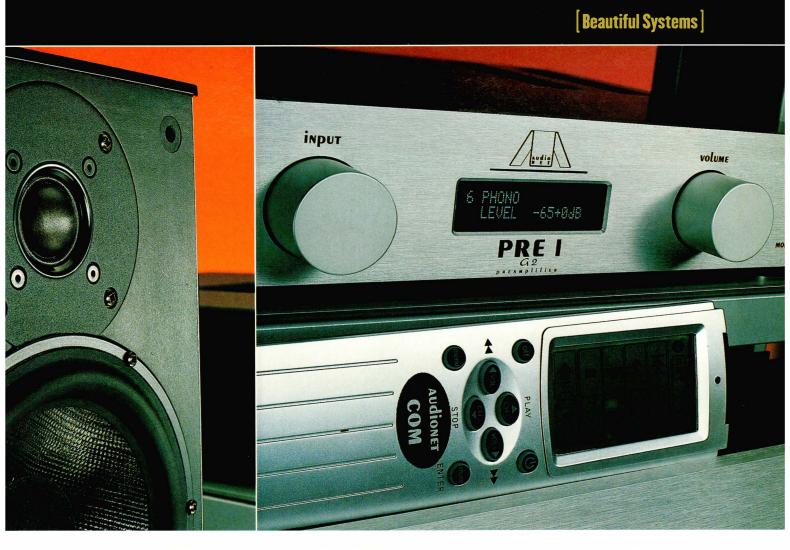
Upstream of the 24-bit/96kHz delta-sigma DAC, Audionet's super-trick "intelligent sampling" circuit not only upsamples the CD signal but claims to eliminate clock jitter in the process. Signal processing has two settings – 'Lagrange' (primarily for timing and rhythm merchants) and 'Audionet' (which tends to be more laid-back and airy overall). The output stage sports MOSFET solid-state devices run in Class A, and the transport and converter are fed by a separate 50VA toroidal transformer. The £3,000 Amp 1 power amplifier is even more imposing, while the £2,000 Pre 1 G2 preamplifier is an object lesson in contrasting svelteness, though technically it's every bit as uncompromising. Audionet says that the Pre 1's circuit board track layout has been optimised specifically to achieve the shortest possible signal paths and, therefore, effective immunity from any type of electromechanical interference. Microprocessor control takes care of the six source inputs and is flagged up on the blue vacuum fluorescent display.

As a visual statement, the Amp 1 power amp should leave no-one in any doubt whatsoever that it means business, not least because its cliff face of a fascia is made from half-inch thick aluminium. The projected image is of immaculately controlled power, and lots of it. It's no idle boast – the Amp 1 pumps 200 watts per channel into eight ohms, 300 watts into four ohms and 450 watts into two ohms.

The six-ohm Curves should be a walk in the park, but it's not all brawn and no brains. Audionet uses a digital control circuit to measure and maintain signal accuracy in real time; it also



WILSON-BENESCH 28 0114 285 2656
WWW.WILSON-BENESCH.COM AUDIONET 28 0114 285 2656
WWW.AUDIONET.DE



"A word to the wise: this is kit that needs more warming up than an Olympic sprinter in the middle of winter and the speakers in particular don't appreciate that early-morning, cold-room feeling."

monitors DC, HF, temperature and overload, and will shut down the amp if necessary. Like the preamp, ultra-short signal paths and eliminating electromechanical interference set the scene for a design philosophy that Audionet claims allows it to set new standards in linearity, reflux damping and speaker control.

SLOW HEAT

And what does that sound like, exactly? Well, a little chilly to begin with. A word to the wise: this is kit that needs more warming up than an Olympic sprinter in the middle of winter – the speakers in particular don't appreciate that early-morning, cold-room feeling. Even then, you may experience a little disquiet for the first hour or so of serious listening. With many of the high-end systems so far featured in these pages – especially with those hailing from Italy – part of the allure has been a comfortable, almost balmy, euphony; a beguiling warmth and smoothness you just don't get with less expensive hardware.

This system refuses to pull that trick however. It's too honest, too transparent, too accurate. So initially, there is no wow factor, no artificially enhanced rosy glow. And to be honest, it's a bit of a disappointment. It's rather clinical – you think, more Spock than rock. Give it time, though, and you realise that all you're missing is a sense of exaggeration.

This combo has simply stupendous resolving power and musical insight married to enormous speed and grip. If it sometimes sounds a little cold or bright, it's merely a reflection of the recording – George Benson's *Irreplaceable*, his latest outing on the GRP label, for instance. Spin up something with a warmer balance – say, James Taylor's exquisitely produced October Road for example – and the system responds magnificently, putting the music first and the hi-fi second. The results can sound ordinary and they can sound utterly enthralling, and they can sound all points in-between. It depends on the music, the performance and the nature of the recording.

So much so it's hard to attribute the system with much of a sound at all. What's so extraordinary is that it does nothing extraordinary. It's wide open, dimensionally anchored, finely textured, dynamically unhindered and as fast as a Ferrari Enzo. Bass guitar has believable weight, power, extension and drive. Pace and control are beautifully conveyed. It all contributes to an almost-tangible presence – scalptinglingly so when the music demands it. In short, here's a system that connects on every level. It's a thoroughly modern marvel. **HFC**





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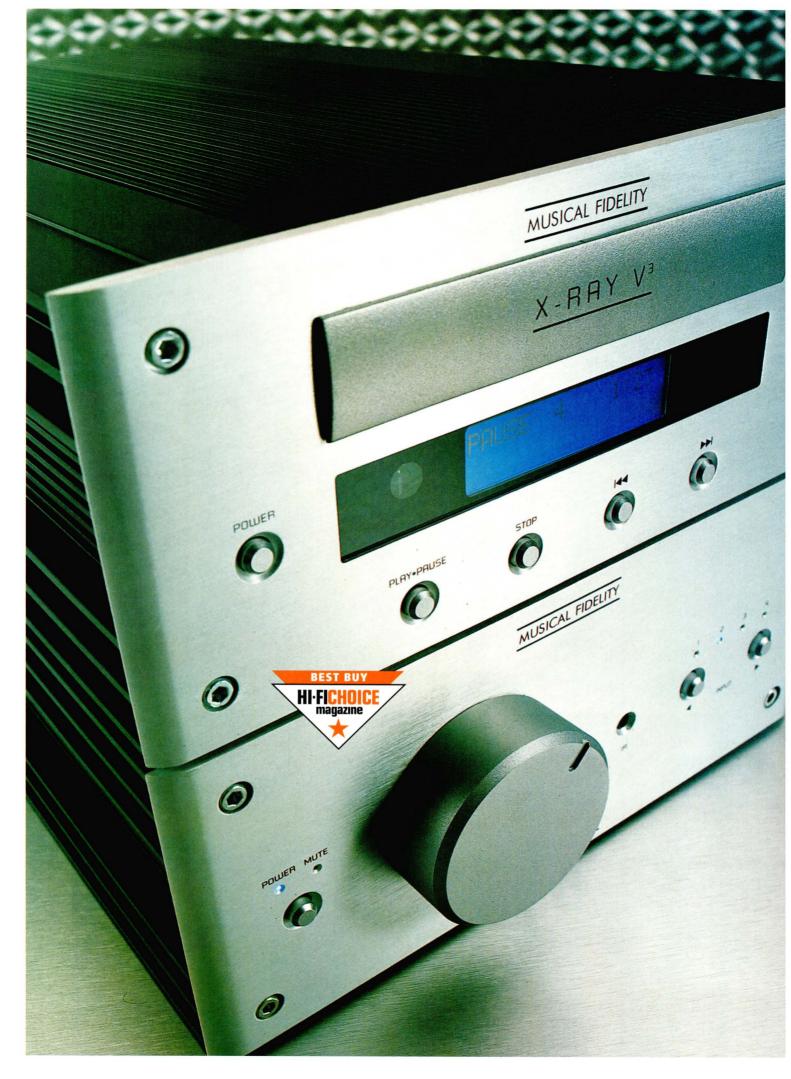


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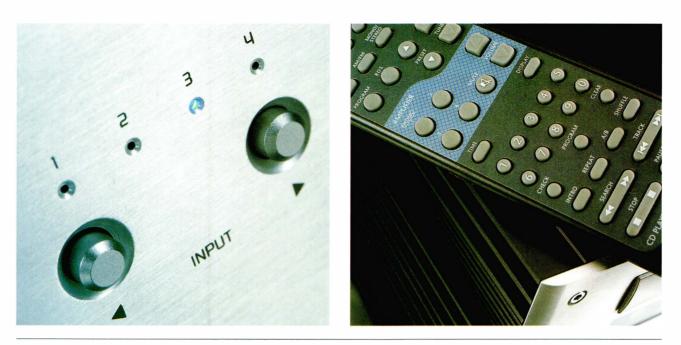
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Turn the page for the most rigorous tests of serious hi-fi in the business...



Musical Fidelity X-Ray^{v3} CD player and X-80 integrated amplifier **Review**



X MARKS THE SPOT

MF's new rectangular X-Series CD and amp replace the old 'pipe' models. But how do they shape up?

PRODUCT Musical Fidelity X-Ray^{V3} and X-80 **TYPE** CD player and stereo integrated amplifier

CLOSE

PRICE £900 (CD player) £600 (amplifier) KEY FEATURES (CD player) Size (WxHxD): 22x10x35cm ○ Weight: 5kg ○ 24-bit CD player ○ Dual differential, 8x oversampling DAC ○ 96kHz upsampling ○ (Amp) Size (WxHxD): 22x10x34cm ○ Weight: 6.5kg ○ Rated power: 55W per channel ○ Inputs: three line-level plus one record loop CONTACT ② 020 8900 2866 # www.musicalfidelity.com

usical Fidelity's original X-Series products changed the shape of hi-fi (literally) and turned round the fortunes of the company. Beginning with the X-10D CD-enhancing transformer in 1998, people stopped thinking about hi-fi as simple black or silver rectangular boxes. The tube-shaped X-10D and the rest of the X-Series might not have been the first products to break the mould, but after the massive success of the X-10D and the rest of the range, hi-fi started changing shape and Musical Fidelity couldn't make enough X-Series products. That success heralded Musical Fidelity's return to form, funding projects such as the Tri-Vista.

It's back to basics with the new X-Series... almost. The boxes are squared off, with a thick, chamfered alloy front panel and solid, extruded black cases behind. The now-traditional exposed chrome-plated Allen bolts (first seen on the original X-Series and now featured on all MF products) square off the front panel, and constitute almost more panel 'furniture' than the controls. Both products are extremely minimalist in approach – three buttons and one volume knob on the X-80, six buttons, one display and a transport on the X-Ray^{V3}. The minimalism extends to the labelling too – you may have a blue LED telling you which input has been selected, but the inputs are labelled one to four with no further differentiation.

The backside of the products is just as minimalist, with only a pair of RCA-phono sockets, optical and electrical digital outputs and a mains socket on the CD player, while the amp has just six pairs of phono sockets (three line-level inputs, one tape loop and a passive pre-output) and two sets of speaker outputs. And they're compact too - side-byside, they take up about the same amount of shelf real estate as the average big CD player. Neither run particularly warm, so it's possible to place them close to one another. All this minimalism means there's next to nothing to the job of installing either product and as such the manuals are rather sparse. They tell you the basics of use, but don't say much about the products in functionality terms.

The X-Ray^{V3} is an upsampling 24-bit Delta Sigma-based player, sporting the same dual-differential 8x oversampling chipset seen in all Musical Fidelity CD players, but this time featuring a Philips CD mechanism. It was designed from the outset to keep the demon jitter at bay, thanks to a well-developed internal clock and a good, solid PSU. Power supplies are a big thing at Musical Fidelity and the X-Ray^{V3} is no exception. This independently drives the different stages of the player, such as the logic mechanism and the D/A converter. Musical Fidelity makes a bold claim, here – the company suggests, from a technical standing at least, that the performance of the X-Ray^{V3} is "pretty well as good as any regardless of price". Perhaps this needs a touch of de-hyping, as these days the technical, measured performance of most well designed, straightforward players is "pretty well" close. However, the two-deck blue display is pretty and informative, the remote and front panel are easy to drive and the player looks the part. It also sounds the part, too.

You might think the '80' part of the X-80 amplifier's name referred to its power output, but strangely not. The amp delivers 55 watts into eight ohms and 85 into four; less significant to specification seekers, but possibly of greater importance to those who like a decent sound, the amplifier can punt out a healthy 28-amp peak current. It's essentially very similar to the equally new and more costly X-150 amplifier (it shares the same circuit, with half the number of output devices per channel delivering slightly less power, and no MM phono stage). In fact, UK owners of the X-80 can have their amp transformed into an X-150 at a later date, by paying the price difference (plus an extra £50). Once again the power supply is well catered for, with a separate transformer winding on the preamp stage.

These products, along with the X-150, form the core of the new X-Series. But there is \Box



Musical Fidelity's grand fromage Antony Michaelson discusses the new X-Series components



HFC: What made you change the look of the X-Series?

AM: There was obviously a demand for that size of product, but the original X-Series was a bit too adventurous for some people's taste. We wanted to come back with something aesthetically slick, but still something that satisfied the oblong box requirement.

Do X-Series buyers upgrade to full-sized MF equipment, or would you say that it's a different market?

The X-Series buyer is not a hard-core audiophile, although the product has full audiophile performance. But X-Series has an upmarket appearance, without the hair shirt, and it genuinely appears that sophisticated urbanites are keen on this.

What difficulties does the constraint of the X-Series case place on the amp designer? Nothing particular! I think it's the same sausage, just different lengths! You have to focus your brain as to how to make an amplifier at this size, so if you turn the X-80 on its side, you'll find it's a normal amp.

How do you cope with heat dissipation in so small a case?

Easy! The whole casework is a heatsink and we are not going for mega power. As a rough general threshold, when you start delivering above 100 watts in a design like this, only then does the heatsinking becomes an issue.

What about the CD player? Does smaller mean 'scaled down'?

Not at all. The X-Ray^{V3} is an exact equivalent of the A3.2^{CR} CD player, and that is technically one of the best players ever made. You can argue about sonics, but from a technical standing it's one of the best players ever!

Essentially, the products are proper high-end MF products that happen to be in smaller cases. You know what they say – good things come in small packages.

What's next for the X-Series?

In September, there will be an X-DACV³ digital converter, an X-Pre preamp and a matching X-P160 power amp, which will be able to deliver about 220 watts in monoblock form. Before that, in August, there will be a limited edition (of 4,800) of the X-10^{V3} CD buffer, using some fantastic military-spec tubes we have. We sold 48,000 of the original X-10D in a very short time, so get in quick! Finally, in November, we will see the X-30, which is a six-channel version of the X-10 for multichannel systems. This will also be a limited edition of 500. X-cellent!



"The sound is crisp and detailed, with a big scale and palpable sense of vibrancy to the performance, whatever music you choose."

■ more to the range, in the shape of the X-Can^{V3} headphone amp and X-LPS^{V3} phono stage (both reviewed in *HFC* 248). There's also mention of an X-Plora tuner in the X-Ray^{V3}'s manual. And there's another future product in the wings – a return to where it all started with a new version of the X-10D CD-enhancing transformer. We've briefly auditioned this product in prototype form, and it perhaps has even more relevance today than it had back in the late nineties. Back then, it was aimed at improving CD audio, but today it has to help bring DVD in line. Sadly, we will probably have to wait until the autumn for this to appear.

This is a hugely important range for Musical Fidelity. This CD and amp combo represents the brand's entry-point, its meat and potatoes against the fillet mignon and dauphinoise of the A308 and Tri-Vista. If the products are uncompetitive, the company loses a significant revenue stream. If they are merely so-so, there is stiff competition from similar products from elsewhere. In short, the X-Series must kick ass.

SOUND QUALITY

The Musical Fidelity combo's strongest suit is its synergy – this CD and amp match perfectly. They aren't bad apart, and the X-80 in particular is a great component in its own right, but together are something special. The sound is keen and dynamic, with plenty of energy and good soundstaging. Play a simple, sparse recording like Damien Rice and the player handles the disc beautifully, likewise with something more dense and complex. The sound is crisp and detailed, with a big scale and palpable sense of vibrancy to the performance, whatever the music you choose. This attention-seeking style comes from both the CD player and amplifier, but curiously the two combined do not make the sound too 'over the top' in this regard. This is rare – often the combination of keen-sounding CD player and amp can be too brash and forward.



Musical Fidelity X-Ray^{v3} CD player and X-80 integrated amplifier [Review]



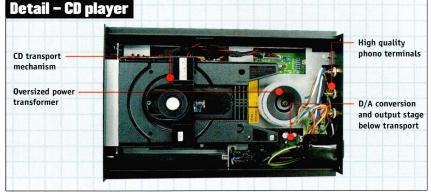
From the early days of MF, that big, rich and engaging sound was always a strong point, and it remains a strong point here. Those who think music should be polite, elegant and a little bit soulless will find little or nothing to attract them in the sound of this X-Series combo. This is nature, red in tooth and claw. Listening to music is a physical, visceral process through these products, especially the X-80 amp. There's something of the 'Krell sound' here, albeit Krell in microcosm. It's bold and confident sounding with a good, but not rigidly enforced rhythm and speaker-enlarging bass. It doesn't have the tremendous drive capabilities, the transparency, the flexibility or the price tag of something expensively Krell-like, but it has that same sense of musical 'rightness' to it.

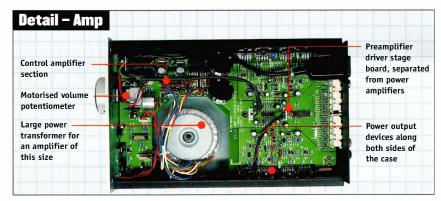
This manifests itself as an absence of artifice or emphasis on a particular aspect of the musical performance, preferring instead to merely drive the speakers honestly. That's what makes the duo special. Of course, honesty only extends up to a point, then musicality and a fair chunk of grunt kicks in. This is not the antithesis of the cerebral amplifier designs that always seem at the forefront of classical music tastes. On its own, and with a raucous CD player in tow, the X-80 may be small but can seem like a bit of a bruiser. The big, wide soundstage allies with bolder, brasher players to make a sound that is all energy and not enough articulation.

When carefully partnered with the right CD player, though, the transformation is sublime. Music is just so enjoyable and vibrant that the fine imagery and detail almost go unnoticed. Instead, the listener is firmly fixed on the way the sound *entertains*.

Unquestionably, the X-Ray^{V3} is one of those players you could class as 'right'. Its sound is similarly detailed, powerful and on its toes – whether you play Fauré or Funkadelic, it makes almost all the right noises. It can make sense of Schoenberg, discovers the design within Eric Dolphy and could probably even find music in the Macc Lads (although the last is unlikely – anyone still listening to the likes of *Sweaty Betty* in the 21st Century should be quietly euthanised.

Where the X-Series CD and amp diverge is at the bottom end. The sound of the CD $\,$





player is smoother and more harmonically inclined in the bass, whereas the amp is more forthright and muscular. Perhaps that's why the two go so well together. One complements the other in outright musical terms in an area where most products act antagonistically. The combination of harmonic structure and sheer balls does act as a perfect combination and gives the right kind of synergy for engaging sound with purpose and refinement.

Lest we imagine the system is perfect, there are downsides. Naturally, the combination is not as good as one costing several times the price. More importantly, the combination is not as rhythmically precise as the similarly-priced Naim system, not as elegantly detailed as Quad's system, not as bright and immediate as a Cyrus system, not as pretty as the Rega sound or as 'comfortable' as the Arcam sound. However, none of these have Musical Fidelity's sense of 'power' and few have the X-Series combo's ability to cut through the artifices of hi-fi and get to the power of the music.

Comparisons between these Musical Fidelity products and the similarly sized and equally new Audio Analogue components reviewed overleaf is inevitable. And both come out surprisingly well. There is no hands-down winner – the two are different, but not *that* different. The Musical Fidelity is more bold and forthright, while the Audio Analogue is warmer and more laid back... it all comes down to personal taste. But both have elements of the other; both are beguiling in their own right with excellent levels of detail, fine soundstaging and extremely good vocal articulation. They don't mix particularly well however – the Audio Analogue CD player in particular sounds overly soft when taken away from a same-brand context, while the X-Series pair look and sound so good together, why would you partner them with anything else?

So does this fulfil the task – do the X-80 and X-Ray^{V3} kick the proverbial? Mostly, yes. The components are small and lovely to look at, yet their sound is so big you find yourself drawn to the music, not the hi-fi. Both visually and sonically they complement each other beautifully – it's not the warmest of sounds, or the most rhythmic, but its combination of virtues serves heady brew indeed. The X-80, in particular, is a bright new star. **HFC**

Alan Sircom

VERDICT – X-Ray ^{V3} CD player					
SOUND >> 85%	CONCLUSION A perfect foil for the amp (but also pretty good on				
FEATURES >> 75%	its own); a musical and exciting CD player that never sounds artificial.				
BUILD >> 85%	HI-FICHOICE				
VALUE >> 85%	>> 85%				
VERDICT – X-80 amplifier					
SOUND >> 88%	CONCLUSION A big, powerful sound without a big, brutish performance. Hard to beat at the price unless you hate minimalism.				
FEATURES >> 70%					
BUILD >> 85%	HI-FICHOICE OVERALL SCORE				
VALUE >> 91%	>> 90%				

[Review] Audio Analogue Primo CD player and integrated amplifier



PRIMO BELLO

This cute, well-dressed Italian combo is a paragon of stylish minimalism

PRODUCT Audio Analogue Primo CD and Primo Settanta TYPE CD player and stereo integrated amplifier PRICE £475 (CD player) £475 (amplifier) KEY FEATURES (CD player) Size (WxHxD): 21x8x37cm ○ CD-ROM combined transport/conversion system ○ (Amplifier) ○ Size(WxHxD): 21x8x37cm ○ Rated power: 70W per channel ○ Inputs: four line-level plus one record loop ○ surface-mount power transistors CONTACT ♀ 01753 652669 ↔ www.ukd.co.uk

his must be one of the most minimalist component duos ever. The Primo Settanta amp has just two buttons and a volume control, while the matching Primo CD player goes one stage further and does without the volume control! And it's not as if the remote control adds much functionality, either – the slim handset (identical on both models) has the barest minimum of buttons and allows only slightly more control over the system.

Such minimalism does have a big payoff in the pretty stakes, though. In two almost identical alloy cases, offset by smooth front panels with very little to clutter up the fascia, this CD and amp combo looks as elegant as you might expect from a well-dressed Italian.

Both models have a captive mains lead instead of the more commonplace IEC sockets. That's a problem if you want to upgrade your mains leads without opening the cabinet and invalidating the warranty, but it cuts down on the socket count on the back (though you could hardly get less on the back of the Primo CD, with just left and right RCAphono outputs and one electrical digital link).

The Primo Settanta integrated amp has just five inputs (one of which is one half of a tape loop and another of which can be upgraded to an MM/MC phono stage) and delivers 70 watts per channel. Unlike the Musical Fidelity model in the previous review, there are no preamp outputs for additional amps. All you get is the six sets of stereo phono sockets, two pairs of speaker terminals and a mains lead. The front panel has practically no buttons, but does have an array of LEDs to illustrate volume level and the source selected. This uses an entirely digital volume control – you flick the auto-returning knob to the right and the volume raises by one LED 'notch'; turn it to the left and hold it and the volume drops back to nothing. It works smoothly, but it's arguably less tactile than a standard rotary control. Unlike the entirely sealed box of the Primo CD player, the amp does have some vents cut into the top panel. The silver alloy casework of both products looks solid, and also gives the boxes the industrial feel of lab equipment.

Scaling a CD and amp down to this chassis size is not easy, so Audio Analogue has taken an innovative build approach. The CD player is essentially a CD-ROM drive, with a quality analogue stage added. So all the processing (bog-standard 16-bit/44.1kHz Red Book stuff) is done in the CD-ROM mechanism, not in a D/A convertor elsewhere inside the player. Similarly, the amp scales itself down by using surface-mount 'PowerPAK' MOSFETs instead of discrete devices with all the heatsink space they entail. As Jeff Rowland and others use PowerPAKs, the Primo is in good company.

The Primos will ultimately spell the demise of some of Audio Analogue's Composers range, including the successful Puccini amps. The small price differential between the Primo and these amps makes it difficult to sustain the two products, and it's unlikely that Audio Analogue would want to raise the price... the anger which followed TAG McLaren's original price hike of revamped Audiolab products showed how popular that would be.

SOUND QUALITY

Audio Analogue has set the Primo duo to deliver "high end at a sensible price", and it largely achieves this goal. The sounds it produces are typically high-end – warm, fluid and alluring. Just the sort of thing that makes audiophiles think there is still life below the £1,000 mark.

The first thing that strikes you about the Primo gear is the imagery. The two present an expansive and highly attractive soundstage, which sits very wide and deep of the speakers and makes the sort of sound that attracts hi-fi enthusiasts like a magnet. The 'walk in' soundstage so beloved of American highenders is hard to replicate without extremely expensive electronics, but this gets closer than most, especially if used with complementary speakers. It's here that the two punch above their weight, capable of partnering more expensive speakers than you might expect given a £475 amp. Its natural partner is the classic British speaker - even-handed with similarly good imagery. Partnered poorly, equipment such as this can give a soft, almost spongy sound, but when used properly the results are substantial and mellifluous.

There is a strong sense of warmth to the performance. Music is not as precisely presented as in some systems, but people who like this musical presentation would find much hi-fi too sharp and aggressive. A quick blast of Miles Davis's *In a Silent Way* demonstrated why this works well. The laid-back *Sssh... Peaceful* wasn't as precisely detailed or as sharply focused as it can be, but the effect



BEST BUY

HI-FICHUI magazine

was nonetheless harmonious and lifelike, as if a bunch of drugged-up jazzers from the early 1970s had just invaded your living room.

A big part of this warmth comes from a sublime smoothness. It's an overused term in hi-fi, but few product combinations at this price sound so 'liquid'. This is how the Audio Analogue defines 'musicality' - refined sounds from top to bottom, flowing together in a very satisfying manner. This tends to push one toward the jazzier, folkier and more classical end of the spectrum. It's good with rockier stuff too, but is not the first choice for someone obsessed with compressed pop, death metal... and it's hardly the sort of vehicle to delve into the lo-fi humour of Welsh wiggaz, Goldie Lookin' Chain, for example.

That said, the Audio Analogue pair are extremely articulate, and could delve into every nuance of the Newport accent, if you really

must. On a less banal level, even the most swamped vocals of Bob Dylan come to life on his hybrid CD/SACD Desire. Without looking up the lyrics, it was possible to understand more than half of His Bobness's drawl - it was like a whole new record.

AUDIO ANALOGUE

PRIMO

AUDIO ANALOGUE

PRIMO

CO PLAYER

AUSE

OLUME

Dynamically, the amp is the better of the two models, though not by a huge margin. The CD tends to soften transients more

[Review] Audio Analogue Primo CD player and integrated amplifier



We spoke to Stefano Blanda, Audio Analogue's MD, about the genesis of a new product line



HFC: What was the rationale behind Primo?

SB: We decided to do with Primo something different but better. We wanted to make something in-between full-size hi-fi and style-led systems, which retained a 'high-end' sound.

What difficulties did you encounter?

It's an entirely new circuit. With little room inside the cabinet, we do circuitry that gives good results without big heatsinks. For the Primo amp, we decided to use surface-mount semiconductors in place of output transistors, and for the CD player, we take the audio signal direct from the CD to the output stage without any conversion...

Do you mean there is no digital conversion in the Primo CD?

In practice, digital to analogue conversion is made within the CD-ROM drive itself. So, we just add a good analogue output stage. We made some tests before making the final version and found we got fine performance from standard 16-bit/44.1kHz. We are the first to do this, I believe.

Do you see any application of this technology outside of the Primo range?

I think it can be a good solution for a product which is small and competitive. The CD-ROM drive is very good for audio CDs, at any level, although high-end players sound better if used with a DAC - if you have room inside the cabinet!

Why not make an all-digital Primo amplifier, to keep the size down?

We considered using a digital amp, but we found in tests they couldn't give the same performance as the PowerPack semiconductors (used by Jeff Rowland). We found they gave a better result.

Will there be more products in the Primo line?

The next product will be a tuner. After that, perhaps a special edition of the CD and amp. We are also thinking about a Primo-sized multichannel integrated AV amp, but this is difficult. A universal player the same size as Primo is also possible, and we are studying multi-standard players to see the best way to do it across all our lines. But I am not sure about a separate preamp and power amplifier at this low price.



<u> Detail – CD player</u> Customdesigned Oversize analogue power output stage transformer CD-ROM mechanism also contains D/A conversion Digital and analogue connectors Detail - Amp Preamplifier Large



"Both the Primos have their strengths, but it's the amp that will gain the real fan base."

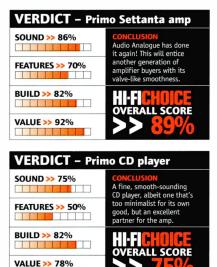
■ than the amp, although neither is especially strong dynamically. On the plus side, this gives both components a fine sense of musical 'flow'. But it also spells a sound that seems to stay on a single dynamic level, even with music that starts and stops with precision (*Chrono* from Kraftwerk's *Tour De France Soundtracks*, for example).

Performance-wise, the amp's dynamic advantage pushes it ahead of the CD player, making it something of an 'affordable highend' star – not unlike the old Puccini. It could become the staple solid-state amplifier for dealers that sell a lot of valve amplification, because despite its solid state origins its warmth and fluidity could be likened to the strengths of the breed. It's much less costly than any decent valve amp, of course, and such comparisons can only ever be superficial, but those who appreciate the 'valve sound' will find much to appreciate in the 'organic' sonic approach of both the amp and CD player here.

It is worth comparing these Primo models with Musical Fidelity's equally new X-Series products (see p30), similar in size and concept as they are. They have very different clientele, and focus on very different aspects of music – the MF kit highlights detail and energy, while the Primos emphasise warmth and beauty.

Both the Primo products have their strengths, particularly when matched together, but it's the Settanta that will gain the real fan base. While the amp is a strong contender to partner an existing CD player for anyone who craves warmth and fluidity, the Primo CD is much more likely to be bought by people who like the amp and want the player largely because it's a great visual match. That said, there will be those who warm to the Primo player's approach, and when used together these two components pull in the same musical direction to delightfully mellifluous effect. **HFC**

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SLIMLINE DIVA

Focal-JMlab introduces a sleek new floorstander to its acclaimed flagship range

PRODUCT Focal-JMlab Diva Utopia Be
TYPE 3-way floorstanding loudspeaker
PRICE £7,600 per pair
KEY FEATURES Size (WxHxD): 25x110x53cm O Weight: 38kg O 'W-type' cone drive units:

○ Weight: 38kg ○ 'W-type' cone drive units: 1x165m midrange, 2x210mm bass (side-firing) ○ Beryllium tweeter ○ Sensitivity/impedance: 90dB/8 ohms nom
 CONTACT ② 0845 660 2680
 ↔ www.focal-jmlab.co.uk

ocal-JMlab believes it has identified a gap in the market. The thinking behind the Diva Utopia Be, the latest model in this brand's ultimate range, is that there are music lovers out there with a taste for highend sound, and presumably the funding to go with it, but a disinclination to fill up their listening or living rooms with 'proper' loudspeakers. Hence this new floorstander is priced higher than a B&W N802 for instance, yet is virtually half the width. This puts it in quite a compact niche - there is competition from the likes of Wilson Audio with its WATT/Puppy System 7, Sonus Faber's Cremona and Amati and the Wilson Benesch range but it's still a pretty select club. Created for European-scale homes, the Diva Utopia Be is a tall, slim and superbly finished speaker that incorporates the many high-tech features of Focal-JMlab's flagship Utopia Be range.

Essentially this is a Micro Utopia Be (see HFC 245) that has been inverted and placed on a passive subwoofer system – it's not that simple of course, but that's the gist. The midrange unit, though the same size as that

in the Micro, does not have to operate over such a wide range because twin bass units cover the band from 180Hz down, so the mid cone is slightly different. The remarkable Beryllium tweeter is the same unit that you'll find throughout the Utopia Be range, hence the suffix. In order to keep the profile of this speaker slim, Focal-JMlab decided to place the bass drivers on either side of the cabinet, operating them in push-push mode where both drivers push simultaneously – if they didn't they would tend to cancel their own output.

Two 210mm bass drivers were chosen because they have the same efficiency as a 300mm (12-in) driver but are a better match in terms of dynamics with the midrange unit. These 'W-type' cone drivers, made with Focal-JMlab's preferred glass fibre/foam/glass fibre sandwich construction with its low mass and impressive self damping, are placed at the base of the speaker in order to use the reinforcement offered by the floor and avoid colouring the midrange. Bass range is claimed to extend to 30Hz (-6dB).

The midrange is another W-type cone, this one being driven by a so-called Power Flower multi-ferrite magnet on the back of its 165mm chassis. The tweeter is the jewel in Focal-JMlab's crown, a pure beryllium inverted dome that's only 25 microns thick and has a bandwidth that extends from 1-40kHz, making it a tweeter and super-tweeter in one. This is driven by a twin magnet system consisting of a Samarium Cobalt principal magnet reinforced by a Neodymium 'Focus

"The higher frequencies in particular are very explicit – you could almost identify brands of cymbal with this speaker."





Ring'. Unlike B&W, which is in many ways Focal-JMlab's British counterpart, there is no apparent attempt to gently attenuate the rear output of this drive unit.

If you were to cut the Diva Utopia Be in half you'd see that each drive unit midrange, treble and twin bass - has its own enclosure. You can't see through the gaps as you can on the Grande Utopia Be but the divisions are still there. Cabinet design incorporates the same principles you'll find in the range-topping Grande Utopia Be, with the baffle for the midrange angled slightly down relative to the tweeter to produce the 'Focus Time' alignment designed to ensure that signals from both drivers arrive simultaneously at the listening position. The placement of the bass drivers does not strictly conform to this approach but the argument that such low frequencies have very little stereo information is a valid one.

SOUND QUALITY

It didn't take long to realise how the placement of bass drivers at the bottom of the cabinet makes the height of the speaker critical, thus we weren't able to use the Townshend Seismic bases that usually isolate speakers from a suspended wooden floor because the extra 40mm made the speaker distinctly bright. Once that was established, positioning was surprisingly easy, the only important issue being to avoid firing the bass units at a nearby side wall. However, toeing them in a little got round that nicely.

That sorted, the fun began and the Diva Utopia Be didn't disappoint. This is a remarkably clean and revealing loudspeaker that displays less perceived distortion than the vast majority of models to come our way - basically, lesser speakers sound coarse by comparison. Imagine sanding a piece of wood - while most decent speakers might give you a 250 grit type of finish, these up the ante to 1000 grit or higher. It's a fine sound that reveals all the small sounds that make up the bigger ones, the harmonics and decay of notes that make the overall sound so much richer. As a result, piano notes have a shimmer but are solid and powerful as well, and brushed drum strokes have a realism that's uncanny. The higher frequencies in particular are very explicit - you could identify brands of cymbal with this speaker if you knew what you were on about, but even if you're not interested you'll enjoy the acoustic around them.



Focal-JMlab Diva Utopia Be loudspeaker [Review]

The bass is likewise very effective, and it's difficult to imagine how a more conventional front-mounted system would improve on this without something very similar for comparison. As it stands the low frequencies are deep, full and rich yet they time as nimbly as the rest of the speaker – which is fine, very fine indeed. This is a highly insightful design – you can hear precisely what Radiohead were up to in the studio when they put together multilayered tracks like *Airbag*, the different treatment in each channel made startlingly apparent.

Another work of studio mastery, Kruder and Dorfmeister's *K&D Sessions* usually sounds lush and spacious, but here the extra resolution reveals the nature of the reverb manipulation that creates such round, sexy bass. Because this is a pretty efficient loudspeaker it does dynamics well, which means that normally compressed sounding albums like the Mahavishnu Orchestra's *From Nothingness To Eternity* (you don't get titles like that anymore!) can open up and deliver their full, explosive impact.

Dynamics as much as bass is the area where the Diva really puts its £3,500 Micro Utopia Be sibling in the shade. You might be able to add low frequencies to the Micro with subwoofers but you'd never get the freedom of dynamic expression on offer here. The ease with which a pair of Divas reproduced dense jazz rock such as Zappa's The Ocean Is The Ultimate Solution (you can't argue with that) was highly gratifying. Terry Bozzio's drum work is phenomenal and with these speakers you can appreciate precisely how phenomenal his sonic gymnastics are - the energy is addictive! The bass is good enough to warrant the description 'visceral', not perhaps as much as a great active speaker such as the ATC SCM50A, or B&W's 802 with big watts behind it, but more so than any similarly slimline speaker we've heard.

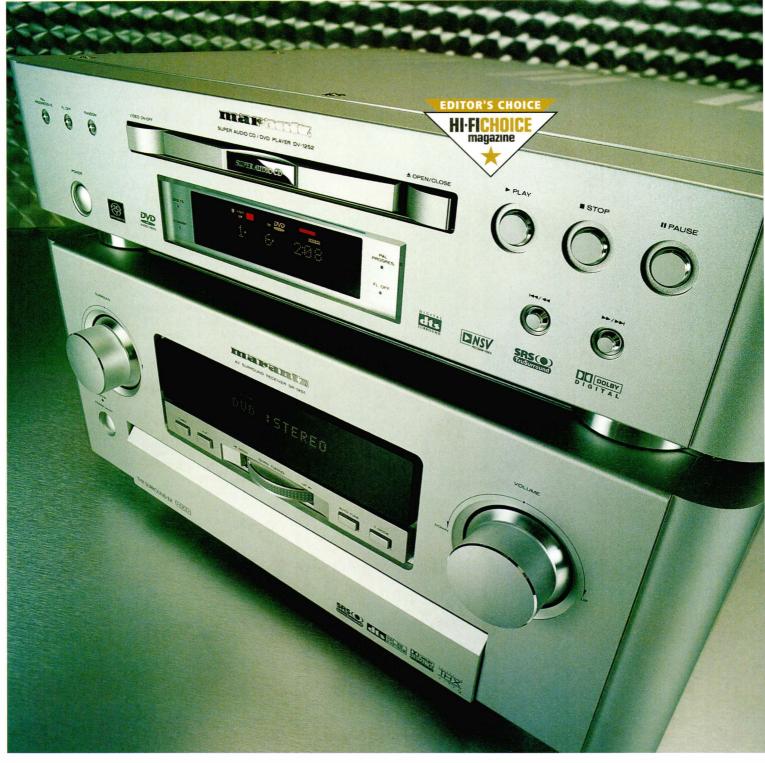
This is an exceptional speaker and if you value the cubic volume of your living room highly enough it makes a very convincing argument for the elegant approach. **HFC**

Jason Kennedy

VERDICT			
SOUND >> 93%	PRO		
EASE OF DRIVE >> 80%	Such vanishingly low distortion combined with such wide bandwidth and stunning dynamics in such an elegant speaker is rare.		
	You can get bigger, bulkier speakers to equal it for less; there's no option to bi-wire via the single-pair terminals.		
CONCLUSION Another convincing argument for	or the Utopia Be range, the		

Another convincing argument for the Utopia Be range, the Diva combines remarkable transparency with fine dynamics and gorgeous bass, all wrapped up in a sim, shapely package. It's as good a case for slimline speakers as we've heard.

HI-FICHOICE >> 90%





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AV FOR AUDIOPHILES

Top-of-the-line universal player and receiver aim at the heart of the multichannel audiophile market

PRODUCT: Marantz DV-12S2 and Marantz SR-12S1 TYPE: Universal DVD player and multichannel receiver PRICE: £2,000 (player) £3,000 (receiver) KEY FEATURES (Player) Size (WxHxD): 46x11x39cm ● Weight: 15kg ● Encrypted DVI-D digital video output ● RCB video output via Scart, component video ● PAL/NTSC progressive scan video ● (Receiver) Size: 44x18x48cm ● Weight: 26.5kg ● 7.1-channel THX Ultra2 specified ● FM/MW RDS radio tuner CONTACT: ● 01753 680868 ₩ www.marantz.co.uk

he rather gorgeous DV-12S2 is Marantz's flagship multi-format player. While its predecessor, the '12S1, was a straight DVD-Audio/Video player, this new 'universal' model is intended to appeal to as wide a market as possible by adding SACD to DVD-Audio, DVD-Video and CD, all replayed to a standard that's rare with any DVD-based machine. The partner in this ambitious enterprise is another Marantz flagship product, the SR-12S1 multichannel receiver. Both are members of the Marantz Premium range and have THX Ultra2 certification.

Even leaving the universal disc capability to one side, the DV-12S2 has most of the trimmings. The audio circuitry is high-spec, with HDAM high-speed discrete operational amps on all six (5.1) channel outputs. The power supplies are vast, with discrete audio and video subsections. D/A conversion is handled by Crystal 24-bit/192kHz Delta Sigma DACs on each channel. Video is equally impressive, with highlights including PAL/NTSC progressive scan, two Analog Devices noise-shaped 14-bit/216MHz DACs, and for an all-digital video signal chain with appropriate displays, an encrypted DVI-D output. This substantial hardware complement is housed in an equally substantial housing, constructed largely from die-cast aluminium panels with a double-layer, low-resonance base and extensive copper plate screening. It's one of those beautifully built, to-die-for products that Marantz is so good at.

Indicative of the attention to detail you'll find throughout is the ability to set up the player through the menus to automatically defeat the video and digital output circuits when a pure audio disc (CD or SACD) is inserted. In fact, the set-up options also include many video-related adjustments, such as contrast, gamma and tint, along with three overall user settings, which (and this is just an illustration of what's possible) could be programmed for monochrome, Technicolor and animated films.

The SR-12S1, a high-performance

7.1-channel receiver, is equally well built, with

similar construction-related features and an identical finish. It also has a similarly sophisticated power supply design, as well as HDAM output on each channel. Power is rated at 160 watts per channel, but this isn't a realistic figure in the real world - when measured in a more stringent way over the full audio band into eight ohms, output is close to 100 watts per channel. With all seven channels operating, however, this still amounts to a lot of grunt. The amp uses current feedback that is often associated with a generous, wide-band power delivery into low-impedance loads. Signal processing is by high-speed 32-bit DSP, and 'source direct' and 'video-off' features are available. Making it all sing and dance is one of Marantz's impressive

reluctant to bite even when the music demands), the beautifully poised, unusually three-dimensional and expressive midband, and a powerful, almost train-like bass.

The SR-12S1's role in this double act is of an accomplished supporting partner with a very similar personality to that of the DV-12S2. Through analogue connections the dominant role will always be played by the latter, but it's uncanny how the receiver perpetuates the voicing of the player. Again, it has that unusually clean and refined quality, the finely detailed but never exaggerated sense of detail, and the powerful, driving bass.

Sonic imagery is extremely well handled when playing multichannel material through the receiver's Dolby Digital/DTS processor, but

"Playing CDs, the DV-12S2 far outstrips sonic expectations for a DVD player."

two-way communicating handsets (the RC3200, also available separately) which tells you what the player is doing, as well as silently barking orders via infrared.

SOUND QUALITY

The DV-12S2 is more than just one of the best-presented players around, it seems constitutionally incapable of issuing a discordant note. It was used as a test bed for some excellent DVD-Audio discs, including the Strauss Four Last Songs recording (Odense Symphony Orchestra on Silverline Records) reviewed in Choice Cuts last month. We've rarely heard better from a DVD-Audio player, and it's not far from achieving the same standard from SACD. But ultimately, it lacks the clipped incisiveness of the Krell SACD Standard or the extraordinary precision of the Sony SCD-XA9000ES in its all-digital mode. The Marantz is dependent on its D/A converter and the transparency of the analogue electronics downstream, where the Sony goes a long way to sweeping such considerations aside. But there is an effortless panache and a silkiness from the Marantz that listeners will immediately warm to.

This is a very listenable player, and listening fatigue should be practically unknown. This applies also to CD, where the DV-12S2 far outstrips expectations for a DVD player, though the relevant bypasses play a large part in its success. Points to watch for are the silky treble (which could almost be described as it works particularly well in stereo too, without the benefits of spatial processing. Imaging is broad and deep, and instrumental focus sharp even when auditioned from off-axis (assuming you're using a speaker system that plays along, which for this test was a B&W Nautilus 800-based set-up). The amp is clearly at its best using the 'source direct' facility, especially through the multichannel input, and although it is at its most convincing in multichannel trim, this is one of the few multichannel amps with something approaching heavyweight stature in two-channel stereo.



FORMAT COMPATIBILITY - DV-12S2						
DVD-AUDIO	~	DVD+R	~			
DVD-VIDE0	¥		*			
SACD	v	MP3 AUDIO	 			
	V	WMA AUDIO	*			
HDCD	v	AAC AUDIO	*			
CD-R/RW		VIDEO CD	 			
		JPEG PICS	*			

[Review] Marantz DV-12S2 universal DVD player and SR-12S1 multichannel receiver



HFC discussed the background to the development of the two Marantz components with Neil Gill, UK Product Manager for Marantz UK



HFC: The DV12S2's predecessor supported DVD-Audio but not SACD. How was the decision to change it into a universal player arrived at? NG: Marantz came to high-resolution audio through SACD, in which our then parent company Philips played a major development role. We are now separated from Philips, and realise that both formats have strengths and weaknesses that we addressed with the DV8300, which established a strong audiophile and videophile following. The DV-12S2 was developed to build on this, but with improvements designed to improve stereo performance as much as multichannel behaviour.

The original DV-12S1 was a DVD-Audio/Video player, while the SA-12S1 was an SACD player with DVD-Video compatibility. There was some resistance to the SACD model from those who understood that video circuitry and high-end audio don't really mix. Hence the decision to include a separate video power supply and the ability to switch off the video circuits when not needed. With video upgrades such as DVI-HDCP and PAL Progressive, the DV-12S2 is one of most desirable universal players available.

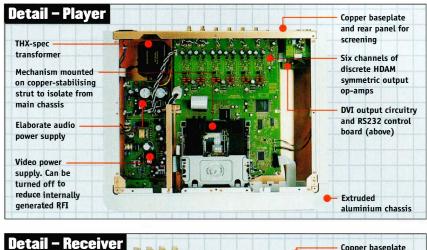
How do you view the rather faltering progress of the DVD-Audio format?

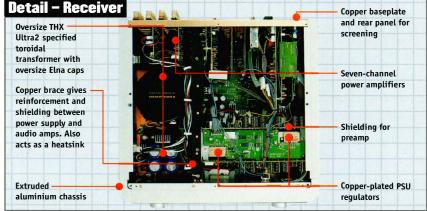
DVD-Audio is technically good, but we've noted that although there was a strong surge of interest and new disc titles when Dolby Labs took over the licensing for MLP, this has since slowed down.

What other trends can you identify in the multichannel and home cinema market?

The market is moving towards home cinema, but not at any cost. The trend now is towards a smaller number of components that don't take up too much room but can multifunction – universal players, AV amps that work well in stereo and so on – for which the second or third-time AV buyer is willing to invest more money now. We see our role as developing multichannel equipment that retains the warmth and essence of our best two-channel equipment, which doesn't have an issue when playing stereo CDs.







VIDEO PERFORMANCE

In video terms too, this combination is a high flier. Such is the quality of the DV-12S2, even in its legacy analogue role - delivering video from the S-Video, component or RGB outputs. Composite video is quite a comedown, but it should never be considered for anything other than quick lash-ups for menu access and the like when setting up. In fact, the component output in particular is extremely fine, with a genuinely fine-grain quality on screen, exceptional tonal differentiations in the nearblacks, and deep and dark pure blacks though a good quality Philips glass tube TV. But the real point of this player is flying solo through the DVI-encrypted output, which was achieved for this test by connecting directly to a Marantz VP12S2 DLP projector. The projector is fully DVI-compatible and gives a cleaner, even more precisely articulated result, a lower level of grain and a view on screen that is clearly uncommonly cinematographic and involving. This is what 'high-fidelity video' is all about.

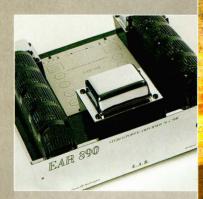
In video terms, the SR-12S1 is a side issue. It acts as a perfectly competent video-switcher, with decent-quality video buffer amplifiers, but no-one would choose to use an AV amplifier to route video signals other than for convenience reasons, and of course DVI is not supported.

The overall picture here is of a measured but impressive performance from a well-matched, high-end multichannel player/amp pairing that's arguably short on gadgets but long on engineering integrity. To say that the player is the star of the show is a simple statement of fact, and one that does not reflect badly on the receiver, which has broadly similar voicing to the player and which for video purposes can be bypassed entirely when using the player's DVI digital video output. The only residual criticisms concern the basic architecture of the system, which has no wideband digital audio output to match the digital video capability, but as such technology has already been applied by Marantz's sister company Denon, this must surely be on the roadmap. **HFC** *Alvin Gold*

VERDICT - DV-12S2 PLAYER SOUND >> 88% A universal player for audiophiles, with >> SUB RATINGS CD 86% SACD 86% DVD-A 93% top-notch video playback too. Sonically refined and enjoyably understated. VISION >> 91% FEATURES >> 86% **RALL SCORE** VALUE >> 84% VERDICT - SR-12S1 RECEIVER SOUND >> 86% A multichannel amp that should be taken seriously in stereo too. Resources are in the engineering rather than gimmickry. >> SUB RATINGS STEREO 84% MULTICHANNEL 87% FEATURES >> 79% BUILD >> 92% VALUE >> 80%

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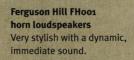


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PRO SURROUND

ATC turns its successful SCM12 loudspeaker into a full 5.1 system with a new centre and subwoofer

PRODUCT ATC Concept 3 TYPE Multichannel loudspeaker system PRICE (5.1 SYSTEM) £4,877 INDIVIDUAL PRICES SCM12 standmount speaker (front/rear): £999 per pair © C3 centre speaker: £920 © C4 active subwoofer: £1,959

CONTACT 2 01285 760561 @ www.atc.gb.net

hen Billy Woodman emigrated from Australia to build his drive units for PA systems in 1974 it's doubtful that he envisaged his hardcore studio-oriented approach finding a place in the home. Yet thirty years later his company is making as many speakers for the domestic market as it does for the professionals.

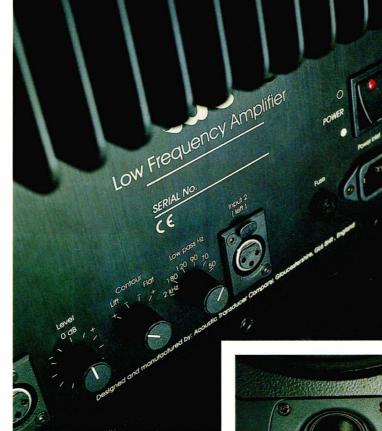
The brand's latest offensive is in the surround or multichannel market, an area where sales are strong yet the amount of companies making high-quality, dedicated systems are relatively few. ATC's success in the studio undoubtedly encouraged this – its speakers were used to master the multichannel mix of Pink Floyd's *Dark Side Of The Moon* for SACD and regularly find favour with soundtrack mixers. John Kurlander mixed the sound for *Lord Of The Rings: Return Of The King* at Abbey Road on an ATC 5.1 rig. That was inevitably a somewhat larger set-up than the four SCM12s (reviewed separately in *HFC* 253) plus C3 centre speaker and C4 subwoofer of the Concept 3 system assembled here, but still with very similar characteristics.

With the exception of the subwoofer this looks like a sensible enough system, not too big and conservatively finished in real-wood veneer with inset grilles to hide the business end of things. The illusion of a domestically friendly system is shattered somewhat when you try to pick up the C3 centre speaker and realise that it is a 30-kilo brute. It's only a 60cm-long passive speaker for crying out loud! Clearly ATC has not cut any corners with this or any of the other elements in this system. The 150mm doped, woven polyester drive unit that produces mid and bass in the SCM12 and C3 has a 75mm voice coil and 177mm magnet – professional style build that means you can drive it long and hard without distortion creeping in. A 25mm soft-dome tweeter covers the higher frequencies.

Given the AV orientation of this system it's a little surprising to discover that neither the centre channel nor any other speaker is fully shielded. ATC's response is that few home cinema enthusiasts who spend this much on their speaker system will have a conventional CRT TV set – other forms of projection and display systems are not similarly sensitive.

The subwoofer in this otherwise sensible system is also quite brutal. This piano-black monolith is so dense that light cannot escape its confines and at 52 kilos its take-noprisoners attitude is not to be trifled with. The 50cm cube includes a 650-watt amp which, combined with a specially modified bass driver, can produce a continuous 112dB SPL (sound pressure level), though we wouldn't recommend such in your average living room! With a frequency range that drops below

20Hz, the C4's drive unit is a 305mm (12-in)



device with the short voice coil/long gap design that the company prefers for its reduced distortion and high power handling. The controls that roll-off the driver don't offer the range you get with a REL for instance – here you can pick between set points at 50, 70, 90, 120 and 180Hz, which seems slightly odd given that the roll-off point of the SCM 12s is specified at 62Hz (-6dB). Ideally a 60Hz notch would seem to be appropriate, but practically speaking you have to set these things up by ear and the best setting in our room turned out to be 50Hz – though the 70Hz position was quite fun too!

A contour control lets you select between in and out-of-phase settings, with or without some additional home cinematic lift in the 40-60Hz region. Connection is as with ATC active speakers by XLR-balanced sockets only, one for each channel, though given the largely mono nature of low bass it's hard to see why.

SOUND QUALITY

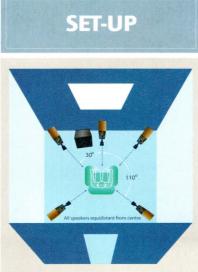
HFC reviewer Paul Messenger checked out the SCM12 in May and liked it enough to give it an *HFC* Best Buy. Listening to a pair in stereo it's not hard to hear why. It's a speaker that's highly revealing of all aspects of recordings, both good and bad, so compression is not disguised but neither is great playing – come one, come all seems to be the ATC way. It's a hard approach to dislike if you prefer your music on the loud side – the harder you drive them, the better they sound.



KEY FEATURES

SCM12 STANDMOUNT SPEAKER Size (WxHxD): 22x39x26cm • Weight: 15kg 25mm soft dome tweeter • 150mm bass/mid driver • Sensitivity/impedance: 85dB/8 ohms nom C3 CENTRE SPEAKER Size (WxHxD): 60x21x30cm • Weight: 30kg 25mm soft dome tweeter • 2x150mm bass/mid drivers • Sensitivity/impedance: 86dB/8 ohms nom C4 ACTIVE SUBWOOFER Size (WxHxD): 50x58x50cm • Weight: 52kg 305mm (12-in) bass driver • 650W power amp

Moving over to Linn Kisto/2x5125 multichannel amplification, we kicked off by adding only the sub to create a 2.1 stereo system. Once the beast had been tuned in this proved an extremely gratifying set-up, and we found that the SCM 12s could be pulled out into the room to create a more spacious sound with glorious underpinning from the sub. This is a very juicy sub/sat system; it genuinely kicks the proverbial with its lack of distortion at high levels and its overall resolution. It's a vivacious, high-energy-butwith-restrained-midrange balance that's desperate to be turned up, yet if you get the SPL meter out, isn't playing that loud when



POSITIONING

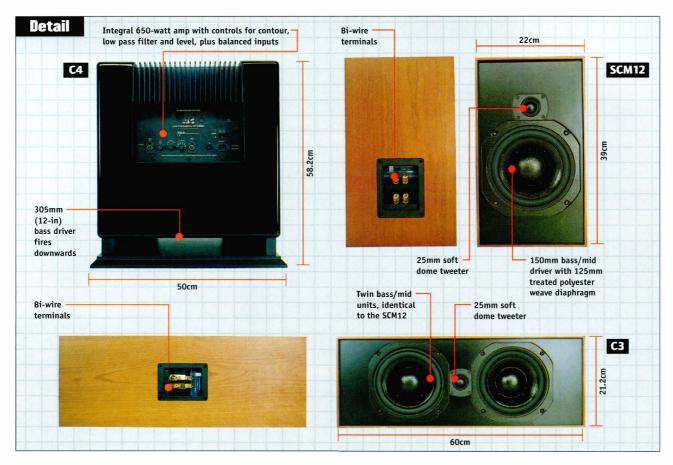
ATC recommends the classic ITU (International Telecommunications Union) speaker set-up for the Concept 3 system, illustrated above, which is designed to recreate the same monitor arrangement as that used in studios. Obviously, the success of this approach depends on the layout of your room, but if your speakers are arranged to the same standard as defined it should be possible to recreate precisely the same effects.

However, this is not necessarily the best set-up for movie soundtracks where a wider positioning of the front channels combined with surround channels either side of the listener is generally regarded as the more conventional route. System set-up will of course also be affected by practical considerations, especially with regard to the positioning of the rear channels. If you cannot set the speakers up in this fashion then you can try to keep the SCM12s away from walls at the front if not the back as well, and ditto for the C3 centre speaker.

The subwoofer meanwhile will work most efficiently if placed near the corner of the room. Setting the level and roll-off for the sub will be largely room-dependent but we found that both 50Hz and 70Hz positions gave a good result. The phase and level settings are best arrived at by listening – you might be surprised at how easy it can be to hear changes to either of these parameters and find that you can arrive at a well integrated sound without the inconvenience of a great deal of fiddling.

If you're intending to combine some serious music listening with some serious home cinema, we would recommend that you try keeping the front left and right channels at the same distance from the listening position as the centre channel. The rear channels are best placed behind the listening position but if you can't get them far enough away, try angling them toward each other. In our experiments we found that rear-channel output levels had to be reduced relative to the front channels in order to obtain a seamless surround experience. In general, when balancing front to rear levels, more natural results are obtained when the front channels are the musical focus. Inevitably, recordings vary significantly in this respect and some degree of trimming is occasionally necessary.

[**Review**] ATC Concept 3 multichannel loudspeaker system



"The synth bass positively revelled in the low stuff while guitars both acoustic and electric sounded startlingly real over the top."

S you get there. Heavyweight tracks like Aphex Twin's *Windowlicker* were surprisingly relaxed – the speakers had no trouble controlling the manic electronic bass sounds that other systems can struggle with.

Bringing in the other three channels and hooking up an SACD player for surround is no less of an entertaining experience, the speakers integrating as seamlessly as you'd expect given the similarity of driver arrays. McCoy Tyner's Land Of Giants disc was revealed to be a far better recording than previously demonstrated - other systems had given the impression of a lack of clarity and dynamics, but the Concept 3 showed that it is unusually natural with plenty of detail and great instrument tone. The sound overall is less ethereal than the (much more costly) Linn Akurate system tested in HFC 253, partly because there are no super-tweeters here, but when it comes to integrity it's highly convincing. Timing is spot-on, which makes any disc you care to spin sound engaging without being thrust in your face, the subwoofer balancing out the 'satellites' perfectly, treading the line between energy and control with ease.

Arvo Pärt's *De Profundis* revealed a degree of solidity that provided a foundation to the

voices and gave them more body – they didn't soar up to the rafters as well as they could but seemed no less real as a result. In musical contrast, Frankie Goes To Hollywood's *Welcome To The Pleasure Dome* employed the subwoofer to marvellous theatrical effect, the synth bass positively revelling in the low stuff while guitars both acoustic and electric sounded startlingly real over the top. Detail was well served, the clatter of new acoustic strings revealed in rich harmonic patterns.

Despite having heard Pink Floyd's *Dark Side Of The Moon* numerous times it provided a more engaging, musically satisfying experience on SACD through these speakers than it has for a long time. The headroom available meant that it could be replayed at the proper level without any sense of effort, the only worry being that the subwoofer might be damaging the structure of the house!

If you like your music at the 'proper' level (approaching live reproduction in other words) and you appreciate a fine bottom end, then this is a relatively unobtrusive yet hugely entertaining system – real hi-fi for music and movies. **HFC**

Jason Kennedy



VERDICT	
SOUND >> 91%	Top grade drive units plus rock-solid cabinets equal exceptional dynamic grip and
EASE OF DRIVE >> 71%	subtlety. The new C3 centre and C4 subwoofer complement the SCM12 perfectly.
BUILD >> 93%	CON Though well built and relatively discrete, few would describe these speakers as
VALUE >> 84%	beauties. Lack of shielding may be a problem for CRT TVs

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MIXED BLESSINGS

Copland's latest amp seeks to deliver the best of both valve and transistor technologies

PRODUCT Copland CSA29

TYPE Valve/transistor hybrid stereo integrated amp **PRICE** £1,900

KEY FEATURES Size: (WxHxD) 43x11x39cm ♥ Weight: 15kg ● Rated power output: 85 watts per channel ● Six line inputs ● Optional plug-in MM phono stage ● Remote control CONTACT ● 020 8971 3909 ♥ www.absolutesounds.com

The popular Swedish high-end hi-fi company Copland has been producing high-quality hybrid electronics for some years, but the new £1,900 CSA29 isn't like most hybrids. Unlike valve amps that use valves in the gain stages of the preamplifier or power amplifier sections, the CSA29 has a pair of 6922 double triodes in the input differential stage. Copland seems to have a strong doctrine of using the right components in the right places and in this amp's circuit, there are transistors, valves and FETs in key areas.

This 85-watt stereo integrated amplifier has six line inputs as standard and an optional

plug-in £150 MM-only phono module that takes over one of the line inputs entirely. Both the 85-watt power and the phono module highlight why this isn't your average hybrid or all-valve design – a hybrid preamplifier would require a separate phono stage instead of a 4cm-long card, while the 85 watts could only be achieved with half a dozen valves or more and a transformer the size of a small toaster.

Not that the CSA29 is a lightweight. The solid build (trying to prize off the top of the case to insert the phono stage is practically impossible) and big toroidal transformer give the amplifier a healthy 15kg weight. It also comes with a remote handset that can control a matching Copland CD player, even if it looks nothing like as sleek as the amp or player it controls. Still, it usefully adjusts the volume and source selection of the amp, and also drives the balance control that can't be accessed from anywhere on the main panel itself.

The overall look and operation of the Copland isn't as sleek as that of previous

models, but at least it isn't festooned with Cello-like knobs. Instead, there's only one knob for source selection and another for volume control, along with two buttons for tape monitoring and standby. In the centre of the player is a big black panel that lights up with red lettering to show standby status or which of your sources is currently selected. However, the panel is so large and the lettering so small that this looks a bit ham-fisted compared to the smooth looks of the rest of the CSA29.

The amp has a 30-second warm-up between standby and full power, and it's important not to get impatient during this time. Frantically switching the sources or power switch to speed the process might blow the main power fuse. (We did this once during the review!)

There's an obvious hybrid rival in the shape of Pathos Acoustics, with models such as the Logos, or the Unison Research SR-1. These use an entirely valve preamplifier stage and solid-state power amplification. And in the past, hybrids appeared from companies like



Copland CSA29 integrated amplifier [Review]

Onkyo – those with long memories might remember the AMC CVT3030. Then there are the really large esoteric hybrid power amps like the LAMM M1 and M2 (with the LAMM L2 preamp), and Hovland's Sapphire power amp. Technically, anyone found using a valve preamp with a solid-state power amp (or vice versa) is using a hybrid amplifier, too.

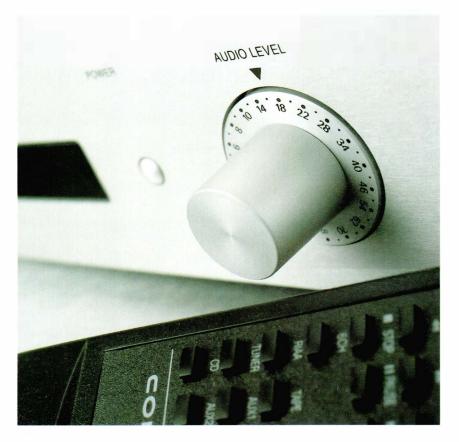
But perhaps the real challenges to the Copland aren't simply hybrids, they're upmarket integrated stereo amplifiers with any sort of electronics base. Anyone potentially in the market for a Copland CSA29 might well compare it to a Sonus Faber Musica (all transistor), an EAR 834 (all valve) or a Lavardin Model IS (all transistor). Despite the differences in technological approach, all are equally relevant when it comes to choosing one's ideal amp. But the question is: can a hybrid like the Copland come close to offering the best of both worlds?

SOUND QUALITY

The hybrid sound ethos is deftly demonstrated by the Copland CSA29. It manages to combine the smooth midrange and deep, rich soundstaging of valve amplifier systems with the weight, speed and precision of solid state. It really isn't pitched in one direction or another; it balances the valve richness and transistor clarity perfectly. Granted, there are times when it all dissolves into rose-tinted 'valve sound' and others when the steel of the solid-state shines through, depending on the music being played. But such times are extremely rare; for the most part, the amplifier is the ideal antidote for the amplifier Goldilocks among us.

Soundstaging is a particularly strong point in the Copland's favour. And it also benefits from the characteristics of valves. The imagery is deep and tall, instead of wide and flat. This gives a close-knit stereo image, but not one that is particularly claustrophobic or shut in. Height information is a rare beast in amplification, and really makes its presence felt in orchestral works. Stick on Beethoven's *Ninth* (the 1960s DG von Karajan version) and the vertical layering of orchestra and choir, in addition to that horizontal stereo depth, makes the sound seem as if you really are in front of hundreds of musicians and singers. It also works on very small-scale stuff, even as small as the guitar and vocals of Damien Rice. You get a sense of the vertical distance between guitar and voice in the recording, something that's altogether natural but very hard to replicate.

Aside from that, the CSA29 really doesn't draw attention to itself – in all the right ways. Detail is crisp and precise, but it fails to register initially because it's easy to confuse 'detail' with 'bright'. You become aware of a rich, inviting midband (again, like a good valve amp), but this takes time to discover because the sound is so honest; you find



"You become aware of a rich, inviting midband, but this takes time to discover because the sound itself is so honest."

yourself forgetting that there's an amp to review and continue playing discs! This is also not overstated because there is a clean, extended treble and a taut, rhythmic bass. It isn't as rhythmic as the likes of Naim or similar, but tidy and bouncy enough to cope with some decent funk. This is how good amps should sound – adding or subtracting nothing.

Then there's the plug-in phono module. It's MM only and perhaps lacks the stark clarity or the musical character of top-notch phono stages, but it's perfectly matched for the rest of the amplifier. It's virtually noise-free and very faithful to the sound from the cartridge.

So when does it go wrong? You really have to jump through a few duff hoops to make the sound go bad. First, use a pair of out-of-theordinary speakers, which are either very efficient or deeply inefficient, and have an uneven sound quality. Now partner these with a cheap, shouty CD player or a really bland one. Connect all these with fast, tizzy interconnects and zingy speaker cables. Finally, mix in something like Einstürzende Neubauten played at full tilt, or perhaps the like of Norah Jones at a whisper. At these extremes, the balance begins to shift toward valve (at the too-quiet end) or transistor (at the balls-out end). This is hardly a drawback, and for the sort of CD players and speakers that befit the Copland, price shouldn't be an issue.

In many respects, whether it's a valve amp or a transistor amp is moot. Its sound exhibits benefits derived from both technologies with few of the stereotypical downsides, unless you try hard to make it sound bad. In other words, with the Copland CSA29, you really do get close to the best of both worlds. **HFC**

Alan Sircom

SOUND >> 89%	PRO Copland makes hybrid amplification that works,		
FEATURES >> 75%	combining a smooth, rich valve sound with transistor grunt and detail. It's built like a tank, too.		
BUILD >> 90%	CON Remote control doesn't look the part and the little red-on-		
VALUE >> 87%	black source lights are a bit cheesy, especially compared to the overall look of the amp.		
of a very fine integrated amp	e valves and bask in the sound lifier that happens to be a t on the outside, but the CSA29		

OVERALL SCORE

0070



SONIC CATHEDRAL

Tannoy's retro Prestige models sell well in the Far East. Should we Brits pay them more attention?

PRODUCT Tannoy Yorkminster

TYPE Dual Concentric floorstanding loudspeaker **PRICE** £9,000 per pair

KEY FEATURES Size (WxHxD): 62x102x45cm • Weight: 62kg • Main driver has 250mm flared paper cone and pleated fabric surround • Horn-loaded tweeter with 'pepperpot' diffuser • Adjustable tweeter energy and roll-off

CONTACT 2 01236 420199 # www.tannoy.com

orty or fifty years ago, this speaker wouldn't have looked in the least strange. Pick up a 1950s copy of *The Hi-Fi Year Book*, and there are plenty of speakers that look a lot like this one. Something similar could still be found in UK hi-fi shops up until the early 1970s, but in today's world the Yorkminster looks as out of place as a vintage Bentley on the M25.

The laws of acoustics haven't altered one iota, but the speaker market has undergone dramatic changes down the years, for a number of very logical reasons. Indeed, it may well come as a surprise to some readers to realise that speakers like this Yorkminster are still being manufactured, so different are they from the run of today's mill. Certainly you're unlikely to find a pair lurking down at your local hi-fi dealer, but visit a 'high-end' emporium over in the Far East and you'll very likely find a pair of large retro Tannoys, and very probably some other oddball retro models besides. Nostalgia comes into it of course. Retro style has its followers in all sorts of products, especially domestic furniture, so perhaps it should be surprising that there aren't more 'traditional' style examples around. But there's much more to this Tannoy than merely an old-fashioned 'heritage' appearance.

Taking the long historic view, hi-fi has repeatedly shown an all-too-regular tendency to embrace new technologies with excessive enthusiasm while being all-too-ready to discard the old. Valve amps and vinyl discs both came close to disappearing completely at different stages. Both eventually bounced back, and are now re-established as important minority interests with their own appeals.

If Far Eastern enthusiasts are aware of what

in a 200-litre enclosure, while the £6,500 Kensington has a 250mm alnico Dual Concentric driver in 105-litre box and the £2,850 Sandringham a ferrite 200mm Dual Concentric driver loaded by 48 litres.

This 'heritage' Prestige line-up has parallels with the three Art Deco-inspired Dimension series models, the TD12, TD10 and TD8 that we reviewed a couple of years back. However, the differences between the groups are equally significant. Whereas the Dimensions use Dual Concentrics energised by large ferrite magnets, sporting the 'tulip waveguide' tweeter plus top-mounted super-tweeters, the top two Prestige models go back to the alnico magnet Dual Concentric era, with 'pepperpot' tweeter horn and no super-tweeter.

"Delicious is the adjective that sprang to mind with the Yorkminsters connected."

modern speakers lack, perhaps it's now about time that the British hi-fi enthusiast learned to appreciate some of the classic virtues of historic speaker technologies, which have been all too hastily swept aside in the name of progress and/or fashion.

The Yorkminster is the senior model of a new Prestige-series threesome. All three are closely related in style and content, the Yorkminster using a 300mm alnico Dual Concentric driver The difference in the magnetic materials is crucial here, if only because alnico (an aluminium/nickel/cobalt alloy) is a vastly more expensive material than ferrite (a simple iron oxide). Prior to World War II, when alnico was first developed, there were no permanent magnets powerful enough for practical loudspeakers. Instead, speakers used electromagnetic 'field coils' – very inconvenient because of the need for separate power supplies. Alnico became the magnet of choice in the immediate post-war era, but ferrite was developed in the 1960s, just around the time the price of cobalt soared, and speaker manufacturers were quick to change over to the much cheaper material.

Alnico rapidly became rare, but some enthusiasts have always claimed it sounds better than ferrite, even though the reasons why remain obscure. It might be because the magnet shape is slimmer but deeper, reducing the reflective surface behind the cone. It might be because alnico is electrically conductive, whereas ferrite is an insulator.

Magnets aside, the solitary drive unit used here is really two-in-one. First introduced in 1948, the Dual Concentric approach fires a horn-loaded alloy dome tweeter through the centre of the main cone. Said cone is paper pulp, flared for stiffness, 250mm in diameter, and terminated by a relatively stiff pleated fabric surround. It's all mounted on a massive cast-alloy chassis. Both drivers have 52mm voice coils, ensuring more than ample power handling – 150 watts RMS, with a 550-watt peak quoted.

The enclosure is very large indeed. Loaded by two big

PRESTIGE

-

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PRESTIGE

rear ports, it encompasses some 200 litres, stands just over a metre tall, is 62cm wide and 45cm deep. Small rooms need not apply! Though large, at 62kg it's not as heavy as it looks, using a relatively lightweight 18mm birch plywood substrate to avoid storing energy, stiffened by complex bracing.

Looking very like a scaled down (!) version of the company's gigantic horn-loaded Westminster and Westminster Royal models, the Yorkminster has the classic styling cues of the 1950s, with the high-class, real-wood teak veneer and mouldings, and mottled brown/cream grille cloth.

Under the removable main grille is a flashy gilt panel scribed in a ghastly mixture of typefaces which provides five options each for treble energy and roll-off. The terminal block has five socket/binders – two for each driver, allowing bi-wiring or bi-amping, plus an extra one to earth the driver chassis to the amp.

SOUND QUALITY

HFC has had considerable experience of 15-inch versions of this drive unit flush-mounted into the walls of one of our regular listening rooms, and fed via the crossover from the Yorkminster's predecessor, the Canterbury. These true infinite baffle wall-mounts are delightful in themselves, but we were quite shocked by the substantial improvement wrought by the Yorkminsters.

It's all to do with crossover networks, and our increasing understanding and appreciation of the role and importance that individual components play in the ultimate sound quality of a serious speaker system. We've learned a great deal about networks since the Canterbury was originally put together, and the consequence is a considerable improvement in overall coherence and transparency in this latest variation on a long familiar theme. Delicious is the adjective that most readily sprang to mind when these speakers were connected onto the end of a Naim

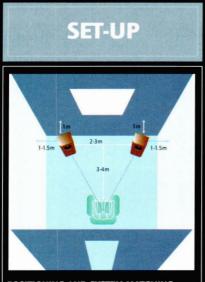
NAC552/NAP500 amp rig. Delectable, delightful and delicate would serve equally well to describe a midband in particular that's wonderfully natural and communicative.

> The Yorkminster has a superbly wide bandwidth with ample - perhaps a little too ample - bass weight, and a very well judged top end (we oscillated between setting both pre-sets to 'level', or selecting '+2' on the 'treble roll-off'). But it's the midband that really stands out here. It did a brilliant job with some current playlist favourites, but the true acid test of any loudspeaker is how well it communicates unfamiliar material, which for this listener often means tallying up the amount of time spent with Radio 3.

> Operatic voices in particular sounded that much more believable, realistic and engaging through a pair of Yorkminsters, and far from letting the orchestral stuff burble along in the background, they thrust it out, demanding the listener's complete attention.

> It's not so much that they'll play loudly – which they certainly will, since the available headroom is massive – it's more that these speakers are absolutely magical when playing really quietly. Fine

[Review] Tannoy Yorkminster loudspeaker



POSITIONING AND SYSTEM MATCHING The large drive unit and enclosure are powerful clues to this speaker's high sensitivity, and while the specified 95dB/W does seem a tad optimistic under our subjectively representative in-room far-field regime, a still-high 93dB is definitely on the cards. Furthermore, this is achieved in the context of truly substantial output through the low bass region, alongside a relatively easy amp load.

One reason for the strong low bass is that the ports here are tuned to a low 30Hz. If the net result in a given listening room is considered too strong, there's always the option of blocking these by inserting something like either (large) rolled-up socks or a (small) towel

Given their very hefty bass output (with or without the port contributions) it's obviously best to keep the Yorkminsters well clear of walls as far as possible. However, with a speaker this bulky and visually dominating, there might not be many practical alternatives to choose between

The impedance never falls below six ohms, and is significantly higher than that above 500Hz, so it doesn't draw excessive current in relation to the amplifier voltage (i.e. volume). Alongside that, the very generous sensitivity means it doesn't need nearly as much voltage to generate similar loudness to regular speakers either. The Yorkminster is therefore particularly easy to drive on two counts, and therefore very well suited to operation with valve amps, including single-ended and output-transformerless types.

For such a large loudspeaker, the overall frequency balance is pretty good - and certainly much smoother than Tannoy's not too dissimilar Kingdom 12 which we reviewed in 2001. The balance is by no means flat, but the far-field averaged trend does hold within very decent +/-4dB limits across most of the band (60Hz-7kHz, treble 'level'). Within that it's a little lean at 120-250Hz, and a little strong at 250-900Hz, with some unevenness, including a pronounced 15kHz treble peak.

The treble pre-sets located under the front grille offer an unusual extra flexibility with a surprisingly large range of action. The 'energy' control has five settings covering a maximum of 5dB, hinged around 3kHz. The roll-off starts at around 5kHz with a much larger range at the top end of around 14dB.



"The superb midband delicacy is ideally suited to the strengths of valve amps."



details like the subtle texture of orchestral strings remained clear and distinct even when played at levels close to inaudibility.

Though most of the listening was done with solid state electronics, we also tried them with several valve amps. It proved a most felicitous match, with the high sensitivity helping the less powerful single-ended designs. The wide bandwidth and dynamic range clearly distinguished between the different models and the superb midband delicacy was ideally suited to the acknowledged strengths of thermionic amplification. So much so, in fact, that it initially proved difficult to return to the solid state amps.

In one important respect the Yorkminster differs substantially from the norm. The basic laws of acoustics mean that this speaker's large main driver cone and horn-loaded tweeter give a much more directional sound than the smaller drivers and direct-radiating tweeters that are the market norm. When listening to speakers in a room, you hear a mixture of sound that arrives directly from the speakers, and sound that arrives after being reflected off the walls, ceiling and so on. With the Tannoys you hear a higher direct-toreflected sound ratio than average, so you

hear more of the recording but less of your listening room, and stereo imaging is unusually precise. It's a matter of taste, rather than right or wrong, but it does play an important part in the total experience.

The Yorkminsters won't suit everyone, and are by no means beyond criticism. Their sheer bulk and massive low bass is obviously best suited to large rooms. That large wooden cabinet adds a fair helping of box coloration, bringing a slightly 'woody' guality to the proceedings (but bear in mind that coloration is added after the event, and tends not to affect the vital leading edges). In addition, the tonal balance isn't completely neutral, with some emphasis in the upper midband.

But these are relatively minor criticisms. The Yorkminster's best trick is simply the way it drags you in and cuddles you up with whatever kind of music you choose to play. Try (and enjoy) unfamiliar classical material, and give a valve amp a go too. HFC Paul Messenger

VERDICT SOUND >> 95% PRO The subtler the detail, the better it works. This speaker is a great communicator, with EASE OF DRIVE >> 95% wonderful orchestral textures. High sensitivity and an easy oad are very valve-friendly. BUILD >> 93% CON Costly and maybe too bassy for smaller rooms. Its bulk and retro styling isn't for everyone, VALUE >> 81% and the soundstage tends to ignore the listening room.

Few can match the subtle inner detail delivered by this updated version of an alnico-powered classic. Deliciously delicate and expressive even at the lowest listening levels, it still has massive headroom when you're in the m



pure quality





mono power amplifier

These power amps are very impressive devices. They seem to be extremely neutral, responding to every nuance of the music in a clear, coherent and swift fashion that lets the sound breathe - in truth, they are highly capable in all respects.

Jason Kennedy, Hi-Fi Choice

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 PRODUCT The Chord Company Signature interconnect and loudspeaker cables

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The Chord Company is a relatively low-key manufacturer of cables that is increasingly well liked by the cognoscenti. There is a welcome lack of cant about the designs in a field often weighed down by unsupportable assertions and the most non-scientific science outside astrology and homeopathy. Cable claims really ought to be taken with a pinch of salt, but then if a cable genuinely delivers the goods, you should probably ignore the pseudo-science and buy the cable anyway.

The first of Chord's two top-ranking Signature wires to be released was the interconnect, a phono-terminated cable which is unusual in that it consists of two entirely self-contained, silver-plated, oxygen-free, solid-core conductors, each with three layers of screening: a flat braid, a foil and finally a round section braid. The screens are allowed to float unconnected at both ends, though provision has been made with a flying lead to join the screens to earth at one end. Each set of conductor and screen is individually wrapped with Teflon dielectric, so that each single-channel cable appears to be made from two cables bundled together.

The Signature speaker cable is a similarly uncompromising design: it consists of two thick round section cables that are loosely twisted together. Each conductor is constructed from nine strands of high-purity copper with a combined cross-sectional area of 2.74mm², surrounded by a gas-foamed polyethylene dielectric. This is, in turn, wrapped in a dual-layer foam/woven braid screen that claims to apply high levels of RF shielding. The termination is exclusively 4mm (single-wire pair) only for now, and it employs an elaborate clamping arrangement that is designed not to deform the cable, which had been identified in the development programme as a key quality choke point. Neither cable could be described as particularly tractable, but the speaker cable can be The Chord Company bent and unbent into a signature required curve, without apparent damage. The interconnect is easier to handle.

SOUND QUALITY

Maybe it has something to do with weight or thickness, but these two cables probably set some kind of record for burning in. They were run over some months (interconnect) and several weeks (speaker cable), with the sound perceptibly mellowing and improving as the test progressed. Nordost Valhalla was used as a control, and the hi-fi hooked up included Krell and Boulder amps, Marantz and Advantage disc players and B&W Nautilus 800 speakers.

Not that either cable actually qualifies as mellow. In fact, where they have a fault is in their propensity to impose their own, occasionally slightly bolshie character on the proceedings. Neither cable could be described as backward in coming forward, but both qualify as high-resolution cables. It is not only very easy to hear what's going on, it is also possible to place the sound in the context of a believable acoustic space, albeit a slightly differently shaped and presented space than is portrayed by some other cables. Generally, it comes across as more expansive and airy than some, but above all it is a very physical, almost tangible area, and despite the spaciousness, the Signature cable sound has a clearly bounded quality, one that you can almost walk into and out of. Most of all though, the cables

have the quality of reproducing music with a strong sense of single purpose, a kind of unity that suggests a real performance. Perhaps it is an artifice, a subtle but very credible coloration that flavours the music in a particular way, but that's not how it feels. It simply makes music that speaks with a common purpose. The Signature sound is very dynamic – it goes loud without strain (given the wherewithal elsewhere in the system), and the bass is muscular and powerful without excess. The two cables work in broadly the same way, but of the two, the speaker cable is the one with the more dominant voice. **HFC**

VERDICT - Interconnect					
SOUND >> 88%	CONCLUSION Stiff and not very pliable, and multiple cables quickly				
PRACTICALITY >> 77%	look messy, but sound quality is mostly excellent, with good resolving ability.				
BUILD >> 89%	HI-FICHOICE OVERALL SCORE				
VALUE >> 75%	>> 82%				
VERDICT – Speaker cable					
SOUND >> 92%	CONCLUSION Thick, intractable cable is marginally practical, but				
PRACTICALITY >> 71%	build quality is very good and the sound more than justifies the claims.				
BUILD >> 93%					

VALUE >> 79%



AZUR LIKE IT

Can you get real hi-fi sound for just £200 per component? Cambridge reckons you can...

PRODUCT Cambridge Audio Azur 540C and 540A TYPE CD player and stereo integrated amplifier PRICE £200 (CD player) £200 (amplifier)

KEY FEATURES (CD player) Size (WxHxD): 43x7x31 cm ♥ Weight: 4.6kg ♥ Coaxial and optical digital outputs ♥ Wolfson 24-bit/192kHz DAC ♥ (Amp) Size (WxHxD): 43x10x32cm ♥ Weight: 7kg ♥ Inputs: 6x line-level RCA ♥ Outputs: 2x record, 1x pre-out ♥ system remote CONTACT ☎ 0870 900 1000

@ www.cambridge-audio.co.uk

ambridge Audio is an incongruous name for a brand that has its design team headquarters in London and its manufacturing facilities in China. But such is the nature of brand names these days – if you want competitively priced kit, then this manufacturing model, which was pioneered by companies like Rotel in the nineties, has proved to be the only way to make truly low-priced yet genuinely hi-fi quality components.

Cambridge has been proving as much for some time, the presence in the recently introduced Azur range of a progressive scan DVD-Audio player for just £250 being a good example of the possibilities it offers.

The 540A and C models that are under consideration here kick off the Azur range at £200 apiece, and sit alongside the 540R AV receiver and 540V DVD combi, as well as the aforementioned DVD-A player. And so they are the only stereo models until you step up to the 640 components (£250 a throw and reviewed very favourably in *HFC* 249 and *HFC* 250).

Despite their identical appearance, there are a couple of real differences between 540A and 640A amps, namely a 50-watt rather than 65 watts per channel power rating and an absence of the polypropylene capacitors that Cambridge, among others, prefers. But when you are reducing your costs by 20 per cent something has to give, and the all-metal box, remote control and comprehensive feature set are all impressive at this price. The 540A's closest competitor is the NAD C320BEE, which has plastic buttons and controls and looks decidedly more dowdy as a result. Internally, the Azur 540C CD player differs rather more from its 640C sibling. A lesser but still well-specified Wolfson WM8716 digital-toanalogue converter replaces the WM8740 of the 640C, but that said, both DACs are 24-bit/192kHz varieties. The associated filter circuitry is a more down-to-earth, two-pole, lowpass design, and in measurement terms you get a 17dB-lower signal-to-noise ratio from the 540C. Power supplies are no longer separate, and integrated and film capacitors have been replaced by polypropylene alternatives.

The 540C is a very attractive player with an LCD display, Sony laser optics in a Cambridge transport, an acoustically damped chassis and a low-jitter clock. Controls and outputs are





"It's the sort of combo that makes you wonder if regular theories of budget allocation are in need of reassessment."

pretty standard, but everything is on the remote, including direct track access buttons and the all-important drawer-opening facility.

The 540A amp offers Cambridge's CAP5 protection system, which is designed to stop you from blowing up your speakers without affecting the audio signal. It has two sets of speaker outputs, bypassable tone controls, a headphone output and the option of a phono stage in place of one of the six line inputs. The same attractive remote operates both amp and CD player for that bit less sofa clutter.

Now that we are living in the Wi-Fi age, it's questionable how useful a second pair of speaker outputs is. They offer a crude variant on multiroom hi-fi if you happen to have handy holes in your walls, but a 50-watt amp will struggle to drive two pairs of speakers even if they offer an easy load. Wi-Fi is currently not exactly of hi-fi quality, and there's no Ethernet output here to connect it to anyway. If you really must have the same tunes in two rooms, get more efficient speakers and turn up the volume for multiroom audio on the cheap!

SOUND QUALITY

Having warmed up both Azurs thoroughly, letting the player spin some Aphex Twin for the recommended 36 hours of run-in (albeit not via the amplifier – no one is that much of a masochist), listening kicked off with the 540A amplifier. This is an open, engaging and articulate amp with much of the same character exhibited by the 640A. It presents a good level of detail and is tonally very natural for a budget design, going for a relaxed balance that doesn't stretch the limited reserves on tap, yet avoids sounding limp or gutless. In fact, if you put on something bangin', such as the new Crispin J Glover album Which Way Is Up², there's plenty of weight and energy on hand to deliver his house/rock fusion in full-on fashion.

With the acoustic jazz vibes of EST the piano sounded a tad glassy, but there's no barrier to the engaging rhythms and gradually increasing tempo. This is a transparent budget amp with well-controlled bass and the ability to reveal what's on offer from the source.

Bringing the 540C CD player in as the front end did nothing to undermine this impression of transparency, the limitations of the budget player being quite clear in comparison to our much more expensive Resolution Audio reference. Nonetheless, taken on its own terms the 540C is no slouch either - it may not be quite so on the ball in its timing, but there are more similarities than differences between it and the 540A. Tonally, it makes a good stab at Norah Jones's dulcet tones, and if imaging is a little restrained, detail levels are high and the midrange pleasingly transparent. Bass matches the amplifier note for note, digging deep while revealing the shape and texture of each instrument, so that the hollowed-out

synth bass on Eminem's *Kill You* had much of its artfully crafted character revealed.

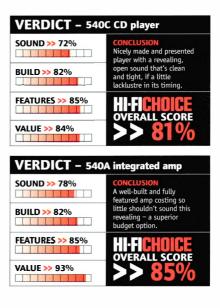
The main competition for these Azur components comes from another brand extensively advertised by Cambridge Audio's retailing relative Richer Sounds, namely NAD. Its C320BEE amp can be had for 20 quid less than the 540A, despite a recommended retail price that's 20 quid higher. The NAD is, in our experience, a more characterful amp with a fruity bottom end that works a treat with many budget speakers. However, if you hope to move up to more expensive, albeit reasonably sensitive speakers, the Cambridge might be a better bet with its clean, transparent midband and tuneful bottom end.

The C320BEE's matching CD player, the £220 C521BEE, is the budget player to beat and it's a very close call between it and the 540C. The Cambridge is undoubtedly a highly capable player, but its limited timing skills means it's less of a giant slayer than its more costly 640C half brother. The differences between these two may be subtle, but the results are easily discernible.

Still, the 540C/540A pairing is capable of stonking results. Richard Thompson's powerful ballad *Devonside* is revealed in much of its intimate glory via these two, encouraging further investigation of the entire album.

While the trained ear can hear the shortcomings in this pairing, in the context of its price and build it looks like superb value – the fact that we could play it at decent levels through a pair of £7,000 Focal-JMLab Diva Utopia Bes without discomfort is remarkable.

It's the sort of combo that makes you wonder if regular theories of budget allocation need reassessment. Normally, you'd look to spend equal amounts on player, amp and speakers, but with these we recommend you spend £400 or more on speakers. If they are a reasonably easy load, the results will be highly entertaining – we guarantee it. **HFC** Jason Kennedy



səles@minebnelpim@səles ТНЕ ОГО СНАРЕL, FORGE LANE, ВЕLBROUGHTON, DY9 9TD

m. 07721 605966 f. 01562 730228 John Roberts: t. 01562 731100

Audio Physic, ATC, Avalon, JM Labs, Konus Audio, Pen Audio, Prosc, Peak Consult, Martin Logan, FEL, Sonus Faber, Velodyne, Verity Audio. **LOUDSPEAKERS**

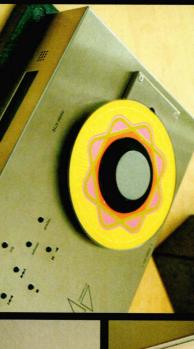
Accuphase, Audio Analogue, Audio Research, Belcanto, Conrad Johnson, Copland, Creek, Densen, dCS, Electrocompaniet, Krell, Lavardin, Magnum Dynalab, Nagra, Orpheus, Pathos, Primare, PS Audio, Reson/Resolution Audio, Spectral, Sugden, Trichord, Unison Research, Wadia, 47 Laboratory. ELECTRONICS

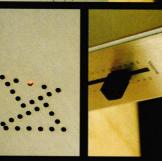
















Avid, Benz Micro, Dynavector, Koetsu, Kuzma, Lyra, Michell, Rega, Roksan, RS Labs, SME, Triplannar, VPI. TURNTABLES / CARTRIDGES

Cardas, Clearaudio, Eichman, Finite Elemente, Furatech, Grand Prix Racing, Nordost, Quadraspire, Silfech, Shakti, Shun Mook, Transparent, Van de Hul. CABLES / SUPPORTS / ACCESSORIES

VPI TNT HRX

up to 98% of acoustic feedback) and an inverted main bearing incorporating a hardened steel ball running on Teflon. Aluminum-Acrylic), integral air suspension (which rejects The TNT HR-X is the TNT concept taken to the next level. The HR-X features a triple laminated chassis (Acrylic-

An outer periphery record clamp centers on the platter, not the record, to provide vacuum-like hold down without the problems inherent in a vacuum system. The drive system uses two low-powered 24-pole motors driving a 7 pound flywheel, and the flywheel spins at 500 RPM and rumble that are all below measurability system and the periphery clamp result in wow, flutter, and has 62 times the inertia of a 25 pound platter. The drive

of the chassis with a double base mounting, providing the ultimate in rigidity and adjustability. The SDS power supply (included) rounds out the package and provides a pure AC signal to the drive system. The included JMW 12.5 is bolted to the aluminum portion

47 LABORATORY

For some it's Zen. For others, radical.

Small in size, big on sound, and more music than mere audio jewels, 47 Lab distills technology down to its simplest, purest form. And when you listen you'll know that this path - your path - is the one to follow. Small design, the energy and flow of the music carry you away Call it what you will, but at the end of the track, it's all about trusting your ears. About letting the simplicity of

Why?

No B.S. Just dynamic, unadulterated music Because designer Junji Kimura preserves the life of the music. There are no compromises. No unnecessary flash.

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SONUS FABER

symbiotic tuning system. Stradivari. A 3 way elliptical design, virtual 2π radiation

vibrations. are strategically placed for absolute rejection of spurious carefully optimized resonance control, substructual ribs selected wood layers, quality-graded and oriented damping, elliptically shaped enclosure formed using hand Acoustic enclosure-multilayer, constrained-mode for

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products fitted with word clock input. part per million accuracy, synchronise up to 5 units with (BNC) word clock interfaces. Standard clocking frequencies: 44.1 or 48kHz Works with all dCS consumer dCS Verona Masterclock. The ultimate clocking solution for multibox dCS applications. Calibrated to better than 1

scenarios in the dCS family, it uses the same High quality dual laser mechanism as the Verdi. Low jitter on-board clock Clock sync function with development of the second Delius D/A converters DSD digital CS Elgar Plus and development Delius D/A converters DSD digital output via IEEE 1304S Delius D/A converters DSD digital output via IEEE 1304S Interface using CD or Super Audio CD material 16 bit 44.1kS/s output via AES interface. Demonstration essential call now to book your appointment dCS Verdi LaScala Is the latest solution to costly 2 box



Pro-Ject Phono Box LE phono stage [Review]

PHONO BOX mm/mc preamplifier

INPUT OUTPUT R

24

LDEN BOX

Pro-Ject's budget phono stage is looking very shiny in its new limited edition guise, but is there more to this revision than that?

PRODUCT Pro-Ject Phono Box LE	
TYPE MM/MC phono stage	
PRICE £65	
CONTACT 2 01235 511166	
www.henleydesigns.co.uk	

INPUT

R

n some respects, the packaging and extras included with this little gold block rather undermine its physical impact. On the one hand, the carton weighs far too much for a beer-budget phono stage, so expectations are heightened, but when you discover that two thirds is provided by a wooden box and a framed certificate, you begin to wonder whether the price difference between the standard and LE versions is down to these elements rather than upgrades to the component. The LE changes more likely to count however are the use of "selected components of higher tolerances than the standard Phono Box"

The sturdy wooden box is velvet-lined and the certificate is signed by Pro-Ject president Heinz Lichtenegger. The certificate declares which of the 500 examples of the Box you have and reveals that it was produced to celebrate the 100,000th example of the Phono Box breed. Which is pretty impressive whichever way you slice it.

The Phono Box is just that - a compact metal case containing electronics that amplify the tiny signal produced by a phono cartridge and apply the RIAA equalisation required to tonally balance the end result. The gold plating shouldn't change its sound (left-field

theoretician Peter Belt-style effects notwithstanding), but does make a discreet box rather more conspicuous.

On the back of the case are the usual in and outputs, plus an AC input that plugs into the accompanying wall wart supply. Under the hood are various fiddly 'jumpers', which offer two gain/impedance levels for moving magnet or moving coil cartridges. Given that the latter cost at least twice as much as this unit it's not likely many will use the combination, but it's certainly capable of showing the strengths of the genre.

SOUND QUALITY

Using the Goldring GR1 turntable with its Elektra moving magnet cartridge as a source might seem rather an inflammatory choice given that it was produced to compete with Pro-Ject's own decks, but we had one to hand, and a budget turntable is the most likely partner for a budget phono stage.

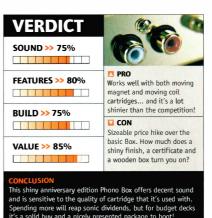
The partnership proved fruitful. Eminem's entertaining and beautifully timed lyrics punched out of the speakers with clarity; the track Business sounded weighty, dark and reasonably detailed with the Phono Box in tow. There could be more openness to the sound and high frequencies seem restrained, but the result is highly competent. Keith Jarrett's piano reveals its slightly 'hard' tone, even if the acoustic ambience of the recording isn't fully revealed. The timing, which is core to his playing, remains clear and draws you into the piece - the music shines through,

even if the subtleties of its recording don't. Patti Smith's coarse tones on Horses sound a little lispy, but her carefully honed lyrics are clear and brooding. Meanwhile, the guitar continually threatens to let rip, but without ever upstaging the star of the show. Again, the Phono Box lets the cartridge get on with its job effectively. Next to a good budget CD player, the Pro-Ject/ Goldring combo sounds a bit imprecise, the digital alternative giving a characteristically tighter, clearer sound. Nonetheless, actual detail levels are remarkably close. Moving on to an SME Model 20A turntable with a van den Hul Grasshopper moving coil cartridge proved gratifying, the Phono Box revealing the improvement in dynamics, clarity and imaging with ease. Bass isn't fully investigated, but there's plenty of welly despite the low output.

The Phono Box's competition comes from NAD, Pro-Ject itself and lesser-knowns such as Graham Slee's Gram Amp 1, the latter being the strongest but costing another £20, while the standard Phono Box is £20 less but suffers a touch in refinement. The LE has a niche, a wooden box and a framed certificate; if that appeals, it's well worth a punt. HFC

Jason Kennedy





OVERALL SCORE

LOUDSPEAKERS

It's been a while since we took a long, hard, group test look at the sub-£500 speaker market. With the arrival of some key new products, it's time to pay another visit

The six loudspeakers assembled here all fall within a £250-£500 price span, and the fact that four of the six carry price tags of £350 or £400 shows just how competitive this group, all pulled from the budget end of the market, really is.

The biggest surprise, especially considering the modest prices, was the discovery that all six are floorstanders – the first time in recent memory that we've put together a group that doesn't include at least some standmounts. That such generously endowed speakers sell for such reasonable prices makes you wonder whether perceived value rather than performance has been the priority of the design process.

The advantage of the floorstander is aesthetic. They look attractively all-of-a-piece, which many prefer to the ironmongery that's involved in a standmount. However, the much larger enclosure will compound the unwelcome effects of cabinet colorations, which is inevitably harder to control where the selling price is low and the manufacturing costs are tight, while a tall column shape is acoustically unfavourable too.

One floorstander bonus is that there's plenty of opportunity to experiment with drive unit configurations, several examples of which are found among our six. There's just the one, simple two-way here, and the very compact Mordaunt-Short MS904 is also comfortably the least expensive at just £250 per pair, with only one small 130mm bass/mid driver.

The more muscular Monitor Audio Bronze B4 and Tannoy Fusion 4 are both at £350, and both of them feature twin 165mm drivers. The Tannoy is actually a d'Appolito two-way, while the Monitor Audio has a two-and-ahalf-way configuration.

Of the other three models, none share the same driver line-up. The Focal-JMlab Chorus 714 S and the KEF Q4 both have two 130mm drivers, but the former uses a two-and-a-half-way configuration, whereas the KEF is a three-way, its Uni-Q driver just used for the midrange and treble here. The

ON TEST

biggest model by a handsome margin, Mission's M35 is also a three-way, this time with a pair of 165mm bass drivers plus a third similar driver doing the midrange duties. **HFC**

EQUIPMENT USED

- Burmester 001 CD player
- ⊖ Linn LP12 turntable
- Linn Akiva, Dynavector XV-1 cartridges
- Magnum Dynalab MD 102 tuner
- ⊙ Naim NAC552 preamp
- Naim NAP500 power amp
- Severtex AQ and Naim cables

MUSIC USED

- ⊙ Tom Waits Alice
- Lambchop Aw C'mon
 Outkast Speakerboxxx
- Mari Boine Eallin
- LSO Live Shostakovich
- Symphony No 11
- Scrateful Dead Reckoning
- BBC Radios 3 and 4 were also used extensively



FOCAL-JMLAB CHORUS 714 S £420



MISSION M35





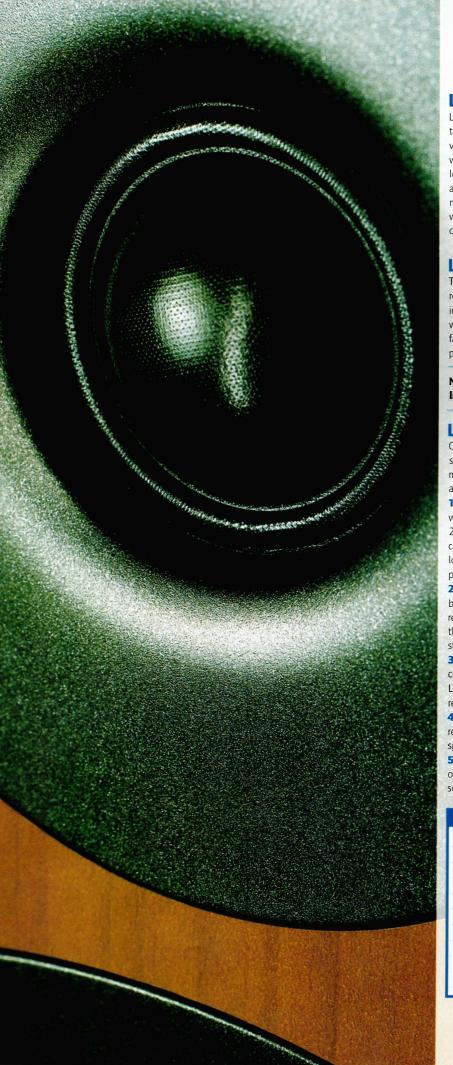
MONITOR AUDIO BRONZE B4 £350



MORDAUNT-SHORT AVANT 904 £250



TANNOY FUSION 4 £350



LISTENING TESTS

Loudspeaker listening poses more complex problems than those involved in assessing other components. Speakers vary greatly, and interact strongly and often unpredictably with the room. The difficulty facing sequential unsighted loudspeaker presentations is the tendency to judge each according to how its balance differs from the previous model. Accordingly, extended hands-on listening sessions were adopted for this group, giving scope to adjust to the changes in balance and to experiment with the positioning.

LAB TESTS

The speakers were tested under in-room conditions to best represent real-world conditions. The equipment used included a Neutrik Audiograph analogue signal generator with synchronised pen recorder, which was used to plot the far-field in-room averaged response traces and impedance plots. Pair-matching was also checked at one metre.

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

LAB REPORTS: THE BAR GRAPH

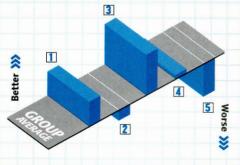
Our 3D bar graphs are a simple way of showing how the speakers compare across quantitative and qualitative measures. Individual parameters are assessed and shown as better or worse than the group average.

1] Sensitivity: Sensitivity measures how loud a speaker will go for a given voltage from the amp. It's scaled to 2.83V at 1 m (one watt for an eight-ohm load). This figure can be misleading, as sensitivity varies significantly and as lower-impedance speakers extract more current and hence power from an amp than higher-impedance ones.

2] Bass extension: A speaker's bass is heavily modified by the room. To replicate 'real world' conditions, our figure represents the averaged bass roll-off frequency at -6dB ref the broad midband, measured across the far field for a stereo pair in a 4.3x2.6x5.5m room.

3] Ease of drive: The lower the impedance, the more current it extracts from a driving amp for a given volume. Lower-impedance designs have higher sensitivities, reducing voltage requirements for given loudness levels.
4] Overall frequency balance: Overall broad frequency response trends do much to define the character of a speaker, although true neutrality is the obvious goal.
5] Response smoothness: The small-scale smoothness of a speaker has much to do with the delicacy of the sound, and its ability to deliver subtle harmonic shading.

OUR BAR GRAPHS: AN EXAMPLE



£420 per pair ☎ 0845 660 2680 ⊕ www.focal-jmlab.co.uk FOCAL-JMLAB CHORUS 714 S

The smallest and cheapest floorstander from the top French brand

nly available in Britain for the last five years, Focal-JMlab has now grown into France's most successful speaker brand by a comfortable margin. The company started out as Focal, making raw drivers for sale to other brands, and for the in-car market. It then introduced the JMlab brand to distinguish its own complete domestic speaker systems, but is now planning to revert to Focal via the double-barrelled Focal-JMlab.

The Chorus 714 S is the fourth of the new budget-price Chorus S-series to come in for *HFC* scrutiny. This £400 floorstander slots neatly into the gap between the £349 standmount 707 S and the £550 floorstanding 716 S – both of which have already received *HFC* Best Buy ratings.

Can the 714 S repeat the same trick or is it perhaps even the best of the threesome? It looks to all intents and purposes like a downsized 716 S, with a somewhat smaller enclosure housing a pair of 130mm cone drivers (as distinct from the 165mm units used in both the 707 S and 716 S).



It's a port-loaded speaker, the two similar (though not identical) main drivers operating in a two-and-a-half-way configuration. The upper one is a bass/mid unit running right up to the 2.4kHz tweeter crossover point, while the lower one is just used to augment the bass region below 400Hz.

The enclosure looks a tad monolithic, lacking any form of plinth to extend a rather small stability footprint. However, the drivers are nicely flush-mounted and the 'calvados' trim option on our samples is, allegedly, covered in a real-wood veneer (the black ash and cherry options combine veneer with laminates).

A new TNC tweeter uses a push-pull double neodymium magnet behind Focal's trademark inverted dome diaphragm. The bass and bass/mid drivers both use cast frames and 100mm diameter 'polyglass' cones. Just a single terminal pair is fitted here, and floor coupling consists of four rubber feet, inset with secure sockets for the supplied 8mm spikes.

SOUND QUALITY

The first thing you notice with the 714 S is its top end, which is clean enough to be sure, but also perhaps a little too strong for its own good. While this certainly ensures you hear plenty of fine detail – vocal consonants are noticeably crisp and well defined – the fact it tends to draw attention to itself becomes a little wearing over the long haul. Furthermore, those observations are made when using the speakers on the end of a top-quality system – with poorer-quality electronics, the consequences might be rather less palatable.

The broad midband is well enough balanced, if not as smooth and even as some, and – as is sometimes the case with two-anda-half-way designs – there's some upper bass emphasis here, adding some thickening and emphasis to cellos and noticeable 'chestiness' to voices, particularly with male speech.

Its best feature is certainly the upper midband, where the uppermost 130mm driver does its thing with convincing coherence and decent dynamic authority, bringing fine clarity and lively expression to the proceedings, without ever sounding unduly exaggerated.

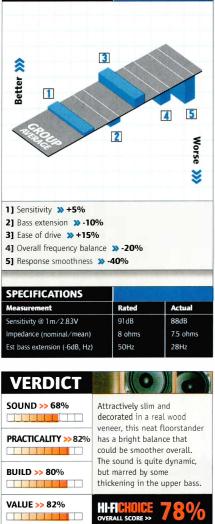
Although the 714 S is a respectable enough performer with some fine qualities, it doesn't quite measure up to its 707 S and 716 S stablemates. The sound quality is a bit of a mixed bag, and much will depend on how well that bright top end fits in with the complete system. **HFC**



LAB REPORT

Focal claims a 91dB sensitivity for this model, with an 8-ohm impedance, both of which stretch credibility somewhat when compared to our findings. Under our far-field, in-room conditions, 88dB looks closer to the sensitivity mark, albeit with some excess in the upper bass region (80-200Hz). As is often the way with two-and-a-half-way designs, the impedance is down around 4-5 ohms through much of the bass, where programme demands are likely to be high.

When free-space sited, the bass is particularly strong between 90-150Hz, though it rolls off gently but steadily below 90Hz. Some wall reinforcement might be beneficial, but risks further exaggerating the zone around 100Hz. Above the bass region, the overall frequency balance is pretty good, though not particularly smooth with it, while the relative treble level is a little stronger than average. Pair matching is pretty good, the most significant discrepancies only occurring above 10kHz.



£400 per pair ☎ 01622 672261 ⊕ www.kef.com **KEF 0.4**

KEF's new Q4 looks stunning – but how does it sound?

EF is one of Britain's best known hi-fi speaker brands (its initials stand for Kent Engineering Foundries) and it still maintains its headquarters in Maidstone, although the company is now owned by Chinese interests, which is where most of the production actually takes place these days.

KEF has been producing successive ranges of Q-series speakers for more than a decade, gradually evolving the technology and refining the designs. Although we've reviewed a dozen or so examples down the years, this brand new Q4 is far and away the best looking. On a scale of one to ten, the Q4 scores a straight 11 for style – and not just because of its pretty silver grille.

This very compact loudspeaker stands just 82cm tall with a slim front panel, thanks to the use of small 130mm drive units. The most striking feature, however, is the curved sides, and the way the whole speaker is tapered towards the rear: the front is just 16cm wide, increasing to around 17cm part-way back,



then ending up just over 8cm wide at the back. Such an arrangement not only looks cute, it also helps to spread out the internal reflections and standing waves.

Surprisingly, given its compact dimensions, this is a three-way design, using a port-loaded 130mm bass-only driver with a 95mm cone. Midrange and treble are covered by a similar size Uni-Q driver, in which a very compact 19mm tweeter is positioned on the central polepiece of the main driver, at the 'acoustic centre' of the main cone, making mid-to-treble crossover integration that much simpler.

A neat metal bracket adds some necessary extra width for the rear spikes, though the small footprint still somewhat compromises stability. The spikes are nice shiny 8mm affairs, and while the use of thumbwheels rather than proper lock-nuts helps to avoid over-tightening, it also makes it next to impossible to secure the spikes properly.

SOUND QUALITY

There's not a lot of bass here, so close-to-wall siting is indicated and it works pretty well – this is no deep bass excavator, for sure, and doesn't really delve into the very lowest octave, though it does a decent enough job above that point. However, it shouldn't be placed too close, as this tends to increase coloration in a midband that is otherwise unusually free from boxiness. You'll need to experiment *in situ* for the best compromise.

Although the Q4 does sound a little lightweight and doesn't have the most invigorating dynamic expression, its midband is truly exceptional, especially for a budget speaker, and a clear vindication of the unusual cabinetwork. Imaging too is impressively precise, thanks presumably to the fine spatial coherence of the Uni-Q driver.

There is a slightly 'shut in' quality to voices, because the presence is perhaps a little too restrained, but the midband proper is smooth, even and distinctively clean and unboxy. The top end is also smooth, cultivated and well judged, ensuring good detail and sweetness without shouting about it.

The Q4's most natural role is probably in a 5.1 multichannel system, where additional subwoofery will augment its modest bottom end and allow it to be kept well clear of a wall. But it still makes good sense in a stereo context too: the sound has its own distinct character, but the splendid freedom from midband boxiness is its own reward. **HFC**



LAB REPORT

Under our measurement regime, a sensitivity rating of 88dB is closer to reality than the 90dB claimed by KEF, while an 8-ohm impedance rating would seem to gloss over dips below 4 ohms that occur around 100Hz, and then again around 400Hz. These are both sectors of the spectrum where programme energy demands are liable to be high.

Located clear of walls, the Q4's in-room, far-field averaged responses show a well-judged balance across the upper bass and broad midband, from 90Hz up to 1.8kHz. Away from a wall, output falls quite rapidly below 90Hz, so it's definitely worth experimenting with some close-to-wall reinforcement. Placing the Q4s about 20cm from a wall gave a worthwhile bass boost, effectively improving useful extension to around 40Hz. Above 1.8kHz the treble is rather more restrained than average, though the pair matching is definitely better than most.



£400 per pair ☎ 01480 423700 ⊕ www.mission.co.uk **MISSION M35**

Mission's new three-way offers massive material value for money

t was Walter Chrysler, the US auto manufacturer, who defended his cars' large engines with the quote: "There's no substitute for cubic inches". Whether the same logic applies to loudspeakers is more debatable – there are powerful arguments both for and against big loudspeakers – but someone at Mission must have taken note, because this £400 m35 is a seriously large speaker that dwarfs the others in our test.

It's not just large, it's also well equipped – the only one in this test group to feature a proper separate plinth, and the only one with four drive units too. It's a three-way design using three 165mm drive units. Two operate in tandem for the bass, while a third midrange-only unit is mounted above the tweeter – this aids crossover integration and has long been a Mission trademark.

The drivers, called DiaDrive, are unusual in featuring a double-cone arrangement. The visible dish-shaped ('curvilinear') diaphragm is lightweight paper, and this is driven from behind by a stiffer, regular cone.



The enclosure can be the weak spot in large, low-cost speakers, so Mission doubles up the front panel to a 35mm thickness, and adds some elegant and purposeful shaping too, which should help to smooth lateral dispersion. The bass is loaded by a large front port, with foam bungs supplied to block them if preferred, while a small foam-filled rear port ventilates the separate midrange enclosure (purely to compensate for changes in atmospheric pressure).

Grille mounting is particularly neat, twin terminals provide for bi-wiring and magnetic shielding is also included. Decent 8mm spikes are supplied, but are fixed by ineffective thumbwheel locking nuts (which often loosen, though they do prevent overtightening).

SOUND QUALITY

The m35 is very different in size and driver line-up from the others in the test, so it's hardly surprising to find a rather different set of sonic compromises. The large, port-loaded enclosure and twin bass drivers deliver a whole lot of bass output – enough to make most movie fans very happy without much need for additional subwoofery, though arguably rather too much for general music reproduction, even with the speakers clear of walls. Mission supplies port-blocking foam bungs to curb any excess, and with these in place some wall reinforcement was helpful.

Although there's ample bass weight (ports open), the sound might have more vigorous dynamic expression. It's actually a little too cool and thin overall, and would benefit from a little more warmth and upper bass drive. That's partly because the bottom end seems a shade detached from what's happening in the midband and treble, but mostly because the m35 sounds unusually bright and open towards the top end of the audio band.

That has advantages and disadvantages. On the plus side, it means that detail is clear, obvious and well projected, rendering speech clearly audible even at very low levels. Less happy is its tendency to sound aggressive and scrappy when the volume is turned up, which means the top end, which is not the sweetest or classiest, is left a little exposed.

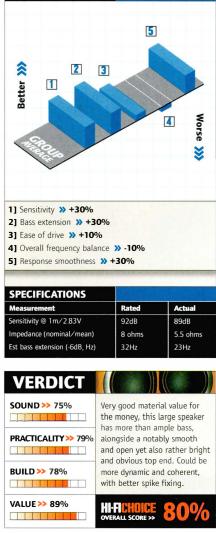
This is a whole lot of speaker for the money, though. It also has a rather different tonal balance from the norm – rather heavier in the bass and brighter at the top end – and as such could well attract movie buffs as much as music fans. **HFC**



LAB REPORT

Mission's claim that the m35 achieves a sensitivity of 92dB falls short of our measurements - 88-89dB is a much more realistic figure at any rate for frequencies above 150Hz. Below that frequency, and with the reflex ports left open, output is 4-5dB too strong from 40-100Hz, even with the speakers well clear of walls. Blocking the ports reduces output quite dramatically below 90Hz.

Output above 150Hz is remarkably smooth and flat, with no sign of the downtilting in the presence and treble sectors, which is the norm when measured under far-field, in-room conditions. While this flatness is creditable in itself, output is rather shy through the midband proper compared to the norm, and could probably be 3dB stronger between 150Hz-1kHz. The impedance stays pretty low throughout, confirming the '3.6 ohms minimum' in the spec, and never rising above 8 ohms. Pair matching is respectable but unexceptional.



£350 per pair ☎ 01268 740580 ⊕ www.monitoraudio.co.uk MONITOR AUDIO BRONZE B4

MA's entry-level Bronze range gives great sound per pound

onitor Audio has three key ranges of hi-fi speakers: Bronze at budget prices, Silver filling in the mid-price sector and the much more upmarket Gold Reference series. The company's original Bronze series models performed rather well when we reviewed several models a couple of years back, although it has to be said they weren't the best-looking examples of speaker styling around at the time.

That's the most obvious change with the current range, which now covers the whole cabinet with a vinyl woodprint, while flush-mounting the drivers and chamfering the front edge. The Beech version used here looks pretty good, while Black Ash and Rosemah are the other options available.

Keenly priced at £350, this Bronze 4 is a full two-and-a-half-way design, based on bass-only and bass/mid drivers with 165mm frames. These both have shiny silver 120mm cones in a Mk2 version of the MMP (metal matrix polymer) material introduced in the



original Bronzes, and each is secured by eight fixing screws. Classic Monitor Audio styling cues include a mesh-protected shiny metal dome tweeter in a copper anodised hue.

Small ports are fitted front and rear, and enclosure rigidity is improved by multiple bracing positioned at critical resonance nodes. Twin terminals are set halfway up (or down) the rear panel for bi-wiring, but proved too tight a fit for some 4mm plugs. Cone-type spikes are supplied, but there seemed to be no means of locking the cone to its shaft and the shaft to the enclosure with just the one lock nut supplied with each. Equally unappealing is the rather small overall speaker footprint, which means that stability isn't that great.

SOUND QUALITY

As with the earlier Bronze models, the B4 represents an exceptionally good, all-round compromise. It's not easy to achieve a wide bandwidth and neutral tonal balance within the tight budgetary constraints that apply with this group, but the Bronze 4 gets closer to the ideal than most of its test rivals.

It's not perfect – there's a little too much upper bass warmth, which adds a touch of thickening to textures and a degree of chestiness to speech. There's also a touch of timesmear, which is because the two-and-ahalf-way never quite matches the precision of a simpler two-way. But the midband has always been the most important part of the audio band, and it's here that the B4's fine evenness and neutral perspectives stand out.

Add in a bass end that goes satisfyingly deep with good smoothness and lack of exaggeration, a presence band that manages to sound invitingly open without crossing over into unwanted forwardness, plus a top end that simply supplies the fine detail without ever drawing undue attention to itself. The net result is a beautifully judged all-round sound that makes it easy to forget about the speakers and focus on the music.

It's not the last word in dynamic expression, but the overall dynamic range is very good nonetheless, and the image precision provides further evidence of the good enclosure engineering. The spikes and terminals remain sources of minor irritation, and the lack of close pair matching between the tweeters of our samples is still a cause of concern, but such criticisms are insufficient to spoil such a delightfully well balanced design. **HFC**



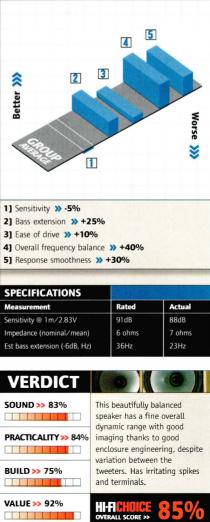
LAB REPORT

Monitor Audio optimistically claims a 91dB sensitivity here, with our far-field averaged measurement indicating that 88dB is closer to reality. The claimed 'nominal 6 ohms' impedance is realistic, however, as this allows for the 4-ohm minima registered at 40Hz and 13KHz.

The overall in-room frequency balance looks very well controlled, with good ultimate bass extension, alongside a relatively smooth and well balanced output right across the audio band under far-field in-room conditions. There's a slight excess from 80-150Hz, plus a slight lack through the broad midband at 150-800Hz, but the presence and treble look particularly well judged.

Pair matching looks fine through the bass and midband, but there was a discrepancy in the relative treble level, amounting to at least 2dB above 7kHz. While this doesn't look too good on paper, its consequences might not be too severe in practice.





£250 per pair ☎ 0845 128 3951 ⊕ www.mordaunt-short.co.uk MORDAUNT-SHORT AVANT 904

This pretty, compact floorstander is exceptionally sharply priced

ordaunt-Short is one of the classic names in British hi-fi speakers, long known for producing some of the best budget models around. The brand has been through a number of changes over the years, culminating when The Audio Partnership purchased it from the TGI Group in 1999.

HFC reviewed a very pretty 902 standmount back in Y2K, and this new Avant 904 is closely related to that one *(not to mention the Avant 906 tested last issue – Ed).* In M-S parlance, a 904 is actually a floorstanding variation on the 902 theme, while the Avant bit refers to the fact that it's a 'second generation' model, still adopting the same overall configuration as the original 902/904 designs, but with various detail improvements.

The notably classy cosmetics remain much as before, with a combination of an aluminium 'skin' covering the part of the front panel where the drivers are mounted, plus a matching aluminium alloy for the diaphragms



of both main driver and tweeter. An ellipsoid 'dish' around the tweeter carries echoes of previous Mordaunt-Shorts, and the drivers are mounted from behind to create a super-clean front panel. The result, complete with elegantly embossed name, looks very sharp.

The main driver incorporates magnetic shielding and uses a small 100mm diameter dish-shaped diaphragm. Described as CPC (Continuous Profile Cone) technology, it's further refined by the addition of small radial ribs set in from the edge, which will improve stiffness. The tweeter has a mesh-protected 25mm metal dome.

The bi-wire terminal pairs are mounted halfway up the back panel, just below the reflex port – a sure sign that only part of this floorstanding enclosure is acoustically active. There's a blocked-off hole just below the terminals too, so that ballast can be added. Moulded feet improve the mechanical stability of the attractively slim enclosure, which is available in black or maple finish.

SOUND QUALITY

The Avant 940 might be a floorstander, but that doesn't disguise the fact that it has just one small bass/mid driver to do most of the work. As such, its sound quality is much closer to the typical seven-litre miniature than the other floorstanders assembled here.

The relatively large enclosure and port mean there's ample mid-bass for free-space siting, with no need for close-to-wall reinforcement. The bottom end sounds quite clean, with no obvious chestiness on male voices, for example, but at the same time it does rather lack muscle and welly. Some discs too showed a slight tendency to 'thump' at the lower end of the bass guitar register.

The overall tonal balance is broadly neutral, and the relative treble level looks particularly well judged, though there is a degree of forwardness that tends to emphasise some residual midband boxiness.

The simplicity of this two-way is reflected in its fine overall coherence, which is especially audible when reproducing voices. But at the same time dynamic expression seems a little flaccid and weak, and this tends to rob the music of some of its vigour and enthusiasm.

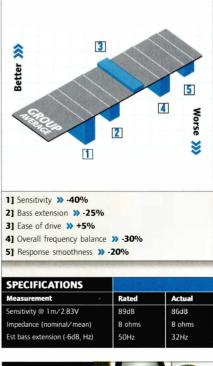
The Avant 904 is a great-looking speaker, especially in view of its very modest price. It also sounds clean and impressively neutral, with precise focus and imaging, though grip and dynamic tension are not its forte. **HFC**



LAB REPORT

The claim for an 89dB sensitivity looks rather optimistic – although it just about achieves this figure at a midrange peak around 1.1kHz, and also near to the port's maximum output at around 50Hz, its specific output is actually closer to 85dB through the broad midband. However, the impedance is an easy load, staying at 6 ohms or higher across nearly the whole band.

The overall frequency balance is quite smooth and even in the midband, but it has a rather too obvious broad upper-mid peak centred on 1.1kHz that will have a substantial effect on the sound quality. Under our in-room conditions there's also a distinct peak at around 50Hz, presumably owing to the port, and the treble could have been smoother. Pair matching might have been closer too, with some impedance variations at the bass end, and response variations both in the mid and (especially) the treble.



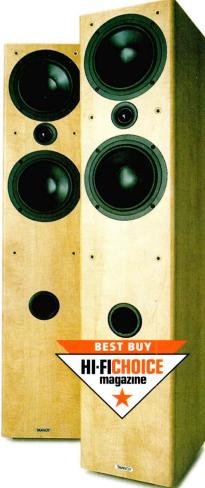


£350 per pair ☎ 01236 420199 ↔ www.tannoy.com

Tannoy's Fusions are more muscular than their mX-M predecessors

aving spent some seven years exhausting all variations on the Mercury mX-M nomenclature themes, Tannoy has come up with something fresh to christen its new range of budget speakers. There are six Fusions, including four regular stereo pairs – two standmounts and two floorstanders – plus matching centre channel and small surround models for the multichannel sector.

This £350 Fusion 4 might be the largest and most costly in the range, but its generously built enclosure and twin 170mm main drivers clearly represent fine material value for money. In a very real sense, this Fusion 4 is a successor to the mX4 we reviewed in 2001, and the interim mX4-M more recently introduced. But whereas those earlier models adopted a two-and-a-half-way configuration, this new one uses an even simpler two-way arrangement, albeit with two matching main drivers mounted above and below the tweeter in what is usually referred to as a d'Appolito layout.



The port-loaded enclosure is actually 25 per cent larger and thicker than that used in the mX4 to improve control. The front panel has nicely rounded edges and is finished in a good-looking 'apple' vinyl woodprint. The whole thing looks rather monolithic, lacking any form of plinth, but the spike fixing was satisfactory and stability seems respectable enough. The grille mounting lugs (though not the port) are coloured to match the enclosure, which is a nice touch, while the grille itself is an attractively neutral purplish-brown.

The main drivers are larger than those used in the mX4 too, by around 10mm, and are closely based on those used in the more upmarket Revolution range, though the 120mm diameter paper cones are actually no larger than those normally found in 165mm drive units. The drivers are magnetically shielded, the tweeter has a 27mm soft dome and neodymium magnets, and twin terminals are fitted to allow bi-wiring.

SOUND QUALITY

D'Appolito-type speakers can sound excessively recessed through the crossover region, and while this Tannoy certainly does have a rather laid-back character, it manages to avoid this effect becoming too obvious and obtrusive. Nobody would accuse it of being presence-forward, but it's no more laid back than many other regular two-ways.

The overall tonal balance is exceptionally good – not only impressively neutral overall, but also unusually smooth, especially through the bass region. This speaker is better kept well clear of walls for best bass alignment, though foam bungs are supplied to reduce the port contribution. The voice band might be just a little too restrained for some tastes and the treble proper a shade too obvious, but these comments should be taken more as observations than criticisms.

This speaker has a vivid coherence, with a freedom from timesmear more typical of a simple two-way than multi-way designs with more elaborate networks. But there's a bit too much warmth and thickening of bass textures, though it has more dynamic vigour and expression than the budget speaker norm.

Speakers at these prices aren't free of compromise, but Tannoy's budget floorstanders are unintrusive and well chosen. There's character here, but the Fusion 4 does a top job of preserving and communicating the musical messages behind the sound. **HFC**

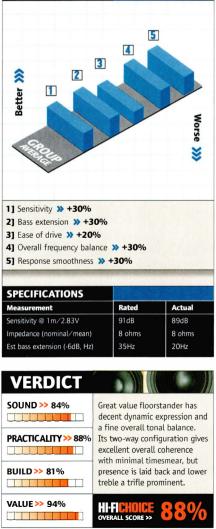


LAB REPORT

Tannoy claims 91dB sensitivity here, which is just a little higher than the 89-90dB that our measurements indicate. This is also a relatively benign load, as the impedance stays above 5 ohms throughout, and the bass extension is pretty good too, the far-field in-room -6dB point occurring at a low 23Hz, thanks to a low port tuning of around 40Hz.

Although it's not particularly smooth, showing regular +/-3dB perturbations across the band, the overall balance is exceptionally good, staying effectively broadly neutral from 30Hz right up to 1.2kHz. Above that point there's a broad, shallow presence suckout at around 1.3-3.5kHz, reaching a -4dB minimum at 2kHz, followed by treble recovery at around 4kHz.

The pair match is pretty good, across most of the band at any rate, though a rather strange low frequency anomaly was seen on one of our pair, with an additional 'kink' at around 60Hz.



CONCLUSIONS

There's plenty to excite and exacerbate at the sub-£500 end of the high-quality speaker market

t's been more than two years since HFC took a long, hard look at the budget speaker sector, and it's interesting to note how the market has evolved and how these inexpensive models compare to the more costly loudspeakers we normally cover.

It was quite a surprise to find that all six of these were floorstanders, and it soon became clear that most - if not all - had probably been designed with rather more than half an eye on the home cinema scene. The decision to opt for a floorstander

rather than a standmount in itself tends to imply some degree of movie bias, while magnetic shielding is the rule here rather than the exception.

The measurements were interesting in two particular respects. Firstly, the pair matching was noticeably less accurate and well controlled than was the case with the more costly speakers tested in May (HFC 253) Secondly, manufacturers seemed much more inclined to exaggerate their sensitivity ratings among these less costly models.

The reason is probably simply to 'out spec' their competitors, on the basis that the bigger number has the sales advantage, and that few if any will bother to check. Indeed, one factor that distinguishes these cheaper models from more expensive alternatives is that sensitivity is somewhat lower, probably because they use less costly and less powerful magnets.

Given their modest prices, it's no surprise to find that all of these models offer very good value for money. Even though

there are obvious economies. the standard of performance was pretty impressive throughout, so picking out the Best Buys was far from easy.

Ultimately, the Tannoy Fusion 4 and Monitor Audio Bronze B4 stand out in this group. They cost £50 less than several of their rivals and have the edge in overall balance and coherence. Picking them out, however, should not imply that the others aren't equally worthy of attention, especially if stylish presentation is a prime consideration. HFC

HINTS AND TIPS

Floor-coupling spikes need tight lock-nuts. but don't over-tighten them or you'll strip the threads. Finding the right place to put the speakers acoustically is vital. Moving a speaker from a free space location until it's close to a

wall will substantially boost the mid-bass output. Expect speakers to improve over the first 100 hours or so. Use decent speaker cable, if you want your system to perform at its best

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	03	e e			0:	
MAKE MODEL	Focal-JMlab Chorus 714 S	KEF Q4	Mission m35	Monitor Audio Bronze B4	Mordaunt-Short Avant 904	Tannoy Fusion 4
PRICE	£420	£400	£400	£350	£250	£350
SOUND						
PRACTICALITY						
BUILD						
VALUE						
OVERALL						
CONCLUSION	Attractive, slim, real wood floorstander that is brighter than average and could be a little smoother overall.	Beautiful, bijou three- way floorstander with curved cabinetwork. It lacks bass weight, but has a lovely midband.	Big and hefty floorstander that has plenty of bass, plus a very open presence and top end.	Improved cosmetics plus a superb overall balance that's neutral and free from exaggeration.	Pretty 'miniature plus' has a rather forward and exposed upper mid, and a slightly thumpy bass.	Big d'Appolito twin two- way has fine coherence and dynamics. An unusually refined budget floostander.
KEY FEATURES	and a second					
SIZE (WXHXD)	20x90x27cm	18x82x25cm	26x103x37cm	18.5x85x26cm	16.5x80x27cm	20.5x97x29cm
DRIVER CONFIG	2.5-way	3-way	3-way	2.5-way	2-way	2-way
MAIN DRIVER SIZE(S)	2x130mm	2x130mm	3x165mm	2x165mm	1x130mm	2x170mm
STAND/ FLOOR	Floor	Floor	Floor	Floor	Floor	Floor
CABINET FINISH	Real wood	Vinyl woodprint	Vinyl woodprint	Vinyl woodprint	Vinyl woodprint	Vinyl woodprint
BI-WIRE	No	Yes	Yes	Yes	Yes	Yes
LAB CONCLUSIONS	E = EXCELLENT • G = GOOD	• A = AVERAGE • P = POOR	and the state of the state		The Martin Control of the	
SENSITIVITY	88dB A	88dB A	89dB <mark>G</mark>	88dB A	86dB P	89dB <mark>G</mark>
EST. BASS EXTENSION	28Hz A	38Hz P	23Hz G	23Hz G	32Hz A	20Hz G
IMPEDANCE (MIN/ AVE)	4.5/7.5 ohms A	3.3/6 ohms P	3.6/5.5 ohms P	4/7 ohms A	5/8+ ohms E	4.5/8 ohms G
OVERALL FREQ. BALANCE	-20% A	-20% A	-10% A	+40% G	-30% P	+30% G
RESPONSE SMOOTHNESS	40% P	-20% A	+30% G	+30% G	-20% A	+30% G



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 boxed - not even run in - includes BAM active bass e.q. module. Aloia PST 11.01i Hi-end 2 box pre-amp - Italian style - slick and snazzy. One 	£4000	£8000
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Cary CD303 CD player. Boxed - perfect - 36 months old - no offers, giveaway	£1100	£3000
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SME mount	£900	£2000
Pro Ac Studio 200 - yew - nice - vgc	£1000	£2150
Rega RB900 tonearm. Boxed - unused - no offers	£500	£650
Lavardin 15 power amp. As new - 11 months - boxed - as good as new	£850	£1400
Naim SBL. Walnut - boxed - 10years old. Fine working order, good condition.		
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Very good - better than LP12	£350	
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Snell K, Jll, Ell cabinets. Lovely finish but perished drive units - per pair	£100	
Eastern Electric Mini Max line pre-amp - excellent hard wired valve-rec pre	£500	£1000
Hovland Interconnect - One metre - newish - perfect condition - boxed	£180	£450
Canary Audio superb pre-amps and power amps - various - ring for details	¢	
Kondo ANJ M7 line pre-amp - 5 years old - guaranteed genuine item - fully		
serviced by Japan	£4500	
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Auditorium Avatar Hi-Fi Plus Editor's Choice Hi-Fi Plus Product of the Year Hi-Fi Choice Editor's Choice

"The Avatar is a near perfect balance of size, bandwidth, efficiency and tonal refinement. Its slim lines and small footprint deliver a genuine 94db sensitivity, and excel when it comes to delivering the scale, vibrance and colour of the music. Its unobtrusive quality allows it to cut straight to the heart of a performance, unlocking the music trapped in the recording, whilst its refinement makes it equally at home with both basic and surprisingly expensive amplification.

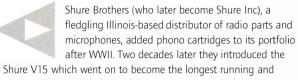
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RETRO

SHURE V15 PHONO CARTRIDGE



perhaps the most iconic cartridge ever made. But in some ways it is a success story of a product that flew in the face of fashion.

There never was a V15 Mk1. The first version was actually the V15 II, introduced in 1964 as a development of the M75ED II from which it inherited its suffix. It made a modest splash, but nothing more - the one that really made people sit up and take notice was the £120-ish MkIII. Like all V15s, it was a high-output moving magnet cartridge, fitted (in its main version) with a detachable MicroRidge extended contact elliptical stylus. It had little in common with most moving coils which were just beginning to establish themselves at that time. The ability to remove the stylus during installation was an excellent way of avoiding expensive accidents, and made it easier to replace. Some of the V15 stylii came with a viscous-damped carbon fibre brush, which fitted in front of the stylus to help reduce static and remove stray dust, and also to damp down the main arm/cartridge resonance. Musically, the V15 III was warm, attractive and consistent; it didn't bite back, as some of its competitors did.

The V15 III was eventually succeeded by the V15 IV, which didn't last long, and which was not a great commercial success. Indeed, even Shure UK has trouble remembering this model, except to note that it was quickly replaced by the MkV, which featured a beryllium cantilever, improved tracking and a wider frequency response. While this version was certainly successful, there are still some who prefer the MkIII.

The main selling feature of the V15 was summed up in a word which was invented by Shure, or perhaps their advertising copywriter – trackability. The V15 would track happily and securely with a downforce of around one gram, and the relatively low pressure on the groove sidewalls meant that compared to its contemporaries, the Shure *cosseted* the groove, and the record ended up in better condition after a number of plays. In this it

"Low pressure on the groove sidewalls meant that compared to others, the Shure *cosseted* the groove."

contrasted not just with moving coils, most of which had a stiffer suspension compliance and which require a tracking force roughly double the Shure's. I once used a V15 III, and was dramatically reminded of just how much better the Shure was for the health of my record collection after changing to a Decca (I forget which version), which was also a moving magnet, but which had a very low vertical compliance, and a stylus which had a propensity to plough its own furrow through the soft, vulnerable, precious vinyl. The problem was that I only found out how much my records had been recut after I changed to another cartridge, and many of them still bear the marks.

This much wasn't really a matter of controversy at the time. What was controversial for Shure was the fact that the V15 was a moving magnet design in a market rapidly turning its back on high-end moving magnets. There were several reasons for this, the greater structural integrity of cartridges with fixed stylus assemblies being one. Another was that high compliance cartridges like the Shure had massive arm resonances (read instability and boom, and poor stability with warped discs) when used in anything but the lowest-mass arms. Shure V15s often seemed most comfortable in SME 3009 arms, but increasingly through the 1970s, the arms of choice for the preferred belt drive turntables of the day were higher-mass designs like the Linn Ittok, which worked best with lower compliance cartridges.

There was also a common perception that moving coils often sounded bolder and more direct. But let's not gloss over the influence of peer pressure here. MCs were simply the fashionable option, they were the type that every Linn LP12 owner, or aspiring owner, needed to ensure credibility. But Shure had the last laugh, and the V15 V is still available, as the V15xMR. HFC Alvin Gold

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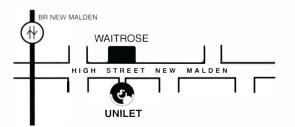
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Horses

When Patti Smith burst onto New York's nascent punk scene with *Horses* in 1975, she really couldn't have chosen a better time to become eulogised. Arriving as most of her heroes of the sixties (the Doors, the Stones, the Velvet Underground, Them, the Who, Dylan, Hendrix) had either died or become bloated shadows of their former selves, but before the blisteringly redemptive white heat of punk, she brought a can-do, get-in-there attitude which came straight from the sixties garage but which she married to her own poetic vision of personal redemption through art. High-flown it may have been, and perhaps with ambitions beyond her ability, but the fact is that she made it work, almost by sheer force of personality.

Live, she had convinced audiences through the power of her delivery – she even convinced Bob Dylan to let her join the Rolling Thunder review at one point, just before her own career took off. But on record, there was a job to do to translate her often oblique rabble-rousing into a coherent message. *Horses* was recorded at New York's Electric Lady studios, scene of one of her many rock hero's successes – Jimi Hendrix's *Electric Ladyland*. Velvet Underground instigator John Cale agreed to produce and clearly knew a good thing when he heard it, appropriately keeping the overall sound sparse, crisp and articulate. Smith's voice is pushed to the fore throughout, although there are some notable musical flourishes from Television guitar wizard Tom Verlaine and empathetic pianist Richard Sohl.

Cale proved an ideal collaborator for Smith. She later said, "In my mind I picked him because his records sounded good. But I hired the wrong guy. All I was really looking for was a technical person. Instead, I got a total maniac artist. I went to pick out an expensive watercolour painting, and instead I got a mirror."

Her voice, often derided as an off-key howl or merely spoken word, actually runs through a whole gamut of styles on her debut. Though hers is far from a classic singing voice, this is very much a vocal album, with Smith's limited harmonic range made up for by the broad variety of moods and styles she incorporates. The album begins with the poetical recitation style she used for her early live



"She combined the clarity of a folk singer with the power of rock, and with a sound that was all her own."

poetry readings on a cover of the Van Morrison standard *Gloria* (rewritten as a lesbian lust story combined with a paean to theological freedom – she had a lot to get off her chest). But there's also room for her disarmingly sweet, melodious singing on the reggae-tinged *Redondo Beach*, raw rock power on *Free Money*, and even some weird vocal stylings, like when she slaps her throat on *Break It Up*. Yet throughout her voice is distinctive, clear and strong, very different from anything that had gone before, combining the clarity of a folk singer with the power of a rock icon in waiting, and possessed of a sound that was all her own.

The album's two centrepieces are classic Smith – long, improvised tone poems reminiscent of the Velvet Underground, but musically more contained, and lyrically much more wideranging, allowing Smith to give full vent to her obsessions. The nine-minute *Birdland* is a surreal tale which builds from a quietly spoken intro into a crescendo of violent catharsis, while *Horses* starts off as pure beat poet impressionistic evocation of rebellious youth before morphing into a pumping version of Wilson Pickett's *Land Of A Thousand Dances* and finishing on a quietly pregnant evocation of possibilities. It's all put over with a wilful swagger and unquestioning self-belief, which is perhaps the key to its continued popularity.

The current CD version, re-released as part of the four-album 'Patti Smith Masters' series by Arista in 1996, made a decent 20-bit transition from analogue and added a B-side, a raw live version of *My Generation* featuring John Cale on bass. The extra track is hardly essential, and does rather spoil the otherwise selfcontained mood of the album. A better bet if you're so inclined is the recent 180g vinyl reprint from Simply Vinyl, which retains all the spit and fire, mystery and pathos of the original. **HFC**

Dave Oliver

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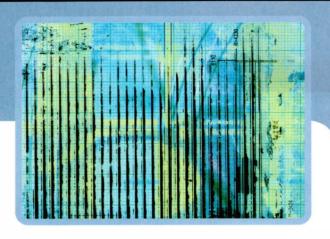
We've all grown used to the idea of jitter. The name is nicely descriptive – it consists of small variations in the timing of samples in a digital system. The word is seldom applied in the

context of analogue signals, but it can be used to mean small time variations in the signal – imagine taking a simple sine wave and locally stretching or compressing the horizontal axis a little. That's pretty much what happens when a turntable is driven by a less-than-perfectly-round motor pulley or a cassette is played over a bent capstan, and we know those as 'wow' and 'flutter'.

Jitter is the same thing as wow and flutter but on a different scale, typically more rapid variations in pitch but over a smaller range. Digital audio has always advertised wow and flutter as being 'below measurable limit', and in traditional terms that's correct. However, small time variations do exist and their effects are measurable. They are also often audible.

We don't hear time variations of sub-nanosecond (a thousandmillionth of a second) amplitude directly. However, analysis shows that they cause the creation of frequencies not present in the original signal – the classic definition of distortion – and those frequencies might well be audible. Much depends on the details of the jitter, but in general we must assume that very low levels must be reached before it can be regarded as inaudible. Like any other form of distortion it can never be 'eliminated', so beware any product or manufacturer that claims to do so!

Hang on, though. How does this largely digital phenomenon get to the analogue output anyway? This is one of many areas where distinctions between analogue and digital are hazy and unhelpful. Consider a DAC: digital in, analogue out. But forget those labels for a moment and recall instead that it's basically one electronic signal in, another out. Now let's complicate things a little and state that the input is really *two* signals: a numerical code representing amplitude, and a clock signal that defines the exact time at which that code must apply. That code is digital all right, with a defined range of exact values; no more, no less. But the clock? Superficially it looks digital, since its signal is a nice square-ish pulse of some sort. But in fact the critical thing is the



"Like any form of distortion it can never be 'eliminated', so beware any product or manufacturer that claims to do so."

time at which the voltage rises (or falls, as the case may be) and that's analogue all the way. It can take any of an infinite variety of values, but a digital system can't do that.

What's more, that clock controls everything within the DAC including the output, and so any variation – jitter – in the clock will appear in the output. Now the clock itself will in practice be pretty stable, ideally having been produced by a crystal or other high-precision generator. Stability equals low jitter, but it will have *some* jitter and it can be influenced by all sorts of things, including, importantly, power supplies around and within the DAC chip. What I'm saying is that you can't take it for granted.

Good designers realised this long ago, and the best DACs, some of them built into surprisingly cheap CD players too, have very low jitter, which is great. But many real-world digital units are sensitive to jitter from the source (poorly pressed CD, imperfect DAB reception, asynchronous hard disk), from a connection (S./PDIF or TOSLINK from another digital unit) or from internal interference (power supply noise etc).

In theory, when making a digital copy of a digital source, only the codes are copied, not the clock. This means that excessive care needn't be taken against jitter when recording, as jitter doesn't record. But the prevalence of 'asynchronous sample rate converters' in recorder inputs means that jitter is just as critical there as anywhere else. Still, if you have a good CD recorder with a transparent digital input, one of the best ways to de-jitter a (44.1 kHz) source is to copy it to a good brand of CD-R and play it on a good CD player – the differences are often not subtle. Of course, a perfect DAC would reject all the external jitter anyway... memo to designers, with apologies to the several who clearly know this already: "The clock, it's all in the clock". HFC *Bichard Black*

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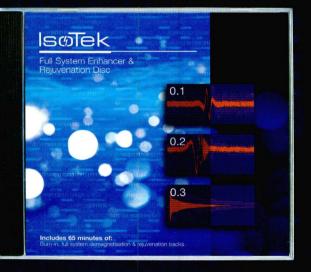
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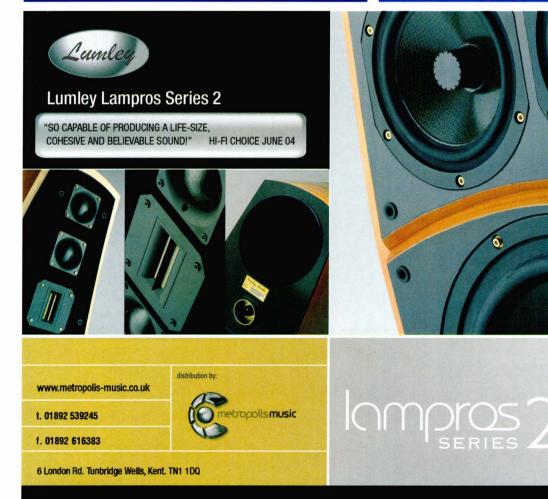
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INTRO BUYER'S BIBLE

FEIDE RUYERS BIRL

Welcome to the *Hi-Fi Choice Buyer's Bible* – the ultimate guide to the very best high performance hi-fi and AV gear you can buy. Here you'll find all our favourite current products listed under easy to use categories, together with useful information on what to look for and how to get the most from your components.

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Our test results are the most reliable in the business. We employ the most experienced reviewers and use the most thorough techniques to ensure our ratings are the ones you can trust. All the equipment we rate most highly is contained within these pages, from CD and vinyl to the latest multichannel disc players. Whether hi-fi stereo or high performance surround and vision, these components will take you a step closer to reality.

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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 featured in the *Hi-Fi Choice Buyer's Bible*. Any Best Buy or Editor's Choice Badges awarded are also displayed.

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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 socalled two-box players. A popular approach with very high-end kit, this separates the electronically noisy elements from the sensitive analogue stages, but can introduce timing errors known as jitter, therefore one-box players usually offer best results where budget is a consideration.

SUPER AUDIO CD

SACD or Super Audio CD is a relatively new audio-only format introduced by Sony and Philips. It offers higher resolution than CD in the form of considerably greater bandwidth and improved dynamic range. It also has the potential for uncompressed 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.

0&A

WHAT'S A DAC?

A DAC or digital-to-analogue convertor is a fundamental part of any CD player and converts the digits read from the disc into an analogue music waveform which is amplified to line level.

WHY HAVE SEPARATE TRANSPORTS & DACS?

Discs are read by a transport or disc drive, which creates radio frequency 'noise'. Separating the DAC means the conversion can be done with less interference.

CAN I USE AN OUTBOARD DAC WITH MY INTEGRATED CD PLAYER?

Yes, if it has a digital output - and most do.

DO I NEED DIGITAL CABLES FOR A CD PLAYER?

No. All analogue cables are suitable for connecting a CD player to an amp. Digital specific cables with 75ohms impedance are useful when connecting the player to a digital recorder or DAC.

WHAT IS OVERSAMPLING/UPSAMPLING?

Oversampling involves multiplying the sampling frequency by a whole number, usually between four and 32, but sometimes higher, and is designed let the DAC to work in a more linear fashion. Upsampling is where the data stream is stretched out by interpolation and is typically used to refer to large changes in sampling rate such as from 44.1kHz 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



Marantz CD7300 £350

The latest in a long line of highly successful sub-£500 CD players from Marantz is an absolute beauty. Engaging and sonically refined, there's little to touch it at the price.



Arcam DiVA CD93T £950 Few CD players under a grand can match the accomplishment of Arcam's latest beauty. Its sound is neutral but always musical – delicate or vigorous, whatever the disc requires.

CD PLAYERS BUYER'S BIBLE

SOURCES

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Audi	o-only CD and SA	CD pl	ayers	SACD COMPATIBLE	ELEC DIG OUTPUT	OPT DIG OUTPUT	CD-RW COMPATIBLE	CD TEXT	BAL ANALOGUE OUT	HEADPHONE SOCKET	VARIABLE OUTPUT	ISSUE NUMBER
BADGE?	PRODUCT	£	COMMENTS	Ē	9	5	Ē	A	5	Ē	S	S
88	Arcam DiVA CD73T	400	Refined and articulate, smooth and dynamic – a finely judged balance for budget to mid-price systems		•	0		0	1.1	1.1		247
58	Arcam DiVA CD93T	950	The CD33 may technically be Arcam's ultimate CD player, but it's the little brother that really won our hearts		0	0		0				252
88	Cambridge Audio Azur 640C		This elegant little player can hold its own in very elevated company – a budget system will barely do it justice		0	0	0					24
BR	Cyrus CD8	1,000	A truly cracking player, particularly when partnered with the optional PSX-R off-board power supply (£350)		0	0						25
	Exposure 2010	600	A smooth and substantial-sounding player, a little lacking in refinement but musical all the same		0	0						23
	Linn Genki	995	Explicit, rather bright-sounding player with strong multiroom appeal								0	21
	Heart CD6000 OSE LE	750	Valved-up Marantz makes an entertaining and colourful player that will inspire you to listen longer		•	0		0		•	•	24
88	Marantz CD7300	350	Astonishingly capable sub-£500 player with effortless bass, detailed mid and treble and vast soundstages		•	•						25
	Naim CD5i	825	Taut and rhythmic, Naim's starter CD player will win many fans. A particularly fine partner for the Nait 5i amp				۲					25
	Rotel RCD-02	375	Against some strong competition in the same price area, this Rotel generally holds up well		•		۲					23
89	Sony SCD-XA3000ES	800	A revised and refined version of the SCD-XA333ES that provides an almost holographic sound	0	•	۲	٠		•			24
ABOVE	£1,000											
EC	Audionet ART V2	2,300	Built to last forever, this CD has a dark natural sound with excellent bass and would be cheap at twice the price!		٠		٠					23
EC	Ayre CX-7 CD player	2,950	Superbly built and natural sounding player that will win you over with its range of capabilities and transparency		•				.0			25
EC	BAT VK-D5SE CD Player	5,495	Superb valve CD player that is smooth and refined but with real guts that doesn't conform to valve stereotypes			•	0		•			25
EC	Copland CDA 822	1,598	Well built and carefully thought out, if you go for the more sophisticated musical forms it is superb value		•		۲					24
	Exposure 3010	1,195	What this player lacks in immediacy and punch is offset by its sparkling sense of occasion and musical tension		۲	۲	0	•				24
	Exposure XXII	1,395	Natural sounding player, great with voices and acoustic instruments and makes for engaging listening		0	۲	•					23
	Hegel CDP2A	1,500	A technically proficient and masterly-sounding player built by people who clearly know what they are doing		0		٠					25
C	Krell SACD Standard	4,244	A landmark SCD player and an excellent CD player at what by Krell standards is a relatively affordable price	0	•	•						25
EC	Krell KPS 25sc	24,998	One of the finest CD players available, this is also a state of the art preamplifier with Cast interface technology		•	0	۰		٠		0	23
EC	Mark Levinson No390S	6,495	Superbly built and comprehensively equipped with genuinely high-resolution sound		•	•	۲				•	23
20	Meridian 507	1,195	Unusually precise and considered performer that sounds as different as the discs you stick in the drawer		•	۲	۲					23
С	Musical Fidelity Tri-Vista	4,000	Limited edition stereo-only SACD/CD player that is simply the best player MF has ever made	0	۲	۲	0	۰				23
	NAD S500i	1,200	A beautifully built machine that treads the fine line between precision and musicality with aplomb		•	۰	۲		•			23
С	Naim CDX2	2,650	Fine quality one-box CD player, but its best feature is upgradeability via outboard XPS supply				•					23
98)	Orelle CD100evo	1,500	Very superior timing, a wide dynamic range, natural sweetness and fine transparency									24
	Primare D30.2	1,499	Superb high-resolution player gives a strong taste of musical structure and physicality		•				•			22
1	Resolution Audio Opus 21	2,850	Dynamic, well timed 0and 3D performance with an analogue volume control and digital input for a second source				0				۰	24
	Roksan Caspian M Series	1,100	An enjoyably dynamic-sounding player featuring a positively unique choice of digital components		۲		•					25
EC	Sony SCD-XA9000ES	2,400	State-of-the-art CD and SACD player with full SACD bass management and i.Link-encrypted digital output	٥	•		٠	0	0		۲	25
EC	Wadia 302	3,995	A dynamic and gripping player, with bass to die for and resolution to change your listening habits		0	0						25

SPECSIVEY 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. DPT DIGITAL OUTPUT Optical Toslink output for digital connection to a DAC or digital recorder. CD-RW COMPATIBLE Will play CD-RW (rewritable) discs, most CD players can cope with CD-Rs. CD TEXT Will display album and track titles from inserted disc. BAL ANALOGUE OUT Balanced XLR output connections for similarly equipped amplifiers.

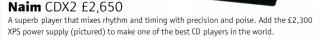
HEADPHONE SOCKET Quarter inch (6.3mm) headphone jack fitted to the CD player. VARIABLE OUTPUT Player features both fixed level and variable, volume adjustable outputs.



Cyrus CD8/PSX-R £1,350

Taken on its own, Cyrus's CD8 is a highly articulate £1,000 CD player. Add a PSX-R power supply and it really takes off – detailed and dynamic, with musical poise and panache.





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?

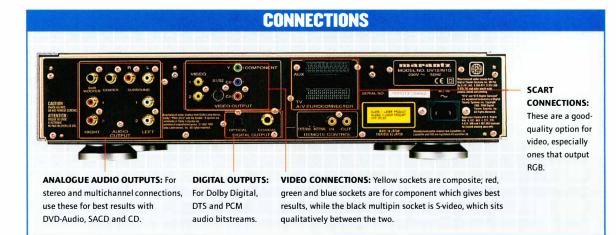
The best connection is component video closely followed by RGB Scart, which is clearly superior to S-video and the basic composite video option.

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.



ΗEA

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Our favourite BEST BUY CE EDITOR'S CHOICE DVD PLAYERS

Aud	io/Video disc pla	yers		/D-A COMPATIBLE	acd compatible	ELEC DIG OUT	OPT DIG OUT	ADPHONE SO	ISSUE NUMBER
BADGE	PRODUCT	£	COMMENTS	1BLE	IBLE	OUTPUT	OUTPUT	SOCKET	ABER
UP TO	£1,000			6. ¹⁹⁸					1.2
88	Arcam DiVA DV78	700	Imagine almost all of the DV88 Plus at a knock-down price. Top picture and sound performance for the money			۲	۲		254
	Cyrus DVD 7+	1,000	Typical Cyrus style - open, vivid and bouncy sound, with moderate picture quality to match						237
88	Denon DVD-1400	400	Denon's entry point to universal disc playback and a remarkably good one too. Excellent CD replay for a universal player	۲	0	•	٠		249
86	Denon DVD-2900	850	A beautifully built universal player that delivers a strong performance across all formats, all at a remarkable price	۲	•	٠	•		248
	Marantz DV6400	500	Good starter universal player with decent CD replay quality, but slightly disappointing SACD performance	۹	•	۲	٠		254
88	Pioneer DV-565A	250	Do-it-all 'universal' player is a decent performer with all disc types, and superb value for money considering its range	۲	•	۲	•		248
38	Pioneer DV-668AV	600	HDMI-equipped universal player without i. Link audio output, but still absurdly well equipped and highly capable for the price	•	•	•	۲		252
88	Pioneer DV-868AVi	1,000	State of the art universal player with next-gen digital outputs - HDMI for video and i.Link for high-resolution audio	•	•	٠	•		252
	Primare V25	1,000	Bold pictures on screen are matched to easy, likeable sound quality and a huge range of outputs	۲		•	•		237
BOVE	£1,000	Mar Call		13 29					
	Arcam DiVA DV89	1,300	No SACD playback, but CD sounds strong, DVD-Audio is highly engaging and video performance is excellent too	0		•			248
С	Arcam FMJ DV27A	1,900	Very accomplished, clean sounding player with CD, DVD and DVD-Audio alike. Picture quality is equally top-notch	۲		•	•		246
	Cyrus DVD8	1,200	An impressive step up from the DVD7+, which includes component video outputs			•	٠		238
С	Denon DVD-A11	1,700	Refinement and clarity are hallmarks of this player, which is also as close to being future-proof as they come	۵	•	•	٠		250
С	Denon DVD-A1	2,500	A convincing case for the DVD-A format, battleship construction combined with sonic and visual finesse	•		•	•		230
C	Meridian 800	10,805	The ultimate in DVD replay, modular construction, buffered ROM drive, upsampling and high-res digital outputs	•		•		•	230
C	Primare DVD30	2,000	A universal player for audiophiles - no wideband digital outputs but masterful with music and a good picture too	۲	۲	•	٠		253
	Roksan Caspian DVD	1,195	A good all-rounder - a solid and propulsive sounding DVD player which is also a surprisingly capable picture-making machine			•	٠		237

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 plaver.





A universal player with respectable performance across all formats, at a remarkable price.



Denon DVD-2900 £850

A universal player that's good with CD and great with DVD-V, DVD-A and SACD alike.



Five Stars for Value

Does the best price always mean the best deal? Ask our top twenty UK specialist hi-fi dealers.

"I thought I had this buying hi-fi business sorted out. I bought all the hi-fi magazines and read them thoroughly, because I reckoned their experts knew exactly what they were talking about - at least a lot more than I did! It was reassuring to see the same product names cropping up regularly and I figured the writers' experience and guidance would steer me straight to the system of my dreams. The trouble is I've ended up more confused than when I started".

ne reviewer said a product I fancied was absolutely brilliant but another said it was nothing special at all. How can that be? Surely one CD player is pretty much the same as another? And how can a loudspeaker that's one magazine's top recommendation not get so much as a mention in any of the others? I don't mind admitting it, I'm completely lost."

Plan B - I'm going for a deal

"So, I've decided to adopt plan B. I'm sure there can't be any really dramatic differences between all this gear and it's all bound to work together properly, so I'm going to check the price lists and the adverts and shop around for the best deal. I know getting the right hi-fi is important hey, I'm as mad about music as anyone but if I can get close to the mark and save a few guid, I'm sure I'll end up with a good system and be happy. I know there are specialist shops out there that do demonstrations and reckon they've got all the solutions but, to be honest, I'm a bit scared of going to one. I'd really welcome some advice and guidance but I don't know all the technical jargon and I'd feel daft sitting there trying to 'hear the differences' if I couldn't. Anyway, a friend told me that these shops only sell the really expensive gear and that they're not interested if you don't have loads of money to spend."

And so another hi-fi buyer starts his journey down the road to dissatisfaction, endless upgrades and a permanent overdraft.

There is only one way to buy a hi-fi system that will prove satisfying, reliable and deliver true value for money, and that's through a specialist hi-fi dealer. Let's face it, you wouldn't think about buying a car if you couldn't take it for a test drive. You wouldn't buy a house solely on the strength of seeing the estate agent's details and a photograph. Even if you're spending far less, say buying a jacket or a pair of shoes, you want to try them on to make sure they fit you.

Buying a hi-fi system is no different. It doesn't matter what the specifications say or what the 'experts' think: if it doesn't measure up to what you want from a system, then it's not the right choice. Knowing that you've bought a room full of five-star favourites or best-buys is no consolation when you can't bear to listen to them for more than five minutes. Even that ten per cent discount on the price won't make them sound any better.

Buying or being sold to?

Mind you, most of us are easily suckered when it comes to buying hi-fi. Given the choice of venturing into the unknown territory of a specialist dealer's shop and exerting some influence over what we buy, or taking what looks like the easy route having adverts and magazine reviews push us along a path sweetened with discounts and special offers - we opt for the latter. We don't buy a system, we allow ourselves to be sold one. We side-line our own ideas about quality and personal satisfaction and buy someone else's opinion of what's good for us and good value for our money.

Take control!

Now there's a group of long-established, independent specialist dealers who are



C You wouldn't think about buying a car if you couldn't take it for a test drive. You wouldn't buy a house solely on the strength of seeing the estate agent's details. **99**

totally committed to putting the customer back in the driving seat. They're encouraging the buyer to take control with a little help and guidance provided where required. They know how difficult it can be to establish the true quality and worth of hifi and home cinema systems. They know that without experiencing the performance of the systems they offer, you can't possibly assess the value of them. That's why their idea of 'selling' is to play the systems for you and allow you to be the judge.

Listening to your choice of music in a peaceful, well organised demonstration room, you may be surprised and, almost certainly, relieved to discover how easy it is to hear the differences between components and between systems. With the dealer's help and advice you will be able to make a clear and informed decision about what to buy. It comes down to trusting your own judgement rather than the opinion of a reviewer you've never met ... and who won't refund your money if you're not satisfied or be at the end of a phone to sort out any problems you might encounter.

The story doesn't end there. These shops won't abandon you once you've put your hand into your pocket. They won't leave you to set up the system you've selected as best you can. They'll install it in your home, make sure it sounds great, and make sure that you're entirely happy with the way it works.

Why bother?

There is, of course, one question that hasn't been answered: why should you and these dealers go to all this trouble? Well, from your point of view maybe it's because a good deal is about a great deal more than just price. unless you've got money to burn, you'll be living with your new system

STAR QUALITIES

VALUE FOR MONEY	*	×	*	×	*
SERVICE	*	*	*	*	*
FACILITIES	*	×	×	\star	\star
VERDICT	*	\star	\star	\star	\star

for years - years during which most of hose five star products will probably stop shining quite so brightly. As far as the dealers are concerned, maybe they believe that taking care of their customers properly is a nicer way of doing business than just handing over boxes.

Listed below are 20 of the best hi-fi shops in the country. They all have lots of stars. You'll find them on the shop floor: they're the people waiting to guide customers towards hi-fi that will give them years of musical enjoyment and total satisfaction.

OUR TOP 20 UK SPECIALIST HI-FI DEALERS

LONDON

N1 GRAHAMS HI-FI 190a New North Road 020 7226 5500 SW11 ORANGES & LEMONS 61/63 Webbs Road, Battersea 020 7924 2043

SOUTH

01403 252255

Ashford, Kent SOUNDCRAFT HI-FI 40 High St. 01233 624441 Chelmsford RAYLEIGH HI-FI 216 Moulsham Street 01245 265245 East Grinstead AUDIO DESIGNS 26 High St. 01342 314569 Horsham AUDIO DESIGNS 7-9 Park Place

Kingston-upon-Thames INFIDELITY 9 High Street Hampton Wick 020 8943 3530 Ravleigh, Essex RAYLEIGH HI-FI 44a High St. 01268 779762 **Ringwood, Hampshire** PHONOGRAPHY Star Lane 01425 461230 Southend-on-Sea **RAYLEIGH HI-FI** 132/4 London Road 01702 435255 Southampton PHASE 3 HI-FI 37 Bedford Place 023 8022 8434 Worthing PHASE 3 HI-FI 213-217 Tarring Road 01903 708810

MIDLANDS

Banbury OVERTURE 3 Church Lane 01295 272158 Birmingham SOUND ACADEMY 152a High Street, Bloxwich 01922 493499 Coventry Frank Harvey 163 Spon Street 024 7652 5200 Leicester CYMBIOSIS 6 Hotel St. 0116 262 3754 Northampton LISTEN INN 32 Gold St. 01604 637871 Shrewsbury CREATIVE AUDIO 9 Dogpole 01743 241924

NORTH

Cheadle THE AUDIO WORKS 14 Stockport Road 0161 428 7887 Oldham AUDIO COUNSEL 12/14 Shaw Road 0161 633 2602 Sheffield MOORGATE ACOUSTICS 184 Fitzwilliam St 0114 275 6048 York SOUND ORGANISATION 2 Gillygate 01904 627108

SCOTLAND Edinburgh RUSS ANDREWS HI-FI 34 Northumberland Street 0131 557 1672 Glasgow STEREO STEREO 260 St. Vincent Street 0141 248 4079

N. IRELAND Belfast LYRIC HI-FI 429-431 Lisburn Road 028 90 381296

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.



There are two types of phono cartridge: moving magnet (MM) and moving coil (MC), and with a few exceptions the latter outperforms the former. But MCs produce a lower output and require better-quality amplification to be heard at their best. As a general rule, MCs offer a broader bandwidth, greater dynamics and more detail, but the better moving magnets do most things well enough to distract you from your CD collection.

Setting up a turntable varies from model to model, but the general principle is to level the platter by adjusting the suspension or, as with solid platters, the surface it sits on. Sprung suspensions sometimes require a bit of fine-tuning to sound their best, but the principle is to achieve a smooth, pistonic bounce. Cartridge set-up is even more critical, as the angles at which the stylus traces the groove affects its tonal balance and levels of distortion. A good alignment protractor is essential if you are intending to set up your own cartridge, as is a degree of patience. In essence, there are two angles you need to get right: the tracing angle as the cartridge crosses the record if you are looking from above, and the vertical tracking angle (VTA), which is adjusted by raising or lowering the arm base to bring the arm parallel with the record surface.



1 Xpression £210 The latest model from Czech turntable specialist Pro-Ject is remarkable value for money - an Ortofon OM10 cartridge and carbon fibre arm are included in the price.



Roksan Radius 5 £850 A beautiful mid-price turntable with an impressively well-sorted sound from low bass to high treble. Price includes matching Nima tonearm.



Avid Diva £1,100 Superbly well engineered for the money, Avid's entry-level deck spins a highly involving musical message - solid. powerful and detailed.



Michell Orbe SE £1,825 A fine example of the turntable art, the stripped down SE version of Michell's flagship now features a DC motor. Does justice to the best arms and cartridges.

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Our favourite EEST BUY CE EDITOR'S CHOICE TURNTABLES

	ord players			Sp	SUSP SUBCHASSIS	SWITCHABLE SPEED CHANGE	UPPLIED WITH ARM	JPPLIED WITH (ISSUE NUMBER
BADGE?	1.2	£	COMMENTS	SPEEDS	SISS	NGE	ARM	CART	IBER
88	Audio Note TT1/ARM1	594	Simple and unpretentious, it delivers a real taste of true high-end performance at an affordable price	33/45	0				203
88	Avid Diva	1,100	A solid and powerful sounding deck with fine build, requires a smooth, relaxed cartridge for best results	33/45	۲				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	•	۲			229
EC	Avid Acutus	5,000	Extremely capable design with no apparent shortcomings. Don't sell your vinyl 'til you've heard it on this!	33/45	•	۲			194
	Clearaudio Emotion	655	An engaging turntable offering plenty of audiophile credibility for the money (price includes arm and cartridge)	33/45			۲	۲	251
	Clearaudio Champion Level 2	1,955	Neutral balance, great looks, but only so-so detail. Benefits greatly from isolation	33/45			•	0	223
88	Goldring GR1	140	The best value 'Rega' yet and a new benchmark for budget turntables. Vinyl nirvana on a shoestring	33/45			•	•	252
88	Michell Gyro SE	1,058	New DC motor-equipped Gyro offers great looks and even better sound. Price includes RB300 arm	33/45	•		٠		239
EC	Michell Orbe SE	1,825	A superb turntable, able to mix it with the best at virtually any price. Now features new DC motor	33/45	۰				235
88	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
88	Pro-Ject 1 Xpression	210	Well designed and executed budget deck with an entertaining and revealing sound	33/45			•	0	248
88	Pro-Ject RPM 6	500	Basic, very neutral turntable and arm combination that can take a very expensive cartridge. A high-end bargain	33/45			•		236
68	Rega P2	198	Updated Planar 2: just as much fun as ever and now even better value as the competition falls away	33/45			•		214
	Rega P3	298	Updated Planar 3, building on the strengths of the P2 with added subtlety and detail	33/45			•		214
	Rega P25	619	The contemporary aesthetic wins admiration, the sonic assurance turns it into your own personal music shrine	33/45			•		239
EC	Rega P9	2,248	Exceptionally elegant hi-tech player with complex outboard supply, ceramic platter and wonderful RB1000 tonearm	33/45		0	•		228
88	Roksan Radius 5	850	Sophisticated design with accomplished sound quality, excellent imagery and good isolation	33/45	0		•		248
EC	Roksan TMS2	7,500	Typical Roksan sound, but better: pitch-accurate, lean, detailed and controlled, without the 'bloat' of lesser designs	33/45	0	•			246
EC	SME Model 10A	3,411	Elegant and extremely capable design with Series V/309 hybrid arm, superbly built	33/45	0	•	•		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	•	•	•		186

Our favourite BEST BUY CE EDITOR'S CHOICE PHONO CARTRIDGES

MM and MC cartridges

i and ind cardinges				>	Z	MBER
PRODUCT	£	COMMENTS	M	ΛC	S	æ
Clearaudio Sigma	580	A nimble and revealing cartridge that is more at home in lower mass arms				235
Goldring Elite	250	A remarkably subtle and persuasive design that should tempt anyone				235
Grado Prestige Black	40	Offers admirable detail and treble extension, with good bass and ambience too	•		0	214
Grado Prestige Gold	110	Produces rich, open and expansive music with the minimum of fuss	•		0	235
Linn Akiva	1,800	With fine dynamic expression and a wide bandwidth, what you hear sounds very close to master tape		٠	•	242
Lyra Helikon	1,095	Highly capable and highly neutral, this is a cartridge for all seasons, albeit fussy about vinyl quality	•			215
Reson Etile	485	Plenty of life and detail, and refined with it		•		223
Sumiko Blue Point Special	250	A no-nonsense performer with engaging musical properties – one of the best around for less than $\$300$		•		192
Van den Hul MC One Special	699	A gorgeous cartridge that's worth the price every time you hear a familiar track in a whole new light		•		235
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
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
	PRODUCT Clearaudio Sigma Goldring Elite Grado Prestige Black Grado Prestige Gold Linn Akiva Lyra Helikon Reson Etile Sumiko Blue Point Special Van den Hul MC One Special van den Hul Colibri XGP	PRODUCT £ Clearaudio Sigma 580 Goldring Elite 250 Grado Prestige Black 40 Grado Prestige Gold 110 Linn Akiva 1,800 Lyra Helikon 1,953 Reson Etile 485 Sumiko Blue Point Special 699 van den Hul Colibri XGP 2,694	PHODUCT © CMMENTS Clearaudio Sigma 580 A nimble and revealing cartridge that is more at home in lower mass arms Goldring Elite 250 A remarkably subtle and persuasive design that should tempt anyone Grado Prestige Black 40 Offers admirable detail and treble extension, with good bass and ambience too Grado Prestige Gold 110 Produces rich, open and expansive music with the minimum of fuss Linn Akiva 1,800 With fine dynamic expression and a wide bandwidth, what you hear sounds very close to master tape Lyra Helikon 1,995 Highly capable and highly neutral, this is a cartridge for all seasons, albeit fussy about vinyl quality Reson Etile 485 Plenty of life and detail, and refined with it Sumiko Blue Point Special 250 A no-nonsense performer with engaging musical properties – one of the best around for less than £300 Van den Hul Colibri XGP 699 A orgeous cartridge that's worth the price every time you hear a familiar track in a whole new light 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	PHODUCT \$ COMMENTS PMODUCT \$ PMODUCT PMODUCT	PRODUCT £ COMMENTS % % Clearaudio Sigma 580 A nimble and revealing cartridge that is more at home in lower mass arms 1 6 Goldring Elite 250 A remarkably subtle and persuasive design that should tempt anyone 1 6 6 Grado Prestige Black 40 Offers admirable detail and treble extension, with good bass and ambience too 1 7 6 Grado Prestige Gold 110 Produces rich, open and expansive music with the minimum of fuss 1 7 6 Linn Akiva 1,800 With fine dynamic expression and a wide bandwidth, what you hear sounds very close to master tape 1 7 6 Lyra Helikon 1,905 Highly capable and highly neutral, this is a cartridge for all seasons, albeit fussy about vinyl quality 1 7 6 Sumiko Blue Point Special 250 A no-nonsense performer with engaging musical properties – one of the best around for less than £300 1 1 7 Van den Hul Colber XGP 269 A ogregous cartridge that's worth the price every time you hear a familiar track in a whole new light 1 1 Van den Hul Colber XGP 2699 <td>PHODUCT © COMMENTS Description <thdescription< td=""></thdescription<></td>	PHODUCT © COMMENTS Description Description <thdescription< td=""></thdescription<>

Our favourite BEST BUY E EDITOR'S CHOICE PHONO STAGES

Pho	hono stages				INPU	ОЛ. G/	EDAN	NUMB
BADGE?	PRODUCT	£	COMMENTS	IS	TS	ž	R	S
	Musical Fidelity X-LPSv3	249	Simple, well turned out valve-driven phono stage lacks adjustability, but sounds sweet, open and well-behaved		•			248
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	0	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!		0			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		0			201
88	Trichord Dino/Dino+	498	Relaxed yet resolute with very good image depth and natural balance, not to mention great flexibility	0			•	234

TURNITIBLE SPECE KEY SPEEDS Speeds offered in rpm. SUSP SUBCHASSIS Turntables with a sprung or suspended support for the platter and arm. SWITCHABLE SPEED CHARGE 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.

SPECIFICATIONS

₽

ADJ. IMP

MC PHONO MM PHONO



TUNERS BUYER'S BIBLE

RADIO TUNERS

FM and DAB hi-fi separates

Radio is a fantastic musical resource that's in danger of being taken for granted, but whatever your tastes there's someone out there catering for it. If you haven't got a decent tuner hooked up to your hi-fi already, you're missing out!

DAB or FM?

Digital Audio Broadcasting (DAB) is said to be available to 80 per cent of the population and the long-term plan is to switch public broadcasting over to digital, but hardware prices have yet to come down to a point where this would be acceptable. Its advantages over FM include hiss-free reception, the potential for a wider range of stations and the ability to display comprehensive programming information. FM's RDS system means that station name and occasionally track titles are displayed, but the range of information is fairly limited.

Where FM scores over DAB is in the lower cost of hardware and the greater reception

area. It can also provide higher sound quality if reception conditions are favourable. Absolute sound quality judgements are muddied by the fact that you are listening to different forms of compression and processing at the studio for each station.

What is clear, however, is that there are more and more radio stations broadcasting on DAB that aren't available on FM. So if it's variety of programming you're after, they have a lot to offer.

RECEPTION

The quality of signal you feed a tuner will dictate its sound quality. So serious FM listeners should get a decent external aerial and connect it with as few junctions and splits as possible. Every time you split the cable (ie take a feed for another tuner) you halve signal strength! With DAB the same applies but get a DAB-specific aerial. See www.bbc.co.uk/digitalradio for details.

TOP BUYS



Denon TU260L II £130 The benchmark for all other budget AM/FM tuners, with great sound and features.



Cambridge DAB500 £150 A low-cost DAB radio that gets very close to much more expensive digital models.



Rega Radio 3 £374 An excellent sound-first FM/MW tuner – low on features but big on sound.



Magnum Dynalab MD 102 £2,200 If you're serious about radio this superb FM tuner is about as good as it gets.

SPECIFICATIONS

SIG. T

Our favourite	BEST BUY	EC EDITOR'S CHOICE
TUNERS	S	

	& DAB HI-FI SEPAR	-	5	WAVEBANDS	PRE		REMOTE CONTROL	STRENGTH METER	ROT. TUNING KNOB	ISSUE NUT
BADGE?	PRODUCT	3	COMMENTS	ANDS	PRESETS	RDS	TROL	ETER	KNOB	NUMBER
FM TU	NERS								See.	32
	Cambridge Audio T500	180	Very capable tuner suited to good and less good reception conditions	FM,M,L	64			۲	0	193
98	Creek T50	499	Very fine results indeed with precision, polish and insight added to excellent basics	FM,ML	128	•	۲	۲	•	251
88	Denon TU-260L II	130	The return of the all-time favourite, now enhanced with RDS and sounding as fine as ever	FM,M,L	40	•			۲	193
EC	Magnum Dynalab MD102	2,200	Unique remote control analogue FM tuner delivers a superbly transparent sound that makes radio fun	FM	5		•	٠		241
85	Marantz ST6000	180	Another budget killer from Marantz, with sound well above its class and useful features	FM, M, L	90	•		۲		211
88	NAD C422	180	Admirably free of roughness or other obvious nasties, with just a slight lack of clarity	FM,M	30	•		۲		250
98	NAD S400	600	One of the best around - bass and treble are both well extended and detail is excellent	FM	30		•	۲		230
88	Primare T21	600	Identical to NAD S400 and likewise a very fine tuner	FM	30	•		۲		230
88	Rega Radio 3	374	Unpretentious unit which does what it claims, very well. Unusually fine FM sound in all areas	FM,M	20		٠			242
	Rotel RT-02	279	A highly competent tuner which always sounds appealing and fuss-free	FM,M	30	•	۰	۲		242
DAB T	INERS			S. S. S. S. S. S. S.						
	Arcam DT-81	650	A very smart and polished DAB performer	DAB	16		0	۲	۲	221
(28)	Cambridge Audio DAB500	150	Very good sound, plus optional response tweaks, and slickest operation yet	DAB	10		۲	0	•	248
	Pure Digital DRX-701ES	250	An excellent introduction to DAB, fine value, simple to use and feature loaded	DAB	99		۲		•	234
	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	•	۲	۲	۲	242
	TAG McLaren T32R+DAB	2,290	Classy hi-fi at its best: top sounds on FM and DAB, and a joy to own and use	DAB,FM,M,L	99	•	•	۲	۰	230

SPECS KEY WAVEBANDS Which bands are supported: FM, M – medium wave, L – long wave, DAB – digital audio broadcasting. **PRESETS** How many stations can be stored in memory. **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 TUNING KNOB** An ergonomic alternative to buttons.

DIGITAL AUDIO RECORDERS

CD, MiniDisc and hard drive recorders

MiniDisc

MD's strength is versatility. You can record and then re-record many times over. Editing facilities are second to none – you can erase mistakes, name tracks and re-order a disc's contents with a few simple button pushes, making it ideal for building compilations. They're pretty robust too.

Sound quality is below that of CD-R/ CD-RW. The format uses a Sony-developed compression technology called ATRAC, which discards part of the data in order to squeeze it on the disc. If you're copying from CD to MD, the result tends to sound a little cold in comparison, lacking a degree of detail and ambience. But to most people it still sounds light years ahead of cassette – clean and hiss-free.

Recordable CD

With recordable CD you have a choice of two disc types: CD-R discs are the cheapest, but you can only record once; and CD-RW discs are a little more costly, but you can rerecord on them *ad infinitum*.

Though the latest machines incorporate some useful editing facilities, CD-R/RW is not as flexible as MD. However, sound

quality is higher – if you're recording from a CD, the best models will give you a copy that is very close to the original. In terms of compatibility, most CD players will play back a CD-R disc, but older models might have trouble with CD-RW (though you can, of course, play the disc back on your own recorder). If you want to play a CD-R/RW on a DVD player, check for compatibility.

Hard drive

The latest contender on the digital recording scene is also the most flexible. Some HDD (hard 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.



Our favourite BEST BUY E EDITOR'S CHOICE DIGITAL RECORDERS

CD-F	CD-R/RW, MD and HDD recorders			DE	CAPACITY	AL IN/OUTPUTS	EC IN/OUTPUTS	ISSUE NUMBER
BADGE?	PRODUCT	£	COMMENTS	DECKS	(GB)	SID	SLIG	IBER
CD-R/R	W RECORDERS					8 ⁻¹		
	Denon CDR-1000	400	A respectable player and recorder, though some midband congestion was noted when recording	1		•	•	218
88	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		۰	•	243
88	Philips CDR802	300	Tacky looks and build notwithstanding, this is a well-equipped and technically sound 3-to-1 autochanger/recorder at a good price	2		0		233
88	Philips CDR951	380	An improvement on previous models, it delivers the musical goods in some style	1		•	•	205
86	Pioneer PDR-609	270	Classic CD recorder with outstandingly good sound for the money on both record and replay	1		۰	•	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		•	•	218
MD REC	ORDERS			1			1	197
	Pioneer MJ-D508	200	Well equipped, but musically sleep-inducing player that receives its Recommendation owing to the price	1		•	•	205
	Sony MDS-JE480	130	Straightforward and effective, but the three real killer features are price, price and price	1		0		233
HDD RE	CORDERS							
	Imerge S2000	1,599	Intended as the centrepiece of a multi-room installation, this three-output server combines flexibility with good sound	2	80	•	•	243
88	Yamaha CDR-HD1300	600	Superb combination of high-speed CD-RW drive and hard disk, adding editing flexibility to CD recording	2	80	•	•	243

SPECS KEY DECKS Amount of drive mechanisms on board – twin-deck recorders use one to play while the other records. HD CAPACITY Amount of gigabytes of storage capacity, for HD only. OPTICAL IN/OUTPUTS Optical Toslink in and outputs for digital connection to a CD player or DAC. ELEC IN/OUTPUTS Electrical coaxial in and outputs for digital connection to a CD player or DAC.

Sevenoaks sound & vision



BEDFORD

BIRMINGHAM

BRIGHTON

BRISTOL

Sevenoaks Sound & Vision stocks

a wide range of Hi-Fi separates, DVD players, amplifiers, speakers, plasma screens, LCD televisions and projection systems from all the leading manufacturers.

From starter systems to custom designed multi-room and home cinema installations, our friendly staff are available in all stores to advise, demonstrate and guide you through the home entertainment jungle. If you're interested in home entertainment and want to avoid the confusion, contact your local Sevenoaks Sound & Vision store and **experience more.**

0% interest free option^ is available on most products.

[^]Written details on request. Licensed credit brokers. Minimum balance £400. Subject to status.



CUSTOM INSTALLATION

Are you looking to neatly and seamlessly integrate a Home Cinema or Hi-Fi System into your home? Our Custom Installation experts are fully trained in all areas and provide a prompt, reliable and professional service. Whether you're looking for lighting control systems, a dedicated home cinema installation with a retractable screen and built-in speakers or an integrated control system, Sevenoaks Sound & Vision has the solution.



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WHY RISK VIRTUAL SHOPPING WHEN THERE'S A **REAL STORE** NEARBY?

PRODUCT NEWS

ARCAM EXTENDS DiVA RANGE





The 7.1 channel AVR300 home cinema and music receiver will impress even the most discerning listener. This audio performance is matched by a feature set that meets the requirements of today's most demanding AV enthusiasts



The British designed and manufactured **DV79** is an affordable enthusiast level DVD-Audio Player that delivers one of the best pictures in the world along with Arcam's legendary sound quality. It is equipped with an HDMI digital video output for the latest plasmas and projectors plus interlaced and progressive analogue audio (both NTSC and PAL) for existing displays. Whether playing movies or listening to music, the DV79 will not disappoint.

Arcam has added two

exciting new products to

its successful DiVA hi-fi

CALL YOUR LOCAL SEVENOAKS STORE FOR A DEMONSTRATION.



www.sevenoakssoundandvision.co.uk

Denon AVR3805 7.1 A/V Receiver

The AVR3805 is the replacement for the highly acclaimed '3803. This is a major model change - every element has been examined and upgraded. The '3805 is supplied with a radical new handset - the RC970. This advanced remote control is fully backlit and features full learning capability and is pre-programmed for most major brands.

FREE GRADO SR60 HEADPHONES WORTH £90 WITH THE AVR3805 DURING MAY*

BROMLEY CAMBRIDGE CARDIFF **CHELSEA** CHELTENHAM CRAWLEY CROYDON **EDINBURGH** EPSOM EXETER GLASGOW GUILDFORD HOLBORN HULL **IPSWICH** KINGSTON LEICESTER LEEDS LINCOLN LIVERPOOL MAIDSTONE MANCHESTER NEWCASTLE NORWICH NOTTINGHAM OXFORD PETERBOROUGH PLYMOUTH POOLE PRESTON READING **SEVENOAKS** SHEFFIELD SOLIHULL SOUTHAMPTON SOUTHGATE STAINES **SWANSEA** SWINDON SWISS COTTAGE TUNBRIDGE WELLS WATFORD WEYBRIDGE WITHAM (ESSEX) WOLVERHAMPTON

PLEASE SEE PAGE 7 FOR ADDRESS AND TELEPHONE NUMBER DETAILS

Sevenoaks



Michell Gyro SE Turntable / RB300 Tonearm £1049.95



"The Gyrodec SE sounds great, combining the best sonic characteristics of rivals... Quite simply, the Michell Gyrodec SE is terrific. Nothing compares at this price point - it's well deserving another Best Buy."

CLAIM £50

TOWARDS THE GOLDRING CARTRIDGE OF YOUR CHOICE*

Pro-ject 1 Xpression Turntable (Black) £209.95

"Compared with a £200 CD player this deck sounds remarkable: dig out your vinyl and give the Xpression a spin."

Pro-ject 1 Debut II Turntable (Black) £119.95



THE PROJECT RANGE STARTS AT ONLY £119.95



FREE GRADO SR60 HEADPHONES WORTH £90 WHEN YOU PURCHASE AN AMP AND CD TOGETHER FROM ONE OF THE FOLLOWING MANUFACTURERS - ARCAM, CYRUS & ROKSAN*



experience more perience more

Cyrus Pre X Pre Amplifier £999.95 Mono X Power Amplifier (Each) £1199.95

"This Cyrus pairing isn't cheap but listen to a well-run-in sample and its array of talents is hard to beat. Load your favourite CD into a capable player, turn up the Pre X and the sonic magic will be worth every penny."



Mission 782 SE Speakers £899.95

"Well, with the exception of the alderwoodveneer finish, these floorstanders look identical to the standard model.

although there's a new tweeter and crossover design. One of the advantages of the threeway configuration is that each driver deals with only a narrow section of the frequency range, and the designers optimise each unit to perform its respective task. Mission's engineers have excelled in this area: these elegant floorstanders sound beautifully balanced and few rivals under £1000 can match their wonderful levels of clarity. The 'special edition' tag is overused but these talented floorstanders are bona fide sonic stars.







SPEAKER CABLE FREE WITH ALL HI-FI SPEAKER PAIRS OVER £299*

NEW

WORTH

which belies the size of its diminutive cabinet.

£60 WITH SPEAKERS OVER £299 **£80** WITH SPEAKERS OVER **£499**

KEF O4

Speakers £399.95



OED

"These solidly made standmounters perform well across the whole range of musical styles... Add these speakers to your hi-fi system and you're guaranteed magnificent integration between the drivers and an even tonal balance.

Roksan Kandy KD1/III CD Player £594.95 KA1/III Amplifier £594.95

"Timing and rhythm are excellent. DJ Shadow is delivered with clarity and a tight bass, while at the other extreme the treble is sweet and detailed, getting the most from Wagner's Ride of the Valkyries. The result is a breathtaking Best Buy amplifier that betters its competition with ease." KANDY KA1/III AMPLIFIER - AWARDS 2003



"The Kandy KD1/III CD player offers a great array of talents - team it with its amp stablemate and you have something close to the ideal visual and sonic combination."

WHAT HI-FI? *****

3

FREE

GRADO SR60 HEADPHONES WORTH £90 WHEN YOU PURCHASE AN AMP AND CD TOGETHER FROM ONE OF THE FOLLOWING MANUFACTURERS - ARCAM, CYRUS & ROKSAN* NOT IN CONJUNCTION WITH ANY OTHEROFFER OR PROMOTION



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We always try to ensure our prices are highly competitive. In the event you can find the same products and excellent service at a lower price, please bring it to our store managers' attention.



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Spread the cost of buying. 0% finance option is available on the vast majority of products we stock.

ed credit brokers. Minimum balance £400. Subject to status

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Sevenoaks SOUND & VISION





Musical Fidelity has unveiled two integrated amplifiers and a CD player as part of its revamped X-series. The 40 WDC. X-80 (£599.95) and the 80wpc X-150

(£799.95) amplifiers feature a dual-gang analogue volume control and high-output transistors for each

channel The X-150 also includes a high quality phono stage.

The X-Ray^{v3} CD player (£899.95), is the replacement for the legendary X-Ray and uses the same DAC and upsampling



principles as the acclaimed Tri-Vista SACD player. From a technical standpoint, the X-Ray^{v3} is equal of some of the most expensive players on the market.

B&W 704 Speakers £1399.95

The 704 speakers are part of B&W's new 700 series. These floorstanding, two-and-a-halfway, vented box speakers and are available in a variety of attractive finishes. In a recent What Hi-Fi? Sound and Vision group test the 704 offered "Remarkable openness and clarity that is unrivalled at this price."

WHAT HI-FT? Mar *****





MUSIC ALL AROUND THE HOME



welcome to the world of wi-fi! Wi-fi devices allow you to network a range of devices together – from your music system to your PC - without the wires. For example, a multiroom server like Yamaha's MusicCAST can wirelessly send music to up to five 'client' playback systems dotted around your home. That music could be stored on the MusicCAST server device or other sources - existing hi-fi kit, maybe, or an internet radio station or MP3 files from your PC: plug-in adapters make it easy to wi-fi-enable products.



You've heard of hi-fi - now **Linn Classik**



Music System (Ex Speakers) £799.95

SAVE

"The Classik sounds simply marvellous. Boasting fine impact and drive, it retains its grip even as it thumps out rock and dance tracks. Ask it to play quiet acoustic music and its smooth, liquid presentation impresses still further. The Classik offers the performance you'd expect from high quality separates in one lovely package - this is a very superior product."



Denon DM31 UD-M31 CD Receiver £199.95

SAVE £30

"The D-M30 was exemplary, as its three What Hi-Fi? Sound and Vision Awards clearly show. The D-M31 is even better, making it phenomenal value for money."

OPTIONAL RECORDERS:

DMD-M31 MINIDISC RECORDER • DRR-M31 CASSETTE DECK NB - PRICE EXCLUDES SPEAKERS

PLEASE NOTE: SOME PRODUCTS MAY NOT BE AVAILABLE AT ALL STORES. PLEASE CALL BEFORE TRAVELLING. *ADDED VALUE OFFERS - FROM RANGE AVAILABLE IN-STORE. NOT IN CONJUNCTION WITH ANY OTHER OFFER. ADVERTISEMENT VALID UNTIL AT LEAST 02/06/04, E&OE.

experience more ence more





SEPARATE HI-FI SYSTEMS

Rotel RCD-02 CD Player SYSTEM **RA-02** Amplifier

Monitor Audio Bronze B2 Speakers

HI-FI

For this recommended Hi-Fi System we have combined Rotel's highly rated RCD-02 CD player and RA-02 amplifier with Monitor Audio's beautifully balanced Bronze B2 speakers. This package gives a powerful, fresh and vibrant sound. The compact 'B2 speakers, available in a variety of finishes, were awarded 'Best Buy' by What Hi-Fi? Sound and Vision, with the sound being described as "Superb. Speakers don't get much better than the B2's".



The RA-02 amplifier features remote control and a phono input. The RCD-02 (★★★★★ - What Hi-Fi? Sound and Vision - August 2003) is HDCD compatible and includes a digital output for connecting to a digital recorder.



HI-FI SYSTEM 1 - NOT IN CONJUNCTION WITH ANY OTHER OFFER OR PROMOTION





Arcam **CD73T CD Player A65 Plus Amplifier KEF**

Q4 Speakers

Arcam and KEF both have an enviable reputation for producing great sounding kit without breaking the bank. This system shows why with a well balanced sound that's both musically involving and enjoyable.

At the front of this package is Arcam's upgradeable CD73T CD player - a What Hi-Fi? Sound and Vision 'Product of the Year 2003'. We've coupled this with Arcam's complementary A65 Plus integrated amplifier and KEF's new Q4 floostanding speakers featuring KEF's unique Uni-Q technology for easier room placement.



HI-FI SYSTEM 2 - NOT IN CONJUNCTION WITH ANY OTHER OFFER OR PROMOTION



Roksan Kandy KD1/III CD Plaver KA1/III Amplifier Monitor Audio Silver S6 Speakers





The combination of Roksan's Kandy MK3 CD and amplifier is, according to What Hi-Fi? Sound and Vision, "Something close to the ideal visual and sonic combination" (December 2003). We have partnered these with the Silver S6 floorstanding speakers from British

speaker specialists, Monitor Audio. The combination of Roksan's excellent rhythm and timing, with its tight bass and sweet detailed treble coupled with the 'S6's ability to stay unruffled even when the music is at its most complex, makes this a remarkable system.



HI-FI SYSTEM 3 - NOT IN CONJUNCTION WITH ANY OTHER OFFER OR PROMOTION

Sevenoaks SOUND & VISION



PRODUCT RANGE

An outstanding selection of products are on display and available for demonstration at all Sevenoaks Sound & Vision stores.

However, some products may not be available at all stores. Please call to chec availability before travelling.

TURNTABLES

Goldring GR1	£139.95
Michell Gyro SE/RB300 £50 GOLDRING CARTRIDGE*	£1049.95
Michell TecnoDec	£599.95
Project Debut Phono SB	£169.95
Project Debut II (Black)	£119.95
Project Debut II (Colours)	£134.95
Project 1 Xpression	£209.95

TUNERS

Arcam DIVA T61£	199.95
Cyrus FM X	499.95
Denon TU260L MKII	£99.95
Harman Kardon TU970 DAB/AM/FM£	299.95
Marantz ST4000	£99.95
Pure DRX-701ES DAB£	199.95
Pure DRX-702ES Analogue/DAB£	279.95

CD PLAYERS

Arcam DiVA CD73T	£399.95
Arcam DiVA CD82T	£599.95
Arcam DiVA CD93T	£949.95
Arcam FMJ CD33T	
Cyrus CD6	
Cvrus CD8	
Denon DCD485	
Linn Genki	
Linn Ikemi	
Marantz CD5400	£119.95
Marantz CD17/II M	£799.95
Meridian 507	£1194.95
Musical Fidelity X-Ray V3	£899.95
Musical Fidelity A3.2	£ CALL
Musical Fidelity A308 ^{cs}	
Musical Fidelity Tri-Vista SACD	
Quad 99 CD-P	
Roksan Kandy KD1 MKIII	
Roksan Caspian M	
Rotel RCD02	
Rotel RCD1072	£594.95

RECORDERS

Pioneer PDR609 CD-RW	£169.95
Yamaha CDR-HD1300 CD-RW	£449.95

AMPLIFIERS

Arcam DiVA A65	Plus								£ CALL
Arcam DiVA A80		 							£599.95
Arcam DiVA A85		 							£ CALL
Arcam DiVA A90		 							£849.95
Arcam FMJ A32									£1149.95
Cyrus 6		 		 					£599.95
Супиз 8		 							£799.95
Cyrus Pre X Pre .		 		 		į.			£999.95
Cyrus Mono X Por									
Denon PMA355		 							£179.95

Linn Kolector Pre
Linn LK85 Power
Marantz PM4400
Marantz PM7200
Musical Fidelity X-80£599.95
Musical Fidelity X-150
Musical Fidelity A3.2
Musical Fidelity A3.2 Pre £ CALL
Musical Fidelity A3.2 Power £ CALL
Musical Fidelity A308
Musical Fidelity Tri-Vista 300 £3994.95
Quad 99 Power
Roksan Kandy KA1 MKIII
Roksan Caspian M
Rotel RA-01
Rotel RA-02
Rotel RA-1062

SPEAKERS

Acoustic Energy Aegis Evo One£129.95
Acoustic Energy Aegis Evo Three£249.95
Acoustic Energy AE1 MKIII (From)
B&W DM601 S3
B&W DM602 S3
B&W 704£1399.95
B&W 705£899.95
KEF Q1£249.95
KEF Q4£399.95
KEF XQ1£999.95
Linn Katan
Mission m31£119.95
Mission 780SE
Mission 782SE
Monitor Audio Bronze B2
Monitor Audio Silver S1 £299.95
Monitor Audio Silver S6
Monitor Audio Silver S8£799.95
Monitor Audio Gold Reference 10
Monitor Audio Gold Reference 20£1499.95
Quad 11L
Quad 12L
Quad 22L
Ruark Epilogue II
Wharfedale Pacific Evolution 30

HI-FI SYSTEMS

£499.95
£299.95
£199.95
£799.95
£199.95
£199.95
£449.95
£569.95

DVD SYSTEMS

Denon ADV-M71 Inc SC-M51 Speakers	99.95
Denon DVD-770SD/AVR-770SD Ex Speakers £5	99.95
Jamo DVR50/A305PDD Inc Speakers	49.95
Jamo DVR50/A355PDD Inc Speakers	99.95
KEF KIT100 Inc Speakers	99.95
Linn Classik Movie Di Ex Speakers	99.95
Teac Legacy 700/LS-L800 Inc Speakers	49.95

DVD PLAYERS

MAKE & MODEL	REGION 2	MULTI REGION
Arcam DiVA DV88 Plus	£599.95	£599.95
Arcam DiVA DV78	£699.95	£699.95
Arcam DiVA DV89	£799.95	£799.95
Arcam DiVA DV79	£999.95	£999.95
Cyrus DVD8	£1199.95	£1199.95
Denon DVD-1400 Universal	£299.95	£329.95
Denon DVD-2200 Universal	£ CALL	£ CALL
Denon DVD-2900 Universal	E CALL	£ CALL
Denon DVD-A11	£ CALL	£ CALL
Denon DVD-A1	£1699.95	£1749.95
Harman Kardon DVD25	£279.95	£279.95
Harman Kardon DVD22	£299.95	£299.95
Harman Kardon DVD31	£399.95	£399.95
Pioneer DV360	£69.95	£89.95
Pioneer DV464	£89.95	£109.95
Pioneer DV565A Universal	£159.95	£ CALL
Pioneer DV668Av Universal	£ CALL	£ CALL
Pioneer DV868Avi Universal	£ CALL	£ CALL
Samsung DVD-HD935	£149.95	£149.95
Tag McLaren DVD32FLR		£ CALL
Toshiba SD330E		£ CALL
Yamaha DVD-S540		£119.95

DVD RECORDERS

MAKE & MODELREGION 2	MULTI REGION
Panasonic DMR-E55 DVD-R £ CALL	£ CALL
Panasonic DMR-E60 DVD-R £ CALL	£ CALL
Philips DVDR70 DVD+RW £229.95	£ CALL
Philips DVDR80 DVD+RW	£ CALL
Pioneer DVR3100S DVD-R/RW £399.95	£429.95
Pioneer DVR5100HS DVD-R/RW . £499.95	£529.95
Toshiba RD-XS30 DVD Recorder , £459.95	£ TBA

A/V AMPLIFIERS RECEIVERS & PROCESSORS

Arcam AVR200 A/V Receiver	£599.95
Arcam AVR300 A/V Receiver	£1299.95
Arcam AV8/P7 A/V Pre/Processor/Power	£5499.95
Cyrus AV8 A/V Processor	
Denon AVC-A11SR A/V Amplifier	
Denon AVC-A1SR A/V Amplifier	
Denon AVR1604 A/V Receiver	
Denon AVR1804 A/V Receiver	
Denon AVR2803 AVV Receiver	
Denon AVR3803 A/V Receiver	
Denon AVR3805 A/V Receiver	
Harman Kardon AVR8500 A/V Receiver	
Harman Kardon AVR330 A/V Receiver	
Harman Kardon AVR630 A/V Receiver	
Marantz SR4400 A/V Receiver	
Marantz SR5400 A/V Receiver	
Onkyo TX-SR601E A/V Receiver	
Onkyo TX-NR801E A/V Receiver	
Pioneer VSX-C501 A/V Receiver	
Pioneer VSX-D812 AV Receiver	
Pioneer VSX-AX3i A/V Receiver	
Pioneer VSX-AX5i A/V Receiver	
Pioneer VSA-AX10i A/V Amplifier	
Rotel RSX1065 AV Receiver	
Rotel RSP1066/RMB1075 A/V Pre/Power	
Rotel RSP1098 AV Processor	
TAG McLaren AV30R A/V Processor	
TAG McLaren AV192R AVV Processor (From)	
Yamaha DSP-AX640SE A/V Amplifier	
Yamaha DSP-Z9 A/V Amplifier	
Yamaha RX-V440RDS AVV Receiver	
Yamaha RX-V640RDS AVV Receiver	
Yamaha RX-V1400RDS AV Receiver	
Yamaha RX-V2400RDS A/V Receiver	£ CALL

A/V SPEAKER PACKAGES

Acoustic Energy Aego P5	£349 95
Acoustic Energy Evo 3B	
B&W VM1/AS1	
B&W DM300 AV	
Castle Compact CC3	
Energy Take 5.1	
Energy Encore	
Infinity TSS750	
Jamo D6 PTX	
Jamo D7 THX Ultra 2 (from)	£3249.95
KEF KHT1005 £100 FREE QED CABLE*	£499.95
KEF KHT2005.2 £150 FREE QED CABLE*	£799.95
KEF KHT5005 £200 FREE QED CABLE*	£1199.95
KEF Q7 AV £300 FREE QED CABLE*	£2199.95
M&K K5 £250 FREE QED CABLE*	£1699.95
M&K K3	£1894.95
M&K Xenon 25	£2249.95
M&K 850/CS35/V850	£3899.95
Mission M30 AV Pack	£449.95
Monitor Audio Bronze B2 AV	£799.95
Monitor Audio Bronze B4 AV	£949.95
Monitor Audio Radius	£999.95
Ruark Vita 120	£1699.95

SUBWOOFERS

B&W ASW675	£649.95
MJ Acoustics Pro 50 (Black) £60 QED CABLE*	£299.95
MJ Acoustics Pro 100 (Black) £60 QED CABLE* .	£599.95
MJ Acoustics Ref 100 (Blk) £60 QED CABLE*	£349.95
MJ Acoustics Ref 1 (Black) £60 QED CABLE*	£699.95
REL Q150E MKII (Brittex Black) £100 QED CABLE* .	£499.95
REL Q201E (Brittex Black) £100 QED CABLE*	£724.95
REL Q400E (Brittex Black) £100 QED CABLE*	£999.95
REL Quake (Brittex Black)	£349.95
REL Strata III	£549.95
REL Stampede (Black) £100 QED CABLE*	£549.95
REL Strata 5 (Black) £100 QED CABLE*	
REL Storm III	

PLASMA

Fujitsu P42VHA30 42"	
Fujitsu P42HHA10 42" (ED)	
Fujitsu P42HHA30 42"	
Fujitsu P42HHS10 42" (ED)	
Fujitsu P50XHA30 50"	
Hitachi 32PD3000P 32" (ED) £1999.95	
Hitachi 42PD5000E 42"	
Hitachi 42PMA400E 42" (ED)	
Panasonic TH37PA20B 37" £ CALL	
Panasonic TH42PA20B 42" £2799.95	
Panasonic TH42PW6B 42"	
Philips 37PF9965 37" (ED)	
Pioneer PDP434HDE 43" £ CALL	
Pioneer PDP503HDE 50" (ED)	
Pioneer PDP504HDE 50"	
Toshiba 42WP36P 42" £ CALL	
Yamaha PDM4210 42"£3999.95	

LCD TV

Panasonic TX15LT2 15"				£749.95
Panasonic TX22LT3 22"				£1399.95
				£ CALL
Philips 30PF9975 30"				£1999.95
Sharp Aquos LC-13S1E 13"				£ CALL
Sharp Aquos LC-15B4E 15"				£ CALL
				£ CALL
Sharp Aquos LC-20B4E 20" .				£ CALL
				£ CALL
				£1099.95
Sharp Aquos LC-30AD1 30" .				£ CALL
Sharp Aquos LC-30HV4E 30" .				£ CALL
Sharp Aquos LC-37AD1 37"				E CALL
Sharp Aquos LC-37HV4E 37" .				
Toshiba 26WL36P 26"				£ CALL
				£ CALL

PROJECTORS

NEC HT1000 DLP	£2799.95
Sanyo PLV-Z1 LCD	£999.95
Sanyo PLV-Z2 LCD	£1449.95
Screenplay SP4800 DLP	£1199.95
Screenplay SP5700 DLP	£ CALL
Sharp XV-Z91E DLP	£1799.95
Sharp XV-Z200 DLP	£ CALL
Sim 2 Domino 20 DLP	£3499.95
Sim 2 HT300 Plus DLP (ED)	£5999.95
Sim 2 HT300 Xtra DLP	£7999.95
Sim 2 HT500 Link DLP	£24995.95
ThemeScene H30 Cinema DLP	£1199.95
ThemeScene H50 Cinema DLP (ED)	£1499.95
ThemeScene H56 Cinema DLP	
Yamaha LPX-500 LCD	£ CALL
Yamaha DPX-1000 DLP (ED)	£5999 95

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WHO ARE SEVENOAKS?

Founded in 1972, Sevenoaks Sound & Vision is one of the largest and most successful hi-fi and home cinema retailers in the country.

Each Sevenoaks Sound & Vision store stocks a wide range of quality products, covering all categories of specialist home entertainment, from Hi-Fi separates and systems to DVD players, widescreen plasma televisions and projection systems, all at highly competitive prices.

Friendly staff are available in all stores to advise, demonstrate and guide you through the home entertainment jungle.

CUSTOM **INSTALLATION**

Sevenoaks Sound & Vision's Custom Installation Service enables the integration of a home cinema or hi-fi system into your home as neatly and seamlessly as possible. All electronics can be hidden away, speakers discreetly mounted either in the wall or ceiling and the complete system operated via remote control.



Our installation experts are fully trained to the highest standards in all areas and provide a prompt, reliable and professional service. Whether you're looking for a multi-room system, a dedicated home cinema installation with a retractable screen and built-in speakers or an integrated control or lighting system, Sevenoaks Sound & Vision has a diverse range of products available to cater for all your requirements.

FREE

Pick-up your FREE 68 page guide at your nearest Sevenoaks Sound & Vision store or order a copy via our Website. The brochure will be posted to you (UK mainland addresses only) free of charge while stocks last.

DEMONSTRATION FACILITIES

Our comfortable demonstration rooms are among the finest in the country, many complying with full THX specifications.



SEVENOAKS WEBSITE

The Sevenoaks Sound & Vision website has news and information on the Sevenoaks aroup and its stores.

There are regularly updated special offer and stock clearance lists with hundreds of products available and detailed pages to help you locate your nearest store. To find out more, click on www.sevenoakssoundandvision.co.uk

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With 49 stores nationwide, the Sevenoaks Sound & Vision group stock and display a wide range of products. As models and product ranges are changed or superseded, the preceding models are made available at a reduced price, for clearance. Visit our Website for an up-todate list of the clearance stock.

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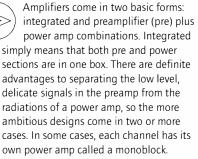
In the event you can find the same products and excellent service at a lower price. please bring it to our store managers' attention. We will always endeavour to offer vou the best deal.





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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.

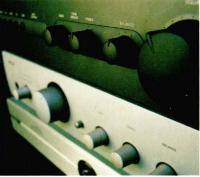
The fundamental of amp/speaker interfacing is power rating and speaker sensitivity. You can drive a high-sensitivity speaker with a ten watt valve amp, but it takes a 200W behemoth to get the best out of speakers which present a difficult load. As a rule, you can't have too much power.

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.

N.&.A

SHOULD I LEAVE MY AMP ON ALL THE TIME FOR BEST RESULTS?

All audio electronics perform better when they are warmed up, and this is particularly the case when it comes to amplifiers. If there's no way that you can leave it on all the time, make an effort to switch it on at least 20 minutes before listening.

WHAT IS BI-WIRING AND **BI-AMPING?**

Bi-wiring is when you run separate cables to the treble and bass/mid terminals on the speaker. In most instances, this improves sound quality so long as identical cables are used. Bi-amping is using two stereo amps to drive one pair of speakers, using one amp to drive the treble and the other for the bass/mid sections of the speakers.

WHY DO VALVE AMPS HAVE **SO LITTLE POWER?**

Valve amps are inherently low powered in absolute terms - at least when you compare them to their transistor-based cousins. But when partnered with high-sensitivity loudspeakers, they are quite capable of producing perfectly adequate head-banging levels.

TOP RUYA



PM7200 £330 A true budget belter from Marantz - power and finesse in equal measure, plus the ability to switch between Class A and Class AB operation. Giant killing amps are back!



RA-1062 £595 Rotel's latest is an affordable taste of the high end, packed with power and detail. It'll drive virtually any speaker and embarrass a good many more costly amps.



Lab Series £1,399 This AVI's full name is Lab Series Integrated Amplifier Type S21 MI - a lengthy moniker for such a neat little amp with a hugely accomplished sound.



POW HEADF

Our favourite BEST RUY RE EDITOR'S CHOICE STEREO AMPLIFIERS

Integ	grated amplifiers			LINE INPUTS	PHONO INPUT	MOTE CONTROL	DPHONE SOCKET	VER OUTPUT (W)	ISSUE NUMBER
	PRODUCT	3	COMMENTS	SIL	Ч	P	Ê	S	ER
_	£1,000							10	
68	Arcam DiVA A65 Plus	370	Highly articulate and fluent, offers unusual insight for its price	5	۲	0	۲	40	232
88	Arcam DiVA A75 Plus	470	Quick, lively and well-presented amplifier, bass is sharper and more tuneful than its predecessor	5	•	0	۲	50	224
	Arcam DiVA A80	600	Arcam's most successful mid-range amp to date – sophisticated control system and crisp, detailed sound	6	•	•	•	90	251
88	Arcam DiVA A90	850	Enhanced replacement for A85, convertible to 7.1 sound with the addition of an add-on module and extra P90 power amps	6	opt	۲	•	90	250
	Cambridge Audio Azur 640A	250	Cambridge has a powerful weapon in the battle for budget amp supremacy, it's a lot of musical entertainment for the money	5	opt	۲		65	250
	Cyrus 8	800	Impressive at low to medium volumes, and a clear improvement on its predecessor, but deteriorates at high power levels	7		٠	٠	70	239
88	Exposure 3010	1,000	A mix of old and new, combining greater power with Exposure's traditionally sweet and enthralling sound	6	۲	۲	۲	120	244
	Icon Audio Stereo 40i	900	Stylish and very sharply priced valve amp is a good all-rounder	4				37	254
88	Marantz PM7200	330	High power, plenty of features, and remarkably clear and informative sound with lots of impact	6	0	۲	0	105	248
EC	Marantz PM7200KI	500	Even more refined version of basic amp, with notably improved bass purity	6	۲	۲	۲	95	254
88	NAD C352	350	Dynamic and musical sounding update on what was already a star product	7			۲	80	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		۲		50	252
88	Primare I20	750	An amplifier with attitude: punchy fast and secure sounding, with excellent build quality for the money	4		0		70	239
90	Roksan Caspian M Series	1,000	Improved mid-range model from Roksan is a fine, expressive amplifier - right at the top of its class	6		0		85	248
BB	Rotel RA-02	349	Agile and capable slimline design with an engaging sound that draws you into the music	4	•		۰	40	232
BB	Rotel RA-1062	595	The pick of this season's crop. Fabulous sound with the ability to drive almost any speaker in its path	5	•	۲		95	251
58	Sugden A21a	899	This single-ended, Class A transistor amp has exquisite resolving ability and presence – an authentic classic	5				25	224
98	Thule IA60B SE	895	An amp that's so faithful to the spirit and detail of the source material and costs less than £1,000 is hard to fault	5		0		75	253
ABOVE	£1,000								
<u>38</u>	Arcam FMJ A32	1,150	Remarkably flexible and well-featured, with excellent sound quality for the price	7	۲	•		100	228
<u>36</u>	ATC SIA2-150	2,375	Starkly revealing powerhouse that eats most integrateds for breakfast	5		•		150	228
BB	Audio Note Oto Line SE	1,599	Single-ended valve amp lacks power but sounds remarkably delicate and coherent	5	opt			10	254
	Audio Research VSi55	2,895	Superb all-rounder provides the delights of valve amplification without sacrificing convenience	5		•		50	254
EC	AVI Laboratory Series	1,399	Terrific power, control and resolution - effortlessly musical and fine value	6	opt			200	241
EC	Burmester 032	9,100	Bulky, powerful amp sounds delightfully delicate with a lovely natural warmth and superb imaging	5		0		170	252
	Graves Audio Merlin	1,250	SE valve amp needs sensitive speakers, but has remarkable delicacy and transparency	6		opt		6	254
	Hegel H1	1,500	a rich and responsive amp that revels in great music with a warmth that encourages non-stop listening	6				120	254
EC	Karan KA-i180	3,900	Lean, sharp and articulate, this impressively constructed heavyweight is almost up there with the audiophile pre/power elite	4		0		180	236
EC	Krell KAV-400xi	2,698	The best integrated Krell yet is quick, agile, solid and finely detailed	5		•		200	247
EC	Musical Fidelity Tri-Vista 300		If you audition one, you will want to be one of the handful of Tri-Vista owners	5	•	0	•	350	239
	Primare A30.1	1,500	Smooth, detailed singing quality, elegant appearance and healthy power yield	6		0		-	214

Our favourite BEST BUY RE EDITOR'S CHOICE STEREO AMPLIFIERS

Pre/	power amplifiers			REAMPLIFIER	ER AMPLIFIER	LINE INPUTS	NI ONOH	ITE CONTROL	OUTPUT	SUE NUMBER
BADGE?	PRODUCT	£	COMMENTS	FIER	FIER	SID	INPUT	ROL	(M)	IBER
UP TO	£2,000	95.2					3.34	1521		
95	Arcam FMJ A32/P35	1,980	One of the few correctly matched integrated/power combinations, the sound has real gravitas and sophistication	•	۲	7	۲	۲	100	227
90	Croft Vitali/Series 5C	2,000	Oddball retro style and ergonomics, but truly magical voice coherence and projection, great transparency	۲	۲	3	۲		30	216
	Densen Beat 200/300	1,985	Classy jet black cast boxes pack plenty of punch with good total musical coherence (remote £300 extra)	0	•	6	opt	opt	100	216
86	Naim NAC112/NAP150	1,425	Clean, clever simplicity, plus a very well-balanced sound that's much sweeter than earlier Naims	0	0	6		۲	50	213
ABOVE	£2,000									
	Arcam FMJ C30/P1	2,300	A lot of features, high build and flexibility, with a revealing and detailed sound	•	۲	6	0	۲	180	251
EC	Border Patrol P20	6,750	Muscular 300B P-P design with fluidity and dynamics to match the best	۲	۲				20	231
	Bryston BP25/4BSST	4,000	Extremely transparent, high-power combo, you'll listen louder and longer because you can	۲	۲	8	opt	0	300	241
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	۲	0	6		•	300	249
	Conrad-Johnson PV10BL/MV60SE	4,290	Gorgeous valve combo - preamp may seem a bit dated by today's standards, but both still rate as hi-fi classics	۲	0	5			55	250
	EAR 864/534	4,156	Valve combo delivers fine measured and subjective performance and inspires great confidence	۲	۲	6	۲		50	254

SPECS KEY LINE INPUTS Input sockets for source components with a line level output; CD players, DVD players, tape decks, tuners, phono stages etc. **PHONO INPUT** Input sockets and onboard phono stage for a cartridge. Either MM (moving magnet) or MC (moving coll), occasionally both. **REMOTE CONTROL** A remote control is supplied with the amplifier. **HEADPHONE SOCKET** To drive your cans with. **POWER OUTPUT** Manufacturer's rated output in watts per channel.

SPECIFICATIONS

POWE

POWER

Our favourite BEST BUY COLOR'S CHOICE **STEREO AMPLIFIERS** continued

Pre/	power amplifiers	£	COMMENTS	PREAMPLIFIER	IER AMPLIFIER	LINE INPUTS	PHONO INPUT	IOTE CONTROL	R OUTPUT (W)	SSUE NUMBER
EC	ECS EA-1	6,000	Understated monoblocks with real transparency to the fine detail, passion and energy in your record collection	20	0	0,	_		180	253
	Exposure XXIII/XXVIII	2,790	Highly natural and dynamic amplifier that offers the fluidity and energy of valves via transistors	0	•	6	opt	0	70	241
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 dm1 0/dm68	75,900	Extravagant, extreme and massive amp combo will probably polarise opinions, but delivers stunning midrange clarity	0	0	5	0	0	225	243
С	Hovland HP-100/RADIA	12,745	Uncommonly musical valve/transistor hybrid transcends stereotypes, one of the genuine high achievers			9	opt		125	250
С	Krell FPB 700cx	14,998	Reference class amplifier may represent overkill in many systems, but when no compromise is called for, this is it		٠				700	234
C	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	0		4		0		238
С	Linn Klimax Twin	6,000	Super-slim stereo power amp uses advanced switch-mode power supplies to fast, engaging effect		۲				125	230
	Naim NAC202/NAP200	2,720	More sophisticated than its forebears with a fleet-footed sound that draws you into the music	۲	•	8		•	70	241
0	Naim NAP500	10,995	Wonderful neutrality, bandwidth and dynamic range, plus Naim's traditional leading-edge definition		0				140	208
	Naim NAC552	11,750	Extremely expensive preamp, but still solid value. Magnificent sound with fine flexibility and convenience	۲		6				233
	Primare PRE30/A30.2	2,400	Beautifully built with great selection of features and serious power delivery	0		7		۲	120	24
	Quad QC-24/II-40	4,007	Big, muscular sound that's smooth and easy on the ears, plus solid engineering with good power delivery	0	0	7			40	254
	Russ Andrews SJA1/SJA2	6,250	Timing and detail levels to die for but a tad hard-edged for some. Superb design and build quality	۲		6		•	50	254
C	Sugden Masterclass AA	5,600	Yorkshire's finest class A kit. Dynamic and tonally rich, this gives even valve amps a run for their money		•	7		٠	35	246
С	Unison Research Unico Pre/DM	2,590	Hybrid designs with a rich powerful performance that makes a fine balance between valve and solid state sound			3		0	150	242

AV AMPLIFIERS Surround sound amps for music and movies

The multichannel, surround sound or AV amplifier is a popular option, thanks to the success of the DVD player and home cinema. Now you can buy five channels or more of amplification for the price of two. Now that multichannel music is also on the agenda, there's a lot to be said for a good AV amp or receiver (an amp with a radio tuner built in)

So if you fancy hearing what DVD-Audio, SACD or even music DVD-Video can do, then check out a multichannel amp and speaker set-up - they're stunning with movies and none too shabby with music.

AV amps are usually designed primarily for movies and come with digital processing for the various soundtrack formats - Dolby Pro-Logic (analogue), Dolby Digital and DTS, which offer discrete surround sound in 5.1 and 7.1 channel formats. More ambitious designs also offer THX post processing, designed to emulate the sound of the mixing theatre at home.

Processing in AV amps is needed because the surround formats on DVD-Vs are compressed, limiting their high-fidelity



potential. This is why new formats SACD and DVD-A, which don't use 'lossy' compression, were created for music.

All this processing power can take its toll on analogue formats. The best multichannel amps for music are often the simplest, but any that offer a complete bypass option with six-channel input are suitable. It's also worth looking at real power - five or seven channels of amplification are not easy to produce with a feeble power supply, and the cheaper amps in particular often fail to live up to the claims.

0.&.A

POWE

HOW MANY CHANNELS?

Depends on how many speakers you want. Multichannel music discs come with six or 5.1 channels, but for new movies, 7.1 systems are where it's at. 7.1 set-ups also mean you have speakers directly behind you preferable for music discs.

WHAT'S THE DIFFERENCE BETWEEN A PROCESSOR AND AN AV AMP?

Processors don't have amplification on board and you need separate power amps. AV amps and receivers have processing and amps in the same box.

WHAT DOES THE .1 **IN 5.1 STAND FOR?**

This is the LFE (low frequency effects) or bass channel that is reproduced by a subwoofer.

With DVD-Audio and SACD offering high-quality 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

HI-FI MEETS SURROUND SOUND

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.

Stelen diwy

AV AMPS BUYER'S BIBLE

TOP BUYS



Sony STR-DB790 £300 It used to be the rule that you had to spend close to a grand to get an AV amp that shines with music. Not any more.

Our favourite E BEST BUY CE EDITOR'S CHOICE



added bonus of i.Link digital connection.

Pioneer VSA-AX5i £1,200 Trickle-down version of the VSA-AX10i is a superb performer at the price, good with both music and film soundtracks, with the



AVC-A1SR £3,000 Denon's AV behemoth is arguably the best integrated multichannel amp to date – superbly cinematic and one of the very few with genuine 'hi-fi' music credentials.



AV8/P7 £5,498 A fantastic achievement from this respected UK brand – an top-ranking AV processor and seven-channel power amp.

PECIFICATIONS

	V ANP tichannel amplifiers	COMMENTS COMMENTS Upgraded AVR100 with Dolby Pro-Logic II and some bass management. Great for steree, a bit bass-light for multichannel Merely 'average' sound but it's impossible to argue against the flexibility and value of its engineering 1,800 Feature-packed with superb spatial processing, combined with powerful, though slightly opaque overall audio quality 3,000 An AV amp with genuine high-res hi-fi credentials. Includes a ground-breaking 'wide bandwidth' digital audio link 900 The upgrade to the AVR 5500 comes with features that are actually of some use to the audiophile and a meaty sound to bo 2,000 Not a high flyer, just a thoroughly enjoyable, warm and attractive sounding receiver with music and film soundtracks alike 1,200 Standard setter in its price category, with i.Link digital interface and MCACC auto set-up 2,700 Seven channel tour de force with automatic speaker set up and eq, excellent with music, movies and DVD-A/SACD 300 No six channel amplifier has any right to be able to sound this good at such a ridiculously affordable price 2,600 Arguably the first convincing fully digital amplifier, an excellent match for players with i.Link encrypted outputs 800 Equipped for every occasion, this is a capable receiver with stereo music and better yet with DVD-A/SACD and movie source 3,748 Tube analogue six-channel module and a P90/3 power amp to the A90 stereo integrated and you've got got superb purist 5 5,498 State-of-the-art processor (£2,999) and seven-channel power amp (£2,499). An excellent fusion of stereo and surround sou 3,748 Tube analogue six-channel pre transforms multichannel audio from a novelty into a genuine advance for the high fidelity art 2,900 Classic Cyrus sound translated to a multichannel arena, limited features and power, but civilised sound 5,200 Arguably the most 'musical' sounding AV processor to date – tested with the PowerMaster 8300 multichannel power amp 3,400 Classy and capable system, great steeri	REC	LINE	7.1 COMPATIBLE	5-CHANNEL POWER (M)	ISSUE NUMBER	
	PRODUCT		COMMENTS	RECEIVER	LINE INPUTS	ATIBLE	ER (M)	JMBER
MULT	ICHANNEL INTEGRATED AMPS				2.2%			
	Arcam AVR200	800	Upgraded AVR100 with Dolby Pro-Logic II and some bass management. Great for stereo, a bit bass-light for multichannel	•	6		70	229
	Denon AVR-2803	650	Merely 'average' sound but it's impossible to argue against the flexibility and value of its engineering	•	9	•	130	251
	Denon AVC-A11SR	1,800	Feature-packed with superb spatial processing, combined with powerful, though slightly opaque overall audio quality		11	0	125	235
EC	Denon AVC-A1SR	3,000	An AV amp with genuine high-res hi-fi credentials. Includes a ground-breaking 'wide bandwidth' digital audio link		8		170	232
88	Harman Kardon AVR 5550	900	The upgrade to the AVR 5500 comes with features that are actually of some use to the audiophile and a meaty sound to boot	•	9		85	240
	Marantz SR9300	2,000	Not a high flyer, just a thoroughly enjoyable, warm and attractive sounding receiver with music and film soundtracks alike	•	8	0	105	252
98	Pioneer VSA-AX5i	1,200	Standard setter in its price category, with i.Link digital interface and MCACC auto set-up	•	11	•	100	248
EC	Pioneer VSA-AX10i	2,700	Seven channel tour de force with automatic speaker set up and eq, excellent with music, movies and DVD-A/SACD		11	0	150	229
BB	Sony STR-DB790	300	No six channel amplifier has any right to be able to sound this good at such a ridiculously affordable price	•	7		112	251
EC	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
	Yamaha RX-V1400	800	Equipped for every occasion, this is a capable receiver with stereo music and better yet with DVD-A/SACD and movie sources	•	9	0	175	251
MULTI	CHANNEL PREAMPS/PROCESSORS	ANO POWE	ERAMPS					
88	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
EC	Arcam AV8/P7	5,498	State-of-the-art processor (£2,999) and seven-channel power amp (£2,499). An excellent fusion of stereo and surround sound		7		180	235
EC	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
	Cyrus AV8/3x Smartpower	2,900	Classic Cyrus sound translated to a multichannel arena, limited features and power, but civilised sound		3		105	238
EC.	EAD TheaterMaster 8000 Pro	5,200	Arguably the most 'musical' sounding AV processor to date - tested with the PowerMaster 8300 multichannel power amp		9	•		242
38	Marantz PS-17/2x SM-17	3,400	Classy and capable system, great steering, warm solid sound and high detail resolution, and some great gadgets		10		60	238
EC	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
EC	Parasound Halo C1/A51	8,500	Powerful and flexible processor/power amp combo with impressive sound. Excellent value - processor includes onboard screen		11	•	250	243
88	Primare SP31.7/A30.5	4,200	Great all-round system which brings the qualities of good stereo high fidelity to a multichannel world		5	•	120	238
EC	TAG McLaren AV32R EX	2,994	Flexible AV processor, unusually good with music. Excellent for multichannel systems in standard or seven-channel 'EX' form		6			215

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.

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



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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.

Q&A

IF SPEAKERS ARE RATED AT 75 WATTS, DOES THAT MEAN I 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



Sensys DC1 £449 A new dual-concentric main driver plus super-tweeter in a solid standmount box results in a neutral yet expressive speaker at a very tempting price.



Focal-JMlab Cobalt 816 Sig S £999 One of the best all-round performers around £1,000, combining a lively and dynamic character with an unusually smooth and neutral balance.



B&W 703 £2,000 A hi-tech, three-way floorstander sporting a 'surroundless' midrange driver. Delivers a thoroughly engaging sound with great bass and an expressive midrange.



Living Voice Avatar OBX-R2 £4,000 Revised in 2003, the top model in Living Voice's Auditorium range is capable of delivering both the music's spirit and also its finest detail.

_	r tavourite									
SILKE		£	SPEAKERS	SIZE W,H,D (CM)	FLOORSTANDER	EASE OF DRIVE	BASS FROM (HZ)	FREE SPACE	CLOSE TO WALL	ISSUE NUMBER
UP TO S	1,000									
88	Acoustic Energy Aegis Evo 1	180	An unusually classy and sophisticated performer for the price; laid-back sound and good looks too	19,36,24		А	30	۰		226
88	ATC SCM12	999	Magnificent main driver confers great authority, grip and smoothness, though upper bass a little lean	22,39,26		A-	55			253
	Avance Dana 670 AV	760	Very pretty slim floorstander is impressively neutral and well balanced, if less than dynamic	15,95,27	٥	Α	30			253
<u>199</u>	B&W DM303	180	Chunky looking and lively sounding, with deep bass, a fine midband and a restrained top end	20,33,23		Α	23			226
88	B&W DM602 S3	300	Old-fashioned size/shape, but this timeless design has a rare combination of grip, authority and headroom	24,49,29		А	25	۰		234
	B&W DM309	330	Much of the grace and punch of the smaller DM303 - a suberb floorstander for the money	20,91,30	0	Α	60			235
	B&W DM603 S3	600	Excellent all-rounder, smooth for its price with fine bass and mid, though top might be more refined	20,91,29		A-	25			231
88	B&W 705	900	Deft, delicate and delightful, if a little bass light, with clever enclosure and driver engineering	22,42,29		Α	35			253
	Blueroom Minipod	249	Wonderfully blobular styling aside, it's hard not to fall for the Minipod's openness, expression and detail	18,34,17		Α	50		0	225
	Castle Durham 3	399	A very attractive near-miniature wallmount with a lively and communicative disposition - lots of fun	19,37,22		Α	45	۲		227
88	Castle Conway 3	930	Lovely real wood finish and a beautifully balanced sound, fine dynamics and transients, but might have more 'air	22,91,27		A+	30	•		237
88	Castle Harlech S2	1,000	Improved Harlech is slightly aggressive, but lots of fun, and very good-looking too	20,96,33		Α	50			219
	Dali Royal Tower	750	Cutely compact floorstander has a delightful liveliness and lightness of touch to match its luxury real wood finish	17,85,22	۲	Α	25			237
88	Dynaudio Audience 42	400	An aristocrat of the vinyl-covered miniature breed. A terrific small speaker for the price	17,29,24		Α	40	•		215
	Dynaudio Audience 52	557	Brilliant neutrality, though a little understated dynamically (wood veneered version, as tested - £647)	20,33,26		A-	30	۰		250
	Dynaudio Audience 62	729	Pricey but cute vinyl floorstander that is a class act sonically - lightweight, but clean and dextrous	20,86,26	0	А	30	•		231
<u></u>	Epos ELS3	200	Few affordable speakers sound as clean and convincing while taking up so little real estate	18,27,19		A-	60	0		241
88	Focal-JMlab Chorus 707 S	350	The size and shape might be unfashionable, but this is an outstanding all-round performer at a very sharp price	23.5,49.30		А	25	•		251
88	Focal-JMlab Chorus 716 S	550	Not the smoothest around, but combines coherent voicing with fine dynamic expression and real authority	22,95,30	•	Α	20	•		250
	Focal-JMlab Chorus 726 S	780	Big generous sound with good dynamic freedom, hampered by some voice-band congestion	22,100,32	0	A+	55			253
88	Focal-JMlab Cobalt 816 S	999	Great all-rounder lively and dynamic, smooth and neutral, marred only by a slight treble 'sting'	22,98,31		A-	25			242
	Infinity Kappa 200	600	Notably artful styling. Some coloration, but good punch and drive with real dynamic propulsion and expression	22,37,36		Α	25	•		250
	KEF Q1	250	Stylish if slightly small-sounding stand-mount with fine midband coherence; works well close to a wall	22,35,30		Α	30			234
	Monitor Audio Bronze B2	200	A lively and entertaining speaker with tight controlled bass and pronounced midband	18.5,35,25		Α	42		0	238
	Monitor Audio Silver S1	300	Super-quick sonics thanks to the C-CAM metalised drivers. Resolution and speed – a great value box	18,30,24		Α	45			236
	Monitor Audio Silver S8	800	A thoroughly impressive all-rounder, notable for its wide dynamic range, excellent imaging and fine neutrality	19,90,27	۲	Α	20	0		237
	Monitor Audio Silver S10	1,000	Timing might be less than the best, but the full balance and fine dynamic range deliver plenty of detail	20,100,27	0	A+	20	•		242
	MonoPulse 32	695	Very creative style and construction with an unusually vivid and communicative if less than smooth sound	21,98,23	•	Α	30			245
<u>89</u>	Mordaunt-Short Avant 906	350	A capable and engaging speaker, this neat design will complement the majority of systems	18,85,27	0	Α	45			254
	Neat Petite III	845	The treble is peaky, but this is still one of the most coherent and communicative miniatures around	20,31,20		Α	30			211
80	PMC DB1	555	Lacks a little weight and authority, but beautifully balanced, free from boxiness, and loads of fun for a tiny	16,29,24		Α	50		0	240
88	PMC TB2	700	A worthy successor to the TB1, which sets a high standard in its size/type for neutrality and transparency	20,41,31	-	A	30			211

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).

Aur favourite 🗉 BEST BUY 🚾 EDITOR'S CHOICE

"One might expect this Stereo 40i to cost in the region of £2.000"

Hi Fi Choice June '04 They go on to say: "The sound has a lovely spacious and airy quality with plenty of depth. The music flows well with a good sense of purpose. and attractive interplay between different instruments" "The frequency response exhibited extended bass below 10Hz and fell by only .0.3% at 20 KHz"..."Stunning styling and an impressive spec at a very sharp price"

Awarded Hi Fi News *'Editors Choice 2003'*

"Icon Audio offers sensible, well sorted valve amps, with adequate power for most users and built to a good standard. Valve amplifier ownership without tears"



Stereo 40i EL34 integrated 40+40w (or 19+19 Triode)

Hi Fi News Feb '04 said..." I was impressed not only by the almost tangible three-dimensionality of performers but the depth and width of the soundstage."..."ample, deep, rhythmic, tuneful bass, underpinning a lucid and effortless midrange and treble" ... "I liked the impeccable finish and feeling of bombproof solidarity as well some of the most natural sounding music that I have heard at home". Tony Bolton

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Townshend

Maximum Supertweeter.

"Great performance, engineering and build make them this year's essential high - end audio accessory." Verdict @@@@@Hi Fi World Feb '04.

"I still have my Maximum supertweeters, thank goodness. But I have tried living with them switched off and, believe me, it felt like masochism." Hi-Fi News March '03.

But, whatever the explanation, truth is you don't need bat-like hearing or ultra-wide bandwidth recordings to enjoy the subjective benefits of super tweeters. The effect is there for all to hear on the vast majority of recordings, be they new or old, digital or analogue, mono or stereo. Hi-Fi + April '04.

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Stands available for use with curve-topped speakers, e.g. B&W, Wilson Benesch, Sonus Faber, etc. Fantastic upgrade for Quad ELSs! Supplied with 1.5m 'DCT' Deep Cryogenic Treated Litz connecting cables. Adjustable level control to suit speakers with sensitivity 76 to 105dB/W. Coming in at 10kHz; 30kHz - 90kHz response +/- 3dB.

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Atlantis speaker cable £74.97/m Hi-Fi News, Jan '04 Editor's Choice Award

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	r favourite			SPECIFICATIONS						
Ster	eo speakers	3	SPEAKERS continued	SIZE W,H,D (CM)	FLOORSTANDER	EASE OF DRIVE	BASS FROM (HZ)	FREE SPACE	CLOSE TO WALL	ISSUE NUMBER
88	Rega Ela	749	Might have more grunt, but few can match its impressive agility, delicacy, and superior musical communication	23,89,30	•	A	28		•	250
	Sonus Faber Concerto Home		Looks good and sounds better. Great midband communication skills, well aligned for close-to-wall siting	24,36,34		А	40		•	233
	Spendor SR5	1,000	This wall-mount very cleverly avoids the usual colorations, delivering a very dynamic if rather dry sound	31,31,18		A+	50		•	240
88	Tannoy Sensys DC1	449	Modest sensitivity but beautifully balanced with fine authority at a very realistic price	21,41,29		A	40		0	245
	Tannoy Eyris 1	600	Pricey but very cute standmount miniature; oddball, but has marvellous midband subtlety and delicacy	17, 35, 26		A+			0	227
	Tannoy Sensys DC2	649	Has impressive scale and weight with fine stereo imaging, but is also rather laid back, lacking easy agility	21,97,29	•	A	20	•		250
	Tannoy Eyris 2	999	This super-slim and cutely different-looking floorstander is very communicative, despite weak treble	17,91,26	•	A	20	•		231
æ	Triangle Antal 202	925	Ugly duckling with the voice of a lark, thanks to its magical midband with plenty of dynamic brio	22,108,30	0	A+	30			253
ABOVE	£1.000									
EC	Acoustic Energy AE1 MkIII	1,690	Luxury miniature has a laid-back but bouncy sound, a marvellous dynamic range and very superior imaging	19,31,25		A-	30	0		251
	Acoustic Energy AE3 Mkll	4,490	A beautifully neutral speaker with very wide dynamic range and superior imaging, plus lovely Art Deco styling	19,99,29	0	A	20	0		251
	ATC Active 10	1,269	Stylish, active powerhouses with plenty of subtlety when required (balanced connection only)	23,39,31		act	45			221
88	ATC SCM35	1,999	If you want to hear the uncoloured truth about your record collection in all its glory, this is a speaker to treasure	23,88,30		A-	48	۲		250
EC	ATC Active 20	2,538	30k + 300W equals resolution and bass that most amp/speaker combinations dream about – a bargain	56,28,36		act	45	•		240
EC	ATC SCM50 ASL	7,255	350W of power combine with superb drive units and a 48kg cabinet to provide alarming resolution	35,72,48		act	38	0		21
	Audio Note AN-E/D	1,520	This classic large standmount might have throwback aesthetics, but it delivers an exceptional all-round sound	36,79,28		A+	20			204
	Audio Note AN-J/SPe	1,675	Retro styling, but a vigorous and dynamic performer that creates fine musical tension	33,59,25		A	38			219
EC	B&O Beolab 5	10,000	Radical, environmentally independent active speaker has exceptional bass, neutrality, and imaging	49,97,49	0	act	<20		•	244
	B&W Nautilus 805	1,400	A small-sounding loudspeaker dynamically, but very stylish, clean and 'unboxy', delivering loads of detail	24,42,31		Α	28			199
88	B&W 704	1,400	Sleek and stylish two-and-a-half-way with deep, lively bass, sweet treble, and rather laid-back presence	22,96,32	0	A-	20	•		248
88	B&W 703	2,000	Elegant floorstander with excellent bass drive and mid dynamic range, but slightly strong and obvious top end	23,101,36		A-	20			24
EC	B&W Signature 805	2,500	Gorgeous standmount sounds delicately transparent and laid back with very superior resolution and imaging	24,42,34		A	30		•	24
EC	B&W Nautilus 802	6.000	Outstanding example of the high-tech speaker builder's art. Needs real power, but gives real sound	39,111,55		A-	34	0		18
EC	B&W Nautilus 801	8,500	The 801 is a magnificent loudspeaker in nearly every respect, but it is one that likes to play loud	52,111,69		A-	34			18
EC	B&W Nautilus 800	11,000	Unequivocal challenge for world domination. One of the most revealing speakers around	45,120,65	0	A-	<20			23
	Beauhorn B2.2 Revelation	3,984	Magnificent midband and fine overall balance but limited bass is best with small-scale material	34,130,75	0	A+	80		0	24
	Castle Howard S3	1,350	A solid all-rounder with uniquely spacious imaging, bit pricey compared to some though	21,99,32		A+	38	0		229
	Dynaudio Contour 1.3 Mkll	1,198	Outstanding performer among compact standmounts; neutral, with fine punch and dynamic range	20,38,29		A-	45	0		21
BB	Dynaudio Audience 82	1,460	Bulky, with vinyl finish, but offers exceptional neutrality, bass extension, power handling and loudness potential	22,106,36	0	Α	30			22
	Eclipse TD Lulét 307/316	1.250	Extraordinary satellite plus sub solution sounds a cut above other sub/sats. Can be expanded to multichannel	12,16,16		act	40			24
EC	Ferguson Hill FH001	6,853	Looks and sounds wonderful, with realistic dynamic expression, but needs careful amp matching and sub(s)	90,166,80		A+	180			24
EC	Focal-JMlab Micro Utopia	3,500	New 'Be' version is clearly an exceptional standmount, capable of revealing the innate quality of the music	25,42.5,38		A	50	0		24
EC	Focal-JMlab Alto Utopia Be	11,000	Attractive and beautifully balanced, with fine bass alignment and focus, low coloration and very clean top end	37,121,53	0	A-	20			248
	Graves Audio Koronglay	1,999	Fast and very time-coherent, but rather bass-light and aggressive higher up - valve amps preferred	25,109,36		A+	45		0	24
	Harbeth Super HL5	1,699	Looks old-fashioned, but classic monitor combines authority and transparency with good neutrality	33,64,31		A	30	0		233
88	Infinity Intermezzo 2.6	1,600	Bi-amp speaker sounds laid back and 'disappears' acoustically; highly enjoyable, looks and sounds great	25,38,29		A+	27			233
	KEF Reference Model 205	4,000	Great looking speaker with a smooth, neutral and slightly 'cool' sound that could be tauter and more exciting	29,116,43	0	A-	20	•		245
	Leema Xen	1,000	A true micro-mini-monitor with remarkable powers of analysis and great musical insight, if a touch forward	14,22,23		A-	50		•	245
	Living Voice Auditorium	1,700	Gloriously coherent and dynamic midband, though the top end is restrained and bass was uneven in our room	22,86,28		A-	30			247

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LOUDSPEAKERS

july 2004 HI-FI CHOICE 109

Our favourite Est BUY CLOTOR'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
BADGE?	PRODUCT	3	COMMENTS	(CM)	DER	RIVE	(HZ)	ACE	ALL	BER
EC	Living Voice Avatar	2,700	Dynamic and highly resolved, yet physically discreet design with a relaxed balance	22,104,27	۲	A+	40	0		218
EC	Living Voice Avatar OBX-R2	4,000	Has Dynamics, tonal colour, detail, space and time resolution in spades. External crossovers require extra cabling	22,100,27	0	A+	35	۲		244
66	MartinLogan Clarity	2,498	Relatively affordable and easy to live with electrostatic hybrid with class-leading resolving power	26,135,31	0	A-	46	٠		245
	Mirage OM7	2,000	Warm, full and laid back Omni has weak stereo focus but brings the musicians into your room	30,115,16-39	۲	A-	25	0		247
	Naim Allae	1,990	Chunky little floorstander has a 'cold' overall balance, but remarkable powers of musical analysis	24,94,28	0	А	40			229
EC	Naim SL-2	4,995	Delivers magnificent musical analysis and communication skills in a notably discrete physical package	28,103,33	0	A-	20		۰	232
EC	Naim NBL	6,925	Elegant, large floorstander is exceptionally informative, with an awesome dynamic range and dry, forward balance	29,116,47	0	A-	20	0		200
EC	Neat Ultimatum MFS	2,995	Wonderful five-driver standmount sounds bigger than it looks. Very spacious and informative, if a little bright	22,38,37		A+	25	0		241
EC	Neat Ultimatum MF9	8,500	Superb musical communicator with splendidly deep and agile bass and fine open neutrality	22,150,40		A-	20	•		226
	PMC LB1	1,150	Still fully competitive eight years after our original review, this genuine compact monitor is now a modern classic	18,53,26		A-	40	•		199
58	PMC FB1	1,410	Has the lively coherence of a simple two-way, alongside impressive bass weight and extension	20,105,31		А	20	0		204
	PMC OB1	2,450	Genuinely deep bass and lovely overall neutrality, though mid could have more tension and bass more punch	20,103,33	0	А	20	۲		243
EC	PMC IB2	6,150	Stunning in an understated way, this speaker creeps up on you and hooks you with its transparency and power	33,74,47		A-	25	0		237
EC	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			254
EC	Royd Revelation RR2	1,199	Pretty little floorstander delivers genuinely deep bass without 'thump'; lovely clean, open midband too	19,89,18	0	A-	20	0		221
	Russ Andrews Quave LS1	2,550	A radical approach to reproducing music that does timing and resolution superbly but is a little unusual tonally	41,93,28	0	A+	60		0	254
EC	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	Tannoy Dimension TD8	4,000	This stylish speaker is a splendid all-rounder, with fine dynamics, precise imaging and minimal coloration	31,86,30	0	A-	25	•		240
EC	Tannoy Dimension TD10	5,000	Extremely competent and rhythmic speaker, a futureproof supertweeter and detail to die for	35,101,37	0	A-	38	0		215
EC	Tannoy Dimension TD12	6,500	Art Deco-inspired style, plus magnificent headroom and genuine monitoring neutrality - a tour de force	42,126,41	0	A-	23	0		225
56	Totem Forest	2,390	Low sensitivity but wonderfully open neutrality, at heart a beautifully communicative and musical loudspeaker	20,90,27	0	А	25	۲		247
	Triangle Zays 222	1,295	Wonderful freedom from time-smear gives invigorating and realistic dynamics, but colorations are also obvious	26,116,32	0	А	22	0		242
	Triangle Naia	1,900	Exciting, vivid and communicative, but also a bit untidy and uneven, the Naia is a whole lot of fun	23,119,32	0	A-	25	0		247
	Vandersteen 2Ce Sig	1,990	Very superior midband neutrality, impressive freedom from boxiness and splendid stereophony. A classic	41,109,26	•	A-	30		0	229
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	Y	Α	28	Υ	Ν	254
EC	Wilson benesch Discovery	5,500	Innovative three-way with built-in stand, combines great subtlety with weight and headroom	23,47,38	۲	A-	45			212
EC	Wilson Benesch ACT	8,400	Superb enclosure gives uncanny freedom from 'boxiness'. Well balanced, but top end might be sweeter	23,108,37	0	А	20	•		252
EC	Wilson Benesch Chimera	15,000	Elegant with lovely sonic delicacy and plenty of weight too. Works best at low levels, but a difficult load to drive	24,145,55	0	A-	20	0		234

AV SPEAKERS Speaker solutions for multichannel surround sound

SET-UP

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

Multichannel speaker systems have 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 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

OPRIVS



600 S3 package £900 Incorporates 602s, 601s and an LCR 600 centre speaker. Great in both stereo and multichannel surround modes.



KEF Q AV7 £1,300 With the latest Uni-Q refinements, this system is astonishingly accomplished and amazing value.



Mission m5 package £1,450 A five-speakers-plus-sub package giving a strong performance with both music and film soundtracks. Excellent value.



Linn Akurate package £13,750 Linn has worked wonders with its new multichannel speaker system - it's not cheap, but its performance is breathtaking.

> NUMBER OF S BASS FR

EASE

PECIFICATIONS

FR

CLOSE ISSU

AV SPEAKER PACKAGES

Mult	DULTICHANNEL Speakers		PEAKERS	ROM (HZ)	E SPACE	TOW	NUMBER		
BADGE?	PRODUCT	£	COMMENTS	NE	ERS	(HZ)	ACE	WALL	BER
	B&W 300 package	900	An excellent compromise between the requirements of music and those of home cinema (inc. subwoofer)	А	6	27	۲		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	0		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	۲		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
88	KEF Q AV7	1,300	With latest Uni-Q refinements, this system is astonishingly accomplished and amazing value	A+	5	35			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	0		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 does big bass for movie fans	А	6	28			241
	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			210
	PMC FB1/TB2	2,485	Classy, if bulky and pricey, package has good transparency, coherence and weight	А	5	20		0	210
	Rega Jura/Ara/Senta	938	Classy real wood package does a good all-round job, but sounds bright and might have more surround weight	А	5	25		•	210
	Spendor S-Series package	1,650	Ultra-tinies lack some dynamic and loudness capabilities, but beautiful voicing and freedom from boxiness	A-	5	30		0	224

STANKEY 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 I BEST BUY I EDITOR'S CHOICE **SUBWOOFERS**

Bass	ss speakers					ROM	NUMBER
BADGE?	PRODUCT	£	COMMENTS	CM	S	(HZ)	BER
	Acoustic Energy Aesprit 308	650	Tuneful and dynamic sound with music or movies from this compact sub, which comes with a handy remote	41,37,30	200	35	225
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 performed well	32,32,34	120	27	225
88	REL Q150E	500	Great value compact 'cube' sub adds genuine weight and drive thanks to superior filtering	29,32,33	150	20	239
	REL Strata III	700	A little more bottom octave might have been preferable, but in terms of agility and coherence, this is a fine hi-fi subwoofer	42, 52, 33	100	20	210
	REL Storm III	900	Excellent sub with powerful, detailed and deep bass. Comprehensive facilities, including flexible filter adjustment	42,62,33	150	18	225
EC	REL Stadium III	1,500	It's a bulky piece of furniture, but offers superior filtering as well as an ability to delve deep into the bass nether regions	59, 56, 39	200	16	217
88	Ruark CL300	2,000	Shows what a good subwoofer can do: controlled, detailed and dynamic. A delight with music and movies alike	60,52.5,40	300	30	225
	Titan Saturn	800	Very bulky sub has curious styling, but decent filtering gives good weight and headroom	72,48,72	200	20	239

STARS 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

SIZE

BASS F

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BUYER'S BIBLE CABLES

CABLES

Wires to hook your system together

Hi-fi cables come in two varieties: interconnects and speaker cables. Interconnects come in preset lengths, generally with RCA phono plugs attached, though some equipment uses XLR connectors for balanced connection. Speaker cable is sold by the metre and can be used without plugs or can be fitted with screw or solder-on types.

Choosing the best cables is not quite as

Our favourite BEST BUY E EDITOR'S CHOICE CABLES

straightforward as it might seem. One problem is that components interact with the cables you use and this often results in audible effects, but there are few cables that are fundamentally incompatible with any components, and we recommend the advice of a good dealer. In any case, you should look to spend as much as you can afford.

Digital cables come in two flavours: electrical and optical. In most instances

electrical varieties sound better than optical, but if you are after a smoother sound the light carriers have the advantage, as they do if long lengths are needed (10m+). Optical outputs tend to have Toslink connectors (around 99 per cent), but some electrical digital outputs are of the superior BNC type, which uses a bayonet-type socket. Check which type your digital component has before buying a digital interconnect.

SPECIFICATIONS

_	ABLES rconnects and spea		cables	STRANDED	SOLID CORE	COPPER	SILVER	DIGITAL CABLE TYPE	ISSUE NUMBER
	PRODUCT	£	COMMENTS	Ö	DRE	Ä	/ER	PE	ÊR
NALO	GUE INTERCONNECTS			1-0-0					
	Black Rhodium Illusion	77	An upfront, lively, exciting cable which still manages subtlety when needed. Slight coloration though		•	•			248
	DNM TBB75	75	Bass not always completely consistent, but sound has great clarity and insight		•	۲			24
8	Ecosse The Composer	30	A high degree of realism and delicacy, and a fantastic price (0.8m)	•		۲			21
	Ecosse Reference Diva	100	Very good performance in all areas, with particularly fine, tuneful, bass (0.8m)	•		۲			22
8	Ixos Gamma Audition II	30	Detailed and neutral, with just a hint of pleasant mellowness	•		•			21
	Kimber Silver Streak	242	Not the cheapest around, but more than justifies itself with terrific poise and balance of virtues	•		۵			24
8	Kimber Timbre	72	Typical Kimber construction with ditto sound - clean, extended and detailed	•		•			24
8	Monster Interlink 400 Mk2	70	Really lively and enjoyable sound	•		۲			22
	PM Dragon Tails	600	Targeted at valve equipment, but its virtues, including superb imaging, apply to solid-state duties too	•			•		24
	QED Qunex 1	20	Well balanced and easily rivals more expensive cables	•					21
8	Townshend DCT100	100	Unusual construction with copper strip conductors, giving very detailed sound, but just an occasional hint of hardness		•	•			24
	Townshend Isolda DCT	300	Unusual construction and cryogenically treated too: whatever the reason, a remarkably capable wire		•	•			23
В	van den Hul The Bay C5	45	Terrific detail, nice balance – a great cable	•					22
3	van den Hul The Well	65	Hybrid cable with carbon-fibre conductors added. Very slight bass coloration does little to detract from fine performance	•					24
3	van den Hul D102 Mk III	79	Hybrid conductors (carbon and copper) and intelligent construction give strong bass and excellent detail	•		•			23
IGITA	L INTERCONNECTS						1		
	Audioquest Digital One	35	A neutral and capable cable that adds little or no character to the sound	•		۲		Е	20
8	QED Qunex P75	25	A superbly capable interconnect that's highly detailed and well balanced			۲		E	20
	QED Qunex SR75	50	Lots of bass and good clear midrange and treble at a sensible price	•		۲		Е	23
	Supra Trico	40	Very well made digital/video cable which noticeably improves the sound of a cheap DAC	•				Е	24
	van den Hul Optocoupler II	49	Noticeably has the edge over other optical leads, but still second best to electrical types					0	23
PEAK	ER CABLES PRICE PER METRE				i inte	-		-	
	Black Rhodium S300	18	Tight, precise and extended bass makes this a great cable for rock 'n' roll	•		•			24
	Ecosse Reference MS2.3	23	Favours excitement over refinement: can be slightly bass-shy, but plenty of life	•		۲			22
	Electrofluidics 20/20	45	Excellent bass extension and very fine performance elsewhere - one of the best all-round cables available		•	•			24
-	Kimber 4PR	5	Considering the price, this cable's very slight dryness is forgivable when everything else is so right	•		•			19
В			Beautifully full, open and transparent sound right across the board. Price for 1m terminated pair	•		•			2
	Kimber 8VS	18							2
		18 21	Bass very full, just occasionally a touch flabby, but detailed and sweet upper frequencies make this a good value cable	•		•			
	Kimber 8VS Kimber 8PR	21	Bass very full, just occasionally a touch flabby, but detailed and sweet upper frequencies make this a good value cable	-		•	_		20
B B	Kimber 8VS Kimber 8PR Kimber 8TC			•					20
B B B	Kimber 8VS Kimber 8PR Kimber 8TC QED Silver Anniversary	21 39 5	Bass very full, just occasionally a touch flabby, but detailed and sweet upper frequencies make this a good value cable Very capable in all areas, particularly good at imaging and with firm bass. Price for 5m terminated pair A few minor flaws, but overall performance is very assured for this price	•	•	•			19
B B B	Kimber 8VS Kimber 8PR Kimber 8TC QED Silver Anniversary QED X-Tube XT300	21 39 5 10	Bass very full, just occasionally a touch flabby, but detailed and sweet upper frequencies make this a good value cable Very capable in all areas, particularly good at imaging and with firm bass. Price for 5m terminated pair A few minor flaws, but overall performance is very assured for this price A natural and well controlled sounding cable that's cost effective for mid-priced systems	•	•	•			
B B B	Kimber 8VS Kimber 8PR Kimber 8TC QED Silver Anniversary QED X-Tube XT300 QED X-Tube XT400	21 39 5 10 20	Bass very full, just occasionally a touch flabby, but detailed and sweet upper frequencies make this a good value cable Very capable in all areas, particularly good at imaging and with firm bass. Price for 5m terminated pair A few minor flaws, but overall performance is very assured for this price A natural and well controlled sounding cable that's cost effective for mid-priced systems A practical cable with a liking for lively music, but slightly less assured with subtle classical grooves	•	•	•			19 23 24
B B B B B B B B B B	Kimber 8VS Kimber 8PR Kimber 8TC QED Silver Anniversary QED X-Tube XT300	21 39 5 10	Bass very full, just occasionally a touch flabby, but detailed and sweet upper frequencies make this a good value cable Very capable in all areas, particularly good at imaging and with firm bass. Price for 5m terminated pair A few minor flaws, but overall performance is very assured for this price A natural and well controlled sounding cable that's cost effective for mid-priced systems	•	•	•			19 23

SPECS KEY STRANDED Cable has a number of (usually) twisted strands to conduct the signal. SOLID CORE Cable has one or more individually insulated strands to conduct the signal.

COPPER Material used to form the conducting element of the cable. SILVER Alternative material used to form the conducting element of the cable. DIGITAL CABLE TYPE E – electrical, O – optical. Cables are one metre length unless otherwise stated.

HEADPHONES BUYER'S BIBLE

HEADPHONES For your ears only



enclose the ear and press on your head, supra-aurals

press on the ear and intra-aurals sit in the ear and

are particularly popular with personal stereo users.

Getting a good result with headphones is not quite

as straightforward as it should be. Merely plugging

them into the output on your CD player or amp will

not give particularly engaging results unless you are

invest in a dedicated amp - the increase in dynamics

is not in the least bit subtle. A variety of models are

made and prices start at around £80 for a QED, a

little more for designs from, say, Creek or Musical

Fidelity. And if you're really into cans, look up the

valve-powered Earmax.

very lucky. If you are planning on serious listening,

Getting the best from your cans

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

Our favourite BEST BUY E EDITOR'S CHOICE **HEADPHONES**

LECTROSTATI SUPRA-AURAL CIRCUMAURA OPEN BACK Stereo headphones BADGE? PRODUCT £ COMMENTS

AKG K44	20	Lively, enjoyable and remarkably detailed: a bargain					.0	190	۲	219
AKG K270 Studio	129	Pro oriented design which is very transparent and great with acoustic material			•			270		230
AKG K1000	550	Neutral, analytical and completely out of the head sound, suitable for connection to speaker outputs only				•		270		244
Audio Technica ATH-D40fs	105	Detailed and involving sound with a professional 'studio' quality appeal			0		•	250		194
Beyerdynamic DT990	160	Impeccable balance, very extended bass and treble, and bags of detail place this model ahead of the pack			۲	•		250	•	245
Grado SR60	90	For sheer musical enjoyment these are hard to beat. Retro styling may not be to everyone's taste		•		0		200		194
Grado SR80	110	Not perhaps as neutral as some but they communicate well and that's the point of the exercise		•		•		200		230
Philips HP890	70	A remarkably sophisticated and very comfortable headphone			۲	•		330	0	219
Sennheiser HD590	160	Assured and confident headphone with very low coloration and great comfort			۲	•		270	0	205
Sennheiser HD650	299	Astonishing resolution and hardly less impressive tonal balance make this a true hi-fi experience			۲	•		260	•	252
Sony MDR-CD480	40	Generally neutral and nicely detailed - comfortable too			0	0		250		219
Stax System li	400	Luxury option at its price, but the sound delivery is five-star quality all the way	۰		۲	•		295		205
	AKG K270 Studio AKG K1000 Audio Technica ATH-D40fs Beyerdynamic DT990 Grado SR60 Grado SR80 Philips HP890 Sennheiser HD590 Sennheiser HD590 Sony MDR-CD480	AKG K270 Studio 129 AKG K270 Studio 550 Audio Technica ATH-D40fs 105 Beyerdynamic DT990 160 Grado SR60 90 Grado SR80 110 Philips HP890 70 Sennheiser HD590 160 Sennheiser HD650 299 Sony MDR-CD480 40	AKG K270 Studio129Pro oriented design which is very transparent and great with acoustic materialAKG K270 Studio129Pro oriented design which is very transparent and great with acoustic materialAKG K1000550Neutral, analytical and completely out of the head sound, suitable for connection to speaker outputs onlyAudio Technica ATH-D40fs105Detailed and involving sound with a professional 'studio' quality appealBeyerdynamic DT990160Impeccable balance, very extended bass and treble, and bags of detail place this model ahead of the packGrado SR6090For sheer musical enjoyment these are hard to beat. Retro styling may not be to everyone's tasteGrado SR80110Not perhaps as neutral as some but they communicate well and that's the point of the exercisePhilips HP89070A remarkably sophisticated and very comfortable headphoneSennheiser HD590160Assured and confident headphone with very low coloration and great comfortSennheiser HD650299Astonishing resolution and hardly less impressive tonal balance make this a true hi-fi experienceSony MDR-CD48040Generally neutral and nicely detailed – comfortable too	AKG K270 Studio129Pro oriented design which is very transparent and great with acoustic materialImage: Constraint of the state of t	AKG K270 Studio129Pro oriented design which is very transparent and great with acoustic materialImage: Constant of the second s	AKG K270 Studio129Pro oriented design which is very transparent and great with acoustic materialImage: Constraint of the second	AKG K270 Studio129Pro oriented design which is very transparent and great with acoustic materialImage: Constraint of the second	AKG K270 Studio129Pro oriented design which is very transparent and great with acoustic materialImage: Comparison of the second	AKG K270 Studio129Pro oriented design which is very transparent and great with acoustic materialImage: Constraint of the second state of the se	AKG K270 Studio129Pro oriented design which is very transparent and great with acoustic materialImage: Comparison of the second state of the se

SPECS KEY ELECTROSTATIC Uses electrostatic film instead of more common cone or dome dynamics. SUPRA-AURAL Earoads sit on ear rather than around it. CIRCUMAURAL Earoads 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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WEIGHT (g)

BUYER'S BIBLE STANDS AND SUPPORTS

STANDS AND SUPPORTS

Equipment racks and speaker stands

In hi-fi there are two types of stand. One is a rack that holds turntables, amps, CD players and so on and is described as an equipment support, and the other is a speaker stand. The latter comes in three basic varieties, two for standmount speakers: lightweight, multilegged types; and heavy designs with fewer legs and the ability to be mass-loaded for extra solidity. The lighter variety is said to have a quicker sound, while heavyweights give deeper bass and a calmer sound. The third speaker stand type is a platform that sits under floorstanding speakers or speaker/stand combinations, the pneumatic Townshend Seismic Sink being an example.

There are two speaker-to-stand interfacing options: spikes or Blu Tak in each corner of the top plate. Try both and take your pick.

NUMBER

TOP PLATE

NUMBER

ISSUE NU

22

Our favourite	BEST BUY EDITOR'S CHOICE
EQUIPN	IENT SUPPORTS

uipment supports				TE SIZE (O	WELD	OF SHELV	SHELF TY	UE NUMBER
PRODUCT	£	COMMENTS	4	3	0	S	Ř	39
Aavik Furniture A4	350	Good sound and stylish Scandinavian looks at an affordable price	80.5	47		4	MDF	193
Alphason A5-G	399	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	0	4	Glass	217
Audiophile Furniture Base	615	Price is justified by its earth-shattering sonic abilities - a worthy upgrade	82	43		4	MDF	193
Avid Isoschelf	1,100	An enthusiast's equipment support stand free from coloration, if a little fiddly to set up	87.5	48		5	MDF	193
Clearlight Audio RDC Aspekt	550	Stunning neutrality and detail from a well-damped design. Its performance makes the price tag good value	75	53.5,45		4	MDF	217
Custom Design Aspect 650	270	Smart looks and practical thanks to adjustable shelves. Sound is fair with some loss of detail	66	46	۲	4	Glass	206
Custom Design Concept 400	700	Slightly drab appearance, but good sound and efficient use of space	74	48,40		4	Metal	247
Isoblue 'The Stand'	460	Attractive modular design that's as easy on the ear as on the eye	47	48,40		4	MDF	247
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
Sound Organisation Z560	195	Excellent value rack, five shelves too! Well balanced and under 200 quid!	92	50,40		5	Glass	217
Standesign Design 4	190	An all-in-one support at a budget price, with good sonic performance	88.5	50.8	0	4	Glass	193
Townshend Seismic Stand II	1,140	multi-shelf air-suspension support which isolates like few others. Recommended	92	58, 45		5	MDF	240
	PRODUCT Aavik Furniture A4 Alphason A5-G Atacama Equinox Audiophile Furniture Base Avid Isoschelf Clearlight Audio RDC Aspekt Custom Design Aspect 650 Custom Design Concept 400 Isoblue 'The Stand' Naim Fraim Quadraspire Q4 Reference Russ Andrews Torlyte Rack Sound Organisation 2560 Standesign Design 4	PRODUCT £ Aavik, Furniture A4 350 Aavik, Furniture A4 350 Alphason A5-G 399 Atacama Equinox 280 Audiophile Furniture Base 615 Avid Isoschelf 1,100 Clearlight Audio RDC Aspekt 550 Custom Design Aspect 650 270 Custom Design Concept 400 700 Isoblue 'The Stand' 460 Naim Fraim 1,825 Quadraspire 04 Reference 480 Russ Andrews Torlyte Rack 988 Sound Organisation Z560 195 Standesign Design 4 190	PRODUCT £ COMMENTS Aavik Furniture A4 350 Good sound and stylish Scandinavian looks at an affordable price Alphason A5-G 399 Nice looking, very solid and practical with a pretty well balanced sound, but lacks a little detail Atacama Equinox 260 Stable, modular design with style. Excellent bass transients and a fresh design concept Audiophile Furniture Base 615 Price is justified by its earth-shattering sonic abilities – a worthy upgrade Avid Isoschelf 1,100 An enthusiast's equipment support stand free from coloration, if a little fiddly to set up Clearlight Audio RDC Aspekt 550 Stunning neutrality and detail from a well-damped design. Its performance makes the price tag good value Custom Design Aspect 650 270 Smart looks and practical thanks to adjustable shelves. Sound is fair with some loss of detail Custom Design Concept 400 700 Slightly drab appearance, but good sound and efficient use of space Isoblue 'The Stand' 460 Attractive modular design that's as easy on the ear as on the eye Naim Fraim 1,825 Pricey but very classy looking and sounding, with modular flexibility Quadraspire Q4 Reference 480 Excellent performance from the school of wobbly racks. Natural sounding and plenty of detail	PRODUCT © COMMENTS COMMENTS Aavik Furinture A4 350 Good sound and stylish Scandinavian looks at an affordable price 80.5 Aphason A5-G 399 Nice looking, very solid and practical with a pretty well balanced sound, but lacks a little detail 80 Atacama Equinox 280 Stable, modular design with style. Excellent bass transients and a fresh design concept 81 Audiophile Furniture Base 615 Price is justified by its earth-shattering sonic abilities – a worthy upgrade 82 Avid Isoschelf 1,100 An enthusiast's equipment support stand free from coloration, if a little fiddly to set up 87.5 Clearlight Audio RDC Aspekt 550 Stunning neutrality and detail from a well-damped design. Its performance makes the price tag good value 75 Custom Design Aspect 650 270 Smart looks and practical thanks to adjustable shelves. Sound is fair with some loss of detail 66 Custom Design Concept 400 700 Slightly drab appearance, but good sound and efficient use of space 74 Isoblue "The Stand" 460 Attractive modular design that's as easy on the eya 615.5 Ruim Fraim 1,825 Pricey but very classy looking and sounding, with modular flexibility <td>propert supports product c COMMENTS Comments</td> <td>PRODUCT © COMMENTS COMMENTS Aavik Furniture A4 350 Good sound and stylish Scandinavian looks at an affordable price 80.0 80.0 74 7 Aphason A5-G 399 Nice looking, very solid and practical with a pretty well balanced sound, but lacks a little detail 80.0 66.4 7 Audiophile Furniture Base 615 Price is justified by its earth-shattering sonic abilities – a worthy upgrade 822 433 7 Audiophile Furniture Base 615 Price is justified by its earth-shattering sonic abilities – a worthy upgrade 822 433 7 Audiophile Furniture Base 615 Stunning neutrality and detail from a well-damped design. 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Our favourite EEST BUY CE EDITOR'S CHOICE SPEAKER STANDS

Speaker stands

She			EIGHT	E (CM)	LABLE	LDED	LEGS	MBER	
BADGE?	PRODUCT		£ COMMENTS	4	5	m	8	ŝ	30
88	Atacama Nexus 6	60	An excellent all-round performer and a genuine hi-fi bargain	60,50	14.5,18	•		3	202
	Custom Design R/S300 Mkll	100	A solid stand improving on the original, with better focus and detail	61,56,51	16.5,18	۲		2	202
	hne Cableway	399	Looks great, sounds great, so start saving! Clean and sweet, and neutrality is exceptional with orchestral material	63	17,20	•		1	220
88	Kudos S50	115	Formidable bass with real authority, and a wide dynamic range across a broad bandwidth	61	15, 20	•		1	220
	Partington ANSA 60	90	Elegant flat-packer 'disappears' sonically; restrained but neutral and coherent	62	18,15	۲		4	232
88	Partington Dreadnought	100	Fully welded high-class engineering gives a very clean, open sound at a sharp price	61	17,15	0	0	5	220
	Sound Organisation Z522	95	Very hefty build for the price helps to deliver a solid sound with good authority and drive	60	16	•		4	220
	Townshend Seismic Sink	499	Unique inflatable plinth that works wonders with decent floorstanders, as well as standmounted speakers	4	38,48			0	202

EQUIPMENT SUPPORTS 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

S.1-CHANNEL AUDIO Six discrete channels, typically front left and right, centre, surround left and right, and LFE (Low Frequency Effects) for a subwoofer. BALANCE Most loudspeakers have a characteristic frequency balance resulting from emphasising parts of the audio range and/or de-emphasising others. BASS The lowest three octaves of the audio band - hence 'low bass' refers to the bottom octave (20-40Hz); 'mid-bass' the middle octave (40-80Hz): and 'upper bass' the 80-160Hz octave

BI-AMP (sometimes tri-amp) Loudspeakers equipped with separate access terminals to each drive unit can be driven by separate (matching) power amplifiers for each driver

BI-WIRE (sometimes tri-wire) Loudspeakers with separate access terminals to each driver can be driven by separate cable runs between the amp and each driver

CD-R Recordable CD that cannot be erased, though discs that have not been completely filled can have tracks added until the disc is finalised.

CD-RW Re-writable or re-recordable CD_incompatible with older CD players CLASS A The operation of an amplifying stage or device in which current always flows, as opposed to Class B, where some of the devices are effectively turned off some of the time Class A tends to have the advantage of offering lower distortion while Class B tends to generate less heat.

CLASS AB Most practical amps operate in Class A for the first fraction of a watt and Class B thereafter.

CLIPPING An amplifier's output waveform is 'clipped' if the volume is advanced too far and no more 'volts' are available to sustain ever-increasing nower levels. Distortion increases dramatically at this point.

CLOCK Any electronic oscillator that is used to generate a timing reference signal. Used to synchronise the data being taken from a disc.

CROSSOVER A simple electrical network which divides the full bandwidth signal received from the power amplifier. apportioning appropriate parts of the spectrum to the various drive units DAB (digital audio broadcasting). Digital radio using frequencies in the band 217.5 - 230MHz Broadcasters use

varying degrees of compression and offer a broad range of programming. DAC or Digital-to-Analogue Converter The stage in any digital component at which incoming digital data is used to reconstruct a recognisable analogue (music) waveform

DOLBY DIGITAL

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 L/R. centre and mono surround channels via an analoque 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 capacity of CD.

DSP or Digital Signal Processor. Integrated circuit that handles the decoding of digital audio streams. In 5.1 processors it separates the left from right and front from rear while managing the various bass options.

DTS or Digital Theatre Sound Competitor to Dolby Digital with a reduced 41 compression ratio that, ostensibly, promises higher quality DVD-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

loudspeaker presents to the amplifier which is driving it. JITTER An insidious distortion specific

to digital audio caused by the clock. used to regulate the conversion of data into analogue audio, being imprecise KBPS (Kilobits per second) Digital data rate measurement system used primarily with highly compressed formats such as MP3, DAB etc. The higher the amount, the better the quality.

LINE LEVEL Practically every modern source component (except phono 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 psychoacoustical 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 wave forms 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 canable of 192kHz/24-bit

PRESENCE BAND Critical section of the audio band at the point where midrange and treble meet

OUANTISATION NOISE A form of distortion or noise resulting from errors in the description of the musical signal by the digital code

SACD (Super Audio CD) was launched in 1999 and is a Sony/Philips format based on DSD coding that offers high resolution stereo and multichannel sound from hybrid discs that can also be played on ordinary CD drives

SAMPLE RATE The rate at which the musical waveform is sliced up into discrete chunks. For CD this is 44.1kHz or once every 0.023msec. DVD will also support 48kHz and 96kHz

SENSITIVITY The relative loudness that a speaker generates for a specific voltage input. Expressed in decibels per watt (dB/W).

THX Standards system for home cinema set-ups which includes amplifier power and speaker dispersion characteristics. THX Ultra is more stringent than THX Select.

TOSLINK The proprietary name given by Toshiba to the optical fibre signal transmission system it invented for consumer application:

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. TWFFTFR Treble driver

TWO/THREE-WAY Loudspeaker crossovers split the signal into two or three frequency bands, a two-way speaker can have more than two drive units

WATTS (per channel) The watt is the unit of electrical power and the WPC rating is the maximum average undistorted power that an amp can deliver to a typical speaker. However, speaker sensitivity variations can make more difference than amplifier output.

DESCRIPTIVE TERMS

AGGRESSIVE Forward and bright sonic character **AMBIENCE** The impression of an

acoustical space, such as the performing hall in which a recording was made.

ANALYTICAL Highly detailed. ARTICULATE Intelligibility of voice(s) and instruments and the interactions between them

ATTACK The leading edge of a note and the ability of a system to reproduce the attack transients in

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 'iuice' which usually comes across as finegrained and lean. Also a loss of reverberation as produced by a damped environment.

DYNAMIC The suggestion of energy and wide dynamic range. Related to perceived speed as well as contrasts in

volume both large and small. EUPHONIC An appealing form of distortion that generally enhances perceived fidelity, often ascribed to the harmonic elaborations of some

valve amos 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

JUICY Sound that has joie de vivre,

LOW-LEVEL DETAIL The quietest sounds in a recording.

MUSICAL or musicality. A sense of cohesion and subjective 'rightness' in the sound.

OPAQUE Unclear, lacking

OPEN Sound which has height and 'air', relates to clean upper midrange

PACE Often associated with rhythm

PRESENCE A sense of an instrument

SEISMIC Very low bass that you feel

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.

1

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.

H I KAA

place in the room. energy and life.

NATURALNESS Realism

transparency.

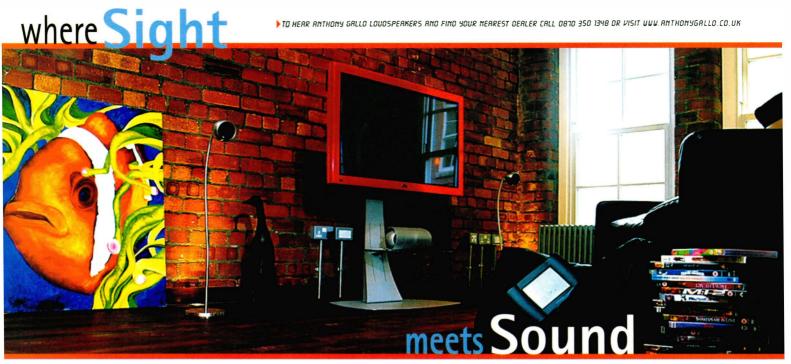
and treble.

a strong sense of timing and beat.

or voice occupying a place in the listening room

PRESENCE RANGE The upper

rather than hear.



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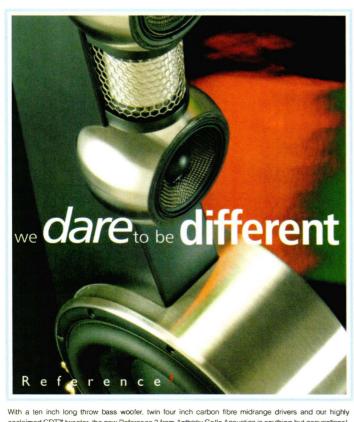
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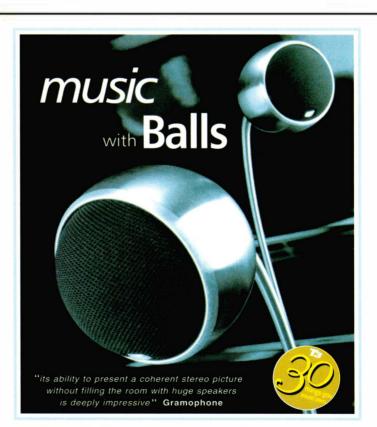
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Key Features High quality

production Suitable for all two channel and surround systems

performance

 Effectively improves system



ACCESSORIES SHOP HUHZ 74 S

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Clearaudio Quadra Record Clamp	£69.95	
Clearlight Audio (RDC) Record Puck	£54.95	
Loricraft Stroboscopic Light	£49.95	
Michell Engineering Record Clamp	£22.95	
Michell Universal Dust Cover	£44.95	
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Polaris Plus Stylus Alignment Gauge	£5.95	
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DIGITAL ACCESSORIES

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AudioPrism CD Blacklıght™	£39.95	
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A-Z CD Clips	£7.95	
Bedini Hand Held Clarifier Mkll	£69.95	\Box
Compact Dynamics CD Plus	£14.95	
Compact Dynamics CD UpGrade	£14.95	
Densen DeMagic CD	£11.95	
Furutech RD-2 Disc Demagnetizer	£219.95	
lsoTek Full System Enhancer Disc	£14.95	
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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!

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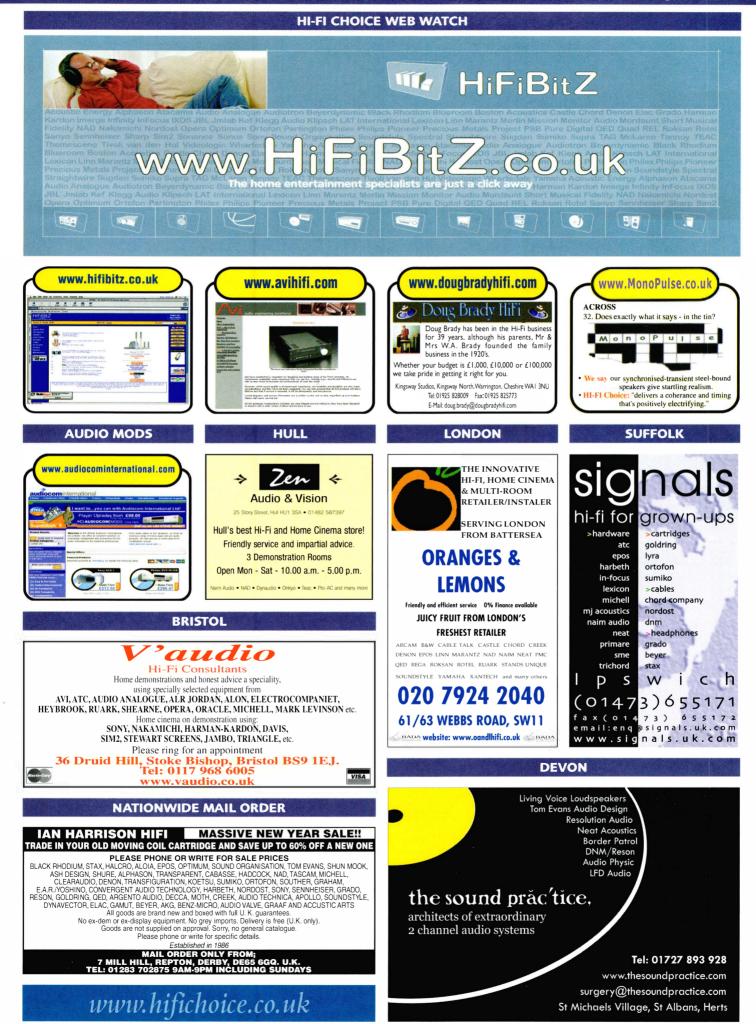
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Technical knockouts

David Vivian checks out the heavyweight turntable championship of the world. Let's get ready to rumble (or not...)

t's shaping up to be an epic battle in the mould of Ali/Frasier (Smokin' Joe, that is, not Niles's brother), Borg/McEnroe, *Alien/ Predator*, immovable object/irresistible force.

So, in anticipation of the main event, big breath... Laydeeez an' gennelmen, pleeeeeze welcome, in the red corner, all the way from Rockport, Maine, USA, the Rockport Technologies Siriuuuuus Threeeeeee! (Wild applause and yelling). And, in the blue corner, fighting out of Batchmere Road, Almodington, Chichester, West Sussex, the turntable they call the Blue Pearl Audio JEM, it's the Blue Pearl Audio JEM. Yeah. (Deafening silence).

Seems a little unfair, doesn't it? The monicker of America's undisputed world heavyweight turntable champion sounds aptly immense and dangerous, yet the first real, cost-no-object challenger for its crown comes from Batchmere Road and has a name like something out of a watch fetishist's wet dream. The Sirius III had better not laugh, though. The degree of menace evoked by its British challenger's nomenclature may be on a par with *My Little Pony*, but Pearly is a *Terminator* of a turntable and it's only a matter of time before someone, somewhere gets the two vinylspinning leviathans together for the greatest rumble in the history of super high-end hi-fi.

That someone will not be me. I run a Pro-ject 1 Xpression. For the price of the JEM, I could buy 233 Xpressions and give them to people who think a cheap DVD player is real hi-fi. What I'd actually do is buy a nearly new, red, Porsche 911 Carrera 2. And a slightly better turntable. It's called a sense of perspective.

But in case you're wondering, £49K. That's how much a JEM will set you back and, if it doesn't make it the most costly deck on the planet, it bloody well ought to. The Rockport's \$73,750 had looked completely insane until the JEM turned up but, what with the current

"It has a name like something out of a watch fetishist's wet dream."

EXTREME

dollar/sterling exchange rate, it checks in a cool £8,175 less than the British deck. In automotive equivalence, that's a new Porsche Boxster S with extras. Depends how you want to play it, but I make that first blood to Pearly.

The core of the contest, though, is sheer unadulterated overkill and, here, the Rockport is a genuine phenomenon. With its airsuspension isolation stand, air-bearing platter (both the axial and radial loads are supported by the stuff we breathe), captured air-bearing arm and direct-drive brushless motor, the only physical interaction the Sirius III permits is that of stylus and record. No springs attached. No belt, thrust plate or bushings, either. Its extremely rigid 'monocoque' construction has more in common with the way cars are built. And its 185lb epoxy-composite plinth - fibrereinforced, resin-shelled, lead-ballasted, and mineral-filled - is outrageous. Surely its 62lb, constrained-layer-damped five-piece platter, machined from solid 303 stainless-steel bar stock and including a recessed top section embedded with a high-hysteresis, mineral-filled PVC alloy, coated with a proprietary material with a unique combination of properties essentially eliminating unwanted vibration at the record surface, wraps things up?

Well it might do, except the JEM has a 100lb platter made from solid 316 stainless steel (with a high nickel and chromium content, one of the strongest) and a 25mm thick solid brass plate, cut from solid sheet. The rest of the turntable, including the plinth, is made from granite and uses powerful Neodymium rare-earth magnets to partially float the platter. And its aerospace-sourced motor has an optical encoder that checks the platter's speed stability 15,000 times per rotation.

It's enough to make your eyelashes flutter. Overall, the JEM wins the tale of the tape by a couple of whiskers. I wonder if anyone will be brave enough to referee the match. **HFC**

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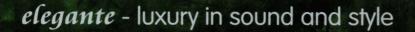
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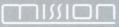


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