

Good news for CD owners...

Brennan - a revolutionary new way to play music

The Brennan JB7 is a small CD player with a hard disk that stores up to 5,000 CDs. It saves the space and clutter of the CDs and provides immediate playback of any track.

The Brennan can also record from Vinyl and cassette and can load and play MP3s through the USB port. The idea is you load your entire music collection - past, present and future - then put the CDs etc. out of the way in another room or retire them to the attic. You can either use the JB7 as a source for your existing

The Brennan gives names to tracks and albums as you load each CD. It takes a few minutes to load a CD. The Brennan has a text search facility that shows a reducing number of matches as you press successive letters on the remote control. Once you get the hang of it you can find one track or album out of your entire music

collection in a few seconds. So to find "Nessun Dorma" you would press letters "NES" or "DOR" and scroll through the shortlist of matches.

Hi-Fi or it will drive loudspeakers directly.

"Huge fun to use... a great talking point"

"Ultra simple, Superb"

Gramophone



Brennan JB7

Key Points

- Browse albums by spinning the volume knob push to play
- Display track names as they play
- Delete unwanted tracks
- Seven rainbow colour coded playlists
- One button plays the entire music collection at random
- Segue function blends one track into the next
- One touch record from Vinyl, cassette or radio
- Clock with alarm
- 60 Watt, $4.8 \times 16 \times 22$ cm steel and aluminium construction
- Backup music to external USB hard disk for safe keeping

Prices from £359...

To get the whole story and order visit www.brennan.co.uk



Hi-Fi Choice

YOUR EXPERTS



PAUL MESSENGER
EXPERTISE: SPEAKERS

PAUL is the UK's foremost expert on loudspeakers. Having worked as a speaker designer and reviewer for over 30 years Paul is internationally recognised for his ability to assess loudspeaker performance, and report on developments in the field.



JIMMY HUGHES
EXPERTISE: SYSTEM OPTIMISATION

JIMMY has been involved in hi-fi for over 40 years. His knowledge of tweaking and optimising systems is unrivalled in the hi-fi industry and he brings enormous expertise to the pages of Hi-Fi Choice. If anyone can help you improve your set-up, it's him.



RICHARD BLACK EXPERTISE: TECHNOLOGY

RICHARD writes exclusively for HFC and brings his experience as a successful musician and recording engineer to the title. As Technical Consultant, he's our authority on tech testing, ensuring that our verdicts are beyond compare.



JON MARKS
EXPERTISE: DIY AND VINTAGE

JOHN previously edited Hi-Fi World magazine before joining the UK's leading title, Hi-Fi Choice. Jon has a wealth of reviewing experience, as well as a passion for vintage audio gear and a gift for repairing and upgrading ageing kit.



ALVIN GOLD EXPERTISE: PERFORMANCE AUDIO

ALVIN is an internationally respected audio reviewer who has contributed to a huge range of magazines over the years. He has a very full 30 years of reviewing under his belt and has a passion for both high-performance and high-end hi-fi.



JASON KENNEDY EXPERTISE: TURNTABLES

JASON edited Hi-Fi Choice through the Brit-pop era and relinquished the helm after 17 years on the title. A hi-fi addict since his twenties, Jason fell for the beauty of vinyl and has never looked back. He's here to help you get the best from your LPs.



MALCOLM STEWARD EXPERTISE: EMERGING TECH

MALCOLM is a legend in hi-fi magazine circles. A former editor of *Hi-Fi Review* he was one of the best-known and most outspoken reviewers of the 1980s and 1990s. He now writes exclusively for *Hi-Fi Choice* and he loves being 'back'.

Welcome...

www.hifichoice.co.uk Issue No. 334 July 2010



Firstly, thank you to everyone who got in touch and gave their feedback on the **new-look** *Hi-Fi Choice* – we really appreciate your positive comments and we're glad you

like the improvements we've made.

The office is still buzzing from the great sights and sounds of **High End, Munich**:
Europe's biggest hi-fi show and we're delighted to be the first magazine to share with you the highlights of this fabulous event. See Jason's four-page report on p16.

We've had a great month playing with the **summer's best small speakers** and have made a couple of great audio discoveries, too, including **Linn's stunning Uphorik** phono stage (p72) and what we consider to be **the best music portable on the market** – Sony's NWZ-A845 Walkman (p65). Just in time for that well-earned summer break.



Dan George Editor dan.george@futurenet.co.uk

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OUR PROMISE TO YOU

HI-FI CHOICE is passionate about high-fidelity. We're dedicated to the very highest standards of sound reproduction. Our commitment is to bring you the most reliable, in-depth hi-fi equipment tests anywhere and we're backed by the UK's biggest technology publisher. Our expert writers will help you get the most from your hi-fi and guide you towards the best-performing products for your budget. Our passion is your passion.



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A Jordan Acoustics Exclusive

TEMDE

Precision Turntable -

Back to the future

The late **Peter Dunlop** created the very first Systemdek Turntable over 30 years ago now. From the first day of launch, it caused quite a stir among the press with its numerous innovations. Not surprisingly, it took very little time before people realized just how comfortably it outperformed the competition. Now Systemdek is back and looks set to repeat history all over again with a turntable whose performance, aesthetics and engineering push the very limits of what is achievable today.

Successors to the throne. sons Derek and Ramsay Dunlop's vast experience of building award winning analogue products alongside their father has resulted in a groundbreaking 3-point suspended precision turntable

Going back to the drawing board with a clean sheet, the **Systemdek 3D** utilizes some extraordinarily clever engineering to ensure it is as free from external feedback as is currently possible.

At the heart of the Systemdek 3D is a unique main bearing, mirror finished and rumble free complete with a magnetically oil damped contactless thrust bearing. The bearing is mounted directly to a solid carbon fibre subchassis, itself mounted in a mass damped 'hung' chassis. Due to the unique spring configuration and mass loading, setup is both simple and straightforward for any 9" - 12" arm. Other features include a beautiful Swiss precision DC motor, bespoke control box housing and any colour imaginable allowing you to match your Systemdek 3D turntable to your particular surroundings or taste

Peter would be proud. A true Systemdek in every conceivable sense that raises the bar way, way up.

Jordan Acoustics are both proud and honoured that the **Dunlop's** have chosen us as the UK's exclusive sales agent for the all-new range of Systemdek 3D turntables. It is a true testament to our position as the high-end retailer for specialist hi-fi across the UK.

At the time of going to press, pre-orders were almost complete so the order book is now officially open!

For further details or to arrange your demonstration please call us on 0800 121 4772.

SYSTEMDEK

DMD Technology

Uncovering the Key To Superlative Diamond Sound

We think that the NEW Dancer Be Diamond range of speakers offer almost unparalleled performance for the money. The Be-10 and 20 have what we refer to as 'the whole package' - both visually and sonically.

Dancer Be-10

Often considered to have the best midrange in the world, the critically acclaimed **BE-10** is now equipped with the **incredible USHER Diamond DMD tweeter**. Whilst capable of retrieving the last bit of music information in the recording and reproducing a stunning sound stage and palpable imaging, the **BE-10 Diamond DMD** captures the thrills of the performance and presents the music with such purity and sweetness like no other could.

Dancer Be-20

With the addition of a second woofer, implemented in **Usher's** proprietary configuration, the **BE-20 Diamond DMD** possesses an ease and authority in ultra low bass reproduction that's difficult to match even by speaker systems several times larger in size. For those seeking the final word in ultra low bass reproduction, and those who have a large listening room. **Magnificent!**

USHER







Objects of desire

Cherished by music lovers around the world since 1961

The MC275 was designed and engineered in 1961 by McIntosh cofounder Sidney Corderman and the McIntosh Engineering Team.

MC275 delivers 75 watts per channel into 2, 4 or 8 ohm loads, or 150 watts in bridged mono mode.

McIntosh's Unity-Coupled circuit and **Transformer design** ensures **ultra-wide frequency bandwidth**, yielding much lower distortion and noise across the entire 20-20,000Hz music range.

Both **balanced** and **single ended inputs** are supported. The mirror polished stainless steel and black chassis with die cast nameplate is presented here just as it was in the original 1961 model.

The MC275 is incredibly fast, dynamic and so open that you can almost walk into the vista size soundstage. For the ultimate performance you can add a second MC275 later and run them in bridged mode. Prepare to be left breathless!



Hi-Fi Choice

www.hifichoice.co.uk Issue No. 334

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van den Hul MC10 Special cartridge 33







Vinyl victorious In-depth report on vinyl



Show report High End, Munich



Beautiful Systems The ultimate Cyrus set-up

Listening to music from LP is where it's at, a life-enhancing thing

Linn Uphorik MC/MM phono stage p72

TESTED THIS MONTH





Audio-Technica ATH-W1000X headphone



Dynavector Karat 17D3 MC cartridge



Qsonix Q105 Music management system



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All the latest news and views from the hi-fi industry

Denon's mighty hi-fi duo promises rich, unparalleled music expressiveness and depth of sound



Pure theory

Less is more, in Denon's search for audio purity with the 1510 Advanced Evolution amp and CD/SACD player

> PRICE: £900 EACH AVAILABLE: NOW CONTACT: 02890 279830 WEB: DENON.CO.UK

hat does it take to make the perfect hi-fi component? For Denon, in the new PMA-1510AE integrated amp and DCD-1510AE CD/SACD player, the answer appears to be an almost yin-yang blend of simple, direct signal paths supported by carefully crafted ancillary circuitry and select parts, all dedicated to the quest for clarity and realism.

Behind the discrete styling of the PMA-1510AE amplifier's casework, the yang side of the equation is easy to see – the 15.5kg mass comes courtesy of heavy casework (designed to keep the centre of

gravity low and minimise vibration) and a pair of EI mains transformers, one for each channel. Beyond the positioning of these transformers to cancel flux leakage, subtler approaches include extra-thick copper tracks on power PCBs and the use of Schottky diodes, the low-noise rectifier of choice in DIY and high-end communities.

More yin are the Denon's strippeddown signal paths. To keep these short and simple, the company has retained its Ultra-High Current MOS-FET output stage, which yields 70 watts per channel into eight-ohm loads. While companies like Krell opt



for multiple, paralleled transistors to provide plenty of current to drive tough loads, Denon (like DartZiel and others) have stayed true to single pairs of devices. These clean signal paths are backed up by hand-picked parts, which have been chosen after careful audition. One of these is the 27-millimetre volume control fitted to the range-topping PMA-2010AE.

More trickle-down technology appears in the DCD-1510AE CD/SACD player, where the 32-bit, 192kHz DACs fitted to the flagship DCD-2010AE feed analogue stages with short signal paths. Upstream of the DACs is the company's own

Advanced AL32 Processing which also appears in the more expensive Denon. Though listeners have not always been convinced of the benefits of this upconverting, upsampling and processing system when applied to CD (the same goes for Pioneer's Legato Link), the 1510AE's USB port means AL32 can work to the benefit of audio from iPods, MP3 players and other portable devices.

To find out how this intriguing combination of minimalism and cutting-edge technology performs, look out for an exclusive review in next month's issue.

DATA INTEGRITY

ENSURING THAT the data stream input to the DACs is of high integrity, Denon (like Rega and Cyrus, to name but two others) has employed a mechanism designed to reduce levels of vibration.

For example, the motor shaft has been made as short as possible to keep the drive motor close to the disc turntable, while a Suppress Vibration Hybrid loading mechanism is also employed. In addition, PCB traces have been shortened to boost signal-to-noise ratios.



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Audiofile

Flower power

B&O's striking tulip-shaped sub packs a 200-watt punch

ut your hand up if you can think of more than one or two subwoofers which don't look like a safe with a drive unit screwed to its underside. Now joining the creative likes of Wilson Benesch's iconoclastic Torus, is the Beolab 11, styled by designer David Lewis.

Partly hidden between the two 'petals' of the tulip form are a pair of 6.5-inch (165mm) drivers, each bolted into one of the curved enclosures. Given the cone area involved, the cabinets' volumes of 2.5 litres a side, and the fact that Bang and Olufsen claims a lower frequency limit of 33Hz, the company has used its proprietary Adaptive Bass Linearisation (ABL) DSP software in the sub's electronics.

ABL produces a series of test signals from the drivers which are picked up by a built-in microphone, allowing the DSP to alter the sub's output to yield the most even response. This may not be as accurate as multiple measurements taken at the listening position, but it does make for easier integration in a wide variety of rooms. Backing up the crossover is a total of 200 watts of amplification, provided by B&O's own ICEpower modules, as used by a number of other manufacturers of class D amps.

The Beolab 11 is as radical a sub in terms of positioning as was Technics'

SL-10 turntable in 1979; like the Technics, the 11 can be wall-mounted. B&O says this is possible thanks not only to the lightweight aluminium construction, but also to their Acoustic Balance Principle, which sees the drivers placed opposite one another and operating in-phase, for mutual cancellation of unwanted vibration.



PRICE: £TBC AVAILABLE: NOW (WEB ONLY): BANG-OLUFSEN.COM



Chamber music

WHILE IT MIGHT AT FIRST appear to fly in the face of the 'simplicity is best' axiom to which Neat itself and other manufacturers like Epos adhere to, packing 12 drivers into a pair of slim cabinets is not as radical a departure as it might seem.

Admittedly a world away from the commonor-garden two-way, the Ultimatum XL6 commits its first pair of drivers (Neat's own 168mm units) to bass duties. These are hidden away in their own chambers in the isobaric arrangement beloved of Linn in its classic floorstander. Another duet of drivers working together are the EMIT supertweeters atop the enclosure, firing upwards said to add a sense of spaciousness. The remaining complement consists of a Neat mid/bass allied to a modified SEAS XL Sonomex tweeter.

PRICE: £6,500-£7K (TBC) AVAILABLE: NOW CONTACT: 01833 631021 WEB: NEAT.CO.UK



27 YEARS after the arrival of CD, rumours of vinyl's death are still greatly exaggerated and both new turntables and cartridges just keep coming. Following hot on the heels of the thirdgeneration OC9 ML3 seen in the last issue, audio-technica's latest F3 and F7 MCs are aimed listeners with slightly tighter purse strings.

The AT-F3 (now in its third updating) shares with the more expensive AT-F7: an aluminium pipe cantilever; a nude elliptical stylus and neodymium magnets hidden within a hard resin body. The price differential comes from the F7's stainless steel suspension wire and the reverse V-shaped formation for the left and right coils, which lowers mass and minimises the movement of the coils and thus distortion.

PRICE: £189 (F3); £299 (F7) AVAILABLE: NOW CONTACT: 01235 511166 WEB: AUDIOTECHNICA.COM



Iron man

THE TRADITIONAL PRE/POWER combo comes in two boxes; Robert Koch's hybrid power amp is somewhat different. In three cases are the Takumi K-70's pair of power amps and a power supply with enough iron in it to tip the scales at 40kgs. The transformers are R-cores (as used by Technics), one 600VA type for the output stage of each channel. The front end consists of a pair of 5842 triodes, class A with zero negative feedback. Like some of the power amps of renowned Japanese designer Akihiko Kaneta, the K-70's output stage uses multiple paralleled devices, class A and no feedback. More unusual is the single-ended topology.

PRICE: £36,500 AVAILABLE: NOW CONTACT: 07508 730899 WEB: AMPLITUNE.CO.UK

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Salisbury HiFi

The Audio Room

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See www.fact-speakers.com

Aberdeen Ashford Bishops Stortford Bolton Brighton Cambridge Coventry Edinburgh Enfield Gateshead Guildford Hitchin Kingston Maidstone Market Harborough New Malden Norwich Nottingham Oxford **Portsmouth**

HI-FICHOICE magazine

This is an excellent speaker, clean, clear and smooth with excellent imaging and good bass extension. Beautifully styled, presented and finished.

Dec 2009

Natural, dynamic and an exceptionally live sound

Plus: Huge dynamics even at low level, excellent finish, great design

Minus: None

sempre-audio.at

"These PMCs are exceptional, highly desirable in every way"



"Mote than mere hi-fi, this was dimusical performance It's a fact; fact8 is a great Budspeaker"



The **fact.8**'s are one of those rare speakers that do everything well.

Man, I Love these speakers -

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HI-FICHOICE AWARDS 2009 WINNER

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www.pmc-speakers.com

Salisbury

Southampton

Twin peaks

The K2 is JBL's second imposing speaker after its mountainous Everest DD66000 and the credentials are just as impressive

t the top of its range, it's a simple fact that JBL doesn't do 'small'; K2 may be the world's second highest peak after Everest and the S9900 may have a considerably small footprint than its larger sibling, but it still weighs in at a hefty 83kg per cabinet.

The lineage of the K2 is obvious, thanks to the stylistic involvement of Daniel Ashcraft Design. There are the curved and heavily braced sides and back, the non-parallel arrangement eliminating standing waves. Each of the rear-ported and heavily braced enclosures houses a 15-inch (381mm)woofer.

The horn-loaded magnesium 'midrange' driver has a huge bandwidth of 900Hz to 15kHz, neatly sidestepping the problems of typical two- and three-way designs, where phase disturbances at the crossover point and the transition between diaphragms of different materials, cause problems with impulse response

and tonal cohesion. The beryllium supertweeter extends the system's output to 50kHz, avoiding any truncation of upper frequencies from SACD and other high-res formats.

Like the DD66000, the crossover is user-adjustable to provide subtle lift or cut of mid and treble, its capacitors biased by a 9-volt battery to reduce distortion

The K2 is hardly cheap, but the benign load and its 93dB sensitivity, will allow even the tiniest valve amp to thrive.





PRICE: £28,000 AVAILABLE: NOW CONTACT: 01423 359054 WEB: CSECUSTOM.COM



The sound of silence

WHILE NAIM'S SERVERS have never suffered from hard drives which sound like a Cyberman in need of an oil change, truly silent storage only comes with a Solid-State Drive (SSD).

An upgrade for owners of the firm's HDX, or as a new unit in its own right, the HDX-SSD contains a 16GB SSD (double the standard unit's RAM) and Naim's new PCI audio card.

The trade-off between a traditional hard-drive and an SSD is invariably price versus capacity. With only 16GB, the HDX-SSD is aimed at users wanting to store their music on a NAS drive, leaving the SSD to handle the OS and any future software upgrades.

PRICE: £TBA AVAILABLE: JULY **CONTACT: 01722 426600 WEB:** NAIMAUDIO.COM

Tubular belles

THE GREEK ECONOMY may be in trouble, but Tsakiridis Devices has just created the 45-watt Aeolus Plus. This class A/B push-pull integrated uses two 6550s per channel, fronted by 12AT7s in a low-feedback design. The volume control is Alps' widely used Blue type.

PRICE: £1,635 AVAILABLE: NOW CONTACT: 01473 217853 WEB: IKONAUDIOCONSULTANTS.COM

THE MONTH IN NUMBERS

different equalisation curves in AMR's PH-77 phono stage with analogue-to-digital converter

million iPods sold by Apple in the first guarter of 2010 alone. In the same period, they shifted a mere 8.7 million iPhones

years since John Bowers set up Bowers and Wilkins, building speaker systems by hand in the back of the electrical shop he ran with his friend Roy Wilkins

> copies only in Sony's pressing run of a UK-exclusive Jimi **Hendrix limited edition** 7-inch vinyl



NEWS IN BRIEF

A selection of news-breaking stories on everything hi-fi!



• ATLAS CABLES' new £285 Mavros digital interconnect features Microporous PTFE foam insulation, which is said to have a dielectric constant 30 per cent lower than solid teflon, affecting timing and dynamics.

atlascables.com



• DEPRESSING news from Sennheiser and hearing care experts Cubex: one in ten 30-year-olds will be wearing a hearing aid by 2020, if they don't turn their portable players down.

cubex.co.uk/client-events



• ALSO NEW on the interconnect scene is The Chord Company's £66 CobraPlus. Twisted-pair OFC conductors sit beneath a heavy woven and foil shield, chosen to keep interference away from the delicate audio signal. chord.co.uk



 DALI has brought its Ikon range up to Mk2 status with the introduction of new low-frequency units said to provide better integration with the company's Hybrid Tweeter module.

dali-speakers.com



• REGA has teamed up with Rough Trade record shops to produce a special edition of the P1 turntable – the £199 RTP1. The only new touches are the Rough Trade logos on the plinth and lid. roughtrade.com

Six degrees of separation

Innovative construction in Mark Levinson's new powerhouse

ark Levinson's No.532 is hardly the first muscle amp from a high-end US outfit, but it showcases the sort of ingenious layout you might justifiably expect in a component which costs a hardly trifling £17,000.

From the front, the 532 might look like traditional Levinson, but it's at the rear where the differences are to be found. The amp's engineers have cunningly split the rear half of the amplifier into three 'piers', one on either side for the audio circuitry,

the central one for control and power electronics.

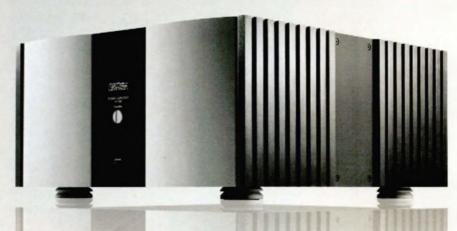
Not only does this reduce crosstalk between channels and contamination from non-audio PCBs, it also deftly increases the area of the heatsinks, hardly an inconsequential consideration in an amp which produces 400 watts per channel and doubles its output for each halving of load impedance.

In place of the typical FR4 PCB material, ML's listening test have led them to adopt Arlon, which is usually

found in high-frequency applications.

Hidden behind the fascia are the toroidal power transformers, again separated depending on their purpose – control or audio. The former includes the ability to link the No.532 to a PC for use in a networked system via a standard RJ45 socket.

For systems within a single listening room, both XI.R and RCA input sockets are fitted, along with over-sized binding posts.



PRICE: £17,000 AVAILABLE: NOW CONTACT: 01423 359054 WEB: CSECUSTOM.COM

DESERT ISLAND DISCS

Steve Harris, hi-fi PR man finds his love of good music undimmed by years in the industry





ELTON JOHN

MADMAN ACROSS THE
WATER

As a set of songs it encompasses most of the key emotions. The production and arrangements by Gus Dudgeon and Paul Buckmaster are big, classic Elton John.



MARC COHN

It's an album of songs which create strong visual images and atmospheres. It's also been good enough to use on a few Blind-listening Group Tests I've been involved in, so who am I to argue?



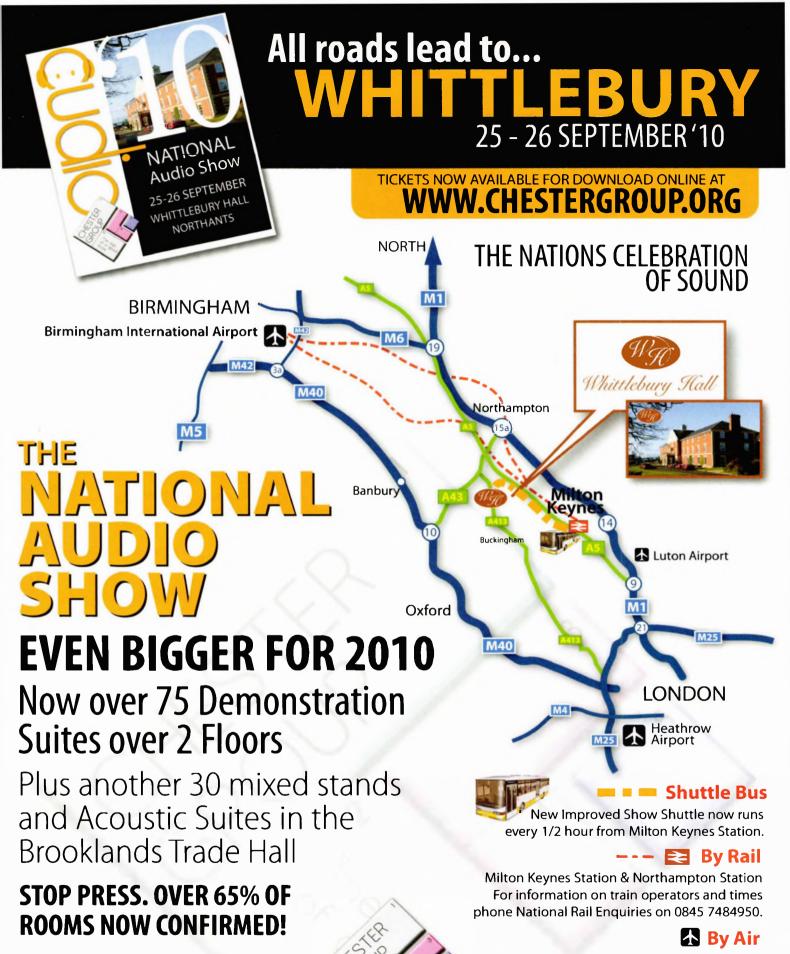
KEITH JARRETT FARIS CONCERT

I've heard quite a few budget (and not so budget) DACs just fall apart when trying to reproduce this album. Maybe Paris isn't as good overall as Köln, but Paris is my working CD.



BRUCE SPRINGSTEEN

I find it impossible not to be drawn into the songs on this album and forget I'm supposed to be listening to the electronics. This is the music for melancholy moods.



The Chester Group

Show organisers. All intellectual rights reserved.

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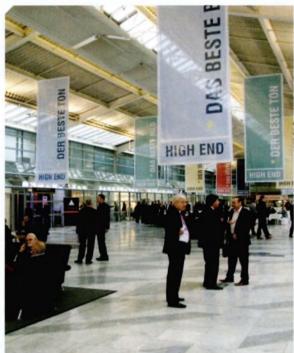
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Heathrow Airport (70 miles)

East Midlands Airport (60 miles)

Luton Airport (48 miles)

HIGH END, MUNICH









High End, Munich

Munich's High End is now *the* show in Europe for anyone who's into hi-fi, *Jason Kennedy* mixed business with pleasure

he 'Munich show'
has without doubt
become the best
event for serious
hi-fi in Europe. It's 99 per audio
and takes place in an exhibition
centre that has some genuinely
good rooms for demonstrating
megabucks systems.

As a result, it's full of the most outrageous kit. There are mainstream brands to be found: Cambridge; Marantz; Arcam and others, but for the most part it lives up to its aspirational name.

The show's theme is, therefore, maximum resolution with no holds barred, with significantly more turntables than you can shake a stick at. But, computer audio is making inroads, too. Daniel Weiss was using a Mac, running Amarra and Saracon software through his new DAC 202 to good effect and several companies showed branded

computer-based systems that sound good worked effortlessly.

Build quality seemed to be getting far more lavish as well; the latest casework from Constellation Audio reminded us of BMW bonnets, unsurprisingly they cost as much as the whole car. Horn speakers were also on the increase, a response no doubt to the quantity of low-powered valve amps on the market, the best of them making some pretty stunning sounds, too.

O CAMBRIDGE AUDIO SONATA NP30

Cambridge has thrown its competitively priced hat into the streaming ring with a 24-bit UPnP streamer in a compact case that

"The 'Munich show' has become the best event for serious hi-fi in Europe." has some very impressive features for the predicted sub-£400 price.

Bundled with it own Uuvol software, it offers 'no hassle' playback from any UPnP source, such as PCs, Macs and NAS drives. It can stream up to 24-bit/96kHz in PCM, WAV and FLAC forms, as well as the popular compressed formats. Sonata NP30 and the partnering DR30 DAB/FM receiver will be available in September.

2 NEAT ULTIMATUM XL6

Neat Acoustics launched the latest generation of its Ultimatum model. This range-topper appears to take its design cues from Linn's classic Isobarik design of the eighties albeit in rather more compact form. The XL6 (£6,500) has downwardfiring bass drivers, arranged in isobaric style to form a separate subwoofer within the cabinet that rolls into the midband at 80Hz rather in the style of a home cinema set-up. However this is a dedicated stereo design with a pair of upward-firing EMIT ribbon tweeters in its top.

www.hifichoice.co.uk

HIGH END, MUNICH



ORTOFON EXPRESSION

Danish cartridge specialist Ortofon brought a handful of new needles to Munich, most radical among them being the Expression (approximately £3,500).

This is designed to be used on arms from SME and Ortofon and fixes directly to the arm without a headshell, the company's long-running SPU being the most well-regarded of the genre.

Expression combines SPU dimensions with SLM (selective laser melting) build to produce a low-density stainless steel body with the stylus and cantilever from the MC Windfield.

Ortofon has also reintroduced the classic MC 20 Super (£500) in 25th anniversary guise, alongside new entry-level MCs Vivo Red and Blue (from £150).

MISSION MX SERIES

Mission has replaced its M3 range with the distinctively begrilled MX series (£129 - £500). This is designed to be used with the grilles in place, as the wave guide

for the tweeter is a part of the grille. There are two stereo standmounts; the two-way MX-1 and MX-2, and three floorstanders; the MX-3 and MX-4 two-ways and the range topping MX-5 three-way at £500. All are specified to offer good ease of drive for partnering amps.

5 TANNOY KINGDOM ROYAL

Tannoy rolled out its biggest gun yet in the form of the curvy, yet classic Kingdom Royal. A 'world market' product, which means that sales are expected to be greatest in the far east, this 120kg statement product has a new 12-inch, dual-concentric mid/treble driver, alongside a 15-inch bass system.

With a huge claimed 96dB sensitivity and massive bandwidth, thanks to the supertweeter on top, this looks like good value – despite the high £35,000 price tag.

O CHORD ELECTRONICS CHORDETTE

Chord has been very busy with its compact Chordette range,

which has expanded from one to seven models in one hit! The range can be hooked up via regular interconnects or USB cables and just about every component has a DAC onboard, including the Dual phono stage (£799), Toucan headphone amp (£799), Prime digital and analogue preamp (£1,350), Scamp 30-watt stereo power amp, Gem 2 bluetooth DAC (which has four digital inputs for £799) and Mogul media processor (£2,000), with 160GB of hard-disk storage in its 160mm-wide case.

DALI IKON MK2

DALI has revised its entry-level Ikon range to Mk2 status with a change to components and finish. The five Ikon stereo models retain their distinctive ribbon tweeter but have seen changes to mid/bass and bass drivers, which were made to give the series a 'slightly warmer and more full-bodied sound'. They still have red-coloured main drivers, but the casework is black rather than grey and there are two standmounts; Ikon 1 and 2 Mk2

and three floorstanders; Ikon 5, 6 and 7 Mk2, which come in light walnut, black ash. Most are also available in white high gloss and prices start at £640.

O CREEK DESTINY 2

Creek has revised its top CD player and amplifier without making significant changes to their appearance. The Destiny 2 CD (£1,400) has dropped its ATAPI ROM drive in favour of a CD-specific transport. Made with a Sanyo laser in a Philips mechanism, this feeds a Crystal DAC as before.

The Destiny 2 integrated (£1,600) has a direct AV input and a new MM-only phono stage. efficiency is said to be up 20 per cent with a cascode output stage and this has lead to output going up to a claimed 120 watts aside.

More radical is Creek's prototype Wyndsor digital preamp. This compact unit accepts bit-rates up to 24 /192, has an asynchronous USB input, and there's the option to turn it into a digital crossover for the Epos Encore loudspeakers.



HIGH END, MUNICH











The price is expected to be between £1,500 and £2,000.

O ARCAM RCUBE £500

Arcam has joined the sound dock market with a portable cube that's aimed squarely at the serious hi-fi user. It features Kleer technology for wideband, drop-out-free wireless streaming and can be run using lithium-ion batteries for four hours. Each of two 3.5-inch mid-bass drivers are powered by 50-watt amps, while the tweeter has 25 watts to itself.

O AUDIO RESEARCH REFERENCE ANNIVERSARY

Audio Research's most ambitious preamplifier yet, is a two-box behemoth, which at £22,500 is over twice the price of its current range-topper, the Reference 5.

Built to celebrate the company's 40th anniversary, it will only be in production for a year, the last ones are due to be built in April 2011. Fully dual-mono, it is effectively two Reference 5 circuits with full-valve regulation, pure Teflon caps

weighing a kilogram each and acrylic top-plates as standard.

10 EPOS EPIC 2 AND 4

Epos has a new entry-level range, with styling that echoes the brand's 1980's roots. The Epic 2 standmount (£400) and Epic 4 floorstander (c.£750) are supplied with both inset grilles or the fascia shown which is very reminiscent of the ES14 that launched the company.

Epos has also made two more Encore models; the 20 (£1,800) and 35 (£2,400), the numbers indicating internal volume in litres. The Encore 35 is a variant on the Encore 50 tested last month, albeit a two-way with an eight-inch main driver. The 20 is a standmount with the same driver array.

MARANTZ NA7004

Network streaming has come to the Marantz brand in the form of the NA7004 receiver (€749). As well as offering FM, DAB and DAB+, it offers access to internet radio and can stream a range of formats from your PC. It will stream from iPod and iPhone and can access net music services from the likes of Naptster and LastFM. On the audio side, it incorporates Marantz's HDAM op-amps and inputs include optical and coaxial digital, Bluetooth and USB.

1510AE

Sitting in penultimate position in the Denon two channel separates hierarchy the DCD-1510AE CD/SACD player (£900) uses 32-bit processing, separate power supplies for digital and analogue circuits and has a USB port up front.

The partnering PMA-1510AE integrated (£900) delivers 140 watts a side from a single pushpull circuit. It supports MM and MC cartridges and you can use its preamp or power amp alone, if required.

10 KRELL S-350

There's a new entry-level CD/ DVD player from Krell dubbed S-350 (£8,000). A modular design that starts out as a reference CD player (S-350a), it can also be a 1080p video player (S-350av). It uses a TEAC slot-drive mechanism, Burr-Brown 24-bit/192kHz balanced DACs and anti-jitter technology.

For its Evolution power amps, Krell has changed the output stages, added capacitance and installed a dedicated transformer for the processor, in order to dramatically reduce standby current.

WHARFEDALE JADE

Wharfedale is gunning for higher ground with its forthcoming Jade range. No prices have been suggested yet, but Jade boasts elaborately constructed, multi-layer cabinets that house high-tech drivers. The bass unit is a glass-fibre sandwich type in the style of Focal, while the midrange is an inverted aluminium-dome that's 50mm in diameter. The metal tweeter is the only relatively normal unit in there. Availability is mooted as being end of the year.

www.hifichoice.co.uk

HIGH END. MUNICH



© RESOLUTION AUDIO CANTATA MUSIC CENTRE

Resolution Audio makes one of the best CD players we know in the Opus 21, so we were very excited by the sculpted new Cantata Music Centre (£6,000). The name indicates that this is a UPnP streamer, USB/coax input DAC with asynchronous local clocking and, finally, a CD player. The new Cantata is builtin a striking bit of resonance-damping machined-aluminium casework with a dot-matrix display and is joined by the Cantata 50 amplifier in the same clamshell chassis.

WARK LEVINSON HSERIES

It's been a long wait, but finally the new Mark Levinson power amplifiers have come to Europe. There are two series on their way including the No.531H monoblock (£6,500 each) and No.532H stereo (£8,000), offering 300 watts and 250 watts respectively. These replace the previous No43 range and are a completely new

design with more headroom than their predecessors. The range topping No.53 is a hybrid 500-watt monoblock, that stands upright and comes in at a serious £45,000. A matching reference preamp is on the way we're told.

DIGITAL DO MAIN C-5/D-3B

One of the most exciting amps of recent times is Digital Do Main's B-1a. Now in B-1d form, for the European market, it is joined by the C-5 Control Amplifier or preamp, which is built with silver monocrystal cable in 98 per cent of its circuitry.

DDM has also released its D-3b DAC. This is a heavily revised version of the MSB Platinum converter in a very sexy black chassis. This combination of these electronics with horn-loaded Lansche Audio speakers made one of the most remarkable sounds at the show.

10 GAMUT DANA

The Danish high-end specialist is bucking the upwards trend and

bringing an entry-level speaker range to market. With prices starting at €500, Dana consists of three stereo models with names that indicate the size and quantity of main drivers. Thus the 1525 standmount has one 5.25-inch mid/bass unit, the 1650 floorstander, a single six-and-a-half, while the 2650, two of the same. Build is in Denmark and the range incorporates low loss, minimal damping philosophy.

175 DENSEN B-175

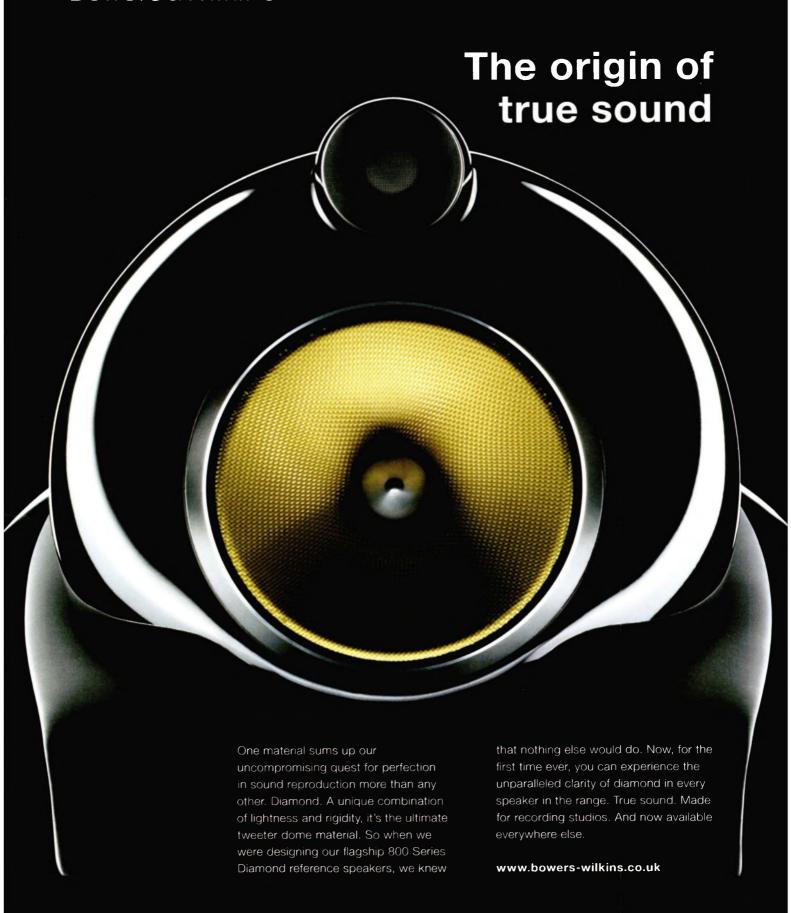
Densen's latest B-175 integrated (€6,000) is effectively a B-250 preamp and a pair of B-350 monos in one box with a 125-watt output. It's built using Densen's non-feedback approach, with the goal of top-notch transient speed. Densen also showed it's ultimate preamp; the two-box B-275 (€7,500) with heavy internal shielding and custom signal caps – the light weight of the signal processing chassis giving a 'free floating sound' according to main man Thomas Sillesen.

As with other similar events in the last six months, attendance wasn't overwhelming. But the standard was extremely high, with the likes of MBL, Audio Avec and Dr Feickert/AMR making some of the more engaging noises. The latter got our attention by playing Papa was a rolling stone in the not so original German!

The two rooms which really made things move were Digital Do Main, with Lansche Audio speakers and the Silbatone Western Electric 'theatre'. Silbatone brought a pair of 1948 Western Electric L9 cinema horns all the way from Korea. Rarely have we heard such an immediate sound, as when this SET-powered, Artemis Labsturntabled system let rip.

Despite economic uncertainty, Greek chaos and Germany bailing out the rest of Europe, High End's organisers insist that business in the EU is stable, and 2010's show proved to be the the biggest yet. ●

Bowers & Wilkins



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It's all about the room: why correction is king

Richard Black reports on the latest techniques in digital room correction — which is arguably the ultimate hi-fi 'tweak'

he Rives Audio FARC, reviewed on p77, is novel in the way it provides room correction, but digital room correction schemes have been around in various forms for over a decade. The basic idea is extremely attractive: use sophisticated electronics to compensate for the shortcomings of the listening room and indeed of the loudspeakers, thus making cheap 'n' cheerful set ups sound like a million dollars.

Well, obviously that's an exaggeration, but anyway just what is such a system trying to achieve? Basically, a flat frequency response.

It's instinctively obvious that a sound recording and reproduction system should have a flat frequency response if it's to be truly 'high fidelity' – that is, it should treat all frequency ranges even-handedly, not emphasising or muting any part of the audible band. But we all know, because we've heard it said over and over, that all loudspeakers have a somewhat uneven response in the bass and all practical rooms also have bass anomalies.

In both cases, that's due to the dear old audio bugbear of resonance. Below a couple of hundred Hz or so, the physical dimensions of loudspeakers and rooms start being comparable to the wavelength of sound vibrations and resonances are inevitable. In speakers these are damped to some extent by absorbent fillings and in rooms they are also broken up by furniture. They also depend on the rigidity of reflective surfaces, which is why a room with lath-and-plaster walls and a carpet sounds different from one with brick walls and a tile floor. But they are never truly damped to extinction, so electronic treatment sounds like a cunning plan.

And to some extent it is exactly that. If you look at the frequency response of a system with a resonance in it, there will be a hump (or

possibly a trough) in the response and that can be pretty accurately nulled electronically, restoring the desired flat response. This is a bit like the 'equalisation' used in making LP discs: when a master disc is cut the sound is filtered to give a non-flat response, but the filtering is precisely inverted on playback to give an overall flat result.

The perfect balance

The trouble is that resonances, unlike LP equalisation, have a lasting effect after the original signal has passed and what's more, their effect varies from place to place. If you play a short click through a real loudspeaker in a real room, resonances are set up which ring on after the click at various frequencies and if you want to cancel those through the loudspeaker you have to generate their inverse so that the speaker effectively 'sucks them out'. Even that is possible, but only at one precise spot in the room.

That's not to say the situation is hopeless, though. In fact room/speaker correction has its place if the room and speaker are both pretty decent in the first place. The crucial consideration is how serious the resonances are – in technical terms, what their 'Q factor' is.

A resonance that goes on for a long time is said to have a high Q, and is characterised on a response plot by a narrow but quite sharp spike. That's hard to correct usefully, but low-Q resonances, as shown by good speakers and rooms with friendly acoustics (and, perhaps, some gentle treatment in the way of bass traps or wall panels), can be quite successfully flattened out. Our review of the PARC illustrates how effective this can be. It's not a panacea, but electronic room correction can be a useful and efficient way of improving overall system performance. •

Digital room correction schemes have been around for over a decade, making cheap 'n' cheerful set-ups sound like a million dollars

Reassuringly expensive: PARC's digital Rives system is reviewed in full on p77



A musician and recording engineer, Richard knows a thing or two about hi-fi – he's been writing about it for over two decades

WHAT DO YOU THINKS

Can spending thousands on room-

can spending thousands on roomcorrection equipment ever truly pay? Email us now: hifichoice@futurenet.com



Evolution of the species

Ed Selley investigates a clever piece of software that's set to take a bite out of Apple's ubiquitous iTunes interface

rom rather limited beginnings of music ripped exclusively to MP3 and usually at low bit rates, the choices available to audiophiles building a digital library have expanded dramatically. The options available to those ripping their CD collections have, in recent years, expanded by the arrival of Windows Media Player and iTunes, the latter also offering the most successful legitimate download site as well.

These programs additionally offered their users far more choice of format and bit rate with MP3 being joined by the WMA and AAC codecs. These also offer a huge step forward in serious audio terms, as among the various bit rates offered is a lossless variant that essentially offers the performance of CD with more effective packing. Since then more specialised ripping software, such as dBpoweramp have added to the choices available for the 'computer audiophile'.

One common theme shared by music software up until this point, is that they are also used for the entire business of replay in terms of file management and the transmission of the file to the digital outputs of the computer, be they USB or Firewire. Whilst the computer audiophile is able to select the DAC of their choosing, the signal the DAC receives is going to be the same. The latest evolution in computer audio aims to alter this.

Sonic Studio has a long background in the field of mastering music, especially with Red Book CD. Its move from the studio to the home is Amarra, a piece of software designed to take on the task of delivering music from iTunes to the USB or Firewire output of the PC or Mac and offering a choice of sampling rates and (in the case of the full version) parametric EQ settings.

Historical precedent

Amarra is designed to improve on the job being done by iTunes – which is notionally bit-perfect out of the box. Is this the start of the next stage of computer audio or an evolutionary blind alley?

Sonic Stage is, perhaps, necessarily secretive about the functionality of Amarra as software is easily "evaluated" by competitors. What is clear is that Amarra is able to natively process files above 24-bit/96kHz, which iTunes cannot do



iTunes listings are easy to navigate, but Amarra is a step ahead

and will, in fact work, up to 24-bit/192kHz for Firewire-equipped DACs.

What is less easily judged, is that Amarra claims to offer superior replay of smaller files – something the iTunes is technically performing already. Reviews from around the world appear to be generally positive, however, so it must be assumed Amarra is doing something at this level as well.

Of more interest is whether computer audiophiles will want to add this additional software to their replay chain. The benefits are only currently applicable to the group of audiophiles who are using lossless or better files and even then, the cost (over £300 for the Mini version and rather more for the full one) will add significantly to the all-up cost of any system.

In addition, the cost of Firewire-equipped DACs, to make use of the higher bitrate files will increase the cost further. Beyond this, there is the historical precedent that adjustment of EQ settings is something that falls in and out of favour with the wider audio community. Amarra treads the fine line between being a vital additional piece of the computer audiophile world and a 21st Century graphic equaliser.

Another newcomer to the market is the latest version of the Pure Vinyl interface. It seems, at least, one other company believes this market is ready to take off. ●

Amarra treads the fine line between being a vital piece of the computer audiophile world and a 21st Century graphic equaliser



ED SELLEY

Ed worked in retail before joining some of the biggest names in the hi-fi industry creating and supporting audio products

WHAT DO YOU THINK?

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ver 40 years Audio Research has established a new syntax of emotional, evocative sound. Motivated by the uncompromising pursuit of the ultimate musical experience, Audio Research has created a succession of products that have each gained iconic status. Built by hand with the end user always in mind, Audio Research components combine innovation with longevity – all units being repairable to original performance standards, no matter how old.

The Audio Research collection encompasses both valve and solid-state technology, delivering some of the most critically acclaimed CD players and amplifiers yet devised. The three components featured above – the latest additions to the world-famous Reference line – have already received the rapturous reception one expects of this prestigious marque.

Like all true musical legends, Audio Research creates timeless classics; whichever component you choose, you'll find it's the ultimate sound investment. For details of the full range and your nearest dealer, contact Absolute Sounds.





For the love of Quad

Jimmy Hughes reflects on Quad's ESL-57, a 1960's Jekyll and Hyde speaker that was better than sex, apparently

hen I first got interested in hi-fi – as a spotty schoolboy back in the late 1960s – one loudspeaker seemed to stand apart from everything else. Spoken of in hushed reverent tones, it alone seemed able to purvey the pure unvarnished truth. This Paragon, by which all others were judged was – the original Quad ESL-57.

Most boys my age simply fantasised about motor scooters – or nights of wild, passionate sex with Brigitte Bardot. But my desires were simpler; I desperately yearned to hear a pair of Quads. But how?

As a scruffy fourteen year old, I could blag my way into hi-fi shops on the pretext of collecting leaflets for my dad. But actually getting a full-blown demonstration? Fat chance! And so it wasn't until 1972, that I finally got to hear the Quads. By then I was working in hi-fi retail and the shop had a pair on demo.

Now – as space was limited in the showroom and the speakers needed distance around them – the ESLs were hung upside down from the ceiling! Hardly ideal. Even so, I can still recall firing them up – anticipating nothing less than divine revelation. The sound they produced was totally unbelievable – albeit, not quite in the way I expected.

Revelation? To be frank, the ESL-57s struck me as bloody awful – thin, edgy, and dynamically flat. The treble seemed tizzy and dry and there was no bass. The music lacked any sense of presence or immediacy; it was

Resembling a radiator, the stylish-looking Quad ESL had a sound all its own

soggy and flat – as though trying to fight its way out of a wet paper bag. Aside from that, they were great!

Confused and disappointed, it was only with increased experience that I slowly began to understand what made the Quads different and special. Being a panel speaker, there was a complete absence of boxiness – the midband was unusually transparent, with a truthful unexaggerated tonal quality that was extremely natural and real-sounding.

Rich and fruity

Rich, fruity, and coloured, sums-up nearly all 1960s loudspeakers. Most featured paper cone drivers and were quite efficient. So, back then, the Quad ESL stood out like a good deed in a naughty world. The era (dark age?) of low-coloration, inefficient BBC-inspired monitors (Spendor, Rogers) had yet to start...

My ESL Epiphany finally came in 1975

– at a hugely ambitious live verses recorded comparison between real musicians and various loudspeakers. Held at Conway Hall, it brought together opera singers, a string quartet, and piano. Alas, the 'comparisons' proved embarrassing; no loudspeaker (bar one) sounded remotely like the real thing.

The exception? Yup - a pair of stacked Quad ESLs. The ESI's tonal balance was free of the honky box coloration that plagued all the other loudspeakers. It was the only one able to reproduce the crisp starting transients of percussion, yet it sounded beautifully natural and open on voice. Finally, I understood.

Well, sort of. Sadly, all the domestic ESL-based systems I subsequently encountered proved disappointing. With LP as the source, you'd invariably get a horribly thin, weedy result, which managed to sound both harsh and tonally dull at the same time.

Yet, partisan ESL users seemed oblivious to such faults and foibles. Hi-fi is often described as an illusion. But, in the case of the Quad ESLs, delusion would perhaps be a better term. The ESL was/is a real Jekyll and Hyde speaker. It can sound amazingly good, or unbelievably bad, depending on the recording and partnering equipment.

If the Quad ESL 57 taught me anything, it was this; many people listen selectively and focus on certain key areas. A product can be deeply flawed overall, but providing it does a certain thing supremely well, it will attract those who overlook all its other faults and limitations for the sake of what it does best.

Most boys my age fantasised about a night of wild, passionate sex with Brigitte Bardot. My desires were simpler; I desperately yearned to hear a pair of Quads



JIMMY HUGHES

A hi-fi enthusiast for four decades, Jimmy's knowledge of system-matching and record-collecting are unmatched in the industry

WHAT DO YOU THINK?

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Letters



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The best way to test cables?

I read Richard Black's recent column on testing audio components with great interest and since I'm familiar with Audio Diffmaker, I'd be very interested to see your magazine use this tool to test audio products, and cables in particular. Otherwise, there's nothing in the way of tests on cables, just the usual, "We heard cable A demonstrate such and such qualities... Trust us..."

Audio Diffmaker tests may not be definitive, but at least it would be possible to make a comparison instead of just taking a reviewer's word for how any given cable sounds.

Joe, via email

HFC Richard replies: It's certainly worth a try, and I hope you won't be too surprised to hear I've tried it! I've also tried other, more labour-intensive (but ultimately more sensitive) ways of doing the same thing. The trouble always is that one runs up against the same old questions: are we sensitive to small frequency response and phase shifts and just how small an amount of non-linear distortion can we hear?

The thing is, that differencing tests on cables can quite easily show that non-linear distortion is at or below the -70dB threshold, while linear distortions (frequency response etc.) are often as high as -20dB. But so what? Frustratingly, it doesn't prove anything new.

Hear, hear!

As I know from having had very waxed-up ears from my teens, the sound we hear can be very dependent on how clear our ears are. I remember days at a time walking round with muffled hearing, until I started cleaning the wax out of my ears.

Given how much a lot of us audiophiles spend on our systems, is there some sort of special regular ritual for keeping my ears optimally clean? I just use cotton buds to remove the wax at the moment.

pyrom, via email



HFC The general view amongst the medical profession seems to be that putting anything in the ears without it being done by someone medically qualified is A Bad Thing. The ears are very delicate and can be easily damaged.

As ever, it's probably best to consult a doctor first, who may suggest periodic use of olive oil (available from pharmacies) to soften ear wax so that it works its way out of the ear without any other intervention. Over time, repeated use of cotton buds or ear plugs may lead to the wax becoming hard and compacted, both of which would make it more difficult to remove.



Age before youth

Congratulations on a timely review of DACs. I've been researching them to better understand the technical and performance differences and, therefore, wasn't surprised to learn that the *Blindlistening Group Test* winner was the Cambridge Audio DacMagic, uses the Wolfson WM8740 chip.

I was surprised, however, to find this chip was introduced back in April 2000.

As you point out, it's not so much what component you've got, as what you do with it. But, can anyone explain how a 10-year-old chip still delivers state-of-the-art performance? I don't doubt this is a worthy winner, but I would sleep better if there was some explanation for this conundrum.

Ion Mitchell, via email

HFC We passed on your comments to Richard Black, who conducted the DAC group test, and he replied thus: It's simple – they got it right 10 years ago and haven't really been able to add anything new in the way of performance since.

In fact, DACs from the big names (Wolfson, Analog Devices, Burr-Brown and Cirrus) had pretty much reached a performance plateau more like 15 years ago, with improvements in performance since then generally very small indeed (arguably academic in most applications). Digital filtering still has some way to go and Cambridge is to be commended on taking this on (with partner Anagram Technologies).

Incidentally, the DacMagic, like many other recommended products of recent years, also uses the 5532 op-amp chip, which dates back to the 1970s!

Moving my hi-fi overseas

Why is it that some manufacturers build their equipment to work on

only one voltage standard (say the 230V for the European Union), while others produce components with switchable input voltage settings, like 230Vand 120V? If I end up heading for the States to work, as looks likely this year, I'll be lumbered with having to sort out step-up transformers, which I doubt are going to do my sound quality any favours. Maybe we should all just move to gear with switch-mode supplies which will work from any voltage worldwide! tardisboy, via email



A step-up transformer from Tacima, for use with American voltages

HFC Those manufacturers who fit single-voltage transformers could well feel justified in predicting that 99 per cent of their buyers are going to be using their equipment in the country in which it's sold, so there's no need to go to the slight extra expense of a mains transformer with twin primaries.

This could be especially true where component budgets are tight and the manufacturer would prefer to spend extra money elsewhere. Sometimes, twin primaries are fitted, and the wiring needs slight alteration inside the casework rather than the flick of a switch on the rear panel.

Whatever the reason, for the sake of some extra windings, we wish more manufacturers would offer this sort of flexibility – buying a step-up transformer for a 150-watt class A/B amp isn't going to be particularly cheap.

Put a sock in it

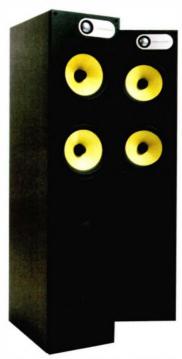
I was shocked at your answer to Rchantry concerning stuffing old socks into the wonderful Bowers and Wilkins 684 speaker (HFC 332)!

I too shied away from standmounts due their stability around young children and I also have them approximately a foot from the back wall (OK, maybe 350mm).

One of the reasons I went for Bowers and Wilkins speakers is because of their bungs. These can completely block or semi block (re-tune) the front or rear port, which means you have quite a range of combinations to try and use to re-tune the speakers to your room and ears.

I have the front ports semiblocked and the rear open, which makes them superbly cohesive to my ears. As Paul Messenger has commented before, why don't more manufacturers offer this sensible choice? Old socks indeed!

Matthew Mowle, via email



Put a sock in it...NOT! Bowers and Wilkins 684 loudspeakers

HFC In our experience, there's a number of hi-fi accessories which tend to find their way into limbo. either down the back of the sofa or into that mysterious zone in which small objects disappear without necessarily being lost forever. This goes for bungs too, if it's a change of room after moving house, or repositioning the speakers after a change of matching component, while the bungs are still hidden in the speaker packing at the back of

the loft. A little experimentation with the aforementioned footwear is a handy way of getting a rough idea of how bungs might affect the sound before sending out an expedition to the loft, or ordering a new set from the manufacturer.

Help filling my cavities

I've just replaced my old floorstanding speakers with standmounts and am wondering what the best sort of filling for the stands is? Sand seems to be the most popular, but is there any risk of the stands rusting seeing as they're made of steel? What amount of sand should I put in each stand – just fill it completely? chuppapappa, via email

HFC If you go for sand, your best bet would be to opt for kiln-dried sand from a builder's merchant, as this will be dry enough and won't rust the insides of your precious stands. Make sure you pour it into strong plastic bags inside your stands too, otherwise getting it out if you need to move the stands any distance will be a

As we've featured in previous issues of Hi-Fi Choice, cat litter might make a fine alternative, though it's less dense than sand and won't break the bank as would lead shot, or try a weighty combination of lead shot and sand.

When it comes to quantity, that's down to experimentation really. You might want to try starting off with a third full, then work up in increments of a third from there.



Never mind the cat, litter can be very useful for adding weight to your loudspeaker's performance

LETTER OF THE MONTH Clarity and transparency



I'D CERTAINLY like to see more tests of active loudspeakers, as there's always some confusion over exactly what constitutes an active loudspeaker - some manufacturers' descriptions of their products make it difficult to tell whether their product is genuinely active, or a passive design with multiple channels of amplification built in (if you see what I mean). jimmyprotonXXY, via email

HFC We agree that confusion sometimes creeps in regarding active loudspeakers. As you well know, truly active loudspeakers contain three main building blocks: an active crossover, which splits the incoming line-level signal into bands depending on which driver it will be fed to; power amps; and the loudspeaker drivers themselves. In this configuration, there is no passive crossover between the amplifiers' outputs and the drivers. The other way of constructing a powered speaker goes like this: power amps receiving the line-level input, followed by passive crossovers, followed by drivers.

Out of two well-designed speakers, we would always tend to gravitate towards the truly active implementation. The result is typically a more dynamic, transparent sound, particularly in the bass. Obviously, the one main problem with actives, at least as far as system tweakers are concerned, is that there's no way to swap power amps and cables in and out of the system to tune its presentation to perfection. Choose wisely when you buy, however, and the rewards are still great.

A RUSS ANDREWS POWERMAX MAINS LEAD WORTH Letter of the Month winners will receive an impressive Russ Andrews PowerMax mains lead worth £45, so drop us a line now: hifichoice@futurenet.com



Hi-fi reviews

No other magazine offers a more reliable standard of hi-fi testing. Technical Consultant **Richard Black** explains...

EXPERT TESTING

FOR OVER THREE decades, Hi-Fi Choice has been trusted for its combination of subjective and technical review expertise. The crucial consideration for any audio component is how it sounds, but it is important to back this up with laboratory measurements for many reasons – everything from the wish to check basic performance to the possibility of uncovering peculiar behaviour under conditions, perhaps slightly different from those of the subjective tests.

Listening

Subjective testing doesn't necessarily require the world's sharpest ears. What's more important is the experience to analyse the sound arriving from the hi-fi and this is where our subjective reviewers come in: they have been listening critically to audio equipment for aeons and have learned to identify the characteristics that make kit informative, involving or just plain dull.

Measurement

But even the most experienced listener, with a stack of familiar recordings heard in familiar surroundings, can't always know what is causing a particular characteristic in the sound. Brightness, for instance, may be a function of frequency response or distortion and this is where measurements come in. We analyse a range of parameters to see just where the correlation lies between sound and design. Our test equipment has been tried, tested and added to over the years and again our experience with it is unrivalled.

Straightforward presentation

We call on that experience to boil down the measurements to simple bar charts, which show at a glance how well a component behaves relative to others in its category. It's this combination of subjective and technical expertise that makes our reviews the most useful in the field.

"crucial consideration for any audio component is how it sounds, but it is important to back this up with laboratory measurements..."

OUR AWARDS



EDITOR'S CHOICE: Awarded to those products that are judged to deliver reference-standard performance



RECOMMENDED: The products we feel meet a certain high standard of performance



GROUP TEST WINNER: Comparative tests can only have one true winner, and this badge says it all

STATE-OF-THE-ART HI-FI TECH

HFC's test equipment is the most advanced kit available



AT HI-FI CHOICE, we have access to some of the most advanced test equipment currently available on the market, including the Audio Precision APx585, which you'll find in the labs of many top hi-fi manufacturers. The 585 can be configured to test a variety of key hi-fi products, such as amplifiers, CD players/DACs and — with the help of a specially-calibrated microphone — loudspeakers.

In conjunction with some conventional lab equipment at our disposal, the 585 will also be used to test analogue playback equipment including phono stages and turntables. These objective measurements – which conform to recognised industry standards – are designed to complement subjective evaluations such as the listening panels organised by our internationally respected reviewers.

The standard of our test facilities is unrivalled in the UK press. Quite simply, no other magazine offers this level of cutting-edge testing, making the verdicts in *Hi-Fi Choice* the only ones you can really trust.

Unrivalled group tests

Hi-Fi Choice is the only magazine to offer blind-listening group tests, fully backed up with objective data

BLIND-LISTENING TESTS

THE MAJOR ADVANTAGE in carrying out 'blind' listening tests is that it removes any prejudices the listeners might have regarding either the brand or the specific model being auditioned. In the case of loudspeakers, an acoustically transparent curtain is strung across the end of the listening room, while prior measurements and sighted listening helps determine the optimum locations for each model being tested.

A sighted operator installs the speakers in a random sequence, and, taking care to try and maintain consistent perceived loudness, a selection of short tracks covering a broad spectrum of music (compiled at full WAVE resolution onto a CD-R for convenient replay) is played for about 15 minutes per presentation.

SIGHTED LISTENING

WHILE 'BLIND' LISTENING tests provide useful information that's free from prejudices and obtained under formal and controlled conditions, they do have several significant limitations, which can be countered by hands-on work.

Their very formality can cause some stress in listeners, which may reduce the powers of discrimination. Another innate difficulty lies in the variations in tonal balance that are inevitably

found between one speaker and another (and indeed one listening seat and another), with the problem that there's a strong tendency to judge each speaker in the context of its predecessor.

Hands-on work gives each speaker a chance to strut its stuff over the longer haul, under more relaxed circumstances and a far wider variety of sources, including radio and vinvl discs.

I TESTING **EQUIPMENT USED**

Sources: Naim CDS 3/555PS Rega Isis Linn LP12 (modded)

Amps: Naim NAC552 Naim NAP500 Rega Osiris

Cobles: Vertex AQ, The Chord Company, Phonosophie, Naim

TEST MUSIC USED

LAURIE ANDERSON: STRANGE ANGELS



CAMBRIDGE SINGERS, RUTTER: THERE IS SWEET MUSIC

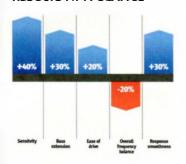


MARI BOINE: FALLIN'



TECH LABS

RESULTS AT A GLANCE



THE SOUND heard from a stereo system is actually a combination of the two loudspeakers, plus their interaction with the listening room. Our analogue approach provides information about the frequency response and tonal balance of a given pair. Running rapid sinewave sweeps, moving the microphone to different positions, establishes the 'real world' far field averaged frequency response and bass extension of a stereo pair.

By feeding all the speakers under test at the same predetermined

setting on the amplifier volume control, the sensitivity of the speaker may be derived. Impedance sweeps provide information about amplifier loading and the closeness with which the two examples of our pair match.

SENSITIVITY

Sensitivity represents the relative loudness of a speaker for a given amplifier voltage. It's scaled to 2.83V at 1m (corresponding to one watt of power into an eight ohm load).

BASS EXTENSION

Our figure is the averaged bass roll-off frequency at -6dB ref. the broad midband, for a stereo pair in the far field of a 4.3x2.6x5.5m room

Low impedance and sensitivity both make a loudspeaker theoretically harder to drive. Low impedance is especially important at low and midband frequencies

OVERALL FREQUENCY BALANCE

True neutrality is an obvious goal, though some 'tailoring' is both acceptable and widely practised

RESPONSE SMOOTHNESS

Beyond the overall tonal balance, the detail smoothness has much to do with the delicacy of the sound and its ability to deliver subtle harmonic shading.

THIS ISSUE'S **BLIND PANEL**

This month's panel of experienced listeners from within the industry are:



PAUL BENGE JOB: HEAD OF SALES

A WHEELER and dealer of secondhand equipment, Paul Benge has heard more high-end hi-fi then most mortals could dream of. Paul is head of sales for distributor ABC Audio.



KEITH TONGE JOB: MARKETING **MANAGER**

KEITH HAS SPENT the last 14 years as Marketing Manager at PMC, visiting many of the world's leading music-making facilities.



KEITH HADDOCK JOB: PR EXECUTIVE A VETERAN PR operator with twenty-five year's experience in the industry. Keith supplies accelerators and sticking plasters for many famous and not so

famous hi-fi brands.

DEFINITIVE VERDICTS

No other magazine offers an equivalent listening programme

Quite often a nervous manufacturer will get on the telephone to ask how things are going. The answer invariably has to be fundamentally noncommittal, albeit laced with cautious optimism, because any final judgements on the overall performance and value for money of an individual loudspeaker can only be arrived at once the whole test procedure has been completed and all the various strands can be pulled together.

Individual reviews have their place, especially when it comes to dealing with the more unusual and upmarket components. But the comparative Blind-listening Group Test is a much more effective means of evaluating a component, as each may be directly compared to a norm established by the group as a whole. Even though loudspeakers show rather greater variations in size of main drivers and enclosures than other components, this remains an exceedingly powerful tool.

TURN OVER NOW!



Divine Sound

A full-grown 3-way speaker using state of the art components, built without compromises.
... that won't cost you a fortune."

XTZ DIVINE 100.49

Read more about the product on: www.xtz.se









A VAN DEN HUL MC 10 SPECIAL CARTRIDGE

WORTH £1.085

FOR YOUR chance to win this sought-after cartridge please answer the following question:

What type of tip is fitted to the MC 10 Special?

A: Gyger 2 B: Shibata C: VDH Type 1

For your chance to win the MC 10 Special, text HUL A, B or C to 87474 or visit www. futurecomps.co.uk/hul and follow the instructions, leaving your selected answer and details where prompted.

A SURESIGN Mr A J van den Hul understands cartridge design, is the fact that he is the creator of his own stylus profile, the VDH type 1. And after 30 years in the business, it's no surprise that vdH has produced a very capable performer in the MC 10 Special, as Richard Black discovered when he pit it against the competition in HFC 330's cartridge Blind-Listening Group Test.

The unique tip is mounted at one end of a boron cantilever, while the silver-wire voice coils sit at the other. With a relatively high compliance and consequently low

tracking force for a moving coil (1.35-1.5gm), the MC 10 Special produces midrange and treble with beautiful clarity, detail and imaging. Soundstaging is strong too, endowing well-made recordings with a genuinely convincing sense of the acoustic of the venue.

TERMS AND CONDITIONS To enter the van den Hul competition, you can either (a) test your answer to 87274 at any time between 27.05.10 and 23.06.10, or (b) enter online at www. futurecomps.co.uk/hul with your entry being received between 27.05.10 and 23.06.2010. By sending your entry you agree to these competition in piles and you confirm you are happy to receive details of future orbits and promotions from future Publishing Limited and carefully selected third parties. If you do not want to receive information relating to future offers and promotions, Debease include the word STDP at the end of your test message or at the end of your post all early. Tests will be therefore at £10.00 and \$10.00 are the sending at £10.00 and \$10.00 are the sending at £10.00 are the

By Taking part in a Competition, you agree to be bound by the Competition Rules, which are summarised below but can be viewed in full at www. futurenet.com/future.cnline: Competition-rules, asp. Late or incomplete entries will be disqualified. Piool of posting (if relevant) shall not be deemed proof of delivery. Entries must be submitted by an individual (not via any agency or similar) and, unless otherwise stated, are

limed to one per household. The Company reserves the right in its sole discretion to substitute any prize with cash or a prize of comparable value. Unless otherwise stated, the Competition is open to all GB residents of 18 years and over, except employees of Future Publishing and acceptable of the competition or their broadful for

By settering a Competition you give premission to use your name, likeness and personal information in connection with the Competition and for promotional jourposes. All entires will become the property of the Company upon receipt and will not be returned by command that the Competition entry is entirely your own work and not copied or adapted from any other source if you are a winner, you may have to provide additional information. Details of winners will be available on request within three months of the closing date. If you are a winner, receipt by you of any prize is conditional upon your complying with amongst other things like Competition faultes. You asknowledge and agree that neither

LOUDSPEAKERS £895-£1,450

Which is the best small summer speaker?

Five classy standmounts set out their stalls alongside one floorstander *Paul Messenger* and our blind-listening panel look for some truths

NONE OF THE models in this month's *Blind-listening Group Test* are inexpensive, yet some are very small indeed. So how does a speaker that's knee-high to a grasshopper justify its substantial pricetag?

Part of the answer has to do with the aesthetics. For example, the quality of the veneer and its treatment will always be reflected in the price, yet for the potential buyer, it's impossible to justify high prices based on that factor alone.

One can easily point out that the Spendor looks significantly more expensive than the PMC, but is that superior finish worth an extra 40 per cent on the price?

Likewise, the Roksan looks sharper and more costly than the similarly priced PMC, but the latter measures better and sounds smoother. The reviewer naturally has to pick the latter, but that doesn't mean that the customer necessarily will.

Then there's the whole question of size. A larger loudspeaker should

inevitably offer some performance advantages over the very small and will probably cost a little more too. Yet the overwhelming message one gets from most consumers is that small is beautiful and the smaller the better.

"the overwhelming message one gets from most consumers is the smaller the better."

Once again the reviewer is in a quandary, unable to deny the potential advantages of the larger speaker, yet knowing full well that the customer wants to believe in tiny miracles.

These paradoxes illustrate clearly how impossible it is to choose the grounds for recommending a speaker on someone else's behalf. One can point out strengths and weaknesses, but how these are weighted must be down to the end user.



OUR GROUP

effectively covers a recommended price range from £895 to £1,450 per pair, though as ever the considerable variations in apparent asking prices will be found online.

Since five or six are standmount models, a number of luxury touches (such as good quality real wood veneers and lacquer finish) are to be expected.

be expected.
Drive units too, will
be far from the most
basic types and
include at least one
ribbon tweeter, one
coaxial driver and
other interesting
variations on more
familiar themes.



ON TEST



MAD (My Audio Design) My Clapton £1,388 p36

My Clapton is a generous port-loaded standmount based on a 200mm coaxial drive unit and priced from £1,388 per pair. The brand and model names are both clues to this newcomer's Anglo-Chinese heritage, as well as a determination to create its own distinctive approach.



Monopulse 62S £1,195 p37

The only floorstander in the group, the 62S is a slim and elegant affair finished in cloth rather than veneer. As the brand name suggests, Monopulse's two-way designs attempt to recreate an accurate time-aligned impulse signal by careful driver spacing and location, as well as a simple crossover design.



PMC DB1i £985 p41

The smallest model in PMC's successful and extensive range of models, all of which feature transmission line bass loading, it's hard to believe that the company has managed to fold a full 1.5 metre line into the modest volume available behind the DB1i's small bass/middrive unit.



Roksan K2 TR-5 £895 p43

The Kandy range's more affordable standmunt sibling to the floorstanding Caspian FR-5 model, this K2 TR-5 comes dressed in a selection of attractive real wood veneers, and features an 'area drive' ribbon tweeter alongside its more conventional port-loaded bass/mid main driver.



Spendor SA1 £1,295 p45

Paying homage to both the original SA1 and the LS3/5a classic models from the 1970s, this new SA1 standmount is a tiny but very refined and carefully developed design, both in terms of the advanced drive units it uses and also in the resonance control techniques applied to the enclosure.



Triangle Trio £1,449 p47

The smallest member of Triangle's mid-price Genese range, the Trio is a generously proportioned two-way standmount. It is available finished in a number ofreal wood veneers, and has curved sides to add strength and control internal standing waves. A horn-loaded tweeter protrudes above the enclosure



MAD My Clapton £1,388

Newcomer My Audio Design is no slowhand when it comes to building speakers here in England

DETAILS

ORIGIN: UK WEIGHT:

12kg DIMENSIONS: (WxHxD) 255x453x290mm

- FEATURES:
 Coaxial neodymium tweeter with short
- Single terminal pair
- Critically damped enclosure
- Available in a wide variety of finishes
 DISTRIBUTOR:
 My Audio Design
 TELEPHONE:
 07782 137868
 WEBSITE:
 madengland.com



he names are a giveaway. MAD is an acronym for My Audio Design, while christening this particular speaker My Clapton, is

further evidence of designer and principal Tim Jung's Hong Kong Chinese background.

The creatively idiosyncratic marketing might have a strong Far Eastern influence, but the My Clapton loudspeaker is actually designed and manufactured here in the UK, using largely UK ingredients.

It's an unusual speaker in a number of respects, mounting a 200mm coaxial drive unit into a generously proportioned, rather bluff and four-square ported enclosure.

Large eight-inch two-way standmount speakers seemed in danger of disappearing around the same time we were all being forced to abandon Imperial measurements and start referring to 200mm main drivers.

Back in the 1970s, the virtual disappearance of 8-inchers in favour of the 6.5-inch (165mm) main driver was largely due to fashion and the increasing demand for ever slimmer and more discreet loudspeakers.

The UK-made 200mm drive unit used here is, therefore, one of an increasingly rare breed. Like Tannoy's well-known Dual Concentric designs, it places a tweeter in the centre of a bass/mid cone, but in this case the soft dome tweeter is mounted on a extension to the central pole-piece and loaded by a short horn. This is surrounded by both a hard (c70mm) baffle and a 100mm foam disc. The paper bass/mid cone is roughly 153mm in diameter and enclosed by a relatively stiff surround – a little like those found in FA drivers.

The critically damped enclosure has nicely rounded edges. The supplied grille has a thick frame and looks better avoided, while signals are fed via a simple crossover and a single terminal pair. Although the base model in textured black costs £1,388 per pair, virtually any colour can be ordered, albeit at a price – the high-gloss white version pictured, for example, is £2,000!

Sound quality

My Clapton seemed to polarise panel opinion in the *Blind-listening Group Tests* and, while the basic characteristics tended to be identified pretty accurately, the reaction to them varied somewhat

depending on individual tastes.

The bottom line here is probably an overall tonal balance which does suffer a degree of midband coloration and definitely errs somewhat on the thin and bright side of neutral. While the character is quite muscular and punchy, with good coherence, plenty of drive and urgency and decent rendition of orchestral textures, it does lack warmth. This leaves the top end of the audio band sounding a

little exposed, especially when the volume control is wound up. In a

very real sense, it was felt by the panel that this speaker's character would be better suited to valve, rather than solid-state amplification.

My Clapton delivers a quite engaging and involving overall sound quality in a package that's certainly distinctive and very different from the marketplace stereotypes. Its rather bright character didn't suit all our listeners: some criticised a degree of coloration and limited stereo depth, while others welcomed the good coherence and dynamic drive.

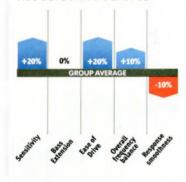
TECH LABS

LAB REPORT

The manufacturer's claim for a sensitivity of 91-92dB is distinctly optimistic. Under our far-field in-room conditions, 88dB is the best figure we could get, though that's not at all bad in the context of a very easy load that always stays above 7 ohms and shows gentle transitions. Sadly, the match between the individual speakers of our pair was a little disappointing, showing impedance variations of 0.5-1 ohms.

Although some room-related unevenness below 500Hz is inevitable, the overall frequency response is flat and smoother than most above 500Hz. However, whether such a well maintained treble output above the presence region is actually desirable must be a matter for debate. The port is tuned to 43Hz, restricting practical bass extension to around 35Hz. While the speaker should be free from any boom, the overall average low frequency output level below 500Hz is just a little shy.

RESULTS AT A GLANCE



Hi-fi Choice

OUR VERDICT

SOUND QUALITY

X X

VALUE FOR MONEY

X X

BUILD QUALITY

PRACTICALITY

LIKE: Muscular sound; decent dynamic grip and fine coherence

DISLIKE: Balance lacks warmth giving a rather thin overall character

WE SAY: A refreshingly different package, but the overall performance is below par







Monopulse **625** £1,195

Monopulse breaks the rules on standmount stereotypes with the help of its proprietary super-tweeter

DETAILS

ORIGIN: UK

WEIGHT: 14.5kg

DIMENSIONS: (WxHxD) 175x920x200mm

FEATURES:
• Incorporates a super-tweeter

- Phase-accurate driver disposition
- Twin terminal pairs
- Port-loaded through the base
- Fabric covered with colour options DISTRIBUTOR: Monopulse UK TELEPHONE: 07785 558238

WEBSITE: monopulse.co.uk working w

he basis of Monopulse loudspeakers lies in applying audio lessons that were learned ith phased-array radar te prime purpose being

working with phased-array radar systems, the prime purpose being to reproduce transient leading edges accurately.

The consequent need to time-align the outputs of the three drive units at the listening seat imposes some constraints on the driver layout. These are solved by adopting a floorstanding configuration (which determines the height of the drivers above the floor), by placing the tweeter beneath the bass/mid drive unit, and by mounting a super-tweeter on the top, set back from the front panel under a metal protective hoop.

The complexity of this arrangement perhaps goes some way towards explaining the decision to go for a fabric covering over the front and sides of the enclosure. One worthwhile consequence is that the speakers are, therefore, available in a wide choice of different colours, perhaps chosen to match carpeting or curtains. Alongside the fabric, the top 'hoop' is polished steel (again with colour options), the back is covered in a thin foam sheet and more foam protects the super-tweeter.

Despite its very slim appearance from the front, the £1,195 per pair 62S still has room for a 160-millimetre bass/mid driver with a visible (through the fabric) cone diameter of 110mm. The main tweeter has a relatively large soft-dome diaphragm (which probably explains why a super-tweeter is fitted). Simple single element (6dB/octave) crossovers are used to maintain phase integrity.

The enclosure is reflex-loaded by a downward-firing port in the base, metal feet keeping the port clear of the floor with or without the use of thumbwheel-tightened spikes. However, there's no extra plinth and the footprint is very modest, so physical stability is distinctly marginal.

Electrical connection is via twin terminal pairs set high off the ground, so trailing wires are unavoidable.

Sound quality

As the sighted operator sitting in the prime listening position, I was very impressed by the sound quality of the 62S during the listening test, despite a rather 'heavy' bottom end that made setting an appropriate listening level rather tricky.

The other listeners were rather less impressed, which with hindsight is of course entirely logical. The Monopulse is deliberately designed as a 'sweet spot' loudspeaker, and will, therefore, show expression and time coherence in a relatively small listening zone. As a result of this, maximum performance will never be evenly achieved across the wide seating area required to accommodate a listening panel.

In short, the bass end is rather too strong here, as is the top end, the combination giving a touch of 'loudness contour' effect which somewhat favours listening at modest levels. Imaging is impressively spacious, with potentially excellent focus and coherence, though the overall sound could be smoother and the top end, in particular, sweeter and less obvious.

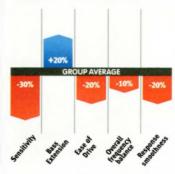
Different in nearly every respect from the stereotypes, the Monopulse 62S has unusual styling and presentation and its sonic performance is strongly oriented towards the sweet spot listener. One can criticise the weak midband sensitivity and poor physical stability, but in other respects it certainly represents an interesting alternative.

TECH LABS

It's difficult to see where the manufacturer finds a sensitivity rating of 90dB, as during our tests it only manages to achieve a very modest 84dB – significantly less than the 87dB we obtained when testing this model eighteen months ago. Indeed, all three examples of the 625 we have encountered over the last three years have measured rather differently from one another, which is a cause of some concern.

The reduced midband sensitivity here means that the mid-bass (40-60Hz) is clearly too strong, relatively speaking. The balance above 60Hz is reasonably well controlled and, while the presence (1.5-4kHz) is rather uneven, the treble proper is certainly smoother than before. The port is tuned to 40Hz, so bass extension is very respectable, while the easy seven-plus ohms amplifier load is some compensation for the low sensitivity. Pair matching was good above 200Hz, but rather less so at low frequencies.

RESULTS AT A GLANCE



Hi-Fi Choice

OUR VERDICT

LIKE: Fine 'sweet spot' focus and coherence with good definition

DISLIKE: Poor physical stability and weak midband sensitivity

WE SAY: Interesting alternative in styling and focus, but not without its flaws







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With mag bearing, speed control. "A superb way of playing vinyl that never draws attention to itself." (Hi-Fi World) ON DEM



Transfiguration Orpheus L cartridge, £3400

New 1 Ohm internal impedance version. "Totally natural rendition of music." (Hi-Fi News) ON DEM



Graham Phantom II tonearm, £3550

Interchangeable armtubes. "A masterpiece of craftsmanship and design savvy." (The Absolute Sound) ON DEM



Scheu Laufwerk 2 turntable, £4350

Massive 80 mm platter, Papst motor. "Reference quality...reference quality looks." (TNTAudio.com) ON DEM



Ortofon SPU 90th Anniversary cartridge, £1400

Silver-plated 6N copper coils. "More touch, texture, color, and sheer whomp." (Stereophile) ON DEM



SME V tonearm, £2180

The all-time classic. "Perhaps the last great flowering of the tonearm designer's art." (Hi-Fi News) ON DEM



Michell Gyro SE turntable, £1135

The classic John Michell design. "Should appeal to anyone looking for a high-end deck." (Hi-Fi News)



Lyra Delos cartridge, £895

Replaces Argo i. A new standard for mid-range low-output moving coils. ON DEM



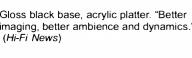
Clearaudio Unify tonearm, £1360

Phenomenal unipivot, available in carbon-fibre and wood versions, 9, 10, 12, and 14 inch lengths.



Pro-Ject Xpression III turntable, £435

Gloss black base, acrylic platter. "Better imaging, better ambience and dynamics."

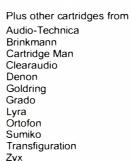


Plus other turntables from Acoustic Solid Clearaudio Michell Pro-Ject Roksan Scheu SME **VPI**



Sumiko Blue Point Special EVO III cartridge, £239

A favourite high-output moving coil. "A big helping of moving-coil goodness.' (The Absolute Sound)





Thomas Schick tonearm, £975

Musical, involving 12-incher. Already a classic design. ON DEM

Plus other tonearms from Clearaudio

Hadcock Michell Ortofon Pro-Ject Roksan Scheu SME



Keith Monks Omni Mk VII record cleaning machine, £3295

Cleans all size records. "If you're looking for the best, well, here it is." (Stereophile)





Aesthetix Rhea phono stage, £3900

Ten valve design. "A sense of palpability and immediacy that recalls the magic of live music." (The Absolute Sound) ON DEM



Tannoy Westminster Royal SE speakers, £21999

Forget hi-fi. "A stereo sound every bit as dynamic as real music." (Stereophile) ON DEM



Loricraft PRC3 record cleaning machine, £1395

The standard for serious vinylphiles. "Even brand new, sealed records benefit. (PositiveFeedback.com)



Leema Acoustics Agena phono stage, £2995

Reference unit with two inputs, fully adjustable. Integral DAC with USB port. ON DEM



Esoteric X-05 SACD/CD player, £4495

Awesome one-box unit. "There aren't enough superlatives to describe this machine." (The Absolute Sound) ON DEM



VPI 16.5 record cleaning machine, £575

Our most popular budget unit. "An essential component." (Hi-Fi+)



Whest PS.30RDT phono stage, £2799

Dual transformer, dual mono. "A brilliant all round design." (Hi-Fi World) ON DEM



Pro-Ject Tube Box II phono stage, £310

Great valve unit. Budget version of acclaimed Pro-Ject Tube Box SE.

Plus other phono stages from **Aesthetix** Clearaudio Esoteric Graham Slee Leema Acoustics Lehmann Lvra Pro-Ject Thomas Mayer Whest



Stax SR-007 II SE Omega System headphones and amp, £3195

Hand-selected valves, "If I have to go through life with only one of the Stax amps, give me the tubed SRM-007t." (Stereophile)

ON DEM



Nordost Red Dawn cabling, from £275

Superb price/performance. "Cleanest, quickest and most natural wires I've yet to hear. (SoundStage.com)

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Roksan Scheu

Sumiko

VPI

DEFINITIVE AUDIO

THE WORLD'S FINEST HI-FI SYSTEMS



Main image: Living Voice OBX RW loudspeaker in Santos Rosewood



L to R: 1. Living Voice IBX R2 2. Art Audio Concerto integrated amplifier (GE) 3. SME 10 & Series V arm 4. KSL Kondo Neiro integrated amplifier 5. KSL Kondo Gakuoh 300B mono amplifiers 6. Art Audio Argento 300B integrated amplifier (WE) 7. SME 2012 & KSL Kondo Io-J cartridge 8. KSL Kondo Gakuon 211 mono amplifiers 9. Resolution Audio Opus 21 CD player 10. KSL Kondo Ongaku 211 integrated amplifier

PMC **DB1i£985**

Probably the smallest transmission line speaker in the world. Someone should inform the Guinness Book of Records

n PMC parlance, DB is

DETAILS

ORIGIN:

WEIGHT: 4.5kg **DIMENSIONS:** (WxHxD) 155x290x234mm FEATURES:

- Transmission line bass loading
- 27mm SEASsourced soft-dome tweeter
- 140mm main driver has cast frame, doped paper cone
- . Mounting plate for wall bracket
- Flush-mounted drive units DISTRIBUTOR:

TELEPHONE: 08704 441044 WEBSITE: pmc-speakers.com

shorthand for Dinky Box. While somewhat deeper than sealed-box miniatures, like the classic BBC LS3/5a, the front view is barely larger than that needed to accommodate two drive units, so this DB1i is certainly a tiny loudspeaker. Especially when you consider that the four-section transmission line squeezed inside this

little enclosure to load the back of

effective length of 1.5 metres!

the small main driver has an amazing

This current DB1i is based on an original design that dates back some seven years, during which it has undergone two major revisions, as well as a steadily increasing price. The current version's cabinet supplier has improved the quality, fit and finish of the enclosure. PMC's own 140-millimetre cast frame bass/mid driver has a stiffer, better damped 95mm paper cone and an improved voice coil. The crossover networks are pair-matched using high-quality components. And a new 27mm soft fabric-dome tweeter has been co-developed with Norwegian OEM

Finished in a choice of walnut, black ash, oak and cherry real wood veneers, the three internal partitions required to form the line might make manufacture difficult, as does the complex cocktail of damping materials used through the transmission line, but it also ensures an exceptionally stiff enclosure.

Twin terminals facilitate bi-wiring or bi-amping and the rear panel also accommodates the large line exit slot, plus an attachment plate for a substantial wall bracket.

At a current price of £985, it's far from cheap, but numerous high-class miniatures cost significantly more. And there's no denying the excellent build-quality and good-quality wood veneer, even though it does stop short of the currently fashionable high-gloss lacquer or satin finish found elsewhere.

Sound quality

Room measurement had indicated that the DB1i probably had sufficient bass for free-space siting, so this was adopted for the Blind-listening Group Test programme - with no little success, it must be said. Subsequent hands-on experiments revealed that moving the speakers a little closer to

> about 40cms) improved the tonal balance, 'warming up' the overall character and providing some compensation for the

slightly strong top end. The DB1i has all the sonic virtues of a high- quality miniature, but these are accompanied by the inevitable limitations of the breed.

Imaging and dynamic range were widely praised, providing impressively coherent instrumental detail and fine separation between individual voices, though at the same time dynamic

expression is a trifle muted and lacking in vigour when compared with the larger examples in this test group.

Given its tiny dimensions, the ability of this speaker to supply decent bass weight was always surprising, though as the volume was turned up a mild degree of congestion become apparent.

Small speakers do have constraints, especially when the dynamic and loudness envelopes are pushed. The trick is to minimise these limitations, while capitalising on the fine imaging on offer. Here the DB1i is notably successful and, while it might not be the sweetest example, careful positioning ensures a fine overall balance with surprising bass delivery.

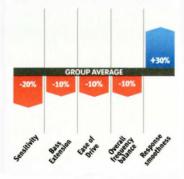
TECH LABS

LAB REPORT

This latest version of the DB1i seems to have become significantly smoother and more even than before. Indeed, the overall averaged far-field, in-room response for a pair located clear of walls extends from 40Hz up to 20kHz within +/-4dB limits, which is truly remarkable for such a tiny loudspeaker. All the more so because it's remarkably smooth throughout, with just a mild 'bump' at around 250Hz. Treble output above 5kHz might be considered a little strong for some tastes, perhaps.

Although our measurements suggest a sensitivity of just 85dB, rather than the 87dB claimed, the load presented to the amplifier rarely drops much below six ohms. The only real source of criticism. is that the pair-match is not very good, showing discrepancies of about 0.5 ohms across most of the range, which might require slight compensation from a balance control.

RESULTS AT A GLANCE



OUR VERDICT SOUND QUALITY

 \star \star \star VALUE FOR MONEY **** BUILD QUALITY ****

LIKE: Excellent imaging, low coloration and a fine overall tonal balance

DISUKE: Could have betterdynamic expression

WE SAY: Hasa miniature's advantages oflow coloration and fineimaging



FEATURES





ACOUSTIC PREFERENCE

to see is to want - to hear is to believe

















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Yorkshire www.mayflowersounds.co.uk 01302 711 528



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Roksan Kandy K2TR-5 £895

This petite Kandy pitches above its station, thanks to the credentials of its much larger Caspian FR-5 brother

DETAILS

ORIGIN: UK

WEIGHT: 8kg

DIMENSIONS: (WxHxD) 190x370x280mm

FEATURES:

- Ribbon tweeter
- 130mm doped paper cone main driver
- Twin terminal pairs
- Satin rosewood finish
- Air-core inductors and polyester capacitors
 DISTRIBUTOR: Henley Designs

TELEPHONE: 01235 511166 WEBSITE: roksan.co.uk R

oksan's fine reputation has been built largely off the back of its fine turntables and

electronics, though several interesting loudspeaker designs have also put in an occasional appearance.

The fine floorstanding Caspian FR-5 was very well received when it arrived in 2006 and the obvious question for this review is whether this Kandy K2 TR-5 can repeat the same trick.

The K2 Kandys are Roksan's recently introduced and least costly range of components, and while the official price of this TR-5 varies from £895 (high-gloss black) to £945 (the beautifully finished satin rosewood of our samples), substantial discounts are available if other Kandy K2 electronics are purchased at the same time. Besides those two options, the speaker is available in silver, maple and metallic black.

This small, two-way standmount uses a rear-port-loaded 130-millimetre bass/mid driver with a 100mm doped paper cone and a concave dust cover. The tweeter, unusually, is a ribbon device – a type of transducer where the 'voice coil' is replaced by a vertical 1x5-centimtere

conductive strip (the ribbon) operating in a powerful magnetic field, so that the 'voice coil' and diaphragm are one and the same. This ribbon diaphragm is well protected behind moulded strips and set down a shallow waveguide.

These are mounted in a tough little double cavity enclosure using 15mm MDF panels with additional internal bracing. Twin terminal pairs separately feed the individual drivers and their associated high-quality crossover components, which include air-core inductors and metallised polyester capacitors. The optional grill is retained by concealed magnets.

Sound quality

One of the difficulties of conducting blind tests on loudspeakers comes in trying to equalise perceived loudness between successive presentations. This is not a problem when all the speakers being reviewed deliver something close to a flat response, but it's very difficult when the tonal balance is uneven, as with this Roksan model.

One tends to use the presence band to try and set the level subjectively, but in this case the presence is rather restrained, while the upper mid is rather forward. Setting the level by

the perceived presence level, therefore inevitably leads to some voice over-projection that can be quite seductive.

Which probably explains why the TR-5 was received quite well by the listening panel. Despite – and indeed probably partly because of – its departures from true neutrality, listeners found the sound lively, vigorous and "bouncy", albeit with some 'cupped hands' midband coloration.

The imaging attracted particular praise, as did the top-end smoothness and sweetness. While some

listeners correctly identified and were critical of the balance imperfections, others seemed quite happy with the rather different presentation, appreciating the full-bodied character, the good sense of scale, and a decently wide dynamic range.

The TR-5 is not an easy speaker to sum up. It's unquestionably a very pretty little unit with top class cabinetwork and the use of a ribbon tweeter adds a genuine touch of class. While some members of the panel welcomed its particular character, the lack of genuine neutrality remains an impediment to formal commendation.

TECH LABS

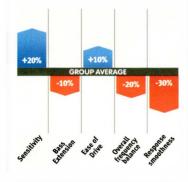
LAB REPORT

The reflex port here is tuned to a relatively high 58Hz and, while this ensures that the TR-5 generates plenty of mid-bass output – arguably a little to much under our in-room measurements in fact – it does inevitably limit the absolute extension, the sharp sub-50Hz rolloff giving a -6dB point at around 40Hz.

Sensitivity meets the specified 88dB, in the upper midband at least, and the load stays around or above six ohms right across the audio band. The match between the two samples of our pair was very close indeed.

However, under our far-field, in-room analysis, the overall frequency response is rather uneven, registering strong output around 50Hz, from 220Hz to 300Hz, and again from 700Hz to 1.2kHz, with the sections in between about 3-4dB shy. Output is a little shy through the presence and lower treble (1.7-4kHz, but the treble as a whole looks quite smooth and flat.

RESULTS AT A GLANCE



Hi-Fi Choice

OUR VERDICT

SOUND QUALITY

X X X

VALUEFOR MONEY

BUILD QUALITY

X X X

PRACTICALITY

LIKE: Beautiful cabinetwork, good imaging and a sweet top end

DISLIKE: Lacks basic neutrality, so results can be difficult to predict

WE SAY: Delivers a sweet top end from its ribbon tweeter, but overall tonal balance is rather uneven





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LEEMA ACOUSTICS TUCANA II AMPLIFIER



The Tucana was Leema Acoustics' first hi-fi electronics product. Within a short time it established itself as a true reference amplifier winning many prestigious awards. The new Tucana II extends both the performance and features, to set a new world-wide benchmark.

Borrowing heavily from developments pioneered in the staggering Leema Reference Series Altair IV amplifier, the Tucana II is an even more accomplished performer than its multi-award winning predecessor. This highly refined amplifier can deliver over fifty amps to each channel with a vice-like grip and precise control of the loudspeakers.

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Stunning sound quality and captivating good looks create a striking impression in any environment. The Antila CD player with its unique MD2 active differential multi-DAC converter technology provides breathtaking realism and a tactile panoramic image.





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the experts in home entertainment

Spendor SA1 £1,295

The BBC-inspired, relaunched SA1 isn't cheap, but its loveable presentation won over our blind listening panel

DETAILSORIGIN:

UK
WEIGHT:
5.4kg
DIMENSIONS:
(WxHxD)
165x305x190mm

- FEATURES:
 High-gloss lacquer finish
- Single pair highquality terminals
- Magentically attached grille
- Special widesurround tweeter
- Flush-mounted drive units

DISTRIBUTOR: Spendor Audio TELEPHONE: 01323 843474 WEBSITE: spendoraudio.com



ver the years Spendor has introduced a number of small sealed-box sub-miniatures inspired

by the BBC LS3/5a. Its first design, christened the SA1 and with a squatter, dumpier shape than a 3/5a, was launched in the mid-1970s. It was highly regarded, even though the company subsequently took out a license to produce the LS3/5a and this new SA1 revives the name, though not the shape of the original.

In fact, it's similar to a 3/5a dimensionally, albeit swapping over width and depth. Three alternative finishes include the rather bold lacquered zebrano of our samples, black piano lacquer, and a satinfinished wenge, while concealed magnets optionally hold the grille in place. The partnering stands (not supplied but worth investigating) have matching wood inlays in their central pillars. Critical bracing and three different thicknesses of relatively light and thin panels supply stiffness and resonance control while avoiding significant energy storage.

This sealed-box two-way has a new 150-millimetre Spendor bass/

mid drive unit with a 90mm ep38 polymer cone, a wide surround, a high-excursion motor with powerful magnet and (perhaps most significantly) it operates up to a high 4.8kHz. An unusual 22mm tweeter uses a small 19mm diaphragm and a 'proper' surround to extend its potential operating bandwidth. A single pair of high-quality WBT terminals feeds a refined crossover network using top-quality components and internal wiring.

At £1,275 this must be one of the most expensive sub-miniatures around, especially if you add a further £500 for the matching stands. Superficially, and as one of the smallest hi-fi speakers around, the SA1 looks a decidedly expensive prospect that might well struggle to justify its pricetag. However, it can be a mistake to prejudge a speaker by its pricetag or size, just as one should not judge a book by its cover.

Sound quality

That became clear when the listening test results were analysed and it became clear that the little Spendor, assisted by close-to-wall positioning, had come out comfortably ahead of

the rest of the group. A loudspeaker this small is bound to have certain limitations, in bass grunt, dynamic expression and above all in ultimate loudness capability. That's a given, but the strength of the SA1 is that it does everything within its capabilities remarkably well.

With a little help from the wall behind, it delivers a remarkably flat, smooth and even tonal balance right across the broad bass

and midband. Imaging is first class, with fine focus and reasonable depth rendition and coloration is exceptionally low and notably free from boxiness. The extreme top end is sweet and attractively restrained, giving ample detail while avoiding drawing unwanted attention to itself.

The SA1 might appear to be very costly for such a small loudspeaker, but its superior standard of presentation and sound quality provides ample justification. It's a fine solution for those seeking high quality with minimal physical intrusion and who are prepared to accept some constraints on maximum loudness.

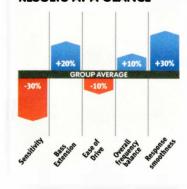
TECH LABS

LAB REPORT

Siting in free space away from walls will result in the flattest midband response, the lowest coloration and the best stereo imaging, though this does leave the bass octaves (sub-125Hz) decidedly lean. Moving the speakers close to a wall boosts the 50Hz-125Hz zone significantly, albeit not particularly smoothly, effectively extending the flat bandwidth down to 50Hz. Under our conditions, best results were obtained with a gap of about 25cm between speakers and wall. The top end shows some restraint above 3kHz, with a slight dip around 4kHz.

On our measurements, sensitivity was closer to 84dB, than the specified 85dB, but the impedance stays above six ohms throughout and is actually much higher than that through most of the range, so the speaker will benefit from ample volts, but won't require excessive current. The pair match is good between our two examples, with the sealed-box resonance around 88Hz.

RESULTS AT A GLANCE



Hi-Fi Choice

OUR VERDICT



LIKE: Beautiful, even tonality with nicely judged top end

DISLIKE:Limited dynamic expression and loudness capability

WE SAY: A costly, but veryhigh-quality subminiature with notably superior sound quality



Somehow Coventry didn't seem such a bad place after all



Distributed in the UK by: Henley Designs Ltd, 01235 511166 www.henleydesigns.co.uk, e-mail - info@henleydesigns.co.uk

Triangle **Trio £1, 449**

A touch of French class, both in its tasty cabinetwork and the unusual application of a horn-loaded tweeter

DETAILS

ORIGIN: France WEIGHT: 10kg DIMENSIONS: (WxHxD) 372x233x465mm FEATURES:

- Part external hornloaded tweeter
- Curved enclosure sides
- Real wood veneer on five faces
- High-gloss black front
- Twin terminal pairs **DISTRIBUTOR:** Triangle TELEPHONE: +33 323 753 820 WEBSITE:

triangle-fr.com

he most costly member of our test group, Triangle's Trio is also one of the largest - and the flashiest too, with its curved cabinetwork, the multi-hued

part-external horn-loaded tweeter that protrudes above the top panel, and the shiny flared front port.

The Trio is the smallest of three stereo pairs that make up Triangle's mid-market Genese range, designed to take some of features introduced in the upmarket Magellan models, make them available at lower cost and bridge the gap between the Magellans and the vinvl-covered budget Esprit EX models.

A generous-sized two-way standmount, based on a 160-millimetre bass/mid driver, this Trio has much in common with Triangle's more costly Magellan Duetto SW2 (HFC 317). While the deep front panel is highgloss black, the rest of the enclosure is attractively finished in a real wood veneer, stained to give a mahogany

effect. The curved sides are fatter in the middle than at the front and back, so internal reflections are well distributed, standing wave focus is diluted and increasing stiffness.

The driver line-up consists of a 160mm bass/mid driver with a 118mm flared paper cone, a fixed 'bullet' pole-piece extension and a high excursion rubber roll surround. This crosses over to a horn-loaded titanium dome tweeter mounted high up and half out of the enclosure proper, thanks to a semicircular rubber-covered bulge protruding from the top surface. A shiny grey moulded and flared port is mounted on the front below the main driver, while signals are fed via twin terminal pairs on the rear.

Sound quality

Although the reactions of different listeners varied somewhat, there was general criticism of a bright and rather brittle top end, as well as some lack of genuine bottom-end weight and welly.

However, the bass proper attracted praise for its crispness and liveliness, delivering good pace and

> impetus, while the lower midband sounds appropriately warm and full.

The high and wide stereo soundstage was particularly effective when reproducing our choral extract, though image depth seemed rather limited.

The Trio delivers lively and entertaining dynamics with decent leading edge definition. The presence zone is just slightly laid back and manages to deliver good vocal detail without becoming aggressive. Boxy effects

are generally well-controlled, though a mild nasality is evident.

Yet the top-end emphasis remains a consistent source of criticism:

one listener complained that its innately brittle quality tended to harden up as the volume was increased and this was likely to become fatiguing over time.

The paradox of the Trio is that it costs half the price of Triangle's Magellan Duetto SW2 and measures significantly better, yet it doesn't come close on sound quality. It's by no means a bad loudspeaker, but neither is it a particularly exciting or interesting one and that bright top end remains a significant flaw.

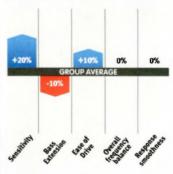
TECH LABS

LAB REPORT

On our far-field, in-room averaged traces, the Trio delivers a sensitivity of 88-89dB close to the 90dB specified, if a shade disappointing in view of the limited bass extension and the fact that the load presented to the amplifier is quite demanding (registering around 4.5 ohms through the lower midband and dipping down to about 3.3 ohms around 3.8kHz). The pair matching between our two samples was pretty good, but the port is tuned to a relatively high 60Hz, so there's virtually no bass output below 40Hz.

Happily, the overall frequency responses are very well controlled, holding within +/-5dB limits from 40Hz-18kHz and +/-3dB limits from 120Hz-15kHz. Though significantly smoother and more even than most, the latter does show a characteristic trend, with some lack of output between 1.2kHz and 4kHz followed by a steady rise to a mild peak at around 12.5kHz.

RESULTS AT A GLANCE



OUR VERDICT



SOUND QUALITY

LIKE: Lively, punchy sound and a largely even balance

DISLIKE: Top end is too bright and edgy and lacks low bass weight

WE SAY: Mostly decent balancewith lively dynamics, but top end was widely criticised



Conclusions

The results from the blind listening panel are in...

The two models that stand out in this group - the Spendor SA1 and PMC DB1i have several common factors. They're the smallest, they topped the charts in the blind and hands-on listening tests and their measurements showed the smoothest and most neutral in-room frequency responses.

It should also be pointed out that the PMC and Spendor are amongst the most experienced and best established brands in our group and that it's actually a close call choosing between these two. The Spendor might have a slight advantage in sound and presentation, but it's also significantly more costly.

Although none of the other four models particularly disgraced themselves, each showed some or other weakness. The MAD My Clapton has the largest enclosure and main driver, the latter

unusual in being a co-axial device with centrally mounted tweeter. It has fine imaging and vigorous dynamics, but the overall tonality is a little dry and bright.

Monopulse's 62S is very much a 'sweet spot' speaker. It will provide very superior stereo focus for the best listening seat, but other listeners found the bottom end rather heavy.

Roksan's Kandy TR-5 is a stylish package and while the listening panel quite enjoyed its 'cheeky chappie' sonic presentation, this could largely be explained by the upper midrange peak measured in its far-field, in-room response.

Triangle's Trio is an attractively shaped standmount and while the basic balance is well-judged across the audio band, listeners noted both the limited bass and, particularly, the rather bright top end generated by its horn-loaded tweeter. •



AMPLIFIERS: Roksan Kandy K2 £895

A superior design with ample power and a sweet, but authoritative design.

Naim NAIT XS £1,250

A stand-out integrated amp that delivers a very communicative musical performance.

CD PLAYER: Marantz SA8003 £830

Classically smooth, detailed and sweet sound quality.



RESULTS AT A GLANCE









+10%

-20% P

-30% P

-10% 🗛

+10% 🗛

+30% €





Make/model	My Audio Design My Clapton	Monopulse 62S	PMC DB1i	Roksan Kandy K2 TR-5	Spendor SA1 SA1	Triangle Trio
Price	£1,388	£1,195	£985	£895	£1,295	£1,449
Sound	***	****	***	***	****	***
Value	***	****	****	****	****	***
Build	****	****	****	****	****	****
Practicality	****	***	****	****	****	****
Overall	***	****	****	****	****	***
Conclusion Key features	Refreshingly different package with fine muscular coherence, but overall character lacks warmth	Superior focus and coherence for the solo listener, but not without its flaws	Low coloration, good balance and fine imaging, but could be more expressive dynamically	Beautiful speaker has a sweet top end, but the overall tonal balance is uneven	Costly, but very high- quality sub-miniature with notably superior sound quality	Decent balance with lively dynamics and good warmth, but a bright and edgy top end
SIZE (WxHxD) (mm)	255x453x290	175x920x200	155x290x234	190x370x280	165x305x190	233x372x465
Driver Config	2-way	2.5-way	2-way	2-way	2-way	2-way
Main driver size(s)	1x200mm	1x165mm	1x140mm	1x130mm	1x150mm	1x160mm
Stand/floor?	Stand	Floor	Stand	Stand	Stand	Stand
Cabinet finish	Paint	Metal/fabric	Real wood veneer	Satin rosewood	High-gloss veneer	Real wood veneer
Bi-wire?	No	Yes	Yes	Yes	No	Yes
Lab conclusions	E = Excellent G = Goo	od A = Average P = Poor				
Sensitivity	88dB G	84dB P	85dB P	88dB G	84dB P	88.5dB G
Bass extension	36Hz 🗛	23Hz G	40Hz ▲	40Hz ▲	30Hz G	40Hz 🗛

-10%

+10% 🗛

+30% €

Overall balance

Ease of Drive

Smoothness

+20% G

+10% 🗛

-10% 🗛

-20%

-10% 🗛

-20% P

+10%

0% ▲

0% A



Roksan Warranty Notification

Effective 1st November 2009, all Roksan electronics and turntables supplied via authorised dealers are to be covered by a 5 year parts and labour warranty.* As a gesture to existing customers, this will also be extended to all current owners of K2 products.

In an age where product longevity and second hand resale values are constantly under threat, Roksan wish to reward their loyal customers by allowing their warranty to be transferrable from owner to owner. Thus, the warranty stays with the product from initial date of sale to 5 years old as long as it remains within the country of origin.



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Rip, touch and play

Malcolm Steward test runs the Qsonix Q105, a 21st Century music library system for people who have no interest in computers

here is a vital question facing any manufacturer of a hard-disk music player. It has nothing to do with what size disks to use or what sort of case to put it in. It is rather more rudimentary, i.e what sort of person is going to buy it?

If the answer is the hard-core audiophile, then the manufacturing task is immediately simplified. Audiophiles will generally be content with a rough edge or two, so long as the musical output is exemplary. They will put up with an interface that is a tad clunky, provided that the music sounds first rate.

The so-called 'average' music lover is a much trickier customer because he/she will want good, if not great sound as well as smooth operation with a user interface that is near telepathic in its straightforwardness. In other words, a machine that will satisfy every type of potential buyer: one that mixes superb sound with super-slick operation.

Computer-based

Qsonix feels that it has the answer with its powerful and highperformance music management system, the Q105. This turnkey

device, so claims the company, caters for all manner of people, from casual music lovers to devoted audiophiles with their extensive music libraries.

Although the Q105 can be purchased with one of two touch screens, we opted for the substantial 431.8 millimetres (17-inch) version. This connects to the main unit, which takes care of all the necessary CD ripping and storage through an adaptable, RapidRun single-cable system.

Switching the unit on, we were first aware of the sound made by the fan. Although this measured below 60dB and was not horribly intrusive, it did warrant further investigation.

Inside the enclosure there is a small ATX motherboard, with a generously sized Zalman heat-sink/fan cooling the CPU (Central Processing Unit) barely 50mm away from a smaller Arctic case fan. This sits next to a 300-watt Sparkle switched-mode power supply, which has its own fan.

"Although this is a computer-based device, it certainly doesn't feel like one... The whole shebang comes to life without any arcane boot-up screens"

If you are thinking that that is a whole lotta coolin' goin' on and wonder what else inside the box is generating Therms, the answer is not a great deal. There's a Sony NEC optical drive and, alongside it, a Western Digital 500GB hard disk, designed specifically for use in streaming environments. For some reason, both drives use old-fashioned PATA rather than SATA connections. At least, however, they use modern rounded cables rather than the older, airflow restricting ribbons.

Other than that, there's the separately encased audio DAC/ amplifier circuitry housed above the main motherboard, but that was still cool after several hours of playing.

Touchscreen

Although this is a computer-based device, it certainly doesn't feel like one. Turn on the main unit by pushing a button on its fascia

DETAILS

PRODUCT: Qsonix Q105

ORIGIN: USA TYPE: Music management

system WEIGHT: 12.25kg (not including touch

screen)
DIMENSIONS:
(WxHxD) 430x
100x406mm
(not including

FEATURES:

- Outstandingly straightforward graphical user interface
- Q105 can be linked to a TV display and then driven with a mouse or by remote control
- Highly robust, fuss-free operating system for user/ family friendliness
- Easy back-up to external USB drive
 DISTRIBUTOR: Absolute Sounds

TELEPHONE: 02089713909 WEBSITE:

Osonix.com

2 Ontput Music Management System

OPEN

System

Amount of the system of

HI-FI CHOICE SPOKE WITH MIKE WEAVER, QSONIX'S PRESIDENT.



HFC: How did you make a Windows-based operating system so resilient? For example, one seems able to ignore the usual shutdown procedure and simply kill the power. Next time it stills starts up perfectly.

MW: The Qsonix software platform is based on the Windows XP Embedded operating system. While this is a Windows-based solution, it provides a variant of the operating system that is customised exactly for our needs. Since it is running only the components necessary for our system, the reliability is greatly increased over a general-purpose Windows-based computer. In addition, it allows us to customise the start-up and shutdown procedures and gain ready access to many industry-standard protocols, formats and technologies.

Why was ripping to WAV not included at the outset, considering many regard it as so superior to WMA?

We chose early on in our company's development to standardise on Windows Media Audio Lossless, a codec that provides excellent performance for many users and applications. Afully lossless compression routine is used and the resulting uncompressed data is bit-forbit equivalent to the original source.

However, we received feedback that some users still prefer to use the WAV format and so we added this as part of our Performance Audio Pack upgrade. WAV does present some additional challenges. It does not support tags in any standardized way, so it can be difficult to properly preserve the appropriate full-featured metadata.

Are there plans for UPnP facilities, so one could include music stored on a NAS drive in the Q105 library?

There are plans in the works for using Network Attached Storage with Qsonix products. We don't have a timeline for this, but we have found that computer networking, large capacity storage and data backup can be challenging for many of our customers who are not computer-savvy, but are more focused on music appreciation.



FOR THE BEST sound quality from rips, there's althe Naim HDX. But this is a very different machine to the Qsonix and it is undoubtedly fair to say that potential buvers of one are unlikely to be interested in the other.

One could compare the Naim to a Caterham CSR Superlight, a featherweight, two-seater. sports car built purely for speed and. although road-legal, very much at home on the track. The Qsonix, on the other hand, is more like a Mercedes E-class. a reasonably quick and well-appointed family saloon that is ideal for motorway cruising. The user experience with either car is the antithesis of the other, even though both have four wheels and an engine and have been engineered to transport people from point A to point B

The HDX, for example, only rips to WAV. while the Qsonix provides access to compressed formats, which can deliver useful space-savings in less than hardcore audiophile circumstances.



connectors in shielded

This PC motherboard is the heart of the entire system

System can be preinstalled with hard drives between 500GB and 1.5TB

Fanspeed controller is vital for complex cooling

CD drive can writeas well as read and is useful for music compilations

and the whole shebang comes to life without any arcane boot-up screens, user-intervention or unfathomable fanfares. In fact, it simply switches on reasonably quickly, putting one in mind of other conventional electronic appliances.

Connections on the unit are simple and straightforward. There are two USB (Universal Serial Bus) ports on the fascia; one could be used to plug in a mouse as an alternative to touching the screen. To the rear you will find an ethernet port, two more USBs, connections for the touchscreen, as well as an S/PDIF digital output and two analogue audio outputs.

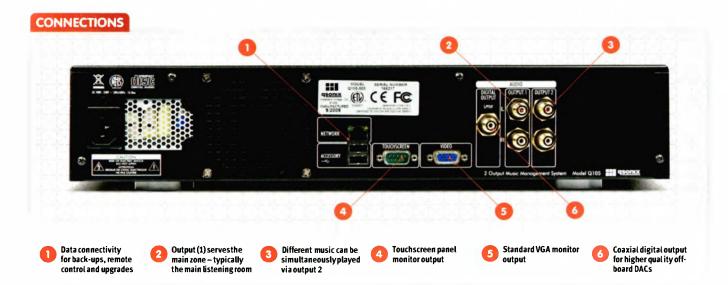
As one might expect, the ripping procedure is equally simple: insert the disc and the display asks if you want to rip the disc. Touch the Yes button and ripping begins. Very swiftly it completes the task, the unit accessing cover art and metadata from the internet for its library.

You can, of course, alter the format in which you rip: there's a choice of WAV (Waveform Audio File Format), Lossless and compressed WMA (Windows Media Audio) and MP3.

These offer capacities on the 500GB drive of around 800 uncompressed CDs, or more if you choose to use compression. There is no requirement to stick with one format all of the time, of course, and you can import other file types, such as FLAC (Free Lossless Audio Codec) through the USB port or network connection.

Warm-up

Initially the Qsonix does not seem to be an especially transparent device and its presentation leans towards being rather cloying and euphonic: a touch too close to an old-school valve amplifier. We left it to warm up over a weekend, during which time it updated its software to add a couple of worthwhile facilities, one of them the ability to rip to WAV. This made the previous 'best' rip to WMA Lossless an option that we could then ignore if we so chose. We did and things immediately improved. A few days to come up to operating temperature never does solid-state equipment any harm and working with WAV files is immeasurably better than the unrefined sounding WMA files.



Listening to a WMA of Van Morrison (a much-loved favourite performer), we weren't impressed by the timbre of his voice. While he is no honeytoned crooner, he certainly should not sound like a bellicose market trader with acute streptococcal pharyngitis – even on his live albums. Listening subsequently to a WAV rip of his *A Night in San Francisco Live*, he sounds as though he has made a complete recovery.

The dynamics of the 16-bit, 44.1kHz recording are also significantly better on the WAV, with fine gradations in level that have not been apparent before. The dynamic shading of the WMA could be likened more to that of an on/off switch: loud or soft with little differentiation in between. More importantly, though, Morrison's rigorously drilled band sounds slicker and more enthusiastic in its playing.

Rendering the 16/44 WAV rip of the Tori Amos American Girl Posse album after its warm-through, the Qsonix sounds faster and its note shape is much better defined. That said, the presentation retains a degree of warmth that ensures that it never becomes clinical. Regardless, we still feel there is potentially more in the way of openness and transparency to come. That had to wait until we imported some higher resolution recordings, including the Dawn Langstroth 24-bit/96kHz album *Highwire*. Now the music is more open and communicative. Langstroth's voice escapes more

"Through the Q105, music grabs and holds your attention, making it difficult to do anything other than relish the performance."

easily from the speakers and her band occupies the acoustic space behind her with a greater sense of authority and substance. Distinct and not-in-the-least subtle musical benefits also emerge on the

SYSTEM BUILDING

WE ASKED Pedro Jorge-Luis, the sales director of distributor, Absolute Sounds, to describe a system that he believed would realise the potential of the Q105 and that he might use to demonstrate its potential.

"Although the Qsonix can integrate with any audiophile system at any level, the Absolute Sounds system is based on high-end products that we import and distribute within the UK. These include the £12,000, 240wattper-channel. Devialet D-Premiere combined DAC and integrated amplifier.

"This features not only the most advanced technology available, but also accepts digital and analogue signals simultaneously in a very slick and compact design. It is also happy driving even complex, lowimpedance loudspeakers.

"Our choice of speakers would be the £5,400 elegant, floorstanding, Sonus Faber Cremona M. This high-performance design has both the striking sonics and sophisticated appearance to match the rest of the system."

24-bit/96kHz recording of the Jerry Garcia, Dave Grisman and Tony Rice acoustic jam session *The Pizza Tapes*. Through the Q105, music grabs and holds your attention making it difficult to do anything other than relish the performance.

Rewarding performer

Overall, the Q105 appears to be most content when handling acoustic music and rendering better quality recordings. Crisply defined leading edges (of the sort that an acoustic guitar produces when played with a plectrum) are impressive, while the clarity that comes with good 24-bit recordings seems to enliven the smooth, slightly relaxed performance of the device. Equally, though, it savours the beautifully recorded 16-bit/44.1kHz rip of Lambchop's *Is A Woman*, producing rewarding results with regular CD albums.

The Q105 seems to thrive when the recording has space around the performers. And it's far from disapproving too, especially when a recording fails to reach the highest standards of audio quality. ●

TECH LABS **RESULTS AT A GLANCE** Excellent Average Below JITTER: NOISE: FREQUENCY THD: CROSSTALK: 620ps is farfrom RESPONSE: A-weighted, (1 kHz)-102dB a state-of-the-art 20Hz-20kHz 20Hz-20kHz (209Hz-20kHz) is is a respectable figure. Perhaps. (-105dB) is +/-0.2dB. The somewhat below result, with an excellent the norm as far as a basis in computer response rises negligible componentry result and from +0.1dBat audiophile-quality 'breakthrough' comparable with 20Hzto+0.3dB playback between left and bearing here? product rivals at 20kHz is concerned right channels

Choice OUR VERDICT SOUND QUALITY LIKE: The ease of use **★★★**⋾ in every respect is extraordinary VALUE FOR MONEY DISLIKE: Tends to $\star\star\star$ encourage you to listen mainlyto better recordings **BUILD QUALITY** WE SAY: Very acceptable, *** the O105 is a direct FEATURES descendant of the custom-**** install-oriented O110 OVERALL



Back to the future

Creek's Evolution comes from a long line of respected value-for-money electronics. *Richard Black* looks at the science behind the changes

f you've a long memory for matters audio, you'll surely remember early Creek amplifiers. They came in unpretentious black boxes, quite small and with basic features and specifications; and they didn't cost a lot – but they worked well and sounded lively and sold in healthy numbers. In many ways, they embodied the spirit of 1980's audio in what one might call the 'budget audiophile' sector.

To that extent, Creek hasn't changed tack one bit over the years. You could show this new model to anyone as a perfect example of just that term, substituting '2010' for '1980s'.

Physically, however, its resemblance to its forebears is slight. It's bigger all round, the front panel is thick-brushed aluminium, there's a display instead of a row of push buttons and fit and finish are improved.

The previous 5350 (SE) was rated at 85 watts, but the new model manages 120 watts, which is quite a lot from a relatively slimline package like this. High power requires a substantial energy supply and, in particular, a very large transformer, and it's this that accounts for a good deal of the 5350 Evolution's weight. The considerable heat associated with powerful amplifiers like this is, however, dissipated by a pair of enormous internal heatsinks

Slimline powerhouse

Amplifier power has, on the whole, been creeping up over the years and while on the one hand 120 watts is only about 1dB more output (one or two steps on a typical electronic volume control) than 100 watts, it's an accumulation of little steps that has seen a rise from the 25 watts or so typical 25 years back. That's over 6dB, a far-from-

DETAILS

PRODUCT: Creek 5350 Evolution ORIGIN: UK/China

TYPE: Integrated amplifier
WEIGHT:

10.5kg
DIMENSIONS:

DIMENSIONS: (WxHxD) 430x90x370mm

FEATURES:

- Rated output
 120-watt (8 ohms)
- Phono stage optional (MM/MC)
- Separable pre- and power amplifier sections
- Preamp effectively passive (no gain)

 DISTRIBUTOR:
 Creek Audio

 TELEPHONE:
 01442 260146

 WEBSITE:
 www.creekaudio.com

trivial difference!

In one way, this amp seems a little under-specified by modern standards and that's input provision. It has as standard, five line inputs (one can be converted to phono as an optional extra), with no frontpanel mini-jack or digital input or other such fripperies. Actually we rather like a front-panel input, but it's not the end of the world reaching over to the back once in a while, as we suspect not many people really need more than five inputs! The output provision, however, is more in line with current thinking, including the individually switched speaker terminals.

Creek has designed a new power stage for this amplifier, leaving behind the MOSFET output that was used in some previous models, but still using MOSFETs in the driver stage. The output now uses bipolar transistors, in fact two pairs per channel to give better handling of high currents. And, as in quite a few modern integrated amps, each power amp channel is an independent board, while the preamp section occupies a third board.

Quite a few components are surface-mount types, but Creek has chosen through-hole ones for a few jobs, mostly capacitors and higherpower resistors.

The main power supply is also worthy of note, as it uses no less then 16 main smoothing capacitors. This is something that we've seen

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in previous Creek amplifiers and it's a smart idea, giving a lower total impedance than one or two large-value capacitors.

Input selection and volume control are electronic, with the volume steps being variable, 0.5dB over the top 18dB of range, then 1dB over most of the rest. As is often the case, that makes for a good few rotations of the volume knob to cover the range, but on the other hand it's very easy to advance in small increments. The dimmable display does a good job of telling you what's going on, with

volume steps numbered (as they ought to be, but aren't always!).

Built like the proverbial

Build quality is very good across the board. The case is all steel, apart from the front panel and the knobs are solid metal too, which is a nice touch. The use of quite thick sheetmetal gives great rigidity and the top panel is not particularly resonant. Input sockets are pretty basic commercial types (gold-plated though), while the output terminals are nice chunky ones. On the

electronics side, there are some very good op-amps in evidence and one of the most highly regarded electronic volume control chips and it's hard to find any grounds at all for criticising value.

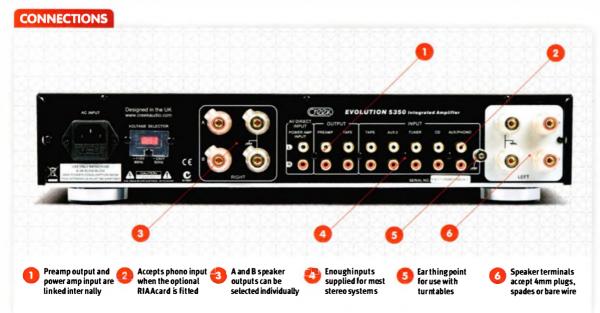
It's also worth mentioning the various forms of protection that Creek has built into this amp. Like many of its kind, it has sub-circuits that monitor output current and component temperature and shut down operation before any danger level is reached. But the cunning addition here is a simple verbal



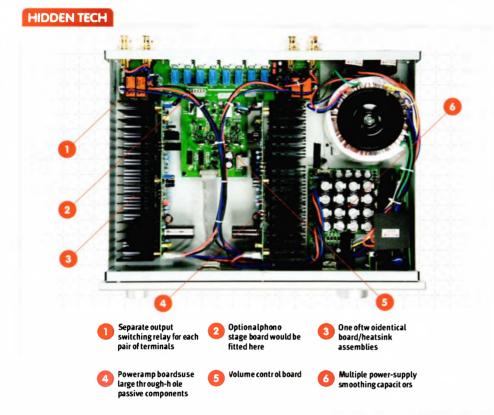
WHEN WE SPOKE to Mike Creek, he was keen to mention the output and driver stages in this amp's circuit. Creek has a long history of doing things differently from 'the usual' in power amplifier design and several models used a very distinctive output stage made up with MOSFETs in a 'totem pole' arrangement.

The Evolution returns to the more common bipolar transistors in a relatively conventional arrangement, but driven by MOSFFTs.

driven by MOSFETs. But does all this matter? Speaking from experience of designing and modifying amps, we'd say it does. Lots of different configurations can give good measured results and very decent basic audio performance, but each arrangement of amplifying devices has its own particular sound. It seems Creek has come up with a good one here!



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display of what's up, so that you know immediately, if it's deliberately shut down and not just blown a fuse. You have to be pretty brutal to trigger the protection, mind you, as the circuit is intended to drive four-ohm speakers and as Mike Creek opined on the phone when we spoke to him about this amp, it pays to be realistic.

Rhythm and timing

Having the luxury of a long review period with this amp, we were able to try it under all sorts of circumstances, from the usual sessions with tried and trusted favourites to some rather critical listening to a newly made recording. Of course, we did some swapping around so as to compare it with

familiar references, amps that we've known for a while – but each time we regretted having to take it out of the system. That's not to say it was better than the references (some of them are very good indeed) but it's an easy amp to get attached to.

Most of all, that's because it has a really lively way with music, giving full rein to the energy the performers put into recording it. Most amps do that sort of thing, but this one really seems to excel at it, making the music that much more involving and simply delightful to listen to. This isn't just a question of the well-known 'pace, rhythm and timing' aspects, but also requires good control to keep the speakers precisely in check, and keen dynamics too.

HOW IT COMPARES

IN MANY WAYS, the obvious

the obvious comparison with this model is the Cambridge Audio Azur 840A V2, a similarly high-powered integrated at a comparable price (actually a little cheaper at £800).

Superficially the Cambridge looks a bit more like an item of lab equipment, but we've found that it sounds very impressive in many ways. It's about the same output rating as the 5350 Evolution but it seems to have a little more 'slam' and bass weight, and on that score arguably comes closer to the high end.

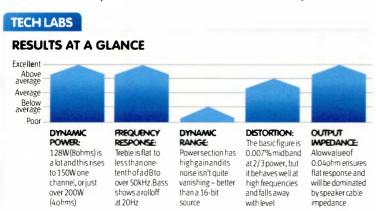
It's detailed too: but it doesn't seem to match the Creek for integration and sheer attractiveness of sound. The Creek's treble may be just a little sweeter, while the choice between the two, as usual, hinges on your tastes in music and sound, with the Cambridge

It's not unknown, however, for audio components to be lively, but still a bit lacking in some of the specifics, which can lead to frustration in the long term. No such danger here, we're happy to report. OK, the bass doesn't quite have the 'slam' and definition that you hope to get from a monster monoblock power amp and the treble isn't quite as sweet as the finest valve amps may be able to offer, but the compromise is small and by the standards of competing amps we're not at all inclined to quibble. In fact the combination of extension and tunefulness in the bass is very fine indeed, while the midrange and treble are really beautifully neutral.

Detail, too, is something a bit special for this class of amp. It's not so much the fact that it's there – it usually is, most of it anyway, with any decent amp – but it's the way it's effortlessly presented and at the same time integrated so that one isn't bludgeoned into paying it attention if one isn't in that kind of mood. It's just there when one wants it, like a beer in the fridge: take it or leave it. We jest, but this kind of attribute really makes hi-fi a pleasure to own and use.

Wrapping up

It seems almost unnecessary to add at this point that the 5350 Evolution always feels at home in any style of music – even some pretty raw stuff we tried in the shape of a demo from a local band. It's happy playing loud and it gives no sense of frustrated energy when playing quietly. It doesn't try to be something it's not and you won't mistake it for fancy exotica, but it's a fine honest-to-goodness integrated amp that does an admirable job. •



Choice OUR VERDICT SOUND QUALITY LIKE: Conjous detail **** very well integrated into a convincing whole VALUE FOR MONEY DISLIKE: Bass doesn't **** have quite the extension and attack of some **BUILD QUALITY** WE SAY: One of the most **** attractive amps in its price FEATURES range, with a sound that's **** immediately satisfying **OVERALL**

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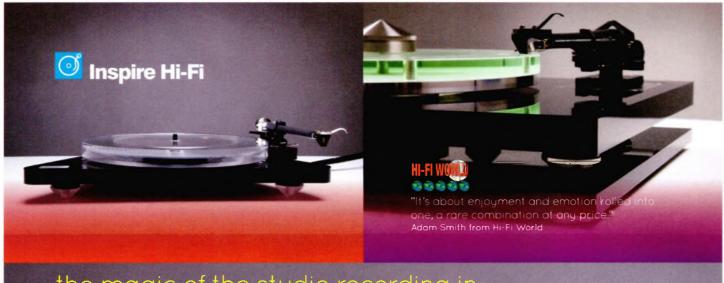
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Jimmy Hughes uncovered one of hi-fi's best kept secrets: XTZ. Here are just some of the comments from the exceptional Hi-Fi Choice (Issue 333) system review:

66 This system offers great sound and terrific value. And for those unable to listen, prior to purchase, we'd simply say this - order with confidence. Trust us, we are the reviewers after all and it's our job to know these things."

66 An amplifier and CD player with this sort of finish and build quality for just £600 and £365 respectively? Unbelievable! "

66 Musically, the presentation is clear and unpretentious - a very nice system that's a pleasure to listen to."

*System: XTZ CD-100 CD Player, XTZ 100D3 Amplifier and XTZ 99.36 Speakers



*Limited Time Offer Save £240 on the XTZ System

featured in this AD. Speakers available in: white, black or walnut finish. Components available in: black or silver. Pay only £1,550. MRP £1,790. Remember to QUOTE REF: HFC334.



Head master

With its new high-end flagship headphone, Audio-Technica looks to take on the mighty Sennheiser. *Richard Black* listens in

Among major headphone manufacturers, Audio-Technica produces one of the most inclusive ranges available, with something of a speciality in closed-back models.

The considerations between open and closed headphones are not cut and dried, but obviously closed ones tend to give more isolation to and from the world: on the other hand open models often have the edge in tonal neutrality. So the question now is how AT's changes affect the sound – can, for example, the W1000X measure up to giants like the Sennheiser HD800?

Big drivers, big sound

The most obvious feature of this headphone is the beautiful wooden earcup, made from American Cherry and polished to a high lustre. Audio-Technica suggests that they contribute beneficially to the sound, which may indeed be so, but one can't help feeling that their appeal is at least as much visual!

Inside the cups are the drivers, which at 53mm are the same size as those in most other high-end headphones these days (there seems to be a 'size war' and 53mm is currently the magic number). But, of course, details are at least as important, including the high-flux magnets and lightweight diaphragms, which allegedly extend frequency response to 42kHz.

AT also mentions a 'floating mount system' (a compliant mounting, basically) which helps reduce internal structural resonances, plus a damper which helps reduce acoustical resonance. This is all useful stuff, as resonances (left unchecked) can bedevil headphones, just like speakers, making listening more of a headache than a pleasure.

We must also mention AT's 'wing' support which is a very clever way of resting headphones on the head –

this latest version is the most comfortable yet.

On the money

As one tends to expect of expensive Japanese equipment, the finish on this headphone is somewhere between very good and superb. Not every detail is quite perfect, though, and we found the overall headband a bit disappointing – it's rough and awkward to the touch and also couples mechanical noise into the earcups rather too readily if it touches the back of a chair. On the other hand, the cable is much

Choice RECOMMENDED

DETAILS

PRODUCT: Audio Technica ATH-W1000X

ORIGIN: Japan

TYPE: Closed-back headphone

WEIGHT:

- FEATURES:
 Impedance:
 420hms
- Fixed cable with 6.3mm stereo jack
- plugSingle driver per
- channel
 Closed back;
 circumaural
 DISTRIBUTOR:
 Henley Designs
 TELEPHONE:
 01235 511166
 WEBSITE:
 audio-technica.com

improved from the W1000 and couples very little noise. The earpads are covered in very soft leather and feel great over the ears. Compared with other expensive headphones, the whole look and feel is right on the money.

X-factor 2

Having heard the original W1000, the general feeling is that the sound of its successor is on a par. Which, given the credentials of the former, can only be to the good. Bass is just terrific, with vast extension and real weight, plus plenty of attack and bite. Lower midrange is great too, but there is still some coloration in the upper midband and treble, which slightly emphasises background hiss, vocal sibilants and so on, as well as the odd very high melodic note.

On the whole, though, we feel this has been reduced in the X version, while detail is slightly improved. As a result, it is now easier than ever to hear all the fine detail in familiar recordings and the mild tonal aberrations soon become second nature. If everything else is right, the ear is pretty tolerant of deviations from absolute response flatness.

Head start

Overall, then, we are very impressed with this model. It plays cleanly up to very high levels (so go easy with that volume control!), but also has great subtlety in quieter music. It combines truly excellent performance in the lower parts of the spectrum with good results higher up, but although it may take a little getting used to, its very good resolution is always appealing.

It also proves comfortable over long listening sessions and the modest, but useful reduction in background noise is a genuine advantage, very often, over openback alternatives. All-in-all, it's a fine transducer.

Hi-Fi Choice

OUR VERDICT



LIKE: Great bass and powerwith modest background noise reduction

DISLIKE: Slight coloration and headband awkward to handle

WE SAY: A fine advert for the virtues of closed-back headphones

UVERAL





Basic instinct

Consonance's latest turntable has the one of the simplest plinths yet encountered, *Jason Kennedy* asks if less is more when it comes to vinyl replay

his is a radical piece of turntable design.
In fact, rarely have we seen such a simple, skeletal approach to the ongoing challenge of mounting a platter, tonearm and motor.

The supplied T988 uni-pivot tonearm is, on the other hand, rather elaborate with a slim-line carbon-

fibre main tube and fancy counterweight. Also unusual is the use of nylon filament as a drive belt, an approach derived from the use of fine silk on high-end turntables. What's more, the novelty doesn't end there because Consonance has taken the unusual step of adding a foam mat to the

DETAILS

PRODUCT: Consonance LP6.1/ T988 ORIGIN: China TYPE:

Turntable and arm WEIGHT: 3kg
DIMENSIONS:
(WXHXD)
360x111x310mm
FEATURES:

- 25mm acrylic platter
- DC motor
- 228.6mm (9-inch) uni-pivot carbon fibre tonearm
- 304.8mm (12-inch) arm option
- Flying lead outputs TELEPHONE: 01273 608332 DISTRIBUTOR: Alium Audio WEBSITE: aliumaudio.com

acrylic platter. This combination marks the LP6.1 as one of the most distinctive designs at its price.

Good vibrations

One of the best established Chinese manufacturers, Consonance started way back in the post communist boom of the early nineties. Now it has a huge range of components and makes everything from CD players to horn speakers.

The LP6.1 is its least expensive turntable to date and a simpler design we have yet to see. The basis is a box-section aluminium T-bar that supports platter bearing and tonearm with an extra bar bolted on for the motor. This approach gives it tremendous stiffness, although all that exists to stop vibration travelling from the motor to both arm and platter is some damping in the metalwork, and you have to wonder if that is sufficient. Mind you, Consonance has selected a

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Japanese DC motor for the job, which should ensure that extraneous resonance is kept to a minimum.

The supplied arm is rather a fancy, uni-pivot with a thin carbon-fibre wand that comes in both 228.6mm (nine-inch) and 304.8mm (12-inch) variants. You'll need to augment the turntable chassis to use the longer wand, but this is an interesting option for such an affordable turntable. Traditionally, super lightweight, low-mass arms like this were only suitable for highcompliance cartridges - which usually means moving magnets. The T988 (or 304.8mm T1288) is claimed to be compatible with a wide range of cartridges.

The LP6.1's platter is 25mm thick and has the bearing and centre spindle bonded-in, the latter is unusually long, while the bearing below it is shorter than average.

The bearing sits in a brass journal which you lubricate with the supplied oil and once the platter is in place you need to fit the filament belt. Being less elastic than rubber belts, this is a slightly tricky operation, especially if you try to start on the lower 45rpm channel on the pulley.

Power for the 12-volt DC motor is produced by a wall wart supply and the on/off switch is at the back next to the power socket. In the same area on the rear of the unit is a small screw that can be used to adjust speed. When combined with the supplied strobe



UNI-PIVOT tonearms differ from more conventional designs by virtue of having a single bearing point. A conventional arm has bearings on either side to allow up down movement and one underneath to allow sidewards tracking of the disc.

Uni-pivots balance on one point, which in the case of the T988 is a stub in the housing that sits in a race of bearings in the arm base. Other types have a single spike in a jewelled bed. The idea is that friction is reduced so that the arm can trace the groove with greater ease. Classic examples include the Hadcock designs and Naim's ARO.

Another advantage of uni-pivots is that it's relatively easy to swap a whole arm-wand with a cartridge installed for another, hence the plug-in cable. Less convenient is the floppiness of the arm as a whole when setting up and using the finger lift.

disc and a 50Hz lamp, it's relatively easy to get this spot-on.

Arm and cartridge set-up is rather more of a fiddle, unipivots are difficult at the best of times because they don't sit still and, at least, you can bolt on the cartridge prior to fitting the wand, but the rest is a bit more fiddly. In particular, getting the bell-shaped counterweight in precisely the right position so that azimuth (the angle of the stylus in the groove when viewed end on) is correct requires the patience of a saint. The bell shape was chosen to keep mass below the pivot point, but it's so much heavier than a cartridge that it needs to be rotated in tenths of a degree, or so it seems!

Steady hand

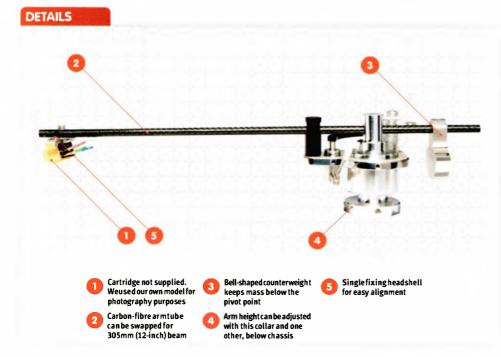
The T988 tonearm can be purchased separately for £650, which means that the turntable element itself is £545 and, while construction and finish are of a high standard, it's debatable whether it looks like great value. The Japanese motor is undoubtedly a high-quality component, but construction is such that its vibrations can be heard through the speakers when the

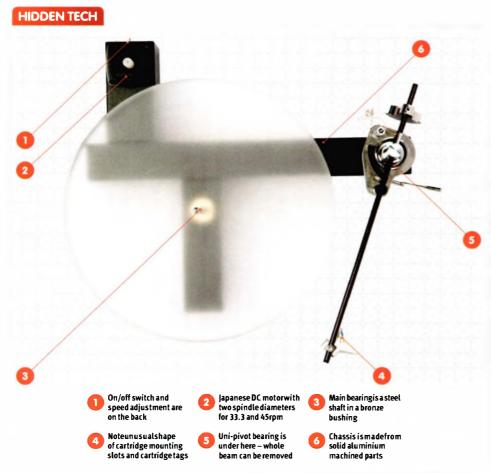
"It has a presentation that engages the mind with its tonal clarity and the heart with its fine coherence."

volume is turned up. The feet are rubber hemispheres, which will only keep out the highest frequencies, so the turntable needs to be kept well away from loudspeakers on a wall bracket, or stand with excellent isolation.

The arm is better value in engineering terms and, while tricky to set up, is operationally straightforward for the most part – you need a steady hand to collect it from disc centre because the finger lift is distinctly small. The flying lead output sockets mean that separate interconnect is required to take the signal to your phono stage, but at least this gives the option to choose a cable.

Competing alternatives have to include the Michell Gyro SE, which can be had with a Rega RB300 for an extra £100 over the LP6.1 and is a rather more substantial proposition in all respects. The Rega arm may be more prosaic, but the presence of a suspended sub-chassis and





Michell's enviable standard of engineering make this a very hard turntable to beat at anywhere near the price.

The T988 looks a bit more competitive, the closest rival we could find is the Hadcock GH242, which is steel rather than aluminium, stainless and carbon- fibre and costs £772. A Roksan Nima with aluminium arm tube and acrylic headshell is more affordable at £489, but a rare site outside of a Roksan Radius turntable.

We managed to set up a van den Hul DDT cartridge in the T988 tonearm without too much cussing and set it down in the groove of a beautiful jazz tune called *Warm*Canto by Mal Waldron, a piece the LP6.1 reproduced with considerable finesse. Eric Dolphy's clarinet reveals its gorgeous tone and you can hear all of the filigree detail that the drummer gets out of his cymbals. We chose this track because its sustained notes can reveal flutter, but none was to be found – the clarinet sounds pure and sweet.

We also compared the deck with CD to see how much tonal

ch cussing oove of a l Warm spiece the onsiderable ringt reveals

WHEN WE ASKED Ian Large of Alium Audio to come up with a system to suit the LP6.1 he gave us two options. At the higher end he chose Opera-Consonance valve amplification consisting of a Reference 40 phono stage, Reference 50 preamplifier and Cyber 880 amp. For the turntable he stays with Opera-Consonance's recommendation of the Dynavector Karat 17D3 cartridge. This little lot will build you a£10.5krig.

a £10.5k rig.

At the other end of the scale; a Cyber Signature 10-valve amp (11-watt output) with Cain and Cain Abbey speakers is a system for under £4k, which can't be bad. It would still need a cartridge and phono stage, but it's encouraging to hear a distributor enthusing about such a realistic choice.

colouration it introduces to the end result, the answer is not very much. It's a little brighter, perhaps, but also rather more open and organic. Importantly, there is none of the halo effect that you can get with acrylic platters – the foam mat clearly helps keep things clean in this respect. The flip side is that it sounds less dynamic than pure acrylic designs do and while you have the option of discarding the mat, we prefer the more focused sound with it on.

As the Dynavector 17D3 also happened to be available (see our review on p71) and is Consonance's cartridge of choice, it seemed churlish not to fit it. A process that was more than amply rewarded by superb timing combined with pinpoint imaging.

While not as dynamic a result as was achieved with the Rock V, there is a degree of fluidity to the sound on this turntable that is beguiling. It continues to be tonally on the money, while doing even more for vocals and instruments, John Coltrane's sax on *Kind* of *Blue* hasn't sounded this sweet for quite some time.

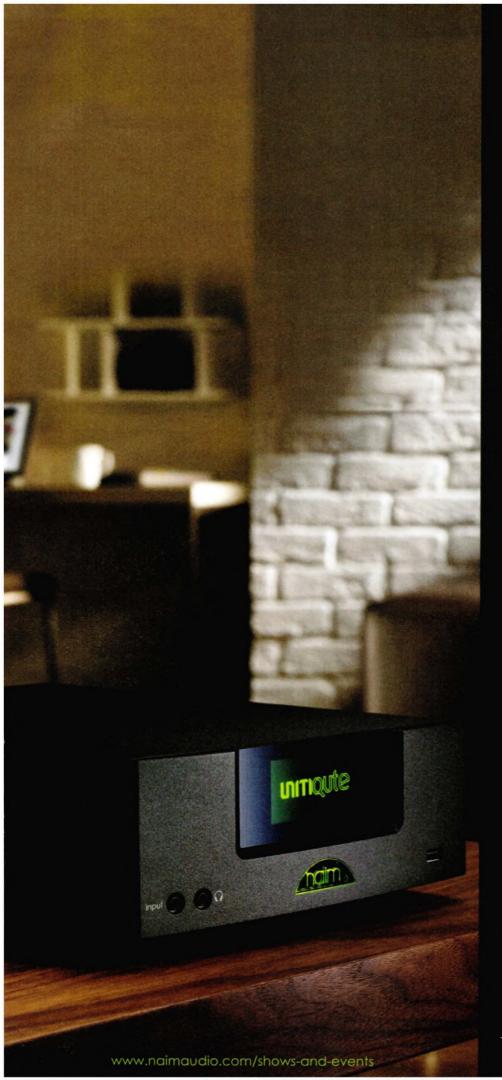
Hearts and minds

It would be interesting to try this arm in another turntable and compare which source (arm or turntable) is actually responsible for the overall results. We are, after all, a little concerned about the value of the latter part of the package, but it has to be said that the overall effect is very compelling.

It avoids the usual limitation of acrylic platter designs and has a presentation that engages the mind with its tonal clarity and the heart with its fine coherence. It has strong competition from the likes of The Funk Firm, Rega and Michell, among others, but should hold its own if equipped with a cartridge like the Dynavector.

TECH LABS **RESULTS AT A GLANCE** Excellent Above average Average Below average Poor SPEED WOW AND RUMBLE: VIBRATION ARM ACCURACY: BREAKTHROUGH RESONANCE: FLUTTER: It generates very The fine speed The nylon drive little vibration Although there The main cord shows signs adjustment and its a highis no suspension resonance, at means vou can of 'wander up' and frequency that as such, the solid about 360Hz is not prominent both check and down the motor construction gives is transmitted pulley, leading to a modest degree and does little to setspeed using a through the kevstrobe speed variation heavy structure ofisolation colour the sound







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Michell Electronic Reference (no arm, SME cut)	699	Consonance Cyber 10 Signature, excellent boxed
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NAD 533 Turntable (Planar 2), RB250, Goldring Ele	ektra 149	Krell KAV300, vgc classic integrated c/w remote
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Shariling Ornega Drive, vgc flight cased, serviced
Stello CDT200/DP200 Transport and DAC Preamp mint Sugden CD21SE, as new one owner boxed Sugden CDMaster Blow CD player, as new boxed Tag McLaren CD20R, excellent boxed TEAC P700/D700 excellent boxed 1/2 size pair Unison Research Unico CDP, excellent boxed

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Audiophile adventures

Sony's latest Walkman is an impressive personal audio and video player. *Adam Hartley* thinks it will make a dent in Apple's digital hegemony

ou can put Apple's ownership of the portable music market down to two things: Steve Jobs' marketing nous and (iPod designer) Jonny Ive's understanding that most people value convenience and gadgetry above audio quality.

So it's easy to believe that Apple doesn't give much thought to fidelity. Thankfully, judging by our test of the new Walkman NWZ-A845, Sony thinks differently.

Music player first

For music lovers it's hard to pick fault with Sony's thinnest-ever Walkman. Feature-wise, the NWZ-A845 is bound to appeal to anybody who wants a high-quality portable music player. It has 16GB of memory, an S-Master digital amplifier, Digital Noise Cancelling, EX headphones and an impressively bright 2.8-inch OLED display.

And the feature list ends there. There's no Wi-Fi. No 3G connectivity, no touch screen, gaming or App Store. This is a music player first and a (really good) portable video player second.

Sony makes no attempt to compete with Apple's iPod touch. If you want a mobile internet device and personal media player that plays music occasionally, then by all means shell out a few quid more and buy yourself one of Apple's latest MIDs (mobile internet devices), because the iPod touch is a wonderful pocket computer.

But if you want music on the go, then we would definitely urge you to consider a new Walkman instead. What it lacks in features it more than makes up for in audio (and video) quality.

No, no, nano!

The NWZ-A845 is 7.2mmthin and it's a lovely looking, beautifully crafted bit of kit. Unlike the featherweight and plasticky iPod nano, it feels reliably solid and weighty.

Priced at £149, the NWZ-A845 will be competing with Apple's slightly cheaper 16GB nano. The fact is, that those users that still rely on iTunes for purchasing and organising their music libraries are always going to plump for an Apple device over anything else. Sony doesn't have that software eco-system that is Apple's bread-and-butter.

Some users have also been quick to dismiss the design of Sony's NWZ-A845 as 'a bit too 1990s.' Which, admittedly it is, unashamedly. No bad thing, mind, especially as the interface is simple, quick and easy to use.



DETAILS

PRODUCT: Sony Walkman NWZ-A845 ORIGIN:

Japan TYPE: Personal audio player

- WEIGHT: 62g FEATURES:
- OLED screenBBC iPlayer
- supportNoise-cancelling earohones
- 29-hour battery life
- Windows Media and iTunes compatibility DISTRIBUTOR: Sony Europe TELEPHONE: 0845 6000124 WEBSITE: Sony.co.uk

Favourite cans

The first thing any audiophile will notice, is that Sony's noise-cancelling in-ear EX headphones that accompany the NWZ-A845 are surprisingly good. So good, in fact, that you won't forget them in a hurry.

They are unlikely to be quite as good as your favourite cans – and they were certainly not as good as the custom-moulded ACS T2s we used to compare and contrast the new Walkman with Apple's iPod – but they are a country mile better than any other 'bundled' headphones we've tested.

Sony informs us that the EX earphones are worth around £70 on their own, which makes the NWZ-A845's £149 price tag seem even more reasonable.

If you are travelling on a bus, train or plane then noise can be a major set-back. But not with Sony's 'Advanced Artificial Intelligent Noise Cancelling' technology, which automatically monitors your surroundings and successfully manages to cut out a considerable amount of the ambient interference.

iTunes

With a battery-life of up to 29 hours and iPod-beating sound quality, the latest Sony Walkman is truly a contender for our favourite personal digital audio player.

Of course, Apple has the benefit of the iTunes eco-system, which most people are going to be happy to continue to use alongside their iPod touch or nano.

However, for the discerning audiophile, once you pit Sony's machine alongside any Apple device, the difference in audio quality is immediately apparent. Whether you are listening to quiet folky guitar tunes or bass-heavy hip hop, this Sony Walkman and its bundled EX noise-cancelling earphones deliver a surprisingly clear sound. ●



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Entry-level excellence

Naim regards the CD5 XS as an entry-level player. But as *Malcolm Steward* discovered, its performance tells a completely different story

he Naim XS series, which includes the CD5 XS, is more than just a simple evolution of the previous X series models. Each component is said to have been engineered to work harmoniously with the rest of the range and providing significantly enhanced overall system performance.

Naim also regards the XS range as a superb introduction to its Reference series models by offering what it says is genuine high-end performance at an affordable price level.

Broader horizons

The CD5 XS CD player was completely re-engineered in the transition from its previous incarnation as the CD5x. Naim revised or replaced nearly every element of the design except for the mains transformer and the disc mechanism, which was borrowed from the more costly CDX2 player.

Perhaps the most noteworthy inclusion, though, was the introduction, for the first time on a Naim CD player, of a digital output alongside the traditional analogue connection. The appearance of the digital output at around the same time as Naim delivered its first stand-alone DAC hardly seems a coincidence, even though the capabilities of the multi-input, multi-frequency DAC far exceed what is necessary for handling the 16-bit /44.1kHz S/PDIF output of a CD player.

Nonetheless, it seems that many people are still buying the £1,790 CD5 XS and using it with the DAC. At a total price of £3,785, the combination is only £460 more than a CDX2 CD player and £2,340 cheaper than a CDS3 player – without its mandatory power supply. The DAC does, of course, open the floodgates to all sorts of

DETAILS

PRODUCT:
Naim CD5 XS
ORIGIN: UK
TYPE: CD player
WEIGHT:
6kg
DIMENSIONS:
(WxHxD)
430x70x300mm
FEATURES:
• Switchable digital/

- analogue output
 Upgradeable
 through power
 supply
- Alternative upgrade with Naim DAC
- Digital output through 75-ohm BNC connector

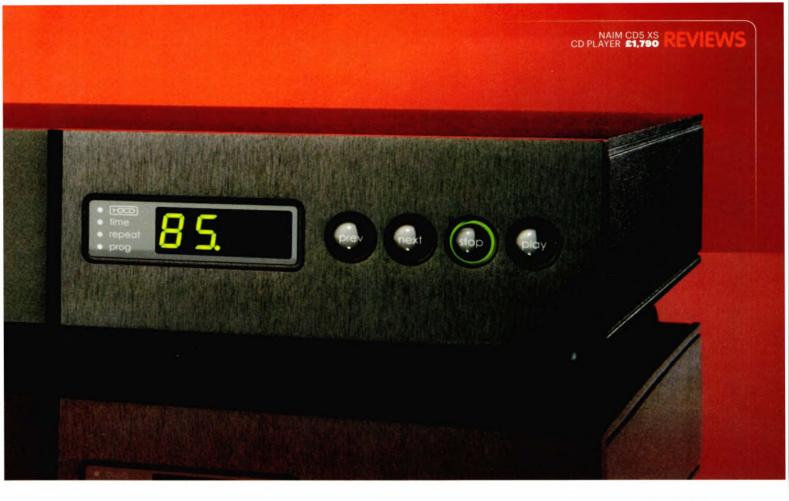
DISTRIBUTOR: Naim Audio TELEPHONE: 01722 426600 WEBSITE: naimaudio.com digital media, which makes it and the CD5 XS look like a very tempting combination.

The player follows Naim's well-established minimalist approach and comes housed in a zinc and extruded aluminium case, designed to keep external vibration and 'noise' at bay. The analogue output can be accessed through RCA connections, as well as the traditional DIN socketry, which makes it easier to integrate into a non-Naim system or modify its performance. The digital output is less potentially compromised and exits the player through a 75-ohm BNC connector.

As well as auditioning the CD5 XS through an all-Naim system, we also tried the player with the budget Cambridge Audio DACMagic for anyone whose spend is capped at £2,000 for a CD player package.

We played this through a Creek Evolution 5030 amplifier and Cabasse Iroise 3 speakers to assess its performance in a completely non-Naim set-up. This provided thoroughly satisfactory results, which is good news for Naim, who clearly wishes this and other XS products to reach outside its established customer base and attract new buyers into the fold.

The CD5 XS introduced improved speed, control and precision to the sound of this secondary system that easily ought to attract those looking for more hi-fi attributes. The



additional expression and communication it brought to the system ought do the trick for those more taken by the music than by the presentation. In particular, the Naim player brought with it an increase in rhythmic urgency, pace and dynamic expression that enhanced our enjoyment of a wide variety of musical genres.

Painstaking detail

Naim has always had a reputation for painstaking attention to detail when building components. This even extends, for instance, to specifying the exact positioning of .

"...specifying the exact positioning of the cable ties is an anally retentive obsession for which Naim is famous."

the cable ties on each of its wiring harnesses. This is just one of those seemingly, anally retentive obsessions for which Naim is famous: depending upon your perspective, for being either ruthlessly fastidious or hopelessly deluded. Combine such tiny differences, though, with a host

of others and they add up not only to ensure absolute consistency in production, but also to exert a much more significant influence over the performance. It is not unlike the Formula One grid where the fastest and slowest cars are often separated by little more than a second. Under such circumstances, a couple of thousandths of a second assume massive importance.

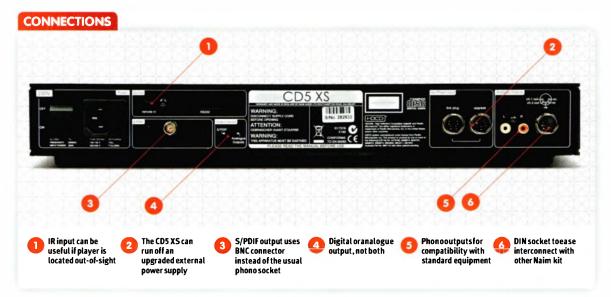
One of the most immediately noticeable fine-tuning measures with the player is the 'loose' sockets on the rear panel. The mains, DIN and BNC connections are 'selectively decoupled' to float within the

TALKING POINT

ADDING AN S/PDIF output to the CD5 XS was a painstaking exercise, says Naim. The signal from the CD decoder feeds the Digital Interface Transmitter through a switch that directs the signal to either the DIT or the audio DSP/HDCD decoder. This ensures that the signal is routed only to the digital output or to the analogue output, which eliminates the risk of compromising either.

The processed digital stream from the Digital Interface (DIT) chip feeds an isolating transformer, which ensures that the digital signal does not contact the chassis or zero volts.

The digital output then terminates in a 75-ohm BNC socket for optimum signal transfer, with the least chance of reflections caused by mismatched impedances. The CD decoder, Audio DSP/HDCD decoder and DIT are each controlled by a high-precision master clock with its own regulated power supply.



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- Encapsulated reedrelays used for signal muting
- Analogue board uses high-quality op-amps and audiophile-grade passive components
- Therobustdrawerand transport are identical to those of the CD-X2

- Low-noise toroidal mains transformer
- Note the abundance of linear voltage regulators
- Burr-Brown PCM1704

casework and so prevent vibration in those cables from passing through and interfering with the electronics within the enclosure.

Although few people regard nearly £1,800 as an insignificant trifle, the CD5 XS is not expensive in the Naim scheme of things where the top of the range CD555 will set you back over £16,000. Certainly, several listeners, who were unaware of what was playing, estimated the cost of the CD5 XS – particularly when auditioned with the DAC – at well over £5,000.

Adding sparkle

We listened to the CD5 XS in two modes: primarily as a stand-alone player through its analogue outputs, and as a transport feeding the Naim DAC, which currently appears to be a very popular combination with buyers. In the first set-up the player exhibited all the expected verve and musical communication one associates with Naim CD machinery. As one also expects from the company's contemporary players, there was a delightful openness and a rich tonality evident on all voices and instruments, which, along with the timing and dynamic precision, truly brought the music and its performance to life.

Through its digital connection into the Naim DAC, the performance initially appeared to have gained another octave at the lower extreme, which not only reinforced the

result and one

that surpasses

Naim'sspec

'breakthrough

right channels

between left and

QUESTION TIME

WE ASKED GARY CROCKER, NAIM'S R&D MANAGER

ABOUT THE CD5 XS. **HFC:** The synergy between the CD5 XS and the Naim DAC is striking: they seem made for each other GC: The factors that make it so good as an analogue source, make it a great digital source for the Naim DAC It's optimised for both modes and its prototypes wer used as a digital source for the optimisation of the DAC, so in many ways they grew together, which might explain the synergy between

HFC: What three factors contribute most to the CD5 XS? GC: If I had to single out three things about the CD5 XS, it would be the new multi-layer main board PCB design; the new rigid CD tray mounting point method and the improved motor drive circuits for the CD mechanism.

realism of the presentation by providing a solid foundation for the rest of the instrumentation but it opened up the opposite frequency extreme, too, adding sparkle and vitality to drum kits and mandolins, for example.

In effect, the DAC demonstrated that the CD5 XS integral DAC could not extract maximum performance from this highly accomplished 'junior' player. Through the DAC the music also received a boost in the refinement stakes, the sound acquiring the sort of finesse and polish one normally associates with much higher-end machinery.

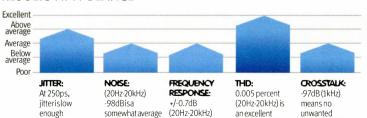
Using the CD5 XS in both a very revealing high-end Naim system and in a mid-fi set-up with a Creek integrated and Cabasse loudspeakers it was quite clear that the player far surpasses the performance one expects from typical 'entry-level' models. This capability is completely genre-agnostic: it does not matter whether you appreciate blues, metal, or folk music mixed with chamber orchestra, the performance retains the same intrinsically musical qualities and conviction. We tried them all and the CD5 XS performed consistently throughout.

All-round sound

The performance of the CD5 XS is genuinely impressive: it is persuasive and wholly convincing in a manner that escapes many other players. It manages to convey that rhythmic plausibility for which Naim has long been famous and, like its stable-mates in the XS range, the CD5 XS presents music in a more all-encompassing fashion and will, therefore, appeal to listeners who have viewed the 'Naim sound' as being focused on pace, rhythm and timing. Transparency, detail, timbre and imagery have now joined that list of attributes.



RESULTS AT A GLANCE



starts to roll-off

noticeably after

this figure

result, but noise

wasn't a problem

Hi-Fi Choice

OUR VERDICT



LIKE: Compelling and refined, especially through the digital output and DAC

DISLIKE: There is very little not to like about this highly accomplished player

WESAY: Its composure and openness results in a musical performance that is extremely seductive



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Hooked on classics

Jason Kennedy examines Dynavector's great Karat cartridge, which in Mk3 guise is proving hard to beat amongst its rivals

Long before DVD-Audio and SACD came along with a bandwidth that trebled what was available from CD, a Japanese engineer figured out a way of achieving this with a moving coil cartridge. The Dynavector 17D3 has the shortest cantilever in the needle world at a specified 1.7mm long. Not only is it tiny, but it's made of diamond and it's this combination of stiffness and size which gives it a high-frequency response that reaches the sky, or 100kHz, whichever comes first.

More output

As well as the tiny diamond cantilever the 17D3 has an equally small coil assembly and this contributed to an output of 0.2mV in 17D2 form, which is pretty low even by MC standards. For this incarnation, Dynavector has improved the design of the magnetic yoke and this change in combination with a flux damping mechanism and 'softened magnetism' has resulted in a 50 per cent increase in output to 0.3mV. A factor which should make it easier to accommodate for real-world phono stages.

The stylus on the end of the tiny cantilever is a 0.06mm square, nude diamond with a Micro Ridge profile. This is then bonded into a hole cut by laser in the diamond cantilever. All of the engineering – the magnet system, suspension, coils etc, are built into the nose of the cartridge body, the wider part being there primarily to provide fixing points for a conventional tonearm.

While having a very short and stiff cantilever has its mechanical advantages, it does place extra strain on the supporting tonearm. The 17D3 has a tendency to send more energy into the arm and is, therefore, more sensitive to this element than most. It is known to benefit from front end damping and has a reputation for working well in the damping trough-equipped Townshend Rock turntable.

Part metal jacket

Build quality is very high, as you would expect from Japanese companies, while the body design looks surprisingly modern, considering it hasn't changed for over thirty years. And while some contemporary cartridges at this price



DETAILS

PRODUCT: Dynavector Karat 17D3

ORIGIN: Japan

TYPE: Moving coil cartridge WEIGHT:

5.3g FEATURES:

- Output at 1kHz, 5cm/sec: 0.3mV
- Tracking force: 1.8 – 2.2g
- Recommended load:>100 ohms
- Stylus: Micro Ridge
- Cantilever 1.7x0.25mm solid diamond

DISTRIBUTOR: Pear Audio TELEPHONE: 01665830862 WEBSITE:

pearaudio.com

have all-metal bodies, the 17D3 has a metal shell with a plastic mounting for the various elements within and threaded inserts. This approach offers a useful degree of damping and reduces the amount of energy being fed into the arm, but you need to be careful about how much torque you apply to the bolts.

Competition at this price includes the Goldring Legacy (reviewed in *HFC* 328), as well as the most affordable model in the van den Hul range: the DDT II Special. Both are very fine cartridges, but not quite as thrill-powered as this Dynavector.

Thrill power

In the substantial clasp of an SME V arm, onboard a Model 20A turntable, the 17D3 delivers a highly detailed and fast-paced result that is extremely exciting. Once warmed up this calms down a bit, but it remains incorrigibly upbeat and enthusiastic. This has an infectious effect on the listener and is guaranteed to encourage the seeking out of your favourite albums. Detail is phenomenal and results at low listening levels are particularly rewarding.

As we had a Townshend Rock V on hand it seemed churlish not to set it up on its Rega arm, where the damping provided by the trough calms some of the excesses and lets the remarkable precision and energy of the Dynavector shine through.

Top tip

The 17D3 gets very close to the results achieved with MCs at twice the price. Some may prefer a richer balance, but few could resist the allure of the speed on offer which is truly world-class. The bass is taut and extremely articulate and we genuinely don't think that there are many sub-£1,000 cartridges that can touch it in terms of sheer musicality and resolution of detail. In fact, all you need is a turntable that can take the energy.





Bright and beautiful

In this exclusive review *Jimmy Hughes* looks at Linn's new 'universal' phono stage and discovers a must-have tool for LP lovers

t goes without saying that Linn's Uphorik phono stage will have plenty of appeal to serious vinyl enthusiasts: those lucky individuals with a top class turntable, arm and cartridge, who are intent on making their precious collection of LPs sound as good as is humanly possible.

Yet, the Uphorik will also appeal to record fans in general, proving once and for all that the vinyl LP is still very much alive and kicking in 2010.

Which is pretty impressive news, given that its rival, the compact disc is fast approaching its 30th birthday. More importantly, vinyl is becoming increasingly popular among younger hi-fi enthusiasts born long after its heyday - see our feature on p84.

And unlike CD and downloads, vinyl is a very 'hands on' medium. So much so, that many listeners feel they're more in touch with their music, especially when listening to a vintage pressing of something recorded forty or fifty years ago.

DETAILS

PRODUCT: Linn Uphorik ORIGIN: Scotland TYPE: Phono stage WEIGHT: 4.4kg DIMENSIONS: (WXHXD) 380x80x355mm

- FEATURES:
 Variable gain
- Variable impedance/loading/ capacitance
- Balanced Outputs
- Switch mode power supply
- Aluminium casework DISTRIBUTOR: Linn Products TELEPHONE: 0141 307 7777

WEBSITE:

Easy pick-up

And all this talk of vinyl brings us neatly back to the Uphorik and its other key selling points; adaptability. For example, it can be fine-tuned to suit different pickup cartridges. A plethora of micro-switches mounted on the base lets you alter gain, impedance, and select the appropriate loading capacitance and resistance to achieve optimum results.

The Uphorik even offers inputs for Fixed Coil (MM) and Moving Coil (MC) pickups. And in addition to a set of normal unbalanced outputs using RCA phono plugs, there's also the option of balanced operation via XLR plugs, as well as a choice between standard RCA Phono plugs, or three-pin XLR.

Various micro-switches customise the Uphorik to suit your choice of cartridge. Located on the bottom of the unit, once you've found the right combination of settings, you can set them and forget them. Linn's website naturally suggests optimum combinations for its own cartridges, so expect a certain amount of trial and error with other pickups.



But don't worry; the effect with most MC pickups is subtle rather than seismic, as you're simply fine-tuning the basic output. Adding capacitance reduces the upper frequencies, while load resistors 'damp' the cartridge. The smaller the value of the resistor, the more damped the cartridge will be.

With everything 'off' you'll get the brightest, liveliest, most energetic sound. As you add capacitance, the top end will grow smoother. Adding loading resistance should give the sound a bit more solidity and control. But much boils down to personal taste – you might just as easily prefer the sound with no added capacitance/resistance.

Don't forget, however, that things like cartridge vertical tracking angle and playing weight (stylus downforce) also alter tonal balance and high frequency brightness. If the sound is over-bright, lowering the tonearm and/or slightly increasing stylus playing weight may prove more effective than adding capacitance.

Unless your moving coil cartridge has an unusually high output that

"...listening to music from vinyl LPs is where it's at – a hugely enjoyable, life-enhancing thing."

risks input overload, go for the highest gain possible. Doing this gives a bigger more dynamic sound, with brighter bolder tonal colours. However, if the sound is overlyforward and aggressive, reducing input gain will help to tame things.

Built like a battleship

The Uphorik is housed in an aluminium case, with components laid out on a single mother board. The circuits have aluminium screening covers over them, while the switch-mode power supply is housed in its own special aluminium box and placed as far away from the electronics as physically possible.

The casework is well finished in a choice of silver or black. The Uphorik does not offer hefty



TWO KEY FACTORS

make the Uphorik sonically outstanding. The first is the ability to fine tune cartridge loading to optimise the sound. The second is the option of balanced outputs. When setting

When setting load capacitance and resistance with a non-Linn cartridge, evaluate the changes using a technically good recording with wide dynamic range and a clear open tonal balance. Some settings will definitely help reduce brightness/ harshness, but make sure you don't overcompensate for bright/thin recordings.

'battleship' build quality, but the use of lightweight aluminium casework is actually a good thing sonically, and should have a less detrimental effect on sound quality than a thick heavy steel case.

The various micro-switches for gain/impedance/loading are clearly labelled. Once set, they can be left. Linn actually recommend hardwiring your preferred settings. This provides better contact than the switches and improves sound quality. You can do this yourself – or ask your dealer to do it

The unit runs very cool, and is physically silent. Even with your ear pressed to the casework, it's virtually impossible to tell whether the Uphorik is switched on or off. And while £1,850 might seem quite steep for a phono stage, it's actually a fairly 'normal' sort of price for something of this calibre.

You can pay less, but you can also pay significantly more. While the law of diminishing returns applies here, the Uphorik does deliver plenty of performance for your outlay. If you already have a top-class

Q&A...

WE SPOKE WITH TREVOR STACEY
– LINN'S SENIOR HARDWARE
DESIGN ENGINEER



HFC: How difficult is it to design a good phono stage?

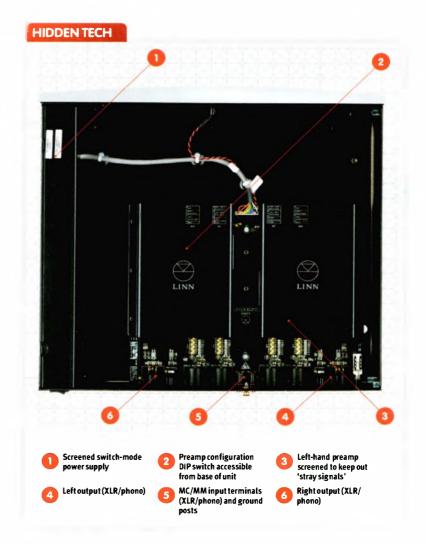
75The basics are straightforward; the details are complex – getting the details right defines the quality of a product. Aphono stage optimised for one specific cartridge would be far easier to design. With the Uphorik our difficulty was matching a wide variety of cartridges whilst maintaining the highest quality levels. The principal challenges are noise and equalisation. The critical element for low noise is the first amplification stage. The Uphorik's MC input uses the circuit developed forour flagship Urika phono stage. The quality of capacitors used in the RIAA stage has a large impact on audio performance - despite extensive searches we haven't found any surface-mount capacitors that sound as good as the through-hole parts used in the Uphorik design.

Anything unusual or special about the circuitry?

The input is unbalanced (despite XLR connectors) because it enables a simpler lower-noise circuit. However, the input signal ground is not the same as chassis. Eliminating noise in the signal ground is paramount. So we only attach signal ground to chassis at one point, near the power supply, to eliminate 'ground loops'. The signal ground to each input stage is kept separate and only joined near the audio output. Effectively it's a 'dual mono' amplifier – equivalent to two separate external mono phono stages, but realised on a single PCB. Optical decoupling between the control section and the audio signal path keeps the analogue signal clear of interference.

Could the Uphorik be improved?

With the Uphorik, our aim was to produce the best-sounding standalone phono stage. However, for a moving coil cartridge on an LP12 deck, our Urika remains superior. There are ways to make turntable sources sound better – that's Linn's philosophy. Our 'impossible dream'? A tiny phono preamp light enough to mount in the headshell behind the cartridge!



turntable/arm/cartridge, a phono stage capable of revealing its true calibre without doubt justifies spending this sort of money.

Easy on the ear

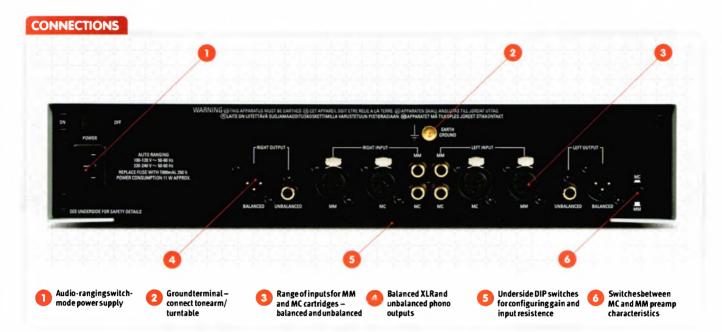
Linn's Uphorik offers an impressively neutral presentation from a tonal perspective. It gives crisp, lucid results that sound clean and highly detailed, while at the same time offering extremely low background noise. Although it's true to say there's nothing warm or romantic about the Uphorik, it's not cold or clinical either. It offers striking clarity and razor-sharp focus, yet sounds smooth and refined.

To provide comparisons, we sampled a number of high-quality phono stages including Audiolab's 8000 PPA (good value at £550), Sutherland's PhD, Trichord's Delphini, and Chord's Symphonic – all excellent designs that set very high standards of performance. Our cartridge was a Lyra Argo and the turntable; an Origin Live Calypso or Thorens TD-160HD.

The Argo cartridge is a very good tracker, capable of negotiating highly modulated grooves without losing control. Its crisp, open tonal balance and immediacy produce a relatively bright treble. Partnered with the Audiolab, however, the Argo can sound rather forward; heavy brass passages rasp impressively, but exhibit too much sting.

Substituting the Uphorik for the 8000 PPA reduced this brightness/ forwardness. The Uphorik sounds noticeably cleaner and more refined, yet offers comparable crispness and immediacy. For all its brilliance, the Uphorik has a deliciously smooth and refined presentation. It's sharp and detailed, yet surprisingly easy on the ear.

In addition to sounding cleaner, the Uphorik also produces a more open tonal balance. Solo instruments and voices seem to retain their individual timbral qualities. Also, quiet background voices and instruments seem clearer, with the main solo voice or instrument being less dominant.



The Uphorik was able to convey the placement of voices and instruments in the soundstage with outstanding accuracy and precision. In complex pieces of music we noticed better separation, with increased ambience and depth.

Firm foundation

Bass is weighty and solid, with good pitch definition and depth. Compared with the Uphorik, the 8000 PFA's bass seems a touch stronger and more powerful. Bass guitar and bass drums have slightly more impact via the Audiolab – as though strings and skins were being hit harder – but the Audiolab is also a shade coarser/harder.

In this respect the Uphorik isn't always 'impressive'. It's easy to mistake its smooth clean neutrality for lack of impact, when (in reality) it's simply not adding its own chatter. Vinyl is an additive sort of medium and some additives are

addictive and nice. The Uphorik gives you the plain truth – it reveals but does not embellish.

"The Uphorik is an outstanding phono stage to make you fall in love with vinyl."

Used via its unbalanced outputs, the Uphorik more than holds its own against the other phono stages. Via its balanced outputs, matters improve noticeably. The sound gains in terms of body and solidity – you get a far greater sense of fullness and texture and the overall soundstage seems bigger. Every LP sounds impressively solid and focused. The music has amazing presence, giving the performance increased purpose and attitude.

Used via its balanced outputs, the more expensive Chord Symphonic comes the closest to matching the TALKING POINT

IN TODAY'S digital age, listening to vinvl is a bit like shooting images with a vintage film camera. While digital reigns supreme in areas such as sharnness and lack of noise, vinyl (and film) gives you something greater than the sum of the parts. It's not always easy to put into words. but essentially it boils down to a more authentic result.

Linn's Uphorik aims to tackle CD on its home territory. With a good front end and recording it can match the clean crisp focus and precision of CD, while maintaining the strengths of vinyl. The specific qualities that suggest to the ear that a real person is playing a real instrument in a real acoustic space are subtle.

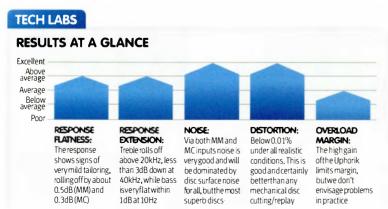
tr's not just a
question of achieving
low noise and
low distortion.
There's a 'factor
X' involved. Even
recordings made
on shellac '78s can
create an amazing
illusion of 'reality',
despite limitations
in bandwidth and
dynamic range.

qualities of the Uphorik, but the latter sounds even firmer and more solidly focused. The Sutherland PhD offers subtler tonal differentiation and a more natural top end, but can't equal the Euphorik's bass weight and dynamic presence.

Life-enhancing experience

The Uphorik is an outstanding phono stage (suitably partnered) to make you fall in love with vinyl. It delivers a sound that's neutral and natural, yet colourful and full of incident. If you're able to use it via its balanced outputs, we think you'll find the results very hard to better.

Of course, the Uphorik is not cheap; nor are a suitable turntable, arm and cartridge to partner it. But listening to music from vinyl LPs is where it's at – a hugely enjoyable, life-enhancing thing. It's hard to describe the thrill you get playing a 20 or 30-year-old LP and hearing it reproduced superbly. Quite simply, it is an amazing, magical experience!



OUR VERDICT SOUND QUALITY LIKE: Exceptional sound **** quality, and outstanding versatility/adaptability VALUE FOR MONEY DISLIKE: No steren/mapa $\star\star\star\star$ switch **BUILD QUALITY** WESAY: Brings vinyl **** back to life. The Uphorik could easily win over FFATURES the next generation of **** LPenthusiasts



- argentum acoustics
- sutherland
- · xlo electric

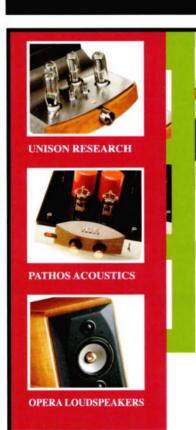
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Room service

Thanks to this innovative room correction device, enjoying studio quality sound in your own home is a lot easier than you think, says *Richard Black*

ovelty is a bit of a moveable feast. A CD player can still have novelty interest if it uses a new DAC chip or a different kind of output circuit. The FARC, though, is something quite unlike any product we've reviewed in Hi-Fi Choice before. It's a room correction unit. and it's true we've seen the odd one or two of these, but it works in a very different way from any other we're aware of. Indeed it's a little ironic that several years after the first digital room correction devices, this is the first analogue one.

What it does

The idea of using an analogue filter, or rather a set of them, to compensate for room acoustics is ancient – that was always one of the justifications of tone controls. Crude filters like those, however, seldom accomplished anything really useful and it was always guesswork setting up.

Two significant factors ensure that this is a lot more useful. First, it is a sophisticated parametric filter bank, with centre frequency, width and depth adjustable for three separate bands, on each channel independently. Second, it relies on using computeraided measurement of the room and sound system to determine the settings required.

In other words, it does pretty much what digital systems do, but without the automatic programming of filter characteristics and, significantly, without any necessity to turn the audio signal into analogue form at any point.

Inside the box are two identical boards, one for each channel, containing enough op-amps and digitally programmable potentiometers to construct the filters, which can be quite simply programmed from the front panel with centre frequency, width and depth of attenuation.

Nuts and bolts

The easiest way to set this up is with the matching BARE software, which runs on a PC, using an attached measurement microphone. It's not the only way, however, and Rives supplies a suitable test disc for use with the widely available Radio Shack sound-pressure level meter. You could also use the XTZ Audio Analyser which we reviewed a couple of issues ago (*HFC* 330).

In practical terms, the FARC (that's Parametric Adaptive Room Compensation, by the way) sits between pre and power amplifiers, or in the tape loop of an integrated. It has balanced and unbalanced inputs and outputs and operates at the

DETAILS

PRODUCT: Rives Audio Parametric Adaptive Room Compensation (PARC)

ORIGIN: USA TYPE:

Room correction unit

WEIGHT: 9kg

(WxHxD) 430x100x320mm

- FEATURES:

 Three-band
 parametric equaliser
- Adjustable centre frequency,
- attenuationDigital outputs:
- coaxial, optical

 Three memories
- •Inputs: RJ45 ethernet, USB 2.0
- Bypass mode
- Phono and XLR in/out

DISTRIBUTOR: Advanced Acoustics TELEPHONE: 01623643609

WEBSITE: www.rivesaudio.com

usual line level. It's beautifully constructed, in dual mono apart from the mains transformer, robustly housed and easy to operate, with three memories so you can try different settings without losing your original parameters.

Room mate

Having taken a bit of trouble to set up our FARC, we were struck by two things. First, in 'bypass' mode (no filtering active) it is admirably transparent. Its effect on the sound is barely noticeable, as one would hope – maybe imaging is minutely reduced but that's about it.

Second, it's quite hard to evaluate quickly because it has an effect on the subjective loudness, with most (not all) music. That's hardly surprising, of course, but it means one has to listen for a while to establish that this is indeed a very beneficial unit. As a result, sound is clearer all round and better timed.

Magic space

Overall this is a very impressive piece of kit. It won't work magic on bad rooms and Rives sensibly suggests that acoustic measures are taken before set up. With care, though, it can give a real lift to an already decent system and, as such, is very good value. •





Sonic sparkler



Paul Messenger discovers why Acoustic Energy's carefully crafted Radiance 2 shines the brightest in the firm's three-strong speaker range

t's rather a shame AE's new Radiance model wasn't included in this month's six-way Blindlistening Group Test (p34), because it might very well have stormed into an unassailable lead.

It certainly looks the business, from its high-tech DXT tweeter waveguide at the top, down to the substantial and properly engineered outriggers around the base that keep the whole thing from tipping over too easily. It's also wrapped up in an admittedly rather utilitarian real-wood veneer, all of which seems to represent pretty good value for money at £1,000 for the pair.

Pick of the bunch

The '2' is the middle of three Radiance models and the last to come under *Hi-Fi Choice* scrutiny. That's because it came rather later to the market, which in turn implies that the engineers spent a little more time refining the design.

In fact, it took at least three years to bring the original Radiance models to market and the extra year spent developing and refining this Radiance 2 model would seem to have been time well spent, even though its similarity to the larger Radiance 3 and smaller Radiance 1 is close and unmistakeable.

However, whereas the Radiance 3 (and for that matter its much less costly Aelite 3 cousin) is a three-way design with twin 160-millimetre bass-only drivers and the Radiance 1 is a simple two-way standmount, this Radiance 2 splits the difference by operating in a two-and-a-half-way configuration.

It has two 130mm drivers, each using 95mm diameter metal alloy cones with AE's characteristic 'pointy' integral dust cover. The upper drive unit operates as a bass/mid unit here, while the lower one just provides some extra bass weight.

Both units are separately loaded by their own ported sub-enclosures, the bass-only driver by a front port and the bass/mid unit by a port located high up on the rear. Although no mention is made in the manual, if the room match at the bass end proves less than ideal, it would clearly be feasible to re-tune the bottom end by blocking one or other (or both) ports.

The uniquely designed cast-alloy outrigger spiked feet are constructed to enhance the performance of the Radiance 2 by providing a vibration-free footing

DETAILS

PRODUCT: Acoustic Energy Radiance 2

ORIGIN: UK/Malaysia TYPE:

Two-and-a-halfway floorstanding loudspeaker WEIGHT: 16kg

DIMENSIONS: (WxHxD) 185x920x250mm FEATURES:

- 38mm annular diaphragm tweeter with DXT lens loading
- •2x130mm alloy diaphragm bass and bass/mid drivers
- •Front and rear ports
- •Curved enclosure sides
- •Twin terminal pairs TELEPHONE: 01285 654432 DISTRIBUTOR: Acoustic Energy

Acoustic Energy WEBSITE: acoustic-energy.

HOW IT COMPARES

THE RADIANCE 2 uses two 130mm main drivers: the upper one a bass/mid unit; the lower one just reinforcing the bass.

They improve dispersion and integration at the crossover transition to the tweeter; allow the enclosure to be fashionably slim; and provide rather greater bass diaphragm area than a single 165mm unit.

It's therefore surprising that so few models adopt a 2x130mm configuration. Scan the catalogues of leading brands and examples are very uncommon or usually found in the cheapest ranges. Only Focal and KEF currently seem to make such models available in the UK. Although colling

Although rolling off a bass-only driver inevitably introduces some upper bass and lower mid timesmear, this is arguably an acceptable trade-off for the midband and presence benefits.

The cone drive units have undergone considerable development from those used in earlier Acoustic Energy ranges. FEA modelling has enabled the breakup points to be moved to substantially higher frequencies while at the same time reducing the moving mass. The magnetic motor design has been improved to increase sensitivity and reduce harmonic distortion and thermal compression.

The tweeter – common to all three Radiance models – is one of those 'ring radiator' devices, a design that provides termination for both the inside and the outside of a 38mm soft fabric annular diaphragm. This is loaded at the front by the DXT lens to smooth the power response through the crossover region and

"It took at least three years to bring the models to market... the extra year spent refining the 2 is time well spent."

treble proper. Fed from twin-terminal pairs, the crossover network is deliberately kept as simple as possible.

Curvaceous body

The enclosure has attractive and functional curved sides and front edges and is finished in either pale or dark real (albeit rather anonymous) wood veneer. Crucially, it sits on substantial cast alloy outrigger spiked feet that ensure fine mechanical stability. Proper 8mm spikes with real lock-nuts provide good floor coupling.

The construction involves forming the curved sides by filleting the inside of the 15mm MDF panels with closely spaced, deep grooves. This allows the curved shape to be formed, increasing damping but reducing rigidity. Structural integrity is then restored by a horizontal partition that creates the separate chambers for each cone drive unit.

The curved sides are both fashionable and functional, helping disperse internal reflections and avoid generating focused horizontal standing waves. The grille is held by magnets hidden beneath the veneer, so it may be left off without revealing unsightly mounting lugs.

Beautiful balance

While there are some grounds for criticism here and there, our overall reaction to this speaker is very



positive, verging on outright enthusiasm. Perhaps reflecting its extended development time, this middle model has the best overall tonal balance of the three Radiance products – not perfect, but close enough for the majority of listeners.

Add to that an enclosure that's clearly well founded, notably free from boxiness and capable of resolving a wide dynamic range, and you're left with a speaker that does very little wrong and most things rather well.

The sound as a whole has a beautifully balanced and voiced midband, with just a touch of nasal coloration audible on speech, but a

good sense of overall coherence. There is a touch of timesmear and chestiness, which seems to be an endemic feature of two-and-a-halfway designs, probably because of the way rolling off the bass only driver adds a touch of timesmear through the lower registers.

Unlike many small speakers, however, the Radiance 2 has a realistic warmth through the bass region. And although those two small drive units are never going to deliver a huge amount of serious bass welly and weight, what there is remains convincing enough, with well-judged average output level, if not the smoothest delivery.

THE DXT LENS The considerable difference in diameter between a bass/mid driver and a tweeter can lead to a substantial dispersion discontinuity through the crossover transition. causing off-axis unevenness that adversely affects the power response.

The complex lens or waveguide developed by Danish consultants DXT (www.dxt.dk) and used here by Acoustic Energy, consists of carefully calculated and shaped concentric indented rings around the tweeter diaphragm, whose prime purpose is to maintain consistent dispersion and hence power response right through the tweeter's operating range, as well as providing a good match to the midrange driver's dispersion through the crossover region.

Space and air

Although the speaker is physically quite short, placing the drive units a little below seated ear height, the stereo imaging is still attractively spacious, enhanced by the impressive freedom from boxiness. Superior dynamic range, fine focus and delicacy, a sweet top end and a mostly smooth midband, all help deliver a good sense of air and space and the soundstage shows no tendency to hang around the boxes.

Depth perspectives are well portrayed, especially on choral recordings that are accompanied by a large and believable acoustic.

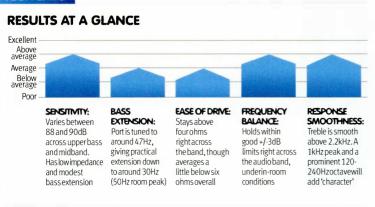
The enclosures are particularly effective at eliminating boxy effects and enhancing the dynamic range. Low level cabinet noise, which can often obscure fine detail at the low end of the dynamic range, seems exceptionally well-controlled here and the result is a speaker that sounds impressively 'clean'.

However, although the dynamic range is unusually wide, the actual dynamic behaviour does fall a little short. Music is driven along with decent pace, but the bass lacks a little grip and tension compared to the best.

The sweet and smooth top end, supplying plenty of subtle detail without ever seeming to draw attention to itself, provides fine vindication for both the choice of tweeter and the effectiveness of the DXT waveguide.

It does indeed seem a shame that the Radiance 2 didn't get the chance to go head-to-head with our group test contenders, as it's clearly a very competitive prospect. The tonal balance is very well-judged, the dynamic range is wide and stereo images are well formed. The veneer work might not be the prettiest, but the provision of proper and substantial floor-coupling outriggers is a major and very worthwhile bonus. •

TECH LABS





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What the Krell?





LISTEN

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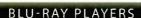
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VICTORIOUS VICTORIOUS

With sales leaping into the millions worldwide over the last two years, **Mark Prendergast** investigates what's happening to our beloved vinyl record

n Jan 2010, the Royal Mail launched a new range of stamps in the UK featuring pictures of classic albums with a bit of vinyl showing. Legendary LPs by David Bowie, Led Zeppelin, Pink Floyd, The Rolling Stones, The Clash and more were all overprinted with a faint image of Her Majesty, thus enshrining the album as an historical artefact for all time.

Ever since the invention of the Microgroove record in 1948, there have been as many innovations to keep the medium alive as have been inventions that were supposed to kill it off.

After Quadrophonic (perfected in 1971) came Dynagroove, Direct-To-Disc, Half-Speed Mastering, Dbx Encoding and even Laser Turntables that all promised superior sound. Some said the arrival of the Compact Cassette in 1967 would kill-off records, but by 1977 a Gold record would be mankind's calling card on the famous Voyager deep space probe!

In 1982 the arrival of compact disc seriously dented album sales in the US and by 1989 the sales of CDs overtook those of vinyl records in the UK for the very first time. Everybody was saying vinyl was dead, then along came House and Britpop to save it all over again.

Here in the 21st Century, vinyl is still selling in the millions even with the more aggressive competition from music downloads, the iPod and streaming audio. In fact, in 2009, vinyl sales doubled to two million units in the US alone and that on top of consecutive rises of 89 per cent and 86 per cent for 2007 and 2008, respectively.

Universal Music has proudly stated that since the launch of its high-quality Back To Black vinyl series, sales have been 750,000

units worldwide. So what is happening out in vinylville, Planet Earth?

The view from the street

Graham Sage of Recollect Records, Rochester (recollect123@hotmail.co.uk) has seen an incremental increase in sales since January this year. "Sales of vinyl are way over CD, all the interest is in vinyl. People are buying CD, but they're collecting vinyl and there's an awful lot of foreign dealers coming over, especially Polish. One Polish guy back in February bought 400 records."

Graham also organises and runs record fairs and comments that there's an awful lot of foreign dealers turning up to buy classic vinyl, such as Zeppelin, Cream, Hendrix, The Doors, The Kinks, The Stones etc. "They only buy vinyl, they won't touch CD at all. And they insist that everything they buy is absolutely clean."

Experts know that prices are climbing to silly levels on eBay and other sites for pristine original vinyl records. Thousands of pounds are bid every day for mint condition copies of albums from the Stones and The Beatles.

Recently, we spotted a mint copy of The Jimi Hendrix Experience's *Electric Ladyland* at bluesvinyl4U.com at a staggering starting price of £1,800! Yes, it had blue writing on the inside cover and large pics of Mitch Mitchell and Noel Redding, but a starting price of £1,800 seems a lot to ask!

Graham Sage, however, believes that the seller will get the price he wants, "He'll get that, a pristine Hendrix will command that kind of price if it's in good-to-mint condition. At the record fairs you can see what's happening, vinyl is soaring in popularity because of a lack of record shops."

Philip Harding of Blackcat Records in Somerset (blackcat-records.co.uk) talks of a changing demographic accompanying an astonishing rise in business. "My sales have gone up 50 per cent since December 2009 and the demographic is everywhere. I get a lot of girls buying the Indie vinyl and they love the 7-inchers. (Do they? - Ed). And the vinyl is also 12-inch singles, where the pressing quality has gone up and groups like Big Pink and XX are really doing the business. We carry 12,000 titles and at least half of them are on vinyl."

Philip acknowledges that a lot of customers buying vinyl are, surprisingly, 18-20 year olds. "First they go off and buy good secondhand hi-fi kit and then come back to stock up records. Often they come for advice on how to get into buying vinyl! And a lot of new bands are recording for vinyl first, CD second. UK imprints of American labels like Drag City, which deal in new music, are of exceptional quality on 140gm high-quality vinyl.

Casbah Records at Creek Rd in Greenwich (myspace.com/casbahrecords) does a roaring trade in vinyl old and new. Owner Graham Davis is very impressed by his sales figures. "The fact that there's so much more new vinyl and re-issued vinyl available has created a huge interest in the entire vinyl 'thing', because if it was just second-hand records then the appeal would be fairly

"My sales have gone up 50 per cent since 2009. I get a lot of girls buying the Indie vinyl and they love the 7-inchers."

BEHIND THE SOUNDS



BEHIND THE SOUNDS



limited, but because so many new releases are on record then it makes it more accessible. The new Sony editions of Jimi Hendrix are really nice, sound-wise and in the quality of the imaging and that's always a plus."

The industry view

Back To Black may be the name of Amy Winehouse's monster-selling 2006 album, but it's also the name of Universal's runaway vinyl imprint. Established in the winter of 2008, ostensibly to celebrate the 60th anniversary of the LP record, BTB has done phenomenal business worldwide, circa 750,000 LPs to date.

According to Andrew Daw, the man behind the idea, it all started when he was given a copy of *American V* by Johnny Cash. "After years of listening to iPods and compressed music it was an incredible experience. The penny dropped and I realised that vinyl was the great forgotten experience, a warmth of sound that many have never heard."

Andrew created Back To Black in September 2008, with an idea to put an MP3 voucher in each sleeve so that people could still have the download experience on their iPod or MP3 player when they were out and about. "People like Jimi Hendrix and Metallica were hugely successful artists for us on vinyl and we are now handling The Rolling Stones and their first 7-inch Single for ages. I'm also planning to release a Police 7-inch singles box-set and amazingly, we are also getting requests for vinyl picture discs. The first batch will feature Kiss. Actually, I don't think people want these for the sound, more for nostalgic or collectable reasons. But, I'm really pleased at how it's all going.'

Gary Lancaster of Rhino UK has a different perspective on the vinyl renaissance. "Vinyl has a very high cost of production compared to CD, especially when you are going for the real heavyweight stuff. We would insist on separate remastering for both CD and vinyl "The penny dropped and I realised that vinyl was the great forgotten experience, a warmth of sound that many have never heard."

and build that into the cost. Last year we remastered much of The Smiths' catalogue for a Smiths vinyl singles box and all the albums for 180gm vinyl.

"The vinyl resurgence is interesting because it works on so many levels and although there's quite a few people like myself who will frequent record shops, there's also this secondary market of people buying vinyl not to listen to it, but because they think it's cool to own it. Like The Doors titles, for example. Having something like *Strange Days* is considered to be quite trendy. Our next big vinyl releases are Crosby, Stills & Nash, David Crosby, Stephen Stills and Manassas."

The hi-fi dealer's view

Billy Vee (badaweb.co.uk/billyvee) is a South London hi-fi dealer who began in 1976. According to spokesman Mike Olrod, turntable sales are up at both the entry level and the high end, while CD players are declining rapidly because of the interest in streaming products. "At the moment you see some lossless downloads, Peter Gabriel, Linn, Naim, but that will all change when uncompressed downloading goes mainstream. There'll be no more HMV, or any of those big stores once uncompressed streaming becomes the norm. In fact, we sell more Linn streamers now than CD players. But vinyl will never die, it's the benchmark medium, the original with much iconic, nostalgic and romantic value." In part two of Vinyl Victorious, Mark examines the art of vinyl cutting and mastering from industry insiders.

TOP 10 GREATEST VINYL ALBUMS

According to *HFC's* Mark Prendergast, that is...



MILES DAVIS KIND OF BLUE (Classic Records, Quiex SV-P, Rem. 2001)

The only version at the correct speed, if you're a perfectionist



PINK FLOYD MEDDLE (Mobile Fidelity Sound Lab, Rem 1984)

'Echoes' in the ultimate Pink Floyd vinyl experience. Will set you back £300 to £500 on eBay



THE JIMI HENDRIX EXPERIENCE ARE YOU EXPERIENCED (MCA Double 2008/Sony 2010, both

remastered to Super Vinyl)
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LED ZEPPELIN III (CLASSIC RECORDS, 200 GRAMME, QUIEX SV-P, REM 2005)

The greatest Zeppelin album in an incredible incarnation overseen by Jimmy Page himself



THE GRATEFUL DEAD

AMERICAN BEAUTY (Mobile Fidelity Sound Lab, Rem, 1979)

Possibly the best sounding halfspeed mastered MFSL job of all time. Should last forever



THE ROLLING STONES LET IT BLEED (DSD Rem, ABKCO 2003)

'Gimme Shelter' lifts off the very best of the Stones vinyl remasters. Even made it to the 2010 stamp



ROXY MUSIC ROXY MUSIC (Virgin, Deluxe, 2008)

Gatefold, with glorious poster of Kari-Ann Mueller. Ferry/Eno's futuristic vision is a mind-blower



THE DOORS STRANGE DAYS (Rhino/Elektra HQ, Rem, 2010)

A masterpiece from beginning to end. Compared to previous issues, this is the business



THE VELVET UNDERGROUND & NICO (Vinyl Lovers, Virgin Vinyl, 2008)

Beautiful gatefold that really sounds crisp, alive and real

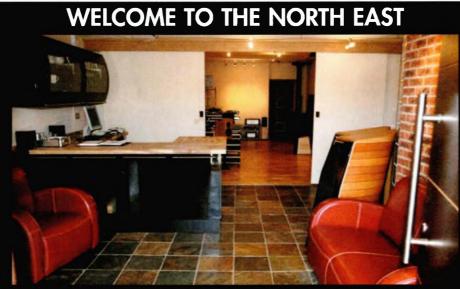


BLIND FAITH BLIND FAITH (RSO,Back To Black, Rem, 2008)

'You Do Right' sees Grech, Baker and Clapton hit a summit of guitar rock improvisation

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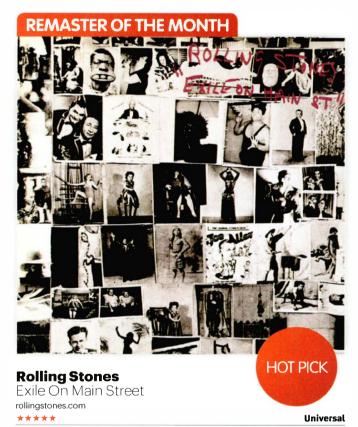
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_ **The Cure** Disintegration: Deluxe Edition

Musicreviews

Hi-Fi Choice's pick of the latest high-quality music releases



CD (deluxe CD; super-deluxe box set)

Mick Jagger has always been ambivalent about *Exile On Main Street*, but for many Stones fans, the album – recorded in a spirit of druggy decadence over several months in the south of France in 1971 – represents the band's masterpiece. Those critics, including Sir Mick himself, who complain the record contains no classics to rival *Honky Tonk Women* or *Brown Sugar* are right, but they are surely missing the point.

Quite unlike anything else in the Stones catalogue, the reputation of *Exile...* rests not on its songs, but on the unique mood and feel the album creates. Never have the Stones before or since essayed such a gloriously raw and chaotic swamp of rock, blues, gospel and country.

Made around the time Keith Richards was fashioning the look

that came to be described as 'elegantly wasted', the term serves equally well as a description of the music and of all the Stones' albums. It's the one on which Keith, rather than Mick calls most of the shots. The result was a freewheeling, un-buttoned looseness, which Jagger has long regarded as sprawling and sloppy, but is actually the Stones at their most uninhibited and inspired.

This long-anticipated remastered edition comes in three versions – standard CD with the original 18 tracks, a deluxe set with ten previously unreleased cuts and a super-deluxe box, with book and DVD. The bonus tracks contain no great undiscovered classics and the 'new' songs such as *Plundered My Soul* and *Pass The Wine* (Sophia Loren) sound suspiciously smoother than the familiar 1971

material, suggesting some considerable tarting up. But the earthy, dissolute ambience of the original album remains unrivalled.

You can discount all the stories about Jagger and Richards spending painstaking weeks digitally 'cleaning up' the original album. Although the bonus material sounds more highly polished, with what is presumably a 2010 production, you'd be hard pressed to discern much difference between the original 18 songs as we've known them all these years and these supposedly state-of-theart remasters.

Which of course, is exactly how it should be. For if ever there was an album that could have been easily ruined by the inappropriate application of modern studio techniques, it's *Exile*.

Some have dubbed it the first 'grunge' album and the sound remains murky and soup-like, with Jagger's vocals at times almost buried under diseased layers of riffing Telecasters and Gibsons. Remove the record's muddy earthiness and you'd risk breaking its voodoo spell, like

"You'd be hard pressed to discern much difference between the original 18 songs and these supposedly state-ofthe-art remasters."

removing a veil and revealing the mystery, when the visceral excitement of the record comes primarily from the sonic glimpse it offers into the twilight world the Stones were inhabiting at the time.

Jagger has often criticised the sound of the album and must have been sorely tempted to spruce up the record's dirty, disorderly messiness and restore his voice to the front of the mix. Fortunately, wiser counsels seem to have prevailed. Or, perhaps, Keith Richards simply told him, "you don't mess with my finest hour".

NWStandout tracks:

Tumbling Dice; Happy; Stop Breaking Down; Sweet Black Angel

89



www.hifichoice.co.uk

Musicreviews



The Incredible String Band

The Hangman's Beautiful Daughter

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Fledgling

CD

THE ORIGINAL side one drew on a whole range of music styles. Everything from English musichall and Methodist hymnals, to Bahamian rhythms and Sikh hymns to create a strange phantasmagoria, which was perfectly offset by Mike Heron's humour-laden A Very Cellular Song and Mercy I Cry City.

But the crown goes to Robin Williamson, for it's side two of this album that provides the main highlights. Pure majesty, in fact, from the high declamation of Waltz Of The New Moon to the sitar-laden finale Nightfall. Both Robert Plant and Mick Jagger were converts and the album jumped to No 5 in the charts and has since sold over a million copies

Remastered for the first time, 42 years after its release, the closetful of acoustic instruments, strange percussion and water effects, all breathe like they did on the first vinyl pressings, but had over the years been clouded by poor copy masters and indiscriminate pressings. A comparison to the 1992 CD issue reveals fine detail, good separation and wonderful peaks like on the sitar-laden Three Is A Green Crown. MP

Standout tracks:

Koeeaddi There; Witches Hat; Mercy I Cry City; Waltz Of The New Moon; Three Is A Green Crown; Nightfall



Humble Pie

Smokin^{*}

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A&M/Analogue Productions

SACD/CD

MADE IN 1972, this is an exercise in blues, rock and soul that made a big impression in the US. Not as subtle as earlier works it has some fine moments, in particular the intro to 30 Days In The Hole

Steve Marriott is in powerful form and Clem Clemson's guitar is pretty fine too, with some distinct Hendrix flavouring. The recording struggles to cope with the energy of Marriott's voice and tends to compress it rather heavily at times, yet on more relaxed tracks the sound opens out very nicely.

The bass has been beefed up giving the bass guitar a lovely phat sound, but it doesn't get in the way and the album has a great analogue reproduction, thanks to some fine mastering by Kevin Gray at Acoustech. JK Standout track:

l Wonder



Rachmaninov

Symphony No 2

Iso.co.uk ****

LSO Live

CD

RACHMANINOV'S FIRST

symphony has vanished practically without trace, but happily the second symphony is a completely different animal, with some of his finest writing from the peak of his creative powers. It is characteristically warm and lush, but much of the writing is incisive and clear and far from being overcooked and certainly not at all gushing.

A live recording made at London's Barbican Centre, conductor Gergiev brings the advantage of real empathy with Russian repertoire to the party and, as usual, the LSO (one of the world's great orchestras) brings distinction and passion to the job. Highquality multichannel SACD sound brings further distinction to the enterprise. AG Standout track:

Allegro Molto



Leos Janacek

Orchestral Suites from Operas vol3

Naxos.com

Naxos

CD

THE CONCEPT of orchestral contractions of operatic scores may not sound very appetising. but it does give an opportunity to sample what may otherwise be unfamiliar material at a budget price. And if this still fails to excite, you should know that Janacek's opera scores are of a quality equaled by few operatic composers of his ilk, apart from Benjamin Britten.

Although not a big-name act in the UK, the NZSO plays with panache and conviction, lending a fresh and vibrant slant to a recording that is also a clean. deep and colourful, aided in part by the excellent orchestration (attributed to the conductor) and, of course, the quality of the original operatic scores from which they are derived. AG Standout track:

Holiday is coming

AUDIOPHILE VINYL

Supertramp Crime Of The Century speakerscorner.de



180a vinyl

This 1974 album put Supertramp on the map thanks to the inclusion of songs Dreamer and Bloody Well Right, both

great pop picks and hugely popular with music fans up and dopwn the country. The key reason, no doubt, being that these particular tracks were full-on compositions, the sort that combine the theatre of 10cc, with the pathos of Pink Floyd in a prog/pop narrative style. A style which, as any pop fan and music afficionado will tell you, has been painstakingly honed to its musical apex.

The complete album was also the band's first U.S Top 40 album and was eventually certified

Gold in 1977, afterthe release of Even in the **Ouietest Moments.**

This is a great sounding piece of vinyl, considering its vintage. Production by Ken Scott clearly has its benefits in big contrast. good dynamics and full use of the available bandwidth. There is also good use of reverb and mixing to add depth to the soundstage. **Speakers Corner has** produced a clean and expansive version of the original. JK Standout tracks: None



Schoenberg

Gurrelieder

signumrecords.com

Signum Classics ****

SACD/CD (5.1/2-channel hybrid) (2-disc set)

THE FIRST PART, firmly in the tradition of later works by Wagner (eg Parsifal), was an early outing for this fledgling enfant terrible of 20th century modernism. But it's only in Part II and III, written a decade later, that you will hear a hint of the astringency that later transmogrified into his atonal 12 tone writing - a magnificent, if monstrous masterpiece.

Though slightly slimmed down in this version, it still includes a massive orchestra, six soloists (including a narrator) and two large choirs. The recording is from London's Royal Festival Hall and although some traces of the familiar original lean, dry acoustic remain, the sound overall is well balanced, compelling even. AG Standout tracks:

Seht: de Sonne

The Cure

Disintegration: Deluxe Edition

thecure com

**** Polydor/Universal CD (3-disc set)

IT'S AMAZING how uplifting an ostensibly gloomy album can be. 1989's Disintegration is one such case, running the gamut from shimmering pop (Lullaby) to relentless goth rock (Fascination Street). And in its brand new 21st birthday celebration set, it's a revelation.

It always sounded epic, but with a sparkling new remaster (overseen by mainman Robert Smith), Disintegration is immense - the bass is thunderous, while gently flanged guitars and melancholy synths caress your ears like never before.

With two bonus discs bolted on - a live show and a disc full of early album demos, this is how reissues should be. MP Standout tracks

Lullaby; Pictures Of You; Fascination Street



Big Audio Dynamite

This Is Big Audio Dynamite: The Legacy **Edition**

columbia co uk

Columbia ****

CD (2-disc set)

MICK JONES' post-Clash band (with punk film-maker Don Letts) gets the silver anniversary remastering treatment. The songs aren't always strong, but it's great to rediscover the genius pop of *E=MC2*. The bonus disc of random 12-inch remixes and B-sides is an interesting curio, but far from essential.

Yes, the eighties electrodrums sound dated, but that's part of its charm. The clips of sampled movie dialogue are to the forefront and the sometimes busy arrangements shine through now. Not really one to win over new fans, but if you loved the album 25 years ago, you'll be won over by its shiny latest incarnation. SL

Standout tracks:

E=MC2; Medicine Show

HIGH-RESOLUTION DOWNLOADS

Dawn Langstroth

Highwire

linnrecords.com

Linn Records

24-bit/96kHz stereo



CANADA HAS a talent for producing outstanding singersongwriters. among them

the truly stellar talents of Neil Young and Joni Mitchell. Dawn Langstroth is another, relatively recent newcomer to the field and is a genuinely talented writer and performer, with a soulful voice once aptly described as being "like a shard of coloured glass".

The clarity of the reproduction of Langstroth's voice on this recording brings out the exceptional beauty in her music – her tone, timbre. timing and phrasings are left untouched allowing any halfway decent system to exploit its hair-raising potential to the max. The differing degrees of dynamic differentiation available reinforce this recording's refreshing honesty. MS

Standout tracks:

It's All Good; Dark And Twisted; Elevator Music

Jerry Garcia, David **Grisman and Tony Rice**

The Pizza Tapes

hdtracks.com

24-bit/88.2kHz stereo



I absolutely adore this recording of a BlueGrass jam session – the only meeting of guitar greats

Acoustic Disc

Jerry Garcia and Tony Rice.

The acoustic guitar comes close to being the perfect instrument for high-resolution recordings as this album demonstrates. Add the verbal interchanges between the performances and the acoustic signature of the venue and you end up with a great recording featuring brilliant musicianship and extraordinarily naturalness. MS Standout tracks:

Shady Grove; Knocking on Heaven's Door

BLU-RAY AUDIO

Lou Reed Metal Machine Music loureed.com/metalmachinemusic



Metal Machine Music

4-channel (24-bit/96kHz)

64 MINUTES, of earsplitting nihilistic guitar feedback is supposed to be the main appeal of this landmark album. On its

1975 release, Metal Machine Music came with a sticker warning those hoping for another Walk On The Wild Side were in for a total change of mood. MMM was, according to the publicity 'AN **ELECTRONIC INSTRUMENTAL** COMPOSITION'.

In the original sleeve notes, Reed wrote: "No-one I know has listened to it all the way through, including myself." That should have told us all something. Whether it was intended as a serious avantgarde work or simply a cosmic joke, nobody knows for sure to this day.

Many returned the original LP to the store, thinking they had a defective pressing. And this long-out-of-print recording has been talked about notoriously, but barely heard since, so its remastering ('to the specs of the original quadrophonic master'), is an intriguing conceit.

Somehow, since we've grown accustomed to the art-noise of the likes of Sonic Youth and even My Bloody Valentine, it no longer sounds quite so extreme. But it's still virtually unlistenable. NW Standout tracks: None

Premier league

Some folks can only dream of owning this 'ultimate' Cyrus system. *Jimmy Hughes* discovers what it can do for your music

his month's *Beautiful System* is both a serious separates hi-fi setup and a system with A/V and multiroom aspirations. While this review concentrates on its qualities as a CD-based hi-fi system, it has applications beyond this. Cyrus's modular approach creates a hugely versatile platform – customisable to suit differing needs.

The electronics comprise a Cyrus CD Xt SE+ CD transport, a Pre XPd QX preamp/DAC and two Mono X power amps producing 150 watts output. The CD transport and preamp were supplied with outboard PSX-R power supplies - an optional upgrade - and the whole roster of electronics was mounted in one of Cyrus's own handsome Hark cantilevered racks (see opposite).

While this Cyrus system can be used just to play CDs, it really suits those with a large array of sources. The preamp can accept six analogue line inputs and five digital inputs – two via S/PDIF electrical (RCA phono plug), two via S/PDIF optical (Toslink) and one via USB.

The preamp's internal DAC is able to handle sampling rates from 32kHz to 96kHz and these switch automatically to match the source. The DAC also offers advanced specifications, and upsamples all sources to 192kHz, its timing stability maintained by a built-in, low-jitter quartz master clock for cleaner, more accurate reproduction.

The loudspeakers, on the other hand, are from Vienna Acoustics. The impressively named Beethoven Concert Grand, is a medium to large floorstander, featuring five drive units – three 177-millimetre (seven-inch) XPP 'Spidercone' bass units, a 152mm (six-inch) X3P midrange, and a silk-dome tweeter. Each enclosure weighs a substantial 65kg and stands 1,100mm tall.

The speakers offer a nominal impedance of four ohms and

sensitivity is quoted at 91dB. A minimum amplifier power output of 50watts is suggested, with 300watts as a maximum. As the Cyrus Mono X produces 150watts into eight ohms, or 240watts into four ohms (with a short term peak-power capability of 1,500watts), it's an ideal partner.

Three woofers ensure good bass extension with plenty of low frequency power. The spec gives the low point at a conservative 28Hz, but the speakers make a pretty decent job of 20Hz, producing weight and fullness at extreme lows. Although curtailed, 20Hz sinewave tones reproduced smoothly without chuffing and sounded very clean.

"There's nothing fake or flashy about this system – the calibre of its presentation draws you inexorably into the music."

Although quite extended in terms of depth, the Beethoven Concert Grand does not produce a heavy obtrusive bottom-end. You only notice deep bass when it's there.

At all other times the bass sounds clean and clear, with only a hint of the depth possible. The bass is powerful, but very well controlled – just as it should be.

Tales from the Vienna Woods

Standard finish is high-gloss piano black and is absolutely gorgeous. Maple, Cherry and Rosewood are also available at extra cost. The cabinets are also very solidly made – as you'd expect given their weight. And, although you might initially question the price of these speakers, once you see (and lift) a pair you'll understand why.

A reflex design, with a pair of

COMPONENTS



CYRUS CD XT SE+ CD TRANSPORT £1,500

DISC compatibility includes CD and CD-R; Cyrus system remote control; S/PDIF coaxial/optical outputs.



2 CYRUS PRE XPD QX LINE DIGITAL PREAMP £1,675

SIX LINE inputs; 5 digital inputs; 192kHz upsampling DAC; provision for surround and multiroom.



OYRUS MONO X MONOBLOCK POWER AMP £1,500

HIGH-power, 150-watt, zero-feedback design. Wide bandwidth is matched to low distortion and an impressively high slew rate of 700V/us.



CYRUS PSX-R POWER SUPPLY £525

ACCESSORY power supply units for the CD transport and preamp.



JVIENNA ACOUSTICS BEETHOVEN CONCERT GRAND £3,900

THREE woofers, a midrange and a silk dome tweeter offer 91dB sensitivity and a response from 28Hz to 22kHz.











rear-facing ports, each enclosure is supplied with small metal stands that fix to the base of the cabinet via three allen bolts. This improves stability by making the footprint slightly broader. Provision is made for spiked feet, but bi/tri wiring is not possible.

The crossover features first and second-order filters and uses one per cent tolerance MKP capacitors. The inductors for midrange and tweeter are air-cored and are made to a tolerance of 0.7 per cent. The bass coil features a special powder core and the resistors used are non-inductive, one per cent-tolerance Metal Film types.

The bass and midrange drive units have clear plastic cones and the three lower-frequency drivers feature a strengthening 'spider' to help reduce the effects of cone break-up. This ensures the cone doesn't flex unpredictably – behaving more like a true piston, regardless of the frequencies being reproduced.

Roll over Beethoven

Before listening to a new system, we always prefer to sample components individually – just to get an idea of how things sound. However, because the preamp contains the DAC, you can't easily try the CD player on its own. So, we auditioned the Cyrus combination as a complete entity.

Sonically, the CD player and amplifier are all of a piece, producing a very crisp lucid sort of sound – tight, focussed and ultra-clean.

The tonal balance is sharp and open. It's quite bright and forward-sounding – not in a brash 'up-front' fashion, but more in the sense of there being no false softening.

Transients sound crisp and articulate, with unflinching attack. The amp and CD do not produce an especially warm or beguiling sort of presentation – there's nothing vague or mushy about the way it reproduces music. Solo piano, for example, has a bright incisive immediacy, with clean powerful projection and lots of presence.

The top end sounds extremely clean and is free from edge and splash, despite being very sharp and immediate. While this is largely down to good design and high-quality components, having the DAC inside the preamp also helps, because it enables ultra short signal paths and eliminates the need for analogue connecting cables or plugs.

The Mono X power amps have plenty of muscle and seem able to drive loudspeakers effortlessly, with no sense of strain. They offer outstanding presence and superb control. It's a very tightly focused sort of presentation – not relaxed or loose

AROVE LEFT. Shoebox chic: black is back for that stealth-like. serious audio look ABOVE RIGHT: Single-box transport approach uses the preamp's on-board DAC ABOVE: The Beethoven Concert Grand was recommended by Cyrus to form the

ultimate set-up

(in the sense of sounding flaccid or lazy), but keen, direct, and immediate.

The sonic performance of the CD transport and preamp can be upgraded by the addition of Cyrus PSX-R power supplies. These connect via a special XLR plug and their presence is automatically sensed - there's no need for the user to do anything. In fact, adding PSX-R power supplies produces a noticeable improvement. The sound seems to grow bigger and broader voices and instruments have more air and space around them. Overall the music sounds crisper and more dynamic. Adding the extra power supplies increases the impression of focus and control, enhancing the sense of depth.

"We tend to think high performance is only obtainable from huge amps in heavy, metal casework. The Mono X is a true exception."

The degree of improvement produced by the PSX-R is quite similar on both the preamp and the CD transport. We weren't surprised that the preamp improved with a PSX-R, since it's a fairly complex mix

HFT Choice JULY 2010 www.hifichoice.co.uk

BEAUTIFUL SYSTEMS CYRUS

of analogue and digital. But we were impressed by the fact that the CD transport sounds better, as it has no DAC or analogue output stage.

The Mono X power amps offer impressive specifications. They're zero-feedback designs with ultra-low distortion (just 0.05 per cent from 20Hz to 20kHz) and ultra-wide bandwidth. A slew-rate of 700V/us is claimed – an amazingly high figure. Back in the '70s, manufacturers shouted 'Breakthrough' having achieved just 4V/us!

Such small size and fairly light weight are deceptive. These monoblocks are amazingly powerful, and very advanced, technically. We tend to think high performance is only obtainable from huge amps in heavy, metal casework. The Mono X is a true exception to the rule – but you must listen without prejudice.

No added sugar or spice

Cyrus electronics have been designed to sound accurate rather than 'nice'. Of course it's perfectly possible the end result will sound downright gorgeous. But, if so, it will be entirely down to the quality of the original recording. The amp or CD player won't add any sugar of its own, nor will it spice things up.

In this context, the Beethoven Concert Grand is a good foil. They too produce a focused, lucid sound that's clean and free from false warmth. At the same time, they're smooth and well balanced – clear, but not too 'toppy'. They benefit from the crisp, open clarity offered by the Cyrus electronics, without sounding stark or dry.

Personally, we'd always prefer to listen to a system that errs on the side of clarity, lucidity and immediacy, rather than one that's soft, vague and mushy. The former, at least, ensures the music excites and engages you; the latter just sends you to sleep! The Beethoven Concert Grand certainly stimulates your musical interest.

Wide dynamic range

Each Mono X power amp features a small cooling fan. These automatically switch on when case temperature exceeds a certain point. During normal use, the area around the heatsink reached about 31 degrees. Sat fairly close by, one could just detect the fan running when the music went quiet.

You'd hear a slight whirring noise for a few seconds and then the fan would stop. However, during use at normal domestic volume levels on wide dynamic range music with a



mix of loud and soft, the fans would not often be called for. And, unless you're sat within (say two metres or less), you won't hear them anyway.

We felt the Cyrus amplifier needed another 10-15dB of gain. Though the system plays as loudly as we'd probably ever want, there wasn't much in reserve for CDs transferred at a low level. On such discs, we found ourselves listening with the volume just 10dB below maximum.

Fortunately, the gain on each input (including the digital ones) can be altered by plus or minus 10dB. This enables you to equalise volume levels between various different sources. After increasing the gain to maximum, the sound seems slightly crisper and more immediate.

Sonically, there's nothing fake or flashy about this system; the calibre of its presentation draws you inexorably into the music. Clear without being stark, lucid without pulling everything apart, the system proves revealing of small details and subtle nuances. The more we listened, the more we listened, the more we listened, the more imaging and soundstaging are good, albeit not as razor-sharp and precise as the GamuT system reviewed a few months back.

While it's considered 'good hi-fi', for a system to produce sharp stereo, you rarely (if ever) hear such precise



DISTRIBUTOR: Cyrus Audio TELEPHONE: 01480 410900 WEBSITE: cyrusaudio.com viennaacoustics.at placement when listening to music live. In a concert, the aural positioning of specific instruments and voices is always a bit diffuse. It's being able to see where things are that helps locate sounds precisely in space.

Overall this is a truly excellent system – clean, open, lucid and focused. It's in its element when reproducing naturally recorded wide dynamic range classical and jazz material, though it's also great on rock and pop too. It has plenty of subtlety and delicacy, yet can play loud without losing composure should the need arise.

The preamp is both hugely versatile and fully featured, yet offers a simple user interface making it easy and pleasant to use. The power amps offer very high power and a technically advanced specification. Yet this amazing performance is achieved in deceptively small, neat packages. Without a doubt, the system is a real wolf in sheep's clothing

However, there's no mistaking the loudspeakers – they are what they are. You only have to lift one up (carefully – they weigh 65kg), or cast a critical eye over build-quality and finish, to appreciate that these are instruments of the highest calibre. This Cyrus/Vienna Acoustics Beautiful System isn't exactly cheap, but the quality is undeniable. •

Help&advice

We've got the answers to everything you've ever wanted to know about hi-fi and weren't afraid to ask. Email us now at *hifichoice@futurenet.com* or write to: Hi-Fi Choice Q&A, Future Publishing Ltd, 2 Balcombe Street, London NW1 6NW

YOUR EXPERTS



PAUL MESSENGER **EXPERTISE: LOUDSPEAKERS**

HAVING WORKED on both sides of the audio industry for over 30 years, as loudspeaker designer amd reviewer, Paul is ideally placed to offer thorough, in-depth analysis of every speaker reviewed, as well as cutting-edge developments in the field.



JIMMY HUGHES EXPERTISE: SYSTEM OPTIMISATION

AS EVERY audiophile knows, there's so much more to getting a system to sing than merely throwing components together. Jimmy Hughes has spent 40 years tweaking and optimising systems, as well as voraciously collecting records.



RICHARD BLACK PERTISE: TECHNOLOGY

WRITING EXCLUSIVELY for HFC, Richard brings his experience as a successful musician and recording engineer to bear in our rigorous Blind-Listening Group Test. As our technical consultant, Richard is the authority on HFC's test and measurement.



JON MARKS **EXPERTISE:** DIY AND VINTAGE KIT

FORMER EDITOR of Hi-Fi World magazine, Jon has a wealth of reviewing experience, as well as a passion for high-end vintage audio gear. Handy with a soldering iron, Jon also enjoys bringing classics back to life and pitting them against modern gear.



ALVIN GOLD EXPERTISE: SEASONED REVIEWER

HAVING WRITTEN for a huge range of magazines, both internationally and in Britain, Alvin has a very full 30 years of reviewing under his belt. A guru of all component types, he's now extending his expertise by building PCs for audio too.



JASON KENNEDY **EXPERTISE: TURNTABLES**

ANOTHER EDITOR, Jason opted to become a freelance contributor when he relinquished the helm of HFC after 17 years on the magazine. A hi-fi addict since his twenties, Jason fell for the beauty of vinyl and has never looked back.

ASK US A QUESTION TODAY!

Our experts are on hand to answer your questions. Whether you're looking for future-proof upgrades, advice or help with your current set-up, our twochannel Einsteins have all the necessary expertise and several hundred years of combined audio knowledge to slake your thirst and support your passion for perfect sound. Email your questions now: hifichoice@futurenet.com

QUESTION OF THE MONTH

I've used a pair of ProAc Tablette 50s for some years now with my Naim Nait 5i (non-italic version), but I'm looking to upgrade. I've got the PMC GB1i on my shortlist, but which other speakers should I listen to as well?

Primecuts, via email



The GB1i thoroughly deserved its Best

Buy rating back in HFC 306, for its transparency, detail and musicality. But those 140mm mid/bass units are understandably limited in how low they

can go and the tonal balance leans to the bright side of neutral. You don't mention your taste in music, but if you need a floorstander with a little more weight, what about ProAc's Studio 130, or even the Studio 140 MkII if your budget is will stretch?



Which CD player is best?

I'm a Portuguese regular reader of your magazine and I would like some advice. My system consists of a Sonic Frontiers SFL-1 preamp, Vincent SP-331 power amp, Pro-Ject RPM 9.1 turntable (with Denon DL-103 cartridge), Pro-Ject Tube Box phono stage and MartinLogan Ascent speakers. The CD player is a Cambridge Audio 640 C. Recently, I surrendered to MP3 and I use a laptop with a Pro-Ject USB Box to play Apple lossless files.

I'm considering an upgrade to the Cambridge, which seems to be the weakest link in my set-up and therein lies my problem. I'm thinking of auditioning a Primare CD21 or a Leema Stream, but what would you suggest? Should I consider something else in the same price range?

My tastes run from classical to pop and rock, but centre mainly on jazz. Your advice would be much appreciated.

David Polido, Portugal

Naim CD5i is strong on musicality and a bargain under £1,000



At this sort of price, there are plenty of very capable players to consider and the Primare and Leema are both well worth investigating. As far as alternatives go, if musicality is an absolute must, there's Naim's CD5i at a shade over £900 (HFC 305), or the more transparent Roksan Kandy K2. Once you head over £1.000, try to arrange auditions of players such as Creek's Destiny (HFC 328), which is very neutral and revealing, Cyrus's CD8SE (HFC 323), which is an impressive all-rounder, or Arcam's CD37 (HFC 310). The Arcam may have been around a few years now, but it still makes a very strong case for itself.

How should I upgrade my Quad system?

I have a Quad QC-24 and Quad Classic monoblocks combination pre and power. I use a Quad CDP II and my speakers are Bowers and Wilkins 802D.

All were bought at different times and the sum of the parts doesn't quite do it for me, though I love my speakers. I now have allocated £6,000 to get a new integrated amplifier and matching CD player.

EXPERT ADVICE

My music covers all genres, though I veer less towards classical. So far I have tested the Sugden Masterclass integrated and found it a vast improvement, but I am convinced you can offer me extra guidance!

I do not go for an excessively fast, clinical sound, though I am not keen on the overly warm valves I have, either. Somewhere between the two tonally would be the best balance for me.

Edwin, via email

Tuning the character of amplification can be easier with a pre/power combo, where you might decide to partner a valve preamp with a transistor power amp - this would allow for bi-amping in future.

On the other hand, even if you were to keep your Quad pre and spend £3,000 on a pair of power amps like ATC's P1, that sort of money will buy you a lot of integrated. ATC's own SIA 2-150, for example, would be high on our shortlist. In HFC 314, this updated 150-watter won over Jason Kennedy with its grip, power and musicality. These traits allow the ATC to drive pretty much any loudspeaker without ever breaking into a sweat.

If you'd like a slightly more valvelike character, Plinius' 9100 120-watt integrated is one to consider, though it can't quite match the ATC for absolute control in the lowest couple of octaves.

Another (riskier) option would be Lavardin's IS Reference, As the 802D is a fairly unfriendly load for amps, albeit one with around 90dB efficiency, there's a strong likelihood it will pose too large a challenge for the 30-watt Lavardin. But if your listening room is small and you tend to listen at low levels, this pairing might just work and is worth attempting,

since the Lavardin is fabulously involving, transparent and smooth. An audition in your system would be even more critical than is usually the case.

When it comes to CD players, Moon's CD3.3 (HFC 328) has clarity and energy in abundance,

B&W's 802d speaker has a 90dB efficiency though it doesn't produce as threedimensional a soundstage as Leema's more expensive Antilla II. Don't forget Meridian's G08.2 (HFC 312), or Unison Research's Unico CDE players. The latter has a richer sound than the former, as you'd expect from the valves in its output stage, but the Meridian never sounds either sterile or too warm.

If your budget will stretch to it (depending on which amp you choose), Esoteric's X-05 player (HFC 314) is, without doubt, a superb component, which will certainly withstand further amplifier upgrades.

Best cleaner for my LPs?

Over the years, I've picked up loads of old vinyl at car boot sales, charity shops and even out of skips. My van den Hul MC10 is very dear to me and I really don't want to drag it through all the rubbish which has filled the grooves of a lot of these LPs, and which is immune to a swish round with a carbon-fibre record brush.

I've finally realised that I'm going to have to give in to temptation and shell out on a record cleaning machine. The problem is, which one do I go for? I know of Moth, obviously, but have heard one of these in action and frankly, there's no way my other half would stand for the racket it makes.

skippy777, via email

Moth may make the best known record cleaner, but there are quite a few others. Kuzma, for example, makes the VinVac, which also happens to look less agricultural than the bulk of the competition.

Hanns Acoustics, manufacturers of the monolithic T-30 turntable (reviewed in

HFC 331), produce the RC-20, which is more affordable than many at around £500. The Okki Nokki, Clearaudio Smart Matrix and VPI HW16.5 will all do a good job, too.

As you know, any of the above will be vastly more effective than a carbonfibre brush, particularly when shifting stubborn grease marks or patches of damp spores, but you might end up clocking up a few miles trying to demo these machines from the point of view of noise. If that's impractical, donning earplugs or ear defenders would be wise, as the motors which generate the vacuum in some of these machines are loud enough to damage hearing in a relatively short time.

THE HI-FI CHOICE **GUIDE TO: OPTIMISING YOUR ROOM'S ACOUSTICS**



ANY AUDIOPHILE who has pursued their passion for more than a few years will be well aware that the final component in their system is the room which contains it. Although careful positioning by ear can go a useful way towards getting a fairly flat frequency response and

decent soundstaging and imaging from speakers in any given room, room measurement through a calibrated microphone and software can speed the process up considerably and make room treatment far simpler.

A few quick measurements with the XTZ Room Analyser (HFC 330) will provide a good idea of how far speakers should be from rear or side walls, or even how high stands should be. And if you have a problem with a room mode, even after initial repositioning, you can clearly spot its frequency and identify appropriate bass traps.

All of this is handy enough for standard enclosures, but is even more so if you're using panels, or dipole subwoofers like Celestion's classic SL6000.

Apple's iPod Touch and iPhone seem to be gaining more ground amonast audiophiles as perfectly viable sources. Given the number of apps for them, perhaps its no surprise to find they too, have their own room-analysis software.



The VinVac: but noisy



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Four of the latest high-value equipment supports go head-to-head, Richard Black stacks 'em up

Alphason Soundstyle ST560

£365 (includes £105 three-shelf module) 08451 306686 ALPHASONDESIGNS.COM

WELDED-CONSTRUCTION racks have one particular problem: they don't flat-pack for transport. As a result they come in big boxes impressively big in this case. But it's not just the lack of flattening, as the ST560 is a rack designed for large equipment. It's supplied as a base unit, which has two shelves (one just above the floor, the other 250mm above that), to which you can add a suitable number of small (130mm useable height) or large (250mm) extra units, each one consisting of a layer of frame and one toughened-glass shelf. Frame layers stack up neatly, the bottom one meeting the floor via

Glass shelves and hollow steel frame are, of course, distinctly resonant materials, but a fair degree of damping is provided by the rubber supports which fit into holes in the frame and stand the glass off by a couple of millimetres. The supports are a bit of a pain to fit - we resorted to a plastic-headed mallet.

With the generous available height and depth of a good 500mm, we tried a variety of kit on the shelves and encountered no problems. In terms of sound, the ST560 adds a touch of brightness and subtly degraded detail compared with familiar reference stands, but it seems to keep the bass clear and strong. It doesn't work well with LP turntables, unless an additional isolation support is used, but its large area certainly makes that an option.

VERDICT

ALARGE stand suited to large kit, this is smart, practical and expandable as a system grows. Sound is not quite the best, with some effect on detail.





Quadraspire Sunoko-Vent T

£800 (includes four shelves) 01179 863228 QUADRASPIRE.CO.UK

QUADRASPIRE'S basic look is consistent across various racks, with

gracefully waisted solid-aluminium vertical members and taperededge shelves. The unique feature of the Sunoko-Vent is the slots in each shelf, which do indeed vent the equipment underneath. At a stroke this removes one of the perpetual worries connected with putting equipment in a rack- the equipment manufacturers (certainly for amplifiers) usually have some line in the instructions above ensuring adequate ventilation. Of course this is mostly well-intentioned backside-covering, but it's well known that a bit of airflow can help reliability. What's more, breaking up a uniform area should help reduce resonance.

Of course there can still be some resonances, but Quadraspire has added extra half-depth slots underneath to reduce these still further and the remaining possible problem, lack of strength, is hardly an issue with this 25mm-thick MDF. It's beautifully veneered with a lovely satin finish and all sorts of options are available: we reviewed a standard four-shelf rack with 140mm useable height per shelf and it's a very rigid structure once assembled.

Once again there's not enough isolation for most turntables, but we were very taken with the results from electronics, including digital sources, placed on this rack. The sound is detailed and largely uncoloured, though we are pretty certain we heard just a trace of alteration in the lower midrange.



VERDICT ANINGENIOUS variation on an established Quadraspire theme, with the practical appeal of ventilation plus the sonic ★ ★ ★ ★ appeal of very good detail and just a trace coloured.

Blok Stax

PRICE: £180 (includes three shelves)
CENTACT: 01799 525350 WEBSITE: BLOKUK.COM

YOU'D NEVER guess from the name, but Blok's stands have a rather, er, 'blocky' appearance due not least to the fact that the vertical supports are blocks of wood – well, veneered MDF, anyway. Shelves are of 10mm toughened glass and both these and the blocks come in options for which we'll refer you to the website.

Conceptually it's a very simple system and it's easy enough to assemble, the whole caboodle being held together by lengths of threaded steel rod. Once everything is aligned and screws are tightened, it's a supremely rigid assembly and a heavy one too at just over 30kg – presumably the four- and five-shelf versions scale up in weight proportionately, which is quite a thought. Finish is good if not outstanding (the veneer is nothing too special, if we're honest) and the large hold at the back of each shelf for cables is a nice touch. Standard heights are 230mm or 170mm, with 460mm internal width and depth of 400mm.

Of the four racks in this group, this is the best suited to turntable duty. It still won't do anything about footfall disturbance, but its sheer weight does help reduce acoustic feedback from speakers, especially when the default plastic feet are used (spikes are an extra). It works well with electronics, too, giving sound that's largely uncoloured, though bass seems a touch 'thickened' compared with some. There's no loss of extension, though, and detail is good, too.

VERDICT

A SIMPLE and effective design that gives some useful isolation across most of the audio band. Looks good and helps preserve detail and tonality.





Target CL470

PRICE: £300 CONTACT: 020 8900 6801 WEBSITE: TARGETHIFI.CO.UK

TARGET is one of the oldest names in equipment supports and is now part of Roksan. It makes the usual mix of hi-fi and AV supports, with this one being more hi-fi oriented – but it's so wide we can imagine it doing AV duty in some installations as well. The width between the pillars is 640mm, but the wedge shape and the bowed front of the shelves combine to make it look less threateningly bulky than it easily might. The rather gorgeous rosewood veneer, polished to an incredibly high gloss, helps too.

Construction is a mix of typical hi-fi stands (the front legs screw on, level by level) and domestic furniture (the shelves attach to the rear support with cam-locks) and we reckon the instructions could be more explicit. Having a rear support in the middle of the edge could restrict access to sockets on exceptionally deep equipment, but we had no problems and shelf height (which is not adjustable), seems well judged at 230, 205 and 180mm from bottom to top.

We had rather mixed results with this rack. Although it generally seems to have very little effect on tonality, it gives slightly reduced detail in two specific bands – the lower midrange and the treble. MDF shelves do often have a 'signature' in the low mid/upper bass and in this case it reduces the definition of low melody instruments and slightly reduces the attack on percussion. However, the voice registers are well preserved, which makes vocal tracks clear and immediate. •

VERDICT

SMART-LOOKING and well suited to large equipment (or small, doubled-up per shelf!), but sound lacks detail and attack, especially in the lower regions.



Equipment racks are furniture and will often be chosen on aesthetic and practical grounds, but they can subtly alter a system's sound, as these four show. How and where they are placed in a room and what supports are used

(spikes, soft feet etc.) can also make a difference. For example, our results with the Blok suggest that spikes aren't necessarily always the answer. A large part of a stand's 'sound' is due to its mechanical resonance in the presence of audio sources. And always avoid leaving some of the shelves empty. If you're still in the planning stages for expanding your hi-fi, then put some CDs or books on them as a shortterm solution.

iChoose quality?

Are widely accepted music formats undermining the quality of the music we listen to on a daily basis?

The Music Chain

Much is written about music and the musicians who entertain us, and we rightly exalt great musicians. But there is an interlinked chain of participants, two of which are I believe are crucial to our music scene in today's world. For centuries the music chain was a very short one – composers or songwriters, musicians and listeners, and the judgement on quality was immediate. Recording technologies have changed all this exponentially.

Today, we listen to most of our music from a recording and this gives recording engineers the opportunity to avoid poor acoustics, duff notes and off days. This, of course, means the chain has grown to include the recording engineers, the music distribution system (retailers or downloads), hi-fi manufacturers, hi-fi sellers and the hi-fi purchasers, the latter being the listeners. I should start by saying that hi-fi has become an adulterated term that no longer has its original meaning because it's applied to much equipment that certainly should not be termed high-fidelity.

It's said that a chain is only as strong as its weakest link. However, I believe there are two particularly strong links that, if removed from the chain, would seriously damage the quality of recorded music. These are the audiophile, or hi-fi connoisseur, and the specialist hi-fi retailer, the latter in nearly all cases also being the former because it's their interest that has driven them into their particular business. These are the people who most appreciate how exciting and involving music can be and how it can deliver an emotional experience.

Hi-Fi Connoisseurs

So why is the hi-fi connoisseur so important to the music industry? By their nature, audiophiles are generally avid music lovers who enhance their enjoyment through listening to music at its very best quality level, which means playing great recordings through hi-end hi-fi to achieve the most outstanding results. Without the audiophile, the main driver for quality would probably be removed from the chain. Let's be honest, over recent years the majority of music listeners now settle for MP3 convenience and, therefore, mediocre sound quality. If the pendulum ever swings so far that all but a few listen to highly compressed formats such as MP3, music producers will not waste their resources on producing high quality recordings because it would be commercially unnecessary, even if their recording engineers wanted to achieve the best they could. After all, an MP3 or AAC file, the iTunes default format, downloaded at 128 kbps (the most popular download speed), is about one-eleventh the size of a full resolution CD track, 1411 kbps, so the quality is inevitably far inferior. Information is irretrievably lost and the full dynamic range is lacking. Using an iPod while jogging does not really raise a quality issue but playing low-resolution tracks through an iPod docking station that feeds into a decent hi-fi system, is a disaster area. It's rubbish quality made louder. Fortunately, there is still significant demand from audiophiles committed to sound quality to sustain the production of high quality recordings, but it would be a tragedy if there weren't. For example, most classical recordings downloaded as an MP3 or AAC file are a complete waste of time because there is so much information missing that they are reduced to just the essence of a tune.

Specialist Hi-Fi Retailers

Just as essential a link in the chain as the hi-fi connoisseur is the specialist hi-fi retailer and the two are rightly dependent on each other. Without the specialist retailer the hi-end hi-fi manufacturer would have to rely on the internet and hi-fi magazine reviewers to try and assess the relative merits of different brands for their potential customers - a notoriously unreliable decision making process. Specialist hi-fi retailers are constantly being offered new products for assessment and potential stocking and, as it is also their hobby as well as their livelihood, they are greatly interested in achieving the best performance and seeking out the most outstanding combinations. More than that though is their relationship with audiophiles for, if they are to stay in business, they must satisfy the most discerning customers in the industry. The reality is that audiophiles and specialist hi-fi retailers are essential to each other.

LISTED BELOW IS OUR SELECTION OF THE BEST HI-FI DEALERS IN THE UK.

They have been selected because they are known to do an excellent job in guiding customers towards hi-fi that will give years of musical enjoyment and total satisfaction.

Future of Recorded Music

What are the future prospects of maintaining high quality music recordings? We must hope that audiophiles, or hi-fi connoisseurs, or perhaps most accurately described, music lovers, will continue to drive the demand for quality. But another important reason for hope within the mass-market is that there is no longer any over-riding reason for MP3 and AAC to have such a following. These formats were designed to overcome very slow download speeds pre-broadband and small, expensive memory capacity but the tradeoff has been quantity at the expense of quality. Download speeds and memory capacity are not significant factors for most people now and will be increasingly irrelevant with time. Full resolution, CD quality, downloads are already available and should become the norm as long as the general public can be made aware of the tremendous quality benefit. This has happened with HD TV so we know this awareness can grow rapidly. In the meantime, we must highly value hi-fi connoisseurs and specialist hi-fi retailers, of which the ones listed on this page represent the UK's finest. Specialist dealers know how to choose the products that combine as a superb system and how to get the best out of it by expert installation in the home. If there's a price premium over an internet purchase, it's probably a small one, but it's unquestionably worth the difference.

STAR QUALITIES

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



OUR TOP 20 UK HI-FI DEALERS

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Ashford, Kent SOUNDCRAFT HI-FI 40 High Street.

01233 624441 Chelmsford

RAYLEIGH HI-FI 216 Moulsham Street. 01245 265245

RAYLEIGH HI-FI 33 Sir Isaac's Walk. 01206 577682

AUDIO DESIGNS 26 High Street. 01342 328065

INFIDELITY 9 High Street, Hampton Wick. 020 8943 3530

AUDIO VENUE 36 Queen Street. 01628 633995

RAYLEIGH HI-FI 44a High Street. 01268 779762

Southend-on-Sea RAYLEIGH HI-FI

132/4 London Road. 01702 435255

Southampton PHASE 3 HI-FI

37 Bedford Place. 023 8022 8434

LONDON

AUDIO VENUE 27 Bond Street. 020 8567 8703

GRAHAMS HI-FI 190a New North Road. 020 7226 5500

ORANGES & LEMONS 61/63 Webbs Road. 020 7924 2043

SOUTH WEST

AUDIENCE 14 Broad Street. 01225 333310

GULLIFORD HI-FI 97 Sidwell Street. 01392 491194

MIDLANDS

Banbury

OVERTURE 3 Church Lane. 01295 272158

MUSIC MATTERS 363 Hagley Road, Edgbaston.

0121 429 2811

FRANK HARVEY 163 Spon Street 024 7652 5200

CYMBIOSIS 6 Hotel Street. 0116 262 3754

Nottingham

CASTLE SOUND & VISION 48/50 Maid Marian Way. 0115 9584404

NORTH

Cheadle

THE AUDIO WORKS 14 Stockport Road. 0161 428 7887

ACOUSTICA 17 Hoole Road. 01244 344227

LINTONE AUDIO 7-11 Park Lane, Gateshead. 0191 477 4167

SOUND ORGANISATION 2 Gillygate. 01904 627108

SCOTLAND

HOLBURN HI-FI 441 Holburn Street. 01224 585713/572729

LOUD & CLEAR Bonnington Mill, 72 Newhaven Road. 0131 555 3963

LOUD & CLEAR 520 St Vincent St, Finnieston. 0141 221 0221

GLASGOW AUDIO 135 Great Western Road. 0141 332 2200/4707

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Above: Monitor Audio Platinum PL300 loudspeaker

KIMBER D-60 digital interconnect0.5 metre, hyper-pure silver, Ultraplate nhonos (a superb cable that ensures a clean and clear. sweet and natural sound). boxed as new in hardcase, (£240) £120 ono. Musical Fidelity KWDM-25 DAC, mint, boxed (bought new last year, little use, fantastic-sounding DAC). Valve and solid-state Class A outputS(£2,000) £600 ono. ATC SCM50 ASL active towers in walnut (only six months old, absolutely mint, barely run in), Class Aamps (amazing sound. superlative build), boxes etc. (£9,500)£5,500.

07876705266 (Huddersfield).

MARANTZ MA500 mono

blocks x 4, 380 watts (superb sound), mint condition. Boxed with manuals £650, Kingsound Queens electro static speakers (six months old). (£2,000) £950, **02380**

224003 (Southampton).

KEFRDM2 speakers (cherry, excellent, original boxes) £395, MFX10D tube buffer £85, Ixos Gamma XHA806 RCA 0.5 metre pair £20, OED **Qorum Reference speaker** cable (terminated) 2x4 metres£35.

01684290581 (West Midlands).

LIVING VOICE OBX-R

speakers (premium Yew finish). Outboard crossovers. Townshend Audio Isolda DCT 4x 1 metre cable and original packaging £2,200. 01737

246968 or deakin04@ btinternet.com (Surrey).

RUSS ANDREWS silencers, 3x£35 each, or£90 forall three, Two QED Qunex 1 interconnect, one metre cables £17 each or £30 for two. 01902 884694 (Wolverhampton).

AUDION SILVERNIGHT

Integrated pure Class A, seven watts of real quality sound. Drives most speakers with ease (genuine reason for sale), £725 ono, Michell Gyro SE (mint condition, very little usage, still under guarantee with box). Tecno arm mounting (genuine reason for sale). £725 ono **07896 206056** (Sussex).

PRO-JECT RECORD

deck and Pro-Ject phono amp, Music Fidelity XA-1 preamp, Arcam Alpha 9CD equipment stand. (£3,700) £1,800 ono. 0035387 637

PROACTABLETTE 2000 shielded speaker (maple), excellent condition (£690) £320. Atacama sand-filled speaker stands. (£120) £40.

integrated, pureClass A, mint

FOR SALE

TRICHORD DIABLO with

NCPSU phono stage £600. Audio Synthesis DAX Decade £700 (stored for 4 years). Audio Alchemy DDS3 with Trichord clock modification £400. **01189760756** (Berkshire).

TRANSPARENT AUDIO

Reference phono to phono interconnect (4ft) £850, Mana 4-tierrack £600.

01189761257 (Berkshire).

CHORD DACc64 Mk II,

2 years old, unmarked condition, dual outputs, (£2,300) £1,095

07788 504037 (Kent).

KEFRDM2 speakers (cherry), original boxes £395, MFX10D Tube Buffer £85, Ixos Gamma Xha806 RCA 0.5m Pair £20, QED Qorum, Reference speaker cable (terminated) 2x4m £35. 01684 290581 (West Midlands).

CAMBRIDGE AUDIO.

DACMagic boxed, mint £150, Arcam FMJ CD23, original ring DAC, light use, £150. 07889 951316 or allan.robb@ tiscali.co.uk(Hampshire).

CARLSSON 0A-50.3 £300,

Proton power amp £250. Also supra cables. 075453 13889 (London).

AUDIO RESEARCH LS-1

preamp, mint condition £495, Meridian M1 active speakers, immaculate condition £495.02380 224003

(Southampton).

REGA SATURN CD player, boxed. (£1,250) £500.

078997 21899 (London).

MARTIN LOGAN Vantage

hybrid electrostatic loudspeakers (dark cherry), 2 years old, A1 condition; (£5,000+)£2,500.

lackcrawlev@btinternet.com (West Yorkshire).

SILVER MAINS power cable -voodoo cables, Germany. With silver-plate Marinco and mains plug. (£250) £85. 07981 025698 (Bristol).

THIEL CS 2.4 loudspeakers, 14 months old (natural

cherry). Easy to position. www.thiel.comforthe outstanding reviews, (£3,900) £2,100. 01296 437314 or jez@btinternet.

com (Bucks).

RUSS ANDREWS Torlyte equipment shelf under half price, £45.01794514916 (Hants).

TEAC Z5000 cassette deck (£800) £150. Mission 700LE speakers £35. Pioneer PL115D £40. Technics STG55AL tuner £55. KEE Coda 3 speakers £35. Marantz 50SE CD £50. 01708457691 (Essex).

MONITOR AUDIO PL300 speakers (Ebony finish). brand new, unused, (£6,000)

£3,500.07920124888 (London).

MUSICAL FIDELITY A5

CD player (VS), boxed, manual, remote. Valve output stage £650.07812935242 (Surrey).

ESOTERIC X03SE CD player (one-yearwarranty)£3,500, ATC SIA-2-150 amp (fiveyear warranty) £1,500, ATC SCM 40 speakers (five-yearwarranty) £1,500, all mint condition, boxed, manuals, remotes.

07970 012450 (Hants).

player, Arcam P60 power amp, Rogers Studio 5 speakers. Includes Russ Andrews power cords and cables/speakerstands and

6623 (Ireland).

07966 347787 (Surrey).

SUGDEN MASTERCLASS

and boxed (four months use only)(£3,870)£1,800.07899 721899 or yatestherapy@ googlemail.com. (London).

EUYING 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 brandnew 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 demo and judge the seller as well as the goods!

Reader Classified ads Hi-Fi Choice

MARANTZ SA KI Pearl, as new with anniversary book and certificate of authenticity, f 1 900 07809 383556 or neilmacmillan36@hotmail. com (Dumfries & Galloway).

MUSICAL FIDELITY 3.2CR

amp, preamp and CD player £1,500, JAS Orsa speakers (birds eve maple) £600.

07797 732147 or paul. camara@moorestephensjersey.com (Jersey CI).

NAIM SBL MK2 model (black), boxed, £670, Naim IBL (black) £280, ProAc Studio 150 (yew) £570, Rega XEL (rosewood) £350, Monitor Audio R852MD (teak) with matching stands £180.)

01252668000 (Hampshire).

MONITOR AUDIO RS6

speakers (cherry finish), excellent condition, £350.

07940 659384 (East Sussex).

QUAD QC 24-VALVE

preamp, 2x Quad 11 valve monoblocks (superb condition, boxed with instruction books). £2,995.

01202 481 386 (Dorset).

GAMUT D200Mk3 power amplifier 200WPC (eight ohms), boxed with manual. As new £2,500. 07803 969706 (Scotland).

STANDS UNIQUE Sound Tower in natural ash, five shelves, plus base plate and isolation platform. (£500) £175, plus p/p. 07738

467556 (West Yorkshire).

NAIM CD3.5 cd player £495, NAIM Nac102/522 preamp £550, NAIM 90.3 power amp £250, NAIM flatcap x2, £200 each, Sennheiser HD570 headphones £60 (all mint and boxed). 07738761299 mike_jeffers@btinternet. com (Lancs).

MARANTZ CD 63 KI

Signature (excellent condition, remote, original box, instruction book and KI Certificate), £200.

01772717492 or (m) 07887 687343 (Lancs).

PIONEER CD player PD7700, complete with remote and instructions £50 and SX5560 tuner amplifier with instructions£30. 01189 732777 or email ian@ikvle. freeserve.co.uk(Berkshire).

ISOTEK TITAN mains power conditioner (silver), £1,100, Titan six-way Multiway (incl

wall bracket) £325, Meridian M1 interactive speakers (blackash)£495.Audio Research LS-1 line stage preamp (silver) £495, Sonv videocassette recorder/ player SLV16 (black), £250. Meridian 602 / 606 CD transport/DAC (black), £995 (All excellent condition).

01962711800 (Evening) or 01252 620644 (day) (Winchester).

WITAAUDIO R4 CD DAB.

FM radio with USB, iPod dock, remote, 80-watt amp (piano black) nine months old. boxed (£600) £395.

01634 255168 (KentTR

ROTEL RCD-06 CD player (£350) £175, boxed and mint in black (See pics at hififorsale.co.uk). 01384412234

or 07984 576531 (West Midlands).

QED QONDUIT MDH2

two-way mains conditioner (£150) £75, QED Qunex 3 interconnect one-metre (£50) £25. OED Performance digital cable, one-metre(£30)£15. Free postage! All boxed as new. 01384412234 (West Midlands).

KIMBER FOUR pair speaker cables, 2x3 metres£25. Atacama speaker stands 16-inch high (black) £30. Apollo speaker stands 24-inch high, bronze £25.

024 76 711668 (Coventry).

RUARK CL20 floorstanders, in very good condition, fivestar reviewed. Approx seven vears old. Six-ohms/87 decibel sensitivity. (£1,650) £525.07896 206056 (Sussex).

THE CHORD COMPANY

Chameleon Silver Plus. one-metre £60, Nordost Super Flatline Gold Mk 2, two metres, bi-amp/bi-wire £90, Kimber Silver Streak 0.5metre£90.

All boxed, 01482887409 (East Yorkshire).

SONY MDR-CD1700

headphone. Musical sound is outstanding. Excellent condition (£200) £120

01707657801 (Herts).

TOTEM FLOORSTANDING

loudspeakers (cherry). Includes standard and custom-made granite plinths. Still under warranty. Excellent condition.(£1,695)£795.

07725 072878 or jason-watson@sky.com (Leicestershire).

PURE EVOKE 1XT in cherry wood, DABradio, boxed. £40. Marantz CD63 Mk11 KI Signature CD player, boxed, £150. Both perfect working order. Monitor Audio Monitor 3 speakers, £80 (slight damage) FcosseMS2 3 speakercable, £60.07939 588777 (East Yorkshire).

NAKAMICHI CR-7E cassette deck. Stored from new, never used and in original box, £995, IsoTekTitan power conditioner (silver) with six-way Titan Multilink. professionally hardwired with 1.25-metre Acrolink 6N power cord, £1,500, IsoTek Orion four-way mains filter (silver). as new, £250. (Day) 01252 620644 or (eve) 01962

71 1800 (Hampshire). **AUDIOLABORIGINAL**

British O.& P. F&D Serials. No remote. Local drop off or collection offered, £625. 07900 603525 (Leeds)

MONITORAUDIO RS6

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WANTED: Top quality hi-fi separates and complete systems: Naim, Linn, Cyrus, Meridian, Arcam, etc. Fast. friendly response and willing to travel/pay cash.

0781 5892458 (Essex).

CASTLE CONWAY 3

loudspeakers in mahogany. Excellent condition, £275. 01253891520 (Lancashire).

REGAPLANAR 3 turntable, RB300 arm and Elyscartridge. Pale blue deck, excellent

condition, 14 years old. Can send photos. £300.01158549677 (Nottingham).

RUSS ANDREWS

Silencer, three for £100, Super purifier with Hubble port attachment, £220.

01902884694 (Dudley).

AVID VOLVERE turntable (black), fitted with SME IV arm and Dynavector DV20 MC cart and EAR 834n phonostage. Allboxed, as new. £3,200.

07850 979375 (Norfolk). **BOWERS AND WILKINS**

loudspeakers in black ash: 2x 600 floorstanders, 1x CC6 centre channel, 2x DS6 dipole surrounds, 1xASW 1000 subwoofer, £300.

01255 553774 (Essex).

CYRUS 6 VS2 amplifier, Cyrus CD6S CD players. Both one year old. Boxed, in perfect condition, (£1,350) £700.01384412234 or leet2009@hotmail.co.uk (West Midlands).

NAIM CDX, VGC, light use. Includes remote, manuals and packaging, £750. 01276 503994 or andyuk777 @yahoo.co.uk(Surrey).

CEC DAIN state-of-the-art 15-kilogram high-end DAC, with master clock and audio data input and Toslink inputs. Balanced and unbalanced outs (www.cec-international.de). Seven months old, boxed, as new (f 2 800) f 1 749 07777 628426 (Bristol).

MICHELL GYRODEC.

AC motor, clear lid, black acrylic base. Regaarm plate including de-coupling upgrade. Great condition, £650.**01217041188** or boballen@sky.com (Solibul).

SUGDEN A21AL Class A series two-line amplifier and series 2 CD21, plus audio controls (titanium), matched pair, Boxed, excellent, as new. £1.900 01527 876514 or b2bc@btinternet.com (Worcestershire).

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PS AUDIO Power Plant Premiere, AC mains regenerator that converts poor incoming AC to pure 230VAC. New, boxed, upgraded model. (£2,000) £1,250. **07859**

AUDIOLAB 8000A amp.

388167 (London).

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01524 34627 (Lancs).

KUDOS CARDEA C10.

cherry wood standmounts, boxed. (£2.400), £1.400.

07899 721899 (London).

ROTEL RAO6 stereo amp, Marantz CD6002 CD player. Musical Fidelity loudspeakers (£1,475) £775. Will separate, boxed as new. 01684 295781 (Gloucestershire).

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Distributed in the UK by Seymour Distribution Ltd, 2 East Poultry Avenue, London EC1A 9PT. Tel: 020 7429 4000

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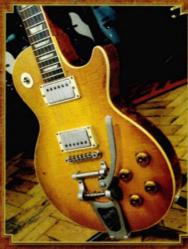
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THIS ISSUE'S HIGHLIGHT

LAST MONTH, Editor Dan George got up close and personal with a new type of headphone from Bowers and Wilkins. Looking like conventional cans, the closed-back, super-aural P5 is in fact designed for the travelling audiophile.

Along with their snug fit, the P5 also does a great job cutting down on intrusive background noise. Performance is extraordinary and a credit to the B&W engineering team. For more go to: bowers-wilkins.com



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Whether CD or SACD, we list the very best players for the job

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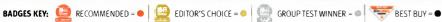


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CD players



p to £1,000			Adar.com	10/00	O. A. O.	Out of	0	Party.	Sold Sold	ta con	Runbe
dge Product	Price	Comments	. 1	,	,	Ĺ			Υ.		
Arcam CD17	700	Civilised sound, with a positively deluxe treble. Bass is clear, if not the weightiest ever					•	•			• 31
 Audio Analogue Crescendo 	599	Simple player that's clear and communicative with the appropriate partnering equipment				0					32
 Cambridge Audio Azur 840C 	700	Superbly capable with a resolution and tonal evenness that's well worth hearing (silver finish)				•					31
Cyrus CD6 SE	900	A combination of detail and sheer musical energy with a hint of high end to the performance				•	0				31
 Harman/Kardon HD990 	550	Highly detailed with excellent extension at both extremes and impressive resolution	/594818			0	0				32
Marantz SA7003	600	Highly civilised sound may not be to all tastes, but there's plenty of detail to be heard				0	0				• 32
Marantz SAB003	830	Classic Marantz sound in a classy and attractive package. Our favourite sub-£1,000 player	/456022		0		0				• 31
Micromega CD-10	799	The cheapest in the range, the CD-10 has been fine-tuned to please the audiophile			٠						32
Moon CD.5	999	Admirably energetic music-making from this very well-built player			٠						• 32
NAD C545BEE	350	Apart from slight lack of bass control, sound is very fine indeed – treble is beautifully detailed									32
Naim CD5i	895	Its competent musical performance exceeds the expectations of an entry-level player									30
Pioneer PD-D9	850	A mostly well-balanced player that's arguably at its best with classical music	/636734			0					32
Roksan Kandy K2	895	State-of-the-art technology and precision-engineering produces a fine CD performance	/483697		0		0		•		31
Rotel RCD-1520	695	Lacks optical digital output, but feature-count is fine and sound quality is expressive and open	/608305							Total Control	32

A	have £1	000

Product	Price	Comments									
Arcam CD37	1,300	Excellent detail and imaging, neutral tonality and above-average bass resolution	/395096								318
Audio Research CD5	5,055	Audibly better than most CD players on the market – assertive and very dynamic	/455309		0						312
Consonance Droplet CDP3.1	1,995	A CD player which gets to the nub of what music is about. Engages the listener every time									322
Copland CDA 825	3,985	This a highly revealing player that delivers music in a realistically engaging form							•		332
Creek Destiny	1,400	This player presents the music and nothing but the music and is thoroughly recommended			•	0					328
Cyrus Audio CD 8 SE	1,200	A highly civilised player which can, nevertheless, deal convincingly with raw music	/399370		•		۰				323
Denon DCD-2010AE	1,700	Well equipped, finely detailed and with good support for compressed audio and iPod		•		0	0				328
EMM Labs XDS1	18,995	Very high-performance two channel only player with the option of a standalone D/A converter		0			۰	•			327
Esoteric X-05	3,995	Superb resolve of fine detail with a perfectly judged balance and an ability to draw you in	/478365	0							314
Leema Antila II	2,735	Great build and multiple DACs give this a fast, revealing and totally engaging sound	/612396		•						323
Meridian G08	2,400	Advanced digital processing with special apodising filter that gives a very clean sound	/455040								312
Micromega CD-20	1,249	No SACD, unfortunately, but without doubt one of the better mainstream players					0				332
Mimetism 20.1	5,107	An impressive player that produces a very convincing and musical sound									330
Moon CD3.3	2,200	With clear, detailed and energetic sound, this player also offers a digital ouput	/594609								328
Moon 750D	7,950	Very few CD players can extract as much information off the disc as the 750D									331
Naim HDX	4,500	The HDX hard disk player represents an entirely new paradigm for high-fidelity replay									311
Rega Isis	5,998	A magnificently musical CD player at a realistic price. USB input is a useful addition					0				329
Shanling CD-T1000SE	1,700	This player's valve/direct option gives a choice in terms of performance									328
Sony SCD-XA5400ES	1,199	Elegant, refined control system and very strong CD/SACD performance	/465933				0		•		313
Unison Research CDE	2,495	Valve CD player with interchangeable DACs doubles as a standalone DAC that oozes musicality	/483759				0		•		318
	Audio Research CD5 Consonance Droplet CDP3.1 Copland CDA 825 Creek Destiny Cyrus Audio CD 8 SE Denon DCD-2010AE EMM Labs XDS1 Esoteric X-05 Leema Antila II Meridian G08 Micromega CD-20 Mimetism 20.1 Moon CD3.3 Moon 750D Naim HDX Rega Isis Shanling CD-T1000SE Sony SCD-XA5400ES	Arcam CD37 1,300 Audio Research CD5 5,055 Consonance Droplet CDP3.1 1,995 Copland CDA 825 3,985 Creek Destiny 1,400 Cyrus Audio CD 8 SE 1,200 Denon DCD-2010AE 1,700 EMM Labs XD51 18,995 Esoteric X-05 3,995 Leema Antila II 2,735 Meridian G08 2,400 Micromega CD-20 1,249 Mimetism 20.1 5,107 Moon CD3.3 2,200 Moon 750D 7,950 Naim HDX 4,500 Rega Isis 5,998 Shanling CD-T1000SE 1,700 Sony SCD-XAS 400ES 1,199	Arcam CD371,300Excellent detail and imaging, neutral tonality and above-average bass resolutionAudio Research CD55,055Audibly better than most CD players on the market – assertive and very dynamicConsonance Droplet CDP3.11,995A CD player which gets to the nub of what music is about. 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USB input is a useful addition Final Player's valve/direct option gives a choice in terms of performance Jegs In Accordance Jegs In Accordanc</td><td>Arcam CD37 1,300 Excellent detail and imaging, neutral tonality and above-average bass resolution /395096 0 0 0 Audio Research CD5 5,055 Audibly better than most CD players on the market – assertive and very dynamic /455309 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0</td><td>Arcam CD37 1,300 Excellent detail and imaging, neutral tonality and above-average bass resolution /395096 </td><td>Arcam CD37 1,300 Excellent detail and imaging, neutral tonality and above-average bass resolution /395096</td></t<>	Arcam CD37 1,300 Excellent detail and imaging, neutral tonality and above-average bass resolution /395096	Arcam CD37 1,300 Excellent detail and imaging, neutral tonality and above-average bass resolution Audio Research CD5 5,055 Audibly better than most CD players on the market – assertive and very dynamic Consonance Droplet CDP3.1 1,995 A CD player which gets to the nub of what music is about. Engages the listener every time Copland CDA 825 3,985 This a highly revealing player that delivers music in a realistically engaging form Creek Destiny 1,400 This player presents the music and nothing but the music and is thoroughly recommended Cyrus Audio CDB SE 1,200 A highly civilised player which can, nevertheless, deal convincingly with raw music Cyrus Audio CDB SE 1,200 A highly civilised player which can, nevertheless, deal convincingly with raw music Cyrus Audio CDB SE 1,200 Well equipped, finely detailed and with good support for compressed audio and iPod EMM Labs XDS1 18,995 Very high-performance two channel only player with the option of a standalone D/A converter Esoteric X-05 3,995 Superb resolve of fine detail with a perfectly judged balance and an ability to draw you in /478365 Leema Antila II 2,735 Great build and multiple DACs give this a fast, revealing and totally engaging sound /478365 Meridian GOB Advanced digital processing with special apodising filter that gives a very clean sound /455040 Micromega CD-20 1,249 No SACD, unfortunately, but without doubt one of the better mainstream players Mimetism 20.1 5,107 An impressive player that produces a very convincing and musical sound Moon CD3.3 2,200 With clear, detailed and energetic sound, this player also offers a digital ouput /594609 Moon 750D 7,950 Very few CD players can extract as much information off the disc as the 750D Naim HDX 4,500 The HDX hard disk player represents an entirely new paradigm for high-fidelity replay Rega Isis 5,998 Amagnificently musical CD player at a realistic price. USB input is a useful addition Final Player's valve/direct option gives a choice in terms of performance Jegs In Accordance Jegs In Accordanc	Arcam CD37 1,300 Excellent detail and imaging, neutral tonality and above-average bass resolution /395096 0 0 0 Audio Research CD5 5,055 Audibly better than most CD players on the market – assertive and very dynamic /455309 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Arcam CD37 1,300 Excellent detail and imaging, neutral tonality and above-average bass resolution /395096	Arcam CD37 1,300 Excellent detail and imaging, neutral tonality and above-average bass resolution /395096

SPECS KEY SACD COMPATIBLE Plays high-resolution SACD discs in two-channel mode. ELEC DIGITAL OUTPUT Electrical coaxial output for digital connection to a DAC or digital recorder. OPT DIGITAL OUTPUT Optical Toslink output for digital connection to a DAC or digital recorder. 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.

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

'Never Connected' power supply technology virtually removes all incoming mains noise allowing only the music to be heard. Visit our website to learn more about this exciting product and the high performance Diablo phono stage.





Turntables



The best record players money can buy

Badge	Product	Price	Comments	at. COM	20'60'	S.S. Colo	Age of	all Ca	Uni	~
•	Clearaudio Emotion	1,185	Beautifully built with open and clean sound emphasising mid and top, nice timely bass		33/45				•	309
•	Clearaudio Performance	2,300	Ceramic-magnetic bearing spells a surprisingly uncoloured performance		33/45				• 2	295
0	Continuum Caliburn	125,000	Luxury turntable with state-of-the-art design includes Cobra tonearm and Castellon stand	/587169	33/45/78		•	•	• :	320
•	The Funk Firm Funk V2	1,390	Not only as beguiling as those that preceded it, this turntable is also more substantial to boot		33/45		•	•	• :	324
•	The Funk Firm Saffire	2,450	Individual design and a sound that's refined and neutral with strong timing and dynamics		33/45		•	opt a	pt :	309
•	Hanss Acoustic T-30	3,600	The only multi-armbase deck in its price range, it boasts image stability and precise bass		33/45		•	opt a	pt 1	331
•	Lumley Heliosphere	2,495	A distinctive-looking turntable with a unique sound and a performance that reflects your vinyl	/560765	33/45		10000	opt a	pt .	319
•	Michell Tecnodec	608	Needs careful partnering but can deliver a very sophisticated result for the money		33/45			opt		309
•	Michell Gyro SE/RB250	1,565	A marriage of shot-putter-strength, build quality and robust audio (including arm substitute)		33/45			•	•	324
•	Pro-Ject RPM-1 Genie 3	190	The Genie is that rare thing of a product with good looks, fine build and excellent sound		33/45		•		• 1	332
•	Pro-ject RPM 6.1	750	With its huge platter this is a steady design that's capable of fine results with a decent cartridge		33/45/78		•	•	1	294
•	Pro-ject X-Pack	1,000	Combines very strong elements (Ortofon Rondo Red) a killer package with top sound and value		33/45		•	•	• :	309
•	Rega P3-24	390	Very competent, uncoloured and musical, improved by £148 outboard electronic power supply		33/45	apt	0			298
•	Roksan Radius 5/Nima	1,375	Sophisticated design with accomplished sound quality, excellent imagery and good isolation		33/45					248
•	SRM Arezzo	699	The Arezzo is an excellent source component for those wanting a superb turntable for vinyl replay	/625025	33/45	•				325
•	Townshend Rock 7	1,720	Has the ability to pull detail out of a vinyl groove, making it the most resolute turntable at its price		33/45		•		T	324
•	Townshend Rock V/Excalibur II	7,000	If you want to hear everything that's on a record then there's no better machine for the job		33/45				1	307

Phono cartridges: MM and MC recommendations



Badge Product Dynavector DV-10X5 A high-output MC with superb dynamics and fine timing that's difficult to mount, but well worth the effort **Goldring Legacy** 595 An MC cartridge better suited to the smoother-sounding turntable, it unearths a mountain of detail 328 **Grado Prestige Gold** 149 Produces rich, open and expansive music with the minimum of fuss 235 Ortofon Rondo Red 385 Delivers detail, power and resolution and makes a good case for its price 307 Ortofon Cadenza Red 750 There's much to admire in this cartridge's fine detail and unfussy presentation 330 Sumiko Blue Point Spec Evo III 270 High-output MC with refinement at high frequencies and a nimble, articulate and revealing sound 239 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 Condor XCM 2,400 A stunning cartridge with stereo imaging, dynamics and resolution to die for 265

Phono stages

Cambridge Audio 640P

Soundsmith Strain Gauge

Tom Evans Microgroove

Trichord Dino/Dino+

Creek OBH15



100 An

240

6,100

480

mments	CHAMP CON COLOR	Angels S	ODeden.	nonber .
n outrageously good bargain that suits budget systems, but can confidently survive upgrades			0	305
actical and highly compatible unit offering fine detail and a pleasing, mellow balance				305
evolutionary kit assembly that rewrites the rules about vinyl playback	/618387			324
r dynamics and real bass extension with good tonal colour this is the one to heat				234

SPECS NAY SPEEDS Speeds offered in rpm. SUSP SUBCHASSIS Turntables with a sprung or suspended support for the platter and arm. SWITCHABLE SPEED CHANGE Some decks require manual lifting of the belt from one pulley to another to change speed, but not these ones. SUPPLIED WITH ARM Deck is supplied complete with tonearm – some require a separate purchase in this department, but the dealer will fit it for you. SUPPLIED WITH CARTRIDGE Some decks are supplied with a starter cartridge and this is included in the price shown. MM Moving magnet cartridge – see amp and phono stage features to match this type. MC Moving coil cartridge – see amp and phono stage features to match this type. REPLACEABLE STYLUS Some cartridges have separate styli for ease of replacement, but it compromises sound quality.

Relaxed yet resolute with very good image depth and natural balance, not to mention great flexibility

HFC TOP PICKS



Cambridge Audio 640P £100

If you need a low-cost way to getyour turntable talking to your amplifier, this is by far the best option, just pop into your local Richer Sounds



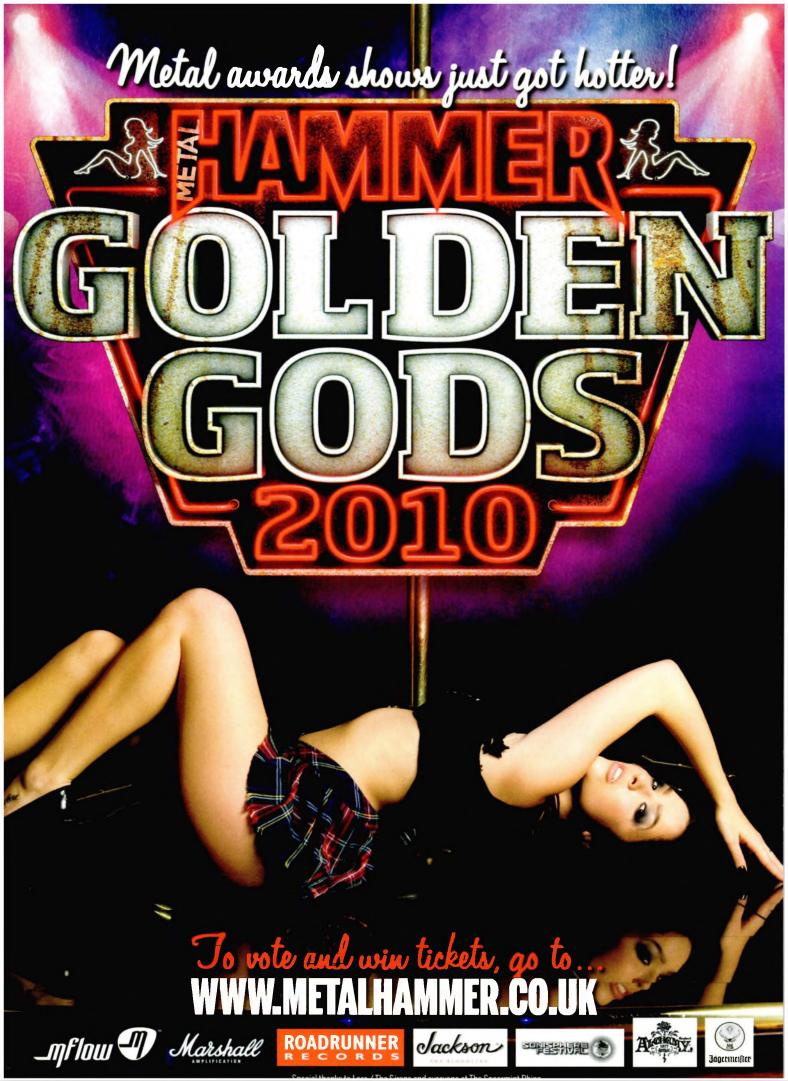
Dynavector DV-10X5 £295

Fiddly to set up, but dynamics are superb from this high-output MC cartridge, making it a firm HFC favourite for budget-to-mid-priced turntables



Townshend Rock 7 £1,720

A great turntable for those upgrading from an entrylevel deck. Sound engineering at a bargain price sets this deck apart from the competition



Buyer's guide Hi-Fi Choice







Radio tuners



Surf the airwaves with these carefully selected tuners

FN	1 tuners

Badge	Product	Price	Comments	On	195	-6%	705	101	cler 10	8 0	64
•	Creek Audio Evolution	350	Sound is detailed, cohesive and extended both tonally and spatially – very classy		FM,M	80			1	3	308
	Rega Radio 3	390	Strong bass, clear treble and a high enjoyment factor makes this an appealing FM performer		FM,M	20		0		2	283
•	T+AT1210R	1,200	High-end looks are matched by the sound, which is detailed and sophisticated		FM	100	•			2	283

DAB/FM tuners

•	Arcam FMJ T32	600	A highly cost-effective way of optimising the airwaves. iPod functionality is a bonus	/559242	DAB,FM	100 • • • 31	19
•	Onkyo T-4555DAB	400	Admirably free of grain or obvious tonal blemishes, this tuner achieves a high standard		DAB	40 • • • 29	98

DAB/FM portables

•	Monitor Audio Airstream 10	225	The range of features on this DAB/FM/Internet radio is certainly impressive	/636713	DAB,FM,Web	4	•		e	326
•	Pure Move	80	A feature-packed, beautifully built DAB/FM radio that is a pleasure to use	/608367	DAB,FM	20	•			323
,	Pure Evoke-25 (portable)	170	Attractive and well thought-out. Many useful features and enjoyable with classical music	/516285	DAB,FM	100	•			318
	Pure Sensia	250	One of the smartest table radios around, offering wireless computer-sourced music		DAB,FM,Web	40	•	•		331
	Pure Avanti Flow	280	One of the best standalone solutions for internet radio with a tonality that's good for voices		DAB,FM,Web	40	•	•		322
	Vita Audio R2i	300	Very smartly built with a sound that's full-bodied, neutral and detailed	/611865	DAB,FM	30	•	•	•	323

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.

Headphones



	1		-	
Audiophile	solutions	for home	and travel	use

Badge	Product	Price	Comments	COM	latic dural	urial	back	ans)	Olo,	Mer
•	Audio Technica ATH-AD500	100	Bulky, but comfortable, this headphone offers a generous spread of virtues					260		333
•	Beyerdynamic DT770	179	One of the most tonally satisfying closed-back headphones around with excellent detail			•	•	270	•	333
•	Beyerdynamic T1	880	A characterful, enjoyable music-maker with a detailed, weighty sound							331
•	Bowers and Wilkins P5	250	A superb headphone with B&W's sound and build quality sealing the deal			•		195	•	333
•	Etymotic ER-4P	195	Fiddle with in-ear earpieces and angles of approach and you'll be repaid with super-detailed sound					20		319
•	Grado SR60i	100	A strong contender with out-of-class sound in most areas: a brilliant budget all-rounder	/603478	•			210		322
•	Grado SR80i	120	A beautifully neutral and open-sounding headphone that's lively and energetic too						•	322
•	Grado GS1000i	1,100	A superb transducer, capable of astonishingly high performance standards	/624782						325
•	Grado PS1000	1,795	Offer excellent detail and effortless dynamics, but they can be heavy to wear after a while					500		329
•	Sennheiser HD380	140	This model offers good sound and is a worthy alternative to in-ear monitors		•				•	327
•	Sennheiser HD650	330	Clear and detailed, with very natural tonality through bass and midrange with just a little coloration					275		312
	Sennheiser HD800	1,000	These headphones will convert loudspeaker listeners to the delights of personal stereo performance	/619269				350		324

SPECS KEY ELECTROSTATIC Uses electrostatic film instead of more common cone or dome dynamics. SUPRA-AURAL Earpads sit on ear rather than around it. CIRCUMAURAL Earpads rest on the head around the ears. OPEN BACK Vented capsules let sound in and out. CLOSED BACK (*) Sealed capsules. WEIGHT in grams. 3.5MM JACK ADAPTOR Allows connection to personal stereos, computers etc.

HFC TOP PICKS



PURE Sensia £250

PURE's ground-breaking touch-screen DAB radio has changed the way we interact with radio forever and sets the standard for innovation



ACS T2 **£500**

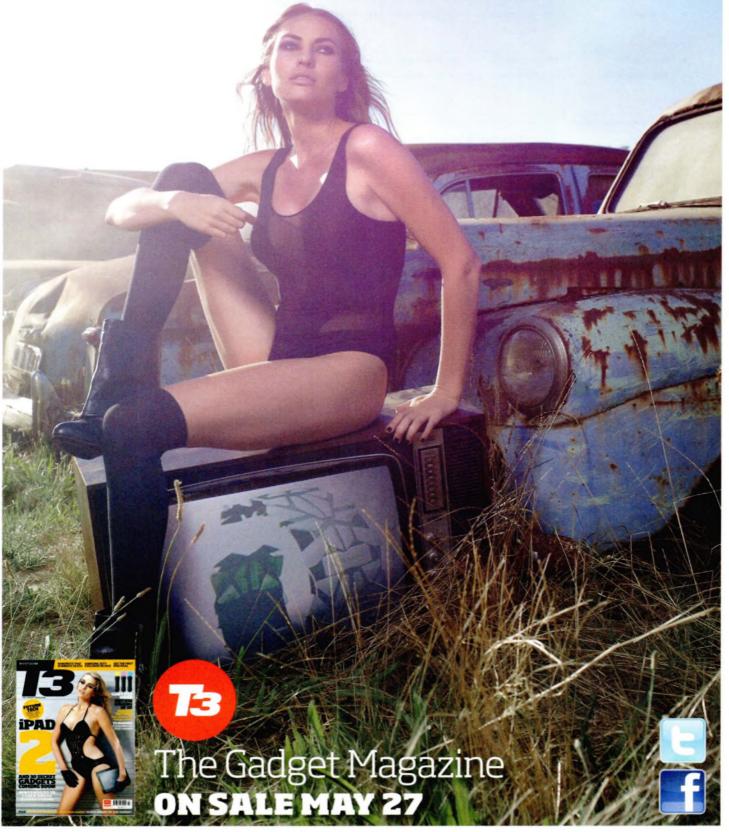
For regular travellers, the ACST2 with its custommoulded earpieces is an obvious choice, thanks to all-day comfort and a perfect fit for any ear



Sennheiser HD650 £330

An easy recommendation – Sennheiser's HD650 should really cost more than this – it's simply fabulous and a genuine bargain

You design the technology we'll be using tomorrow



FUTURE TECH SPECIAL ISSUE • IPAD 2 AND 30 TOP SECRET GADGETS

Buyer's guide Hi-Fi Choice













Up t	o £1,000		•	dar.co.	e inpute	inpus Con	oneso	Cto. Che	enu,	mber
Badge	Product	Price	Comments	3	S	47	-0/	.61	3)	G.
•	Audio Analogue Crescendo	599	In a room of appropriate dimensions, this amplifier has real musical presence		5				50	329
•	Cambridge Audio 840A v2	800	A chunky powerhouse with features aplenty, this amp offers detail and delicacy (silver finish)		8	•	•		120	327
•	Marantz PM8003	750	Detail isn't the utmost, but great vitality makes this amplifier quite thrilling		5	мм	•	•	70	327
•	Moon 1.5	999	A likeable amp in many ways, with admirable bass, treble and imaging		5	•		•	60	321
•	NAD C3226BEE	320	Unusually confident into awkward loads and very assured especially in bass. Treble a touch recessed	/603281	7		•	•	50	322
•	Puresound A10	685	A superbly involving valve amp at a very competitive price and with genuinely excellent results		2				10	331
•	Roksan Kandy K2	895	Superior design and high-performance credentials makes this amplifier a must-have bargain	/483722	5	MM			125	315

•	Arcam A38	1,480	A winning combination of sonic virtues including highly developed detail and musicality		7	opt			100	332
•	Astin Trew AT2000PLUS	1,740	If you prefer timbral and timing qualities of music to its bone-crunching potential, this is a contender		4		•	•	65	332
•	Audio Analogue Puccini Settanta	1,450	Detailed and lively, particularly in the upper octaves, but lacks a little bass extension		5	MC	•	•	160	320
•	Cyrus 8 XP d	1,500	High on features with a revealing upbeat sound and impressive five input onboard DAC	/608669	6		•	•	70	323
•	Denon PMA-2010AE	1,700	High-class, well-equipped integrated, with a performance that is muscular, refind and detailed		6	MM/MC	•	•	80	328
•	Electrocompaniet PI-2	1,600	A superb all-rounder, with insight on one hand and effortless musical flow on the other		6		•		100	327
•	Electrocompaniet ECI-3	1,650	This is an impressively resolute and powerful integrated amplifier for the money	/618304	5				70	324
0	Gryphon Atilla	6,995	Exceptional subtlety and definition, has enough power to cope with just about anything musical		5				100	328
•	Harman/Kardon HK 990	1,000	Very clever, with built-in DSP room correction – but most importantly a powerful and revealing ampl	/594820	7	MC	•		160	321
•	Leema Pulse	1,270	Admirable bass which combines extension, tautness and clarity. Higher frequencies are highly detailed		5	MM/MC	•		70	327
•	Leema Tucana II	3,425	Highly featured, well-built and not short of power, this is a highly resolute and organic amp	/612396	7			•	148	323
	Lyngdorf Millennium Mk IV	10,995	State-of-the-art digital amp successfully transcends virtually all problems that afflicts others of its type	/603231	5				150	322
•	Micromega IA-100	1,125	Fast and fluid performer that brings a touch of panache to its role		5	мм	•	•	100	332
	Mimetism 15.2	5,415	A powerful amplifier with great dynamics and high resolution that's rare even at this price		6	•			180	330
	MSB Platinum M200	13,656	This amplifier's devastatingly good all-round sound quality sets a benchmark that few will approach	/603452		•				322
•	Myryad MX12080	1,200	Sound is more assured at the top of the frequency range, though bass is melodious and detailed		8		•		80	327
•	NAD 375BEE	1,000	A good, solid amplifier that is fundamentally musical and gives a great bang for your buck	/625323	7	•		•	150	325
•	Naim Audio NAIT XS	1,250	Its spellbinding, refined musical performance is a challenge to all integrated amplifiers	/498536	6	•	•		60	317
	Rega Osiris	5,998	Very solid all-round performer has massive power reserves and splendid stereo imaging		6				162	329
•	Unison Res. Unico Primo	1,395	Line input can be converted to phono (at extra cost), plus an excellent mix of valve and solid-state virtues	/499279	5				85	317

Pre/power amplifiers

Separate boxes can bring clear advantages



Up t	to £2,000			Ar. COM	TOOLITO ITO TO CONT GO ALLO ALLO
Badge	Product	Price	Comments	7	
•	Cambridge Audio Azur 840E/840W	2,000	Enterprising technology delivers a pre/power combo that always sounds detailed and controlled		• • 8 opt • 200 309
•	NAD C165BEE/C245BEE	1,190	An alternative to the usual integrated route and one that offers flexibility and fine sound		• • 6 • 35 331

Above £2,000

•	Arcam C31/P38	2,450	Very civilised sound in the best possible way. Well featured and smartly built				7	opt		100	308
•	Border Patrol Control Unit	3,995	Bluff-looking valve preamp, with one of the most neutral yet dynamic sounds around				}	opt			277
•	Bryston BP16/ 2B SST2	5,700	Preamp and power amp combo offers superb sound quality	/608649	•		6	opt	•	100	323
•	Bryston BP26	3,670	Cracking preamp brings detailed results		0		8	opt	•		308
•	Chord Prima/Mezzo 140	7,135	Small, muscular, beautifully made and styled, and sounds like a dream		•	•	5		•	120	269
•	Classé CP-700/CA-M400	9,200	Pre plus mono power combo with superb build, huge power and enormous flexibility.		•	•	6	opt	•	400	293
•	Cyrus DACXP (preamp/DAC)	2,275	A DAC/pre with naturalness and resolution to die for and six digital inputs for signals up to 96kHz	-	•		2		•		266
•	Digital Do Main Ba-1	6,495	By recreating the V-FET, DDM has built one of the most thrilling ampifiers on the market			•	4			300	327
•	Hovland HP-100/RADIA	18,900	Uncommonly musical valve/transistor hybrid transcends stereotypes, one of the genuine high achievers	!			9	opt		125	250
•	Naim NAC 152 XS/NAP 155 XS	1,920	Preamp and power amp duo offers excellent performance and classic Naim virtues	<u> </u>	•	•	6	•		60	324
•	Roksan Caspian M Series-1	2,800	A powerful and enjoyable-sounding amplifier combo that brings out the strengths of its CD player	:	•	•	5		•	85	307
•	Trilogy 909/990	10,390	Extremely musical valve-based pairing with hybrid power and beautiful finish	/625226	•	•	6		•	100	325

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 on-board phono stage for a cartridge. Either MM (moving magnet) or MC (moving coil), occasionally both. REMOTE CONTROL A remote control is supplied with the amplifier. HEADPHONE SOCKET To drive your cans with. POWER OUTPUT Manufacturer's rated output in watts per channel.



SATURDAY 24 JULY 2010

MAIN STAGE

SUNDAY 25 JULY 2010



FOREIGNER **GARY MOORE**





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Society

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HAMMER STAGE



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PROG STAGE

TRANSATLANTIC



DWEEZIL ZAPPA **FOCUS**

PENDRAGON • TOUCHSTONE

marillion ARGENT

URIAH HEEP (PERFORMING DEMONS & WIZARDS)

MAGNUM • STEVE HACKETT

MARTIN TURNER'S WISHBONE ASH (PERFORMING ARGUS)

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BADGES KEY: PRECOMMENDED = ■ PRECOMMENDED = ■ EDITOR'S CHOICE = ■ GROUP TEST WINNER = ■ SEST BUY = ■







Cables really	can make a	difference,	especially	our top	recommendations

_	ogue interconnects Product	Price	Comments	COM	JOHO.	CON SO	gar of	her Do	"Oder
•	Audioquest Sidewinder	45	A detailed cable, with fine tonality and excellent rhythm – slight upper-bass warmth does little to det	ract			•		297
•	BlackRhodiumPrelude	90	Practical and sensibly priced all-rounder that seems happily compatible with a wide range of kit		•		•		29
•	Black Rhodium Coda	150	Superb bass with neutral and detailed midrange, treble sweet with occasional slight constriction		•		•		298
•	Black Rhodium Polar Illusion	250	A good all-rounder, with clear and purposeful bass and particularly fine treble		•		•		32:
•	Cambridge Azur Reference	50	Performance wouldn't shame a cable at twice the price: especially adept in the treble		•		•		29
	Chord Co. Indigo Plus	995	Costly, and high-class cable needs running in, but this is a finely detailed design overall	/608313	•				323
•	Clearer Audio Silver-line	283	Complex, well-screened cable which offers good sound all round with exceptional bass		•		•		279
•	CrystalCable Piccolo	348	Thin, tougher than it looks, has some qualities of a solid-core type – resolution, focus and articulation			•		•	294
•	Kimber Timbre	145	A very neutral cable that will complement even very upmarket systems			•		•	312
•	Monster M350i	45	Few cables at this price reveal so much about the recording space.		•		•		28
•	Monster M1000i	230	Very capable, with only a hint of bass dryness to set against excellent results elsewhere		•		•		284
•	Nordost Wyrewizard Dream	110	Slight lack of precision in extreme treble, otherwise detailed and neutral with authoritative bass			•	•		303
•	Oehlbach NF214	63	The bass is a matter of taste, but suits many smaller speakers with good mid and treble		•		•		283
•	QED Signature Audio S	190	Mellifluous and rounded, this cable is a great choice for lovers of the human voice			•		•	332
•	Supra EFF-IX	77	Lively sounding which maintains a high level of detail and neutrality, musically, a great all-rounder		•		•		300
•	Townshend Isolda DCT100	99	Particularly enjoyable cohesion and naturalness that makes for great listener involvement	1		•	•		312
•	van den Hul The Wave	125	Neutral, with a hint of upper-bass richness: images seem to reside slightly further away than most				•		312

•	Kimber DV-30	98	A superb performer that lacks very little, even when compared to Kimber's high-end models		•	E	317
•	Merlin Scorpion Digital	130	Reduces distortion, making sound clear with unusually revealing low frequencies		1	E	317
•	Supra AnCo	30	This cable can give a useful fillip to a good transport/DAC combination, even in a high-end context		•	E	304

•	Atlas Hyper 1.5	12.5	Don't look to this cable to beef up the bass, but at higher frequencies is revelatory at the price		•		•		299
•	Atlas Ascent 2.0	60	A highly analytical cable and very fine detail across the board		•		•		294
•	Chord Co. Silver Screen	6	Screened speaker cable with excellent treble, but just a little light in the bass at times		•				310
•	CrystalCable Piccolo	1,395	A chip off the old block, has a similarly fast, fluid and subtle sound (price -3 metre pair)			•		•	302
•	Kimber 4VS	155	In the right system, this cable is a good choice (price reflects 2.5 metre terminated pair)		•		•		329
•	Monster MCX-1s	5	Notable for its bass, perhaps a touch overdone at times but could be a good foil to small speakers		•		•		280
•	Nordost Heimdall	185	$Alternative \ to \ Valhalla, silver-plated, micro-monofilament construction, suitable for exacting \ systems$		•		•		278
•	QED X-Tube XT300	12.5	A natural and controlled-sounding cable that's cost-effective for mid-priced systems			•	•		310
•	QED Revelation	15	Sensibly priced, this cable offers a performance which is a step-up from budget types		•		•		318
•	Townshend Isolda DCT	50	Cryogenically treated 'impedance-matched' cable with stabilising components added			•	•		241
•	van den Hul The Wind	50	Separate conductors provide room for experimentation, conductor quantity keeps resistance low			•	•		318
•	Wireworld Solstice 52	25	Rather bulky and awkward, but performance amply justifies it with superb bass solidity		•		•		310
•	Wireworld Oasis 6	40	Excellent bass with tunefulness and extension all first-rate. Awkward to handle, though	/617560					324

SPECS KEY STRANDED Cable has a number of (usually) twisted strands to conduct the signal. 50LID CORE Cable has one or more individually insulated strands to conduct the signal. ER 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.



QED Revelation £15 (per metre)

Giving a consistent result with a wide range of amplifiers and speakers, the Revelation speaker cable boasts a good performance in all areas.



Kimber DV-30 £59 (0.5 metre)

A superb performer that lacks very little, even compared to Kimber's high-end models. Tonality, detail and imaging are really very fine.



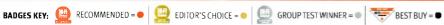
Black Rhodium Polar Illusion £250

This super-cooled, unshielded interconnect with solid, silver-plated copper insulation, delivers a treble performance that's admirably clear and crisp.

Hi-Fi Choice Buyer's guide

Up to £1,000









Stereo speakers The most influential link in the chain



Badge Prod	duct	Price	Comments	NA.	3)	67	8	9	6	"//	
Aco	oustic Energy Aegis Neo 3	363	Pretty, neutral floorstander sounds open with wide dynamic range and good bass weight		20,90.5,24	•	A	24	•		294
Aco	oustic Energy Radiance 1	600	Limited bass, power handling and dynamics, but exceptional mid-to-treble voicing		18.5,32,25		A	33	•		325
● Am	ıphion Ion L	900	Sharp styling, fine mid/treble coherence a sweet treble, but less happy bass alignment		16.2,32.6,26.5		A	40	•		310
● ATC	C SCM11	867	A very fine little speaker t-at its best with natural recordings where it adds little		21,38,25		A-	55	•		293
● Aud	dioPro Avanti A.10	350	A tough and effective little speaker – overall balance is quite smooth and even		19,29,26		A+	38	•		319
Boy	wers and Wilkins CM1	488	Luxury miniature has laid-back sound, low coloration and fine imaging, but weak dynamics		16.5,28,28		A-	40			279
Boy	wers and Wilkins 684	699	A fine all-rounder at a realistic price, has a smooth, even and nicely open balance	/483503	20,91,30	•		22	•		315
● Bov	wers and Wilkins 683	879	High-class drivers and a great price makes for a warmly recommended speaker		20,99,34	•		20	•		304
• DAL	Li ikon 6	999	Needs care with setup, impressively transparent and obsessively detailed sound		19,100,33	8	A	37	•		271
• Dyr	naudio DM 2/10	880	Has fine dynamics, grip, bass and headroom and is well mannered		27.5,45,35		A	22	•		299
• Foc	al Chorus 706V	389	Advanced drivers deliver an even, healthy dynamic expression and tension		22,39,25		A	27	•		319
• Foc	al Chorus 726V	950	Compact and realistically priced, the Chorus 726V is a good all-round performer		22,99,37.5	•	A	25	•		325
• JBL	. Studio L880	700	Good value floorstander with neutrality, massive headroom and plenty of punch		22,99,37	•	A	25	•		275
• KEF	FiQ50	599	Looks cute and very discreet, with spacious imaging, good balance and a sweet treble	/483527	17.5,81.5,26	•	A	23	•		315
• Moi	nitor Audio BR2	230	Good-looking standmount has a muscular sound with superior coherence		18.5,35,25		A-	30		•	294
• Mo	nitor Audio BR5	450	Not the best dressed in its class, but detailed, bold-sounding and good value		17,85,25	•	A-	36	•		293
• Moi	nitor Audio Silver RS8	850	Bold, dynamic sound, it's an easy load that works well in larger rooms		90,18,27	•	A	33	•	•	276
• Moi	nitor Audio GS10	900	More neutral tonally than some recent MAs, the GS10 is is easy to drive		20,36,27		Α-	40	•		284
• PM	ICDB1i	895	Could be more neutral, but a very effective musical communicator, fine warmth and treble		15.5,29,23.4		A÷	30	•	•	310
Pro.	Ac Tablette Ref Eight	704	Stunning standmount with electrostatic-like imagery. Its brother is even better!		15,27,23		A+	40			267
• QA	Acoustics 1010	110	Neatly styled miniature has limited bass and power handling, fine midband voicing		15,21.5,19.5		A	48		•	286
• QA	Acoustics 1020i	140	Outstanding value, t smooth well-balanced and lively sound makes a fine communicator	/516273	17.5,25,26.5		A+	60	•	•	318
Reg	ga RS1	390	Clever close-to-wall speaker has a fine coherence and good communication skills		15,32,23.6		A	23		6	319
Rus	ss Andrews SP-1	352	This tweaked Focal 705V RA has a sound that is immediate, engaging and, and great fun		19.2,31.5,24.8		A+	65		8	309
Spe	endor \$3/5R	750	Lacks dynamic muscle and loudness potential, smooth neutrality and g bass extension		16.5,30.5,190			25	•	•	310
• Tan	inoy Revolution DC4T	599	Ultra-compact, lacks bass weight and dynamic tension, but sounds open and coherent	488857	15,85,16	•		40		•	316
• Tan	inoy Revolution DC6	900	Pretty compact standmount, delivering a lively bass and smooth, coherent midband		23,36.5,23		A	40		•	307
• Wha	arfedale Diamond 9.1	150	Superior shape and finish. Sound is laid back, but free from boxiness		19.5,30,28		A-	45	•	-	307
• Wha	arfedale Diamond 10.5	480	Despite the price, the 10.5 ticks many of the boxes, with superior voice band coherence	/636778	22,88,30	•	A-	50	•		326

Above £1,000

Adam Audio Tensor Delta	8,400	This active loudspeaker brings a powerful range of capabilities to its performance		33,56,34		A	50	•	329
AE Energy Radiance 3	1,500	This speaker's effective enclosure ensures a wide dynamic range and a very clean sound	/587236	23,92,29.7	•	A	27	•	320
Amphion Argon2 Anniversary	1,200	Notably superior coherence, focus, fine neutrality and dynamic range with low coloration		19,38,31		A	24	•	317
Amphion Helium 520	1,000	Sharp styling and fine value for money with excellent voice-band coherence		16,104,22	•		28	•	314
Amphion Argon 3L	2,300	Solid build ensures an impressively clean sound with loads of bass and fine neutrality		19,92.5,30.5	•		26	•	322
Aspara HL6	4,300	Acoustic material sounds great and there are many strengths in design and performance		18.5,93,34.5	•	A		•	332
ATC SCM16A	2,376	Makes a great case for the active speaker. Includes built-in amps and is good value		27,45,33		ACT	42	•	300
Audioplan Kontrapunkt IVB	2,898	Boasts exceptional stereo imaging and mid-through-treble coherence		16,35,26	•	A	45	•	329
Audiovector S3 Super	2,600	Useful ability to upgrade, offers good musical communication and stereo imaging		19,103,31	•	A	50		328
Aurousal VS	1,650	Fine coherence and imaging of a single driver system, extra help at the frequency extremes	/479149	21.5,107.5,26.8	•		20	•	314
AVI ADM9	1,125	Active mini-monitors that are exceptionally accurate and dynamic sounding		20,30,26		ACT	60	•	301
Bowers and Wilkins CM9	1,760	Tall, elegant, expressive midband and expansive, but well-controlled bass	/597244	20,102.5,32	•	A	60	=	321
Cabasse MC40 Java	1,360	This large and handsome speaker has a notably smooth and even handed neutrality		25,110,35	•	Α	20	•	325
Cabasse Bora	2,200	A real enthusiast's choice with high sensitivity, strong bass and powerful dynamics	/618354	33,27,50		A	52	•	324
Dynaudio Focus 220	2,630	${\it Cleverlytaperedfloorstanderhasabrilliantlysmooth, neutralbalanceandverysweettreble}$		20.5,98,29.5	•	A-	20	•	281
Focal Chorus 816 V	1,099	Fine, warm balance, superior dynamics and a sweet top end, but could be smoother		28,100,37.5	•	A+	20	•	288
Focal Chorus 826 V	1,349	Times nicely, goes loud with ease and will produce precise imaging if appropriately set up		28,104,37.5	•	A	45	•	287
Focal Chorus 816WSE	1,499	The W cone makes some qualities associated with Focal's high-end models more competitive		99.8,28.2,37.5	•	A+	39	•	308
Focal Chorus 826W LE	1,879	Focal has turbo charged the 826 resulting in lots of energy, excitement and fine detail		28.2,103.8,37.5	•	A		•	330
Focal Electra 1027 Be	4,399	Outstanding mid and top with fine delicacy, low coloration, but lacks some bass grip and drive		26.5,111,35	•	A-	25	•	276
Free FS1	3,500	An elegant design with the minimum of wiring. Wireless with Sonos or Airport Express		16,87,27	•	ACT	35	•	301
Gamut Phi5	3,040	Lovely discreet floorstander has excellent sound and several very clever engineering touches		17,100,24	•		20	•	305
	AE Energy Radiance 3 Amphion Argon 2 Anniversary Amphion Helium 520 Amphion Argon 3L Aspara HL6 ATC SCM16A Audioplan Kontrapunkt IVB Audiovector S3 Super Aurousal VS AVI ADM9 Bowers and Wilkins CM9 Cabasse MC40 Java Cabasse Bora Dynaudio Focus 220 Focal Chorus 816 V Focal Chorus 826 V Focal Chorus 826W LE Focal Electra 1027 Be Free FS1	AE Energy Radiance 3 1,500 Amphion Argon 2 Anniversary 1,200 Amphion Helium 520 1,000 Amphion Argon 3L 2,300 Aspara HL6 4,300 ATC SCM16A 2,376 Audioplan Kontrapunkt IVB 2,898 Audiovector 53 Super 2,600 Aurousal VS 1,650 AVI ADM9 1,125 Bowers and Wilkins CM9 1,760 Cabasse MC40 Java 1,360 Cabasse Bora 2,200 Dynaudio Focus 220 2,630 Focal Chorus 816 V 1,099 Focal Chorus 826 V 1,349 Focal Chorus 826W LE 1,879 Focal Electra 1027 Be 4,399 Free FS1 3,500	AE Energy Radiance 3 1,500 This speaker's effective enclosure ensures a wide dynamic range and a very clean sound Amphion Argon2 Anniversary 1,200 Notably superior coherence, focus, fine neutrality and dynamic range with low coloration Amphion Helium 520 1,000 Sharp styling and fine value for money with excellent voice-band coherence Amphion Argon 3L 2,300 Solid build ensures an impressively clean sound with loads of bass and fine neutrality Aspara HL6 4,300 Acoustic material sounds great and there are many strengths in design and performance ATC SCM16A 2,376 Makes a great case for the active speaker. Includes built-in amps and is good value Audioplan Kontrapunkt IVB 2,898 Boasts exceptional stereo imaging and mid-through-treble coherence Audiovector \$3 Super 2,600 Useful ability to upgrade, offers good musical communication and stereo imaging Aurousal VS 1,650 Fine coherence and imaging of a single driver system, extra help at the frequency extremes AVI ADM9 1,125 Active mini-monitors that are exceptionally accurate and dynamic sounding Bowers and Wilkins CM9 1,760 Tall, elegant, expressive midband and expansive, but well-controlled bass Cabasse MC40 Java 1,360 This large and handsome speaker has a notably smooth and evenhanded neutrality Cabasse Bora 2,200 A real enthusiast's choice with high sensitivity, strong bass and powerful dynamics Dynaudio Focus 220 2,630 Cleverly tapered floorstander has a brilliantly smooth, neutral balance and very sweet treble Focal Chorus 816 V 1,099 Fine, warm balance, superior dynamics and a sweet top end, but could be smoother Focal Chorus 826 V 1,349 Times nicely, goes loud with ease and will produce precise imaging if appropriately set up Focal Chorus 826 W 1,349 Times nicely, goes loud with ease and will produce precise imaging if appropriately set up Focal Chorus 826 W 1,499 The W cone makes some qualities associated with Focal's high-end models more competitive Focal Chorus 826 W LE 1,879 Focal has turbo charged the 826 resulting in lots of energy, excitement and fine det	ARE Energy Radiance 3 1,500 This speaker's effective enclosure ensures a wide dynamic range and a very clean sound Amphion Argon 2 Anniversary 1,200 Notably superior coherence, focus, fine neutrality and dynamic range with low coloration 1,000 Sharp styling and fine value for money with excellent voice-band coherence 2,300 Solid build ensures an impressively clean sound with loads of bass and fine neutrality 2,300 Acoustic material sounds great and there are many strengths in design and performance 3,300 Acoustic material sounds great and there are many strengths in design and performance 3,300 Acoustic material sounds great and there are many strengths in design and performance 3,300 Acoustic material sounds great and there are many strengths in design and performance 3,300 Acoustic material sounds great and there are many strengths in design and performance 3,300 Acoustic material sounds great and there are many strengths in design and performance 3,300 Acoustic material sounds great and there are many strengths in design and performance 3,300 Acoustic material sounds great and there are many strengths in design and performance 3,300 Acoustic material sounds great and there are many strengths in design and performance 3,300 Acoustic material sounds great and there are many strengths in design and performance 3,300 Acoustic material sounds great and there are many strengths in design and performance 4,300 Acoustic material sounds great and there are many strengths in design and performance 4,300 Acoustic material sounds great and there are many strengths in design and performance 4,300 Acoustic material sounds great and strengths in design and performance 4,300 Acoustic material sounds great and strengths in design and performance 4,300 Acoustic material sounds great and single driver system, extra help at the frequency extremes 4,479149 The Active minimonitors that are exceptionally accurate and dynamic sounding 4,479149 The Active minimonitor shall are exceptionally accurate and dynamic sounding 4,479149	AE Energy Radiance 3 1,500 This speaker's effective enclosure ensures a wide dynamic range and a very clean sound /587236 23,92,29.7 Amphion Argon2 Anniversary 1,200 Notably superior coherence, focus, fine neutrality and dynamic range with low coloration 19,38,31 Amphion Helium 520 1,000 Sharp styling and fine value for money with excellent voice-band coherence 16,104,22 Amphion Argon 31 2,300 Solid build ensures an impressively clean sound with loads of bass and fine neutrality 19,925,30.5 Aspara HL6 4,300 Acoustic material sounds great and there are many strengths in design and performance 185,93,34.5 ATC SCM16A 2,376 Makes a great case for the active speaker. Includes built-in amps and is good value 27,45,33 Audioplan Kontrapunkt IVB 2,898 Boasts exceptional stereo imaging and mid-through-treble coherence 16,35,26 Audiovector 53 Super 2,600 Useful ability to upgrade, offers good musical communication and stereo imaging 19,103,31 Aurousal VS 1,650 Fine coherence and imaging of a single driver system, extra help at the frequency extremes /479149 21,5,1075,268 AVI ADM9 1,125 Active mini-monitors that are exceptionally accurate and dynamic sounding 20,30,26 Bowers and Wilkins CM9 1,760 Tall, elegant, expressive midband and expansive, but well-controlled bass /597244 20,102,5,32 Cabasse Bora 2,200 A real enthusiast's choice with high sensitivity, strong bass and powerful dynamics /618354 33,27,50 Dynaudio Focus 220 2,630 Cleverly tapered floorstander has a brilliantly smooth, neutral balance and very sweet treble 20,5,98,295 Focal Chorus 816 V 1,099 Fine, warm balance, superior dynamics and a sweet top end, but could be smoother 28,100,375 Focal Chorus 826 V 1,349 Times nicely, goes loud with ease and will produce precise imaging if appropriately set up 28,104,375 Focal Chorus 826 W LE 1,879 Focal has turbo charged the 826 resulting in lots of energy, excitement and fine detail 282,103,8375 Focal Chorus 826W LE 1,879 Focal has turbo charged the 826 resulting in lots of energy, excitement and fine	AE Energy Radiance 3 1,500 This speaker's effective enclosure ensures a wide dynamic range and a very clean sound /587236 23,92,927 Amphion Argon 2 Anniversary 1,200 Notably superior coherence, focus, fine neutrality and dynamic range with low coloration 19,38,31 Amphion Helium 520 1,000 Sharp styling and fine value for money with excellent voice-band coherence 16,104,22 Amphion Argon 3L 2,300 Solid build ensures an impressively clean sound with loads of bass and fine neutrality 19,925,305 Sapara HL6 4,300 Acoustic material sounds great and there are many strengths in design and performance 185,593,34,5 Makes a great case for the active speaker. Includes built-in amps and is good value 27,45,33 Audioplan Kontrapunkt IVB 2,898 Boasts exceptional stereo imaging and mid-through-treble coherence 16,35,26 Audiovector 53 Super 2,600 Useful ability to upgrade, offers good musical communication and stereo imaging 19,103,31 Aurousal VS 1,650 Fine coherence and imaging of a single driver system, extra help at the frequency extremes /479149 215,1075,268 AVI ADM9 1,125 Active mini-monitors that are exceptionally accurate and dynamic sounding 20,30,26 Bowers and Wilkins CM9 1,760 Tall, elegant, expressive midband and expansive, but well-controlled bass /597244 20,102.5,32 Cabasse MC40 Java 1,360 This large and handsome speaker has a notably smooth and evenhanded neutrality 25,110,35 Cabasse Bora 2,200 A real enthusiast's choice with high sensitivity, strong bass and powerful dynamics /618354 33,2750 Dynaudio Focus 220 2,630 Cleverly tapered floorstander has a brilliantly smooth, neutral balance and very sweet treble 20,598,295 Focal Chorus 816WS 1,499 Times nicely, goes loud with ease and will produce precise imaging if appropriately set up 28,100,375 Focal Chorus 826W LE 1,879 Focal has turbo charged the 826 resulting in lots of energy, excitement and fine detail 28,2,103,8,375 Focal Electra 1027 Be 4,399 Outstanding mid and top with fine delicacy, low coloration, but lacks some bass grip and drive 26,5,111,35 Focal Electr	AE Energy Radiance 3 1,500 This speaker's effective enclosure ensures a wide dynamic range and a very clean sound /587236 23,92,927	AE Energy Radiance 3 1,500 This speaker's effective enclosure ensures a wide dynamic range and a very clean sound (587236 23,92,927	AE Energy Radiance 3 1,500 This speaker's effective enclosure ensures a wide dynamic range and a very clean sound (587236 23,92,927

Stereo speakers (continued) Shapes and sizes for every budget



Badge	Product	Price	Comments	7			60		.60	4/	**
•	Green Mountain Audio Rio	2,000	Fabulously tight timing and coherence makes for a very expressive and musical performer		20.8,40.6,34.9	•	A	80		•	332
•	Guru QM10	1,595	A very clever close-to-wall standmount with fine imaging, that sounds a lot bigger than it looks	/465869	30,25.2,23.2		A	26			317
•	Jamo R 907	6,600	Arguably the more 'chummy' of Jamo's dipole flagships, powerful bass and open midrange	/498515	44,118.9,7	•	A	30			317
•	JBL Everest DD66000	44,000	Awesome performance in the true meaning of the word & exceptional musical communication	1 1 2 4 4	111,96.5,47		A	50			331
•	Kudos Cardea C2	1,950	This floorstander is a fine all-round performer with fine voicing and neutrality		20,92.5,27	•		23	•		322
•	Kudos Cardea C30	5,250	An absolute honey that fully justifies its hefty pricetag, lacking only a little dynamic tension	/394973	20,112,27			22	0		310
•	Magico V2	18,000	High pricing derives this speaker's superb painstaking engineering & impressive performance	/624700	25.5,115,30	9	A	32			325
•	Magneplan Magneplanar 1.6	2,500	Great with acoustic and classical material, this dipole panel speaker has superb sound quality		48,165,5		A	43			329
•	Mission 796	1,300	Clean, open and detailed, smooth, relaxed loudspeaker does exactly what it says on the box	/594834	20.6,99.8,31.8		A	25			321
•	Monopulse 42A	1,995	Oddball styling, fine bass-to-mid balance and dynamics and superb voice coherence		26,110,25		A	25			302
•	Monitor Audio PL200	4,750	A costly, but beautifully presented loudspeaker with outstanding voicing and character		25.5,100,28.5		A-				330
•	Mordaunt-Short Perf 6 LE	4,799	Striking moulded enclosure minimises coloration, overall balance is smooth, neutral and open		24,115,43		A	22			308
•	Neat Momentum 3i	1,790	Sounds bigger than it looks, with good coherence and an impressively wide dynamic range		22,38,27		A-	23			302
•	Opera Callas	3,195	Technically innovative multi-tweeter system, this is a grown up and articulate performer	/429144	23,37.5,34			32			311
•	Opera Seconda	1,995	Fine styling and finish, plus very superior voicing, if a shade lacking in warmth		24,102.5,31.5	•	A	20			314
•	Pioneer S-2EX-W	5,200	This speaker offers superb midband neutrality and exceptional clarity	/587272	29.1,56.5,42.5	•	A	37			320
•	PMC FB1i	2,100	A floorstander that boasts impressive bass extension and a smooth sweet top end	/429594	20,100,30		A	20			329
•	PMC OB1i	3,600	This floorstanderdelivers a smooth overall balance with wide bandwidth and dynamic range	/429697	20,102.5,32.5	0	A	20			311
•	PMC fact. 8	4,600	Beautiful styling, alongside a superb all-round sound with a notable wide dynamic range		15.5,105,38	0	A	55	0		327
	PMC IB2i	8,900	Delivers a top-class sound quality, fine imaging and exceptional dynamic grip	/617595	33,74,46.5	•	A	25	0		324
•	PSB Synchrony One	3,500	Slim and discreet floorstander that delivers superb sound quality and flexible bass	/516267	22,109,32.5	0	A	45			318
•	Revel F32	3,200	Meticulously balanced, tonally neutral design makes for a taut, well disciplined sound		22,105,39	0	A	20			256
•	Revolver Screen 3	2,799	Visually dramatic and very successful in delivering genuine high-quality hi-fi sound		50,140,11		A	35		-	329
•	Roksan Caspian FR-5	2,475	Sharp-looking speaker sounds exceptionally open and lively without aggression		20,100,25		A	22	•		290
	Sonus faber Luito Monitor	1,690	Subtly designed, elegant-sounding package, especially with good recordings	/603221	18.5,35,33.5		A-	55			322
•	Sonus faber Minima Vintage	2,490	Easy, graceful-sounding compact, a natural for acoustic material at moderate volume levels	/455417	20,33,27.5		A-	55	10		312
	Sonus faberCremona Audit.	3,350	Open, exciting and with surprisingly good bass, this is 'The Little Speaker That Could'		20,35,37		A	50	•	1	305
•	Spendor SP3/1R2	1,600	Conservative styling, superb neutrality and coherence with unusually low coloration		22,40,28		A	37	•		317
•	Tannoy Definition DC10T	5,000	Classy speaker has massive base, high sensitivity and precise image focus	/608326	34,112.5,32	•	A+	35	•	1	323
•	Totem Model 1 Signature	1,975	$\label{thm:expensive} \textbf{Expensive, but very seductive miniature delivers a beautifully smooth and balanced midband}$		17,31,23		A	35	•		277
•	Triangle Genese Quartet	2,775	Great material value and a solid all-round sonic performance with great loudness potential		23,117,37	•	A	25	•		302
•	Triangle Magellan Concerto	16,250	New 'sw2' version is less immediate than its predecessor, but it remains highly enertaining		60,160,45		A-	32	•		290
•	Usher Compass CP-6381	2,500	Lots of speaker for your money, with plenty of deep bass, unusual styling and massive build		35,127,65		A	20			270
•	Vivid Audio K1	14,495	With a subtle, fast and wide bandwidth, this speaker is one of the finest on the planet	/625361	28,130,45		A	35		i	325
	Wilson Benesch Curve	5,383	Much (but not all) of the ACT's performance in a much more compact and affordable package		23,91,37	•	A	28			254
0	Wharfedale Opus	1,500	Great material value and a solid, if bright and forward sound. Has great loudness potential		26,100.5,41	•	A	23	•	Ī	314
•	Yamaha Soavo 2	1,200	Cunningly crafted with a beautiful balance that always sounds lively, open and involving		22,38,35		A	28	4)		296
•	Zu Essence	3,750	Realism and communication skills are more than compensation for balance shortcomings		30.5,125,30.5		A	25	9		327

SPECS KEY SIZE W,H,D (CM) Width, height and depth of one cabinet in centimetres. PLOORSTANDER 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- 100 watts plus A-T 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).

HFC TOP PICKS



Amphion Ion L £900

A great-looking loudspeaker that also boasts a superb mid/treble coherence and and a super $sweet\ treble,\ some\ positioning\ care\ needed$



Opera Seconda £1,995

Classy, sealed-box, two-and-a-half-way Italian floorstander with a very fine fit and finish and a superior voice band for acoustic work



Audioplan Kontrapunkt IVB £2,898

It's small, it's expensive, but this German floorstander contains the finest ingredients and delivers a smooth sound with some of the best imaging around



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uipment supports / Speaker stands







Equipment supports



Badge	Product	Price	Comments				1	Do V	
	Atacama Equinox	409	Stable, modular design with style and excellent bass transients	81	50,50	4	4	Glass	217
•	Audiophile Base Std Supp't	1,200	Expensive and quite bulky, but sound is unusually detailed and resonance-free	57	46,35		3	MDF	302
•	Aurios Classic Bearing feet	230	A widely versatile set of three isolation feet for most hi-fi kit, except suspended turntables				1	Metal	302
•	Custom Design Inert Matt	70	Isolation platform can improve the sound of hi-fi components, but is a bit small for most kit		40x25		1	Metal	311
	Custom Design XL4	380	Simple construction pays off in smart looks. Sound contribution is minimal		60,42		4	Glass	293
	Custom Design Milan	509	Good-looking stand with nothing more to complain of than slight muddying of detail	57	48,39		4	Glass	302
•	Hi-Fi Racks Podium	500	A keenly priced piece of high-class furniture that also happens to sound great		59.5		1	Wood	320
•	Isonoe Isolation feet	98	A set of four isolation feet that are ideally suited to microphonic kit like turntables					Alloy	327
	Partington Minim	470	Adds its own character to rock, but to the detriment of acoustic sounds	78	45,37		5	Glass	302
•	Quadraspire QX25 Support	25	Beautifully simple design, cheap and easy to use. Excellent with CD players				4	Acrylic	327
•	RussAndrews Torlyte Platform	146	This unassuming platform can be a godsend, cleaning away mid/treble muddle from the sound	8	48,36		1 1	ortyte (302
	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 T	ortyte	240
٥	Townshend VSSS	1.380	This attractive Seismic Sink retains the same excellent vibration-killing sound quality	76	35,50		4	Glass	273

Speaker stands



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Badge	Product	Price	Comments					
	Anvil Sound Display Stand	229	A variety of smart looks available – sound is clear and precise	50	20,17		1	293
•	Custom Design RS300	110	An attractive stand whose lack of coloration suits it to high-resolution systems	56	16,5,18	٥	1	281
	Custom Design SQ404	220	Robust four-pillar design gives very low coloration and maximises performance	61	18,16.3		4	283
•	Partington Ansa 60	119	Elegant flat-packer 'disappears' sonically; restrained but neutral and coherent	62	18,15	•	4	232
•	Partington Dreadnought BS	299	Sound is better defined in almost all areas than cheaper, slimmer stands can offer	62	17,23	•	5	309
•	Partington Heavi II	499	Robust to the nth degree, this stand helps produce very precise bass and upper frequencies	53	31,22	•	6	287

SPECS KEY WEIGHT (CM) Height of equipment support and speaker stand (not including spikes) in centimetres. **TOP PLATE SIZE (CM)** Width by depth of the supporting platform(s). 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 SHELVES** To put your kit on (different configurations are often available). **NUMBER OF LEGS** That support the stand. **SHELF TYPE** Material

HFC TOP PICKS



Quadraspire QX25 Support £25 Fashioned from two identical pieces of acrylic sheet that slide together, these feet create a very impressive degree of isolation



Partington Dreadnought BS £300 Probably the best speaker stand you can buy for the money - heavily engineered and backed up with sound theory, the Dreadnought is real class



Townshend VSSS £1,380

Although not cheap, Max Townshend's skillfully engineered rack nears the ideal in terms of isolation and spending more doesn't really bring big gains

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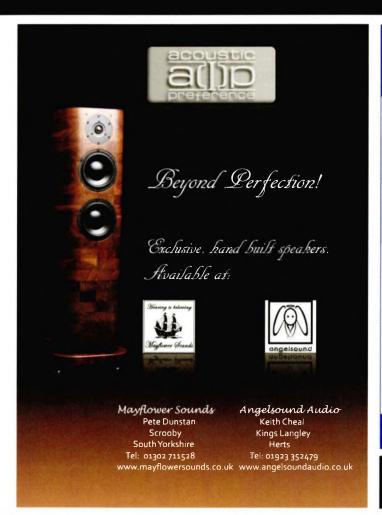
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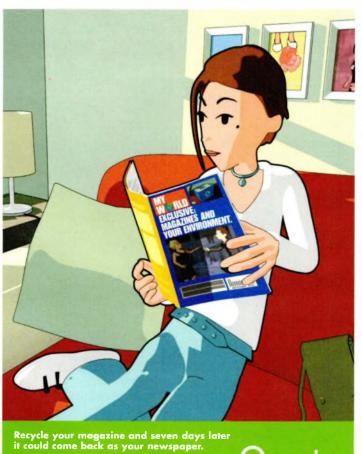
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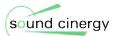
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Perfect playback

In part two of his journey, *Malcolm Steward* begins building a digital music library without sonic compromise

n this, the second column documenting my transformation from traditionalist audiophile to tech-embracing, server-adopting music lover, I want to address one main difference between it and its packaged counterparts: storage, which is not always the straightforward consideration it might seem at first. Dealing with LPs and CDs is simple provided you have sufficient shelf space to accommodate them. The music is stored on the plastic discs and all the information about it that you might require is stored on the LP sleeve or in the CD insert, with some printed on the disc itself.

All you need do to maintain your library/collection is to make sure that after playing a disc you return it to the correct piece of packaging and then place that back in the appropriate slot on the shelf. This assumes, of course, that you arrange your music in some logical order: grouped by artist, by genre, or alphabetically, perhaps.

Unpackaged media, of course, also needs storage space. However, several hundred CD's worth of uncompressed music can conveniently squeeze their way onto a computer hard drive, which is smaller than a paperback novel. In truth, though, you will need a copy of any hard disks you use to store your music: it is safe to assume that at least once in your life you will experience data loss through a hard disk failure, or 'crash' as geeks refer to such occasions.

Digital library

For sound quality on a par with, or better than the original compact disc version, the best storage format is lossless LPCM (Linear Pulse Code Modulation). For Windows PC users – the vast majority of people on Planet Earth – that means WAV (which is short for Waveform Audio) files. For Mac users, the equivalent is AIFF. And therein lies a major problem when it comes to building a library.

Unfortunately, the WAV 'container' does not officially support tags, the metadata that contains all the information about the track that a computer library needs to organise music in any logical, meaningful fashion. Imagine how difficult it would be to navigate your CD collection, if you were to throw away all your CD cases and inserts and just keep the CDs in a black rubbish bin-liner... after scraping off any information printed on the discs, of course.

There exists software that claims to tag WAVs but, in my experience, it has proven to be unreliable and inconsistent at best. I discovered this half-way through the process of manually tagging over 8,000 files. The NaimUniti that provides the music in my office would not recognise the newly tagged files consistently. Working in silence is not something I am prepared to tolerate, so I began searching for a solution.

FLAC (Free Lossless Audio Codec), the format that can dramatically reduce the size of a WAV file without discarding any of its musical content came to my rescue. Archivists and record labels commonly use FLAC because, primarily, it enables them easily to recreate the original audio data. This can be done on the fly if required, although, because the conversion process can reduce sound quality, it is often better to convert the FLAC back to WAV and then play the converted WAV file. The great organisational advantage for anyone building a high-performance digital library, which is a process that I have been engaged in over the past couple of months, is that FLAC supports tags. Using DBPowerAmp - a popular choice of ripping software- to rip a CD to FLAC you are automatically presented with not only well ripped audio, but also a complete set of tags and cover art.

The result is that I am finally on my way to having a truly high-quality, external, digital library that offers the convenience of iTunes and a huge amount more. The needle on my happy-meter just flickered. Hallelujah!

I am finally on my way to a truly high-quality digital library offering the convenience of iTunes. The needle on my happy-meter just flickered.



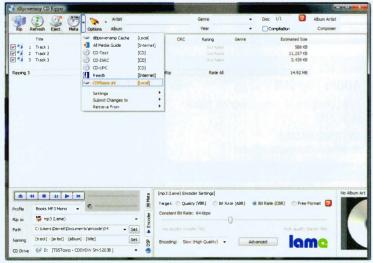
MALCOLM STEWA

is the former editor of *Hi-Fi Review* and one of the most outspoken reviewers around. He writes exclusively for *Hi-Fi Choice*

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