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SEPTEMBER 2011 UK £4.10

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valve preamplifier



**CAMBRIDGE AUDIO 751BD** *EXCLUSIVE!*  
Blu ray player



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SEPTEMBER 2011



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# welcome

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Paul Rigby, Adam Smith, Rafael Todes.



Can a product be both great *and* seriously flawed? This is a question we've been asking ourselves a lot recently, with a number of really interesting, off-the-wall designs coming through our doors, which sound superb – in a way – and yet have quite obvious downsides too...

There's little doubt in my mind that we're seeing more of this sort of product, not less, of late. Think back to the early nineties, and you had a wash of Sonys, Pioneers,

JVCs, Denons, Audiolabs and Arcams which were just plain good, or sometimes very good, and that was it. With very little in the way of fatal foibles, you could say they had 'no distinguishing marks'. These days we still get such products launched – Aurum's thoroughly likeable A5 amplifier [reviewed on p46] is one such example – but we also get far more designs like Ming Da's MC300 preamp [p12] which are close to being bonkers, sound magnificent and yet are 'holed below the waterline' for some engineering reason or other.

JoSound's £4,000 JO45/1 loudspeaker [p18] is a perfect case in point. Exquisitely built with excellent quality components and sublime cabinetry, it is a highly lucid music maker – yet fails to match most £300 standmounters in some important respects. How do you assess such a thing? Products like this certainly don't make it easy on poor magazine editors!

But for every quirky and faintly mad Scandyna MiniPod [p70], we've got a sensible shoes Cambridge Audio 751BD [p22] for you – so it's not like the supply of thoroughly well engineered, capable-across-the-board designs is drying up. The hi-fi world is changing though, as our hobby becomes more rarefied and specialised, and less informed by what's going to shift bucket-loads one Saturday afternoon on a High Street near you...

The good thing is that it's creating a space for interesting and innovative new products – such as Audio Research's PH6 tube/transistor hybrid phono stage [p104] for example – where there frankly wasn't one ten or even five years ago. There's an old Chinese proverb that says it's better to be a dog in peaceful times than a man in chaotic ones, but I kind of like it this way. Hi-fi is getting less prosaic and predictable, not more – who'd have thought it?

**David Price, editor**



## testing (see [www.hi-fiworld.co.uk](http://www.hi-fiworld.co.uk) for full explanations of all our tests)

To ensure the utmost accuracy in our product reviews, *Hi-Fi World* has extremely comprehensive in-house test facilities, and our test equipment - from big names like Rohde & Schwarz and Hewlett Packard - is amongst the most advanced in the world.

Loudspeakers are measured using a calibrated Bruel & Kjaer microphone feeding a Clio-based computer

analyser, using pulsed and gated sinewaves, in a large room to eliminate the room's influence. Pickup arm vibration is measured with a Bruel & Kjaer accelerometer.

No other UK hi-fi magazine has in-house testing, and none has access to such advanced tests across all types of equipment. That's why you can depend on *Hi-Fi World* reviews.

## hi-fi world

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## verdicts

- ● ● ● ● OUTSTANDING
- ● ● ● EXCELLENT
- ● ● GOOD
- ● ● ● ● MEDIOCRE
- ● ● POOR
- £ VALUE

- simply the best
- extremely capable
- worth auditioning
- unremarkable
- seriously flawed
- keenly priced



## ELECTRONIC MAGAZINE

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*"The whole auditioning process took about 30 seconds. Play a piece of music on GII Mini Sub. Play it again on Aquarius and wonder why you were so attached to the GII Mini Sub." "Very highly recommended"*

HI-FI PLUS. ISSUE 68,



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ORION



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SIGMAS



TITAN



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# news

## PM DAWN

Bowers & Wilkins new PMI is described by the maker as "probably the most refined small speaker yet created", no less! It features several technological innovations including a new tweeter design and a cabinet unlike anything previously constructed by Bowers & Wilkins, the company says. The PMI sports the new Carbon Braced Tweeter that raises the break up of its aluminium dome to 40kHz, according to B&W. The tweeter mechanism is mounted on top of the PMI in the same way as the 800 Series Diamond and uses a Nautilus tapering tube, but its aluminium dome is strategically stiffened with a ring of filament-wound ultra-high modulus pitch-based carbon fibre. A new surround material is used, and sitting below is a B&W Kevlar cone bass/midrange driver featuring a new Anti-Resonance Plug: a mushroom-shaped device that is a tight fit inside the voice coil former, helping to damp the motion of the former. This reduces cone break-up, the company says. The new PMI uses the Bowers & Wilkins Matrix cabinet bracing system for improved rigidity, along with a special front baffle and top panel. The shape echoes the profile of the 'head' unit used on the 800 Diamond and 802 Diamond, and improves image localisation. A layer of mineral-filled resin is poured in liquid form to the back of the outer thermoset profile, where it sets to create a dual-layer composite that combines high mass with damping for an inert construction, it is claimed. The crossover features Oxygen Free Copper terminals and Mundorf M-Cap Supreme capacitors. Price is £2,000 per pair, with matching stands on sale for £400. For more details, click on [www.bowers-wilkins.com](http://www.bowers-wilkins.com).



## ON THE GO

The Edifier Sound on the Go is an all-in-one micro speaker system, said to be perfect for laptop and netbook users. It's housed in a brushed aluminium tube, housing two 30x70mm full range magnetically shielded speakers and a bass port. It simply plugs in via USB to your computer system or laptop, to play out your music via its internal DAC. There's a slide mounted soft-touch on/off and volume control, and an aux input which enables connection of other sources. A soft carry case is included in its £49.99 price, available from online retailers near you.



## MEDIA STUDIES

NAD's joined the network music playing fray with its brand new £695 C 446 digital media tuner; it streams music from computers, Android phones, Apple iOS devices, or network hard drives, while providing high quality Internet radio, FM/AM, and DAB/DAB+, the company says. It supports all the popular digital formats - MP3, FLAC, WMA, WAV, and AAC. The C 446 is able to stream music collections from all networked devices using Universal Plug and Play (UPnP) and Digital Living Network Alliance (DLNA) standards. The UPnP Digital Audio Renderer (DAR) technology allows the user to browse, create playlists, and change songs from anywhere in the home using a range of network devices. The C 446 is said to "outperform broadcast quality radio and improves the sound quality of DAB/DAB+ digital broadcasts", and also allows the user to decode analogue FM/AM as S/PDIF digital output, and likewise, listen to digital formats in a quality analogue output. The C 446's additional features include USB playback, Wi-Fi, a user-friendly Internet radio portal, support for cloud music services and an RS-232 serial interface port, which allows for easy integration with advanced home automation systems. In addition, you can control and charge your iPod or iPhone by adding the optional, IPD 2 Dock, for iPod. For details, click on [www.nadelectronics.com](http://www.nadelectronics.com).





## THE FORCE BE WITH YOU

PMC has expanded its range of special edition Signature Series speakers with the launch of the £4,840 OBli Signature. Peter Thomas, founder and chief designer of PMC, has reworked the crossover to provide finer detail and transparency to the mid vocal range from the 75mm soft-dome driver. Combined with the high frequency output from the PMC/SEAS developed 27mm tweeter and 170mm bass driver, the OBli Signature "provides a reproduction quality unprecedented in a speaker of this size and price", the company says. As with all PMC's loudspeakers, the bass drive unit works in an Advanced Transmission Line (ATLTM), providing a low frequency output that is very clean, fast and exceptionally extended, right down to 28Hz, it is claimed. Each component in the 24dB/octave, 31-element crossover is carefully selected, measured and recorded to ensure conformity to the original design. Supplied with a personally signed certificate of authenticity from Peter Thomas, the OBli Signature comes with a brushed aluminium serial number plate. The handcrafted in Britain cabinets are finished in a distinct Rose Palissandre veneer, only available with the Signature Series products. The OBli Signature comes with a twenty year warranty, standard across all the company's passive loudspeakers. For details, click on [www.pmc-speakers.com](http://www.pmc-speakers.com).



## GOING SOLO

Onkyo's new £279.99 Colibrino CD/DAB+/iPhone-compatible mini system is designed to bring style and musicality to the most confined of spaces, the company says. It comes in a choice of black or white finishes. The little system supports playback of audio from iPod/iPhone, CD, and USB sources; there's a dock for iPods/iPhones built into the top of the unit and provides a direct digital connection that enables users to access podcasts and music in a variety of audio formats. The system also boasts a DAB+ tuner. Included in the package are a pair of two-way, bass-reflex speakers, equipped with 10cm diameter woofers. For more details, click on [www.onkyo.co.uk](http://www.onkyo.co.uk).

## TV STAR

Loewe has integrated Napster, the digital music service, into its TV-based web portal, Loewe MediaNet, making Loewe the first television manufacturer to offer Napster through its screens in the UK. All their internet-enabled TVs will now have access to everything that Napster has to offer, directly via the TV remote control. Napster currently provides on-demand access to over 15 million songs from 1.4 million albums and 1.1 million artists of every genre. Users also have access to numerous personalised listening options, including pre-programmed radio channels and handpicked playlists from the Napster music editorial team. To mark the launch of this cooperation, owners of compatible TVs who register with Napster can try NapsterUnlimited for fourteen days, free of charge. For details click on [www.loewe-uk.com](http://www.loewe-uk.com).



## NOW CLEAR THIS!

Russ Andrews Accessories has expanded the Clarity range of system enhancers, to bring audible improvements to the performance of hi-fi and home cinema systems, the company says. The Clarity-4, Clarity-8 and Clarity-16 filters are parallel devices that plug into the mains supply with a Russ Andrews PowerMax Plus mains cable. The Clarity-4 uses four Coherence Technology modules; the Clarity-8 uses eight and the Clarity-16 has 16. The Coherence Technology modules have been developed by a US-based company to neutralise noise inherent in electrical circuits. The Technology works by reducing the time and amplitude generated noise in the ground plane resulting in improvements in the performance qualities of the audio signals. The company states that this represents a fourth way of improving an electronic circuit after better design, better materials and improving the ambient conditions in which the circuit operates. The three units are compact at just 80x58x160mm (the Clarity-4 and Clarity-8) and 158x74x200mm (the Clarity-16). Prices are £450, £799 and £1,499 for the Clarity-4, 8 and 16 respectively. For details, click on [www.russandrews.com](http://www.russandrews.com) or call 0845 345 1550.







## CRITICAL RECEPTION

Marantz has two new AV receivers, the SR6006 and SR5006, which the company says "inherit the best genes of their precursor, and share its highly acclaimed Marantz product design". Fully equipped for the 'connected home', both AV receivers feature an onboard Ethernet port allowing for audio streaming from home networks as well as subscription-based web-services, and giving access to over 14,000 Internet radio stations worldwide. The newcomers even have AirPlay functionality built-in, letting users unleash their iTunes or iPhone/iPod touch/iPad music libraries to the AV receivers. Thanks to the network connection the AV receivers can easily be controlled, via Apple iDevices, through the free Marantz Wizz App. The new SR6006 sports 7x 110W RMS; its digital audio signal (up to Dolby TrueHD and DTS-HD) is fed via one of the seven 3D supporting HDMI 1.4 inputs. For added compatibility the SR6006 includes an iPod digital compatible USB input. The SR6006 also incorporates Marantz's Dynamic Expander version two, which optimises the quality of MP3 files from either CD or the optional Bluetooth receiver RX101. Its smaller SR5006 brother provides 7x 100W RMS, has decoders for standard as well as Dolby TrueHD and DTS HD Master Audio, and comes with six HDMI 1.4 inputs. For details see [www.marantz.co.uk](http://www.marantz.co.uk).



## ON THE WIRE

Audiofreaks is pleased to announce the arrival of the latest £289.99 Music Streamer II+ from High Resolution Technologies [pictured]. This asynchronous USB powered DAC is said to be improved in a number of significant ways, with a new shape and six LEDs displaying the data rate and mute. Noise floor, distortion and signal to noise ratio have all been reduced, it is claimed. There is a much lower EMC signature and much lower power requirement when in suspend mode. The internal clocks have also been improved and most notable is the ability for the online firmware updates over the USB interface, as and when further enhancements are made.

Also new are the latest additions to the Cardas Audio range of Clear cables, the Clear M Power Cord and Clear Jumpers. The Clear M Power Cord is the first power cable from the Cardas Clear line and is ideal for front-end equipment, preamplifiers and medium sized power amplifiers. The cable is relatively flexible for its size and is available now at £495 with a high quality Furutech mains plug and IEC. The Cardas Clear Jumpers use the same conductor as Clear Speaker Cables and are terminated in the same way, featuring forged connectors, for £269. For details, call Audiofreaks on +44 (0)20 8948 4153, email [info1@audiofreaks.co.uk](mailto:info1@audiofreaks.co.uk) or click on [www.audiofreaks.co.uk](http://www.audiofreaks.co.uk).

## ORDERLY CONDUCT

Linn Records has announced that one of its leading artists, Claire Martin, has been appointed an Officer of the Order of the British Empire in the Queen's Birthday 2011 Honours List, for her services to music. Winner of the 2010 British Jazz Award for best female vocalist, Martin has been a driving force behind the UK jazz scene for the past twenty five years and has won many accolades. Claire said, "having dedicated my life to singing and to jazz music, it is a terrific feeling and an honour to gain such public recognition, especially for this wonderful art form, which so often gets overlooked. I look forward to more exciting music-making and to keeping the jazz flame burning brightly." The announcement marks the start of an exciting autumn for Claire. In late August she will begin recording her new album for Linn Records, scheduled for release in spring 2012. Following this Claire will be making her Royal Albert Hall debut at this year's BBC Proms on 7th September at 10.15pm where she will sing with the BBC Big Band and celebrate the work of Stan Kenton. For further information, click on [www.linnrecords.co.uk](http://www.linnrecords.co.uk) or see [www.clairemartinjazz.com](http://www.clairemartinjazz.com).

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## J-WAVE

JPLAY is described as a "puristic audio player for Windows which instantly transform your PC into a high-end digital transport". It introduces a number of world's-first features for computer audio music playback, the manufacturer says. The system includes full memory-based playback; most other memory-based players dynamically load tracks into memory during playback. In contrast, JPLAY preloads the complete playlist into RAM guaranteeing no disk activity during playback. It uses Large Page Memory, a superior memory management system that provides minimal CPU latencies. It has a Maximum System Timer that's said to reduce operating system latency by making Windows switch tasks faster. (0.5ms instead of default 15.6ms). It uses Maximal Priority Scheduling to ensure an uninterrupted flow of music data by running music playback at the highest possible priority. There's also a Hibernation Mode to cancel OS 'noise' by eliminating dozens of jitter-inducing processes and hundreds of threads. The maker says that JPLAY was built with only one goal in mind: optimal music reproduction, and that means no music management features, no eye-catching graphical user interface. Its stripped-down, bare-bones playback engine fits entirely inside CPU cache and can be used as standalone player or together with popular 3rd party audio players such as: JRiver Media Center, iTunes, foobar2000, mp3toys, etc. JPLAY is said to be the first and presently the only audio player, that can totally take control over Windows in a way that nothing else is allowed to run during playback - no processes, threads or services limiting sound quality. In hibernation mode JPLAY uses the full power of the PC - all the CPU cores - to provide bit-perfect and 'time-perfect' streaming. The player supports both 16bit and hi-res audio files in various lossless codecs; FLAC, WAV, AIFF, ALAC. JPLAY supports all Windows versions, either 32bit or 64bit. A single license costs 99 Euros; more information and a free trial version are available at [www.jplay.eu](http://www.jplay.eu).



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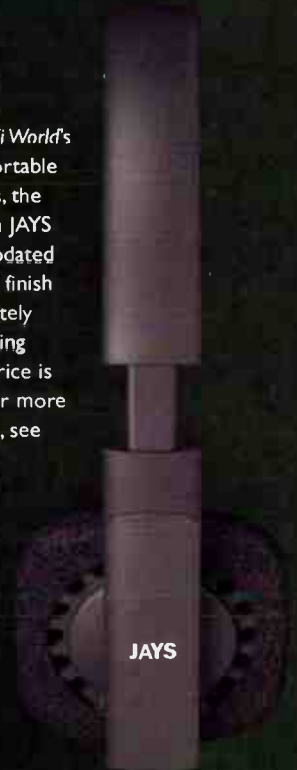
## BOXING CLEVER

Pro-Ject Audio Systems' new Media Box S "is aimed at the customer who does not want to switch on a computer or to use a Wi-Fi network to play his or her stored digital music files", the company says. It plays music from a USB stick, SD card or USB hard-drive, without the need of special software. A bright display allows you to visualise album art, title or track, which can be selected by a simple three-button control system. There is also a remote-control, which gives more direct-access features. It supports music files in MP3, WMA and AAC formats, from the lowest compression up to 384kbps, including VBR. Digital conversion is courtesy of a "high-quality" 24bit/96kHz upsampling chip, followed by an analogue output stage similar to that which they use in their CD player range. A high quality clock oscillator ensures the lowest jitter, while a special low-noise power supply results in a 100dB S/N ratio, the company claims. The system is based on the fast USB 2.0 standard in synchronous-clock mode, contained in a heavy magnetically-isolated aluminium housing. Visually, the product features a thicker front-panel and no front-panel-screws. Partnered with the Stereo Box or in another Box Design System, Media Box S forms a universal, easy-to-use digital playback system, the company says. For details, click on [www.henleydesigns.co.uk](http://www.henleydesigns.co.uk).



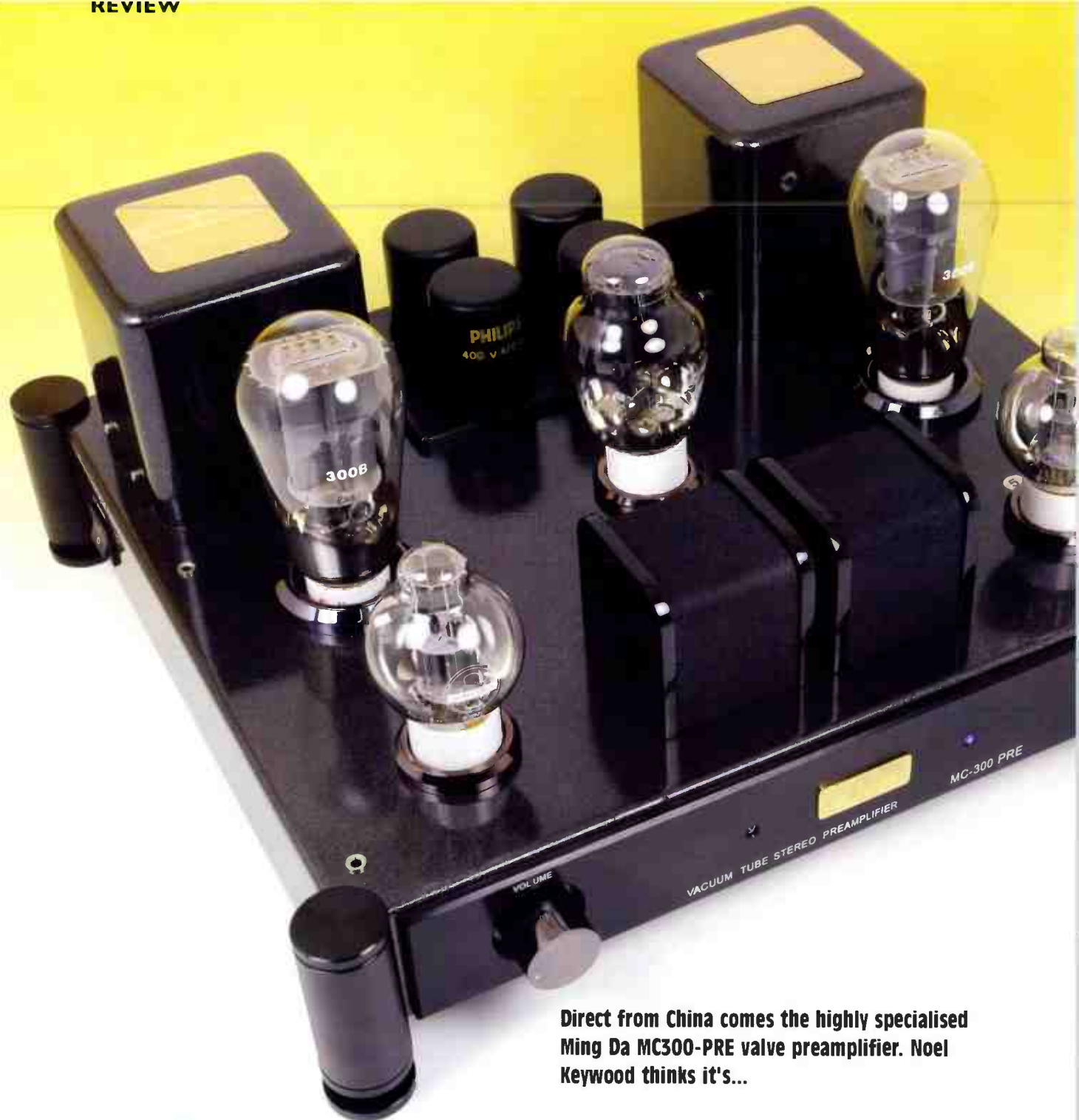
## V BACK

One of Hi-Fi World's favourite portable headphones, the v-JAYS from JAYS has been updated with a matt finish and completely new packaging while the price is reduced. For more information, see [www.jays.se](http://www.jays.se)



## SECOND COMING

Cowon's C2 is the successor to the company's successful D2 digital portable, and it shares the audio genius of its predecessor, says Cowon! It's a no-frills, purpose-built 'audiophile' digital music portable; there's no Wi-Fi, Bluetooth or Android, but it does have the company's BBE+ digital sound processing and a claimed battery life of 55 hours continuous audio playback, putting it on another level to the iPod, for example. It plays MP3, WMA, FLAC, OGG, APE and WAV files, but Cowon have not forgotten movie goers: several video files (AVI, WMV and ASF) are supported. There's a Micro SD card allowing you to expand the player's memory by up to 32GB! There's a choice of White, Grey and Black finishes, and prices are £109 for the 8GB version and £139 for the 16GB. For more details, click on [www.dadaudio.com](http://www.dadaudio.com).



Direct from China comes the highly specialised Ming Da MC300-PRE valve preamplifier. Noel Keywood thinks it's...

# Da Business

If you think the new MC300-PRE preamplifier from Ming Da looks anything but new, I understand. It deliberately uses some of the earliest valves manufactured, normally classed as pre-war (1920-1938). As valves go they sound better than later, more compact 1950s types, but they look archaic. But don't let that fool you, the Ming Da MC300-PRE is a modern valve preamplifier with bal-

anced inputs, plenty of gain and a low impedance line driver output able to work with current silver disc players and drive either transistor or valve power amplifiers.

The design rationale of valve amplifiers like this is all about simplicity and purity. As few amplifying devices as possible are used, all components are top modern audio grade and hard wiring is used to make connections, not printed

circuit boards. Older valves are physically bulky and demand higher currents and voltages, demanding bigger power transformers. All in all then, although not so many components are used, you end up with a large construction; the MC300 is weighty at 26kgs and measures 52.5cms wide, 57.5cms deep and 40cms high.

Before going any further I'll declare straight away that from my



experiences designing and reviewing valve amplifiers, this is the way to do it, and you can read more on valve design practices and problems in 'WAD300B amplifier' in the World Audio Design section of our website [www.hi-fiworld.co.uk](http://www.hi-fiworld.co.uk).

Like our 300B power amplifier, Ming Da's MC300 preamplifier uses the 300B valve, a classic audio triode, hit as a low output impedance cathode follower. In front of it is the onion shaped 6SN7 double triode, which provides gain. The balanced inputs use input transformers, not the usual silicon chip buffers that are so popular (and cheap) in modern transistor equipment having XLR inputs. Volume is controlled

by a high quality Alps Blue

motorised potentiometer, optionally driven by remote control.

There are four normal (unbalanced) phono inputs rated at 100k input impedance,

one pair of XLR socket (balanced) inputs rated at 2.4k input impedance and two pairs of phono socket (unbalanced) line outputs rated at 600 Ohm output impedance.

The circuit topology is lavish in terms of parts and cost. Two mains transformers are fitted, one for each channel, so there are independent left and right channel supplies. Bridge rectifiers are used to feed d.c. to the valve heaters to eliminate hum. The single, centrally mounted 274B rectifier provides HT. The remote control changes volume and can Mute the amplifier, but does no more than this.

Internally the MC300 preamplifier is constructed in classic fashion, with wiring looms and components supported by large gauge single core wire. It makes trouble-shooting and repair easy and keeps components well spaced. The components used include Jensen copper foil, paper-in-oil capacitors, Philips HT smoothing capacitors and other quality audio parts, making the MC300 considerably better built than most transistor preamplifiers, and up with the best valve designs. Ming Da have put a lot of effort into this design, that's for sure, and there's little sign of cost restraint. Those 300Bs cost £80 each on the open market, an amount that alone would equal the total parts cost of a transistor preamplifier! So as preamplifiers go this one is as

lavish and specialised, even as valve designs go, as you will find on the market today. And note there are no transistors, except in the remote control PCB, and the bridge rectifiers one might say. The chassis is well built, with welded and buffed seams and the paint finish is of high quality. The remote control is a heavy metal affair, not a cheap plastic unit.

## SOUND QUALITY

I used the MC300-PRE with an Electrocompaniet ECD1 DAC having both unbalanced and balanced outputs. The XLR was clearest and used for the review, but unbalanced was only fractionally – almost subliminally – inferior in our setup.

"when you take valves up to this level of circuit speciality, what they deliver is quite spectacular..."

The preamplifier fed both a Musical Fidelity AMS50 transistor power amplifier and Icon Audio 845MB MkII valve monoblocks in turn.

Partnering the MC300-PRE with a big, punchy but dry and detailed power amplifier like Musical Fidelity's AMS50 may seem an odd thing to do – but I think not! Hybrid combinations like this have some of the spacious sound staging valves portray, together with the drier and controlled sound of transistors, especially at low frequencies where bass lines are seemingly held in a tighter grip. And so it was with our AMS50, feeding Spendor S8es. The Spendors complement this power amplifier nicely because they do sound a little soggy and overpowering with low damping factor valve power amplifier but the AMS50 grips them tightly.

There was another reason behind my thinking though and that concerned the bass peak that prior measurement had revealed. I did not want the lower damping factor of our MB845 MkII's complicating the issue here. Being a cruel reviewer devoid of compassion I picked out the Adele '21' CD for its barren kick drum, used to lay out a hard beat in 'Rolling In The Deep' and 'Rumour Has It'. As I turned volume up our Spendors started to make it known they were suffering, and when I looked at the bass cones they were traveling in and out like the pistons of a steam engine. This confirmed what I suspected, that there's enough bass energy below 50Hz on a normal CD for the MC300-PRE's bass peak to be audible and to cause difficulties

within a playback system.

In response to my warning e-mail about this Ming Da asked me to change two (feedback) capacitors and this reduced the peak considerably. If not completely [see MEASURED PERFORMANCE]. Unfortunately I did not have the four 1µF/630V capacitors needed for both channels, so could only measure one, not listen to two to check the result. As flattening the peak is just a matter of proportioning circuit time constants, most easily done in the Spice computer design programme, getting the MC300-PRE flat should not be difficult. However, we ran out of time for this issue so hopefully will run an addendum in the next issue, and on

the website.

Happily, excessive deep bass wasn't all I heard, not by any means. As hoped the MC300-PRE did show just what a spectacular sound valves can bring to a system preamplifier when used with the sort of dedication seen in this design. Not only was the preamp starkly clear but deeply dynamic and seemingly able to pull instruments out of a mix and place them into a space of their own between the loudspeakers. So where the Adele '21' CD sounds a little prosaic on my (transistor!) home AV system, spun via the MC300-PRE Adele's voice leaped at me from the loudspeakers, the nicely arranged background instrumentation laid out in such a sparkingly explicit fashion I could not question production values.

As a valve preamplifier, the MC300-PRE shows deep ability.



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# ADL

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I found it dry and without the euphonic warmth of many valve preamps; warm and cuddly it was not. Starkly clear and unbelievably dynamic it was though, laying out the sound stage with such specific and certain placement of instruments it was hard to believe possible. Active preamplifiers can be more forceful than passives, including the much admired Music First Audio transformer preamplifiers that set standards. The MC300-PRE has a similarly dry and insightful sound stage, if with more depth and greater dynamic push to it, but not the darkness and gentle sophistication of the MFA transformer.

the sound stage. Woodwinds sounding suitably solid and woody, brass having a nice sonorous rasp, free from edginess, whilst strings swelled up and ebbed down with a gentle power that was uplifting to hear. With a totally hash and hum-free background the instruments were laid out between the loudspeakers against a silent backdrop that fell away to our rear wall. But then, this is an attribute I have noticed with pre-war valves: they are silky smooth and deeply rich in delivery (attributed by one expert engineer to their unusually low current density and concomitant coloration).

All the same – and finally – the old balloon-envelope 300B valves Ming Da supply were too microphonic in my view. This is because their electrode structure is poorly supported internally, due to the envelope shape. Such valves may look retro, but

they're not better for it in this area. I use 300Bs at home, in my World Audio Design 300B power amplifier and they are not microphonic, nor are 6SN7s I have used in the past, so Ming Da need to look at this issue. Just turning volume down to its end stop brought a ringing sound from the loudspeakers and taping the chassis made a lot of noise – not good! I carried out a lot of listening at lower levels to minimise feedback induced microphony and feel certain that it contributed little to what I heard; there was a slight metallic patina I felt at times, likely due to this, that better valves would eliminate. As anyone who uses valve amps will know, valves can sound quite different between brands and types so the issue of differences isn't a problem, so much as the degree of microphony within the valves used. The MC300-PRE deserves better valves than those supplied; perhaps an 'audiophile set' can be offered, or no valves



at all so the end user can choose what to use.

**CONCLUSION**

The MC300-PRE is a fabulous sounding preamplifier, that's for sure – in spite of its problems. But that does not surprise me; when you take valves up to this level of circuit speciality what they deliver is quite spectacular. In the MC300-PRE you get a degree of stark clarity, dynamic strength and resolution of timbral information (valves don't wipe out timbral cues like transistors) that is very apparent. Performances seemingly leaped from the loudspeakers using this preamplifier and, ignoring its particular problems, I would rate it up amongst the best few available (there are very few of these).

However, there are issues to be cleared before we can unequivocally recommend the MC300-PRE, and currently it is only available direct from Ming Da in China at a price of 2410 USD, equivalent to £1500 at the time of writing. So watch this space - you'll see more on this in forthcoming issues...

**AVAILABILITY**

This product is available only direct from the manufacturer in China at present; we're running this review because some readers are interested in exotic rarities like this one, available at a good price from a long established and well known manufacturer. Obviously though, if a problem arises then you will need to use a good UK service engineer willing and able to fix valve amps, like John Caswell (john.caswell@tesco.net). You will also need the circuit diagram from Ming Da, with voltages marked on it. Ming Da are currently looking for a UK distributor.

Life started to get very interesting with this preamplifier feeding our Icon Audio MB845 MkII power amplifiers. The strongly etched and forceful treble of the MC300-PRE was a perfect counterbalance to the soft-ish treble of the power amplifiers, whilst their dynamic strength and forceful delivery put muscle behind the MC300-PRE's revelation. What I ended up with was Nigel Kennedy playing violin in front of me with a vigour that was great even for him, with superb resolution of the differing timbres on the instruments in the accompanying English Chamber Orchestra behind him. It's quite amazing what a real hi-fi system can do at times (there aren't many of these, due to the transistor epidemic that wiped most out!) and I was reminded by the MC300-PRE that when valve amplifiers are engineered properly, with dedicated thoroughness and a deep understanding of what is and is not needed, then this is what you end up with, a sound that is stunningly good in every way describable. Kennedy's violin had both body and richness of tone, free from the slight transistor wiriness of the AMS50; his playing was dynamically expressive and the flow of his actions less mechanical than that from transistor amplifiers. Orchestral sections stood out in sharp relief from each other; each had its form and dynamic on

**VERDICT** ●●●●●  
 A preamplifier with a breathtaking sound - way beyond most others - yet there are still issues to be sorted.

**MC300-PRE** £1500  
 MeiXing, China  
 ☎ 0086 756 331 5656  
 www.mei-xing.com

- FOR**
- starkly clear
  - dynamic resolution
  - strong treble
- AGAINST**
- bass peak
  - microphony
  - no XLR output

**MEASURED PERFORMANCE**

Via its phono (unbalanced) inputs the MC300-PRE had a high measured gain of x8.4 (18dB). This is more than enough for all situations, since with a normal power amp of 1V input sensitivity it translates to 120mV input sensitivity. Even low gain external phono stages will work into this. Surprisingly, gain via the balanced XLR input was half, or x4.2 (12dB), but this makes sense as balanced inputs will likely be used with CD players possessing a high 2V or even 4V (XLR) output.

Frequency response rolled off above 47kHz at three-quarters volume and well above this figure at all other settings, via both phono and XLR inputs. Frequency response (gain) rose below 30Hz to reach a substantial 11dB peak at 8Hz in our original sample. After modification as advised by Ming Da this became +6dB at 6Hz – see our analysis. Whilst most CDs carry little below 30Hz, LPs provide strong warp signals around this frequency and here problems could well arise, especially as few phono stages possess warp filters.

Noise and distortion were low, although there is a small rise in

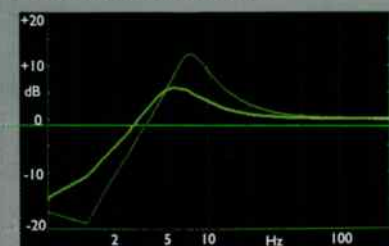
bass distortion as expected through the balanced input transformers, measuring 0.04% at 40Hz at 1V input. The presence of third harmonic shows this was a core saturation effect, but at such a low level as to be likely undetectable.

The MC300-PRE measures well with the exception of the subsonic peak which ideally needs to be eliminated.

NK

Frequency response	30Hz-47kHz
Separation	77dB
Noise	-89dB
Distortion	0.01%
Gain (phono / XLR)	x8.4 / x4.2
Overload	33V out

**SUBSONIC RESPONSE**



# Invisible Touch

David Price enjoys the world of wireless music with Logitech's Squeezebox Touch network music player...

I remember the first Squeezebox. Launched ten years ago as the SlimMP3, it was an MP3-only device with a wired connection, and required someone on the level of a computer programmer to interface it with its host computer – or so it seemed. Subsequently the Squeezebox followed two years later and added Wi-Fi, a digital output and native support for PCM, thus conferring on it audiophile status of a sort. It proved a real success with geeky early adopters, and the brand was finally on the map. It then underwent a name change, as Swiss company Logitech acquired it from SlimDevices, and soon got further refinements...



I've tried a great many of the little plastic things over the years, and it wasn't until the 2005 Squeezebox II with its better display and FLAC functionality that I thought they'd ever catch on. Still, it was still a case of 'close but no cigar', and it took the Duet with its swisher user interface to really make me think this could be a mass market sales success. Yet still it seemed just a tad too fiddly for its own good – what we needed was a simple iPod Touch-like control process that you could use without the need to fumble with remote controls and/or silly buttons. Finally,

about a year ago we got precisely this, in the shape of the £250 Squeezebox Touch you see here.

Compared to that first SlimMP3 it's practically other worldly, so advanced it seems. Instead of a dot-matrix fluorescent display that early computer audiophiles would have had to squint at, the Touch gives you a very nice 4.3 colour screen that's easy to read across a room. It works, unsurprisingly, in a very similar way to the aforementioned touch-sensitive iPod too – whilst its menu system isn't an exact copy you could say it's certainly an affectionate homage! This is of course no bad thing; I don't know if it's because I've learnt the Apple navigation system, but it certainly feels about the most intuitive I've come across.

Unpack your brand new Touch and switch it on, and it asks you if you want to connect via a wired or wireless link. Computer audiophiles the world over are now in general agreement it seems that the former sounds better, but as network music players are supposed to be all about convenience I opted for the latter. Next, the Touch goes looking for your router, and then once found it asks you to select it (it found my neighbours' Wi-Fi network too, a good 30m away, so it's got a great range). You then enter your password and pair up the unit to your computer.

For this, you'll need to load the Squeezebox Server software (currently v7.5.4) from [www.mysqueezebox.com](http://www.mysqueezebox.com). When you've registered yourself at the site you'll find this is very easily done, and then (with my Apple Mac) it was just a case of telling it – via the new logo in my System Preferences menu – where my music library was. It defaults to your iTunes directory, but I've actually got several libraries, none of which are in the default place. The Touch is a long way away from the first MP3-only device; this one plays

WAV, WMA, MP3, AIFF, AAC, Ogg Vorbis, FLAC and Apple Lossless (ALAC), at a resolution of up to 24bit, 96kHz. A number of network music players, including the Linn DS series, still don't play AAC or ALAC, so thumbs firmly aloft for such flexibility...

There's a wide range of platforms from which the Squeezebox server can work, including Windows 2000/XP/Vista 7 and Linux RPM, as well as Mac OS 10.4-10.6. As soon as the Squeezebox Touch has found your computer on the network, you can access your music through a series of menus, just as you would with an iPod. So you can search by artist, genre, title, and so on. Unlike some touchscreens there's a really positive feel to using it, helped by an internal beeper that registers your touches.

Of course, you'll need to connect it to your system. Round the back there's a 3.5mm headphone output, a pair of line level RCA analogue phono outputs, a choice of optical and coaxial digital outputs, a USB input (for flash memory drives) and an Ethernet port, plus a power socket for the supplied 'wall wart' mains adaptor. I started my listening via the analogue line out, and moved to the digital out later. The unit itself is all plastic, but it's very nicely finished and presented, and certainly doesn't feel as cheap as some. It measures 215x131x246mm and weighs 1.4kg.

## SOUND QUALITY

Kicking off with some classic house music in the shape of K-Klass's 'Rhythm is a Mystery' via Apple Lossless, and I was impressed that the Touch didn't sound anywhere near as cheap and nasty as, say, the Squeezebox 2 of five years ago. It's not the last word in digital sophistication of course, but still it gave a fairly tidy, smooth and engaging sound that belied its modest status in life. For a 'gadget' rather than



a serious hi-fi separate, it was actually really rather good. Bass was lithe and fairly tuneful, midband quite clean and well defined, and treble was reasonably smooth and delicate – there were certainly no nasties of the sort you'd expect from an entry level network music player such as this. True, I wouldn't say this is as good sonically as the Cambridge Audio NP30 (£400, tested July 2011), sounding a good deal thinner and less incisive at the frequency extremes, but it put in a decent performance all the same.

The Cocteau Twins' 'Lazy Calm' is part of their beautiful mid-eighties 'Victorialand' album, and sublime as it is as a piece of music – as dreamy, ethereal and contemplative as you'd expect from the band at its height – it's not terribly easy to reproduce if you're a budget source component. Liz Fraser's bright and brittle vocals, Robin Guthrie's forward guitar arpeggios and an icily cold saxophone sound all make this a challenge for any digital front end. The Logitech Squeezebox Touch proved quite refined given the challenge it faced, sounding decently smooth across the upper midband and actually quite delicately detailed. I'd say it was certainly pleasantly 'listenable', if not the last word in high end hi-fi.

Of course, piped out into a DAC (in this case the Audiolab 8200CDQ) the sonic bar was raised quite noticeably; I could hear a more solid and fluid bass, a wider and more deep midband and a delicate treble which has real atmosphere and space. Via Wi-Fi, the Touch doesn't match a good CD transport as a purveyor of digits, sounding just a touch opaque and two dimensional, but you can nevertheless get a very good sound that doesn't give away the fact that you're listening from a device designed to send emails and download podcasts. If you're really fastidious then you're going to have to get the likes of a Musical Fidelity CLiC and attach it via ethernet, or better still a Linn DS or Naim running via wires.

## CONCLUSION

The Logitech Squeezebox Touch is a great starter network product. If you want a decent sound – with the facility to upgrade significantly via its digital output – allied to a really easy to use unit that makes computer audio a pleasure rather than a chore, then this is the gadget to get. Yes, there is better, sonically, available – but if you want it then be prepared for a fiddly user interface and long runs of ethernet cable. For me, the Touch is by far the best and most 'useable' Squeezebox, and shows just how far digital music has come in the past ten years.



## EXTRA FEATURES

- although not as versatile as Meridian's Sooloos, the Touch has a lot of clever features. For example, there's internet radio playback powered by Radio Time, giving most local and national UK stations, plus hundreds of international ones. You can register with Live 365, Sky FM, Last FM, etc., plus a BBC iPlayer app.
- when using the remote control the display enlarges for ease of viewing from longer distances, and the readability of the screen can be improved further by changing the default wallpaper to black via the settings/screen menu. There's even an iPhone app to control it, if the supplied remote control doesn't suffice for you. The display automatically dims in low light.
- the Squeezebox Touch can also work as a clock, or a digital photo frame, or other uses depending on what plugins and apps you install. The Flickr app lets you display random or tagged photos from Flickr while your music plays.

## VERDICT

Great entry level network music player with super user interface, fine build quality and decent sonics too.

## LOGITECH SQUEEZEBOX TOUCH

£250

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

## FOR

- class leading user interface
- good build at the price
- relatively easy set up
- decent sound
- format flexibility

## AGAINST

- nothing at the price



World Radio History



One aspect of loudspeakers that I love is that it's possible to guess (with reasonable but not *unfailing* accuracy) how they're going to sound just by looking at them. And when you look at most £3,995 loudspeakers then you'll see a conventional small footprint floorstander with a couple of 6.5 inch mid/bass units, possibly a discrete mid and likely a dome tweeter. Result – an even, wide bandwidth sound with decent but not earth shattering bass, good stereo imaging and a tidy treble. What then to make of JoSound's JO45/1 you see before you? The most fleeting of glimpses shows it's quite radically different, for better *and* for worse. Instead of being another 'me too' floorstander with same number of transducers, the same sort of crossover points and generic looking cabinets sitting on spiked platforms, and so on, here we have a single drive unit set in a vast cabinet of truly unconventional proportions and appearance.

Rather than being designed by committee, the 45/1 is the result of one man's long journey through the audio world – some forty years in fact. Designer Joe Jouhal tells me that he has been passionate about sound reproduction since the early nineteen seventies, when he was an avid reader of *NME* and *Wireless World* "when most teenagers were reading comics", he says. He was particularly fascinated by the articles

to the incendiary combination of their high tension power supplies and his eight year old child at home. Horn designs would result in cabinets that would be far too large for his normal sized listening room, so were rejected as well. The idea of transmission line loading however, kept running inside his mind. He had fond memories of the Jordan-Watts Flagon – a mid nineteen seventies speaker that's even more wilfully

"their spirit makes music joyful rather than merely pleasant – in this respect they're sublime..."

on audio amplifier and loudspeaker design, with two particular ones catching his imagination – A.R. Bailey's 'The Transmission Line Loudspeaker Enclosure' (May 1972 *WW*) and the J. Dinsdale articles on 'Horn Loudspeaker Design' that appeared in the March-June 1974 issues.

contrary than the JO45/1, indeed it was downright bizarre – which prompted him to search out Ted Jordan. He duly purchased a pair of JX92 drive units, which he describes as "a real gem of a drive unit". Obviously, it lacked bass though, so Joe set about crafting a transmission

# Round & Round

David Price samples the highly distinctive JoSound JO45/1 loudspeakers...

From this you can deduce it's going to sound *very* different, and so it does. Here's a speaker that's the result of one man's quite distinct set of priorities, with no attempt made to please the wider listening public, or indeed those who slavishly adhere to design 'best practice'. In a way, it reminds one of Eclipse TD712s I reviewed a couple of months back, as it simply doesn't bother to cover all the bases, like low frequency depth and treble extension. Instead it says, "right, this is what I'm good at – and to hell with the rest of it!" In my book, this isn't always a bad thing. I rather respect them for daring to be different, as what the world doesn't need right now is another conventional floorstanding loudspeaker, thank you very much.

So, only concern yourself with this review if you crave the sort of sound which isn't available at your local high street hi-fi shop, but rather one which comes from having tried and then got bored with a classically 'correct' way of doing a box loudspeaker. Most *Hi-Fi World* readers read on, then!

When Joe went to university to study Chemical Engineering, he had a heavily modified Thorens TD150, Stax UA7 arm and Shure cartridge, plus his own transistor based amplifier and loudspeakers using AR bass units (in a reflex design) and Infinity EMIT tweeters in a line-source configuration.

During his two decades working in the computer industry, where he worked in "senior roles" in the UK, Canada, France, Belgium, Holland, Germany and finally Jersey (where he now resides), Joe started a personal loudspeaker design project which he says "needed to be accurate in the 100Hz-18kHz region", as well as having a solid, stable and realistic soundstage, air and space around the music, speed and dynamics, the ability to "reproduce the performance" on all genres of music, and a lack of fatigue. Also, it had to be produced using sustainably produced materials wherever possible and be "partner-friendly"!

From this list of criteria he soon ruled out a number of possibilities. Electrostatics weren't an option due

line enclosure for it...

He duly did his sums; the length of the transmission line pipe was based on the quarter wavelength principle of producing an output that reinforces the cone output, if tuned properly it helps to reduce the low frequency impedance at the free air resonant frequency of the driver. Joe decided to go with what he calls "a reverse pseudo-tractrix horn", where the driver goes in the wide





# Light Fantastic

Noel Keywood is vowed by the virtuoso video and sound performance on offer from Cambridge Audio's 751BD Blu-ray disc player...

Cambridge Audio produced a top Blu-ray player in the 650BD released a year ago (*Hi-Fi World* June 2010) – it's the player I use out of choice. In striking a rare deal with Mediatek of Taiwan they gained a technically advanced platform that propelled them into a leading position in the market. The new 751BD builds on the 650BD by adding 3D capability, additional audio processing and extra tiddly bits, but at a hefty price increase – it costs £800 against £450 or so for its simpler brother. Is the 751BD the ultimate way to play high definition movies and audio?

I love Blu-ray because it has a surplus of ability that lets really good video and audio make its case. High definition audio can be superb; I have some amazing 24/192 highest definition surround sound Blu-rays that shake my home – and a few others around me – but Cambridge

Audio are aware that many people don't give a damn; they just want high quality stereo. So the 751BD is strongly purposed as a simple stereo analogue CD player, one of good quality. It has stereo outputs on the rear, where the 650BD does not. It also has selectable audio filters that affect the sound at these sockets, a rare addition lifted from their CD players. Multichannel audio is internally mixed down to these sockets. The mix down may not be as artistically slick as you get by selecting the stereo track on a disc, produced in the studio, but it is stereo without menu selection hassles. For those with old A/V receivers having up to 7.1 channel analogue inputs, Cambridge also provide a full 7.1 output socket set. So if you want Blu-ray that connects into a stereo hi-fi system, as I know people do from our Letters pages, then the 751BD is more suitable than the 650BD, even though the latter

can be configured to do this.

Leading Blu-ray players, including the 650BD and Oppo players, also play all other silver discs, including little loved and mostly forgotten DVD-Audio discs. SACD is on the list too; this player plays SACDs and outputs DSD or PCM over its HDMI line. You can play SACD on the 751BD and send it as pristine DSD to a receiver possessing a DSD decoder, or you can convert to PCM onboard so any receiver can handle it. It also acts as a standalone SACD player but PCM must be selected in the SACD set up menu to get sound at the analogue stereo output sockets, because internal DSD-to-PCM conversion is performed. Our tests showed that quality is still better than Red Book CD though, so the 751BD is more than a half decent SACD player.

There's plenty more! It plays HDCDs and *all* DVD and Blu-ray music coding formats from Dolby





and DTS, including the highest quality DTS HD Master Audio and Dolby TrueHD, both used in high quality movie soundtracks and even in dedicated music Blu-rays, such as those from 2L of Norway. These streams can be sent out undecoded (i.e. bitstream) to modern receivers or decoded down to PCM to older ones, over the HDMI line. But again those who simply want better quality analogue stereo will get it at those stereo output sockets, high resolution digital audio being mixed down to high quality analogue stereo.

I should mention here that the 751BD has an onboard loudspeaker set-up menu that affects the analogue outputs. It allows levels and time delays to be set, as well as differing loudspeaker arrangements, including stereo at the Front Left and Right surround sound outputs – those stereo sockets are a convenience.

There are electrical and optical S/PDIF digital audio outputs and it is these I tend to use for quality stereo, since they give a high quality digital audio connection that, with my Marantz SR8002 receiver at least, offers best sound quality, fractionally ahead of HDMI. With the 751BD this offers a very low jitter digital signal our measurements showed, likely why it worked well.

Also readable are USB memory sticks via read-only sockets on front and rear; and the unusual addition of external Serial ATA connector so a computer disc containing video (or audio) can be connected, something I need with Gigs of video sitting on my computer, but have yet to try.

An ethernet connection is

provided, and a Wi-Fi aerial for wireless connection. I ritually set light to my wireless router long ago so connected up by reliable, secure and fast wired link. It saw my Netgear router with a DHCP handshake without difficulty. Software update is possible and the hardware MAC address is declared so you can identify the player on a network.

Cambridge Audio say only WMA and MP3 music files can be played over the network from a server, not AAC from Macs; I found WAV played too. Unfortunately, the player locked up a lot on my wired network and had to be reset often. As Onkyo receivers pass these tests with difficulty I suspect the 751BD could be better. Cambridge Audio told me they are awaiting new software...

I could not get it to see an external 2TB, NTFS formatted, eSATA connected self-powered hard drive either; but Cambridge say they have experienced no problems here; this could be a disc formatting issue. It did however read WMV test clips over my network, but the network's data rate could not support MPEG video

which stuttered then crashed the player. Because a restart takes thirty seconds this was time consuming.

The handbook is comprehensive, succinct and easy to understand, unlike that of Far East players. This is likely to make quite a difference to getting the best from the player as there is a lot going on here.

## VIDEO

The 751BD has two HDMI outputs, to run two monitors or a 3D set-up Cambridge say. I used the Output 1 which has a Marvell QDEO video scaler to bring DVD up to



Blu-ray resolution. This worked well, our Burosch DVD test discs showed; even if resolution cannot be improved in theory DVDs look better in practice.

The player did a fine job with

Blu-ray high definition video, getting through our HQV Blu-ray test disc without displaying any jaggies on the dedicated tests, nor in the video sequences (and film pull downs). There was no motion trailing nor any other visible blemish. Video shot on a Red camera on the Spears & Munsil disc looked stunning, but then it does on most players! My own test sequence in HD video (1440 Mpeg2 from a Canon HV30)) of a Tiger Moth biplane at Duxford airfield is more revealing and again there

and in use picture quality depends mostly upon user adjustment and original video quality rather than the player's electronics. The 751BD turned in a faultless video performance.

Load times were much like the 650BD, 27 seconds for the Java menu of John Meyer's 'Where The Light Is' and 10 seconds for a normal menu, a relatively fast performance. Recordable BD-Rs and BD-RE's were read without problem.

As usual, between analogue, HDMI and S/PDIF (optical) feeds I preferred the latter for pure clarity, at least working into the Marantz receiver. The 751BD also has an electrical S/PDIF (phono) socket digital output and this was just a tad sharper sounding than optical – which is why I prefer optical! Unfortunately, once you have spun high definition digital audio from Blu-ray the step back to CD isn't always so easy to take. It can sound a little bland and prosaic; the paucity of internal detail becomes apparent. On balance though, as an analogue CD player the 751BD works well, giving nice results with the usual Cambridge sheen in the upper midband and bass that was fulsome but easy going. SACD via the analogue outputs was smooth and easy going too, if lacking in detail compared to that via HDMI, either as native DSD or transcoded PCM. So the 751BD works well as an analogue player but it is not groundbreaking by any means, irrespective of its specialised audio filters.

Both DTS HD Master Audio and Dolby TrueHD in highest definition 24/192 form were successfully read from Blu-ray music disc and sent out in native form or converted internally to PCM our checks showed, using 2L's 'Divertimenti' disc that carries both, in addition to PCM. As always, results were impressive, but of course decoding takes place in the receiver in this situation. With 24/192 you get intense filigree detail and crystalline clarity, if not



were no blemishes. This did show that contrast was set a little high for effect however, but Cambridge have given the 751BD a lot of video muscle power including comprehensive video adjustment that works in real time so you can adjust whilst watching the picture. I reduced both contrast and sharpening a little for a more natural, if less dramatic, depiction of grass, trees and the hard edges of the fuselage and stringers of the aircraft. The idling propeller produced a smooth blur, as it should (this motion can break up in some players).

Current Blu-ray players usually pass all tests on available test discs

**SOUND QUALITY**

Both through the Marantz SR8002 receiver and a Creek OBH-2 feeding Quad II-eighty valve amplifiers to World Audio Design KLS9 loudspeakers, the 751BD was a tidy sounding CD player, if not a ground shaking step ahead in silver disc playing, at least of the CD variety. As with other Cambridge players I heard little difference between the filters and although our tests revealed clear differences in pre and post ringing with a raised cosine pulse, it was difficult to detect real life benefit. I slightly preferred 'Steep' for a little less sheen and a darker, purer tonality but differences are small.

**CAMBRIDGE AUDIO 751BD v 650BD**  
How do they compare?

**PICTURE QUALITY**

The 751BD has Noise Reduction, Colour Enhancement and Contrast Enhancement in addition to the Brightness, Hue, Saturation, Contrast and Sharpness picture adjustments available on the 650BD, so it has more adjustability. Using these the picture could be tweaked to look similar in balance to the 650BD so picture quality differences were more down to adjustment than absolute performance.

One clear difference I did detect though was a small amount of motion breakup on the idling propeller of a Tiger Moth that the 650BD suffered when set to Auto or Progressive (but not Interlaced). The 751BD did not suffer this so the 751BD's de-interlacing better copes with motion. This was not picked

up by our commercial test discs and I doubt it would be apparent on most broadcast material.

Our test used interlaced video. And of course the 751BD can play 3D movies and comes with two HDMI output to drive multiple displays.

**SOUND QUALITY**

Measurement showed little difference in performance between the analogue audio outputs of both players, even though the 751BD has three different filters: Lin, Min and Steep. Listening to a wide variety of music confirmed that both players sound much alike in use, the 751BD possessing no great sonic



advantage over the 650BD in spite of being better equipped. To get stereo from the 650BD Front Left and Right analogue surround-sound outputs does demand the player be set to give Stereo (mixdown) in the setup menu and this process may not be clear to non-technical users. CDs will play okay if set for surround-sound but surround-sound discs will typically lose centre stage information, meaning vocals. The Stereo outputs of the 751BD avoid this possibility.



the silky smoothness of SACD; PCM always has a harder quality, even at maximum resolution. The 751BD's S/PDIF output provided a very close equivalent in stereo though, and I fancy it was just a tad smoother than HDMI whilst remaining as clean cut and clear in temporal progress. I played a wide range of music from 2L at 24/192 resolution and the 751BD, like the 650BD before, gave a full bodied and dense soundfield with more texture than ordinary AV purposed Blu-ray players, helped by

of heft to kick drum at the start of 'Vultures' and a clear bass line stepping along in the background. The Who 'Live at Kilburn' is technically not HD but a wonderfully restored timepiece from 1977 with high quality analogue video and audio for the benefit of an invited audience and the 751BD did a great job in getting the band's energy across, Pete Townshend's crashing guitar chords and John Entwistle's bass line at the start of 'Baba O'Riley' thundered around my lounge impressively. The

the less costly 650BD and the ability to connect to a network server – neither of which I could get working properly, as I mentioned earlier.

As an analogue stereo CD player for serious audio use I wasn't overly impressed, preferring quality from S/PDIF. But as a high quality Blu-ray player of tremendous ability able to play just about anything except LP, there's little to touch the 751BD. It has a great performance, more ability and facilities than most players out there and a handbook able to explain

"as a Blu-ray player of tremendous ability, capable of playing just about anything except LP, there's little to touch the 751BD..."

the ability to switch off displays on the player, as you can on Marantz receivers in Pure Direct mode. Although there was the usual airiness and lightness of tone across higher frequencies, the 751BD injected more body and force to the lower sustained chords of the piano in Mozart's 'Fantasia for Piano' and this piece came across with the sparkling clarity of 24/192 digital on Blu-ray. But reflect on the fact that data rate hovered around 22Mbps, sixteen times that of CD! Audio on Blu-ray can exceed the data rate of video.

Spinning live concerts like John Meyer's well recorded 'Where The Light Is' (24/96) reinforced the 751BD's solid sound, with plenty

'751 told me data rate was a mere 47Mbps by the way, close to the limit for Blu-ray! The player's firm digital grip on audio and good picture quality gave great results from this DTS HD Master Audio encoded video.

it all in reasonably understandable English – surely that's unique! It's a five globe product assuming Cambridge fix erratic network behaviour as claimed and that eSata really does work!

**CONCLUSION**

I suspect AV enthusiasts will wonder why Cambridge Audio charge double for a player that offers analogue stereo. It's a good question. But you also get many other twiddly bits, like e-SATA input not available on

**FACILITIES**

Where the 650BD reads music, picture and movie files from its USB ports, the 751BD adds to this by including the internet and a local network via ethernet, which with PCs usually means Windows Media Player 9 acting as a server. The 751BD saw my PC over a wired network but it would not play files reliably I found, behaving erratically and constantly locking up (where, for example, Onkyo receivers have no trouble). Cambridge Audio say the system is in development. It read JPEG picture files from a memory stick but would not read an NTFS formatted 2TB external powered disk drive connected via eSATA or USB, but it should Cambridge told me, suggesting this was a disk formatting issue, not a player related issue.

**WHICH ONE?**

The £450 650BD remains great value, with more ability than all price rivals except Oppo (but Oppo don't sell into the UK). The £800 751BD only looks compelling if you want 3D and the ability to read a music server or eSata hard drive, which we assume it will do effectively in shop sold models.

**VERDICT** ●●●●●  
Offering great sound and vision across all silver disc formats, this is an excellent mid-price Blu-ray spinner.

**CAMBRIDGE AUDIO**  
**751BD** £800  
Cambridge Audio  
☎ +44 (0)845 900 1230  
www.cambridgeaudio.com

**FOR**

- plays all silver discs
- solid, stable sound
- fine video quality

**AGAINST**

- dull styling
- small display panel
- erratic network behaviour

**MEASURED PERFORMANCE**

Frequency response of CD via the analogue outputs, shown in our analysis, was flat to 20kHz which ever filter was selected. Because there is no onboard DSD convertor PCM must be selected to output SACD, forcing DSD to be converted to PCM before going through the DACs. There was still benefit though, SACD frequency response reaching out to 32kHz before rolling away slowly, analogue fashion. With high resolution 24/192 PCM the analogue outputs reached 48kHz, so again high sampling rates are done justice.

Linearity of the onboard DACs was a bit below top rate CD players, but 0.29% at -60dB via the analogue outputs is still a good result and this allowed a good ICAJ Dynamic Range value of 98dB to be achieved. With high resolution 24bit PCM distortion dropped to 0.15% at -60dB, against 0.02% or so possible. Similarly, SACD gave 0.21% at -60dB so measured better than CD, and at -90dB just 0.6% – but DSD code is very linear at low levels, hence SACD's smoothness.

Random jitter on the digital signal measured less than 20pS above 100Hz. Signal related jitter was 30pS on a -60dB, 1kHz test tone, a very good result. There was a little low rate clock wander but it was not high at around 200pS maximum. All in all the 751BD was as clean in this area as the 650BD and will give fine sound quality through an external S/PDIF connected DAC.

The 751BD measured well through its analogue outputs and via its S/PDIF digital output. It provides audio of good quality. NK

Frequency response (-1dB)	
CD	2Hz-20kHz
SACD	2Hz-32kHz
Blu-ray	2Hz- 48kHz
Distortion (%)	
0dB	0.0008
-6dB	0.0008
-60dB (24bit)	0.29 (0.15)
-80dB	3.8
Separation (1kHz)	
Noise (IEC A)	-111dB
Dynamic range	98dB
Output	2.0V

**FREQUENCY RESPONSE CD**



**DISTORTION CD**



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**WIN ONE OF THREE TELLURIUM Q INTERCONNECT AND SPEAKER CABLE PACKAGES, TOTAL WORTH £1,871, IN THIS MONTH'S GREAT GIVEAWAY!**

**H**ere's your chance to win one of three Tellurium Q interconnect and loudspeaker packages! There's a choice of Black RCA interconnect and Black speaker cable (worth £567), XLR interconnect and Tellurium Black Speaker cable (worth £652), or 5 Pin DIN interconnect and Tellurium Black Speaker cable (worth £652). First out of the hat gets first choice of package, and so on! Here's a taster of what David Price said of the Black interconnects in this issue [see the full review on p53]...

"Tellurium Q's technical director is Colin Wonfor, designer of the Inca Tech Claymore amplifier... one of the best early 'super integrations', with a creamy sound that's open and sumptuous. As an ex-Claymore owner, I can recognise this sound in the Tellurium Q speaker cables, some twenty plus years later. But

Colin's CV doesn't stop there, spanning everything from Magnum amplifiers to working for NASA. You can find his name on the patent for the quietest solid state relay in the world, apparently! Subsequent to their launch of the loudspeaker cable range, we now see these three interconnects, the Black RCA (£285), the XLR (£370) and the DIN (£390, all prices for a 1m run). The RCA cables are directional and fitted with gold plated phono plugs with locking collars, the XLR sports Neutrik XLRs, and the DIN leads sport metal 'Ream' DIN plugs. The company adds mysteriously that they've been designed "with an electronic circuit in the end that has a profoundly positive effect on the purity of the signal transmission".

The RCA cable sounded superb. I was struck by its wide open soundstage, and the expansive nature of the recorded acoustic with gave

a vast enveloping effect. Tonally it proved as per the speaker cables, which is to say there was very little in the way of edge. Music just flowed along in a natural and beguiling way, devoid of coloration yet without the slightest trace of grain. In my system I'd say it sounds one of the very best cables at the price. Moving to the XLR and the balanced lead was larger in all dimensions, sounding more powerful and majestic in every way. Bass was significantly enhanced. Treble, as per the RCA, was atmospheric and spacious, but deliciously devoid of smear or grain – instead hi hats appeared to 'glint' in the background beautifully. The DIN was closer to the XLR than the RCA, surprisingly. It too give a wonderfully light, open and airy sound yet powerful and three dimensional. Whichever you choose, these represent excellent value for money, with construction quality and superlative sound."

For a chance to win one of these great prizes, just answer the following four easy questions. Send your entries on a postcard only by 31st August 2011 to:

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**Unit G4, Argo House,**  
**The Park Business Centre,**  
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**London NW6 5LF.**

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## QUESTIONS

**[1] Colin Wonfor is Tellurium Q's...?**

- [a] technical director
- [b] spiritual inspiration
- [c] personnel director
- [d] cleaner

**[2] Where has he also worked?**

- [a] NASA
- [b] IPCC
- [c] TUC
- [d] RADA

**[3] What brand of plug does the XLR use?**

- [a] Neutrik
- [b] Tandy
- [c] QED
- [d] Maplin

**[4] How did the RCA cable sound?**

- [a] fantastic
- [b] superb
- [c] bonkers
- [d] strange

September Competition  
 Hi-Fi World Magazine  
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**entries will be accepted on a postcard only**

**JUNE 2011 MY AUDIO DESIGN MY1920 MINI MONITORS WINNER:  
 T.E Wright, of Cheshire**

# Radio Days

**For those nostalgic for a kinder, calmer world when 'dab' meant just a gentle touch, Cayin have a classically styled analogue table radio in the shape of the SP105i. Tim Jarman tunes in...**

**A** casual glance through any of the latest hi-fi magazines leaves the reader in no doubt that thermionic valves are no longer a niche activity but a mainstream part of the modern audiophile scene. Pre and power amplifiers, phono stages and headphone amps abound, but in the valve's first heyday there was so much more; radios, tape recorders (for both audio and would you believe – video!) television sets and even computers were made using valves.

By way of homage to this, Cayin have created what they call a "tube high sensitivity world receiver".

Whilst the valve revival has led to many types of audio amplifier valves returning to production the same cannot be said for those types that one would need to construct a complete radio, ECC85, ECH81, EF89 and EABC80 for example. As well as the valves, high frequency transformers, tuning capacitors and wave change switches that can handle the high voltages at which valves operate are not routinely available either, making the engineering of true all-valve receiver a complex task indeed.

So instead, the only glowing glass bottles are to be found in the audio section, although it's important to

set in this way. Although useful in some situations, it would be strange to ignore the built-in amplifier and loudspeaker as they are clearly two of the more expensive parts of the equipment as a whole, a line input would have been more useful but the Cayin lacks this – an oversight, I feel.

On the subject of the loudspeaker, this is a single 5" unit mounted in a ported partition of the cabinet, which is all very solid and exceptionally well finished in every respect. The veneer work is top drawer and all the controls feel as if they are made from solid turned metal. The styling is pleasing if a little odd in its mixture of themes, the wooden cabinet and illuminated dial suggest the immediate post-war period but the thick aluminium front panel and heavy knobs remind one more of nineteen seventies Japanese high end for example. Inside the first thing that you notice is a very traditional deep box chassis with the four valves and the transformers on the top, all nicely painted and well presented. This could almost be a real vintage set, were it not for the glimpses one can see of the receiver PCB at the front and the amplifier PCB beneath, even though the chassis appearance initially suggests that traditional point to point wiring may have been used.

## IN USE

The radio covers Short Wave (4.4MHz to 22MHz) in two bands as well as the usual Medium Wave and FM, hence the "world receiver" tag. Sensitivity on SW is fair and after dark there is still a massive station choice but if this is the sort of thing that interests you then a more specialised world receiver like the Sony ICF-SW7600GR with dual conversion, SSB operation, synchronous detector and a BFO (all things that the Cayin lacks) will make your life much easier for a fraction of the price (around £110). The SP105i's pretty 'airplane' dial, complete with backlighting by orange LEDs, is no match for the Sony's digital readout

"a new way to enjoy broadcast material which can be highly convincing..."

In simple terms it's a radio with a built-in loudspeaker in a decent sized wooden cabinet that makes no concessions to portability, the sort of thing that was popular up until small transistor sets arrived in the nineteen sixties. Before you get too excited though, there are a few things to get out of the way. The first is that the 'tubes' are only used in the amplifier section, with the receiver being completely solid state. The second thing to bear in mind that it costs £745, putting it resolutely into the luxury lifestyle audio category!

Whilst the sort of person who runs a Leak Troughline might lament the lack of valves in the receiving section, it is at least understandable from a practical point of view.

point out that the SP105i gets far more than just a token tube buffer stuck right at the end of the chain. The valves you do get are a couple of 12AU7 (ECC82 in European parlance) double triodes and a pair of 6P1s, a beam tetrode which is otherwise similar to the EL84, if a little smaller in scale. The two 6P1s form a push-pull output stage which the makers claim can produce 8W whilst the 12AU7s are the phase splitter and the preamplifier. As such, this arrangement puts the Cayin streets ahead of those honey 'valve' iPod docks that appeared a few years ago which had a couple of ECC81s (or similar) on the top where you could see them and a conventional solid state amplifier chip, which did most of the work, hidden in the bottom! Thumbs aloft to the manufacturer then, for at least doing a thorough job.

As well as its own loudspeaker, the SP105i provides a line level output connection for an external amplifier and a headphone socket, both of which work in stereo if the FM band is used. These outputs are routed through one of the 12AU7s so you still get to use one of your valves if you opt to operate the







and direct frequency entry system in the crowded parts of the short wave band either. For regular reception though the tuning is very nice to use, with a weighted action and minimum backlash. FM stations tune in easily and the AFC system means that there is no drift, but it would be useful occasionally to be able to turn the AFC off as tuning into a weak station is very difficult if it is located close to

a stronger one.

After a nicely timed warm up, a pleasing and warm sound presents itself. No doubt some will believe that this is a result of the valves but I think that the loudspeaker and its enclosure have the greatest effect on the overall balance. A slight bass lift is ever-present at all settings of the volume control, there is no obvious 'loudness' circuit that lets all the bass disappear

once one ventures above polite listening levels. Above this one finds the sweet but slightly nasal midrange which seems to be a deliberate feature of all modern quality radios. It makes speech programming a very easy and enjoyable experience in particular and simple music is a joy too but this voicing, along with the lack of a tweeter, means that much of the treble is a muddle from which complex detail cannot be discerned. The effect of the valves, when compared to other sets that use Class D amplifiers in particular, comes through as a freedom from grain and the ability to render certain vocal sounds without sibilance and it is this ability that most convincingly makes a case for the unusual design of the set as a whole. The tuner section is essentially competent and is certainly an improvement over the software driven FM receivers that one often finds in DAB sets, even if perhaps it is not quite up the standard of a similarly priced conventional tuner such as the Creek Destiny or the Micromega FM10.



**TABLE TALK**

FM broadcasting in the UK started in the mid nineteen fifties and the high quality reception that this made possible led the setmakers to introduce new ranges of high performance models. Here are three of the very best, all of which are still fairly easy to find today. They'll have doubtless inspired the designers of the Cayin SP105i...

The Pye FenMan II of 1957 was arguably the finest British table radio of the valve era. A no-compromise design with four loudspeakers and eleven valves, it was designed to obtain the maximum performance from the new FM broadcasts. Novel circuit features included a push-pull output stage with two EL84s that was stabilised by current feedback and a Foster-Seeley discriminator in place of the more usual ratio detector. Performance was excellent but they are not the easiest of sets to restore.

Similar in scale but less daunting technically, the Bush VHF64 of 1958 was styled to look like a German set with a big dial, lots of golden metal trim and plenty of knobs and buttons. Inside, well executed conventional circuitry and high quality engineering maintained the maker's outstanding reputation for reliability. Eight valves were used with an EL84 in the single-ended output stage which drove three loudspeakers, including an electrostatic tweeter.

Finally, the Hacker Mayflower II of 1963 covered the FM band only and was housed in a simple and strikingly modern looking cabinet. The eight valve circuit boasted push-pull output from a pair of ECL86s and AFC – a real bonus in an FM valve receiver as it effectively countered the drift that usually occurred during warm up.

**CONCLUSION**

The princely sum of £745 seems a lot for a basic mono receiver, but still the Cayin SP105i does offer a new way to enjoy broadcast material which can be highly convincing. It is definitely worth an audition if you devote a lot of time to the radio, and crave a receiver with a difference.

**VERDICT** ●●●●

Interesting, charismatic and well engineered valve/transistor hybrid that gives good performance – at a price.

**CAYIN SP105i** £745

Audio Sanctum

☎ +44 (0)17517 888 738

www.audiosanctum.co.uk

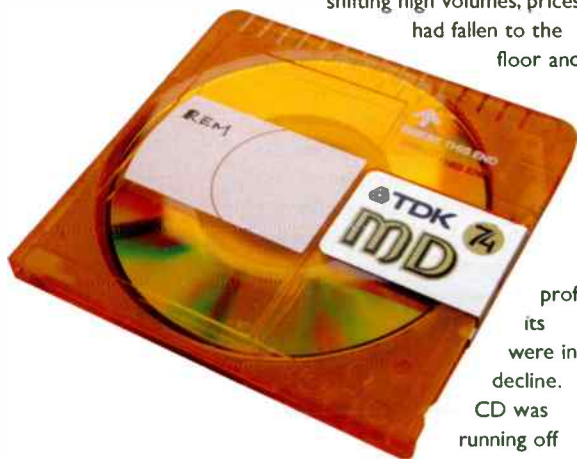
- FOR**
- well engineered valve section
  - first class cabinetry
  - character
  - style
- AGAINST**
- unexceptional sound
  - no line input
  - price

# Small Wonder

**As news reaches us that Sony is ceasing production of MiniDisc portables after nineteen years, David Price looks back at the format's chequered past...**



**M**id-nineteen eighties Tokyo was a frenetic place. Japan's economic miracle looked unstoppable, as decade after decade of near double digit growth had lifted the country out of poverty and up to the world's second largest economy. But Sony's personal audio-video products division was still complaining that Japanese retailers were desperate for a new product to sell. Although cassette machines were still shifting high volumes, prices had fallen to the floor and



profits were in decline. CD was running off shelves but that couldn't last forever, so what Sony needed was a glitzy new format to bring customers in and get them to pay money. So in 1986 the company's president Norio Ohga duly tasked his product developers to make a recordable disc-based audio system to complement the ubiquitous Compact Disc.

There were rumours of Philips and Matsushita developing a new Digital Compact Cassette (DCC), but Sony's management gambled that their new MiniDisc system, with its optical disc-based random access design, would prevail in a future format war. Back then however, MD was far easier said than done. The technology was especially difficult for portable products – power consumption from its laser pickup was very high, as was the weight. CD players were still a major technological feat back then, so a miniaturised recordable version was a big ask.

Sony naturally rose to the challenge, using its many sub-divisions to produce answers for their various problems. They completely redesigned the laser pickup system, cutting its weight by a factor of ten. But this required miniaturisation of the sort even machines couldn't handle; the result was the Sony's Bonson plant, which once made 8.1 million cassette Walkmans a year, was retasked to make the tiny precision components which were too small to ride on standard assembly lines. Hundreds of women sat making the pickups by hand, using tweezers to assemble parts the size of grains of rice, the story goes. In a changing business world where Sony was outsourcing much of its portables production to its Malaysian manufacturing facilities, it was a sign of the importance Sony placed in MiniDisc

to make it in Japan.

No less clever was the compressed digital audio coding. With the cooperation of the Sony Information Systems Research Centre, the company developed ATRAC (Adaptive TRansform Acoustic Coding), which chopped out the inaudible parts of the music data, to scale the music files down to one fifth of that of CD, with a bit rate of 292kbps. Special chips were developed to do this whilst consuming lower power than would otherwise have been possible. Special memory buffers were built-in to make the portables 'shock proof', unlike CD Walkman of the same era.

The new format finally arrived in Japanese shops on late 1992. I was in Tokyo at one of Sony's flagship stores on the day of its release, and can still remember the excitement. Customers loved it, and it certainly created more interest than the rival DCC format launched almost exactly at the same time. Even so, the space-obsessed Japanese still found MD portables bulky by cassette Walkman standards. The MZ-1 was the size of a paperback book and consumed 4W, meaning it ate batteries; unlike the slick cassette portables of the day. Still, compared to DCC portables, the format still seemed more practical, and the full size machines were in another league; it took seconds to skip from track 1 to track 10 on a MiniDisc, whereas it was minutes with the DCC. The



little 64mm fully enclosed discs were also far more sophisticated in look and feel; for Japanese buyers at least, there was no contest.

Sony didn't rest on its laurels, pushing hard to get the power drainage down – juicy spindle drive motors were replaced by flat motors that used a third of the power, and the number of Motorola ICs used was paired to the bare minimum. In Sony's fiftieth anniversary year of

format from becoming a runaway success.

MiniDisc's next big moment came in mid-2001 with the introduction of Net-MD. Launched towards the end of that year, the portable MZ-N1 was the first recorder to use the new technology which allowed direct music transfer from PC to MD via a USB link. The main advantage was a fast transfer rate, which meant you could 'rip' your CDs to the

Around this time, Sony again tweaked the ATRAC system for better sound and the final DSP-Type R variant became acceptable for serious audiophile home use. Sonically however, the high watermark of MiniDisc came in 2004 with Hi-MD, the most sophisticated version of the format ever, and arguably what it should have been from the off. It offered a variety of compression options as well as

"it's fair to say that MP3 speared the MiniDisc portable, with Apple's iPod as its poison tip..."

1996, the market for MD portables suddenly doubled, and again the next year, as the machines finally became compact and easy to use; at last their size was being limited by the physical dimensions of the discs themselves. The dinky new playback-only units were now using around 280mW and measured just 13.5mm thick; they took over half of all portable MD sales in Japan. Selling for £199, a Sony MD portable was ten times more expensive than the cheapest cassette Walkman, but sales were buoyant. In 1995 a 74 minute MD had cost £5.50, but prices were now down to £2.25 in their home market.

Although MiniDisc enjoyed a healthy start to life in Japan, where customers – often commuters on packed trains – placed miniaturisation and features at a premium, in Europe this was less of an issue. Instead, the key was sound quality, and in its early days MD did *not* score well on this point. The first versions of Sony's ATRAC coding system sounded audibly inferior to its rival DCC (which used a variant of MP3), giving a dry and clinical sound that was light in the bass and fizzy in the treble. To their credit, Sony engineers realised this early on and worked hard to rectify it; the new third generation machines launched in 1996 sounded considerably better. The company duly sent marketing men to Europe, to meet hi-fi magazine editors and demonstrate the difference. Allied to a new marketing push, this really propelled the format forward in Europe, with a million units sold (the same as Japan three years earlier). When the new ATRAC 4.0 machines launched in 1998, the worries over sound finally faded away, and by 2000 Sony was reportedly selling eight million across the European Union. In the US though, sales were just a fraction of this, despite Sony's best marketing efforts. Yet the United States never really got MD, and this was what ultimately stopped the

machine in your computer rather than having to record them in real time via a digital link from your CD player. It certainly reflected the massive interest in using computers for audio, but by this time a whole new generation of MP3 portables had appeared on the market, giving Sony a serious headache.

the ability to record completely uncompressed, at true CD-quality. Sony launched a 1GB blank disc that was able to record an hour and a half of such music.

By 2005, MiniDisc's star was very much in the descendent. It didn't make it as a serious audiophile format until right at the end of its

## ATRAC TALK

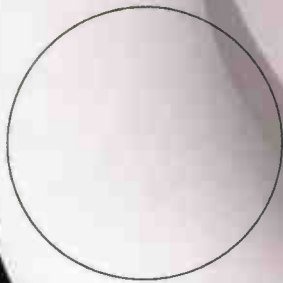
A single 2.5" square 140MB MD holds a CD's worth of music, compressed by a factor of five by Sony's Adaptive TRansform Acoustic Coding system (ATRAC). This is a perceptual coding system, a data reduction technique that attempts to encode only the information audible to the human perceptual system.

The system was improved immensely since the first Sony MZ-1 MiniDisc recorder. ATRAC 1 was noisy, with obvious compression and lossy artefacts. ATRAC 2 improved on this, taking away all those strange whistles and chirps, but was hardly a satisfying listen. ATRAC 3 improved to 24/16bits for word and coefficient length (previously, it had been entirely 16bit), whereas 3.5 added an input width of 20bits. This was the first truly listenable incarnation of the codec, and on the high end machines didn't sound half bad.

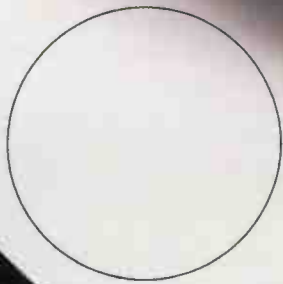
But it wasn't until ATRAC 4 arrived that MD became a consistently fine sounding format – thanks to processing entirely in 24bits with an input width of 20-bits. ATRAC 4.5 arrived on the high end MDS-JA50ES, and then ATRAC DSP Type-R, which offered a slightly cleaner treble and more air and space. Little has really improved since this, as Sony has devoted itself to squeezing more music onto MD, rather than better sounding music. The result is MD LP (and derivatives) which give huge recording times, but poor sound only suitable for speech.

The last machines (such as the 2004 MZ-RH1, pictured below) gave the option of uncompressed recording in Linear PCM, providing CD quality from the newly launched Hi-MD discs. Starting very much as the poor relation of Compact Disc, MiniDisc was now a sleeker and more versatile complement for it.





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working life, whilst its portable prowess was becoming increasingly eroded by the MP3 boom, and then Apple's iPod which launched in 2003. Indeed, it was this product which finally put paid to the format; it could carry hundreds of albums and/or store uncompressed music. Factor in a vast supply of free music (albeit illegal!) from Napster in the early part of the last decade and it was curtains for the MiniDisc.

With 22 million units sold, the format was never a failure, but nor was it the stellar success that Sony had hoped, especially outside its native Japan. The reason was that the format always seemed to be just behind the curve – the

early portables were a touch too big and crude sounding, whereas the later machines were great to use, beautifully built and packed with features yet still couldn't compete with the flexibility of Apple's new wonder gadget. Sony tried mightily hard to play catch-up, but events beyond its control such as the stratospheric rise of downloadable music frustrated their efforts. It's fair to say that MP3 speared MiniDisc, with the iPod as its poison tip.

For this writer, MiniDisc was the last hurrah of Sony's heroic age – when the dynamism of its founder Akio Morita ruled the consumer electronics world. It was a time when Sony was driven by engineering purity rather than sales and marketing common sense. From the mid nineteen sixties to the mid nineties, the company came up with countless new technologies which were immensely expensive to research, develop, manufacture and market. They did so because they *could*; if something didn't catch on, Sony just moved on and tried

**SONY TIMELINE**

- 1946** first rice cooker produced
- 1955** first transistor radio
- 1979** first cassette Walkman
- 1988** Digital Audio Tape launched
- 1992** MiniDisc launched
- 1995** Sony PlayStation launched
- 1999** Super Audio Compact Disc launched

again. At the same time, almost all their rivals followed meekly behind, making lowest common denominator products that were as risk-free as they were uninspiring. As the last surviving product from Sony's *belle époque*, MiniDisc is a reminder of better times, so it's all the more sad to see it go.

**MODEL GUIDE**

- MDS** separates recorder
- MZ-E** playback only portable
- MZ-R** portable recorder
- MZ-N** portable Net-MD recorder

**TIME PASSAGES - 1998 Sony MiniDisc and 2008 Apple iPod compared:**

	<b>SONY MZ-E25</b>	<b>iPOD CLASSIC</b>
<b>price (new)</b>	£129	£195
<b>year</b>	1998	2008
<b>size</b>	102x75x17mm	104x62x11mm
<b>weight</b>	130g (empty)	140g
<b>case</b>	aluminium	aluminium, stainless
<b>colours</b>	silver, orange, blue	silver, black
<b>power</b>	1xAA, NH9WM rechargeable	USB rechargeable
<b>playing time</b>	6 hours (AA)	35 hours
<b>max playing time</b>	160 mins (mono)	120,000 mins (128kps AAC)
<b>typical bitrate</b>	292kbps ATRAC 3	320kbps AAC
<b>codecs</b>	ATRAC 3	AAC, HE-AAC, MP3, Audible, ALAC, AIFF, WAV
<b>display</b>	63x63mm LCD, LED backlit,	320x240 pixel
<b>accessories</b>	stick remote, headphones, soft case, AA battery	headphones, USB lead





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## LETTER OF THE MONTH PRIZE



KEF Q100 LOUDSPEAKERS

For more advice see Letters from earlier issues at [www.hi-fiworld.co.uk/letters](http://www.hi-fiworld.co.uk/letters)

A pair of KEF Q100 loudspeakers are on their way to **JEFF SHARRATT**, Letter of the Month winner in our **AUGUST 2011** issue.

## Letter of the Month

### SPEAK EASY

I am writing to ask your advice on buying new speakers as I find your reviews to be the most reliable and revealing. Unfortunately, I live far from any hi-fi retailers which makes it difficult to hear any demonstrations, and I've yet to read a review that made me think 'that's the one'.

I currently have a pair of Monitor Audio PL100s, with a wonderful Luxman 590A II integrated amplifier and Renaissance transport and DAC. I love the clarity of the above set up and vocals are a joy, but the PL100s can be bright in tone, as you have pointed out in past reviews. I am looking for something as musical as the Monitor Audios, but more even handed and with more bass. The ability to produce a good soundstage is also important to me. My listening room is 5m x 5.5m x 4.3m high. I listen to all kinds of music, but avoid anything with a heavy bass beat. I can spend up to £6,000, perhaps a little more. I enjoy your magazine, especially readers letters.

**J. Robertson**  
Perthshire

The Platinum Series loudspeakers have great qualities but I found them too bright and I also have reservations about bass quality, at least from the PL200 and 300. All the same, they are a difficult act to follow because by comparison most other loudspeakers will sound less incisive and less apparently clear. One loudspeaker that will definitely appeal is the Eminent Technology LFT-8b (see January 2010 issue).



Made near Perthshire, the superb Tannoy DC10.

It is also very reasonably priced for what it is. If this is too radical then a very obvious choice is manufactured just south of you in Glasgow, namely Tannoy. Their DC8 and DC10 loudspeakers are strong in the bass but smooth and sophisticated elsewhere. I am sure they will appeal and it is likely you can get to hear them even though you are in

Perthshire. Otherwise, think Martin Logan and the new Theos, which we hope to review soon. **NK**

If you're temperamentally inclined to the Monitor Audio Platinum type sound, but crave more refinement, then without hesitation I'd recommend the Vivid V1.5. These have a lovely open sound,

with wonderful soundstaging and real punch, yet they're delicate and refined beyond their price point – a truly lovely listen! **DP**

### TABLE TALK

Two years ago after reading positive reviews in *Hi-Fi World* and other magazines I purchased an Avid Diva II turntable for occasional use with my record collection. On the advice of the dealer at the time I fitted an SME 309 tonearm. Since the purchase last year of an Audio Research PH5 phono stage, vinyl playback has become my preferred method of listening to music. After several upgrades in the last year my system now comprises an Audio Research LS26 and PH5, a Musical Fidelity A5cr power amp and Sonus Faber Cremona M loudspeakers.

I am now looking to upgrade the front end. My first thought was to buy the Diva II SP upgrade package but at £1,500 plus shipping it looks very poor value for money considering the price differential between the two products. I know that the Diva II SP is a turntable that you think highly of. My question is, should I upgrade the Diva II or just trade it in for a Volvere SP or some other turntable, bearing in mind that I will probably get the best deal from an Avid dealer.

I will of course fit the SME arm on whatever turntable I buy; can you recommend a suitable cartridge. I am not an audiophile and just enjoy listening to music such as Pop, Folk, Instrumental and female vocalists, so for me involvement with the music is more important than the last ounce of resolution.

Finally a question about cables: is there any benefit to be gained by fitting a different cable to the SME tonearm? If so what would you recommend?

**Fred Banks**  
**Netherlands**

Hmmm... what a question! You say that the last ounce of resolution isn't important, and that you like an involving sound. Well in that case I'd recommend you move away from the Avids. I was going to recommend the Volvere Sequel which is a great deck with a thunderous, relentlessly powerful sound and massive amounts of information, but euphonic, smooth and gently musical it is not – hardly the ideal weapon of choice for folk music, then!

Instead you need to look towards something closer to the Nottingham Analogue stable, and

the Fletcher Audio Omega Point 5 (£3,699) is probably the most suitable – this isn't a Notts Analogue deck but was the last creation from the aforementioned company's founder, Tom Fletcher, and as such the ultimate expression of his philosophy I'd say. It will provide a fine platform for your SME 309, although the Audio Origami PU7 will sound quite a lot more 'organic' and musical should you wish to upgrade it later. **DP**

Hi Fred. Funny that you do not mention the cartridge you are using at present. Both the SME309 and Audio Research PH5 phono stage

original form on our website, [www.hi-fiworld.co.uk](http://www.hi-fiworld.co.uk). Go to the Olde Worlde section and here you will find Old Buying Guide. However, you will find a far more detailed contemporary listing in our World Favourites section. This will be updated in the near future. **NK**

### MEANS TO AN END

The notes following below are from Erno Borbely's website. They could form the basis of an interesting article/ investigation for publishing in *Hi-Fi World*.

Use Terminated Interconnect Cables  
A preamp feeding a power amp with



### What is the best way to upgrade my Avid Diva II turntable asks Fred?

suit a good moving coil (MC) type, but you seem to be implying that you are not especially quality conscious, so I am confused! This could be taken to mean that a good moving magnet (MM) cartridge will do, in which case I recommend Ortofon's 2M Black as usual. Another way of reading your words is that a half decent MC would do, in which case a Benz Micro Ace would suit. **NK**

### GUIDES TO THE GALAXY!

I have been able to access the older buying guides and reviews pages on your website in the past but it now appears to be unavailable or has moved. Yet it still comes up in search engine results. Can you advise me of how to access this info or tell me its new location? If it has been removed it would be most disappointing. Could you make the listings available as a download?

**bandit66**

Many people asked for this now obsolete guide to be resurrected. It provides useful information on old equipment and helps when buying second hand items from eBay, we were told. So you'll now find it in

interconnect cable is shown in fig. 1. Normally the output impedance of the preamp is in the order of 50 to several 100 Ohm. The input impedance of the power amp on the other hand is in the tens to hundreds of kilo Ohm. Connecting these together with a shielded cable means that the cable sees a low driving impedance and a very high load impedance. The result is that the signal you are sending from the preamp bounces back from the other end resulting in echoes. And the signal will be smeared by the time it arrives at the power amp. This is practically independent of whether you are using a cheap shielded cable, a professional coax cable or a 1k\$/m fancy silver cable. The reason is that the cable is not terminated with its characteristic impedance.

Consequently significant improvements can be achieved by using terminated cables between pieces of audio gear. This is especially important when the distance is several metres. Typical example is a line amp sitting next to your armchair and drives a 10m cable going to the power amp. In fig. 1 I have designated the output impedance of the line amp driving the cable with R





**Mike Oldfield's 'Tubular Bells' is still a thrill in the car, says Mitch Long...**

and the other end of the cable is also terminated with the same resistor. This resistor has to be equal to the characteristic impedance of the cable. If you are using a 50 Ohm coax cable then  $R=50$  Ohm, if the cable is a 75 Ohm video cable then  $R=75$  Ohm. Should you use a 150 Ohm microphone cable, then  $R=150$  Ohm. Naturally the connector at the output of your line amp and at the input of your power amp has to have the same impedance as the cable. If you are using  $R=50$  Ohm then you need a 50 Ohm connector. In case of  $R=75$  Ohm the connector has to be a 75 Ohm one.

Fortunately there are very good 50 Ohm and 75 Ohm BNC connectors on the market and they are much better than any RCA connector you can buy anyway. If you terminate the cable at BOTH ends with its characteristic impedance, then it appears to be a purely resistive cable and there will be no reflections (echoes) back from the load. This is not new; the RF people have been using this for ages.

**Jon Eigenhuis**  
South Africo  
[www.lowveldaudio.co.za](http://www.lowveldaudio.co.za)

Thanks Jan, but the characteristic impedance of a line is valid only over its operating frequency range – and that's why “the RF people” have been using it for ages. The distributed values of capacitance and inductance in a cable are so small they have no impact at low audio frequencies, at least over 1m or so. Coaxial cables typically work from Radio Frequencies (RF) 100MHz upward where the need to match drive impedance to cable and load impedance is important; at audio frequencies lower than 0.02MHz it is not.

Also, audio cables do not have a characteristic impedance, and audio

line drive stages are not designed to drive low loads continuously. Drawing excessive current by slugging a line driver with a resistor is likely to raise distortion and it could even overheat the output device. So this is not something we are going to pursue! (the Borbely website is now closed)

There are bigger issues elsewhere, quite frankly, and the use of all-balanced circuitry driving balanced analogue lines is probably a more fruitful area to pursue, since it cancels certain forms of noise and distortion and it also breaks earth loops by separating audio from earth currents. Yet few people do it. Instead everyone is using cheap (60p or so) unbalanced to balanced ‘off-the-shelf’ line drivers so as to be able to fit XLR sockets. There's still quite a lot of sensible engineering that can be done in audio, but it doesn't include putting resistors on the ends of cables. **NK**

#### DRIVE TIME

I was driving to work today in a Mazda, a totally stock car normal for Singapore. The stereo has no brand, the speakers have no brand, the wiring is probably all SWG20 maximum. But what a glorious ride, the sun was shining, everyone was being the usual speed kings – must get in first in that less than a car distance gap, but who cared! Depeche Mode on CD have never sounded so good, everything laid out in front of me, bass was distorted and soggy, vocals distorted at the top - but the thrill of it! As I said it's a nondescript car stereo, but

it rocked the house. car vibrating, back window vibrating like the skin on a bass drum. Almost a live experience and feel - fantastic. This is completely different to the home environment where the total sum spent probably gets close to the car price.

I've suspected over the years that perhaps the system can be an obsession and the car experience sadly sort of backs it up. Got in to work yesterday and was humming in the lift; a colleague asked, “why you so happy today?” I'd spent the night before in a pub listening to some real awful attempt at Irish music with penny whistles and flutes, the only positive point was that it was easy to get a table, you all know why.

So half an hour in the car the next day restored my nerves and let the music flood out, not really hi-fi, bit distorted, but Tubular Bells on CD is still a thrill and we don't want the thrill to be gone – it's the music that matters!

**Mitch Long**  
Singapore

#### LIGHT OF THE WORLD

I would be grateful for your advice. I run equipment with which you are very familiar, so I expect you will be very well placed to push me in the right direction. I currently run a Clearaudio Champion 2, with a carbon Unify tonearm and Clearaudio Maestro MM cartridge. This feeds an Icon Audio PS3 (with Jensen Caps), Audio Innovations S200 preamp (through which I also run a Leema Stream II CD player) and Icon Audio MB845 Signature amplifiers. These, in turn, feed a pair of Ascendo C7 loudspeakers. The Ascendos are a bit of a rarity in the UK: they are a four way design with a forward-firing coaxial mid/treble unit, a rear-firing tweeter and an additional bass unit inside the speaker enclosure. The amps and preamps sit on Vertex and Kinabalu platforms on Atacama Equinox stands. I also use a Vertex Tag mains block and



**The Music First Audio transformer preamp, a clean, airy and open sound.**

several Vertex Roraima mains cables. These have cleaned up the sound of my system hugely and have probably been one of best upgrades I have made in recent years.

Overall, I am pretty happy with this set up. To my ears, it sounds beautifully smooth with great soundstaging and powerful dynamics, but on vinyl it sounds a trifle too 'dark' and in need of a some extra openness. I suspect the fault, if fault is the right word here, lies with the combination of the Icon amplification, Jensen caps and smooth loudspeakers. Ironically, CD sounds much more open, though lacks the liquidity and depth of vinyl.

What I am looking for is a change of cartridge and new preamp to replace the Audio Innovations. I am particularly interested in your advice on a new MC cartridge that will provide the extra openness I am seeking without adding treble spit and sibilance which I loathe. For reasons of domestic felicity, I have a budget of around 1500 pounds for the cartridge and the same again for the preamp. I have no particular brand loyalty, though I confess to completely irrational pangs of desire whenever I see the name Benz Micro mentioned (probably not helpful and a core reason why the heart should not be allowed to rule the head in these matters). Naturally, under normal circumstances, I would audition as much as possible but without hearing equipment in the particular context of my system you never know whether what you hear in a dealer's showroom will translate especially well at home.

I hope that gives you enough information to work with. I look forward to your response with keen anticipation.

**Kelvin Meek**

Hi Kelvin. You will get exactly what you want with my favourite cartridge, the Ortofon Cadenza Bronze MC. The Bronze has a gorgeous tonality, sweet and sonorous, yet is open and lucidly clear as only a fine MC can be. It is not as dark as the Cadenza Black and does not have the academic levity of the A90, nor the characterlessness (!) of the Per Windfeld. It's like shining a gentle golden light onto the music; the lift is there but it is slight and subtle. It is my cartridge of choice (yes, I prefer it to more expensive designs) and Rafael Todes has just bought one too. Since his ear is acquainted to live instruments I feel my choice is vindicated!

The Bronze will counterbalance the dark tonality of your vinyl front end. You have enough gain in the PS3 phono stage to drive the power amps direct and this suggests you consider a passive preamp like the Creek OBH-22 or, far better, a Music First

Audio transformer preamp. The latter has a brighter, airier quality than active valve preamps and would again help lift your sound. **NK**

### SUPER MARKET SWEEP

It is not part of my normal psyche to complain about turntable reviews – such events should be encouraged and are in themselves most welcome! However, this latest vinyl shoot-out in Hi-Fi World had me perplexed...

This perplexity was not related to a Michell turntable coming out on top, as one would expect that in Hi-Fi World of course, but was in fact related to the inconsistent and unfair choice in turntables for review.

As an example, why choose the Nottingham Analogue Interspace deck when the natural competitor to the Michell Gyro SE / Technoarm combo in price would be the Nottingham Analogue Ace Spacedeck and Space arm combination? The Notts Analogue Interspace is significantly cheaper than the Gyro deck combo tested, but the Spacedeck/Spacearm is almost identical in price.

I don't think this is acceptable really. If you wanted to buy a car you would not compare a Ford Fiesta with a VW Golf.

Reviews such as this can be misleading on a number of levels. They can be construed as bias towards a certain manufacturer or lead to conclusions that are not valid in the real world. I hope Hi-Fi World have the necessary gumption to actually address the points in this letter and mend their ways!

**Antonio Pagliuca**

In our group tests, we tend to do a 'sweep' of models at slightly varying price points, so we can look at what's on the market and whether it's worth spending extra on. Sometimes we get a surprise where the £1,200 CD player (or whatever) betters the £1,800 one; sometimes we don't. I think this often more enlightening than umpteen models selling at exactly the same price. I think that people need perspective, and the group test is the ideal place in which to give this. **DP**

### BIG AUDIO DYNAMICS

Over the last decade, I built a system that satisfied me very much. It is

composed of a SME 30/2A and a Soundsmith Strain Gauge cartridge, a Linn LPI 2 with Ekos arm, ArkivB, Lingo and Linto, (which I just could not sell after I bought the SME, a dynamiked Linn Akurate DS, an Ayre K1xe preamp, V5xe amp and Quad ESL-2905. Cables are from Nordost and Cardas. I mainly listen to acoustic music, jazz, blues, folk-rock and classical.

Last month, I purchased a Cary Audio Design Xciter amp and Grado GS1000i. What a shock! The music is presented in a completely different way, of course, but the realism is huge, according to me. Actually, I think what I miss in my main system is DYNAMICS! The soundstage is huge and precise, the timbre are rich and full bodied, big amount of harmonics but, in comparison with Cary and Grado, it lacks dynamics.

So I'm wondering how I could begin my quest to dynamics, without sacrificing soundstage and harmonics. The first solution could be to go to valves. Quad II-eighty? Icon Audio 845? SILK Glowmaster KT88 (balanced like the Ayre combo)? Or change the loudspeaker? Big Tannoy Prestige? Or something else...

**David Nowicki**

Er, well all of those! A big Tannoy Prestige series loudspeaker driven by a valve amplifier is all about dynamics; it is high fidelity on a different scale. The only difficulty here is that big Tannoys need big rooms, around 30ft or 10m long at least if you are to hear how low and clean they go. Smaller rooms get over excited and can add boom, I have found with Yorkminsters. But Tannoys are a polar opposite to your Quad 2905s, which



**Ortofon Cadenza Bronze: like shining a golden light on the music, says Noel...**

are impressive loudspeakers to say the least, if in a different way. You really need to find a dealer who can demonstrate Tannoys to see whether you want to make the change. Just





**Cambridge Audio Azur 650 amplifier has fine trim tone controls that can subtly lessen bass.**

be aware that most dealers use solid-state amplifiers, the end result being a hard, remorseless, transistory sound that isn't very nice. The midrange horn of a dual-concentric is a little hard in itself so the two don't go together well, and Tannoys use the first few Watts of any amplifier's output, which are commonly dirty Watts from transistors. So if you can get to hear big Tannoys insist they are driven by a valve amplifier.

Your Quad 2905s would certainly benefit by being driven from Quad II-eighty valve power amplifiers, which will give more apparent oomph than solid-state, but of course electrostatics are not really about heavy dynamics, no matter what you put in front of them. Martin Logan hybrids are another option. The forthcoming Theos is an interesting proposition that may well suit you. **NK**

**CH CH CH CHANGES...**

I do enjoy your magazine and constantly find myself nodding vigorously in agreement at your attitude of judging hi-fi equipment and media on its sonic merit rather than how 'in' it is. My system is a mix of new and second-hand bits and pieces mainly assembled in the early noughties. I feel that it is ready for an upgrade...

I am going to start with the amp. I thought that the Denon PMA 350II was dying at Christmas as the right channel went completely dead, and the left rather muffled. After cleaning the dusty internals with contact cleaner and cotton buds, the Denon amp is like new again, but I still believe a change is required (budget circa £300, I would happily spend £30,000 if I had it). I have never felt that the Denon and the Rega Jura Speakers have been a perfect partnership. I have sited the system in numerous positions in four different houses. It has always sounded detailed and musical (especially when playing vinyl), but the bass has always been a bit too much on the meaty side. I have stuffed socks into the rear ports which helps, but the dog keeps stealing them!

Apart from the bass, I really like the Juras, so rather than change them, I am in search for an amp with a phono stage that will match them. At present the Rega Brio looks like a good bet,

but I can't find very many reviews on this amp. The Japanese offerings from Rotel, Marantz, Yamaha and Onkyo look tempting, but they seem to be specced with things that I don't need (second speaker outputs, loudness and tone controls, standby), so I feel that I am paying for circuitry that will never be used.

The Rega has the opposite; it has only one recording loop and no headphone stage. I like my headphones, and making tapes as well as MiniDiscs, but somehow my gut feeling is to go for the Rega and hope that the spec limitations will be forgiven when I find that they perfectly partner the Juras. I live in Belgium where British hi-fi equipment (Rega and Cambridge Audio anyway) appears to be almost double the UK price, which I find inexcusable

as we are only a two hour train journey from St Pancras. I am holidaying in the UK this year and a day will be spent buying a new amp. Could you please tell me if the Brio is a fair bet, or am I barking up the wrong tree?

**Declan Dempsey  
Belgium**

Hi Declan. In my experience Rega amplifiers are 'polite' in their sound, but smooth and civilised. They are beautifully built of course, since Rega use custom castings rather than pressed steel chassis. They are suitable for the Juras and will dampen down the bass a little, but I am not sure it will be enough. Perhaps a Cambridge Audio Azur 650A with its fine trim tone controls may help? They work at the end of the audio band so turning bass down a little will tame the Juras if they are overpowering. Cambridge Audio amplifiers are a little less svelte than those from Rega or Cyrus admittedly, but a step up from a Denon – and you get a headphone output.

Price differences are usually attributable to distributor margins and distributors are needed to handle local advertising and marketing, service returns and



**Dynamics to die for, but the Tannoy Yorkminster needs a big room...**

customer relations. You can of course buy in the UK instead; just factor in transport costs, but they are not so great unless the parcel is very heavy. **NK**

Hi Declan – referring back to reader Antonio Pagliuca's letter ('Super Market Sweep'), in 2006 I did a group test of integrated amplifiers spanning £350 to £1,000-plus. The cheapest there, the (£350) Rega Brio very nearly came top of the group – and duly won the Hi-Fi World best amplifier 2006 Award a few months later. I can still remember its wonderfully musical sound that was quite unlike most solid-state amplifiers. As such it comes highly recommended as a used buy, and I think this is the one you should choose. **DP**

### META-PHYSICALLY SPEAKING

*I am regarded by family and friends as a hi-fi expert and am often consulted. So far my advice has been very well received. Little do they know that I merely consult Hi-Fi World! So I would advise Chris Mitchell and other readers not to worry about the quality of HFW's reviews and advice. It is simply top class. However, I now need some help myself.*

*I have been trying to get into computer audio and have used several different programs to rip CDs to hard disk. Unfortunately they all seem to want to catalogue the rip as an album or playlist. For example, I ripped a CD of Mitsuoko Uchida playing Schubert's last two piano sonatas; this showed in the catalogue as an album entitled "Mitsuoko Uchida plays Schubert" – with no other information.*

*As my collection is mostly classical this form of cataloguing is useless. Can you recommend ripping/ cataloguing software more suitable for classical works - preferably one that does not require an internet connection. I thought that much of the information about a recording was contained as metadata on the CD. Is this true and how does one view it?*

*I've also tried recording internet radio using the much praised Audacity. However, I have found this extremely difficult to use and have reverted to FM tuner and cassette deck. Can you recommend a simpler alternative to Audacity?*

**Bill Lyon**

Hi Bill - ironically, considering the nice things you've just said about our advice, the answer is no! I can't help you with your MP3 ID tagging woes, so let's 'crowd source' this – if



**Linn LP-12 cannot be as good as claimed by the press says Steve Baty.**

anyone has an answer then please write in and we'll print it.

I can confirm however, that CDs do contain embedded metadata, which can take one (or both) of two forms. First, every CD has a unique (in theory) identifier code which lets the software of iTunes, etc., poll one (or more) of the various online databases to find out the artist, album and track names, etc. Sadly these databases aren't always accurate, and sometimes when I stick in some of my Japanese pressed CDs bought in the early/mid nineties into iTunes the software completely changes my CD's identity, making me type in all the data manually! Still, this identifier is just a number, there's nothing textual about it – getting the track/album/artist details relies on this number being matched up with a separate database, usually online.

Second is the CD Text system. Sony have been using this standard for a number of years now, and any CD marked CD-Text will give extensive metadata, displayed on a CD-Text-compatible CD player's alphanumeric display. Not all CD machines have CD-Text, but again you can bet a modern Sony machine will have. CD-Text is stored either in the lead in area of the disc or in the subcode channels; the disc will play on all CD players but won't give text on non-CD-Text machines.

As for Audacity, I'd persevere - a couple of hours of fiddling should see you getting the hang of it. It's no harder to use than a high end late seventies cassette deck with variable bias and record EQ settings! **DP**

### THE ONE AND ONLY

*How can David Price still think that the Sondek is still a super deck? Let's look at the Linn from a non hi-fi point of view. Here we have a product that is now some forty years old and still, by*

*what I read, not working properly. From day one of purchasing a Sondek you were onto a loser. No matter how the dealer had set it up you could not place it on a stand on a suspended floor and walk about in the same room as foot falls made the arm jump all over the place. If it was placed on a wall shelf you could walk about but the suspension was so badly tuned that in the worst cases by playing the music too loud of you got acoustic feedback that got the speakers howling.*

*Now I know the suspension was tuned in such a way to give some feedback into the music to make it more rhythmical and expressive. But this was at a loss of sound stage and depth of image or in fact any image. You could not take it back to the dealer as he had, if truth be known, brow beaten you into the purchase. And the hi-fi press had told you how good it was. Even in David's review he admits that when he purchased his Sondek he preferred the sound of the Roksan in the listening tests. Did the dealer tell him he was wrong in his choice or was it he did not believe his own ears, or just afraid of his colleagues' ridicule?*

*I own an Alphason Sonata with HR100S arm with Atlas power supply which I purchased in the mid-eighties. This turntable has been all over the country and is sat proudly on top of my Alphason five self-stand. It has never been out of tune or in need of a dealer to set it up. It was properly sorted when it was manufactured. I'm a classically trained trumpet player who's played with full symphony orchestras, brass bands and jazz combos. I do know how instruments sound even though a Linn dealer tried to tell me different, saying just because I was musician didn't mean I knew more about music and the sound of an orchestra than he did. This was while I was listening to a new pre-power amplifier with him sat on the back of the couch tapping out the tempo with*



his hand on the arm of the coach and his foot tapping the side of the couch. That's when I got up and left. Please, I was trying to listen to Adagio for Strings, by the modern composer Samuel Barber. Go to an orchestral concert and you can place the instruments across the stage and even place the percussion at the back, real depth of image. What a prat the Linn salesman was. That's how they sell the Sondek to you, get you involved in the music?

How many upgrades and rebuilds has the Sondek undergone in its time as a world class super deck? I can't even stay for too long in a room where a Linn is playing as the sound really starts to grate on me. I wonder if this is because I have perfect pitch. I don't like the Sondek as a spinner of Vinyl and the numbers that were sold, because I truly believe that it the Linn Sondek put more music lovers off hi-fi and real quality music reproduction. Linn, Naim and their dealers killed the goose that laid the golden egg with their products that always needed tinkering with and upgrading and let's be honest, sounded awful. If you already had a stereo you knew all about soundstage, imaging being deep and wide. You had heard it on your old system, read about it in the hi-fi magazines. Now at dealers with these two products we were being told that didn't matter. What mattered was musicality and rhythm, to name two falsehoods. Tell a lie long enough and it becomes the truth. Ever heard the Danny Kaye song 'The King's New Clothes'? Now there's one that leaves everything laid bare, if you listen and look at what is in front of you.

This latest upgrade from Inspire is more a total rebuild than just an upgrade. Let's look at what is left of the original Linn. The lid, the bearing, the top plate and the platter, is that just the four. How the Sondek with all these upgrades and tweaks possibly be the best deck in the world, when there are other decks that have not had anything done to them for years and they still sound and image better than the Linn. My Alphason Sonata for one, a couple of GyroDecs and Townsend's original Rock for others always sounded better. Luckily, we were all into our music rather than hi-fi and because we did not follow the crowd we still love our music. Strange how Linn and Naim are now telling people to switch to streaming their music, it's not all the fault of the music industry surely?

I know there are a lot of people out there that are going to hate me for this little remark, but between them, those two hi-fi company giants and their dealers killed the hi-fi industry. People wanted to turn on their systems and listen to some music. Not fiddle about for an hour just to make sure

it was sounding right. And by heavens the companies are still at it. With the dealers and hi-fi press telling pundits it will not sound at its best until you upgrade to the big power supply. Buyers just want to switch it on, forget about it and listen to their music. At least when you buy Japanese and some British hi-fi the products are sorted and ready to use.

At least your publication has not yet gone down the road of all its reviewers owning and using Linn-Naim systems to judge other product against. Even though they know the shortcomings of this equipment, how then can they make statements about over blown bass or imaging when it is not the product's strong point if it's connected to Linn or Naim products.

**Steve Baty  
Skelmersdale**

Phew, steady on Steve! You've obviously had a bad day at the office, haven't you? Still, it's fun to be accused of bias towards Michell earlier on in the letters section and now it's Linn – just shows you how different people read things, doesn't it? I certainly have never called the Linn 'the best turntable in the world', or suchlike, because I simply don't think it is. But I would say that in some areas, such as replaying subtle rhythmic interplay, it's still right up there with the best. You're spot on about soundstaging though – I don't think even loyal Linn employees would consider this its strong point. Put a GyroDec against the Linn and this is the very first thing you hear: the Gyro is exceptional in left-to-right soundstaging, whereas the Linn certainly is not! The way I look at it, we don't live in a world where there is "the best turntable in the world" anymore – that was a very nineteen seventies/ eighties construct.

In reality, there are a number of superdecks all of which have their strengths and weaknesses, and the best is simply "the best for you". **DP**

There was a Linn/ Naim thing as we all know, although this really is history now. And funnily, I am not sure it is entirely down to Linn and Naim! They were strong, even aggressive, in the promotion of their products, but at the end of the day there is no law against this and I think I am right in saying our Editor David Price as much holds the UK press of the time responsible, due to their unquestioning sycophancy. I largely agree, as I was there too and remember experiencing it, although I didn't buy this argument; I used various record decks including the Lux PD300 vacuum deck and an upright Mitsubishi LT5V Direct Drive (wall mounted! ) among others, plus EAR valve amplifiers. David is more certain in his perspective because he was viewing the UK from Japan at the time and realised it was a strictly local view not shared by the rest of the world.

And in any case, although my tastes lay elsewhere I am still not prepared now to agree with you and unequivocally damn Linn and Naim. They are what they are and have plenty of ardent admirers. Both companies put a lot into what they do and produce quality products in hardcore engineering terms. So let's not try and reverse the polemic. The Berlin Wall came down long ago and we are in a less divided world now! **NK**

### ALL HANDS ON DECK

*I'm a typical middle-of-the-road kind of man. Although I read every single word of your excellent paper, I have to restrain myself. I cannot simply buy*



**Michell's TecnoDec remains a great mid-price performer...**

a phono amplifier that will cost more than my entire equipment, although I am convinced that it will sound good. So I am living in sub high-end land but it's okay. I'm happy with that (but my heart ached the other day when listening to a friend's Canton-Primare system. It took some days to forget that experience).

I am now a transistor man, although I still miss my two LEAK TL 12 Point One monoblocks. I got tired of nursing them all the time so I had to replace them (that was some years ago). Now I use a XTZ 100 D3, a rather old NAD CD-player with a Cambridge Dac Magic 3 and Sonab OA 12 speakers (designed by the Swedish loudspeaker guru, Stig Carlsson. I think Noel referred to him once as the "tweeter fetishist"). Although this design is nearly forty years old, it's still sounding very modern and it got a new lease of life with a new treble unit especially made for this design.

I have nearly 2,000 vinyl records and I use an old Systemdek II with an Alphason Xenon arm and a Ortofon Kontrapunkt A. A Cambridge 640p was a superb upgrade a year ago. It is much much better than the internal one on the XTZ.

I am rather happy with my system and it now also has a firm bottom end with the help from a small but effective sub made by XTZ.

So what's the problem? I think that I could benefit by changing my record player to something more modern. I read some good things about the Project RPM 5.1. My question is this – is this a good idea? Or should I aim higher (or lower)? Or should I stay put and concentrate on a new motor and power supply for the Systemdek. Origin Live has an "Advanced dc Motor Kit" for £339. Is this the way to go?

**Anders Gjres  
Kungsgen  
Sweden**

Ah yes - Sonab! I visited them on a press trip long long ago. Stockholm was a lovely city, but their factory was North of the Arctic Circle no less. The houses had windows triple glazed to keep out the extreme cold and ladders were bolted to the walls and roofs so the snow could be cleared. In winter it was dark all day. Wow - it was one of the more extreme places I have been to. There was no shortage of timber for loudspeakers though - trees everywhere! **NK**

Hi Anders - I'd go for a new turntable. Can you stretch to a Michell TecnoDec? It's a little above your budget but you'd find it well worth it. This would give you a dramatically more detailed and dimensional sound, allied more

refinement and grip. I think. The Project wouldn't really give you a useful improvement on your Systemdek (if any), and the Systemdek is getting on a bit anyway – hence my recommendation to move to a modern design. The TecnoDec is beautifully built and would be a great partner for your Alphason arm. **DP**

### STRANGE TONE

I have actually waited until a problem has gone away to ask you what the problem was caused by. But my curiosity means I cannot simply shrug my shoulders and move on.

My system used, until recently, to make an intermittent high pitched tone solely on the right channel. This only coincided with my amplifier, which is the youngest component in the set up, and arose equally between all the sources. The amp is a Shanling STP-10 valve amplifier. If it helps, the speakers it feeds are Klipsch Heresy IIs which I understand have an 8 Ohm rating and 95 decibels per watt efficiency. The volume at which I play the system cannot conceivably put a strain on either the amp or the speakers (though I realise that the amp is only 5 watts per side).

The sound was the same dynamic irrespective of the setting of the volume control. You could turn the volume down to nil and it would be the same volume

Only loudish passages would mask it. You could not pretend it wasn't there. It would arrive relatively shortly after switch on and come and go through a listening session. Mostly, it wasn't there, and you could easily go half an hour with no issue. It was as prevalent in the winter as the other seasons, and since I do not have the radiator in my listening room switched on, I often listen in quite chilly temperatures, but the relative cold did not affect its coming and going. Although there is a transformer hum, it is only at all obvious when standing close to the amp. There is no hum through the speakers that I can detect.

My CD player is an Audio Note CD1, and the turntable and tuner are switched to it via the tape loop of an old Project 7 amp. I also use my iPod on the dedicated iPod dock. As I say, there is nothing remotely source dependent about this fault, so if the sources are causing it, that will be due to technical considerations well beyond my understanding.

I had wondered whether overheating was the culprit, but, really, nothing seemed to point so very much to that (as it did not worsen in warm weather or during a longer session).

Then, one day I decided to listen with the valve cage removed. I thought it would be a pointless experiment, but no it wasn't. It has not, in several subsequent listening sessions, caused



**For a small room Kingsound's Princess II electrostatic hybrid has real strengths.**

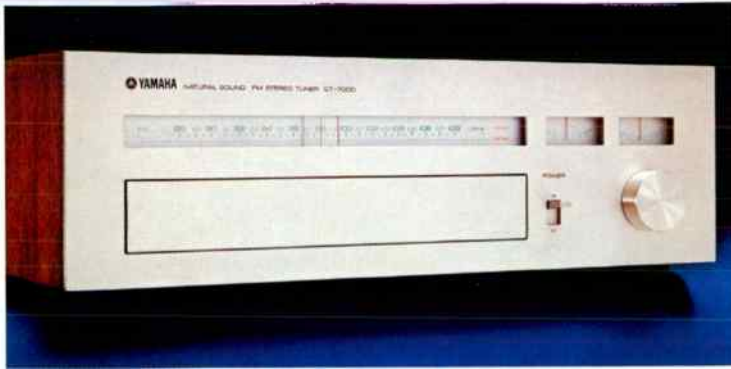
as it was if the volume went up to a high setting. It was a high sound, but given my 50 years of age and the fact that it did not seem to me to be at the ceiling of my hearing I would guess it was somewhere between 8kHz and 10kHz. It might "arrive" for a period of as little as two seconds or for several (e.g. 15 seconds). Although it arrived fairly clearly in one go, it did not switch on and off in a hard edged manner. It probably had a phasing in time of 1/4 second or more. Although it was not very loud it was always very audible.

any problems. Can it really be that the valve cage was causing it to overheat, and if so, why was the result ostensibly unlinked to heat? But if not that, what could the cage have been doing? My only added point is that I cannot detect any other improvement with the cage off.

It may be idle curiosity, as I now remove the cage, but I would still like to know what could possibly explain the problem.

Yours sincerely  
**Graham Elliott**





**The lovely Yamaha CT-7000 tuner drags in stations a Quad FM3 ignores, says Simon Gregory.**

The usual explanation for this is instability in the amplifier, but as you seem to be saying it was a mechanical noise from the amplifier and it was not coming from the loudspeakers, and that it disappeared when you removed the valve cage, then it seems to be the cage ringing. I suspect, however, that it was whistling from the electrodes of a valve and removing the cage disturbed the valve. If it comes back try removing the output valves on one channel, then the other, or put a cloth around them in turn, for a few seconds, to see if this damps or stops the noise. You may need to replace a valve. **NK**

### TAKE ME HOME, COUNTRY ROAD

*I am looking to upgrade my system for the long term. The system is composed of WD modular pre amp which has been fully upgraded and sounds great. WD 25T loudspeakers driven by bi-amped pair of Icon 845MBs. Front end is Michell GyroDec with Orbe spec. The arm is also Michell Tecnoarm with Ortofon Rondo Bronze moving coil cartridge. All this is strung together with Chord Chameleon Silver Plus and Odyssey 4 cables.*

*My question is, should I change the arm first and if so which one? I have considered Audio Origami, Funk FXR and Origin Live. With regards to the cartridge the only one that I have considered is the Benz Micro Wood SL. Should I change the arm first or the cartridge?*

*The system as it stands sounds lovely but I believe that a bit more performance is possible. My listening room measures 5m x 6.5m x 3m high. My musical taste ranges from jazz, blues, a sprinkling of classical, 60-70's soul and of course Reggae from my homeland.*

*Your advice would be most appreciated and I look forward to my next copy or should I say my next fix of Hi-Fi World.*

**Henry Curniffe**

Ah yes - Reggae. Reminds me of my misspent youth! Did I hear the

other day that 'The Harder They Come' is going to be re-made? They don't make music like that any more though, do they? Or am I just out of touch? **NK**

Well obviously readers, as you know I couldn't possibly comment on that previous remark made by Noel, so I best get on and answer this question! You've shortlisted some superb arms, and your choice really comes down to how much reggae you listen to! Basically, if you want a super-bouncy and thumpingly musical sound then it has to be the Funk. If you want a wonderfully spacious and even and open sound then it's Origin Live. And sat up there in the middle is the Audio Origami, which is the best all rounder. Get the arm first and then the cartridge; the Benz for all round use, whereas Lyra's Dorian is a hoot on pop, rock and reggae, and won't sound too bright in your system. **DP**

### HONG KONG PHOOEY

*I have had my present hi-fi system for over ten years and would like to replace it. My system comprises Musical Fidelity A3 CD player and an A3 integrated amp; Opera IIIa floorstanding loudspeakers and QED speaker cables and interconnects. The loudspeakers have never had a good write-up but with the present combination, they have given me a lot of pleasure over the years. I play music on the system every day.*

*I have been to audition three different systems at three distributors and they are:- (1) Naim Momentum 3i integrated amp and separate CD player with Pettit SX speakers with Naim's cable (I have been to the shop twice) (2) Exposure 2010 S2 integrated amp and CD player, Chord speaker cable and interconnects and PMC GB1i loudspeakers (auditioned once) (3) Musical Fidelity M3i integrated amp and CD player, Dynaudio Excite 16 speakers and Dynaudio speaker cable and interconnects (auditioned once).*

*Having listened to these systems, the choice lies between 2 or 3. For system 2, all types of classical music*

*sound very good, although I felt that orchestral music was not so wide or open but I will go again to listen to more orchestral music. System 3 is very good. I feel that the Musical Fidelity M3 set up is better than the Exposure 2010S2, so perhaps I should listen to Exposure 3010S2 in combination with the GB1i speakers. The Dynaudio speakers are very good but I feel that the GB1i are better, but the Dynaudio cable I feel may be better than Chord. I am wondering whether the best combination is the Musical Fidelity M3 with the PMC GB1i loudspeakers? My listening room is small (200-250 square feet), but I have no problem listening to my Opera loudspeakers I will go back to listen to the 2nd and 3rd options. I would be most grateful for any suggestions or advice you could offer.*

**Bryn Williamson  
Hong Kong**

That's a limited range of loudspeakers to be listening to if you are a resident of Hong Kong, I think I am right in saying. You have many more brands available to you surely, including all those from IAG (Wharfedale, Castle, Mission, Quad) manufactured in Shenzhen and Gold Peak (KEF and Celestion). Then there is Kingsound, a local brand. And doubtless the rest of the world is represented too! Not to mention The People's Republic of China of course. At least try to audition a Kingsound Princess II hybrid electrostatic loudspeaker if you can, as it has some real strengths. **NK**

It's very hard to give specific advice Bryn, as you don't specify your budget or precise musical tastes and your conundrum seems to be down to very specific synergy issues that can only really be settled with you listening to the respective components at a dealer, using your personal taste as a guide. All these products mentioned are very good and should give a long and happy listening life - it's down to you to decide which. If it was me, I'd go for a completely different approach (Cyrus CD 8 SE CD player, Icon Audio Stereo 300 integrated, Audiosmile Kensai or MyAudioDesign My1920 mini monitors), but then I'm not you! **DP**

### RADIO ACTIVE

*Thank you Hi-Fi World for a proper look at the legendary Yamaha CT-7000. Isn't it a belter!? I obtained one of these a couple of years back (from Heatherdale pre-owned, fantastic service and help, sorry about the ad here but they were brilliant).*

*Over the years I've been through*

the usual suspects in tuners (Quads, Meridian, Revox) but nothing ever seems to match this beautiful behemoth, and boy is it heavy! A tinkerers dream with all sorts of knobs to play with the only thing with mine is that the stereo light takes a few minutes to kick in. Any ideas about this? It tunes in but just doesn't light straightaway. (I have a 5 element twig mounted on the chimney). Awesome station pick-up, it seems to me, as it drags in all sorts of stations that my trusty old Quad FM3 ignores. A very interesting article all-round and reassuring to see that there is plenty of life left in some of this vintage gear.

My entire system is second-hand (except the ATC SCM 20 speakers) and consists of Michell GyroDec (the nice bronze version, don't you just love that gold bling) with QC/ SME 309/ Dynavector 10x5 (all second hand), Audion Sterling Valve Phono Stage (that came from a swap), ATC SIA2-150 amp (old model, but better looking than the new one, even if they both rather look like welding sets, ATC have never really embraced the aesthetic side of design, let's be honest. Got this amp from an ad on Gumtree of all places.

CD is via Marantz CD85 (£180 off ebay and in immaculate nick, with nice rosewood cheeks) with a Meridian 203 Bitstream DAC (and that really does open things up).

By the way, the kitchen system is even weirder: a full FM3/ 303/ 33 set (that I purchased for £60 from a friend of a friend) powering two sets of Realistic Minimus wooden cabinet speakers (both sets off ebay, one pair just needed a re-sand and polish). It's high time these little Tandy Babies were looked at seriously boys - how about it?

**Simon Gregory  
Skipton**

### MOWGAN AUDIO ETAIN

If I could take some time to cover the two issues here with the Etain you reviewed in the August 2011 issue, which were the faulty tweeter of course, and the reversal in the tweeter which you found after replacing this tweeter.

The ribbon tweeter in question here is used on our OGMA loudspeaker too and is only fitted to our top models. To date we have received no complaints about this particular unit from our customer base, either from the longer established Ogma or the newly released Etain. All our end user customers units are measured just prior to shipping to ensure quality is maintained. Any reversal in the tweeter circuit, or any other discrepancy in either the impedance or frequency response would have been picked up at that point and corrected. However none of this excuses the fault you found in the tweeter unit.

The first replacement unit sent



**Mowgan Audio's Bill Bridge explains his tweeter trials and tribulations...**

down was brand new and sealed in its original box as you probably discovered and as such we were totally unaware that there was a problem with this latest batch of drive units. Since we have been notified by yourself of the problem we immediately checked the remainder of our stock (the bulk of which was bought in to supply Etain demand) and found approximately 20% of them to exhibit the same fault, all of which came from the same later batch (earlier examples were found to be okay) and the matter has been taken up with our supplier. All our registered users of this tweeter will be e-mailed and any speakers found to exhibit this fault will be replaced at our expense.

Moving on to the reversed tweeter connections. In order to meet with your production timelines the speakers sent for review were our factory test pair as indicated in my first exchange of e-mails to editor DP and were last tested on the 30th of April and measured okay at that point in time.

During design and ongoing development it is possible for our test models, and only our test models, to have driver polarities changed at various locations along the signal chain, and not necessarily at the same point within each speaker, however ultimate polarity will remain constant between the stereo pair. For example if a change to one crossover reveals a need for a reversal to the tweeter, we would do this on the crossover while it is out of the cabinet. However for the other speaker it would be easier for us to remove 4 bolts from

tweeter and make the reversal on the binding posts there rather than undoing the whole cabinet unfitting the crossover, de-soldering then re-soldering etc etc. Likewise for the tweeter levelling resistor, this was fitted behind the tweeter on the factory pair but located on the crossover board on our production models. However on the customers' final units none of this would be necessary as the circuits and polarities are known. I cannot say for certain that we didn't err sometime between 30th of April and the review date and introduced another reversal inadvertently although I cannot remember an occasion when we would have had the need to amend the speaker as it was finalised at that time. Regardless of how this came about in this pair this is not possible on our end user speakers as they are checked just prior to dispatch to the customer and any such error would be discovered then.

Hopefully you will see from the above that the tweeter problem is new to us and is a result of a faulty batch of drive units from our suppliers. You will also note that any similar faults found on existing customer units will be repaired FOC by us including any shipping where necessary. Finally you should be aware that when the problem was highlighted to us, that our response was immediate and replacement parts were with you the following morning.

I hope the above alleviates any doubt you have about our quality of products and our customer service.

**Bill Bridge  
Mowgan Audio.**



# New world

Hi-Fi World has a new website. It now carries many of our classic reviews, making them permanently available – and we will be steadily adding more.

Take a Look at our new website  
www.hi-fiworld.co.uk

- Our comprehensive and advanced test procedures are explained in detail, aided by pictures, graphs and illustrations. See the Test sections.
- Test data referred to but not published in the magazine, such as loudspeaker distortion plots, accompany our on-line reviews.

Reviews unsuited to the magazine now go on-line. See our recent review of Eminent Technology's new LFT-16 loudspeaker for example. It didn't work properly but it was still worth an in-depth review. You'll find it interesting.

See Letters published in past issues, along with our replies – they're a valuable and entertaining read, now available on-line. More are coming. You can e-mail us from there too.

World Favourites are listed, as are 2010 World Awards. We will be adding an Olde Worlde listing soon. There is so much to come from our vast archives, including our definitive picture library.

The screenshot shows the Hi-Fi World website interface. At the top, the 'HI-FI WORLD' logo is prominent. Below it, there are several article teasers with images and text. On the left, a navigation menu lists categories like 'RECENT', 'REVIEWS', 'FEATURES', 'LETTERS', 'EVENTS', and 'CONTACT'. The main content area includes articles such as 'MARTIN LOGAN THEOS HYBRID ELECTROSTATIC', 'EMINENT TECHNOLOGY LFT-16 LOUDSPEAKER REVIEW', and 'ONKYO TX-NR809 AV RECEIVER REVIEW'. There are also sections for 'LATEST ISSUE', 'AWARDS CEREMONY', and 'HIGH END 2011'. The right sidebar features advertisements for 'SEVENOAKS', 'audio T', and 'GAT'.



# Rolled Gold

**Alvin Gold finds that beneath the smooth surfacing of Aurum's new A5, there's an integrated amplifier of glittering ability...**

It may not be a household name, although the company seems intent on changing this as quickly as possible – Quadral hi-fi and home cinema speakers have been around now for about forty years, albeit in a fairly low key way in the UK as a dealer network has only recently been established following Quadral's UK relaunch at the Bristol show in early 2011. They have a better established following in other parts of continental Europe; the brand is designed and made in Germany, and has an upmarket reputation. Aurum is a parallel brand, also part of the Quadral group which specialises in loudspeakers and more recently elec-

tronics, specifically CD players and amplifiers, including the flagship A5 amplifier reviewed here. Once again these products are designed and built in Germany rather than being factored in the Far East, which is more common these days.

If you're wondering what this means in practice, just look at the numbers. Power output of this two channel integrated amplifier is nominally 100 Watts per channel – a little less in practice, the review sample topping out at just 78 Watts into 8 Ohms in the lab, and 115 Watts into 4, which is significantly less than the 3dB boost you can usually count on when halving load impedance. The price is firmly at the

other end of the scale at £2,875, plus £195 (a total of £3,070) if you want to include the optional remote control, a real surprise here considering that usually these days the remote handset is included as standard. The family to which the amplifier belongs includes a couple of matching CD players, the C3 and the previously mentioned C5, which can at least share a single remote control with the amplifier.

Trying to put a finger on the thinking that underpins the A5 is not entirely straightforward, as the literature provided is heavy on hyperbole, and light on straightforward facts. So the amplifier is described as a dual mono design,





with independent power supplies for each channel. Straightforward enough, but the amplifier has a “full scientific spectrum of circuit technology” resulting in an “enjoyable, outstanding listening experience” – make of that what you will! Input switching uses premium signal relays with gold plated contacts, which is standard practice at this end of the market, while the output stage uses a discrete output stage, which by the way has been virtually standard across the Marantz amplifier range for many years. The input stage is built around BI-FET op amps. The volume control is described as studio quality for improved channel matching.

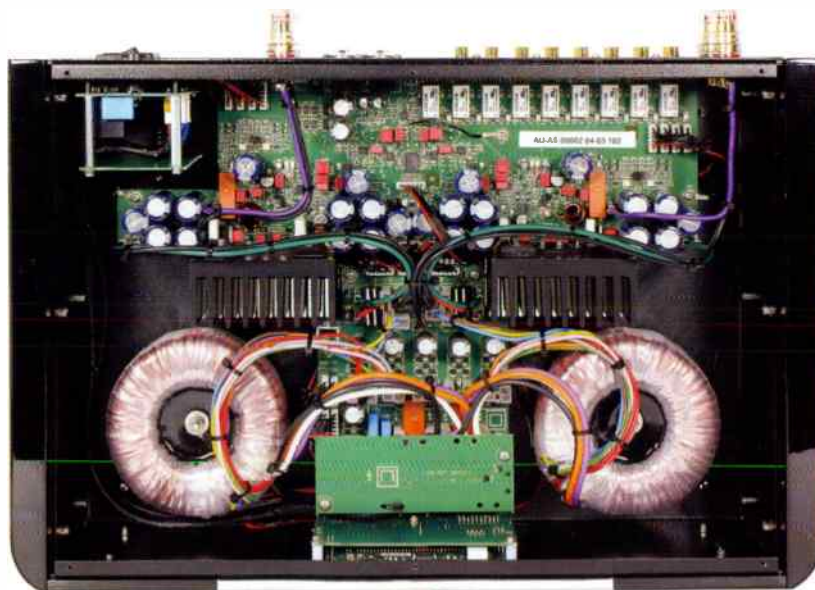
Other design highlights include surface mount technology, used to reduce signal path lengths, and for the audio signal path polypropylene films caps are specified rather than electrolytics, except of course in the power supply reservoir section and the output protection circuits are not allowed to impinge on the audio circuit path. The large, twin toroidal transformers have apparently been developed especially for Aurum Electronics, and use innovative spot welding technology and minimise electromagnetic fields. Broadband power filtering is used, whilst another special filter prevents annoying hum

from the transformers, the company says.

One strength of the Aurum A5 is that it is well endowed with inputs, including six line inputs (one labelled as a PC inputs though it used standard coaxial socketry, not USB), and a stereo-only coaxial DVD input. There is also an XLR based balanced input. There is no standard onboard phono input, though a phono stage can be connected of course. The range of user features is minimalist, though the player has a balance control, a mute switch, a means of

equalising gain through the various inputs, and another control to adjust display brightness. There's nothing important missing, but is it worth noting that Arcam among others offer almost identical features on almost their entire range.

In the flesh, the Aurum A5 is extremely solid and exceptionally well made – akin to some of the nicest Japanese super-integrateds, I'd say. It has an ‘engineered feel’ that gives confidence in its longevity. Vital statistics are 453x130x345mm, and it weighs 13.3kg.



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**SOUND QUALITY**

Sonically, although subsonic performance is slightly curtailed [see MEASURED PERFORMANCE], there was nothing I could identify in the sound that pointed to this conclusion. Indeed the bass can only be fairly described deep, powerful and muscular. The A5 is a bold, authoritative sounding amplifier, with spacious stereo imagery with powerful orchestral material, and also with chamber music, which accounts for a substantial proportion of this writer's listening. The balanced



of an integrated. I found vocal quality to be especially graceful and open, imagery being solid and spacious, and this quality held up across a broad range of musical genres. The Aurum proved perfectly able to impart the delicacy of Jennifer Warnes' brittle

rather costly mainstream amplifier. It sounds punchy and dynamic, and it can be driven quite hard, though it is not the most powerful amplifier in its class, either on paper or in practice, though it never sounded weak. Although expensive, this is an amplifier that is capable of real subtlety and grace when required, perhaps a little ahead of expectations.

"an ideal one stop solution for those wanting a high level of performance without going down the more life-encroaching pre-power route..."

input was appreciated, the amplifier sounding a little more dynamic and powerful using this method of connection, with no obvious noise intrusion, which after all is what balanced operation is all about.

Highlights from my time with the Aurum included the following three examples. First, Mahler Symphony No 3, in particular the exquisite song-like fourth movement which is scored for an unusual combination of alto, a boys choir and orchestra, and the perfect riposte to anyone who say that you can't leave a Mahler concert humming the tunes. Next was Jennifer Warnes' Leonard Cohen tribute 'Joan of Arc' (from 'Famous Blur Raincoat', and accompanied by Leonard Cohen on this track), and finally a rather obscure Schoenberg String Quartet No 2 which features, yes, a string quartet (the LaSalle Quartet, and in the final two movements a soprano – Margaret Price in this case, in an attractive but striking modern piece.

Although our measurements indicate that there was some evidence of crossover distortion, its consistent distortion signature meant this wasn't intrusive in practice, bar a little harshness at very high levels. Indeed, the A5 was capable of real subtlety and grace when the occasion demanded – actually more than I'd expected from a big bruiser

voice, and the majesty of massed orchestra strings, for example. It seemed happy to swing from gentle, subtle, quiet programme material to swingeing orchestral crescendos, without ever sounding wrong footed. It all made for a safe, surefooted sound, but never a bland one.

The bottom line is that the Aurum A5 is a decently specified, if

**CONCLUSION**

In the new Aurum A5, here we have a beautifully made, lavishly finished 'super integrated' amplifier rather in the idiom of those you'd expect to see from Denon and Esoteric in Japan, or Musical Fidelity in the UK. It's precisely the sort of product that would appeal to those repelled by the idea of vast numbers of boxes in their listening room, yet want the sort of authority and poise normally offered by high end amplifier separates. Think of it as an ideal one stop solution for those wanting a high level of performance, without going down the rather more fiddly and life-encroaching pre-power separates route.

**MEASURED PERFORMANCE**

The Aurum A5 produced 78 Watts into 8 Ohms under test and 115 Watts into 4 Ohms. With a high damping factor of 78 it possesses both power and control at low frequencies, so will likely sound quite tight and punchy.

Distortion levels were low in the midband but rose toward high frequencies in normal fashion, although this characteristic is becoming less common nowadays as transistor gain bandwidths increase allowing feedback to be maintained. The A5, however, exhibited classic crossover distortion at 10kHz that reached 0.12% at 1 Watt output. This isn't much though, and as signal level was increased from zero to full output that distortion pattern (i.e. transfer characteristic) remained reasonably stable, a good sign.

Input sensitivity was quite high via the phono inputs, measuring 270mV, but lower via the XLR inputs, likely to equalise for the high output from CD players. Overload occurred at 7V in so there's plenty of headroom in the balanced-to-unbalanced input buffer used.

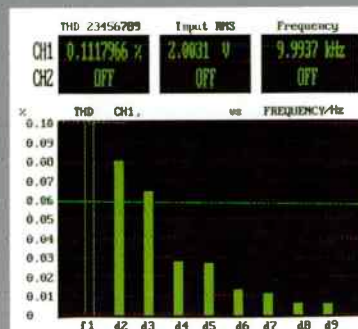
Frequency response was flat and wide, although subsonic response has been curtailed a little, but that is not

necessarily a bad thing if it ensures good d.c.stability.

The Aurum A5 measured well in every area. It is a competent modern design, if a little below what is possible. NK

Power	78 Watts
CD/tuner/aux.	
Frequency response	8Hz-50kHz
Separation	92dB
Noise	-96dB
Distortion	0.12%
Sensitivity	270mV
Damping factor	78

**DISTORTION**



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- price

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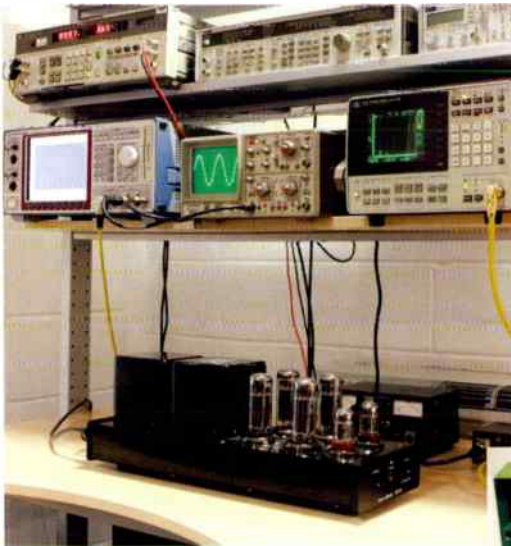


## PICKUP ARMS

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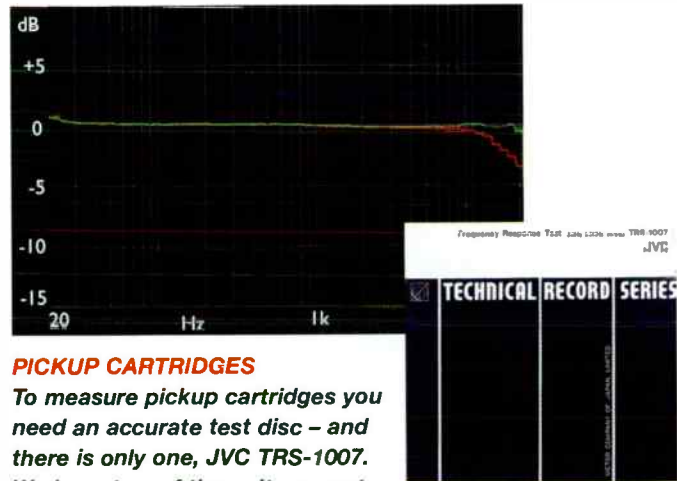
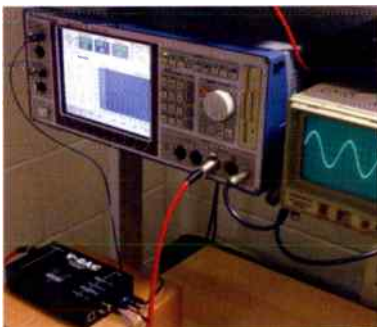
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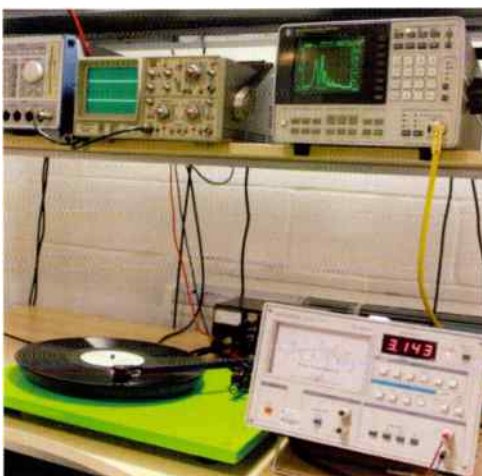
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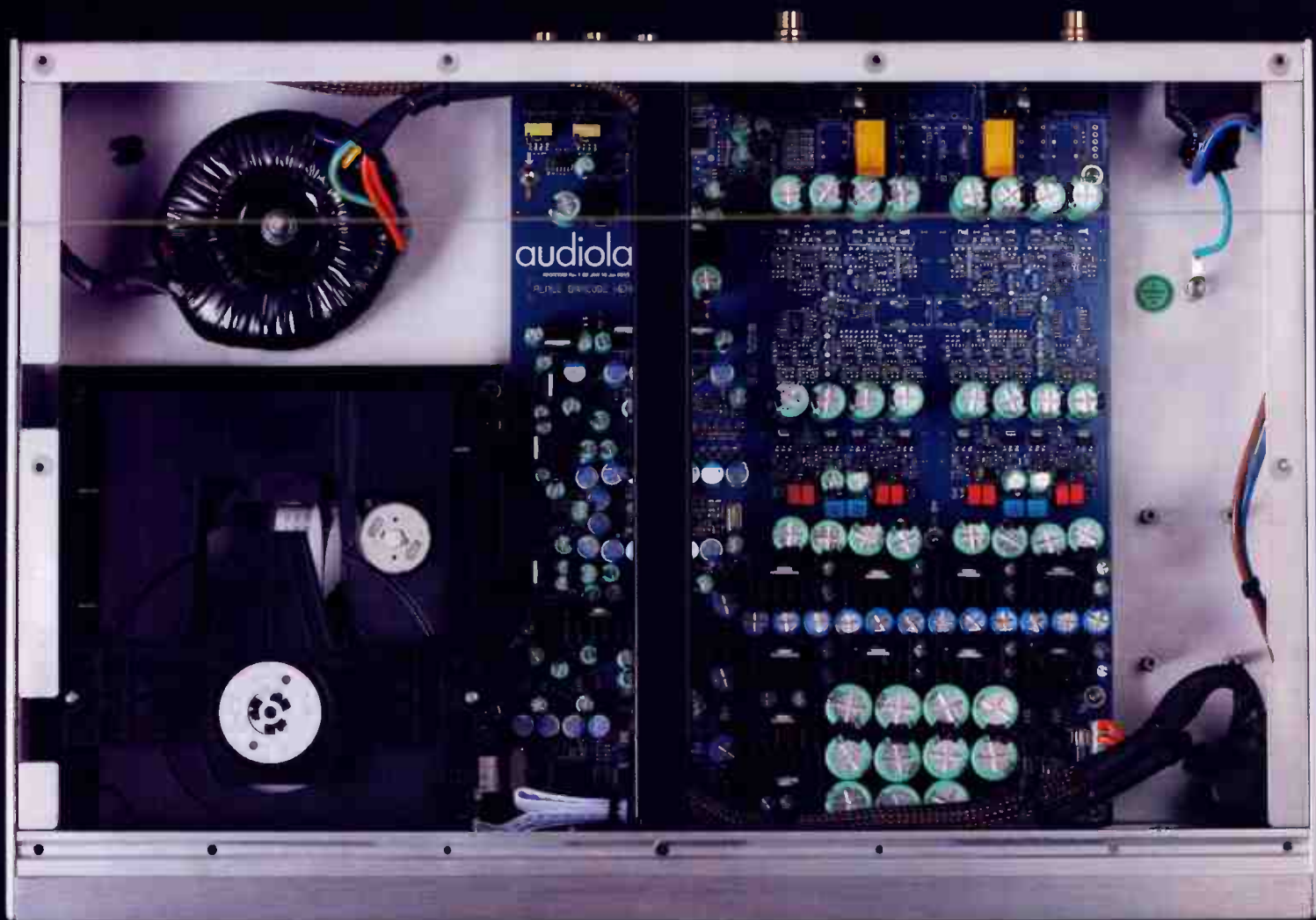
**TURNTABLES**

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World Radio History





**Tellurium Q has expanded its popular cable range with three new interconnects. David Price listens in...**

# Q Here

**L**aunching a new cable brand is never easy, but Tellurium Q have fast made a mark for themselves. Technical director Colin Wonfor, a man who has my great respect for being the designer of the Inca Tech Claymore amplifier, has again proved his mettle by coming up with a range of speaker cables of exceptional ability. Not surprising perhaps considering his CV includes everything from designing Magnum amplifiers to working for NASA. Indeed you can even find his name on the patent for the quietest solid state relay in the world, I am told!

Well, subsequent to the launch of the loudspeaker cable range, we now see these three interconnects, the Black RCA (£285), the XLR (£370) and the DIN (£390, all prices for a 1m run). The maker claims they have excellent bandwidth, exceptional phase coherency and "increased detail compared to other cables". Apart from this he remains deliberately vague about the construction and inner workings. I can confirm that they arrive with rubbery dielectric (which unlike so many cables isn't microphonic, instead sounding very 'dead' when you tap it). The RCA cables are directional and fitted with gold plated phono plugs with locking collars. The XLR is not direction-marked and sports Neutrik XLRs, whilst the DIN leads sport metal 'Ream' DIN plugs and are directional. The company adds mysteriously that they've been designed "with an electronic circuit in the end that has a profoundly positive effect on the

purity of the signal transmission"; all I could glean from Tellurium Q is that this is "a specific unique matching pad that's been miniaturised and shoehorned into the DIN plug".

## SOUND QUALITY

It was fascinating to get three different connector variants of the same cable to try, as it showed surprising contrasts in sound, but first of all I kicked off with the 1m RCA. All cables got a good twenty four hours of use beforehand, via my Densen burn-in CD. Starting with the RCA cable running from a dCS Debussy DAC to my Musical Fidelity AMS35i, and it sounded superb. I was struck by its wide open soundstage, and the expansive nature of the recorded acoustic which gave a vast enveloping effect. Tonally it proved much as per the speaker cables, which is to say there was very, very little in the way of shrillness or edge, even on challenging program material. The cable sounded deep and velvety via The Doors' 'The Crystal Ship', but still very detailed too. Conspicuous was the lovely flow of the music, with none of the 'analysis paralysis' that other more forensic cables suffer from. The music just flowed along in a natural and beguiling way, devoid of coloration yet without the slightest trace of grain. Certainly in my system I'd say it sounds one of the very best cables at the price.

Moving to the XLR, and switching to balanced outs on the DAC and the Musical Fidelity's balanced input, and I was struck by the improvement in sound. By comparison the RCA sounded like it had been passing

through a tea-strainer; the balanced cable was larger in all dimensions, sounding altogether more powerful and majestic in every way. Bass was significantly enhanced, seemingly going slightly lower and certainly possessed of extra kick. It didn't just boom more; the lows weren't overpowering just for the sake of it, but when bass guitar notes really pushed I could suddenly feel it in all its taut, vice-like splendour. Treble, as per the RCA, was atmospheric and spacious, but deliciously devoid of smear or grain – hi hats appeared to 'glint' in the background beautifully.

The DIN was closer to the XLR than the RCA, surprisingly. It too give a wonderfully light, open and airy sound yet powerful and three dimensional. Seal's 'Crazy' was rendered with poise and precision; I loved the way I could hear right into the complex mix, lock onto individual elements and follow them effortlessly, yet I could also 'switch off' and relax into the general morass and enjoy the supple rhythms and the grain of Seal's soulful vocals. It seemed just a tiny bit firmer than the RCAs, with a greater depth of field and tighter image location. The XLRs of course were best though, so if you've got the option of balanced operation then this is what you should take. Just one other observation on the DIN; it was far more compact and less fiddly than either of the others – why did we give up on it? Overall then, whichever termination you choose these represent excellent value, with construction quality and superlative sound.

## VERDICT

Super value, high end interconnects offering a satisfyingly natural and expansive sound.

**TELLURIUM Q**  
**BLACK RCA (1M) £285**  
**TELLURIUM Q XLR (1M) £370**  
**TELLURIUM Q DIN (1M) £390**

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## FOR

- inky black tonality
- excellent soundstaging
- overall musicality
- no-nonsense packaging

## AGAINST

- nothing at the price



# X Factor

Adam Smith judges Raidho's new X Monitor Mk11 standmounting loudspeakers...

**F**or such a relatively small country, there seems to be a surprising level of loudspeaker brains in Denmark. Obviously Bang & Olufsen is surely the best known name, but there's also Dynaudio, Dali, Jamo and driver

manufacturers including ScanSpeak that hail from the same country. In more recent years, a new name has been added to the list in the form of Raidho Acoustics. Formerly marketing their loudspeakers under the Eben brand, all models are now badged as Raidhos and a few new models have

recently been announced. Whilst the huge and impressive C4.0s graced the large rooms at the Munich High End Show, of more interest to British living rooms is to be found at the other end of the size scale, with the new X Monitor Mk11s.

Designer Michael Borrensén



has made sure that no corners have been cut with the baby of the range, ensuring that all of Raidho's technology is packed into the diminutive enclosure. In the case of the woofer, this means an in-house designed and manufactured 100mm mid/bass driver incorporating a



cone made from a sandwich of aluminium and aluminium oxide. The aluminium oxide layer is actually formed by passing a very high current across the surface of the aluminium, creating temperatures sufficient for the creation of the compound. Raidho claim this has given rise to a cone that is stiff and light, and with a first breakup mode of 15.5kHz, which is indeed impressive.

The technology does not stop there either. Rather than utilising a conventional ring magnet, the X monitor's bass driver uses twenty neodymium magnets arranged in a circle and operating in a push/pull configuration. This allows the driver chassis to be very open and Raidho claim that the resultant reduction in reflected information from the rear of the cone "allows air to move more freely, reducing compression" which should make for clean operation when the volume

"a good ribbon should offer a delicacy and precision to the sound, and that is exactly what the Raidhos did..."

is turned up. The downside would appear to be that this has an effect on sensitivity, according to our measurements at least [see MEASURED PERFORMANCE].

Naturally partnering this impressive driver with a run-of-the-mill tweeter would be something of a waste but Raidho have crossed that hurdle as well. All of their speakers use a ribbon tweeter of their own design, designated the FTT75-30-8, which is a unique sealed ribbon tweeter, the company says. The tweeter again makes use of neodymium magnets to create a powerful magnetic field in which a thin membrane, weighing less than 0.02g, is suspended. The low mass is beneficial for ensuring that the tweeter responds quickly to transients and Raidho claim that "the performance is extraordinary and the tweeter leaves absolutely no fingerprint on the speaker system". Certainly the frequency response curves available on Raidho's website suggest that the tweeter is very uniform in its off-axis performance,

something which I have found to be lacking in other ribbon designs.

The cabinet housing these impressive drivers is small and neat, but heavy, solid and covered in an immaculate gloss black finish. The area around the tweeter is carefully sculpted to optimise its dispersion and chunky terminals are fitted at the rear for amplifier connection, although strangely black and white rather than the usual black and red! Raidho recommend the use of a lightweight stand and so my monstrously heavy Atacama SL-600s were tucked away and some trusty Nexus 6s slotted into their place.

### SOUND QUALITY

As with all metal coned drive units, I found that the Raidhos required a long run-in period to really reach their best and so evaluation did not start for a good few days after their arrival. I then sat down to

listen with a sense of hesitancy as I have never been quite sure that all ribbon tweeters are equal; I have heard one or two that are definitely *not* quite the wonderful things that so many people make out! With Holst's 'Planets Suite' under the stylus, however, the raising of the volume was an almost jaw-dropping moment as the FTT75s used in the X Monitor MkII really are very special indeed. A good ribbon should offer a delicacy and precision to the sound and that is exactly what the Raidhos did, flushing away every last sense of uncertainty to leave a mightily pure and unaffected sense of ease and clarity to the recording.

Violins positively soared around the room and the tiniest tap of a triangle in the very background was suddenly very vivid – it was almost as if the speed of sound in the room had increased slightly and the sound was whizzing to my ears faster! Even better was that this effect carried across any music genre that I threw at the Raidhos. Cymbals on Caro Emerald's 'Deleted Scenes from the Cutting Room Floor' were crisp and vivid yet pure and sweet, and this also translated further down the frequency range to very fine instrument detail and impact. The X Monitor MkII were well able to set up a convincing wall of sound at the end of my listening room and spread the soundstage nicely across the full width and height of it; the latter is something I have found to be a rare quality in a small loudspeaker. Equally rare was the way in which the Raidhos responded to low volumes by remaining vivid and well defined; generally speaking another positive side effect of lower sensitivity.

There was a nagging problem however, right in the centre as I could not make the Raidhos bring the central image forwards



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# Black Rhodium

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and into focus properly in order to place singers and lead musicians truly centre stage. Like one of those cheap automatic digital cameras that refuses to focus on the object in the centre of the viewfinder, lead singers such as Ms. Emerald remained resolutely spread between and behind the loudspeakers. Instrument rendition was good and vocal performance vivid and well balanced in pure frequency terms, but the X Monitor MkII's seemed a little recessed across the midband in an atmospheric sense. I suspect that this due to the corresponding rise in output at the higher end of the frequency range; a loudspeaker with a lesser tweeter would most likely sound harsh and spitty, but the Raidhos' ribbon ensures that this does not happen.

Unfortunately, this was not the X Monitor MkII's big problem however; that was to be found at the very bottom end. Spinning Jazanova's 'Takes You Back' I was very impressed by the way the loudspeakers remained composed by the punchy bass notes as I pushed the volume higher, yet rather surprised to feel some serious vibrations through my feet on the really deep notes. Normally small loudspeakers either give just a hint of these, or gloss over them completely. However, listening to a variety of other material made me realise that this is the effect of the strange port tuning noted by Noel in his measurements. Basically there is a huge bass peak at 80Hz which offers the illusion of deep bass and certainly appears to work if you stick on something with a beat and not much else.

However, spinning The Cinematic Orchestra's 'Burnout' from their 'Every Day' LP, the double bass was a bloated, one-note mess that simply rumbled along behind the rest of the

instrumentation. Equally, my favourite bass guitar and synthesiser test tracks didn't stay on the turntable or in the CD player long as they all suffered similar fate, coming across as flabby and loose at the bottom end. Despite several evenings of repositioning and changing stands and cables, this effect remained in place, suggesting it is as a fundamental result of their design. Stuffing the port with foam helped somewhat but made the speakers sound congested and uncomfortable. I couldn't help thinking that similar small designs such as the Audiosmile Kensai and the Acoustic Energy AE1 Mk3 leave the Raidhos trailing in their wake in this respect.

## CONCLUSION

I have been writing for *Hi-Fi World* since 2006 and can honestly say that this is the first time I have been truly perplexed by a pair of loudspeakers! The technology tucked into the compact and beautifully made cabinets of the X Monitor MkII is undoubtedly very impressive and its effects can indeed be heard in many of the things that they do. The tweeter in particular is an

absolutely glorious thing with a purity and delicacy that eludes many loudspeakers five or ten times the price and I have heard no other compact loudspeakers remain so composed and couth when hammered with high volumes.

Unfortunately, it seems to me that the whole balance of the speaker needs some rethinking. The 5dB lift in the treble and the huge peak in output of the bass port unfortunately undermine the fundamental uniformity of the loudspeakers' performance and I found myself quite frustrated by how close they are to being a genuinely class-leading design. As they stand, though, they require careful auditioning and will likely struggle against some highly accomplished competition.

## REFERENCE SYSTEM

Garrard 301 turntable  
Inspire X100 tonearm  
Ortofon Kontrapunkt b cartridge  
Anatek MC1 phono stage  
Marantz CD94/CDA94 CD player  
Naim Supernait amplifier

## MEASURED PERFORMANCE

The Raidho has some very pronounced characteristics that will dominate its delivery. Output from the ribbon tweeter is +5dB above the bass/midrange unit and this is a large divergence from flatness, meaning treble will be very prominent and the balance bright, possibly sharp with some recordings.

Below 3kHz the small bass/midrange unit has a nicely smooth output down to the bass regions so Raidho is accurate here and will likely be character-free too.

Below 150Hz bass peaks up by at least 5dB at 100Hz. Much of this comes from the port as output was enormous, no less than +16dB above the bass unit at 80Hz, where most ports measure +6dB or so. As output from the port peaks sharply at 90Hz, a very high value, bass will be very strong at this high bass frequency, making for prominent one-note bass. Bass output falls away rapidly below 70Hz so there will be little low bass and no subsonics. This is an 'unusual' bass performance to say the least, far removed from what is usually considered desirable.

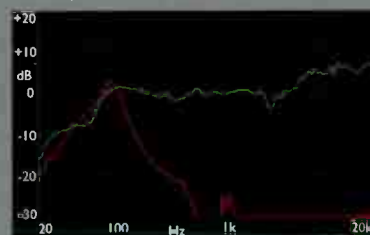
Sensitivity was very low, the X-Monitor producing a mild 81dB SPL from one nominal watt (2.8V) of input. This means it needs a lot of power to go loud and 60 Watts would be a minimum, with 100 Watts desirable. Whether the lightly damped bass unit will handle this is another matter. Our impedance trace shows the load is high in value and unreactive so it is amplifier friendly in this respect.

The loudspeaker's decay spectrum

was clean so colouration will be low, except at low frequencies where there was considerable overhand around 90Hz from the bass unit and port, to be expected from an under damped resonant system. Distortion was high, peaking at 12% from the port at 90Hz. However, at higher frequencies it was low.

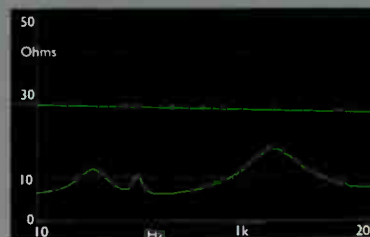
The Raidho X-Monitor MkII is going to have a very distinctive sound with strong treble and prominent one-note bass. It will however sound clean as well and lively at low listening levels. It needs a lot of power too. NK

## FREQUENCY RESPONSE



Green - driver output  
Red - port output

## IMPEDANCE



## VERDICT

Genuinely innovative technology and superb build allied to some fundamental tuning issues make the X Monitor MkII's something of a flawed gem.

**RAIDHO X MONITOR MK II** £3,495  
High End Cable  
☎ +44(0)1775 761880  
[www.highendcable.co.uk](http://www.highendcable.co.uk)

## FOR

- exceptional treble
- excellent scale and depth
- lack of compression when pushed

## AGAINST

- weak central imagery
- overblown, one-note bass

# WORLD STANDARDS

Your guide to the best products we've heard that are currently on sale in the UK...

## TURNTABLES

**REGA RP1** 2010 £225

Pleasing sound, fine build and ease of set-up and use make this a great first 'real' hi-fi turntable.

**REGA P2** 2008 £300

Excellent value for money engineering, easy set up and fine sound.

**REGA P3-24** 2008 £405

Seminal affordable audiophile deck with fine bundled tonearm. Tweakable, and really sings with optional £150 outboard power supply.

**MICHELL TECNODEC 2003** £579

Superb introduction to Michell turntables - on a budget. Top quality build and elegant design mean it's still the class of the mid-price field.

**FUNK FIRM VECTOR II 2009** £860

Innovative engineering gives a nimble, pacy and musical sound that's one of the best at the price.



**MICHELL GYRODEC SE 2005** £1,138

Design icon with superlative build and finish. Sound is beautifully smooth, effortless and exceptionally expansive. No longer peerless at the price, but still a brilliant platform.

**MARANTZ TT-15S1** 2005 £1,299

Cracking all in one deck/arm/cartridge combination, this must surely be the best sounding 'plug and play' package at this price point.

**ROKSAN RADIUS 5.2** 2011 £1,450

Although getting expensive, the latest Radius is a highly grown up package with a flowing yet engaging nature; a fine package.



**AVID DIVA II SP** 2010 £2,000

New twin belt drive and power supply make this a more commanding performer, although there's a substantial price hike. Speed, dynamics and detail are hard to beat anywhere near the price.

**INSPIRE ECLIPSE SEV2 12**

2010 £2,349

Finely engineered, smooth and detailed sounding deck offering valuable twelve inch tonearm compatibility.

**NOTTINGHAM ANALOGUE HYPERSPACE** 2010 £2,390

Deliciously spacious, lyrical and beguiling sounding turntable, but lacks ultimate grip.

**MICHELL ORBE** 1995 £2,500

The top Michell disc spinner remains a superbly capable all rounder with powerful, spacious sound that's delicate and beguiling.

**DR FEICKERT WOODPECKER 2010** £3,445

Elegant deck with great low frequency solidity, coherent soundstaging and a precise midband.



**LINN LP12SE** 2010 £3,510

Surely hi-fi's most iconic turntable, the legendary Sondek goes from strength to strength. New Keel subchassis and Radical DC motor add precision and grip to one of the world's most musical disc spinners. Expensive, though.

**ACOUSTIC SIGNATURE STORM** 2011 £3,612

An excellent high end design with a smooth, solid, open and lyrical sound and razor sharp styling and build.

**FLETCHER AUDIO OMEGA .5** 2010 £3,699

Charming high end turntable that's a fitting testament to the late Tom Fletcher.

**PALMER 3** 2010 £3,750

Eccentric hand built high end turntable with a pleasingly smooth, sweet and lucid sound.



**E.A.T. FORTE S EVO 12** 2010 £4,750

Excellent premium price turntable with power, precision and passion aplenty, but relaxed and easy going by nature too. Great value package with the Pro-ject Evo 12" arm option.

**ACOUSTIC SOLID ONE** 2007 £4,050

Huge turntable, both in terms of sheer mass and sonic dynamics. Fit up to three arms and enjoy, just don't damage your back moving it...

**SME MODEL 10A** 1995 £4,556

Exquisitely engineered deck and SMEV tonearm combo that's an extremely accomplished performer with classical music.

**AVID VOLVERE SEQUEL** 2007 £4,600

Stylish high end vinyl spinner with industrial strength build quality and a sound to match. Exceedingly neutral yet powerful sound is edge-of-the-seat stuff.

**BRINKMANN BARDO** 2010 £5,845

Unique high end direct drive turntable with amazing grip and focus, albeit not the most romantic of natures.



**McINTOSH MT10** 2008 £8,995

Big, expensive, controversially styled and glows more than some might consider necessary, but an astonishingly good performer.

**EAT FORTE** 2009 £12,500

Lavishly finished two box, two motor turntable with gorgeous Ikeda 407 tonearm bundled. Exceptionally stable and unfussy performer with a relaxed but highly enjoyable gait.

## TONEARMS

**REGA RB251** 2009 £136

Capable way past its price point, the new 3-point mount version of the classic RB250 serves up a taut and detailed sound. A little lean for some tastes, but responds well to rewiring and counterweight modification.

**MICHELL TECNOARM A** 2003 £442

The late John Michell's clever reworking of the Rega theme, using blasting, drilling and rewiring! Surely the best overall performer under £500.



**ORIGIN LIVE SILVER 3C** 2010 £599  
Excellent mid-price tonearm with a clean and open yet lyrical sound.



**HADCOCK GH-242 EXPORT** 2010 £770  
Consummately musical, lyrical sounding tonearm, but needs the right turntable. Excellent value.

**SME 309** 1989 £767  
Mid-price SME comes complete with cost-cut aluminium armtube and detachable headshell. Tight, neutral sound with good tonality, but lacks the IV's pace and precision.

**FUNK FIRM FXR II** 2010 £1,175  
Clever reworking of the ubiquitous Rega platform, the FXR II gives a wonderfully musical, almost unipivot like performance.



**AUDIO ORIGAMI PU7** 2007 £1,300  
The classic Syrinx PU3 updated to spectacular effect. Hand made to order, with any mass, length and colour you care for. Fit, finish and sound truly impressive.

**NAIM ARO** 1987 £1,425  
Charismatic unipivot is poor at frequency extremes but sublime in the midband; truly emotive and insightful.

**HELIUS OMEGA** 2008 £1,595  
Stylish and solid lump of arm with fabulous build quality, that turns in a dynamic and weighty performance.

**SME SERIES IV** 1988 £1,620  
Offers nine tenths of the SMEV's magic at just over half price. Exquisitely built and finished, and a design classic. Faces stiff competition these days, but lovely nevertheless.

**SME 312S** 2010 £1,750  
Twelve inch magnesium alloy armtube plus SMEV bearings makes an impressive transcription tool with an insightful yet composed sound. Superlative build completes the package.



**GRAHAM PHANTOM** 2006 £3,160  
Sonically stunning arm with magnificent bass dexterity and soundstaging. Build quality up to SME standards, which is really saying something!

**TRI-PLANAR PRECISION** 2006 £3,600  
Immaculate build, exquisite design and one of the most naturally musical and lucid sounds around.

**SME SERIES V** 1987 £2,389  
Vice-like bass with incredible weight, ultra clear midband and treble astound, although some don't like its matter of factness!

**LINN EKOS SE** 2010 £3,700  
Subtle mods over the years, including revised bearings and the recent new wiring has kept it a serious contender in the superarm stakes. Has a commanding musicality all of its own.

**OL ENTERPRISE 3C** 2010 £4,500  
Few if any pivoted arms come close to this arm's combination of liquid musicality and forensic grip.

**CARTRIDGES**  
**AUDIO TECHNICA AT-95E** 1984 £25

Great starter cartridge that's detailed and musical beyond its price. Superglue the stylus in for better sound!

**AUDIO TECHNICA AT-F3/III** 2010 £189

Great value entry level moving coil with detail and grip you just can't get from similarly priced moving magnets.

**ORTOFON 2M RED/BLUE** 2007 £60/£120  
Modern, high resolution budget moving magnets that are always an engaging listen.



**GOLDRING G1042** 1994 £239  
One of the best MMs going, with sweet and extended treble and punchy, muscular bass.

**ORTOFON VIVO BLUE201 I** £275  
Super new budget moving coil cartridge from respected Danish manufacturer; a real step up from previous efforts.

**DENON DL103R** 2006 £295  
Awkward to get working properly with a poor mounting arrangement, yet it rewards with a musical performance that makes similar priced cartridges sound cold.

**DYNAVECTOR DV10X52003** £295  
Distant descendent of the classic Ultimo 10X, this has warmth and sweetness in spades, allied to a punchy bass. Beats G1042 comfortably.

**ORTOFON 2M BLACK** 2007 £350  
Staggeringly good high-end MM that uses a stylus from the MC Jubilee and easily rivals similarly-priced MCs

**DYNAVECTOR DV20X-H2003** £395  
Deliciously sweet sound with fantastic get-up-and-go makes this a great value budget MC. High output version works a treat with valve phono stages too.



**AUDIO TECHNICA AT-OC9MLIII** 2010 £399

New stylus and cantilever breathe life into this feisty, punchy and detailed performer.

**ORTOFON RONDO BRONZE** 2005 £500  
Excellent mid-price moving coil with real rhythmic alacrity and a decent deal of finesse.

**LYRA DORIAN** 2007 £649  
Incisive and musical, this baby Lyra is one of the most powerful and revealing MCs at its price point. Beware the sharp treble, though!



**BENZ MICRO GLIDER L2** 2008 £650  
Crisp, clean and detailed MC; particularly impressive at both ends of the frequency spectrum

**ZYX R-100H** 2005 £799  
Exceptionally tight sounding and detailed cartridge with the musical skills to match, this is up with the best at the price, with a presentation all of its own.

**TRANSFIGURATION AXIA** 2007 £890  
Musically adept and highly resolute cartridge with impressive tracking abilities. Top end lift means careful matching required, however..

**BENZ MICRO WOOD SL** 2010 £945  
Highly finessed Swiss moving coil that plays music with riflebolt precision.



**ORTOFON CADENZA BLUE** 2009 £1,000  
Musical, out of the box sound, allied to real finesse, makes this a great do-it-all high end moving coil.

**ORTOFON CADENZA BRONZE** 2010 £1,350  
Smooth and engaging high end MC with a slightly warmer and more relaxed presentation than its superb bigger brother.

**ORTOFON CADENZA BLACK** 2010 £1,650  
Ultra incisive, transparent and dimensional moving coil with grip and punch aplenty.

**ORTOFON MC WINDFELD** 2008 £2,250  
Ortofon's new flagship MC is a sophisticated and alluring performer that takes the vinyl experience to a new level.

**KOETSU RED K SIGNATURE** 2007 £2,399  
The new K Signature adds a hefty dose of insight and finesse to the already impressive Red and the results are fabulous.



**DIGITAL SOURCES****MUSICAL FIDELITY V-DAC £170**

Clear, concise, low distortion sound belies giveaway price. Supelative value for money.

**CAMBRIDGE AUDIO DACMAGIC 2010 £230**

A flexible new DAC, this is an impressively rhythmic and detailed performer.

**ARCAM rDAC 2010 £300**

Cracking budget DAC sporting a fulsome and musical sound with gorgeous build and styling.

**MUSICAL FIDELITY MI DAC 2010 £400**

Surprisingly sophisticated upsampling DAC with oodles of detail and air, but bass isn't quite as powerful as it could be.

**STELLO DA100 SIGNATURE £750**

Superbly finessed sounding DAC at the price, with strong driving bass and plenty of air and space.

**CAMBRIDGE AZUR 840C 2006 £800**

Well built CD player with a silky, yet detailed sound and a whole host of useful facilities. Excellent value for money.

**NAIM CD5/i 2008 £895**

Naim's new italic 'i' variant improves even further on the original mid-price classic, offering super tight, grippy and musical sound.

**ROKSAN KANDY K2 CD 2010 £900**

A charmingly musical performer at the price, this is a surprisingly sophisticated CD player for the money.

**BENCHMARK DAC-1S 2009 £930**

Power, precision and poise - allied to real seat-of-the-pants musicality, this DAC justifies its premium price.

**MUSICAL FIDELITY M3 CD 2011 £995**

Excellent mid-price machine with slick slot loading and an open and inviting sound.

**ELECTROCOMPANET PD-1 2011 £1,250**

Quirky but highly capable digital convertor with an effective wireless radio option (£250) and balanced outputs.

**SIMAUDIO MOON 300D 2010 £1,290**

Lovely fluid sounding DAC with a deep, dark, velvety tonality.

**CYRUS CD8 5E 2008 £1,350**

Bespoke Servo Evolution mech makes this the most musically engaging machine at the price, with super smooth tonality to boot. Optional PSX-R adds bass and dimensionality.

**DENON DCD2010AE 2010 £1,700**

Powerful, open sound allied to a rich tonality and satisfying subtlety make this an excellent mid-price buy.

**NAIM DAC 2010 £1,995**

Superb high end digital convertor with a probing, punchy and forensically detailed sound.

**MERIDIAN G08.2 2011 £2,400**

Everyman's modern high end CD player, the stylish, well made Meridian has an extremely enjoyable yet refined and accurate sound.

**MARANTZ SA-KI PEARL CD 2010 £2,500**

Finely honed affordable high end silver disc spinner, this has a musical lucidity that's unexpected at this price.

**LEEMA ANTILLA IIS ECO 2011 £2,995**

Stable and smooth yet superbly detailed and musically engaging, this is class of the £3,000 CD player field.

**CHORD QBD64 2008 £3,000**

Bespoke architecture gives a uniquely musical sound that's beguiling yet proffers dizzying incision and grip.

**ELECTROCOMPANET EMC-1UP 2009 £3,450**

Quirky yet extremely capable high end upsampling CD spinner, with a musical fluency that beguiles more than it impresses.

**ACCUSTIC ARTS CDP1MK2 2007 £3,985**

Styling not to everyone's taste but build quality is impeccable and the performance is stunningly musical.

**ESOTERIC X-05 2010 £4,495**

Superlative 'affordable high end' CD/SACD spinner with excellent build, massive detail and great poise.

**WEISS DAC202 2010 £4,600**

Brilliantly open and insightful sounding DAC with a range of useful features.

**ELECTROCOMPANET EMP-1/S 2011 £4,650**

Epic in scale, lavish in tone and exuberant in its musicality, this is a memorable SACD spinner. Quirky in operation and modest in finish, though.

**NAIM CDX2-XPS2 2003 £4,950**

A fine high end machine, but add an XPS2 and it becomes one of the most charismatically engaging 16bit machines we've ever heard. Plays music with such passion!

**NAIM CDS3 2003 £7,050**

The most polished Naim CD to date; tremendously capable and musical, but lacks the Rottweiler quality of the cheaper CDX2-XPS2.

**dCS DEBUSSY 2011 £7,500**

Compact, stylish DAC bringing the gloriously smooth, svelte, spacious sound of dCS to a wider audience.

**ACCUSTIC ARTS DRIVE 1 MK2/TUBE DAC 2 2007 £7,980**

Superbly built high end CD transport and DAC combo that shows just what the format can be capable of. Very tangible, musical sound with wonderful dynamics and glistening harmonics. Only curious styling and clunky build detract from its brilliance!

**DCS PAGANINI DAC £9,599**

Digital rarely sounds better; dCS's bespoke Ring DAC makes for power, punch and insight on an epic scale. Add clock and upsampler for an even more profound experience.

**NAIM CD555/555PS 2006 £14,000**

Very probably the best CD player yet made - certainly the most expensive; a digital *tour de force*.

**NETWORK****NAIM HDX 2009 £4,405**

Interesting one-box network enabled hard disk music system gives superb sonics together with impressive ease of use.

**LINN KLIMAX DS 2007 £9,600**

Landmark network music player, offering brilliant sonics at up to 24/96 resolution from hard disk/NAS. Expensive, but you can hear why...

**PHONO STAGES CAMBRIDGE AUDIO 640P 2009 £99**

Excellent entry level design that raises the bar for budget phono stages. Crisp, smooth yet brightly lit sound on both MM and MC that's a vast improvement on most budget inboard designs.

**GRAHAM SLEE ERA GOLD V 2004 £370**

Warm, open and musical nature makes this a great budget phono stage.

**ICON AUDIO PSI.2 2007 £599**

Excellent valve phono stage with good range of facilities and fine imaging abilities.





**CHORD CHORDETTE DUAL 2010** £799

Well presented mid price designed with detailed sound and USB input for archiving.

**ASTIN TREW AT8000 2010** £880

Expansive, detailed, powerful sound makes this a leading sub-£1,000 contender.

**A.N.T. AUDIO KORA 3T LTD 2010** £995

Exceptionally musical and natural sounding all discrete transistor phono stage, with highly lucid, valve-like presentation.

**AVID PULSUS 2010** £1,100

Powerful, propulsive, expansive sound puts this right at the top of the £1,000 phono stage tree.

**QUAD QC24P 2007** £1,200

Dynamic performer that can be used on its own as a complete phono-level preamp.

**ICON AUDIO PS3 2008** £1,500

Super sounding valve phono preamplifier, with an expansive, engaging and organic nature that makes vinyl sheer joy!

**SUTHERLAND 20/20 2010** £1,999

Well engineered, smooth sounding solid-state phono stage with a charm of its own.

**EMILLE ALLURE 2010** £2,495

Just as the name suggests, this is a lovely way to play LP with an exceptionally open and lucid sound.

**AVID PULSARE 2010** £3,800

This superbly built, well specified phono stage has a powerful and authoritative sound that bristles with detail and energy.

**WHEST PS.30 RDT SE2011** £4,500

The least solid-state sounding Whest we've heard, this builds on the family strengths of precision and grip but adds a welcome poise and fluidity.

**NAT AUDIO SIGNATURE 2011** £5,633

Sophisticated sounding, unusually engineered MM and MC phono stage, but faces stiff competition at this lofty price.

**AMPLIFIERS****ICON AUDIO STEREO 40/III 2010** £1,200

Excellent starter tube integrated, with plenty of detail and an expansively musical sound.

**AUDIOLAB 8000S 2006** £400

In another life, this sold for three times the price, making it a stand-out bargain now. Very clean, powerful and tidy sound but not the world's most beguiling.

**NAIM NAIT 5i 2007** £725

The italic 'i' version remains one of the most musically competent and dynamically engaging integrateds at the price.

**CAMBRIDGE 840A V2 2007** £750

Version 2 addresses version 1's weaknesses to turn in a mightily accomplished performance, offering power, finesse and detail.

**SUGDEN MYSTRO 2010** £1,225

Sugden's first Class AB integrated in a long time surprises; rollickingly good fun, it loses surprisingly little in smoothness to its Class AB siblings.

**NAIM NAIT XS 2009** £1,250

With much of the sound of the Supernait at half the price, this is powerful, articulate and smooth beyond class expectations.

**CREEK DESTINY 2 2010** £1,445

Beautifully voiced integrated amplifier with a distinctly seductive, tube like sound. A solid-state superstar!

**SUGDEN A21A S2 2008** £1,469

Crystalline clarity, dizzying speed and forensic detailing makes this seminal design the most musical at the price, but power limited so needs sensitive speakers.

**CYRUS 8XPD 2010** £1,500

A quality integrated that suits all genres of music providing insight and clarity in a compact but flexible package.

**ANATEK A50R 2007** £1,600

Simple integrated amplifier with super bass grip and effortless dynamics.

**VINCENT SA-236MK 2010** £1,749

Big, powerful and expansive sounding hybrid transistor amplifier, with a lively, musical nature.

**NAIM SUPERNAIT 2007** £2,475

Integrated *tour de force* from Naim that combines impressive functionality and connectivity with super sound.

**AUDIO RESEARCH VSI60 2009** £3,298

Load of tube power allied to a strong bass and smooth open midband makes this a grin-inducing listen.

**LEEMA TUCANA II 2010** £3,495

Polished high end integrated amp that combines power, detail and genuine musicality with a good range of facilities.

**SUGDEN IA4 2007** £3,650

Goody amount of Class A power, icy clarity and a breathtakingly fast, musical sound make this one of the very best super-integrateds.

**QUAD II CLASSIC 2010** £4,500

Beautiful retro styled integrated amplifier with a subtle, supple sound - although needs matching to speakers that are easy loads.

**QUAD II CLASSIC INTEGRATED 2010** £4,500

Thoroughly modern music maker with classic style and great pedigree, this amp sings with gentle music but is no headbanger!

**SIM AUDIO****MOON 600i 2010** £5,750

Sturdy build, useful facilities and a wonderfully relaxed, seamless and even-handed sound will win this many friends.

**MUSICAL FIDELITY****AMS35i 2010** £6,000

One of the best high end integrateds we've come across, this combines hear-through transparency with musical get-up-and-go.

**DARTZEEL****CTH-8550 2010** £16,500

Charismatic and quirky high end solid-state integrated amplifier with superb sound and a charming visage.

**HEADPHONE AMPLIFIERS****FIDELITY AUDIO HPA 100 2011** £350

Great little headphone amplifier with a lively yet refined and open sound.

**MUSICAL FIDELITY****X-CAN V8 2008** £350

Open and explicitly detailed sound plus serious bass wallop and the ability to drive anything to very high levels makes this a great partner for most mid-to-high end headphones.

**PREAMPLIFIERS****CREEK OBH-22 2008** £350

Brilliant value budget passive, with remote control, mute and input switching, plus an easy, a neutral sound.

**ICON AUDIO LA-4 2011** £800

Uses early 6SN7 triodes for liquid sound, has plenty of gain and remote control.

**NUFORCE P-9 2007** £2,200

Impressive two box preamp with superb resolution and an engaging sound.

**DPA CA-1 2010** £2,650

Excellent solid-state preamp with a meticulously detailed and propulsive sound, but a deep velvety tonality.

**MELODY PURE BLACK 101D 2007** £3,295

The clarity and openness of valves plus firm grip and fine detail make this a preamplifier masterclass.

**MF AUDIO CLASSIC CII SILVER**

2010 £4,500

One of the best preamplifiers we've heard at any price, this transformer coupled marvel does very little wrong; its powerful, clean, open yet delicate sound is unmatched at or near the price.



**MODWRIGHT 36.5 PRE/PSU**  
2010 £5,995

Exceptionally open and expansive, yet musically expressive sounding high end preamplifier.

**MUSICAL FIDELITY PRIMO**  
2009 £7,900

Seriously expensive, but one listen explains why. Wonderfully exuberant sound that can only come from a top quality tube design.

**POWER AMPLIFIERS****XTZ AP-100** 2010 £520

Decently smooth yet usefully muscular, this power amp punches way beyond its price point in sonic and value terms.

**QUAD 909** 2001 £900

The latest current-dumper has a smooth and expansive character with enough wallop to drive most loads. Not the most musical, but superb value all the same. Lovely build, finish and Quad's legendary service are nice.

**NUFORCE REFERENCE 9SE V2**  
2006 £1,750

Brilliant value for money monoblocks with massive power and super-clean, three dimensional sound.

**DPA SA-1** 2010 £2,850

Pacey, engaging and rhythmic almost to a fault, this solid-state power amplifier isn't the world's most powerful but is none the worse for it.

**QUAD II-40** 2005 £3,230

Modern tube monoblock power amplifiers with plenty of power, liquid and open mid-band and spacious, airy treble. Explicit, engaging sound, but not as euphonic as some.

**ELECTROCOMPANET NEMO**  
2009 £4,450 (EACH)

The Norwegian power station is as cool as a glacier tonally, yet impresses with its sheer physicality and fleetness of foot. 600W per channel makes for a massive bang per buck.

**ICON AUDIO MB845 MkII** 2010  
£5,500

With 120W from big 845 valves right down to low frequencies, this power amplifier has massive dynamics and bass swing, yet is easy on the ear.

**QUAD II-80** 2005 £6,000

Quad's best ever power amplifier, this is a dramatic performer with a silky but dark tonality, blistering dynamics, serious power and a compellingly musical sound. They don't come much better.

**MUSICAL FIDELITY AMS50**  
2010 £7,000

Mighty, assured high end full Class A integrated proffering icy clarity allied to real musicality. Lacks the lucidity of the best tube amps but redeems with power and punch.

**LOUDSPEAKERS****Q ACOUSTICS 2020** 2010 £140

Great little standmounters with a friendly, fun yet surprisingly refined gait. Excellent value starter speakers.

**ACOUSTIC ENERGY NEO I**  
2007 £199

Tidy and well balanced standmounters with pleasing clarity and detail.

**MISSION MX2** 2011 £200

Sophisticated sound allied with real musical insight makes these small standmounters super value for money.

**ACOUSTIC ENERGY NEO I v2**  
2010 £225

Civilised sounding speaker with fast and tuneful bass.

**B&W 686** 2007 £279

B&W's new baby standmounters offer a sophisticated and mature performance that belies both their dimensions and price tag.

**WHARFEDALE DIAMOND 10.3**  
2010 £290

Great small standmounters for audiophiles on a budget; dry punchy sound with impressive soundstaging at the price.

**MORDAUNT SHORT AVIANO 2** 2010 £300

Classy sounding standmounter at a still affordable price.

**KEF IQ30** 2009 £330

Beautifully built, classily styled standmounters with exceptional image projection and a very clean, detailed sound.

**USHER S-520** 2006 £350

Astonishingly capable budget standmounters that offer detail and dynamics well beyond their price and dimensions.

**XTZ 99.25** 2010 £640

Disarmingly open and refined at the price, these standmounters bring unexpected civility, refinement and insight to the price point. Exceptional value for money.

**ACOUSTIC ENERGY AEI CLASSIC**  
2006 £845

Brilliantly successful remake of an iconic design; not flawless, but surely one of the most musical loudspeakers ever made.

**SPENDOR S3/S5E** 2004 £950

A natural successor to the BBC LS3/5a, whose impressive neutrality, imaging and evenhandedness makes this a superior, if less charismatic, loudspeaker.

**MY AUDIO DESIGN MY1920** 2011 £995

Exceptionally smooth, spacious and refined mini monitors that beguile and excite in equal measure.

**ELAC BS243** 2010 £1,000

More transparent and spacious than they've a right to be at this price, these refined mid-price standmounters represent top value.

**RRR FS100** 2007 £1,055

Mind-boggling amount of loudspeaker for the money. Big and sturdily built with serious bass and awesome soundstage scale. A real bargain.

**ONE THING AUDIO ESL57**  
2007 £1,450

One Thing Audio's modifications keep the good old ESL57 at the very top of the game.

**GURU QM-10P** 2007 £1,595

Quirky but adorable standmounters that are way off the pace in respect of detail and power, but well capable at playing a tune and pulling you in to the music.

**USHER BE-718** 2007 £1,600

Beryllium tweeters work superbly, allied to a fast and punchy bass driver. The result is subtle, smooth and emotive.

**MARTIN LOGAN SOURCE**  
2008 £1,600

Brilliant entry level electrostatics, giving a taste of loudspeaker esoterica for the price of most moving coil boxes. Tremendous clarity, evenness and delicacy, although not the world's most powerful sound.

**SPENDOR S8E** 2008 £1,895

Generously large, silky smooth delivery, this dynamic sounding floorstander is an excellent all rounder.

**ISOPHON GALILEO** 2007 £2,100

Big standmounters that really grip the music and offer quite startling dynamics and grip.

**MONITOR AUDIO PL100** 2008 £2,300

The flagship 'Platinum' series standmounter has a lovely warm and delicate sound with superlative treble.

**EMMINENT TECHNOLOGY LFT8B** 2010 £2,300

Brilliant ribbon/moving coil hybrid with seamless, delicate and expansive yet tremendously musical nature.

**PMC OB11** 2008 £2,950

Cleverly updated floorstanders give scale and solidity in slim and well finished package.



**MY AUDIO DESIGN MYCLAPTON**  
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Powerful, dynamic, musical yet refined, this unconventional point-source design yields dramatic sonic benefits.

**MAD MY CLAPTON GRAND MM**  
2010 £3,400

Distinctive coaxial standmounters with wonderful soundstaging, bright lucid midband and true musical insight.

**YAMAHA SOAVO 1.1** 2009 £3,000  
Musical, transparent large floorstanders with impressive dynamics and cohesion. Excellent build and finish.

**MOWGAN AUDIO MABON**  
2007 £3,995

Massively capable loudspeakers that offer dynamics, scale and clarity in an elegantly simple package. Wide range of finishes, too.

**B&O BEOLAB 9** 2007 £5,000

Technically impressive and visually striking loudspeakers with sound quality that more than matches their looks.

**TANNOY DEFINITION DC10T**  
2010 £5,000

Wonderfully wide and open, super fast and amazingly engaging to listen to.

**ECLIPSE TD712z/2** 2011 £5,100

Flawed genius, and wilfully so. These loudspeakers don't do everything well, but what they can do is profound and enthralling; rhythms, dynamics and soundstaging.

**ARS AURES MI** 2006 £5,995

Sublime build and finish allied to an insightful, assured and even-handed musical performance makes these an essential high end audition.

**QUAD ESL-2905** 2006 £5,995

The old 989 with all the bugs taken out, this gives a brilliantly neutral and open sound like only a top electrostatic can; still not a natural rock loudspeaker, though.

**SPENDOR ST** 2010 £5,995

This classy sounding, superbly presented big floorstander will appeal to those seeking high end sonics with subtle looks.

**REVOLVER CYGNIS** 2006 £5,999

Revolver pull out all the stops and show what they can do with this magnificent flagship loudspeaker. A superb monitor that is like a mini B&W 801D in many ways.

**VIVID V1.5** 2010 £6,000

Breathtaking transparency, superlative coherence and dizzying speed make these one of the best standmounters ever made - providing you like their 'studio sound'.

**GERMAN PHYSIKS LIMITED II**  
2011 £7,800

Don't be fooled by the austere looks; this is a superbly enjoyable omnidirectional speaker with a wonderfully fast, expansive sound.

**USHER BE-10** 2009 £10,500

Clever high end moving coil design with immense speed and dizzying clarity allied to epic punch. Needs the best ancillaries to fly, though...

**B&W 801D** 2006 £10,500

In many respects, the ultimate studio monitor; dazzling clarity and speed with commanding scale and dynamics.

**ISOPHON CASSIANO** 2007 £12,900

Drive units featuring exotic materials allied to superlative build quality result in an immensely capable loudspeaker. Not an easy load to drive, however.

**REVOLVER CYGNIS GOLD**  
2010 £15,000

Vast in scale with effortless dynamics and an easy, barrel chested bass, these big bangers are great for lowish power tube amps. Large room needed!

**MARTIN LOGAN CLX LINEAR**  
2010 £15,990

Meticulously crafted electrostatic that's free from traditional limitations, this is one of the very best loudspeakers money can buy.

**ACCESSORIES****WADIA 1701** 2010 £349

The first iPod dock to extract the music digitally, letting you hook your little Apple direct to a DAC for superior sound.

**ISOTEK AQUARIUS** 2010 £795

Highly accomplished premium priced mains conditioner that delivers the sonic goods, unlike so many others.

**TOWNSHEND MAXIMUM**  
2003 £800

Classy ribbon supertweeter with flexible level settings and cool styling - you'll be amazed at the difference it makes, especially with Quad electrostatics.

**HEADPHONES****JAYS V-JAYS** 2010 £49

Wonderful little budget over-ear portable phones with a clean, smooth sound to beat the best of the rest at the price.

**SENNHEISER MX-550** 2005 £19

Our unqualified recommendation for those seeking a serious sounding pair of in-ear phones. Smooth, detailed and musical.

**SENNHEISER PX-100** 2002 £29

Cracking pair of lightweight open back cans ideal for personals, but good enough for real hi-fi use. Superb build allied to a smooth and engaging performance make them the spiritual successor to the HD400s.

**GOLDRING DR150** 2006 £70

Excellent build and fine sound makes these budget cans superlative value for money.

**SENNHEISER HD-590** 1998 £199

The company's best real-world cans to date. Open and smooth with plenty of detail. Brightly lit midband makes them an ideal partner for a valve headphone amp.

**SENNHEISER HD-650** 2004 £250

A super all round reference design with crisp, detailed and even sound allied to superlative build and comfort. Cable upgrade yields great results.

**SENNHEISER HD800** 2010 £1,000

The ultimate expression of the Sennheiser philosophy offers massive speed, clarity and insight, although lacks some of the charm of the softer, more beguiling rival Staxes.

**STAX SR-007T OMEGA II/SRM-007T** 2006 £2,890

Simply the best headphones we've ever heard at any price, these sweetly translucent electrostatic earspeakers are like no other headphone, or loudspeaker for that matter...

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## INTERCONNECTS

## TELLURIUM Q

## BLACK

2010 £276/3m

A deep, dark, velvety performer that's nevertheless highly musical, it represents excellent value as mid-price cables go.



## TECHLINK WIRES

## XS

2007 £20

Highly accomplished interconnects at an absurdly low price. Stunning value for money.

## WIREWORLD

## OASIS 5

2003 £99/M

Excellent mid-price design with a very neutral, silky and self-effacing sound. Superb value for money.

## CHORD COMPANY

## CHAMELEON 2

£90/M

One of our favourites, these are musical performers with a smooth yet open sound.



## DNM RESON

2002 £40/M

Neutral and transparent - a steal!

## VDH ULTIMATE

## THE FIRST

2004 £260/0.6M

Carbon interconnects that help you forget the electronics and concentrate on the music. Miraculous transparency. Tight and tuneful bass mixed with air and space results in a cracking cable for the money.



## TCI CONSTRICTOR

## 13A-6 BLOCK

2003 £120

Top quality 'affordable' mains outlet block, with fine build and good sonics. Well worth the extra over standard high street specials, which sound coarse and two-dimensional by comparison.

## MISSING LINK CRYO REFERENCE

2008 £375

Currently our favourite 'affordable high end' interconnects, with a deliciously smooth, open and subtle sound without a hint of edge or grain. Superb value, inasuch as it's as good as some designs at three times the price.

## TUNERS

## DENON TU-1500AE

2006 £120

Excellent entry level analogue tuner; slick sonics and fine feature count make it a bargain.



## CAMBRIDGE AUDIO 640T

2005 £250

Sweet sounding digital/analogue hybrid with fine build and finish at the price.

## ARCAM FMJ T32

2009 £550

Excellent hybrid FM/DAB+ tuner with a smooth, engaging sound. Factor in its fine build and it's a super value package.

## CREEK CLASSIC

## TUNER

2006 £550

No tuner offers better sound per pound; wonderfully three dimensional and smooth from bottom to top.

## MICROMEGA FM-10

2010 £750

Don't let the modest proportions fool you, this is a state-of-the-art modern analogue tuner with bespoke internals giving a warm, expansive sound.

## MYRYAD MXT-2000

2005 £800

Sumptuous sound and excellent build is all most will ever need in a tuner; superb.

## MAGNUM DYNALAB MD-90T

2010 £1,295

Exceptionally able, but commensurately priced, audiophile tuner that cannot fail to charm.

## MAGNUM DYNALAB

## MD-100T

2006 £1,895

One of the best ways to hear FM that we know; superbly open and musical sound in a quirky but characterful package.



## SYSTEMS

## YAMAHA CRX-M170

2007 £200

One heck of a lot of quality performance on DAB, CD and FM for £200! Optional matching £120 NX-E300 loudspeakers aren't too shabby either.

## TEAC DR-H300DAB

2008 £329

Nicely built and styled mini with fine performance on all sources that even plays DVDs!



## NAD C-715DAB

2008 £429

Small, neat looks cover a truly capable system that shows just what a compact design can achieve.

## ARCAM SOLO MINI

2008 £650

Half the size and two-thirds the price of a full-sized Solo, the Mini gives very little away in terms of performance to its bigger brother.

## SHANLING MC-30

2007 £650

Quite possibly the cutest all-in-one around with fine performance from the CD player, tuner and MP3 player input. Very low power, though.



## PEACHTREE AUDIO

## iDECCO

£1,000

Excellent sounding iPod dock, impressive DAC and fine amplifier section make this an excellent one box style system.

## ARCAM SOLO

2005 £1,249

Excellent all-in-one system, with a warm, smooth and balanced sound to match the features and style.

## LINN CLASSIK MUSIC 2008

£1,250

Neat update of the original and best one-box stereo system; superbly musical sound beats equivalently priced separates.

## NAIM UNITIQUITE

2010 £1,350

Great little half width one-box system with truly impressive sound allied to a wealth of source options.



## MERIDIAN F80

2007 £1,500

Fantastically built and versatile DVD/CD/DAB/FM/AM unit, designed in conjunction with Ferrari. Ignore nay-sayers who sneer that it isn't a 'proper' hi-fi product; most see sense when they listen to it...



## AURA NOTE MUSIC CENTRE

2007 £1,500

Lovely shiny CD/tuner/amplifier with fine sound quality and dynamic abilities.

## NAIM UNITI

2009 £1,995

Uniquely versatile one box music system with excellent ergonomics and sonics to match. A landmark product for Naim.

## LINN CLASSIK

## MOVIE

2007 £2,250

Superbly built all-in-one that offers excellent sound across all formats and is surprisingly easy to use.



## MERIDIAN SOOLOOS 2.1

2010 £6,990

Thanks to its crisp styling and bright, colourful touchscreen, plus excellent search facilities this is one hard disk music system with a difference. Best partnered to Meridian active loudspeakers.

## MARANTZ 'LEGEND'

2007 £22,000

The combination of SA-751 disc player, SC-752 preamp and MA-952 monoblocks delivers jaw-dropping performance.





**Musical Fidelity's huge M6 500i is billed as the last integrated amplifier you'll ever need to buy – said to combine vast power with super sound and useful facilities. Rafael Todes tries it for size...**

# Exit Strategy

It's been a busy year for Musical Fidelity, with a string of interesting new products from the MI CLiC network music player to the V-Link 96kHz USB to S/PDIF convertor. After a number of 'leftfield' designs, the new M6 500i amplifier you see here is a return to the company's heartland. It's a thoroughly conventional, smart looking, very well finished, large integrated. Antony Michaelson likes his big amps; the kW range is still a vivid memory, as is his enthusiasm for vast amounts of power. Surprising in a way, considering he also makes an excellent range of relatively low

powered pure Class A designs, but there you go! As its nomenclature suggests, the £3,995 M6 500i is a 500 Watt integrated in the M6 series, said to draw on the technology of the M6i (which has a trifling 200 Watts per channel). If a product of this sort isn't powerful enough for you, frankly you need your ears syringing, a more efficient pair of loudspeakers or a smaller listening room!

Mr Michaelson defines the M6 500i as an 'exit product', which is an interesting piece of terminology. No, it's got nothing to do with assisted suicide; rather he says it's the sort of amplifier you'd buy if you can't be

bothered with faffing around with pre-power combinations and all their associated wires and bulk. It's a 'fit and forget' sort of thing, which shouldn't be bought with your next upgrade in mind, because there likely won't be another. He's something of a fan of this paradigm; it's the latest in a long line of integrated amplifiers going back to 1990 with the A1000, the New Vista M3, the Tri Vista 300 and kW500, which were all around the price the M6 500i sells for today.

The design uses four power amplifiers in bridge mode to create two monoblock amplifiers. The preamp and the power amps each



have their own dedicated power supplies and heatsinks. The pre and power amps are connected on the PCB by a short track. This eliminates the need for an expensive and ultimately destructive cable to link the two. After all, no cable is even better than good cable!

The front panel exhibits the usual Musical Fidelity solidity, made from an extrusion of milspec aluminium. The sides are a series of metallic fins, which form the heatsinks, and get quite warm after a few hours usage. Not AMS100 warm, of egg-frying capability, but more like a car on a hot day.

There is a 7-segment LED display on the front panel showing the volume, which can be adjusted at 1/2 dB steps. When I first hooked up the amp, no sound came out, and I ran the usual checks but was at a loss as to why I was experiencing silence. I rotated the volume control, but still nothing. It was only when I had turned it a few more revolutions that I was greeted by the amplifier blasting music at me. The volume control is rather low-g geared, and needs quite a lot of rotation to significantly change the volume.

There are four RCA line inputs with solid-looking gold-plated connectors, and a balanced XLR input for lower noise, and a pre-out connection, to enable bi-amping via a second amplifier. It would be possible to use this to have a valve power amp serving the upper frequencies and the M6 500i doing the bottom end. Unusually for Musical Fidelity, the feature count is modest. Unlike the M6 PRE for example, there's no built-in DAC, USB connections, phono stage and what have you. It does come with a remote control unit however, which works reasonably well, albeit a bit on the sedate side for volume control. The unit is taller than the M6 PRE at 160mm high, 440mm wide and 460mm deep, and it weighs in at a mighty 28kg unboxed – so you should get the impression that this is a monster integrated amplifier, more Krell than Kenwood!

## SOUND QUALITY

Kicking off the listening with digital, I connected my reference digital source, a Cyrus XT SE transport and Chord Indigo Plus cable with the Weiss DAC202, using the balanced connections to the integrated amp. Mozart's Magic Flute overture as conducted by Solti on Decca is beautifully recorded, and shows so much about a piece of equipment's ability to realistically render ambience, tone colour, and presence. The M6 500i started well, capturing

and savouring the opening three 'masonic' chords. Its sound proved most bombastic; its vast reservoirs of current meant it had no problem generating this magnificent opening. There was good spatial detail, and a slightly 'rubberised' bass which proved fast and elastic as opposed to Stygian. There was plenty of grip and bite to the beginnings of notes, which made for a most animated and engaging sound. Unsurprisingly given its reserves of power, at anywhere near normal listening levels there was no hint of any distortion that I could detect. I am used to a bit more

highly adept at capturing the delicacy and resolution of this excellent digital source.

I then turned to my vinyl front end, in the shape of a Timestep Technics SL1200/SMEV/Ortofon Cadenza Bronze, going through the sumptuous Icon Audio PS3; this gives a distinctively different sound that's less about clinical precision and more about power and passion. Listening to Kurt Weil's Second Symphony, I was aware of a very different sounding midrange to the one to which I'd become accustomed. The Musical Fidelity makes the oboe solos a

"the *crescendi* and *diminuendi* are lightning-fast, and can make you jump out of your skin..."

texture to the string sound with my valve VAC Auricle valve monoblocs, however they don't have *quite* the slam of the M6 500i. Such is the classic trade-off with transistors and tubes...

I found that voices came across very convincingly through the M6 500i. The amplifier's innate smoothness makes vocal delivery powerful and free of the edge that can sully the sound, especially when a tenor goes towards his upper limit. As the amplifier warmed up, I found myself increasingly gripped by some of the more beautiful sounds I have heard from digital. There seemed to be some great synergy between the Weiss Dac, the Cyrus and the Musical Fidelity; the latter proved

touch more reedy, and the cello solo at the start of the second movement had great detail, but lacked some body. There was less depth in the soundstage, but plenty of wallop; the amplifier seemed to go down an extra octave below my valve amplifier, and put a spotlight on the lower recesses of the Icon Audio PS3's activity. The *crescendi* and *diminuendi* are lightning-fast, and in the last movement of the Weil, they can make you jump out of your skin – it's at times like this that I wish the volume control would be more responsive!

Switching to some classic jazz in the shape of 'The Duke Meets Colman Hawkins', and the M6 500i showed its masterful sense of timing. There was great clarity in the walking





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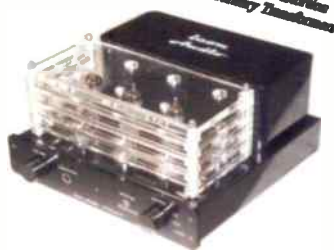


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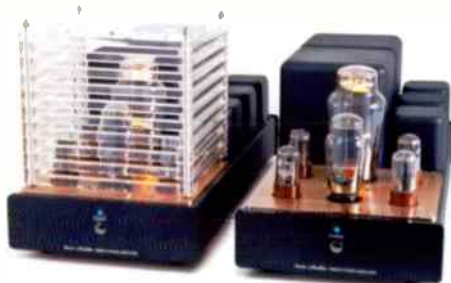
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combination playing through my valve amplifiers, where you really heard the great man playing so close to the bridge that the bow noises were at their loudest, along with the overtones produced, bordering on the scratchy. He must have insisted that the microphones were virtually put inside the violin, capturing the noise they did. The big Musical Fidelity carried the thrust and scale of the orchestra well, with fine spatial detailing and plenty of grip below.

and control, allied to an unflappability which means it's never an unimpressive listen. True, there are other (tube) amplifiers out there with superior rendition of texture and tone, but this comes at the expense of the M6 500i's iron grip – so as ever 'you pays your money and takes your choice'. A fine 'last' amplifier, this new Musical Fidelity offers a combination of style, sonics and substance that's hard to beat at the price.

**CONCLUSION**

So, here we have it. A big bruiser of an integrated amplifier, but with delicacy and detail too. It offers immense power

pizzicato bass line, all tight and accurate with lovely lean shimmering cymbals which start and stop on a whisker. Tonally it's a bit more brassy than I'm used to, with a touch of 'razz' to the sound, lively and powerful but not quite as tonally translucent as you'd get from the best tube amplifiers.

On to the Tchaikovsky Piano Concerto, a vintage Decca recording with Vladimir Ashkenazy, and there is an interesting passage in the first movement where the soloist is having a dialogue with the string section. With my reference valve amplification, I'm afraid that this wasn't so obvious to me, but via the Musical Fidelity – and the weight it gives to the bass – this duet now seemed to make perfect sense. The lower strings suddenly sounded like equal partners with the soloist. Although I have my quibbles with the piano sound, the MF has the ability to do the big orchestral thing. It's both fast and weighty, and communicates the excitement of this seat-of-the-pants musical experience. The amplifier is really in its element when the brass is going full-blast, and the tutti orchestra is behind this; the amp calmly takes this in its stride.

Heifetz and Mozart is not obviously a match made in heaven. With his recording of the 5th Mozart Violin Concerto, I got the impression that the M6 500i was smoothing out the jaggedness of Heifetz's sound. It sounded pleasant, in fact much more palatable than the same



**REFERENCE SYSTEM**

- Timestep SL1210/SME V/Ortofon Cadenza Bronze turntable.
- Townshend Rock 7/Excalibur turntable.
- Icon Audio PS3 phono stage.
- Cyrus CD XT SE/Weiss DAC202 CD player.
- VAC Auricle Musicbloc power amplifiers.
- B&W 802D loudspeakers.

**MEASURED PERFORMANCE**

The M6 turns out massive amounts of power, we measured 450 Watts into 8 Ohms and 576 Watts into 4 Ohms. It is difficult to know what loudspeaker could absorb this or what situation demand it, but many people are convinced power equals quality and the M6 is for them. In this case the M6 delivers Musical Fidelity quality, which means virtually no distortion under all conditions, meaning all frequencies and powers. Only when getting close to full power at 10kHz, rare in practice, did distortion rise to 0.03%, a very low value. Musical Fidelity amplifiers consistently deliver vanishingly low levels of distortion and modulation of distortion is not a problem.

To help give a feeling of power to a user input sensitivity has been raised to a very high 68mV, comparable to that of Naim amplifiers. This means a small twist of the volume control makes the amplifier go loud quickly, but the electronic volume control used has very high resolution to control this. High sensitivity also provides good matching to old equipment and low gain/output external phono stages, so it has real benefits. The balanced XLR input was identical in sensitivity to the unbalanced phono inputs.

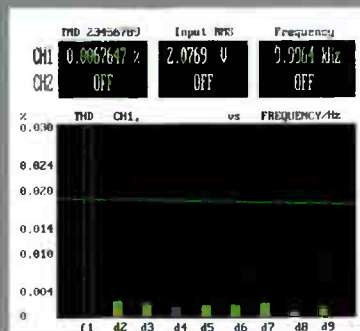
Frequency response was flat and wide, although Musical Fidelity have chosen to roll down gain below 15Hz, either to lessen warp info when (if) LPs

are played, or to enhance d.c. servo performance.

With a high damping factor of 73 and oodles of power the M6 will likely have grippy bass. It will also control lightly damped loudspeakers, but sound a bit too tight for some over damped designs. The big M6 can provide massive power if need be, cleanly and with great control. As high power audio amplifiers go it measures very well. NK

Power	450 Watts
CD/tuner/aux.	
Frequency response	15Hz-46kHz
Separation	106dB
Noise	-80dB
Distortion	0.006%
Sensitivity	85mV
Damping factor	73

**DISTORTION**



**VERDICT** ●●●●●  
Highly convincing premium priced integrated amplifier with excellent sound, rock-like build and attractive styling.

**MUSICAL FIDELITY**  
M6 500i £3,995  
Musical Fidelity  
+44 (0)20 8900 2866  
www.musicalfidelity.com

**FOR**  
- power, dynamics, grip  
- expansive soundstaging  
- low level detailing  
- build

**AGAINST**  
- lacks romance

# Mini Adventure

With styling that walks on the wild side, Scandyna's MiniPod mk2s are a distinctively designed loudspeaker. Paul Rigby goes back to the future...

**T**here are some loudspeakers on the market that almost seem to be designed out of spite – and this is one of them. There's certainly a sense that the designers were hellbent on avoiding a single straight line, almost on pain of death. Of course, this is a reaction to the traditional box-like form of the humble budget speaker; it's an aesthetic revolution if you will, but one informed by engineering best practice where curves break up internal cabinet standing waves. Where other manufacturers hide any such cleverness under a bushel, subsuming such trickery to within the cabinet's veneered walls, the MiniPods wear their engineering on their metaphorical sleeves. The design stems from the work of two B&W designers who were tasked with designing a 'Nautilus-alike' speaker at a lower price. Danish outfit, Scandyna, secured the license to build and sell the designs which have sprouted various variants since...

As the principal talking (and selling) point of the MiniPod is its design, it's worth dwelling on the form factor for just a tad longer because, for all of its eye-catching curves they, at least to me, look profoundly retro. I look at the chassis and terms such as 'futurism' and 'modernity' spring to mind: both old fashioned concepts expressing a bright, new technological dawn. I look at the MiniPods and try to restrain the urge to place a Lava Lamp within its immediate proximity. I think of the *Tomorrow's World* TV programme in the nineteen seventies or even the bubble cars and blow-up plastic chairs of the sixties. But maybe the company itself has a sense of the inherently nostalgic

aspect of the MiniPods? After all, the spindly metal-legged stand accessories that prop up each speaker are known as the Sputnik spikes! Either way, it's a

distinctive looking design that you'll either love or hate.

Spanning 210x340x200mm (440mm high with those spikes

attached) and weighing in at 2.3kg, the MiniPods are lightweight but just a bit too bulky for home-based near-field play. The spike accessories do allow you to utilise the MiniPods as stylistic accessories, however. I can just imagine one perched upon a glass table, next to a skiing holiday brochure with a second perched





upon an alabaster, Greek-style, pedestal surrounded by white walls, the odd white fur rug and a Persian cat wrapping its bushy tail, seductively around it. Not particularly audiophile, but surely the right atmosphere to impress those special lady friends in your space age bachelor pad! For the purposes of this review however, the dainty spikes were stashed and a pair of bold, sturdy, black, Soviet-style Atacama HMS I spiked speaker stands were thrust, heartlessly into my listening room carpet.

Scandyna describes the chassis as three spheres melded into one but the jelly baby-shaped MiniPods are far more complicated than that. With a healthy 90dB quoted sensitivity, these two-way designs sport a new 125mm mid-bass unit featuring a Kevlar construction (complete with an upgraded crossover) plus a soft-domed, 25mm treble unit. The only aspect of the design that I immediately disliked were the speaker terminals which are, admittedly high quality, spring-loaded, press and release types. This form of connection limits the type of cable connector you can use and also dominates the positioning. For example, my relatively thick cables could only be attached from below because of an obstruction from the chassis and only inserted into the access holes with great difficulty for the same reason.

## SOUND QUALITY

The MiniPods are light, bright, fast and fun performers that really incise into the music. Turning to vinyl first and spinning up Elton John's 1974 LP, 'Caribou' (MCA) and the track 'The Bitch Is Back', the MiniPods displayed an obvious ability to extract fine detail from the mix. Electric guitar was both precise and suitably jangly while percussive elements, such as a tambourine, were easily discernible. Bass guitar took a formative grounding role while John's vocal performance was impressively textured. To achieve such a forensic performance however, the MiniPods have been tonally tweaked with their higher frequencies pushed up a notch. This doesn't mean that the upper mids are excessively bright or that the treble has a nasty 'tizz', but there's definitely a sense of things being well lit up top. With this in mind, I'd say they need to be matched to ancillaries carefully, with these components working to bring a calming influence. As such, vinyl is always a good start...

Indeed, turning to the Sammy Davis and Count Basie LP, 'Our Shining Hour' (Verve, 1965) and the

track, 'The Girl From Ipanema', the brass section in particular could sound quite lively, yet still there was an awful lot to admire in the way the MiniPods delivered Davis's vocals. His voice was packed with emotion, the speakers conveying his trademark exuberance and almost boundless energy with great success. Sax solos

"the MiniPods really caught the emotion of the event, if not its physical scale..."

on the 'Ipanema' track sounded suitably reedy while percussive accompaniment had both punch and air. Granted, as you'd expect in a speaker of this size, deep bass was pretty much non-existent, but the MiniPods were certainly descriptive within the lower frequency regions, still giving you the gist of what was going on. That clever cabinet shape made for a relatively clean bass, with precious little cabinet overhang.

Moving to my Compact Disc front end, and I fired up the Icon CD-XI wired up via its valve output stage – this is very much the preferred option for the MiniPods, and provided a creamier sound. Playing the recently released Jeniferever album, 'Spring Tides' (Monotreme), the MiniPods fitted in nicely with this well recorded digital mix which not only provided an additional thump to aid its own bass deficiencies but responded well to the CD's inherently clean presentation. The sumptuous and wholly uplifting track, 'Green Meadow Island' was especially glorious, the MiniPods enjoying the romantic aspect of this post-rock song, never failing to track even the most subtle of details. The MiniPods always sounded busy. The sound stage may not have been the broadest in the world but these speakers worked their socks off to fill it full of lively, sparkling sonic information. Overall I found them a particularly synergistic combination with this capable CD front end.

Finally, the MiniPods were placed within a potentially tricky live situation with the Ella Fitzgerald recording from 1957 'At The Opera House' (Essential Jazz Albums). Here, the vocal delivery reminds you that the Scandynas can struggle to keep control of those upper frequency

extremes, but it so provides proof of their transparency as they offered up highly atmospheric effects created by the backing band, Fitzgerald and the audience. In broad terms, the MiniPods gave a sparkling performance that was full of atmosphere (from the audience) and passion (from Fitzgerald herself).

What these loudspeakers did well was to convey that vivid connection between both parties, aided by a soundstage which seemed positively three dimensional. Adding to the drama of the musical event,

Fitzgerald's clarity of delivery was riveting, aided in no small measure by the accompanying percussive details. Overall, the MiniPods really caught the emotion of the event, if not its physical scale.

## CONCLUSION

During testing, I lost count of the people who took one look at the Scandyna MiniPods and exclaimed, "Oooh, I want those!", and then proceeded to sit down and just gaze at the chassis design. They're a wonderfully styled slice

of retro cool – and expose so many other rivals for the bland wooden boxes that they are. And as for the those Sputnik stands, they just add to their other-worldly strangeness...

Sonically they have their own character that's far more of-its-time than the styling. To wit, they're brightly lit, zesty and lively, giving a gripping rendition of the music that's always fun to listen to. They're also surprisingly detailed, can throw out a fine stereo image and even hang images back in the soundstage with skill. Tonally however, they're not going to appeal to everyone, certainly so if they're not sympathetically matched, so a demonstration is essential. They lean more easily towards analogue front ends, which add a measure of aural balance but judicious selection of the right digital source will provide rich fruit for CD fans too. Synergistically matched however, the MiniPods will delight in their ability to reach deep into the mix to extract often fine detail – and look like you're about to re-enter the Space Age!



## VERDICT

With style that's guaranteed to turn heads, these fast and fun sounding speakers represent fine value – providing you match them with the right system.

**SCANDYNA**  
MINIPOD MK 2 £649  
Tascom International  
+44 (0)118 982 0400  
www.scandyna-uk.co.uk

## FOR

- quirky looks
- transparency
- fine detail

## AGAINST

- upper midband lift
- speaker connectors

# Vinyl is black!



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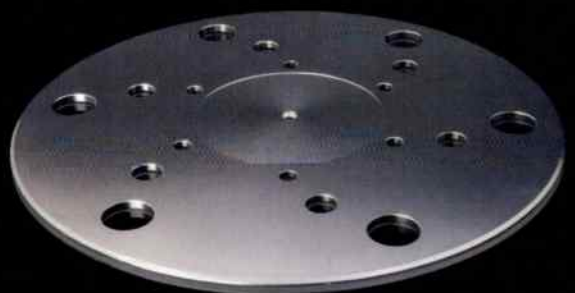
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01332 342233 [sales@blackrhodium.co.uk](mailto:sales@blackrhodium.co.uk)





Although not lavishly finished, they're well made with a solid, rubber covered headband and polished steel earspeakers containing 42mm drivers with Audio Technica's own

Copper-Clad Aluminum Wire voice coils and neodymium magnets. They weigh 160g, which again is a good compromise, and have a 1.2 OFC cable terminating in a 3.5mm minijack plug. They come in a choice of (iPod) gloss black with matching cables. Overall feel is of a quality product that's neither cheap feeling nor ostentatious. They're supplied with a handy soft case and cleaning cloth - which is an admission that those polished metal trims are a bit silly, and only done (I speculate) to match the backplates of iPods. Claimed frequency response is 5-30,000Hz, which is of course far superior to any iPod, and impedance is quoted at 32 Ohms.

These headphones need a serious amount of running in; straight out of the box they sound thin and tight and rather joyless, but put some serious hours under their headband,

so to speak, and you're in for a treat. They're very precise, just as with Audio Technica's pick-up cartridges, and amazingly detailed too, but with a refinement and delicacy that you'd expect from headphones at two or three times the price. The scratchy indie pop of Stereolab's 'Les Yper-Sound' was wonderfully clean, shiny even, the ES7s communicated the recorded acoustic of the studio with great precision. Female vocals sounded as crisp as the driven snow, and in this case captured their icy perfection. Rhythm was super tight and totally devoid of muddle, whilst rhythm guitars had just the right amount of bite. Moving to the smooth seventies sounds of the Isley Brothers' 'Summer Breeze' showed these phones no less adept with soul; although not exactly tonally warm, the Audio Technicas retained just the right balance, never veering towards the bright, yet never sounding dull or muddled. As with all products from this stable, they have a forensic thoroughness which is highly satisfying, although some may criticise it for being too cerebral. If you think so, go for the looser, gruffer more chunky sounding Grado SR-80is. Overall, these five globe phones come very highly recommended. **DP**

[contact: +44(0) 113 2771441, www.audiotechnica.com/en]

## AUDIO TECHNICA ATH-ES7 £120

Like ported speakers, it appears the modern world has pretty much decided - without consultation - that open back headphones are what we shall forever be served with. Well, just as with the aforementioned loudspeaker loading arrangement, I for one object! Closed back headphones, to my ears, are superior sounding and of course the intellectually correct solution. With this in mind I was delighted to spot these headphones; occupying a curious mid-market position they're neither budget portable fare nor high end hi-fi designs, yet their size and sound means they can be used for both.

# soundbites

## TEAC AURB SR80I £140

Joining the long ranks of iPod dock/speaker systems is this distinctive mid-price design from Teac. It's pretty well specified, with a radio that provides FM/MW and DAB with twenty station presets, although not exactly the most lavishly finished design around - the chrome-look plastic around the back gives it a cheaper feel than it otherwise would have, and nor is the two-line backlit LC display the nicest in class. Still, it's a good compact size; just big enough to get decent speakers in (at 400x162x160mm) without taking over your tabletop. Sources include iPod (and Teac take its output digitally, bypassing the iPod's so-so analogue output stage), radio, aux and USB (for playing MP3 music files from a memory stick). It also outputs video

using the S-video output too. The unit is controlled via its supplied remote, so don't lose it! It's fiddly but let's not forget the modest price of the package as a whole. Treble and bass are tweakable from this unit.

Sonically, the Teac is decent enough at the price, with a relatively clean and open sound that lets you enjoy the music - whereas many price rivals are just plain horrid sounding. At low to middle volumes the Mini Aurb is smooth, with a solid bass that can always be helped a little by its DSP function. It doesn't sound unduly fazed by heavy rock music, such as Rush's 'Subdivisions', whereas some such units I've tested would be squawking like a imperilled canary with this track. Only when you really push it close to its maximum volume do the deficiencies of the cabinet

come into play. For smooth music in smallish rooms, it's a decently priced and likeable companion. **DP**

[contact: 0845 130 2511, www.teac.co.uk]



# WORLD CLASSICS

Here is our list of the great and good from audio's glorious past, products that have earned their place in hi-fi history. You'll also see some oddities which aren't classic as such, but are great used buys. The year of introduction is given, alongside the original UK launch price.

**We do not sell these products. It is for your information only.**

## DIGITAL

**CAMBRIDGE AUDIO CD1** 1986 £1500  
Inspired Stan Curtis redesign of Philips CD104, complete with switchable digital filter. Lean but tight and musical performer.

**CAMBRIDGE AUDIO CD4SE** 1998 £200  
A touch soft in the treble and tonally light, but outstanding in every other respect.

**LINN KARIK III** 1995 £1775  
The final Karik was a gem. Superb transport gives a brilliantly tight, grippy dynamic sound, albeit tonally dry.

**MARANTZ CD73** 1983 £700  
A riot of gold brushed aluminium and LEDs, this distinctive machine squeezed every last ounce from its 14x4 DAC -super musical



**MARANTZ SA-1** 2000 £5,000  
The greatest argument for SACD. This sublime Ken Ishiwata design is utterly musically convincing with both CD and SACD, beating most audiophile CD spinners hands down.



**MERIDIAN 207** 1988 £995  
Beautifully-built two-box with pre-amp stage. Very musical although not as refined as modern Bitstream gear. No digital output.

**MUSICAL FIDELITY TRIVISTA** 2002 £4000  
When playing SACDs, the sweetest, most lucid and lyrical digital disc spinner we've heard. Old school stereo, pure DSD design. CD sound is up in the £1000 class, too! Future classic.

**MERIDIAN MCD** 1984 £600  
The first British 'audiophile' machine was a sweeter, more detailed Philips CD100. 14x4 never sounded so good, until the MCD Pro arrived a year later.



**NAIM CDS** 1990 £ N/A  
Classic Philips 16x4 chipset with serious attention to power supplies equals grin-inducing sonics.



**SONY CDP-101** 1982 £800  
The first Japanese CD spinner was powerful and involving. Brilliant transport more than compensated for 16x2 DAC, and you even got remote control!

**SONY CDP-R1/DAS-R1** 1987 £3,000  
Sony's first two boxer was right first time. Tonally lean, but probably the most detailed and architectural sounding machine of the eighties.



**SONY CDP-701ES** 1984 £890  
Sony's first ever bespoke high end audiophile machine used a 16x2 DAC to provide a clinically incisive sound; supreme build quality allied to the pure unadulterated luxury of a paperbook-sized remote control.

**TECHNICS SL-P1200** 1987 £800  
CD version of the Technics SL-1200 turntable. Massively built to withstand the rigours of 'pro' use and laden with facilities - a great eighties icon. Sonically, it's pure fun, with hefty bass that can still show weedy modern players a thing or two!

**YAMAHA CD-X1** 1983 £340  
Nicely built 16x2 machine with a very sharp and detailed sound; sometimes too much so. Excellent ergonomics, unlike almost every other rival of the time.

## COMPACT DISC TRANSPORTS

**TEAC VRDS-T1** 1994 £600  
Warm and expansive sound made this a mid price hit. Well built, with a slick mech.



**ESOTERIC P0** 1997 £8,000  
The best CD drive bar none; TEAC's Tokyo boys pushed the boat out in style. Brilliantly incisive, ridiculously over engineered.

**KENWOOD 9010** 1986 £600  
The first discrete Jap transport was beautifully done and responds well to re-clocking even today.

## DACs

**CAMBRIDGE AUDIO DACMAGIC** 1995 £99  
Good value upgrade for budget CD players with extensive facilities and detailed sonics.



**DCS ELGAR** 1997 £8500  
Extremely open and natural performer, albeit extremely pricey - superb.



**DPA LITTLE BIT 3** 1996 £299  
Rich, clean, rhythmic and punchy sound transforms budget CD players.



**PINK TRIANGLE DACAPO** 1993 £ N/A  
Exquisite; the warmest and most lyrical 16bit digital audio we have ever heard. Clever plug-in digital filter modules really worked!



**QED DIGIT** 1991 £90  
Budget bitstream performer with tweaks aplenty. Positron PSU upgrade makes it smooth, but now past it.



**TURNTABLES****ARISTON RD11S 1972 £94**

Modern evolution of Thorens' original belt drive paradigm, Scotland's original super-deck was warm and musical, albeit soft. Still capable of fine results today.

**ADC ACCUTRAC 4000 1976 £300**

Bonkers 1970s direct drive that uses an infra red beam to allow track selection and programming. More of a visual and operational delight than a sonic stunner.

**PIONEER PL12D 1973 £36**

The beginning of the end for the British turntable industry. When vinyl was the leading source, this bought new standards of noise performance and stability to the class, plus a low friction S-shaped tonearm. Later PL112D was off the pace compared to rivals

**PIONEER PLC-590 1976 £600**

Sturdy and competent motor unit that performs well with a wide range of tonearms. Check very thoroughly before buying due to electronic complexity and use of some now-obsolete ICs.

**DUAL CSS05 1982 £75**

Simple high quality engineering and a respectable low mass tonearm made for a brilliant budget buy. Polished, smooth and slightly bland sound.

**GOLDRING LENCO GL75 1970 £15.65**

Simple, well engineered motor unit with soft, sweet sound and reasonable tonearm. Good spares and servicing support even today from specialists. Eminently tweakable. Similar 88 and 99 motor units are budget 301/TD124 rivals.

**LINN AXIS 1987 £253**

Simplified cut-price version of the Sondek complete with LVX arm. Elegant and decently performing mid-price package. Later version with Akito tonearm better.

**LINN SONDEK LP12 1973 £86**

For many, the Brit superdeck; constant mods meant that early ones sound warmer and more lyrical than modern versions. Recent 'SE' mods have brought it into the 21st century, albeit at a price..

**MARANTZ TT1000 1978 £ N/A**

Beautiful seventies high end belt drive with sweet and clean sound. Rare in Europe, but big in Japan.

**MICHELL GYRODEC 1981 £599**

Thanks to its stunning visuals, this bold design wasn't accorded the respect it deserved until recently. Early examples sound cold and mechanical, but now right on the pace. Clean, solid and architectural sound.

**TECHNICS SP10 1973 £400**

Seminal Japanese engineering. Sonics depend on plinths, but a well mounted SP10/II will give any modern a hard time, especially in respect of bass power and midband accuracy.

**REGA PLANAR 3 1978 £79**

Brilliantly simple but clean and musical performer, complete with Acos-derived S-shaped tonearm. 1983 saw the arrival of the RB300, which added detail at the expense of warmth. Superb budget buy.

**GARRARD 301/401 1953 £19**

Heavy metal - tremendously strong and articulate with only a veiled treble to let it down. In many respects, better than the seventies 'superdecks' that succeeded it.

**ROKSAN XERXES 1984 £550**

Supposedly the first to 'better' the LP12. Super tight and clean sound, with excellent transients. Less musical than the Sondek, but more neutral. Sagging plinth top-plates make them a dubious used buy.

**SONY PS-B80 1978 £800**

First outing for Sony's impressive 'Biotracer' electronic tonearm. Built like a tank with a clean and tidy sound, albeit lacking involvement. Scarily complicated and with no spares support - buy with caution!

**THORENS TD124 1959 £ N/A**

The template for virtually every 1970s 'superdeck', this iconic design was the only real competition for Garrard's 301. It was sweeter and more lyrical, yet lighter and less impactful in the bass.

**TOWNSHEND ROCK 1979 £ N/A**

The product of academic research by the Cranfield Institute, this novel machine has an extremely clean and fluid sound. Substantially modified through the years, and capable of superb results even today.

**TRIO LO-7D 1978 £600**

The best 'all-in-one' turntable package ever made, Trio/Kenwood threw their 'engineering best practice' book at this one with startling results. Clean, powerful and three-dimensional sound, ultimately limited by the tonearm.

**TO NEARMS****ACOS LUSTRE GST-1 1975 £46**

The archetypal S-shaped seventies arm; good, propulsive and involving sound in its day, but ragged and undynamic now.

**AUDIO TECHNICA****AT 1120 1978 £75**

Fine finish can't compensate for this ultra low mass arm's limited sonics - a good starter arm if you've only got a few quid to spend.

**ALPHASON HR100S 1981 £150**

First class arm, practically up to present-day standards. Buy carefully, though, as there is no service available now. Totally under priced when new, exceptional.

**SME 3009 1959 £18**

Once state of the art, but long since bettered. Musical enough, but weak at frequency extremes and veiled in the midband. Legendary serviceability and stunning build has made it a cult, used prices unjustifiably high.

**GRACE G707 1974 £58**

This early Japanese example of the tonearm art has a smooth, lyrical sound. Imported by Linn, fitted to early LP12s. Sonically way off the pace now, though.

**REGA RB300 1983 £88**

Inspired budget esoterica. Detailed, tight, neutral sound but tonally grey sounding in absolute terms. Responds well to tweaking, and its cheaper RB250 brother better still.

**SME SERIES III 1979 £113**

Clever variable mass design complete with Titanium Nitride tube tried to be all things to all men, and failed. Charming nonetheless, with a warm and inoffensive sound.

**HADCOCK GH228 1976 £46**

Evergreen unipivot with lovely sweet, fluid sound. Excellent service backup.

**LINN ITTOK LVII 1978 £253**

Arguably the first 'superarm'; Japanese design to Linn specs made for a muscular, rhythmic sound with real dynamics. Now off the pace, but the final LVIII version worth seeking out.

**NAIM ARO 1986 £875**

Truly endearing and charismatic performer - wonderfully engaging mid-band makes up for softened frequency extremes.



**TECHNICS EPA-501 1979 £ N/A**  
Popular partner for late seventies Technics motor units. Nice build and Titanium Nitride tube can't compensate for middling sound.

**INTEGRATED AMPLIFIERS/COMBOS**

**DELTEC 1987 £1900**  
Fast, dry and with excellent transients, this first DPA integrated is the real deal for eighties obsessives. Ridiculously punchy 80V per channel from a tiny, half-size box. Radical, cool and more than a little strange.

**ROGERS A75 1978 £220**  
The prototypical Audiolab 8000a – lots of sensible facilities, a goodly power output and nice sound in one box. The later A75II and A100 versions offered improved sonics and were seriously sweet and open to listen to.

**EXPOSURE VII/VIII 1985 £625**  
Seminal mid-eighties Exposure pre-power, offering most of what rival Naim amps did with just that little bit extra smoothness and sweetness. Still, it's by no means 'sweet' by today's standards, being lean, punchy, musical. It's also possessed of that quintessentially eighties look – frumpy black steel boxes with rough silk screened logos!



**SUGDEN C51/P51 1976 £130**  
Soft sounding early Sugden combo with a plethora of facilities and filters, complete with seventies-tastic DIN socketry. A sweet and endearing performer as you'd expect, but lacking in power and poor load driving ability, so partner carefully.

**VTL MINIMAL/50W MONOBLOCK 1985 £1,300**  
Vacuum Tube Logic was one of the Europe's biggest tube names in the eighties, and it shows. Rugged, professional build and finish allied to a lively and punchy sound (albeit with limited power) make them an excellent used buy.

**A&R A60 1977 £115**  
Sweet and musical feature-packed integrated; the Audiolab 8000A used its blueprint to great effect.



**CREEK CAS4040 1983 £150**  
More musical than any budget amp before it; CAS4140 loses tone controls, gains grip.

**AUDIOLAB 8000A 1985 £495**  
Smooth integrated with clean MM/MC phono stage and huge feature count. Extremely reliable, too. Post '93 versions a top used buy.



**MCINTOSH MA6800 1995 £3735**  
Effortlessly sweet, strong and powerful with seminal styling to match.

**SUGDEN A21 1969 £ N/A**  
Class A transistor integrated with an eminently likeable smoothness and musicality. Limited inputs via DIN sockets.

**MISSION CYRUS 2 1984 £299**  
Classic eighties minimalism combines arresting styling with clean, open, lively sound. Further upgradeable with PSX power supply.



**MUSICAL FIDELITY A1 1985 £350**  
Beguiling Class A integrated with exquisite styling. Questionable reliability.



**NAIM NAIT 1984 £350**  
Superb rhythms and dynamics make it truly musical, but tonally monochromatic. Fine phono stage, very low power.

**NAD 3020 1979 £69**  
Brilliantly smooth, sweet and punchy at the price and even has a better phono stage than you'd expect. The archetypal budget super-amp.



**MYST TMA3 1983 £300**  
Madcap eighties minimalism, but a strong and tight performer all the same.

**ROGERS CADET III 1965 £34**  
Sweet sounding valve integrated, uses ECL86 output valves, even has a half useable phono stage, sweet, warm a good introduction to valves



**ROTEL RA-820BX 1983 £139**  
Lively and clean budget integrated that arguably started the move to minimalism.

**CHAPMAN 305 1960 £40**  
Smooth pre/power combo with a sweet and open sound. Not quite up to Leak/Quad standards but considerably cheaper second-hand.

**PREAMPLIFIERS**  
**AUDIOLAB 8000C 1991 £499**  
Tonally grey but fine phono input and great facilities make it an excellent general purpose tool.

**CROFT MICRO 1986 £150**  
Budget valve pre-amp with exceptionally transparent performance.

**AUDIO RESEARCH SP-8 1982 £1,400**  
Beautifully designed and built high end tube preamplifier with deliciously sweet and smooth sound. Not the last word in incision or grip, but that didn't matter to those who aspired to it.

**CONRAD JOHNSON MOTIV MC-8 1986 £2,500**  
Minimalist FET-based preamplifier from the Yank valve specialists is brilliantly neutral and smooth with a spry, light balance in the mould of Sugden high end stuff. Something of a curio, but worthwhile nonetheless.

**LEAK POINT ONE STEREO 1958 £ N/A**  
Good for their time, but way off the pace these days. Use of EF86 pentode valve for high gain rules out ultra performance. Not the highest-fi!

**LINN LK-1 1986 £499**  
A brave attempt by the Glasgow boys to bring remote controlled user-friendliness to hair-shirt audiophile hi-fi. Didn't quite work, but not half bad for under £100.

**LECSON AC-1 1973 £ N/A**  
Amazing styling courtesy of Allan Boothroyd can't disguise its rather cloudy sound, but a design classic nonetheless.



**QUAD 22 1958 £25**  
The partner to the much vaunted Quad II monoblocks - cloudy and vague sound means it's for anacrophiles only.

**QUAD 33 1968 £43**  
Better than the 22, but Quad's first tranny pre isn't outstanding. Responds well to tweaking/ rebuilding though...

**NAIM NAC32.5 1978 £ N/A**  
The Salisbury company came of age with this, their classic high end pre. Brilliantly fast and incisive sound that's a joy with vinyl but a tad forward for digital.

**POWER AMPLIFIERS**  
**HH ELECTRONICS TPA-50D AMPLIFIERS 1973 £110**  
Simple design with easily available components, solid build quality and fine sound make for a surprisingly overlooked bargain. Not exactly stylish, however.

**LEAK STEREO 20 1958 £31**  
Excellent workaday classic valve amplifier with decent power and drive. Surprisingly modern sounding if rebuilt sympathetically. Irrepressibly musical and fluid.





**LEAK STEREO 60 1958 £N/A**  
Leak's biggest valve power amp offers 35 Watts per channel and more low end welly than the smaller Stereo 20. Despite concerns over reliability their rarity means high prices are the order of the day.

**LECSON API 1973 £ N/A**  
Madcap cylindrical styling alluded to its 'tower of power' pretensions, but it wasn't. Poor build, but decently clean sounding when working.

**MARANTZ MODEL 9 1997 £8000**  
Authentic reproduction monoblocks still more than cut the sonic mustard. Highly expensive and highly sought after.

**MICHELL ALECTO 1997 £1989**  
Crisp, clean and beautifully controlled with gorgeous styling. Partnered with the £1650 Orca this sounds delicious!

**LEAK POINT ONE, TL10, TL12.1 1949 £28**  
Early classics that are getting expensive. Overhauling is de rigeur before use, using original parts if possible. Surprisingly crisp and musical sound, that's far more modern than Quad IIs. Deeply impressive when in fine fettle.



**MUSICAL FIDELITY XA200 1996 £**  
200W of sweet smooth transistor stomp in a grooved tube! Under-rated oddity.



**QUAD II 1952 £22**  
The all-time classic valve amplifier, with a deliciously fluid and lyrical voice. In other respects though, it sounds hopelessly dated. Low power and hard to partner properly



**QUAD 405 1978 £115**  
The first of the current dumpers is a capable design with smooth, effortless power and a decently musical sound. 606 and 707 continue the theme with greater detail and incision.

**QUAD 303 1968 £55**  
Bullet proof build, but woolly sound. Off the pace, but endearing nonetheless. Some pipe smoking slipper wearers swear by them!

**KRELL KMA100 II 1987 £5,750**  
Ludicrous monoblock version of the giant KSA-100 is one of the seminal eighties transistor power amplifiers. Massive wallop allied to a very clean and open Class A sound makes this one of the best amplifiers of its type, ever.

**RADFORD STA25 RENAISSANCE 1986 £977**  
At the time, very possibly the least cool amplifier on the planet – and we're not talking heat dissipation here. This reworking of Radford's original late sixties design was possessed of a wonderfully rich, old school valve sound with enough power (25W) and lots of subtlety.



**PIONEER M-73 1988 £1,200**  
Monster stomp from this seminal Japanese power amplifier, complete with switchable Class A and Class B operation. Clean, open and assured sounding, albeit a tad behind the pace on high speed dance music. Rosewood side cheeks and black brushed aluminium completes the eighties-tastic experience.



**PHONO STAGES**

**CREEK OBH-8 SE 1996 £180**  
Punchy, rhythmic character with oodles of detail makes this a great budget audiophile classic. Partner with a Goldring G1042 for an unbeatable budget combination.



**LINN LINNK 1984 £149**  
Naim-designed MC phono stage built to partner the original Naim NAIT - yes, really! Fine sound, although off the pace these days.

**MICHELL ISO 1988 £ N/A**  
This Tom Evans-designed black box started the trend for high performance offboard phono stages. Charismatic, musical and punchy - if lacking in finesse.

**TUNERS**

**MARANTZ ST-8 1978 £353**  
Marantz's finest radio moment. Warm, organic sound plus an oscilloscope for checking the signal strength and multipath.



**CREEK CAS3140 1985 £199**  
Excellent detail, separation and dynamics - brilliantly musical at the price. T40 continued the theme...

**NAD 4040 1979 £79**  
Tremendously smooth and natural sound allied to low prices and good availability make this budget analogue esoterica. Needs a good antenna to work properly, however.

**NAIM NAT03 1993 £595**  
The warm, atmospheric sound is further proof of Naim's proficiency with tuners.

**PIONEER TX-9500 1976 £295**  
Another of the serious classic solid-staters. Boasts the usual high end Jap package of fine sound, brilliant sensitivity and superb build.

**LEAK TROUGHLINE 1956 £25**  
Series I an interesting ornament but limited to 88-100MHz only. II and III are arguably the best-sounding tuners ever. Adaptation for stereo easy via phono multiplex socket. Fed by a modern outboard decoder they're deliciously lucid with true dimensionality.



**YAMAHA CT7000 1977 £444**  
Reputedly the best of the classic Jap analogues, this combines sleek ergonomics, high sensitivity and an explicit, detailed sound.

**QUAD FM4 1983 £240**  
Supreme ergonomics and styling allied to a pleasingly lyrical sound with plenty of sweetness and detail made this one of the best tuners around upon its launch.



**REVOX B760 1975 £520**  
More of a semi-pro machine than a domestic bit of kit, the Revox offers superlative measured performance although the sound isn't quite as staggering as the numbers. Fine nonetheless, and surely the most durable tuner here!

**NAD 4140 1995 £199**  
Brilliant affordable digital tuner has a smooth, detailed musical sound plus sensible real-world facilities.

**ROGERS T75 1977 £125**  
Superb mid-price British audiophile design, complete with understated black fascia. Fine sound in the true Rogers mould – smooth and sweet with fine dimensionality.

**SANSUI TU-9900 1976 £300**  
A flagship Japanese tuner designed to steal sales from the likes of Accuphase and Revox, it boasts superlative RF performance and an extremely smooth and lucid sound, along with very fine build and finish.

**SONY ST-5950 1977 £222**  
One of the first Dolby FM-equipped tuners, a format that came to nought. Still, it was Sony's most expensive tuner to date, and boasted a very good sound quality allied to brilliant ergonomics.

**SEQUERRA MODEL I 1973 £1300**  
Possibly the ultimate FM tuner. Massive in terms of technology, size and features dedicated to extracting every ounce of performance from radio, including impressive multi-purpose oscilloscope display.



**TECHNICS ST-8080 1976 £180**

National Panasonic's specialist hi-fi brand was a big hitter back then, and this is no exception. Superb FM stage makes for a very clean and smooth listen with lots of detail and depth.



**ANALOGUE RECORDERS**

**YAMAHA TC-800GL 1977 £179**

Early classic with ski-slope styling courtesy of Mario Bellini. Middling sonics by modern standards, but cool nonetheless!



**AIWA XD-009 1989 £600**

Aiwa's Nak beater didn't, but it wasn't half bad nonetheless. Massive spec even included a 16x4 DAC!

**NAKAMICHI CR-7E 1987 £800**

The very best sounding Nakamichi ever - but lacks the visual drama of a Dragon.



**PIONEER CTF-950 1978 £400**

Not up to modern standards sonically, but a great symbol of the cassette deck art nonetheless.



**REVOX A77 1968 £145**

The first domestic open reel that the pros used at home. Superbly made, but sonically off the pace these days. B77 better, but couldn't match the Japanese.



**SONY WM-D6C 1985 £290**

Single capstan transport on a par with a Swiss watch, single rec/replay head better than most Naks. Result: sublime.



**SONY TC-377 1972 £N/A**

A competitor to the Akai 4000D open reel machine, the Sony offered better sound quality and is still no slouch by modern standards

**DIGITAL RECORDERS**

**SONY MDS-JE555ES 2000 £900**

The best sounding MD deck ever, thanks to awesome build and heroic ATRAC-DSP Type R coding.



**PIONEER PDR-555RW 1999 £480**

For a moment, this was the CD recorder to have. Clean and detailed.

**MARANTZ DR-17 1999 £1100**

Probably the best sounding CD recorder made; built like a brick outhouse with a true audiophile sound and HDCD compatibility.



**KENWOOD DM-9090 1997 £500**

Serious and sophisticated sound thanks to well implemented ATRAC 4.S; surprisingly musical MD recorder.

**SONY TCD-8 DATMAN 1996 £599**

Super clean sound makes this an amazing portable, but fragile.

**LOUDSPEAKERS**

**ACOUSTIC RESEARCH ARI8S 1978 £125**

Yank designed, British built loudspeaker became a budget staple for many rock fans, thanks to the great speed from the paper drivers, although finesse was most definitely not their forte...

**BBC LS3/5A 1972 £88**

Extremely low colouration design is amazing in some respects - articulation, stage depth, clarity - and useless in others (both frequency extremes). Came in wide variety of guises from various manufacturers building it under licence. Partner with Rogers ABI subwoofers for an extra two octaves of bass!

**LOWTHER PM6A 1957 £18 EACH**

This seminal full-range driver is still manufactured. High sensitivity, as fitted to many classic horn designs.

**HH ELECTRONICS TPA-50D AMPLIFIERS 1973 £110**

Simple design with easily available components, solid build quality and fine sound make for a surprisingly overlooked bargain. Not exactly stylish, however.

**TANNOY WESTMINSTER 1985 £4500**

Folded horn monsters which certainly sound good if you have the space. Not the last word in tautness but can drive large rooms and image like few others.

**JR 149 1977 £120**

Infamous cylindrical speaker that was ignored for decades but now back in fashion! Based on classic KEF T27 / BI 10 combo as seen in the BBC LS3/5a. Doesn't play loud, needs a powerful transistor amplifier, but rewards with fine clarity and imaging.



**SPENDOR BC1 1976 £240**

Celestion HF1300 tweeter meets bespoke Spendor Bextrene mid-bass unit - and the result is a beautifully warm yet well focussed sound. A little bass bloom necessitates careful low-stand mounting, but these prove that the seventies did have some fine designs after all!

**QUAD ESL57 1956 £45 EACH**

Wonderfully open and neutral sound puts box loudspeakers to shame. Properly serviced they give superb midband performance, although frequency extremes less impressive. Ideally, use in stacked pairs or with subwoofers and supertweeters.



**KEF R105 1977 £785**

Three way Bextrene-based floorstander (complete with castors!) gave a truly wideband listen and massive (500W) power handling. A very neutral, spacious and polite sounding design, but rhythmically well off the pace. The quintessential nineteen seventies loudspeaker.

**IMF TLS80 1976 £550**

Warm and powerful nineteen seventies behemoth with transmission loading and a mixture of KEF and Celestion drive units. Impressively physical wideband sound but rhythms aren't its forte.

**MAGNEPLANAR SMGA 198X £800**

Technological loudspeaker with genuinely musical abilities; fast, smooth, open, dry.





**MISSION 770 1980 £375**

Back in its day, it was an innovative product and one of the first of the polypropylene designs. Warm, smooth, clean and powerful sound.



**MISSION 752 1995 £495**

Cracking Henry Azima-designed floorstanders combined HDA drive units and metal dome tweeters with surprisingly warm results. Benign load characteristics makes them great for valves.

**HEYBROOK HBI 1982 £130**

Peter Comeau-designed standmounters with an amazingly lyrical yet decently refined sound. Good enough to partner with very high end ancillaries, yet great with budget kit too. A classic.

**CELESTION SL6 1984 £350**

Smallish two way design complete with aluminium dome tweeter and plastic mid-bass unit set the blueprint for nineteen eighties loudspeakers. Very open and clean sounding, albeit course at high frequencies and limp in the bass. Speakers would never be the same again...

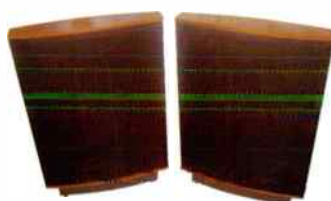
**LEAK SANDWICH 1961 £39 EACH**

Warm sounding infinite baffle that, with a reasonably powerful amplifier can sound quite satisfying.



**QUAD ESL63 1980 £1200**

An update of the ESL57, with stiffer cabinets. Until the 989, the best of the Quad electrostatics



**YAMAHA NS1000 1977 £532**

High tech Beryllium midband and tweeter domes and brutish 12" woofers in massive sealed mirror image cabs equals stunning transients, speed and wallop allied to superb transparency and ultra low distortion. Partner carefully!



**MISSION X-SPACE 1999 £499**

The first mass production sub and sat system using NXT panels is a sure-fire future classic - not flawless, but a tantalisingly unboxy sound nevertheless!



**CLASSIC CONTACTS**

When a classic goes 'poof' your troubles have just started, but there may be a good ending. Replacing failing parts can improve the sound, so here is a short listing of all these companies who specialise in getting a classic up and running again after its deposited a small ring of soot on your ceiling!

**GT AUDIO**

(Graham Tricker, Bucks)  
Leak Troughline specialists. Also Quad and most classic tuners, radios and amplifiers restored, repaired.  
Tel: 01895 833099  
Mob: 07960 962579  
www.gtaudio.com

**TECHNICAL AND GENERAL**

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Turntable parts - wide range of spares and accessories, plus arms and cartridges.  
Tel: 01892 654534

**CARTRIDGE MAN**

(Len Gregory, London)  
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Tel: 020 8688 6565  
Email: thecartridgeman@talktalk.net  
www.thecartridgeman.com

**QUAD ELECTROACOUSTICS**

(Cams) Quad's service department, able to repair almost all Quad products, from the very first. (Also Audiolab, Mission & Wharfedale).  
Tel: 0845 4580011  
www.quad-hifi.co.uk

**Dr MARTIN BASTIN**

(Shropshire) Garrard 301/401 restoration, renovation and service. Special plinths; rumble cures, etc.  
Tel: 01584 823446

**ARKLESS ELECTRONICS**

(Northumberland)  
Specialist in repairs, restoration and modifications to all amplifiers, valve or solid state, ancient and modern.  
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**SOWTER TRANSFORMERS**

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www.wembleyloudspeaker.com

**EXPERT STYLUS COMPANY**

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Email: w.hodgson@btclick.com

**ONE THING**

(Coventry) Specialist in electrostatic panel manufacture and repair. Can refurbish ESL 57s and 63s as well as Leak Troughlines and Quad IIs.  
Email: one.thing@ntlworld.com  
www.onethingaudio.com

**LORICRAFT AUDIO**

(Terry O'Sullivan, Bucks)  
Garrard 301/401 and their own 501 repair, spares and service.:  
Tel: 01488 72267  
www.garrard501.com

**LOCKWOOD AUDIO**

(London)  
Tannoy loudspeaker parts, restoration and repair. Also Epos and TDL loudspeakers.  
Tel: 020 8 864 8008  
www.lockwoodaudio.co.uk

**CLASSIC NAKAMICHI**

(Paul Wilkins, Worthing, West Sussex). Restore, Repair & Service Nakamichi Cassette Decks.  
Tel: 01903 695695  
Email: paul@bowersandwilkins.co.uk  
www.bowersandwilkins.co.uk

**OCTAVE AUDIO WOODWORKING**

(Bristol)  
Unit 2, 16 Midland Street, St Phillips, Bristol.  
Tel: 0117 925 6015  
www.octave-aw.co.uk

**REVOX**

(Brian Reeves, Cheshire)  
Revox tape recorder spares, service and repair. Accessories also available.  
Tel: 0161 499 2349  
Email: brian@revoxservice.co.uk  
www.revov.freeuk.com

**CLASSIQUE SOUNDS**

(Paul Greenfield, Leicester)  
ESL-57s restored, rebuilt, fully renovated or improved. Leak, Quad valves amps etc.  
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# Super Ted

**Alvin Gold finds TeddyPardo's TeddyDAC digital to analogue converter to be as warm and cuddly as its name suggests!**

**O**kay, I admit it. TeddyPardo meant *zilch* to me before this review was commissioned. In fact the very idea of a D/A converter that looks like a teddy bear had me more than a little intrigued, or at least it did all the way until I opened the box and found inside a conventional looking DAC in a slimline black anodised housing staring out at me! It measures 62x170x250mm, and weighs around 2.2kg, and there's not a teddy bear in sight. On the plus side it is simple, workmanlike and solid in feel, but there is no cuddly bear analogy here. Teddy is simply the first name of the company CEO. Disappointing really, but I can imagine many potential owners breathing a sigh of relief...

The TeddyPardo DAC is a compact, high end standalone digital to analogue converter. The biggest surprise to me was that it comes from Israel, a small country with a good record in high tech which is home to a very tiny number of audio brands, of unusual distinction. Magico - based in Berkeley, California, whose CEO and designer comes from Israel, is a famously striking example, and so is Morel of Fat Lady fame.

TeddyPardo is one of the very few remaining Israeli brands but in its own slightly more modest way it is little less striking.

The company was set up in 2006 to design and make high performance power supplies built around the proprietary TeddySuperReg low noise regulator, which is also available to the DIY market. Initially these PSUs were intended as replacements in the Naim Flatcap, Hicap, Supercap and XPS power supplies in Naim systems – Teddy Pardo is a long time Naim user. A number of performance and longevity related advantages are claimed, along with lower selling prices. More recently TeddyPardo started producing small to medium size power amplifiers in various configurations. The DAC is their most recent introduction.

The DAC, which was introduced about two years ago, has four inputs, and is intended for use with its inputs driven by a CD player or mechanism, an audio streaming device, a media centre and/or a computer. The unit will handle up to three discrete single ended inputs, two via S/PDIF phono interconnects with a third accessible via a TOSLINK optical alternative using quality WBT NextGen inputs

and output sockets. There is also a single USB input.

Inputs are selected by a simple four way front panel switch, with a front panel LED to indicate power and operating status. The only other external furniture (if the term is applicable) are a rear panel power on/off switch, a fuse holder and an IEC mains socket, which means you can specify the mains cable you wish to use for performance and length. The maker suggests a burn in period of a week or more, and about thirty minutes under power to fully charge the power supply reservoir capacitor stage, and I concur. It clearly likes a little while under power before it feels entirely comfortable in its own skin.

In addition to using its own ultra clean power, short signal path supply technology – no less than ten SuperTeddyRegs are specified, with separate analogue and digital blocks fed from separate transformer secondaries, which occupies around two thirds of the internal PCB surface area – it uses the well liked Wolfson Micro WM8741 DAC chip (one of the company's very best) and WM8804 digital receiver. Very accurate 1.1ps low jitter clocks are



specified, and the output filter is based on a proprietary single ended zero feedback buffer using J-FETs instead of the more usual op-amps, which generally means a longer signal path, which is obviously undesirable.

**SOUND QUALITY**

Much of the testing involved using Denon's DCD-SA1 CD/SACD player acting as a digital source and the matching Denon PMA-SA1 integrated stereo amplifier downstream of the DAC conversion stage. These are refined high end integrated units originally intended for the Japanese home market, and which are rarely sold in the UK or anywhere else outside Japan. Various speakers were used including, but not limited, to the Mordaunt Short Performance 6LE, an excellent medium sized floorstander which has been a staple of my test system for a considerable period.

The baseline audio sound quality with the TeddyPardo patched in is smooth, elegant and natural, with unusually lifelike vocal reproduction. Based on recent experience, I would expect the TeddyPardo to make a good as well as an affordable two channel DAC in a system that includes on Oppo DVD player, a unit that responds well to good quality external D/A conversion. The DAC's character and evident transparency should also suit a range of solid state and tube based players; it did work unusually well musically with a range of challenging material on test. A good example is the extravagant ending of Schoenberg's oratorio 'Gurrelieder', in a version conducted by Esa Pekka Salonen which was recorded live at London's Royal Festival Hall, which reproduced with the forcefulness and passion that the music so richly demands. And ditto with the recording of Styo's Brahms 'Alto Rhapsody'. It also impressed with the music of Alkan played by Marc-Andre Hamelin, who's large, powerful hands work well on disc, helping reinforce the idea that the piano is a dynamic percussive instrument - which of course it is.

There are plenty of other examples that could be given, but the basic theme has already been stated above. Music sounds detailed and three dimensional with the kind of muscularity, physicality and presence that is sometimes missing from the reproduced article. Best of all

perhaps is that there is little sign of the artificiality that sometimes plagues digital hardware like this. The music breathes realistically, without the stilted hard-nosed edge that too often denotes solid state digital reproduction. It would be going too far to suggest that the TeddyPardo is obviously valve-like or that it has genuine analogue pretensions, but it certainly hints at this kind of voicing.

**CONCLUSION**

The bottom line is that this is a vital and essentially natural sounding digital to analogue converter, which is moderately priced, and which in the very best sense is easy on the ears. Bass is firm and well extended, and the treble lacks the harsh edge, the digital artefacts you will hear from many of the TeddyPardo's

peers at all price levels. Its feature count is minimalist. Aside from the ability to connect to several source components, there are no other toys of note. There are no alternative filter algorithms, though the one that is built in seems particularly well judged. You can't change absolute phase in the digital domain, and the TeddyPardo is not intended for high resolution, though it can cope with 24/96kHz signals. One feature I would have liked, and which is available on some D/A converters is a volume control, which would allow the unit to act as a full integrated preamplifier, though to do the job properly would impact adversely on the bottom line. Perhaps there will be such a version at some point in the future? As it stands, it comes very highly recommended.



**MEASURED PERFORMANCE**

Frequency response of this DAC stretches flat to 19.5kHz our analysis shows. This is a bit lower than the usual 21kHz though and quite obviously the DAC uses steep filtering to eliminate unwanted out of band aliases, noise, etc. Steeper filtering is little used except in the few DACs with selectable filter options, from Cambridge Audio and Audiolab for example, but there is plenty to suggest that it does improve sound quality. Response flatness of this DAC points to even tonal balance in use however, the small response limitation will be undetectable in itself.

Distortion was much as expected over the dynamic range of CD but interestingly - perhaps due to the deep filtering reducing in band quantisation noise - EIAJ Dynamic Range was very high at 100.25dB, just fractionally higher than any DAC yet tested. Few reach 100dB; the TeddyDAC comfortably nudged past this value. With a 24bit input distortion dropped to 0.04% at -60dB and 0.4% at -80dB both very respectable results.

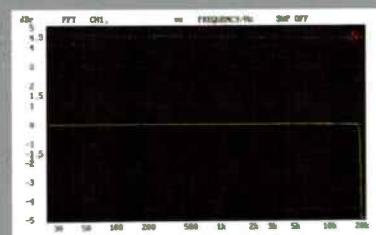
Output was a normal 2.2V and both noise and separation figures good.

The TeddyDAC has very effective filtering, more effective than most DACs and this gives a better measured performance than most DACs available. NK

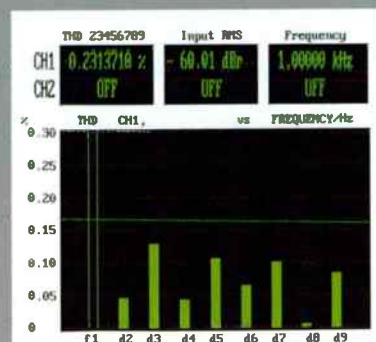
Frequency response (-1dB)  
CD 2Hz-19.5kHz

Distortion (%)	
0dB	0.035
-6dB	0.0097
-60dB	0.22
-80dB	4.6
Separation (1kHz)	110dB
Noise (IEC A)	-112dB
Dynamic range	100dB
Output	2.2V

**FREQUENCY RESPONSE**



**DISTORTION**



**VERDICT**

Distinctively smooth, even and musical sounding digital converter with fine build and finish.

**TEDDYPARDO**  
**TEDDYDAC** £1,158  
Audiocom International.  
+44(0) 1646 650046  
www.audiocominternational.com

**FOR**  
- relaxed, spacious sound  
- smooth, subtle tonality  
- charming musicality

**AGAINST**  
- no volume control

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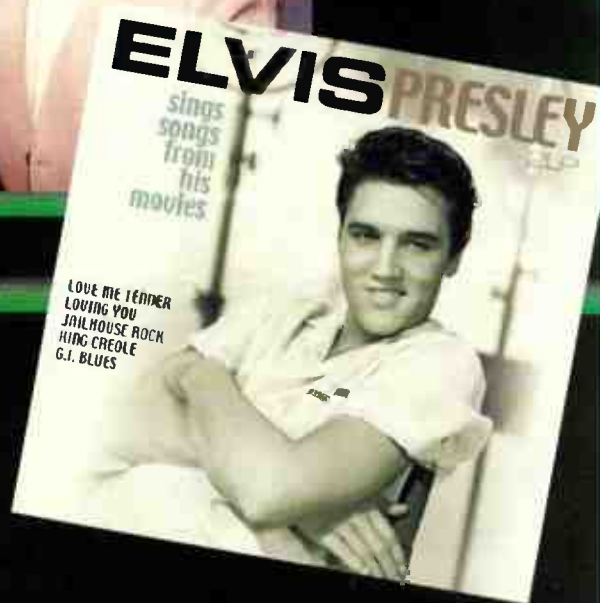
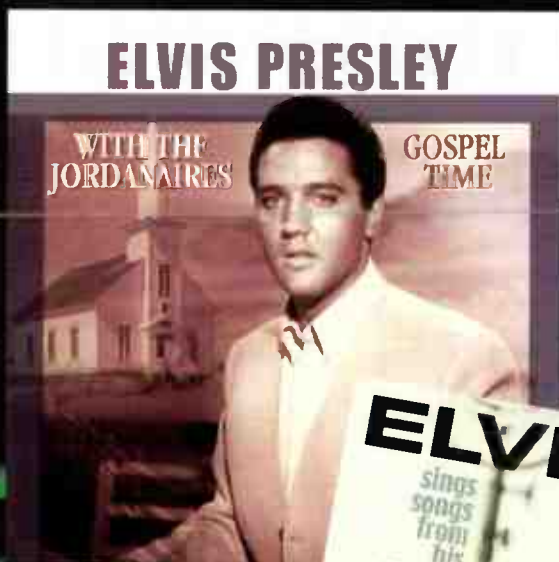


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Lost Recordings and Beat Rarities



**THE HOLLIES**

*Lost Recordings And Beat Rarities*

**Sundazed**

A magnificent box set release, via Sundazed ([www.sundazed.com](http://www.sundazed.com)), for one of Britain's most important beat groups, this collection features twenty rarities and packs them onto ten 7" singles, all of which are included in picture sleeves and paper inners. Songs include hard to find singles and EPs from the UK and US or those that have never before appeared on vinyl including two very rare tracks the group created for an Italian spy movie in 1967. As all the 7" singles are 'dinked', that is, they have no spindle holder, replicating the original jukebox single versions, you will need to either find yourself a simple, plastic, push-in replacement available for pennies or invest in something a little more substantial. I used Avid's Level 45 unit which arrives with a bubble level and a 180g weight option.

During play, it quickly became apparent that Sundazed has decided to master the featured music in sympathy with the original release by adding enough midrange compression to give a contemporary midrange lift. Still retaining a dynamic presentation, the drum-infused bass also provided a welcome rhythmic kick on '(Ain't That) Just Like Me', for example, while bass guitar was

both distinct and detailed on 'You In My Arms', providing evidence of welcome instrumental separation that allowed more detail to emerge. This is an essential box set, for many reasons. On a production level, it is a thing of beauty all on its own. For anyone who loves to wallow in high production values, this release should be examined and dribbled upon. Regarding the content, any fans out there who like The Hollies should be in like a shot but also anyone who has an interest in beat music or the history of popular music will not fail to be entranced.

**ELVIS PRESLEY**

*Sings Songs From His Movies/Gospel Time*

**Vinyl Passion**

Making its first appearance within *Hi-Fi World* is the German-based record label Vinyl Passion and two related Elvis Presley records. 'Movies' is a double album of songs taken from Presley's film career. Significantly, the movies featured are Presley's first five productions: 'Love Me Tender', 'Loving You', 'Jailhouse Rock', 'King Creole' and 'G.I. Blues'. It also features three No.1 hits from 1960 as bonus tracks. 'Gospel Time' features his work with the Jordanaires vocal group and a selection of more religious tracks, a genre of music that was very important to Presley. Arriving

on a relatively quiet pressing, this is a welcome collection for those looking for a one-stop-shop selection of movie hits but who also demand a high quality sound. That's what you get here, dependent on the quality of the original master, that is. That can be heard within a single movie's worth of tracks. 'Jailhouse Rock's' title track is both vibrant with admirable clarity yet 'Don't Leave Me Now' sounds a little constricted, dynamically, even slightly claustrophobic. 'Young And Beautiful' however, presents a deep soundstage in which Presley appears in 3D, reflecting the very best of the inherent DMM mastering process.

'Gospel Time' sounds a little more forward within the upper midrange, a sonic facet often found in DMM offerings but Presley on 'His Hand In Mine' offers an impressively bass-drenched vocal performance while both drums and piano are lifted from the dominant choral front-end on '(I'm) Gonna Walk Dem Golden Stairs'. For Presley fans who are fed up listening to yet another regurgitated, unloved, basic CD pressing spouting second rate music quality from the quiffed one and who wish to glory at the sheer timbre and often devastating character of the Presley vocal box, both of these vinyl editions will arrive like a breath of fresh air.





**LOUIS ARMSTRONG**

*The Great Chicago Concert 1956*

**Pure Pleasure**

A sumptuous box set from Pure Pleasure ([www.purepleasurerecords.com](http://www.purepleasurerecords.com)), this 3LP collection arrives in a sturdy pizza-style box along with a large format, 11-page booklet. Taken from Chicago's Medina Temple for the benefit of the Multiple Sclerosis Society, the concert originally featured a jazz history tableau introduced by actress Helen Hayes, but technical problems put paid to that. Armstrong's entire musical concert portion was issued on CD during the eighties. Now that entire concert is issued on vinyl for the first time. The CD version sounded okay – this sounds stunning. More than that, in sonic terms, this is one of the best live gigs I've ever heard, at any time, in any genre, anywhere. Granted, you take the rough with the smooth in any live situation. For example, at the beginning of the concert, the band are on walkabout so you can't hear much of them but, what the mics pick up is still sonically impressive. Similarly, upon taking up their initial positions, the band threaten to blow your ears off (again, hilariously, sonically amazing).

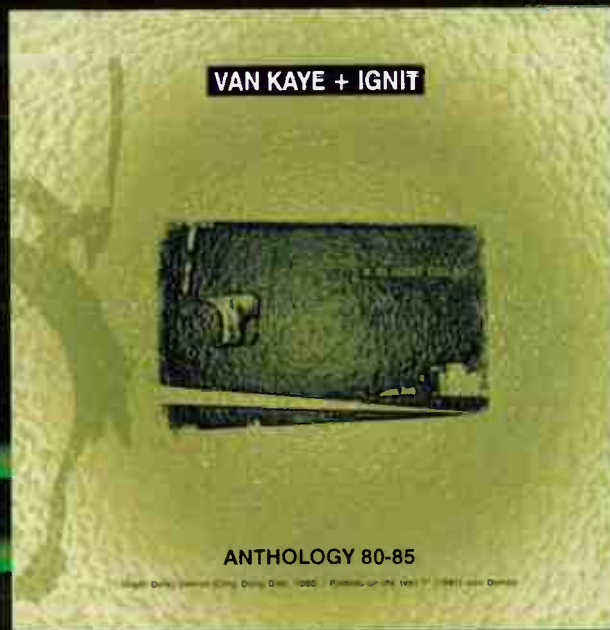
Wherever they might be, the aural quality, on this release, is always open, full of air and space, dynamic and packed with clarity. This was down to the high fidelity equipment supplied

on the night, borrowed from a radio station and rigged normally to record concert orchestras. Basin Street Blues is an ideal specific example. Played via the mono output of my Icon PS3 phono amp, the soundstage was superbly organised while Armstrong's vocal performance provides emotion and all of the texture of an oak tree: his delivery has deep and interesting crenulations coupled with a powerful resonance while his supporting players add a controlled cacophony that, sprinkled with the ol' Armstrong humour, was, like this entire box set, a wonder to behold.

**VAN KAYE + IGNIT**

*Anthology 80-85*  
**Vinyl On Demand**

Van Kaye, also known as Ed Van Kasteren and Ignit Bekken, are a Dutch duo who teamed up in 1980 to produce a series of minimal synth tape cassettes. Now highly collectable, the music from both tapes is present within this five album box set (which also includes a bonus 10" disc) plus rare tracks utilised in compilations: seventeen in all, unreleased tracks, demos and live works. Look out for guest appearances from ex-Legendary Pink Dots frontman Edward Ka-Spel. Vinyl On Demand ([www.vinyl-on-demand.com](http://www.vinyl-on-demand.com)) maintains its high production values with this luxurious set featuring all six discs within a sturdy,



pizza-style box that includes a liner note insert.

Starting with the early 1980-81 demos, the band offer a selection of moody, synth-based electronica with English vocals providing a typical post punk paranoia (via the discordant 'Negrøe In N.Y.'), electrical Armageddon (within the harsh electrics of 'Love You Generator', complete with a drunken, 'live for today for we die tomorrow', vocal) and rhythmic desolation (via the almost hypnotic 'Glad To Be Home'). The tracks offer plenty of interest with quirks aplenty such as the almost Robert Wyatt-like delivery leading 'Opera Of Worms' and the effective guitar within the track 'Goin' Thru Life', featuring an atmospheric female vocal.

As the box set moves through the years, the duo up their production values along with their arrangement complexity and with their experimental tastes. 'The Heat' (1982) is almost nightmarish while Whirlwind (1982) could almost be pitched as a potential chart hit, such is its surprisingly market-friendly delivery. While 'Defect', from 1983, takes the maturing arrangement and simplifies the melody, stripping away the fripperies to reveal the core idea of the piece. A welcome treat for post/punk, new wave fans, this set provides some surprisingly top quality creations and constructions.

PR

# Star Quality

**David Price remembers Rega's long-lost Planet turntable, the Essex company's very first product and precursor to the immensely popular Planar series of turntables...**

**H**ad a young Roy Gandy not got into building his own hi-fi from an early age, the object you see here would never have existed. By the time he'd reached voting age, he'd already designed and built his own loudspeakers, was going to gigs and buying records to play on an old Colaro deck he'd got from a rubbish dump and heavily modified.

Roy later found himself working for the Ford Motor Company, when during his spare moments he'd be building and selling his own loudspeakers. He then became a part time retailer, which necessitated spending an inordinate amount of time repairing turntables (they were, of course, the primary source back then). Then finally in 1973 he and business partner Tony Relph registered the name Rega (RElphGAndy) and started making the very first Planet turntables, an example of which is pictured left.

This deck will strike students of turntable design in two ways; you'll doubtless be dazzled by the dramatic 'three podule' platter design, and of course that lovely retro S-shaped tonearm. Together they give this turntable a 'space age' look, totally in keeping with the nineteen seventies science fiction boom, fuelled of course by the Apollo space programme of that time.

However, the plinth looks – by

today's standards – utterly mundane. It's just a nicely covered piece of MDF, with a few recesses in it drilled for the bearing housing, motor and tonearm. Ironically though, this is probably the most radical part of the deck for its time. Because back in 1973, very few turntable plinths looked like this; almost all were suspended or sprung for a start, following the Garrard SP25 paradigm, or that of the Thorens TD160. To have a slim 'fillet' of fibreboard sitting on three rubber feet was futuristic stuff!

Of course, it didn't handle vibrations terribly well, a feature it shares with all Rega turntables to this day, so the Planet (and its descendants) do need careful placement *well* away from loudspeakers, preferably on a wall shelf. But carefully sited and levelled, the vibration isolation issue becomes far less of a worry. In the context of the Rega Planet, it's not the deck's greatest weakness, I'm afraid to say.

No, the real Achilles Heel is that magnificent podule platter, which provides truly shocking record support. It's sad, because it's actually a nice piece of metalwork, lending it a beautifully engineered feel that transcends its replacement, the Planar 3, which had a plastic inner platter and a glass outer one. It's hard to get records to sit convincingly on it, meaning they're rattling around on the surface slightly as the disc

plays. This can manifest itself in all sorts of unpleasant ways, from speed instability to tracking distortion, to a generally blurred and muddy sound.

Properly sat on the platter, and preferably aided by a record clamp (the Bren 1 works superbly on it and is a perfect visual match), the Planet can give a much better sound. Better still if you give it a proper turntable mat; back in the day, the GA Audio Sounddisc was the thing to have, a high quality glass turntable mat. These days, a SoundDeadSteel disc gives far superior results for under £90.

The AC synchronous motor is, as far as I can discern, the same as that fixed to the later Regas, and indeed Linns and so many other British belt drive decks of the day. Rega claimed 0.08% wow and flutter, which is a decent but unremarkable figure. Rega Research's new 24v high performance motor upgrade kit will fit the Planet, allowing you to use the special TT PSU. This should bring a significant improvement in speed stability, although won't be cheap. Completists running 'the ultimate Planet' might think it good value, though.

The bearing is pretty much standard Rega fare, and turns in a respectable 65dB rumble. Any secondhand Planet (or indeed Planar) will be significantly helped by the







removal of the old bearing oil with cotton buds and isopropyl alcohol, and the fitting of some top quality new oil such as Audio Origami's, is a great thing to do. The motor pulley drives the inner section of the platter direct by a rubber belt which is still available from Rega today, so any old one is well worth replacing. Our Planet, nearly thirty years old, had almost no wear to the bearing, so it's obviously a decently sturdy affair.

The deck was available both with a bundled Acos-derived S-shaped aluminium tubed tonearm (of 237mm effective length, overhang 15mm) of Japanese manufacture, and with an SME-cutout and no arm. A good number of Planets found themselves partnering SME's then-ubiquitous 3009S2 Improved with good results,

although the supplied arm was surprisingly good too. A popular modification for both the SME and the Acos arms was the fitment of an ADC magnesium headshell, which was marginally lighter than the stock aluminium designs but much stiffer, reducing resonances and letting owners clamp their cartridges tighter.

Decently sited, with all the aforementioned modifications, and the Planet is a sweet thing to listen to – smooth and warm and sweet, if a little soft around the edges. You get a decently spacious sound, and one that's easy on the ear at all times;

in this respect it's a reminder of just how *nice* turntables of that era were, in stark contrast to the sound of many Japanese CD players that replaced them ten years later.

As a used purchase, the Planet is a lovely thing; easy to restore and run, with most bits either serviceable or replaceable, and parts cheap. They're highly variable in price, with examples ranging from £100 to £300 depending on condition – this isn't that different to later Planar 3s, but remember that the Planet is a far rarer thing. You don't see many unidentified playing objects such as this!

**thanks to: Johnnie of Audio Origami for help restoring the Hi-Fi World Rega Planet!**



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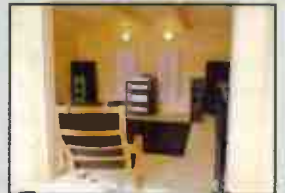
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"if you're trying to get across the value of CD, then you have to master properly..."



## paul rigby

I worry about digital music fans. I lose sleep over this hardy breed and the raw deal they often receive, hit by excessive peak limiting on the left and poor quality downloads on the right. What's a guy gonna do? There are oases of aural quality out there however, places of calm where music is valued and audiophiles welcomed with the aural equivalent of a fluffy dressing gown and a soothing massage. Edsel ([www.demonmusicgroup.co.uk](http://www.demonmusicgroup.co.uk)) is one such, a record label that remains independent and has done so even after thirty one years of life.

Edsel sits as an imprint to Demon, which is also still going strong as an independent entity. Demon, in fact, has strong links to Stiff Records, the famous punk label. Andrew Lauder was part of the breakaway team from Stiff in the late seventies, which took the likes of Elvis Costello and Nick Lowe to the newly created Radar, then FB and then Demon labels (which was a Lauder 'hobby' and partly owned by Elvis Costello) initially created to release music from small US-based labels. Edsel was created at the same time to reissue favourite records from Lauder's own collection. The first release on the label was via a sixties Liverpool band called The Escorts – which might have influenced the Edsel name which, in turn, derives from the fifties-designed Ford Edsel car (the catalogue number of that first Edsel label release was FORD 1). Another reason might have been to fool people like me into thinking that the name had more history than it really did...

In those early days, major labels didn't have much respect for their back catalogue, as Val Jennings, Edsel Label Manager, recalls. "I was working

at Our Price from 1979-85 and there was a point in 1981 when RCA realised that, if they released certain albums cheaply, they might sell more. This is what happened with all of the David Bowie albums at the time: £2.99 instead of £4.99. All of a sudden they sold a ton."

At that time, for reissues, this was as far as the major label imaginations stretched. No bonus tracks, no demos or B-sides, no alternative takes or expanded packaging. As a specialist reissue label, quick off the blocks, Edsel stole a march on the early reissue scene. This is why, during the mid-eighties, you would have seen Edsel-based CD releases of albums that the majors would now regard as their crown jewels. These included various Byrds releases via Sony and a heap of Atlantic soul releases via Warners. Since then, the label has broadened its catalogue, handling everyone from Soft Cell to Al Green and Bob Marley to The Mission.

Now settled into a general release label role, Edsel has a structured approach to reissues. "Nostalgia generally works twenty to thirty years back from where you are," said Jennings. "At the moment, we've just done the eighties so now we're beginning to look at the nineties. People who loved the stuff at the time are now of an age where they are nostalgic for those records and have the disposable income to buy the reissues. Hence, we are looking to release the entire Suede catalogue – with each album being released as a double CD and DVD pack - and John Foxx, although the latter are more contemporary works."

But that time-rated rule is not a strict one, because Edsel is also looking to release music by soul

outfit, Rose Royce and the prog band, Greenslade – both seventies artists.

"I'm breaking my own rules with the latter artists, but if you find something which has only ever been on CD intermittently or not at all, then it's worth a go. With Greenslade, for example, if *Classic Rock* can devote an entire magazine to prog rock then there must still be a market for it."

For the future? "In the autumn, we are releasing all six Jesus & Mary Chain albums, which are mid-to-late eighties. These, again, will feature a two CD/DVD collection for each album. Distressingly good value as CD prices continue to tumble," said Jennings...

The good news for audiophiles is that Edsel tries its best to source original master tapes, seeking out the best quality sources where applicable. Sometimes the job is easy, "With Suede," said Jennings, "they own all of their own tapes – even their multi-tracks, so you can't ask for more. With John Foxx, he even does his own mastering, providing a much more personalised viewpoint. So, if anyone complains about Foxx CD mastering... blame him!"

In general terms, Edsel is audiophile-friendly too. When mastering, the order of the day is sound quality, which means that excessive compression and 'loud' recordings are strictly forbidden. "I listened to the most recent Katy Perry album and that's in your ear all the time. Basically, if you're trying to get across the value of the CD medium, as we are, then you have to master properly."

Amen to that! Digital fans should check out the website, I'm sure you – and your digitally beleaguered ears – will be surprised at what's on offer. ●

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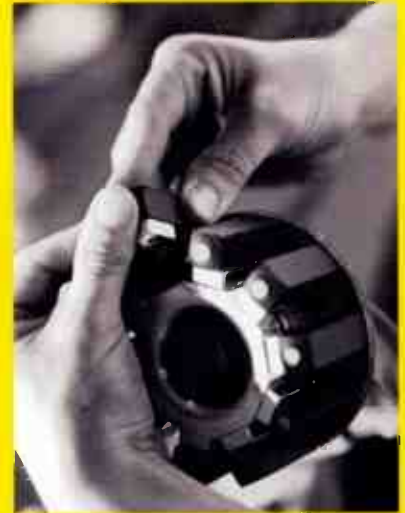
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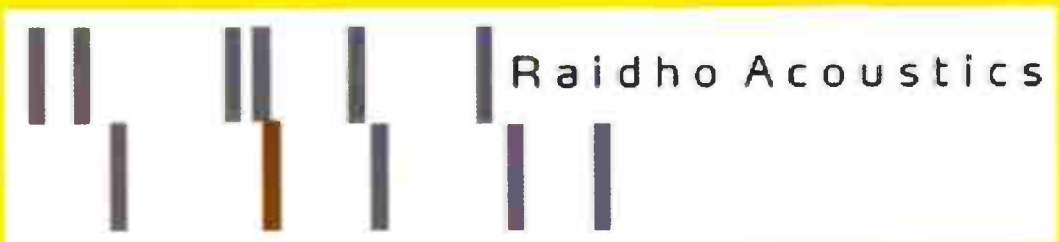
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"buy the earliest vinyl LP copy that you can, preferably from the country of origin..."



## tony bolton

Since I was about ten years old I have been buying records in junk shops and charity shops, quite happily exploring new (to me at least) performers and their music. Back in the nineteen seventies and eighties this meant being able to buy Beatles singles for 2p each, along with a vast amount of other records that nowadays seem to appear on the collectable lists at rather more substantial prices! Luckily there are still good long players out there for affordable sums...

An example of this occurred recently when spending a weekend with a similarly vinyl orientated friend. There is one of those old fashioned antique emporiums opposite his house where it pays to look in and under everything. I bought a near mint American, mid sixties stereo copy of Dave Brubeck's LP 'Time Out' for the princely sum of £1.50.

On returning to his house, we duly dug out his modern Classic records reissue and compared the two – as you do! The older copy sounded so much better in just about every way – timing was tighter and more coherent, stereo imaging was clearer and more precise, and the whole presentation of the sound had considerably more substance. My friend was so stunned by this that he immediately set to work on buying himself an American Columbia copy from eBay. The following weekend I took up a nine inch high pile of LPs to his house that duplicated records in his collection, either with first or second pressings, or US versus UK for an evening of comparisons between the different discs.

Of course, the sonic differences that can occur between pressings are nothing new to either of us, or to a good many of you reading this, I suspect. But neither of us had sat

down and done a fairly comprehensive comparison of what and where these differences were.

We started with his newly acquired mono '6 Eye' Columbia pressing of 'Time Out'. The '6 Eye' label predates my '3 Eye' and was a first pressing. Much as my stereo copy had wiped the floor in terms of sound quality with the Classic Records version, so his original mono beat my second pressing stereo. In the meantime he had also exhumed a Music On Vinyl repressing from the back of one of his shelves. This came closer in performance to both of our sixties records, but still failed to match up to either.

We then compared my much loved 'Benny Goodman Plays For The Fletcher Henderson Fund' on original UK Columbia release with his equally aged American Columbia copy. Again the US version sounded better, having more body and better dynamics, although it was a closer contest.

We moved to the late sixties and compared my US Columbia original of Gary Puckett and the Union Gap's LP 'Young Girl' against his sixties UK CBS. Again the American won, for what was becoming an accepted norm of reasons – more open and detailed sound, better timing and, where applicable, better presentation of the stereo image. Next up were his Byrds LPs on Sundazed reissue, against my UK CBS originals. Again the older pressings won hands down. The newer ones sounding vague and rather overblown in comparison.

After this we tried the 1964 LP 'I Got You Babe', by Sonny and Cher. I have a UK plum label Atlantic copy, he has the American ATCO release. Both were first pressings and both in mono. This time it was declared a draw. Both sounded absolutely excellent.

Nearly twenty five years ago I was given a fairly battered LP copy of The

Beatles 'Please Please Me' by a charity shop that I used to frequent near to my old office. It turned out to be a first pressing. Despite looking rather rough, and having more than its fair share of pops and crackles, it actually plays through perfectly, and sounds open and alive. We compared it to my friend's early eighties stereo release. His copy was in mint condition, but sounded flat, dull and very uninspiring. Even on his ultra-high resolution system, mine with all attendant noises, played the music in such an enjoyable manner that I began to understand why a couple of Beatles nuts that I've met over the years have seriously offered me three figure sums for this disc. Indeed, mint stereo copies now change hands with three noughts on the price tag!

So after all this listening, and more, we have come to two conclusions. The first being buy the *earliest* copy that you can, preferably from the country of origin. For example, both our French pressings of Piaf at the Paris Olympia in 1961 sounded better than the contemporary English release.

Rule number two is *don't* be scared of mono. There were several occasions where the mono version left contemporary and modern, stereo releases way behind in terms of timing, a more substantial and seemingly detailed sound, and general musicality. The Piaf proved a rare exception to this, but the rule held true with my UK mono original of 'Belafonte at Carnegie Hall' seeing off the Classic records reissue – which I have previously considered to be a prime example of record making.

My friend is now on a mission to replace all of his reissues with originals, unless the price gets absolutely silly. I on the other hand am going to carry on taking pot luck in the junk shop market. For me, part of the fun is never knowing what will turn up next. ●

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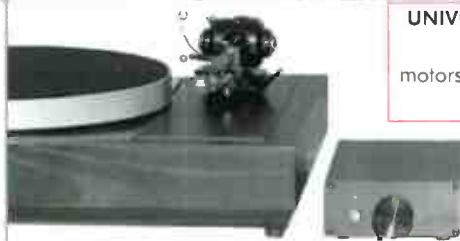
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"surround-sound was a loudspeaker fest in your lounge that was absurd in its physical manifestation..."



## noel keyword

**T**he BBC's recent look at 3D production in Hollywood on their *Click TV* programme was interesting. They asked viewers to write in with their opinions and almost unanimously their reaction to modern 3D films was much like mine. 3D seems to generate as much excitement now as it ever has, even if some of today's 3D viewing systems are a little more complex than those red and green tinted cardboard frame glasses given away with comics of yesteryear. Their opinion was that restrictions imposed by the necessity to use glasses, fatigue after short periods of viewing and lack of programme material added up to produce a less than attractive proposition. People preferred 2D for its ease of use and accessibility. 3D seems to have a short we-wow-ee factor that dies quickly.

What I found interesting about this is not that 3D should still be seen as 'without merit', supporting my view, but that yet again an industry brewed technological contrivance should head south pretty darn quickly under the scrutiny of public opinion. I should view this as a bad thing perhaps, because it mimics the public's response to surround-sound and even advanced discs like SACD and Blu-ray and seems to snuff out innovation, but somehow I can't help but feel this would be blindly partisan.

Long ago it was explained to me, by someone who handled marketing for Philips, that products had a lifetime. No matter what their merit, sales would peak and then fall away in what is termed a classic bell curve sales graph. This seemed illogical to me and I didn't accept it at the time, but first LP peaked, then cassette then CD - and after that well, it was all over it seems, as if the whole idea of buying quality content from

a physical device, sold by a shop, had passed right out of our collective behaviour pattern. Buying discs has now fallen out of fashion it seems, unless they have retro chic like LP.

Or perhaps, like 3D TV, people just do not see modern entertainment technologies as sufficiently attractive to be worth shelling out for. High fidelity started to get pushed into the long grass as an idea when SACD and DVD-A bombed. Both offered better sound than CD but the difference was hardly night and day for the average man in the street, especially through a 'hi-fi' costing £99.95 from Comet. And both had serious background difficulties; SACD demanded studios re-equip and it was difficult to use in mastering. Sony overpriced it in the professional market too, to the extent that using it made little commercial sense.

SACD makes sense to audiophiles worldwide, who love its sound, but as far as the music business is concerned it is an expensive diversion from the mainstream. Even in replay equipment Direct Stream Digital demands a special - read expensive - digital-to-analogue convertor. From what I understand groups within Sony argued against investment in and promotion of SACD as it was obviously going nowhere, explaining why it has become a moribund side issue today.

The industry then attempted a comeback with surround-sound, underpinned by the high capacity Blu-ray disc. Its storage capacity is so great movies could be crammed on in high definition and there's no limit to music quality, at least if video isn't present. Behind Blu-ray again lies Sony, this time with its Sony Pictures hat on and Hollywood interests firmly to the fore. And again what might

have been a good idea looks set to go nowhere...

The basic idea behind Blu-ray and super high quality everything in the home is a strong one - and that's why I love reviewing Blu-ray players like Cambridge Audio's new 751BD in this issue. They're a great whiz-bang experience, whether you're watching a crashing action movie like *Pirates of the Caribbean: Curse of the Black Pearl* or spinning something that shows what surround-sound can do - no, amend that to 'could do' because studios aren't doing it any more. The Insane Clown Posse mixed rock-rap to use all channels of a multichannel system and they could all but bounce you out of the seat using surround-sound. It was interesting to hear what could be created with a little artistic imagination.

All the same, in spite of its potential, surround-sound was another industry mis-step, a loudspeaker and technology fest in your lounge that was absurd in its physical manifestation - and has only got worse! I still cannot accept the gratuitous complexities of AV receivers, as if duplication or even triplication of processing schemes makes sense to buyers. It's technology for its own sake, gone mad.

Like 3D TV it represents an almost desperate attempt by hardware manufacturers and software houses like Dolby and Audyssey to perpetuate a world that, as David Price also suggests in his column, is fast leaving us behind. It's a mechanical world of complicated 'things' in the home. Expendable, replaceable things, consumerist things. Trouble is, overtaking in the fast lane is another world of non-things where stereo is fine and 2D TV great. TV manufacturers and *Click* need to keep in mind the wisdom behind K.I.S.S. - Keep It Simple, Stupid! ●

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"the world's music buying habits have changed and High Street retailers are struggling to keep up..."



## adam smith

I read recently with sadness that the music chain HMV is watching its profits fall ever lower in the wake of the decline in popularity of the Compact Disc. I suppose this is an inevitability in some ways as, not only are more people moving away from buying their music in hard formats, but the idea of going shopping to an actual real-life shop seems to be dwindling somewhat as well. In a society where you can buy virtually anything from anywhere in the world and have it delivered to your doorstep in a matter of days, going out specifically to buy the latest release from your favourite artist seems as quaint as going shopping for rolls of 35mm film for the camera before a holiday!

I am sure I am not the only one out there whose music buying formative years were very strongly shaped by HMV, along with their long lost cohorts, Our Price, Virgin Music and Tower Records. I can recall catching the bus into Southampton with the intention of spending my hard-earned pocket money on the latest releases. Well, I say latest releases, but thanks to the strong influence of my brother-in-law and his positively encyclopaedic knowledge of music, I was generally after the older stuff. In fact it was a source of great amusement to my friends that, whilst they were scanning the new releases in the cassette section, I was tucked away in the vinyl department rooting through the '£4.49 Special Offer' bins for the likes of The Eagles, Yes, Steely Dan, Eric Clapton and Asia. Needless to say I had the last laugh when the same amount of my money bought far more albums than they had!

Equally I remember the wonder of my first trip to HMV's flagship store in London's Oxford Street. Back in Southampton, there were dividers for A to Z and that was it – I rooted through the Cs to find Clapton, and

the Es to find the Eagles and this was the way it was. However, the vinyl section in Oxford Street seemed to go on for ever and, not only that, but every major artist had their own sub-divider. I couldn't believe it – I thought I'd died and gone to heaven! Then vinyl gradually waned and CD took over, but things were no less impressive. The Southampton store moved to new premises with videos and DVDs upstairs, CDs, LPs and a special dance section on the ground floor and yet more CDs along with a special Classical and Jazz section in an air-conditioned room that bore an ambience of almost library-like hush, downstairs. Computer games? Oh, yes, I think there were a few in the corner upstairs with the videos, at the opposite end from the rack of twelve inch Laser Discs.

What a contrast to walk into that same store now. At present, the ground floor is full of games, gadgets, MP3 players and docking stations, and CDs and the very small vinyl section are now relegated to the basement, which is half the size it used to be. About the only thing that hasn't moved is the upstairs DVD section, although Blu-Ray is gradually encroaching on the old games area. As for Laser Discs, I suspect if you asked an assistant there about these, you'd get a blank look.

Sad though this is, it is somehow inevitable. HMV report profits down from £69 million to £200,000 last year, with sales down 11%. CD sales made up £260 million of this but this is estimated to fall to £150 million by 2014. The stores are still busy enough on a Saturday afternoon but, frankly, I'm not quite sure who they are catering to any more. I certainly wander in whilst Mrs. Smith is topping up her shoe collection, but the handful of vinyl they stock rarely encompasses what I'm looking for and the CD range

has shrunk dramatically. The chances of finding the oddities I'm after are slim and, frankly, the online world offers a far bigger choice. Even more shockingly, HMV stores appear to be in competition against their own website.

A year or so ago, whilst browsing, I spotted a 'Best of J.D. Souther' compilation CD. I knew the name, and that J.D. Souther wrote many of the Eagles early hits, so I felt I would probably enjoy the CD but as I only knew few of the songs, I was unwilling to risk the £16.99 asking price. The thought remained though, so when I was next on the internet, I decided to see if I could find it cheaper – Amazon and Play yielded no results and neither did eBay. A spot of fruitless checks elsewhere led me to conclude I'd probably have to stick with HMV so I logged onto their website and found the CD – asking price, £5.99!

All in all, I cannot help but think that the future is looking stormy for HMV. I really do wish them the best, as they have been a large part of my life and are the only big high street music retailer left, as Virgin and Our Price have long closed their doors, and Tower Records only exists as isolated franchise outposts here and there across the globe. Yes, obviously I would like to see more vinyl in-store but, much as sales are still increasing, vinyl is still very much a minority concern. That said, Tower Records in Dublin had a surprisingly large LP section when I popped in there a few weeks ago, so maybe all is not lost on that front! Other than that, I can only see a large-scale return to CD saving HMV's bacon in the High Street and, sadly, that is simply not going to happen. The world's music buying habits have changed and it seems obvious that High Street retailers like HMV are going to struggle to keep up. ●

# vinyl section

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SEPTEMBER 2011

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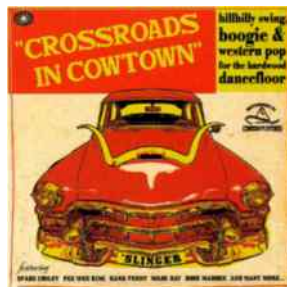
Tony Bolton looks at a stunning home-made turntable appropriately named 'The Beast!'

## news

### CROSSROADS IN COWTOWN

Out via Fantastic Voyage ([www.fantasticvoyagemusic.com](http://www.fantasticvoyagemusic.com)).

'Crossroads In Cowtown' is a double album set examining the fifties influence on country via a range of US-sourced stylings including hillbilly, pop, swing, R&B and rock'n'roll. In other words, this is what happens when musical genres smash together. Featuring the likes of Bob Wills & His Texas Playboys' 'Cadillac In Model "A"', Wade Ray's 'Idaho Red' and Space Cooley's 'Hillbilly Fever' this is a highly entertaining collection that will trigger many a smile.



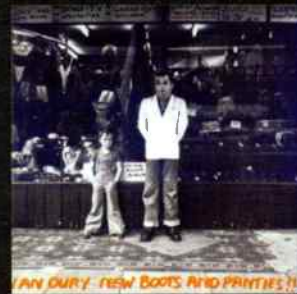
### DAZED & CONFUSED

New from Sundazed ([www.sundazed.com](http://www.sundazed.com)) in the USA are two new Hollies LPs. 'Beat Group!' (1966) has been created via UK mono masters and includes both covers and originals including 'I Can't Let Go'. The follow-up, 'Bus Stop' (1966) includes classic British Invasion content including 'Don't Run And Hide'. The New Mastersounds are part of the Brit-funk scene. 'Masterology' charts the band's development. Originally, released in 2010, the music reflects the likes of Booker T. & the MG's and the Meters. Also look out for The Howard Roberts Quartet's 'H.R. Is A Dirty Player' (1963), lead by the jazz guitarist Roberts, who was, you may be intrigued to hear, the lead guitarist on the original Twilight Zone TV show theme (the twangy bit).



### SIMPLY VINYL RETURN!

Yes, they're back after a long absence and doing what they always did well, concentrating on reissuing classic music on 180gm vinyl. Two Simply Vinyl ([www.simplyvinyl.com](http://www.simplyvinyl.com)) releases stand out; Ian Dury's 'New Boots And Panties!!' (1977) featuring the immortal 'Clever Trevor', 'Wake Up And Make Love With Me' and 'Sweet Gene Vincent' plus T.Rex's 'The Slider' (1972), their most popular album on both sides of the Atlantic, featuring 'Telegram Sam' and 'Metal Guru'.



### GREEK SALAD

All the way from Greece is a varied selection of audiophile vinyl releases from Missing Vinyl ([www.veamusic.com](http://www.veamusic.com)), all remastered from the original masters. Up first is Ciccada's 'A Child In The Mirror'. A contemporary Greek prog-folk outfit, formed in 2005, with a female lead vocal and generally English lyrics, it arrives in a gatefold sleeve. Next is a more historical piece from 1970 and Ire Kinder's second album. Originally called 'Leere Hände' within their German homeland, this English version of the prog/psyche LP called 'Empty Hands', has never been issued on vinyl before until now. Another 1970 release, the Oxfords' 'Flying Up Through The Sky' is a psyche/soft pop LP from the USA including four extra tracks. Featuring a sunshine pop vibe, it reflects the flower-power sixties movement. Finally, Deuter's 'D' is a classic Krautrock piece. Deuter is a multi-instrumentalist whose work triggers memories of Popul uh or Amon Duul II. Originally published via the Kuckuck label in 1971.





## LOADSA MONEY!

Lots of Cash, Johnny Cash that is, and rare too! Via Music On Vinyl ([www.musiconvinyl.com](http://www.musiconvinyl.com)), both of the fascinating 'Bootleg' collections (Vol I & Vol II) have been issued as 3LP collections and magnificent they are. Featured within slip cases and including twenty-four page booklets, these are personal home recordings, including fifties, sixties and radio recordings. Also look out for Toto's '25th Anniversary - Live In Amsterdam', a 2LP set in which Toto fans will not be disappointed, the band retain their quality and presentation; Bob Dylan's 'In Concert: Brandeis University 1963', featuring a download card, in which we see a young, footloose and lively Dylan free of fame and reputation; The Trees' 'The Garden Of Jane Delawney' (1963), a Fairport Convention-like outfit that examines traditional and original folk-rock songs, often incorporating haunting melodies. Their second album, 'On The Shore' (1963), is rather harder in the rock department, and finally, Alison Moyet's 'Alf' is a storming mid-eighties' pop album featuring the hits, 'Love Resurrection' and 'All Cried Out'.



## ...WITH A CD

Four LPs have arrived all sporting a free CD within the packaging. From Lillith is D.R.I.'s Dirty Rotten LP (1983), a hardcore punk/thrash metal combo and pioneer for the later metal scene. Johnny Thunders died suddenly while making the album 'Some Hearts - The Last Album' (1990). It features eight tracks plus songs from a 1982 acoustic performance.



Also look out for Santana's 'Tiger's Head' (1969) which features a collection of early tracks including early versions of 'Jingo' and 'Soul Sacrifice'. And on Doxy is Joao Gilberto's 'O Amor, O Sorriso E A Flor', his second LP release from 1960.



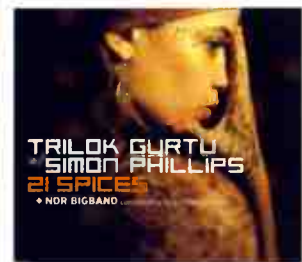
## ...AND FINALLY

Heads-Up ([headsup.com](http://headsup.com)), a division of Concord, has release jazz-bassist Esperanza Spalding's multi genre-infused 'Chamber Music Society'. A double album, it is a more refined release than her debut with an enjoyable musical diversity.

Trilok Gurtu with Simon Phillips's new album, '21 Spices' (Art Of Groove/Indigo), is limited to 1,500 copies worldwide. An Indian-born percussionist and noted post-bop jazz lady, this big band fusion album is impressively broad in its influences.

Norwegian trio, Huntsville's 'For Flowers, Cars And Merry Wars' ([Hubro: www.hubromusic.com](http://www.hubromusic.com)), despite the evocative female lead vocal, offer a jazz-infused post rock sound with avant-garde electronics frills that is broadly atmospheric and often hypnotic.

Russell Haswell's live improv set, 'In It' ([Mego: editionsmego.com](http://Mego: editionsmego.com)) was recorded over various locations and introduces the audience of electronica noise - a bit like slowly ripping electronica sound apart without an anaesthetic. The pain, chaps, the pain...





# Small Talk

**Clearaudio's new Innovation Compact isn't quite as petite as a Pro-ject Debut, but by the standards of this prolific German turntable maker it's certainly modestly proportioned. But how does it sound? Rafael Todes fits the matching Magnify tonearm to find out...**

**D**espite their vast range of turntables, tonearms, cartridges and accessories – and having been around longer than most other big vinyl names – Clearaudio still haven't quite made the name for themselves in the UK that they surely deserve. Perhaps it's the sheer number of rivals here, many of which are well established (and highly able) home grown names? Anyway, the Erlangen (in Germany)-based company continues its prolific

run of new models, with over twenty current vinyl spinners to show for its thirty three years of life.

It's also pioneered a few clever technologies in its time, too. The new Innovation Compact turntable you see before you has a patented Ceramic Magnetic Bearing (CMB), which uses the opposition of two differently polarised magnets to reduce friction and rumble. There is an inverted and polished ceramic bearing shaft, with a polished sintered bronze insert for what should make

for a very quiet deck. Giving the Delrin platter a spin from 33 1/3rpm takes two minutes fifty three seconds to come to a halt, according to my watch. That shows an impressively-engineered bearing in my books. The same test with many other decks I've tried has come in at around one minute...

The Clearaudio offers three speeds, including 78rpm. This would require a special cartridge, but as the deck has the capacity to run two arms, having a separate arm





and cartridge for the playing of 78s is possible. The motor is powered from a disappointingly cheap looking wall wart. I think for four and a half thousand pounds Clearaudio could offer a more elegant solution than this. Yet according to my ears at least, the speed stability sounded very good, in part no doubt due to the Optical Speed Control, which via an infra-red sensor on the platter, controls the actual speed [see MEASURED PERFORMANCE]. A transparent belt connects the motor, which sits on the tripod boomerang-like construction, to the platter.

The belt was slightly enlarged where the two ends had been joined, and I noticed the motor wobble each time this section came around. A second belt performed much better. Such are the vagaries of belt drive; on this detail point at least, you can't help thinking direct drive is an altogether more sophisticated solution.

The turntable legs are fully adjustable spikes, which go into small cups that are provided. The substantial 70mm Delrin platter takes the weight of the deck to around 12kg without tonearm and power supply. Its dimensions are: 479x485x141mm. Overall build quality and finish is very good – as you'd expect at the price – notwithstanding the belt and power supply gripes.

The tonearm fitted is the Cleartone Magnify, a £2,375 unipivot design which uses vertical precision ball races with magnetic horizontal arm bearings. The two-piece carbon fibre arm tube incorporates micrometer adjustment of tracking force and azimuth. Bias is changed by rotating the dial above the bearing. There is no scale for either the tracking force or the bias, so a balance is required for the tracking force, and a test record for the bias. It's certainly a slick product which

feels nice to use, but the SME Series V feels an altogether higher quality instrument, despite its similar price point.

### SOUND QUALITY

Not having tried a Clearaudio turntable/arm cartridge combination before, I was fascinated to hear the Innovation Compact/Magnify. The deck properly set up and the listener nicely settled down, I was struck by some remarkable qualities that the combination had. For example, its midrange is quite beautiful in some respects, with an ability to reproduce strings which is up with the very best I've heard. It's also important to note the excellent pitch stability, which gives a solidity to the sound which is tremendously satisfying.

For example, Gershwin's 'Rhapsody in Blue', played and conducted by Leonard Bernstein, showed the woodwind sounding really full, the clarinet solo at the



# TWO FOR ONE

David Price tries an interesting new hybrid transistor and valve phono stage from Audio Research, the PH6...

**T**he past ten years has seen an exponential growth in the number of phono stages on the market. It wasn't *that* long ago when the QED Discsaver, EAR 834P and the Michell ISO were all you got to choose from, but now there's a vast range from big name manufacturers and tiny specialists alike. Whilst the great majority are solid-state, there's a growing number of tube designs around, but few are hybrids like the Audio Research PH6. It's an interesting approach which risks offending purists of both the solid-state and thermionic persuasion, but then again it has advantages all of its very own...

The PH6 uses a high gain discrete J-FET transistor input stage, with constant current stabilisation and no overall feedback, but it then follows this up with two 6H30 twin triode valves in the gain and output stages. The circuit design is interesting; the solid-stage input stage lacks moving magnet/moving coil switching, but allied to the tubes the claim is that there's enough gain (58dB) – and sufficiently low noise – to work with either MM or MC

cartridges without the need for a (sound degrading) extra gain stage or any form of step-up transformer (which can again dilute the sound, especially if it's of poor quality) [see MEASURED PERFORMANCE].

The unit also features a wide range of cartridge loading choices, from 47K Ohms through 1000, 500, 200 or 100 Ohms. These are switchable from the front panel, along with a mono switch and muting, plus the main power switch, and this is all duplicated on the remote control so you can fiddle with your impedance from the comfort of your listening chair, should you be that way inclined! The panel is sparse and to the point; there's a pair of RCA phono inputs and outputs and an earth

terminal, plus an IEC mains input. Very sadly in my book, for a product of this price, there are no balanced connections. Inside, it's a pretty complex beastie, with discrete passive circuitry of good quality (Japanese

Nichicon capacitors, for example) and decent Sovtek tubes (complete with rubber tube dampers) which are said to give a life of over 4,000 hours. It's all very

neatly laid out with hand-soldered connections. All metalwork, boards, transformers and major parts are American-made and sourced, the company says. Outside, it's a well finished product firmly in the Audio Research *oeuvre*, with sturdy fascia controls and a decent pressed steel case. A choice of black or silver fascia and/or handles and aluminium buttons is offered. Vital statistics are 470x132x254mm and 5.1kg.

## SOUND QUALITY

The first cartridge I tried with this phono stage was a van den Hul Frog moving coil, with a quoted output of 0.65mV and optimum loading of 200 Ohms. The PH6 generated a decent gain through my reference Musical Fidelity integrated, with no sense of any mismatch, and with the right impedance dialled in, it was soon very apparent that I was listening to an Audio Research! Just as Naim or Linn or Meridian have a distinctive 'house sound', so does the Minnesota manufacturer; I've heard it across every product the company makes and it's never less than enjoyable and engaging. It sort of keeps you on your toes; there's no sense of you being able to use the PH6 for background music. Instead, you get a big, bold and brusque sort of sound with so much going on.

The eighties pop of Spandau Ballet's 'I'll Fly For You' was absolutely







perfect for the PH6. It's a slick analogue recording with characteristically nineteen eighties 'big hair and shoulder pads' production; everything's all up there in lights for you, underpinned by a big thumping drum sound and crisp hi hat cymbal work. The Audio Research showcased this superbly, conveying the power of the bass guitar, the tight thump of the bass drum and the tautly tensioned snare drums brilliantly; it served up a big rock sound the like of which you'd expect standing in the middle distance at Wembley Stadium. There was a physicality here that makes the PH6 more than just a domestic hi-fi product; its grip and punch reminded me more of a pro audio design.

Metro's 'Criminal World' is a rare slice of mid-seventies art rock in the mould of the great Be Bop Deluxe, beautifully recorded as so many albums of the time were. It's relatively unprocessed, with sparse overdubs, giving a very clean and direct sound. Again the PH6 relished it, proving brilliant at catching the leading edges of the guitars and drum work, whilst retaining quite a warm and fulsome tonality. Here I could really hear its hybrid design working to good effect; it didn't sound as pronounced across the midband as a solid-state stage in the mould of the Whest PS.30 RDT, nor was it anywhere near as soft and effusive as, say, an Icon Audio PS3. Instead it trod an interesting and very convincing middle line between the two. Vocals in particular were far creamier and more full bodied than the similarly priced Whest, with greater stage depth too. Yet there was still a lot more grip than the all-valve Icon Audio.

Fearing that this was solely a 'rock' phono stage, I quietly slipped on The Crusaders' 'Chain Reaction', a slick piece of jazz funk from 1975. The Audio Research didn't mind one jot, getting straight into the groove of 'Creole', showcasing the sublime guitar work of Larry Carlton, carrying Joe Sample's glittering Fender Rhodes keyboards beautifully, and providing a surprisingly delicate texture to the trombone of Wayne Henderson and

the sax of Wilton Felder. Indeed the brass section was surprisingly well carried, with a lovely rasp that comes only from the best analogue – it sounded 'reedy' but never descended into hardness, as it invariably does on CD. This track, and indeed the whole album was beautifully resolved, with 'I Felt the Love' demonstrating the PH6's fine timing; it's as accurate as a Swiss train and no less tidy. Again, I found the combination of tubes and transistors most convincing – I'd feared the worst of both worlds but instead there were many of the good points of each in evidence. Indeed the only downside here for me was the slight tendency for the PH6 to sit on dynamic peaks; this wasn't in any way obvious, but still sometimes I felt I was only getting nine tenths of the impact of a strongly struck snare drum, for example.

Switching to a Lyra moving coil and the PH6 correctly informed me that this was a slightly topky cartridge with a forensic 'eye' for detail. Suddenly the Audio Research sounded cleaner and more clinical, lacking a little of the musicality it had before via the vdH Frog, but majoring out on detail resolution. My Deutsche Grammophon pressing of Beethoven's Pastoral Symphony (Karajan/Dresdner Philharmonic) was delivered with superb ambience and air, the PH6 never sounding strident even on this slightly edgy DMM recording. My only reservation was with the frequency extremes. Low bass is just a touch too loose for my ears, spoiled by high quality all-solid-

state designs, and there's a slight lack of space and delicacy to the very highest notes; the Audio Research gives a lovely hi hat cymbal sound but there's not quite delicacy of Emille's Allure all-tube design for example, or even ANT Audio Kora 3T Ltd. for that matter. It's a slight criticism, but a pertinent one considering its hefty price tag.

## CONCLUSION

For some reason I'd feared that the Audio Research PH6 would sound like a basic transistor phono stage with tubes tacked on the end for reasons of fashion or marketing. I was wrong, as it proved much more than this. Indeed it has its very own distinctive sound that actually improves a little on both tubes and transistors taken in isolation, without losing too much of their respective charms. The result is an expressively musical, animated and lively sounding device that's nevertheless smooth and sweet to listen to. I'd say it's in its element with powerful pop, rock, jazz and soul – lending them as it does an expansive and engrossing sound. If this sounds like your kind of phono stage, then an audition is absolutely essential.

## VERDICT

Big, powerful and musical in the classic Audio Research mould, this phono stage nevertheless demonstrates real subtlety and poise too. An excellent high end design then, but commensurately expensive.

## AUDIO RESEARCH

PH6 £3,368

Absolute Sounds

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www.absolutesounds.com

## FOR

- large, powerful sound
- pleasingly full tonality
- timbral accuracy
- pacy rhythms

## AGAINST

- no balanced option
- loose frequency extremes
- cartridge matching issues

## MEASURED PERFORMANCE

The PH6 comes with valves not in place, packed in foam under the top cover. Fourteen screws must be removed to insert them, a dealer task, although a screwdriver is supplied.

With cover off it is apparent that this is a transistor preamp that uses discrete devices, not ICs, plus a valve output stage able to swing a huge output, 56V in this case. This gives the PH6 enough working range to offer MC gain whilst still being suitable for MM cartridges. However, with MMs, volume will have to be turned right down on an accompanying amplifier and, if it has an input buffer stage (e.g. Naim) then overload will likely occur. I have measured 35mV from an Ortofon 2M Red, for example, and this will produce a massive 27V out from the PH6!

On the other hand, 58dB of gain is enough only for high-ish output MCs, such as those from Ortofon. Very low output MCs, from Goldring and Linn for example, need more gain than this, some phono preamps offering 70dB. So the PH6 is unusual in topology, but it has the merit of simplicity, but absence of an input transformer able to exploit low output MCs means noise is low at 0.14µV in, but 5dB higher than the 0.08µV or so common with input transformers.

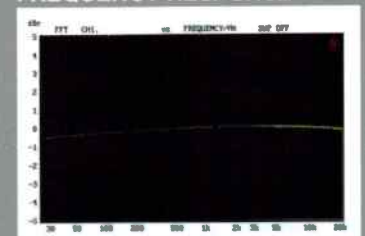
Frequency response was flat across the audio band our high resolution analysis shows, with just a slight roll down at low frequencies. However,

full gain was maintained right down to below 1Hz; there is no warp filtering.

The PH6 measured well but its unusual topology needs to be borne in mind as it brings with it some limitations. NK

Frequency response	1Hz-50kHz
Separation	93dB
Noise (e.i.n. A wtd)	0.14µV
Distortion	0.009%
Gain	x775 (58dB)
Overload	70mV in / 56V out

## FREQUENCY RESPONSE



## DISTORTION





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### DR. FEICKERT ADJUST + 7" TEST RECORD/PLATTERSPEED APP £15

One of the oldest problems facing the vinyl junkie is also one of the simplest – namely how to ensure that your turntable is running at the correct speed, and how consistently it is maintaining this speed? Naturally, over the years there have been a number of solutions to this problem but they all revolve around the same methodology, namely using some sort of stroboscopic protractor plus an appropriate source of illumination. Personally speaking, for a number of years now I have made use of one of Pro-ject's 'Strobe It' twelve

"an affordable and accurate way to make sure that your turntable speed is running correctly..."

inch strobe plate and allied it to the Keystrobe illumination lamp, which works very well.

The problem is that the Keystrobe came with its own strobe disc and my Garrard 301 also has stroboscopic markings around the periphery of its platter. If I take the time to look very carefully at the readings when all three of these are in play then they are all ever so slightly different in their visual response! Do I therefore trust Swindon's 1950s machining technology over the Czech Republic's much newer printing prowess and where do Keystrobe's engraving abilities fit into all this? After

a while I tend to get a bit cross-eyed as a result of staring so intently at the whole setup so it's all academic, I suppose...

I have often felt that it is far more accurate to do the whole thing using measurement and, for those of us who happen to have test LP and either an oscilloscope or some sort of test gear like my own Ferrograph RTS1, then this is indeed a more accurate option. But what is the keen vinyl fan to do if he or she would like to ensure the utmost accuracy of setup but without investing in half a laboratory full of equipment? Until recently, not much – but not any more.

Dr. Chris Feickert has already nailed his colours firmly to the mast with the release of the Adjust + software system and test LP for optimum turntable setup and cartridge alignment, and a very impressive and comprehensive setup it is too. In hardware terms it only needs a computer but, again, some degree of technical knowledge is required to get the best out of it. Also, its retail price of around £200 does tend to restrict it to the most ardent vinylphile. New from Dr. Feickert, however is a seven inch test record, retailing for a very reasonable £15 and associated smartphone App available

on iPhone and Android, which is free.

The Platterspeed App, as it is called, makes use of the 3150Hz test track on the record to analyse the speed performance of your turntable. Simply switch on the deck, play the track, load up the App and hold your phone in front of the loudspeakers. The App then responds with a readout of signal frequency, RPM and a small graph of deviation. Even simpler, the numbers turn red if you are outside 0.3% of the correct figure and green if you are within those limits, so suddenly setting your turntable speed correctly is not only very easy, but very accurate also.

The record also contains the basics for further turntable setup including a 1kHz out of phase signal plus left and right channel only modulation for crosstalk assessment, a 1kHz track of equal magnitude in both channels for stereo balance checking, a silent groove for rumble measurement and a 315Hz tone for the correct setting of antiskating, although for these you will need a multimeter as a minimum, or better still, an oscilloscope.

Finally there is a 100 second frequency sweep from 3-15Hz to give a visual indication of your cartridge's resonant frequency.

All in all the Adjust + 7" Test record and Platterspeed App are an affordable and accurate way to make sure that your turntable is running correctly and come highly recommended. **AS**

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**soundbites**

# Back For More

**Pro-Ject's latest Debut III SE is the latest and most expensive of this famous range of budget turntables, says Tony Bolton...**

**N**ow in their 20th year, Vienna based company Pro-Ject have introduced a new variant on their tried and trusted Debut series of turntables. This, the Debut III SE, builds on the strengths of the standard Debut III with a series of mostly mechanical improvements.

The original Debut was introduced in 1999 and went into Mark III form in 2006, sporting a new arm. This has been retained in this new model, but with harder steel used for the bearing points. Other changes include a 12 inch diameter platter, instead of the 10 inch unit on a standard Debut III. Underneath this there is a rounded drive belt with a new pulley of suitable contour and improvements to the motor

suspension system. These latter changes are to reduce the transfer of resonance from the motor to the playing surface, with, hopefully, commensurate improvements in sound quality. The aesthetics of the deck have also been smartened up, with a gleaming gloss black finish to the plinth which, in my opinion, adds a touch of class and makes it look considerably more expensive than the regular Debut III, whereas in point of fact only £20 separates the two models.

Accompanying all this is an upgraded cartridge, the Ortofon OM 10 Super instead of the (free, but £50 separately) OM 5e, and underneath the deck, at the back, a box with two phono sockets, instead of the usual captive signal lead, allowing the purchaser to use their own choice of interconnects. A lead is provided which is of adequate quality, but I would recommend an upgrade as soon as funds allow.

As with all Debut models, set up is easy, requiring the counterweight and anti-skate weight to be attached to the arm and the drive belt and platter fitted. Although the supplied instructions (for the Debut III) advise removing the transit screws from the motor mounting, another leaflet says that this must not be done with this model. Part of the redesigned motor suspension includes two bungs under the motor mountings

which are made of a material similar to Sorbothane. A bracket from the motor is attached to these via the two transit screws. I briefly tried the unit with these removed and found a very noticeable fall in sound quality with a feeling of distance from the music and lower levels of definition to the sound.

After over twenty hours of running in the cartridge, I started off listening with the 1962 LP 'Nat King Cole Sings, George shearing Plays'. This LP contains a number of well known songs including 'Let There Be Love' and 'Pick Yourself Up' with Cole's smooth baritone voice swinging gently to Shearing's accompanying piano. Overall the sound was good although I felt that some of the piano notes wavered a little. I cured this to an extent by sticking four pieces of double sided sticky tape between the rather thin felt mat and the platter. This added a certain snap to the timing which was hitherto missing and also seemed to reduce any perceived surface noise quite a lot. The stereo image also seemed more focused and had more depth. Distributors, Henley Designs market both the CorkIT (£10) and the LeatherIT (£50) turntable mats, and having tried various similar mats that I have here, would be definite improvements over the supplied one. Having a Mark I Speedbox here, I also tried this and found further







improvements in both sound and speed stability. The current Speedbox II is available for £105, and is recommended.

Remaining in a laid-back listening mood, I put on Air's 1998 LP 'Moon Safari'. This chilled combination of vocals, synths, piano, guitar, organ, pan pipes, bass, glockenspiel and drums flowed out of the speakers in a very satisfying manner. The easy-going rhythms and gentle excursions into electronica seemed suited to the Debut III SE. It trawled enough detail to satisfy the audiophile, and at the same time, retained that difficult-to-define essence of musicality which encourages the listener to play record after record.

I was impressed with the depth and detail to the bass, which although not floor-

#### NEEDLETALK

Curious to get to know the new OM10 Super version of the long running series of Ortofon moving magnet cartridges better, I detached it from the Debut III SE and fitted it to the Hadcock GH-242 Cryo arm on my Sondek. Housed in the same Noryl plastic and glass composite body as the rest of the OM range, the Super series uses the same VMS (Variable Magnetic Shunt) generator technology as the well received 2M Red cartridge. The signal pins at the back are slit, which is claimed to reduce eddy current losses caused by magnetic hysteresis. All the OM range can be easily upgraded with an exchange stylus unit, the one fitted being an elliptical shape; the Super 20 is a nude elliptical and the Super 30 a nude Fine Line design.

Playing the same records as used in the Debut III SE review, I found that the famed Ortofon good manners were there in spades, but with a little more feeling of detail and energy to spice things up. The forwardness that I commented on when playing opera was less obvious using this arm and deck, and the record was played in a most enjoyable manner, seeming to have a better sonic balance and detail retrieval. I was more aware of the acoustic of the recorded environment as well as more obvious subtleties of the vocal performances. Even a 1967 7 inch mono Petula Clark single (in very good condition) was played with virtually no intrusion of any surface noise, and the drive to the beat was quite exhilarating. Tracks from 'Moon Safari' displayed greater insight into the complexities of the sound, becoming more absorbing to listen to. Overall I found it to be a very good device, that complemented the Debut III SE, and would certainly be at home in more expensive surroundings.

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**MUSIC USED**

Various Artists, 'Glyndebourne Festival 50th Anniversary Album' EMI/HMV SLS 2900233

'Nat King Cole Sings/ George Shearing Plays' Capitol Records SW1675

Air, 'Moon Safari' Source Records 7243 8 44978 11

Petula Clark, 'The Other Man's Grass (is Always Greener)' Pye Records 7N 17416

**REVIEW SYSTEM**

Linn Sondek LP12 (OL motor)/ Hadcock GH-242 Cryo turntable

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**VERDICT** ●●●●

This new UK-only variant of Pro-ject's entry level deck adds polish and poise to the standard, slightly cheaper variant.

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**FOR**

- better than stock Debut
- fine grasp of rhythm
- useful cartridge upgrade
- sleek looks

**AGAINST**

- trace of speed instability

shaking, was well enough shaped to be engaging, and well enough timed to give the music a natural flow. Vocals were defined, and slightly forward in the mix, surrounded by a balanced mixture of sounds of various colours and forms. The higher frequencies were quite prominent, within the bounds of acceptability, and helped provide definition and shape to sounds lower down the frequency range. Hi-hats didn't sizzle but had a ring to them, although some of the electronic effects seemed a little forward.

Curious to see the effect of this on more demanding music, I played selected tracks from the 1984 EMI compilation of recordings made at Glyndebourne between 1934 and 1963. The 1950 recordings from Mozart's 'Cosi Fan Tutte' found the female vocals pushed a little too much to the fore, slightly overpowering the accompanying baritone, and the orchestra, and making me turn the volume down a little. After trying the supplied cartridge on my Linn Sondek [see NEEDLETALK] I came to the conclusion that the Debut III SE's arm, and possibly the pressed steel platter, were a little lively for such

music and found some improvement when listening to the same tracks again with a cork platter mat in place.

**CONCLUSION**

Overall, a strong performance at the price, which given the small cost difference between this and the standard Debut III, make the SE model something of a bargain. Still, it isn't perfect and needs a bit of tweaking with a better mat to get the best out of it. Compared to a stock Debut III the sound was more solid and a bit better shaped. Adding electronic speed control tidied the sound up still further, but even as supplied I would say that it would make similarly priced CD players sound rather staid and upright, missing a certain *joie de vivre*, especially with beat driven music. If you play mostly classical then it has the potential to do a good job but I would budget for a few aftermarket accessories

which should add a certain decorum to proceedings. If your taste is mostly pop based, then plug in and play! Pro-ject's new Debut III SE is a vivacious listen then, and a worthwhile improvement over the standard model. It demonstrates the strengths of vinyl replay; the inherent natural flow of sound and an ability to reproduce colours and shape in music that make for an engaging and enjoyable experience.

**MEASURED PERFORMANCE**

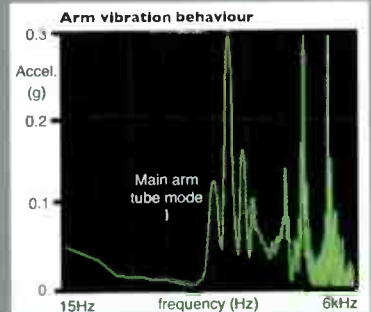
The Debut's arm appears quite stiff because the tall peak at 675Hz is likely the third order bending mode, putting the main tube mode at a common enough value of 220Hz. As there is no sign of a mode here, with the accelerometer over the cartridge the tube is very stiff it would appear, suggesting well defined bass and stable lower midrange imaging. The tube does ring quite substantially at higher frequencies however and there is a lot of energy from 500Hz up to 6kHz in a plateau, so the arm may well be coloured by a zing or a ring or similar, or just have a strong perhaps 'metallic' character. The Ortofon cartridge may well not help as it needs high tracking force and is not especially rigid in itself.

The Debut's turntable drifted randomly over a 0.4% speed range and this made reading wow difficult as the needle swung to 0.2% at times of sudden random changes. For most of the time Wow and Flutter measured around 0.15% DIN unweighted peak and our spectrum analysis from the W&F meter shows the expected basic rotational component at 0.55Hz and harmonics of it; the drift problem is not shown in this analysis. The Debut III SE was mediocre in terms of speed stability; these are not especially good figures and some lack of steadiness of

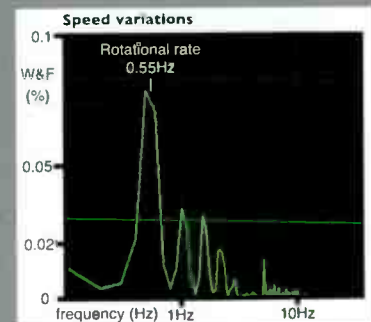
tone may be apparent. NK

Speed accuracy	-0.4%
Wow & flutter unwt'd	0.15%
Wow & flutter JIS weighted	0.12%

**ARM VIBRATION**



**WOW & FLUTTER**



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JEFF ROWLAND COHERENCE-1 2 BOX PRE C/W PHONO STAGE AND  
ROGUE AUDIO 08 MAGNUM REMOTE PREAMP (ONE OWNER FROM NEW)  
OPA THREE BOX PRE AMP EXCLT  
ALCHEMIST FORSETTI 2 BOX PRE RCA/RLR (ONE OWNER)  
DPA 505 PRE AMP C/W PHONO STAGE  
MUSICAL FIDELITY A30c REMOTE PRE AMP  
ANTIQUE SOUND LABS L01 PRE AMP/HEADPHONE AMP  
ANTIQUE SOUNDLABS MINI PHONO (2 BOX WITH NOS MULLARD VALVES)  
ROKSAN LS-2 PRE AMP

## POWER AMPS

MERIDIAN 557 POWER AMP (ONE OWNER)  
KRELL EVOLUTION 402 STEREO POWER AMP  
PATHOS IMPOWER CLASS A HYBRID MONOBLOCKS (SUPERB 99K?)  
PAPWORTH 200M SPECIAL ORDER KT-90 AMPS WITH VOL.CONTROL  
SPECIAL ORDER BUILD (ONE OWNER FEW MONTHS USE ONLY)  
REMOVED FROM BOXES FOR TESTING ONLY (99 NEW IN 1998)  
ART AUDIO JOTA CHROME/GOLD CHASSIS/VOL. POT. LITTLE USED SINGLE  
ENDED 32B VALVE AMP (ONE OWNER FROM NEW \$12000 NOW?)  
BALANCED AUDIO TECH. BAT VK-60 POWER AMP (99K? ONE OWNER FROM NEW)  
JEFF ROWLAND MODEL3 MONOBLOCKS  
MCDORMACK ONA-125 POWER AMP (ONE OWNER FEW MONTHS USE ONLY)  
OPA 505 POWER AMP & CABLES (ONE OWNER LITTLE USE)  
ROKSAN S1.5 POWER AMPS 2 DIFF EXCLT CONDITION RARE  
DPA 505 POWER AMP & CABLES  
NAKAMICHI 620 WEDGE POWER AMP  
ROTEL RMB 1066 6 CHANNEL POWER AMP

## INTEGRATED AMPS

ONKYO TX-6800 AV AMP (UNUSED)  
ART AUDIO INTEGRA 30W INTEGRATED INC.P/ STAGE (ONE OWNER FROM NEW)  
KRELL KAV 300R ULTRA RARE 300i + TUNER (£3950 ONE OWNER FROM NEW)  
MAGNUM DYNALAB MD-208 TUNER AMP (24K)  
ADVANTAGE I200 INTEGRATED AMP (2K)  
DENON AVC A11 SR AV AMP GOLD (2K ONE OWNER)  
WORLD AUDIO DESIGN KT-88 INTEGRATED VALVE AMP (WAD BUILT)  
ALCHEMIST APD-15 MKII INTEGRATED  
REVON H-5 INTEGRATED & OPTIONAL H208 SYSTEM REMOTE (ONE OWNER)  
DENON PMA 900V SIZEABLE INTEGRATED MMA/MC PHONO  
YAMAHA AX-820 AV AMP  
NAKAMICHI AMPLIFIER-2 REMOTE INTEGRATED

## COMBO'S

JEFF ROWLAND COHERENCE-1 2 BOX PRE C/W PHONO STAGE AND  
JEFF ROWLAND MODEL3 MONOBLOCKS

MINT £1595  
MINT/BOXED £795  
EXCLT/BOXED £1095  
EXCLT £225  
VGC £995  
VGC/BOXED £395  
VGC £995  
MINT £695  
EX.DEM £299  
EXCLT £475  
EXCLT £49  
EXCLT £249  
EXCLT £175

MINT/BOXED £495  
MINT/BOXED £395  
MINT/BOXED £1175  
EXCLT £895  
EXCLT £249  
MINT/BOXED £995  
MINT/BOXED £2750  
EXCLT £2450  
MINT/BOXED £1250  
EX.DEM/BOXED £795  
EXCLT £349  
MINT/BOXED £175  
VGC £275  
EXCLT £199  
MINT/BOXED £395  
NEW/BOXED £595  
DEM/BOXED £595  
NEW/BOXED £795  
MINT/BOXED £249  
MINT/BOXED £395  
NEW/BOXED £649  
DEM/BOXED £495  
EXCLT/BOXED £795  
EXCLT £395  
MINT/BOXED £249  
NEW/BOXED £175  
EXCLT/BOXED £295

MINT/BOXED £795  
EXCLT/BOXED £395  
EXCLT/BOXED £495  
MINT/BOXED £495  
EXCLT £1095  
EXCLT £495

EXCLT £3750  
EXCLT £2495  
DEM £1750  
DEM £1250  
EXCLT £1195  
VGC £995  
MINT/BOXED £395  
VGC £795  
MINT/BOXED £595  
VGC £495  
EXCLT £495  
DEM/BOXED £375  
EX.DEM £350  
EXCLT £395

MINT/BOXED £895  
MINT/BOXED £995  
EXCLT £4250

AS NEW/BOXED £3750  
MINT/BOXED £3750  
EXCLT £3750  
EXCLT/BOXED £2450  
VGC £1795  
MINT/BOXED £1250  
EXCLT/BOXED £995  
EXCLT £595  
VGC/BOXED £575  
MINT/BOXED £395

MINT £299  
EXCLT £1595  
MINT/BOXED £1395  
EXCLT/BOXED £1395  
EXCLT/BOXED £995  
MINT/BOXED £895  
EXCLT £995  
EXCLT £599  
EXCLT £495  
EXCLT £149  
EXCLT £199  
EXCLT £199

VGC £2495

MERIDIAN 502/557 (ONE OWNER)  
ROKSAN LS-2 PRE AMP AND TWO 5.1.5 STEREO POWER AMPS  
UNISON RESEARCH FEATHER PRE/35 POWER (ONE OWNER FROM NEW)  
DPA THREE BOX PRE AMP 505 POWER AMP & CABLES  
LYNX STRATOS PRE AMP 2 MONOBLOCKS (ONE OWNER TIMEWARP STUFF)  
DPA 608 PRE AMP C/W PHONO STAGE/ 505 POWER AMP & CABLES

## LOUDSPEAKERS

REVEL SALON ULTIMA 1  
FAB AUDIO MODEL 1 ONLY PAIR IN UK (£7.5K)  
ENSEMBLE FIGURA (SOLID ALUMINIUM £5800?)  
NANTEN WILES II CHERRY (8K+ NEW ONE OWNER FROM NEW)  
BOLZANO VALLETTI BY3003 & BY SUBWOOFER FANTASTIC!  
PODIUM 16 FEW WEEKS USE ONLY (£6000? NEW)  
HARPER QUARTETO FABULOUS FLOORSTANDERS (£4000)  
MIRAGE M181 BIPOLAR GIANTS (£6500) (ONE OWNER FROM NEW)  
AURUM CANTUS MUSIC GODDESS (£2500)  
AURUM CANTUS VALLA (£2500)  
AURUM CANTUS VALLA (£2500)  
THEL CS 1.5 (ONE OWNER FROM NEW)  
AURUM CANTUS VAIM GLOSS BLACK (£1700)  
CELESTION A-2 SANTOS ROSEWOOD  
CURA CA-30 FLOORSTANDERS | £3000 ONE OWNER FROM NEW)  
AURUM CANTUS LEISURE 3 SE (LAST PAIR £1350)  
AURUM CANTUS BLACK ORCHID (LAST PAIR £1300)  
SNELL TYPE-C MKIV AMERICAN WALNUT  
CAEDENCE ELECTROSTATIC HYBRID  
AURUM CANTUS LEISURE 3SE  
PROAC STUDIO 150  
T&A THIR-100 SIZEABLE TRANSMISSION LINE FLOORSTANDERS  
TLC CLASSIC ONES LARGE FLOORSTANDERS  
TANNOY DC-2000 ONE OWNER  
RUARK TALISMAN-II OFFBOARD X-OVERS  
TANNOY 611 LOUDSPEAKERS  
MORADANT SHORT MS-815 FLOORSTANDERS (£450)  
TANNOY R-3 FLOORSTANDERS  
KEF REFERENCE SERIES MODEL 70S AV SATELLITES 2 PAIRS  
ACOUSTIC ENERGY AEGIS EVO-2 STAND MOUNTS 2 PAIRS  
TAKE CLASSIC 5 SATELLITES (CANADIAN)

## TUNERS

SONY ST-5730ES AM/FM TUNER ONE OWNER  
TECHNICS GT-550 RDS TUNER (ONE OWNER)  
AVI REF.7 BAND TUNER (ONE OWNER)  
KRELL KAV 300R RARE TUNER AMP (£3950 ONE OWNER FROM NEW)  
MAGNUM DYNALAB MD-208 TUNER AMP (54K)

## TAPE/DAT/MINIDISC

REVON A-77 MKIV HIGH SPEED TWO TRACK ONE OWNER FROM NEW  
MANUAL/S/REELS/NABS/COVER ETC  
PIONEER ELITE SERIES MINIDISC RECORDER (URUSHI CHECKS 110W)  
TECHNICS BS RS501 CASSETTE DECK(ONE OWNER)

## MINI

NAIM HI-CAP (SILVER BORDER)  
BLACK RHODIUM 8 WAY MAINS BLOCK  
RUSS ANDREWS YELLO POWER CORD  
RUSS ANDREWS POWER CORD  
AUDIOPHIL CLEAN POWER POWER CORD  
LAT POWER CORDS 2 OFF (BLUE ONES)  
LAT AC-2 LEAD AND REWIND 4 PLUS DISTRIBUTION BLOCK

## INTERCONNECT CABLE

ACOUSTIC ZEN SILVER REF-2 2 METRE XLR PAIR  
NORDOST QUATTRO-FL 1METRE XLR PAIR  
HARMONIX HARMONIC-STRINGS HS-101 1METRE RCA  
HARMONIX HARMONIC-STRINGS HS-101 1METRE XLR  
VERTEX AQ SILVER SOLFON BALANCED PAIR  
AUDIOQUEST/AUDIOTRUTH EMERALD 1 METRE PAIR  
AUDIOQUEST RUBY 0.8 METRE PAIR  
AUDIOQUEST DIGITAL 2 AES/EBU DIGITAL CABLE 0.8  
AUDIOQUEST AES/EBU PRO DIGITAL CABLE 1FT  
TRANSPARENT LINK-100 COAX DIGITAL CABLE  
CHORD CO.PRODACC DIGITAL CABLE RCA TO BNC  
QED QUENCH REFERENCE 1 METRE PAIR  
CHORD CO.SOLID RCA TO LOCKING 5 PIN DIN 1 METRE

## LOUDSPEAKER CABLE

TOWNSNER ISOLDA DCT 2METRE PAIR 2 OFF  
ECOSSE MS2.3 REFERENCE 5 METRE PAIR  
KIMBER APR 2.5 METRE TERMINATED PAIR  
NIRVANA SL-2 2.3 METRE PAIR  
MIT MH-750 2.5 METRE PAIR BI-WIRE  
RAPPORT USHER 5 METRE PAIR FACTORY TERMINATED  
OPA 5 METRE PAIR TERMINATED FOR 505 AMP  
XLO SIGNATURE 2 TYPE 5.2 4FT PAIR  
QED GENESIS SILVER SPIRAL 3 METRE PAIR  
XLD REF.2.5 METRE PAIR  
MIT MH-750 BI WIRE 3 METRE PAIR  
PS AUDIO X-STREAM 3 METRE PAIR (VERY HEAVY!)  
BLACK RHODIUM S-300 BI WIRE 7 METRE BI WIRE PAIR(£560)  
BLACK RHODIUM S-300 BI WIRE 5 METRE BI WIRE PAIR(£400)  
BLACK RHODIUM S-300 BI WIRE 4 METRE PAIR (E240)

## STANDS

TARGET BLACK GLOSS 5 SHELF STAND  
TARGET 6 SHELF STAND ON CASTERS  
SOLLUS/TARGET R2 SPEAKER STANDS  
SOUNDSTYLE XS105 LAST ONE  
SOUNDSTYLE XS 100 LAST ONE  
PIRATE STANDS FOR SNELL K ETC  
HYDGENS STANDS FOR SNELL K ETC  
PARTINGTON A-4 ROUND STANDS

MINT/BOXED £1550  
EXCLT £1395  
EXCLT/BOXED £1295  
VGC £1395  
MINT/BOXED £995  
VGC £995

MINT/BOXED £8750  
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DEM/BOXED £3850  
EXCLT £3750  
MINT/BOXED £3450  
MINT/BOXED £2795  
DEM £1995  
EXCLT £1995  
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NEW/BOXED £1750  
DEM/BOXED £1450  
MINT/BOXED £1150  
EX.DIS £1050  
DEM/BOXED £995  
EXCLT £995  
NEW/BOXED £895  
NEW/BOXED £895  
EXCLT £795  
EXCLT £795  
GC £795  
DEM/BOXED £695  
EXCELLENT £595  
GC £595  
MINT £595  
EXCLT £575  
EXCELLENT £375  
EXCLT £375  
EXCELLENT £195  
EACH PAIR £75  
EACH PAIR £399  
EXCLT/BOXED £199

MINT/BOXED £349  
EXCLT £399  
EXCLT £375  
MINT/BOXED £1395  
EXCLT/BOXED £1395

MINT/BOX £495  
MINT/BOXED £495  
EXCLT £149

GC £299  
VGC £149  
EXCLT £49  
EXCLT £49  
VGC £49  
EACH £49  
EXCLT £185

EXCLT £850  
EXCLT £895  
AS NEW/BOXED £375  
AS NEW/BOXED £895  
MINT EXCT £195  
GC £49  
EXCLT £55

EACH PAIR £295  
EXCLT £199  
EXCLT £149  
DEM/BOXED £450  
VGC £595  
EX.DEM £299  
EXCLT £250  
DEM £495  
MINT/BOXED £199  
EXCLT £325  
EXCLT £695  
EXCLT £395  
NEW £300  
NEW £170  
NEW £140

VGC £149  
VGC £169  
EXCLT £175  
N.O.S. £199  
N.O.S. £199  
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# Beast Feast



**Weighing in at nearly 90kg, turntables don't come much bigger or heavier than this amazing example of 'home made high end'. Tony Bolton reports...**

Since its inception, the desire to own high fidelity audio equipment has attracted those who prefer to make their own components rather than to buy manufactured items. Usually this is restricted to the construction of loudspeakers and amplifiers – indeed this magazine has, over the years, been a keen proponent of such activities. But the creation of source equipment such as CD players and tape decks has usually been left to the professionals because of their electronic and mechanical complexity. However, over the years there are those who have made their own tuners, and occasionally turntables, and it is an example of the latter that is being examined here.

The principles of turntable construction, on paper at least, are relatively simple. There needs to be a platter to support the record, which must revolve at the correct speed, and an arm to support the cartridge as it tracks across the record. In practice, this is a lot more difficult than it sounds, hence the number of differing approaches that manufac-

turers have taken over the years, with varying degrees of success.

I actually came across this particular turntable, affectionately known to its owner as 'The Beast', while taking a wander through a certain internet auction site. It caught my interest so I contacted the owner, Jon Tiltman and arranged to make a visit to his house in Bristol to hear it. Although I was warned that this player is *big*, it was only when I was in the room with it that I truly appreciated the sheer mass of it – its footprint is approximately 67cm wide and 43cm deep, and stands nearly 30cm tall. Jon estimates its weight at between 80kg and 90kg. The subchassis under the Corian plinth is reinforced with right angle steel joists. Above this is the bearing housing, mounted in three layers of slate totaling 80mm thick. The bearing itself is made from a 20mm diameter, case hardened steel shaft, which sits on a PTFE pad that is soaked in oil. This supports a subplatter that is machined from solid aluminium.

The platter is made from two bolted together Goldring Lenco platters which contain six lead

weights (I later discovered that these were fashioned by pouring the molten lead into old salmon tins heated up on a cooker!). The motor pod is three quarters filled with lead and sits on the plinth which is itself supported by no less than forty eight strong rubber bands. The damping pots below these are filled with STP motor oil additive. The motor is an AC synchronous unit that is powered by a *Hi-Fi News* 'Flutter Buster' that generates a 50Hz signal for 33 1/3rd rpm and 67.5Hz for 45rpm. This powers the platter via a belt from a Michell Hydraulic Reference turntable.

The tonearm is a twelve inch unipivot affair (the pivot point being inverted – pointing downwards) and is made from square section aluminium tube which has balsa doweling forced into it for damping purposes. The counterweight is underslung, giving a low centre of gravity and it proved extremely stable. Originally it had no anti-skating provision, however Jon fashioned his own arrangement with a couple of weights and some wire. Arm cabling is silver plated, oxygen



free, copper with Cardas tags. The cartridge is held in place with a strap that fits across the top, giving a very rigid connection between arm and cartridge.

Overall, I have to say that this is an amazing design, and should serve as inspiration for those with their own creative impulses! Many of us turntable obsessives forget that it is not beyond the realms of possibility for a modestly competent DIYer to make a turntable, the trick being painstaking attention to detail rather than any special talents or tools.

## SOUND QUALITY

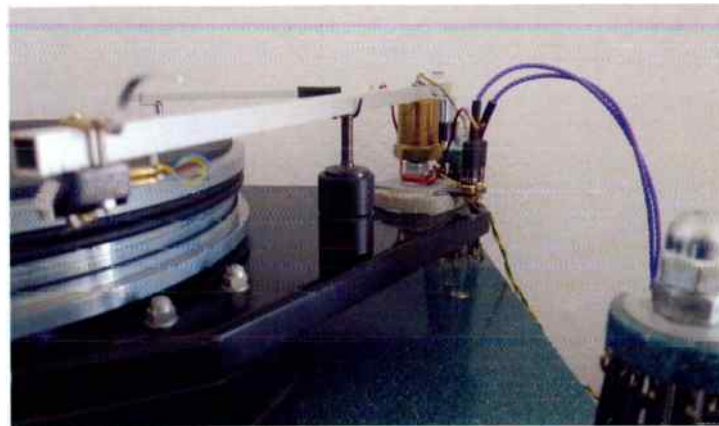
In order for me to properly assess the sound of Jon's system, before listening to the deck, I duly boxed up my Origin Live powered Linn Sondek LP12, with its resident Hadcock 242 Cryo arm and the Clearaudio Concept MC cartridge. His system is also unusual, consisting of a ANT Audio Kora 3T phonostage. This feeds into an attenuator which uses a light-dependent resistor to



*The shaft in the middle of the rubber bands sits in a pot of STP oil, mounted on the lower plinth...*

control the gain and feeds a pair of Gain Clone monoblocks. These are copies of the 47 Labs Gaincard digital amplifiers. These in turn drive a pair of Living Voice Avatar loudspeakers through Slinkylinks cables. Mains was supplied via an Isotek Nova and Nordost Valhalla cables.

Having familiarised myself with the sound of the system through a few of my records played on my Sondek, I started listening to 'The Beast'. I was presented with a narrower soundstage than the Sondek managed, the speakers forming very definite boundaries to the image. However, there was a little more depth to it and the focus seemed quite well defined. I was playing Dave Brubeck's 'Time Out' and found the placement of the



*The box-section aluminium arm and inverted unipivot bearing.*

performers within the soundstage was both precise and quite detailed. The subtleties of the instruments' intonation and movement of the performers was well described. There was enough background detail to help shape the image and create the impression of listening to a real performance of a piece, rather than a recording.

Pacing was tight, and tonality was

and hi-hats through this deck, and a slightly livelier feel to the music. It certainly produced more of a feeling of intensity when playing jazz and electronica.

Fed with classical music in the form of Sir Malcolm Sargent conducting various Gilbert and Sullivan overtures, the deck rose to the occasion. This music changes from a full orchestra to solo

"a large measure of ingenuity allied to a good deal of skill can deliver a very well finished and good sounding product..."

accurate – piano notes sounding like a real instrument, with the complex harmonics hanging neatly above the sound. It had that classic belt drive ease of flow to the sound, lacking the visceral punch of an idler or direct drive deck, but certainly matching the Sondek for musicality.

Moving to Shpongle's second LP, 'Are You Shpongled?', I found bass to be quite deep and well formed with little overhang, and the appearance and disappearance of synthesised noises and effects being precisely placed in the space in front of me. There was more of a sense of urgency to the beat of the drums



*The 20mm diameter main bearing and machined alloy subplatter...*



*The main bearing and the arm are mounted in three layers of slate which total 80mm thick!*

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instruments and I felt the balance of the sound and the colour and shape of it was reasonably accurate. The image of this good condition mono record was fairly compact but detailed, and although the Audio Technica OC9 cartridge that was fitted was getting a little elderly, the high frequency detailing, which can sometimes be a little overpowering for my taste with these cartridges, was, on this deck and arm, quite well controlled.

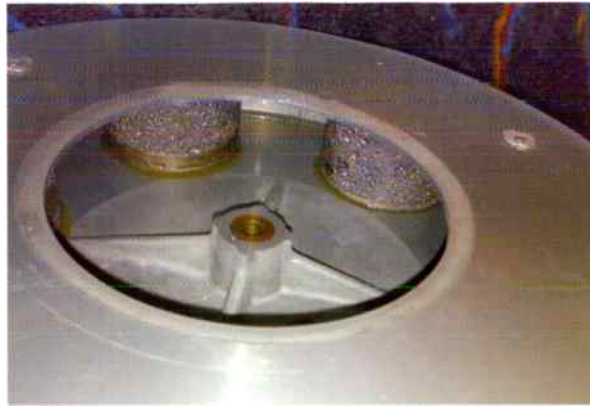
Jon paid £1,000 for the turntable, a figure which covered the cost of the materials but would not have come near to paying for the number of hours of work and thought that must have gone into its manufacture. Performance-wise I would say that it would keep up with some commercial designs costing up to double that amount. Jon has now sold this deck and has replaced it with a Garrard 401. He says the sound is different but not better, but he fancied the change...

He bought it from a fellow Bristol resident called Richard Cocks, who has built several of these, all different, purely for the fun of it. I met him later on that day at his house and was able to see the latest, and last, example that he is going to make. He has decided that, at the age of seventy nine, having made over twenty turntables over a period of some two decades, he wishes to take up another hobby! He trained as a metal spinner, working in this field for several years, before becoming a motorbike mechanic. He has also restored pianolas, and, having seen his work, is also excellent at cabinet making and veneering wood. All his turntables have been made at home, using materials that he has either found or been able to buy cheaply.

This last machine, called the RC23, uses layers of Corian, marble and slate for the plinths, again supported by rubber bands, with similar damping troughs underneath to 'The Beast'. The platter is made from Lenco and Thorens platters. This one has a sleeve bearing with four phosphor bronze bushes in it. The arm is again a unipivot design. The plinth has a cutout in one of the layers, where it was originally built to house a Technics SP10. This unit is currently for sale for £750. (Any readers who are interested in buying a unique and well thought out record player should initially contact me via the *Hi-Fi World* office.)

And so it proved a very interesting day – meeting someone who has taken DIY hi-fi as far as is practical when working in a domestic kitchen on a limited budget. Turntables like the Beast, and hobbyist designers like Richard Cocks, show that a large measure of ingenuity allied to a good deal of skill can deliver a very well finished and good sounding product. Now, where's my drill?

**My thanks to both Richard and Jon for a very interesting day, and to Jon for supplying the photographs!**



**Two of the six lead weights mounted inside the platter.**



**The lead loaded motor housing passes through a hole in the top plinth and is mounted on the lower plinth.**



**The final model; RC 23 is made from slate, marble and Corian...**



**The arm of RC23 is made of Perspex and sits on a hardened steel spike which rests in a micro-ball race.**

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2. Don't send cash!
3. Accept no verbal guarantees.
4. Have you heard the item or something similar? If not, why do you want it?
5. Don't pretend to have knowledge - it's your fingers that will get burnt!
6. Is it working? If not, why not? Can it be repaired and if so is it worth it?
7. Has it been modified and, if so, have notes been kept?
8. Was it any good in the first place?
9. Don't send cash!
10. If you are in the slightest doubt, arrange an audition (see point 5) If it's too far, wait for another time.
11. Either buy it or don't: vendors are excusably impatient with 'consultation' exercises.
12. Don't send cash!

### FOR THE SELLER

1. Not everyone is honest - Seller Beware!
2. Make no verbal guarantees.
3. Even 'nearly new' is still second-hand. If the manufacturer's guarantee is no longer in force, your price should reflect this.
4. There is very little intrinsic value in second-hand hi-fi; it's only worth what someone will pay for it.
5. The best guide to pricing is last month's Classifieds: that a 'classic' was worth £xxx a year or two ago is no guide. Values fall as well as rise.
6. Amateur second-hand dealing is not a big money game: you win some, you lose some.
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October's Hi-Fi World kicks the new season off with a bang! Our bumper supertest spans a wide range of best selling DACs, and we have some great loudspeakers too, like Eminent Technology's just upgraded LFT-16 hybrids [pictured]. Add superb pre-power amplification courtesy of Vincent's SA-33MK/SP-331MK, and fine new phono stages such as Rogue Audio's Stealth, and it's another issue packed with top kit. Here's just some of what we hope to bring you:

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## ARETHA FRANKLIN THE ELECTRIFYING ARETHA FRANKLIN MUSIC ON VINYL

**M**usic On Vinyl has come over all soul. For the first time, apart from a recent Northern Soul compilation dalliance, the label has entered the soul arena with gusto; there's Al Green's ('The Hi Singles As And Bs'), the similarly titled collection by Ann Peebles and a soul-inflected release via Nina Simone ('Silk & Soul') as well as this box set release from Aretha Franklin, the first lady of soul and a true giant of the genre. The fact that the Franklin material arrives from her Columbia days is interesting and triggers many a debate among *aficionados* who believe that the label was originally trying to turn her into an all-round pop act instead of the full throated soul singer she would develop into later, on Atlantic. There is plenty of evidence of her talent on the Columbia releases however, and so should not be ignored by any means.

The inspiration to the release was Sony's creation of a large, twelve CD retrospective. Released in March, it was called 'Taking a Look', featuring Franklin's complete Columbia discography, released in mini-vinyl covers with extra, bonus material. Within that box set was 'The Electrifying Aretha Franklin' plus an unreleased compilation album called 'A Bit Of Soul' which was supposed to be released in 1965 but never emerged. Both 'The Electrifying...' and the previously unreleased compilation appear in this set, all sourced from the original master tapes. Of course, that means that the compilation appears on vinyl for the first time here.

"Rather than just do a series

"this new issue is a sparkling listen with greater clarity and a more dynamic presentation..."

of album reissues, we wanted to do something special but a box set transfer was just too expensive," said the head of the UK office of Music On Vinyl, Mike Gething. "If you turn twelve CD albums into vinyl, you're going to end up with many vinyl LPs – an expensive project. The idea of this release was to include an early album – arguably the best from her time at Columbia – the unreleased compilation album to appeal to collectors and extra 10" disc (which, in itself, is evocative of that era) that includes material from 'The Electrifying...' sessions as alternative takes, mono versions and the like. There will be more Aretha Franklin from us, from her days at Columbia, but this initial release was a way to make a statement. The package is limited to 1,000 worldwide. Once the package is sold, it will be re-released as original separate albums."

Published in 1962, 'Electrifying ...' was Franklin's second album. A fiery young singer at that time, she had a raw delivery that was less weighty than her later releases yet still powerful. Here, Franklin is able to take the relatively simple arrangements and infuse them with her talent: sprinkling soul dust upon them, as it were. A strong album, Franklin even bubbles with potential energy on ballads such as 'Just For You'.

Once aspect of this new release which didn't initially occur to me but sounds so obvious in retrospect is the reason for all of this audiophile

attention for Franklin. That is, the copyright on these new masters starts again from zero. While the original, ageing, masters will fall out of copyright, next year. Expect to see more of this sort of thing from other artists within other genres. Speaking of audiophile, this new issue is a sparkling listen with quiet pressings allowing more detail to emanate from your hi-fi providing greater clarity and a more dynamic presentation.

"We have never previously touched the deep soul lover," said Gething. "By releasing Aretha, Ann Peebles, Al Green and Nina Simone, it's a great start for our soul coverage. Soul has tended to be released haphazardly. The way we do it, with the prominent artwork and the like, the feel of the original artists is coming through. Also, because of the way we are packaging soul, we are offering more choice. The singles collections from both Peebles and Green are good examples. Parent label, Demon has created these compilations which are already out on CD but are themed really well and they serve as introductions. The killer tracks can be packaged on a neat double vinyl album. If the response is good, we will look at releasing the original albums too."

Thus, this Aretha Franklin collection is a soul pioneer for Music On Vinyl: a spearhead or a grand entrance of soul. 'Electrifying...' is an important album in the Franklin evolution and should be heard by all soul fans. **PR**



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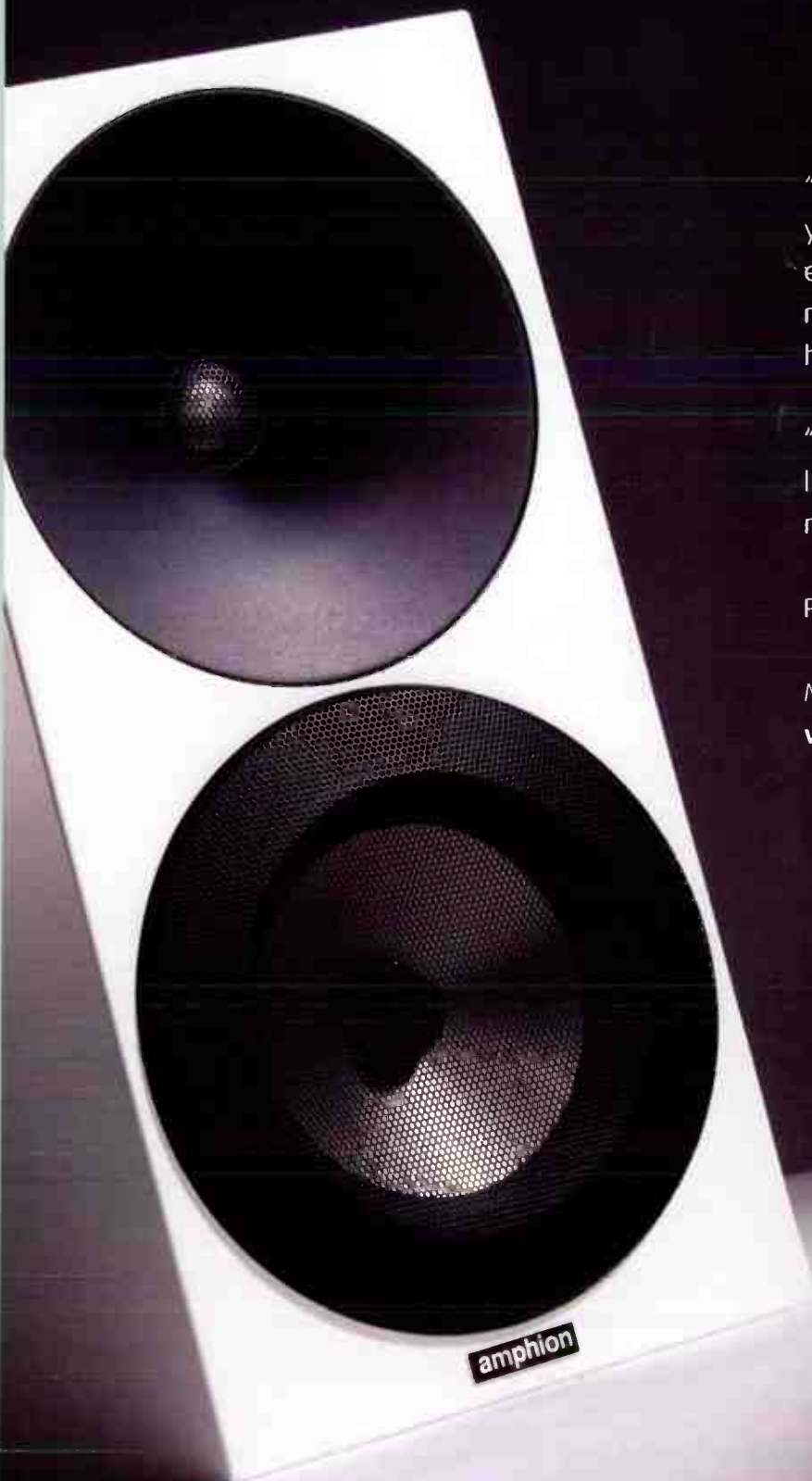
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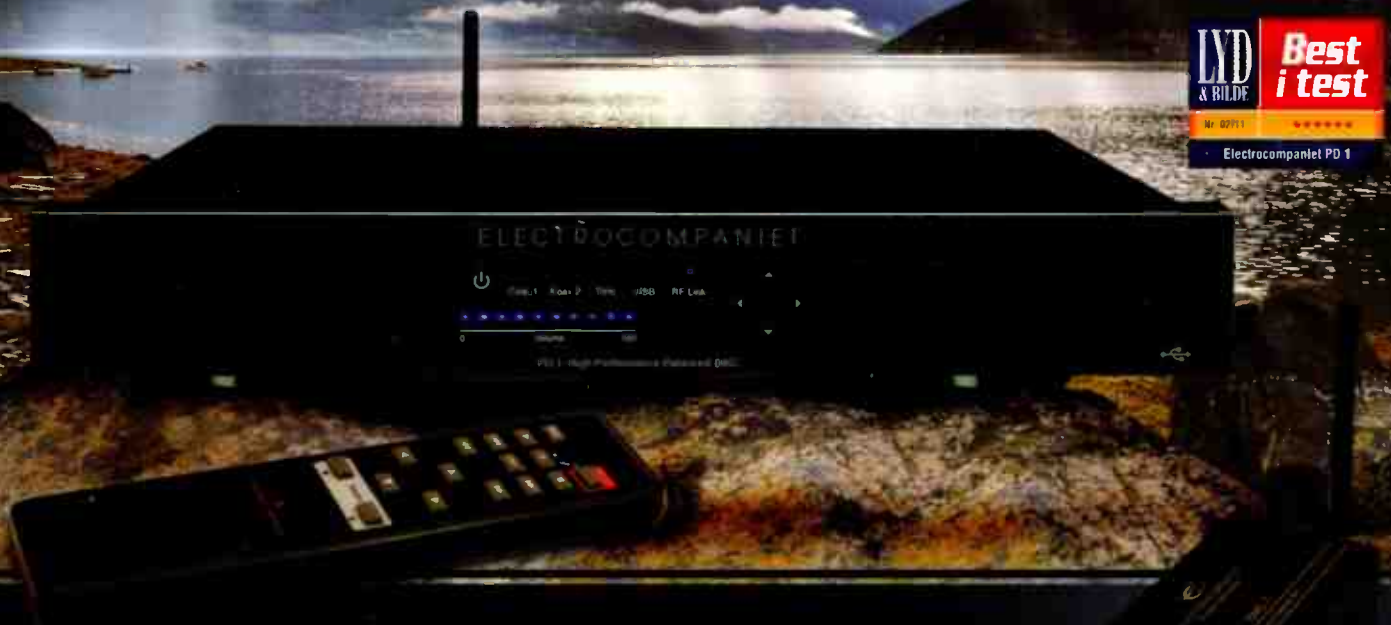
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