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Hi-Fi+, U.K.

"...what I heard blew me away."
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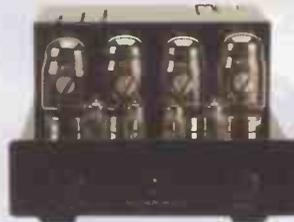
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Prologue1 35 Watts Stereo Integrated Amplifier with EL34



Prologue2 40 Watts Stereo Integrated Amplifier with KT88



Prologue3 Dual Mono Valve Preamplifier



Prologue4 35 Watts Stereo Integrated Amplifier with EL34



Prologue5 35 Watts Stereo Amplifier with EL34



Prologue6 70 Watts Stereo Amplifier with EL34



Prologue7 70 Watts Stereo Amplifier with KT88



Prologue8 Valve CD Player



Dialogue1 36 Watts Stereo Integrated Amplifier with EL34



Dialogue2 36 Watts Stereo Integrated Amplifier with KT88

PrimaLuna

Music is a universal pleasure that should not be denied to anybody. So, too, the beauty of music reproduced by valves. To make available to a wider audience the seductive, silky sound of the vacuum tube, PrimaLuna has developed a range of all-valve amplifiers with the construction, power and sonic performance of high-end electronics, but with one unique, inimitable feature: prices that can only be described as 'entry level'!

Since the arrival last year of PrimaLuna's first model, the ProLogue One, the audio community has been unable to contain its joy nor reign in its praise, because PrimaLuna has revolutionized the whole concept of 'affordable audio.' Commencing with a pair of integrated amplifiers with prices more typical of mundane, solid-state products, PrimaLuna has shown other manufacturers that compromises in fit and finish, styling and facilities are unnecessary.

And PrimaLuna has shown the music lover that 'high end' performance and pride of ownership can be made available to aficionados on a budget. But don't take our word for it. Audition your preferred ProLogue or the newly-launched Dialogue models at the PISTOL Music dealer of your choice. And prepare your wallet for a pleasant surprise!



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news



KIND OF BLU

Described as "a fusion of the acclaimed flagship SA-7SI Super Audio CD player and the cutting edge of the company's Blu-ray technology", Marantz's brand new UD9004 Blu-ray and SACD player looks an impressive beast. Whatever disc you care to spin, be it CD, SACD, DVD-Video or Blu-ray, the new profile 2.0 UD9004 player from Marantz will deliver exceptional results, Marantz says. At the heart of the video

circuit is the Silicon Optix Realta processor which offers Hollywood

Quality Video (HQV) from what is essentially "a professional broadcast-quality video processing platform". Particular attention has been paid to audio performance,

and the UD9004 incorporates a three section copper plated chassis that separates audio, video and power circuits to shield highly sensitive audio components. The audio section is derived from

Marantz's acclaimed flagship SA-7SI Super Audio CD player and comprises four separate circuit boards to avoid crosstalk, including two dedicated boards for the XLR outputs. The circuitry uses the famous Marantz HDAM-SA2s for all channels, while a dedicated, oversized toroidal transformer delivers the power. High Definition audio formats are processed by a high performance 32bit floating point type Analog Devices DSP and converted into a high quality multi-channel LPCM signal. Audio replay can be further enhanced via the Pure Direct Mode, which shuts down the video sections and display for best performance. The newly developed disc mechanism has an ultra-thin aluminium diecast tray and high inertia clamp, with a heavy zinc enclosure and insulated double layer cover to remove all vibration. The tank-like build of the upgraded M1 chassis further reduces mechanical distortion, says Marantz. The extensively braced, chassis has a thick bottom plate with machine milled copper feet, sustaining mechanical stability and therefore sound quality. In fact, the design weighs in at massive 19.2 kgs. For more details, click on www.marantz.co.uk.

NEAT IDEA

Neat's new Elite SX loudspeaker is said to "deliver serious audio performance from discreet and attractive enclosures, by means of unorthodox thinking and the ingenious implementation of some unusual ideas". Unlike traditional bass reflex designs, the SX incorporates an innovative staggered port tuning design, where a 32mm diameter port on the rear of the cabinet is tuned to 40Hz, with a narrow operating band. An additional 50mm diameter port, mounted in the base of the cabinet, is tuned higher, over a wider operating band. This system delivers "a very convincing full-bodied bass performance, far more impressive than might be expected for an enclosure of these dimensions", says Neat. The cabinet stands above a solid, heavy slate plinth by means of 20mm aluminium spacers. This allows the port to breathe correctly and fixes the distance from the lower port to the plinth at the optimum height. The main drive unit has a 6.5in doped paper cone, ferrite magnet assembly and a fixed aluminium phase plug to enable smoother integration with the tweeter. The new tweeter is a 25mm soft-fabric dome type with internal damping and a non-resonant chamber. Neat believe that the choice of tweeter is critical, because the tweeter lends the whole speaker its essential character and integrity. In this context, the tweeter's strengths of superb dynamic contrast and accurate tonal colour match the similar virtues of the main drive unit. The crossover, though simple in execution, is the result of painstaking development, the company says. The three-element type uses low-loss air-core inductors and a high-grade polypropylene capacitor. Vital statistics are 900x200x180mm. For details, click on www.neat.co.uk.

THE A TEAM

Musical Fidelity's new £6,000 AMS35i 35W pure Class A integrated amplifier is described as "the epitome of the purest audiophile high end". The circuitry is a low feedback, fully complementary pure Class A design which produces excellent technical performance, it is claimed. Each channel has a separate fully balanced, choke regulated power supply to ensure minimum noise and maximum performance. The AMS35i's overall size is exactly the same as the Primo preamp, and just like it, also sports a front panel machined from solid billet. The high quality heatsinks are beautifully finished with radiused edges, and the top plate is machined from a solid billet. "The AMS35i is quality through and through. The AMS35i's visuals and finish quality reflects the superlative quality of the circuitry inside", says Musical Fidelity. For more information, click on www.musicalfidelity.com.





OPUS ONE

Philips' GoGear Opus is a new portable media player sporting "an advanced screen, superior quality audio and easy access to online content". Despite its small size of just 107x11x57mm the Opus still manages to squeeze in a 2.8" LCD screen of 320x240 pixels. The player's high quality in-ear headphones feature Philips' Angled Acoustics technology to direct music more precisely within the curvature of the ear canal. Battery life is a healthy thirty hours of music playback and six hours of video, so you can enjoy your media for longer. Access to online content is via the Internet Video Download application which makes it simple to transfer online videos to the device from video-sharing sites such as YouTube, MySpace and Google Video. The player also

allows you to play content downloaded from the popular BBC iPlayer, so you can enjoy the best of the BBC wherever you are. The Opus supports many popular file formats such as MP3, WMA, AAC (non-DRM) and FLAC for audio and MPEG4, WMV and SMV video. The supplied software also quickly and easily converts many other file formats including AVI, MOV, RM, WMV and DVDs to a compatible format. The Philips GoGear Opus is available from June in storage sizes of 8GB and 16GB for an estimated selling price of £99 and £129 respectively. For details, click on www.philips.com or call 0906 1010 016.

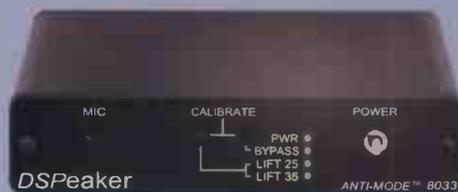


FIFTY SOMETHING

Alium Audio are pleased to announce an exclusive new range of valves to the UK, made by Chinese manufacturer Shuguang to celebrate their fiftieth anniversary. The Treasure Series is by far the most sophisticated and expensive vacuum tube range made by China's oldest valve manufacturer, it is claimed, made to exacting standards and sporting the world's first use of High Polymer Compound Carbon (HPCC) giving the glass envelope a distinctive Black powder finish. The range encompasses 300B and 2A3 triodes, extending to KT88, KT66 and 6CA7 [EL34 equivalent] pentodes/tetrodes and CV188 [6SN7]. Prices start at £145/pair for the 6CA7 up to £375/pair for the 300Bs, plus VAT. Each pair comes in its own luxury box, factory tested and carefully matched to provide ultimate performance from day one. A ninety day warranty is included for piece of mind. More details are available from www.aliumaudio.com or by phoning +44(0)1273 608332.

SHOW TIME!

The National Audio Show 2009 takes place at Whittlebury Hall Conference and Exhibitions Centre in Northamptonshire, and will be based over two floors. A fantastic location, it sports free parking for up to five hundred cars and twice as many demonstration suites compared to the Heathrow Park Inn show it replaces. There is over 500 square metres of trade space and over 1,500 square metres of event space. Shuttle bus services from Milton Keynes and Luton Airport are operating, and there's great road access from the M40 or M1. There's also a huge range of off-site attractions, towns, events and sports, plus a magnificent on site Golf Course. Overnight accommodation packages are from £89. The show itself will feature customer and reader clinics, media demonstrations, book signings, world product launches, a huge record fair, and to cap it all two great concerts one on the Friday evening and one on the Saturday the star attraction being Rick Wakeman, no less! Opening times are 10am to 5pm on Saturday 26th September, and 10.30 to 4 on Sunday 27th September. Advance tickets will be available from Chester Group's website from the 1st July together with a complete show update. Click on www.chestergroup.org, or for further information call Justin on 05601 126407 or email justin@chestergroup.org.



MODE MUSIC

B.K. Electronics are pleased to announce that they have become the UK distributor for the Anti-Mode 8033 advanced DSP room correction device, said to remove room modes that can ruin the sound of your sub bass system. If you have a good subwoofer but you feel the bass is boomy or slow and just not sounding as it should, then the chances are you have a room issue. The Anti-Mode 8033 is a stand-alone system that fits between your processor and subwoofer and has its own calibrated microphone. Setting up "could not be easier", it is said. Priced at £239.95, for further information please go to www.bkelec.com/HiFi/Sub_Woofers/anti-mode.htm or call B.K. Electronics on +44(0)1702 527572.

COLLOSAL TRUTH

Colisium Developments was formed in April 2008, its philosophy being "to provide only the best in materials and craftsmanship in the hope that the products supplied will be treasured pieces in a system and not something to be discarded after a few years". The Carillon monitor speaker is described as "a speaker with detail, speed and dynamics", and sports mitred cabinet panels, a flush mounted ribbon tweeter and special crossover components. Internal wiring is silver plated copper, as are the rear terminals. For more details, click on colisiumdevelopments.co.uk.



G-SPOT!

Pioneer has five new G-Clef affordable audiophile components, "developed in pursuit of masterful sound quality". The range includes the A-A9MK2-K and A-A6MK2-K amplifiers, the PD-D9MK2-K and PD-D6MK2-K Super Audio CD players and the F-F6MK2-K DAB tuner. Focused on providing accuracy as well as substantial power and stability, the new stereo components are said to achieve "open sound and ultra-quick responsiveness that brings every detail to life". They all sport "silk-soft" hairline finish black aluminium front panels and blue LCD displays, with high quality aluminium remote controls. For further information please visit www.pioneer.co.uk.



Pioneer F-F6



Pioneer A-A9



Pioneer PD-D9

CLOSED SHOP

Sennheiser has new closed back HD series headphones, which sport "attractive pricing and sleek styling, excellent sound quality and Sennheiser's two-year guarantee". The HD 218 [pictured] is a £40 closed back design for private listening and portable use, particularly suited to public transport and noisy environments. It has a punchy but not over-bassy sound with excellent clarity in the mids and highs, Sennheiser says. It can also be folded flat for easy storage, and there's a low tangle, single-sided cable. The pricier £50 Sennheiser HD 228 comes in either black or white, goes slightly louder and slightly deeper than the 218s, and features extra soft ear pad cushioning. Vital statistics for these are a frequency response of 18-22,000Hz, an impedance of 24 Ohms, weight of 224g and a cable length of 1.4m. For details, call +44(0)1494 551 551 or click on www.sennheiser.co.uk.



STOP DAB!

Fans of tragic sound quality, awful reception quality and general government waste and profligacy, look away now! Otherwise, why not sign up for Hi-Fi World's campaign to stop DAB by 2015? It's easy to do, just click on <http://petitions.number10.gov.uk/switch-off-DAB/> and add your name to the long list of Digital Radio dissidents!



SPOTIFY GO HI-FI

Spotify subscribers are now able to listen to music in "CD quality". Since it first launched last year, all users have been able to listen only at a modest 160kbps, but now it has upgraded to 320kbps using the Ogg Vorbis q9 codec. Spotify claim this is "equivalent to CD quality", although uncompressed PCM is around 1,400kbps. Still, it's currently the highest streaming rate for any digital music service. Premium subscribers are able to enable higher quality streaming by visiting Spotify's preferences menu and ticking the "Enable high bitrate" box. Daniel Ek, CEO and Founder [pictured right] said, "providing great sound quality has always been an important goal for us. Now, we're taking the next step in offering an unparalleled listening experience". See www.spotify.com.

BACK TO BASICS

Following on from the Special Edition Micro 25, Glenn Croft is pleased to announce the launch of two new valve preamplifiers; the Micro Basic and the Micro Basic Line. Both models are based on the same, no printed circuit board architecture as the Micro 25, but with detuned power supply and simpler case construction. The Micro Basic boasts an onboard sophisticated MM RIAA phono stage, and the Basic Line is for those wishing to use just computer, CD or radio. As with all Croft products, they sport point-to-point hard wired components, dual mono controls and "the absolute best sound quality" for just £350 and £300 respectively. For lovers of the LP, Croft Acoustics are also pleased to announce the new £500 "RIAA" stand alone phono stage. Based entirely on the Micro 25, but as a dedicated moving magnet phono preamplifier. For more information, Phone 05601639905 or click on www.cronacoustics.co.uk.

GRAND DESIGNS

Audioplan products are now available in the UK, exclusively through Ikon Audio Consultants. The high end loudspeaker specialist based in Germany has a reputation that spans over twenty five years, making loudspeakers, cables and power products. For more information, click on www.ikonaudioconsultants.com/.

SPOTTED!

Back to the eighties for editor DP and Cambridge Audio's Matthew Bramble, designer of the new 650 series reviewed on p36, as the dynamic duo compare oil leaks from their ageing rusty relics!





David Price finds Vivid Audio's all-aluminium drivered B1 loudspeaker something of a golden listening opportunity...

Midas Touch

There's no one single loudspeaker that does things better than all others, but there are a number of high end designs which seem particularly good in certain ways. Yet the only thing that unites the likes of Tannoy Westminsters, Quad 2905s, Martin Logan CLXs and what have you is the fact that they're not conventional box loudspeakers with 'cooking' off-the-shelf drivers.

Now, whilst at the lower end of the market, I'd venture that a pair of decent moving coil drive units (say a cloth dome tweeter and an mid/bass cone make from some variant of plastic or glass fibre) is probably going to give you the best sound per pound, it simply doesn't happen when - financially speaking at least - you reach for the stars. Instead, at this price, a degree of innovation is involved, and/or the need to hand-make particular transducers to do the job the designer had in mind.

Vivid design supremo Laurence Dickie walks into my front room, and as he sets foot on the shagpile exclaims, "ooh - NS1000Ms!" He starts to talk about the production processes that Yamaha used to make their Beryllium drive units, and concludes, "they were so ahead of their time". 'Interesting', I muse to myself in a Leonard Nimoy sort of way. Here's a loudspeaker engineer with the enthusiasm of a kid in a sweet shop, not your average 'on-message' corporate type with a settled view on life, the universe and everything.

His background is impeccable; he joined B&V back in 1983 after completing an electronics degree at Southampton University, "They wanted an electronic engineer to develop active speakers, which was exactly what I'd been doing in my own time so it was perfect. Actually I was more interested in the speaker part than the electronics and suggested the Matrix system for reinforcing the cabinet which became standard in all their high end models", he told me. "After that John Bowers asked me to get involved with work he'd begun, which focused on removing cabinet effects using cone drivers on an open resistive baffle. It became quite clear that once you'd removed the internal resonances and external diffraction effects of typical square boxes the driver material became clearly audible. So I resolved to make a system in which the drivers remained pistonc and an enclosure which was free of resonances or reflections. For

the drivers I used a 50mm aluminium dome for the crucial midband and for the rear enclosures found the best performance from exponentially tapered tubes. The result was Nautilus."

Yes indeed, this is the man behind B&W's epic statement loudspeaker, the stuff of latter day legends. Not that you'd know this from casual conversation with him you understand, as Laurence is far more interested in talking about what's possible, how differing approaches do things well (and not so well), and the way forward for the loudspeaker world, than his not inconsiderable wealth of previous design experience. Over lunch, we chat about materials technology, plasma tweeters, the problems of ported loudspeakers and his beloved contoured cabinets. Although never coming over as an idealogue or a zealot, he's not the world's greatest diplomat, noting that many "big name" high end loudspeakers are more about marketing than the appliance of science...

An engineer through and through, he came to Vivid via his B&W connections, but with the original idea being "simply fitting

OEM drivers in our own enclosures... I felt this would be no fun and if they were going to be serious that they should consider making their own drivers", he told me. "It happened that in the years after leaving B&W, I had been developing a set of drivers which, while originally intended for use in high power studio monitors, were ideally suited to high-end domestic audio. The next four years were spent perfecting those drivers and developing the cabinet shapes. We quickly outgrew the garage where production started in 2004 and moved into our Durban factory in 2005, where we still manufacture all our enclosures and drivers from raw materials and machined parts. We've made about 2,700 loudspeakers to date".

He describes Vivid Audio, which was officially registered in 2004, as being "a design and engineering led company", adding that, "the flow of ideas is very much in one direction – from designer to end user. To that extent the object which ends up in front of the listener is very pure. I feel a personal connection with each piece that ends up in a person's listening room".

The first Vivid design, the B1, is a largish (1,095x265x375mm including integral stand) standmounter

weighing a hefty 38kg each. It's a three and a half way design, with two bass drivers being used, the one on the front baffle being directly coupled to the second on the rear. This technology dramatically reduces the amount of mechanical energy given off by the enclosure, it's claimed.

The injected carbon fibre reinforced polyester cabinet is designed to be as dead as possible. "Initially the idea was to make the enclosure by first building a wooden matrix with front and rear baffles attached and then bending two carbon fibre reinforced sheets onto this support and joined at the top and bottom apexes", Laurence says. "This would have been quite workable but the design was a bit restricted by the materials. Then we were introduced to a local polymer concrete manufacturer and immediately we realised that if we were to mould the enclosure it would give us complete design freedom. The material itself was just right for the job and the addition of

"for those who share my own personal sonic proclivities, this has to be one of the loudspeaker greats..."

a small amount of chopped carbon fibre improved it still further."

To fully exploit this design, 3D solid modelling CAD software was used. "The precision of the models which result is almost magical. I make liberal use of spline curves which yield particularly smooth flowing results. The use of doubly curved surfaces increases the stiffness of the shell and this rigidity is further enhanced by the use of four lateral braces. In the end we brought it all in-house, so we now have complete control over every stage of manufacture", he adds.

Although much trouble has been taken to make the cabinet as acoustically inert as possible (as a knuckle rap proves), Laurence is still a great believer of decoupling the drivers. "From earlier work on small sub-woofers I'd become convinced of the benefits of using pairs of opposing drivers in a reaction-cancelling configuration, so it was only logical that we use this approach on the B1", he told me. But he couldn't have the rear driver working up to 880Hz like the front, so it's designed to start working at just 100Hz. "While this sorts out the acoustics, this means that the drive is no longer symmetrical so the reaction cancelling isn't going to

work above 100Hz. Fortunately it's quite simple to decouple the drivers from the cabinet above 100Hz by floating them on silicone o-rings. Three separate ones are used to decouple each of the two dome drivers from the enclosure and from the tapered tube absorbers. So in the same way as the B1 has bass drivers front and back it also has a pair of reaction cancelling ports".

It's not just the novel cabinetry and the clever way the drivers are mounted which deserves attention though, but the fact that all three transducers are 'material matched', using a magnesium/aluminium alloy, and the tweeter and midrange driver share a similar dome profile to give true phase coherence. Laurence takes up the story, "actually there's very little to choose from between aluminium, magnesium and titanium in terms of density to modulus ratio, but in the end I chose 5052 aluminium/magnesium alloy because of many reports from the pro field that titanium never sounds so

sweet, but this might be an effect which is only noticeable in large compression drivers. Through the use of finite element analysis, an optimised dome/cone combination was found for the lower frequencies. This was supported by a chassis featuring an extremely open design which minimises interference with the rear cone output. The use of a radial magnet to keep the area to a minimum also helps in this respect"

The three bespoke driver designs then needed to be manufactured, and Laurence found this easier said than done. "I didn't want to get involved with driver manufacture by myself so initially tried to engage some well known OEM suppliers, but they all ran a mile when they saw how different the designs actually were to their product range and used no standard parts! Fortunately my new South African friends were not faint hearted and the challenge of creating these new drivers from scratch not too daunting so we set to work. We often wonder, if we had known then what we know now, whether we would ever have embarked on this journey!"

Last but not least was the crossover. Although the first prototypes were made by hand using polypropylene capacitors and hand

wound inductors hard wired onto drilled boards, Laurence told me that "we fully expected to get the production items from one of the well known OEM suppliers. They duly sent samples which did look the part of course. All very well built with their machine wound inductors mounted on professional looking PCBs – except they just didn't sound the same. So to this day we still hard wire the components and we still wind our own inductors".

The result is a beautifully built and finished loudspeaker costing £10,500 per pair (in Graphite, Oyster, Sahara, Pearl and Copper paint finishes, with additional colours for an additional cost of £615). That distinctive shape is not, as has been reported, based on a Zulu shield, but "is driven by the same logic which gave rise to Nautilus, namely that the baffle should be just the width of the drivers it supports surrounded by a generous fillet. The critical area around the mid and tweeter units is smoothly contoured for the benefit of the emerging sound field. The further you go from the tweeter the more artistic license you have with the design but in the case of BI the guiding principle was that of symmetry so the bottom of the cabinet mirrors the top as the rear does the front", Laurence told me.

SOUND QUALITY

As you'd expect of a loudspeaker with unique and usual drive units in bespoke cabinets the like of which you don't see anywhere else, the Vivid BI is a distinctive performer, inasmuch as it doesn't do what so many other designs at the price do. By this, I mean many others somehow manage to lose the natural timing, tonality and/or phase coherence of the original recording. Instead, the Vivid BI brings you largely unknown pleasures - those coming from hearing the music in a 'direct coupled' manner.

Temperamentally this loudspeaker is no shrinking violet. It's not the sort of thing you buy to put on the end of any old assemblage of components, in the hope that it will somehow make a nice noise. Indeed, if you do this, it highly likely won't. It is relentlessly revealing of the source and amplification, telling you in a matter of fact way what's wrong with them. In this respect they're eerily similar to Yamaha NS1000Ms, which can sound like ten different speakers given ten changes of source or amp. The Vivids do this too - so they're a speaker you'll have to 'commit to', just like you would/should a marriage. And they'll prove endlessly rewarding

if you tie the knot...

All drivers have their own patina, from Martin Logan electrostatic panels to Lowthers, and the sonic signature of the Vivid BI is bright and spry. Indeed, to those used to the inevitable squawkery emanating from average plastic drivers of all descriptions (trendy names or not, as the case may be), the Vivids are nothing less than bracing. Rather like walking out on a beautiful bright and crisp winter morning, the music arrives brilliantly lit and with vibrant definition and dazzling colour. Switch to the likes of the similarly priced B&W 801D, and things became more nasal, more quacky, more monochrome, while the Quad 989 seems soft and silky but as veiled as a smoggy city sunset.

Annie Lennox's breathtaking cover of 'Don't Let it Bring You Down' showcases the Vivid BI's wonderful clarity. Her close miked vocals were carried with complete immediacy, as if you were in the vocal booth with her. Yet there was utter cohesion; as her voice went up and down the scale, there were no odd phasey artefacts to be heard, and when she went louder there wasn't so much as a whiff of distortion, harshness or sibilance. Meanwhile, behind those exquisite vocals, the track's expansive instrumentation pushed things along, the BIs rendering the backing analogue synth glides with complete believability. Hi hats sparkled like ships in the night, snare drum pan rolls thumped the verse-chorus bridge transition home and gentle backing electric piano twinkled up and down, in and out of the mix.

Simply Red's 'Fairground' was no less captivating. This song gets most speakers to simply issue you with a long list of what they're doing wrong, as they stumble and fall whilst trying to keep up with the complex (and slightly dissonant) backing rhythm track. It's that heavily processed thumping bass drum that does it for your average big box, but the Vivids didn't so much as raise an eyebrow in Roger Moore-esque repose. They showed themselves to be in complete command of the heavy percussion, deliciously fleet of foot, while Mick Hucknall's occasionally nasal vocals were flattered. He sounded creamy smooth, but just as immediate and 'in the room' as a very close miked Annie Lennox had. Elsewhere, the house-style piano breaks were surprisingly sumptuous for something likely rendered from a mid-nineties digital sampler. For me though, aside from cutting through this dense mix like a hot knife through butter, what

impressed me most was the dynamic accenting throughout the choruses. It was plain to hear that the singer was extending himself, using every foot-pound of pressure in his fast emptying lungs. Sit on dynamic transients, the Vivid BIs do not!

Skilful though these loudspeakers may be with processed, compressed chart pop, it wasn't until I moved to the avant-jazz strains of Rain Tree Crow's 'Pocket Full of Change' that I really became aware of what these could really do. The opening percussion came over with the speed and agility of a duelling sword, and a satisfyingly metallic clang. Hi hats sounded beautifully realistic, with a pure 'zing' that you just don't hear from hi-fi speakers very often, and they timed so sublimely too. There's such little overhang from the Vivid's metal drivers that the instruments simply stop when they're supposed to, rather than entering into a seemingly endless spiral of tiny aftershocks. The result is so much space around instruments in the mix, and also a wonderfully insightful idea of the performers' most subtle rhythmic nuancing.

Such was the purity of their sound that it was plain for all who could care that the Rain Tree Crow project was of course Japan (the band) by any other name. Indeed, as the track moved on, in came vocalist David Sylvian with his trademark David Bowie/Bryan Ferry soundalike sound. Once again the Vivids conveyed his voice with magical ease, this time a little



harder and more edgy than in his late-period Japan days, but with all its rich, dark chocolatey velvet intact.

The sudden realisation that I hadn't thought about the B1's bass momentarily stopped me in my tracks. It's what I normally hear *first* in a speaker; about 10ms after the first note of the song is struck, I am fast forming an opinion about its cabinet and/or bass port. But with the Vivids this is very hard to do. The solitary sound of a bass guitar string plucked proves quite odd, as despite the porting (which regular readers will know I'm not a passionate advocate of), I really couldn't hear the cabinets at all. I couldn't hear bumps, thumps, thrums, buzzes, hisses, chuffing, or anything else for that matter, except the bass drum and guitar. And as the bassist went up and down his fretboard, there was no magical 'sweet spot' when things got much louder as the cabinet started vibrating like a Hotpoint on maximum spin speed, or the port started chuffing like a steamboat funnel. Amazingly, here is one of the very best implementations of reflex loading I've ever heard. Great to hear, but I'm afraid it will make listening to almost every other ported loudspeaker even more arduous...

Brilliant as the Vivids proved with jazz and pop, it's as if they were saving themselves for classical. All those great qualities, ones which to me personally are closer to 'heroic', of speed, transparency, grip, neutrality and phase-coherence made my time listening to my fave DG recording of Beethoven's 'Pastoral' symphony (Karajan, Dresdner Philharmonic) quite unforgettable. The magic served up by the marriage of those tweeters and midband drivers, and the way that they work with the cabinet, makes strings a joy. Every last sinewy ounce of the violins was served up with breathtaking clarity; stark, explicit and unsullied, the B1 has tremendous tonal accuracy. Yes, although there was that trademark brightness you get from metal drivers, but conversely there was none of the thrum, plump or squawk of Bextrene, paper or polypropylene. Although the Vivid B1's drive units have a naturally 'well lit' nature, they never descend into harshness or grain - unlike so many others which can be dull one minute and screaming at you the next.

The other wondrous element of their performance was soundstaging. After a not inconsiderable run in period, and after that about twenty minutes per day 'warm up' type, the B1s were able to throw images around my listening room with

greater precision than any THX multi-speaker surround system I've heard. Once again, I feel this is a function of the brilliantly designed cabinets and the phase coherence between tweeter and midrange domes. The expression 'out of the box' was invented for these loudspeakers.

As eagle-eyed readers may have surmised, I liked the Vivid B1 loudspeaker very much, for the exact same reason I love my Yamaha NS1000Ms. It is lightning-fast, beautifully integrated, very cohesive and musically expressive. But just like the Yams, the Vivid has 'issues'. As I've previously alluded to, they won't be for everyone. Those wonderfully matched metal tweeter and midrange driver might sound a little to brightly lit for some, so you'll have to be meticulous about your system matching if you don't want a bassoon to sound like an enormous comb covered in tracing paper. Go for a smooth vinyl source if possible, or an ultra low distortion DAC, plus a seriously smooth Class A transistor amplifier - cheap CD player users need not apply.

Then there's the other aspect of the bass which I've so far neglected to mention, which is that there isn't all that much of it. The B1 does *not* go down low in the way a similarly sized floorstander does, for example. Its bass is brilliantly articulate and tuneful, but you simply don't get an immersive low frequency experience. This is for better and for worse, as many live in houses where this is simply not domestically acceptable (from a neighbour or spouse point of view). The Vivid B1 lets you hit the loud pedal and run high levels of very clean and engaging sound, without telling everyone else in the street about it.

CONCLUSION

Loudspeakers are impossibly difficult things to gauge. Three very well engineered but different designs

can elicit three highly divergent opinions. As for me, I know what I like, and what I like centres around clarity, incision, speed, dynamics and phase coherence from top to bottom. That's why I've ended up with Yamaha NS1000Ms, which are at the top of this particular game, and also adore the Martin Logan CLX, Apogee Synergy 1.5 and Usher Be-10. Well, to this little list I must add the Vivid B1. They're an altogether smaller scale speaker than the aforementioned, but are no less enthralling a listen. As well as any of these greats, they give you that 'direct-coupled', brain-plugged-into-the mixing desk sound. Just so long as you know what you're buying in to, they have very few flaws (and these are relatively insignificant), which makes the B1 an incredible all round package for those with small to medium sized rooms. For those who share my own personal sonic proclivities, this has to be truly one of the loudspeaker greats.

REFERENCE SYSTEM

Sony TT-S8000/OL Silver/Ortofon Winfield turntable
Icon Audio PS3 phono stage
Sugden IM4 integrated amplifier
Audio Research VS160 integrated amplifier
MF Audio Passive Pre/Nu Force Ref 9SE pre/power
Yamaha NS1000M loudspeakers
Quad 989 loudspeakers

MEASURED PERFORMANCE

Our published frequency response analysis, using a stepped, gated sine wave signal, clearly shows the Vivid B1 to be very flat right across the audio band with none of the usual treble emphasis seen in so many modern loudspeakers. Look closely, however, and it is apparent that the dome midrange unit is prominent from 1.5kHz up to 5kHz and, in conjunction with increased acoustic power from wider dispersion over cone drivers, the B1 will have a forward and perhaps 'obvious' midband. It certainly will not lack presence, that's for sure and both speech and vocals should be very clear, with great intelligibility. Upper treble does not rise, so there should be little sign of a high end 'sting'.

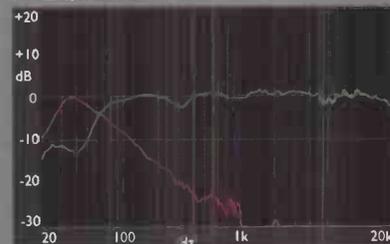
Bass output is fairly constrained; even a third octave analysis of pink noise, which shows in-room energy build up, confirms limited low bass, the lower limit being 60Hz (-6dB). However, this does mean the B1 will sound well damped and the port peaks at 35Hz to add in some bottom end weight. Output from the port is limited however, measuring just +2dB on forward response at 80Hz, although there are two ports.

Impedance measured 6 Ohms and sensitivity a normal enough 87dB from one nominal watt (2.8V) of input.

The loudspeaker's spectral decay over 200ms was quick and clean, suggesting very low colouration.

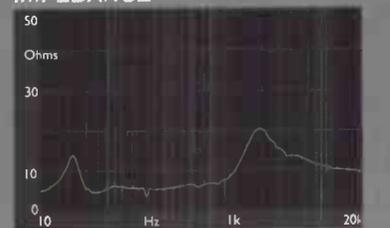
The Vivid B1 measured well. It will sound forward and projective with vocals and instruments. Bass output is restrained; this is not a bass heavy loudspeaker by any means, but near wall placement should suit it. NK

FREQUENCY RESPONSE



Green - driver output
Red - port output

IMPEDANCE



VERDICT

Breathtaking transparency, superlative coherence, dizzying speed and an unyielding musicality all conspire to make one of the best compact loudspeakers currently made.

VIVID B1 £10,500
Vivid Audio
www.vividaudio.com

FOR

- rousingly musical
- superlative soundstaging
- searching incision
- seamless cohesion
- dramatic dynamics

AGAINST

- no low bass extension
- meticulous matching needed

LET THERE BE CHA'AM

참

emillé

just for your musical bliss

www.emillelabs.com

info@emillelabs.com

DAC to The Future!

Looking to upgrade your ageing Compact Disc player? The simplest course of action is to buy it a superior DAC, but which to choose? Paul Rigby tackles seven under £1,000...

Not everything in hi-fi has got better, but of late CD players have put on a spurt. Just as vinyl took a quantum leap forward in the autumn of its life (the nineteen eighties), so Compact Disc is repeating the trick now as it reaches its twilight years.

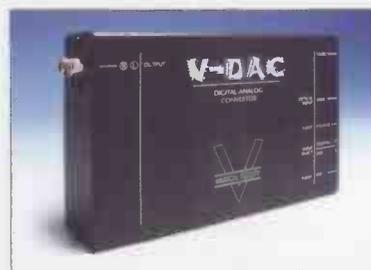
Actually, there's a strong case to be made that, with a few notable exceptions, CD transports have got worse. As more and more CD disc spinners use DVD-ROM derived mechanisms, so there's a sense that standards are actually slipping in this department slightly. However, the latest generation of 24bit, 96kHz (or 192kHz) DAC chips - complete in many cases with upsampling - have sweetened the pill. My regular chats with mastering engineers have revealed that one of the most improved areas of technology available to them is the humble digital to analogue converter.

So what better way to upgrade your ageing CD spinner than with a new DAC? Providing a replacement pick-up mechanism is still available for your machine if the worst happens, it makes sense to upgrade only the part of the player that's letting the side down. And an additional bonus you get when buying a DAC is that it could also transform the sound of your DVD player, Sky box or even DAB radio. Many new DACs can even make your computer sing too, via the built-in USB connector that's becoming ever more popular. So this test sees a round up of products from £125 to nearly nine times that, in a bid to see if more pounds buy you superior sound.

Don't be distracted by numbers. The entry level Russ Andrews Fubar USB runs up to a 48kHz sampling frequency,

which was once the *de facto* high end standard when Digital Audio Tape was launched in the late eighties, while the Beresford gives up to 96kHz for basic DVD-Audio functionality and the Stello, Symphony, Cambridge, Benchmark and Musical Fidelity all hit 192kHz. Still, given that ye olde Compact Disc remains pegged back at 44.1kHz, which was the best that humankind could do when its creaky Red Book specification was drawn up in the late seventies, the best you can do from CD is upsampled 176.4kHz, as the upsampling circuitry takes the basic 16/44 feed and 'guesstimates' the rest. While upsampling can improve the sound, or at least make CD's top end more palatable, you shouldn't obsess about it. Where it's improved a DAC's performance, we've kept it switched on (if it's switchable), but the object here was to listen to the end result and not all the permutations. Whatever the numbers may be, experience teaches us that it's the sound that counts in the final instance; a basic DAC can fly with CD if it's done properly.

Most important is the quality of the transport, and for this task we enlisted the help of a Cyrus CD Xt SE, with its excellent pick up mechanism. For computer audio purposes, a standard PC was used, playing uncompressed PCM (WAV) files out to the DAC's USB inputs, where fitted. Read on!



THE CONTENDERS

Russ Andrews Fubar II USB	£125	p16
Musical Fidelity V-DAC	£170	p17
Beresford TC-7510	£187	p18
Cambridge Audio DacMagic	£229	p19
MGL Symphony DACPre	£345	p20
Stello DA100 Signature	£675	p21
Benchmark DAC-1S	£930	p22

REFERENCE SYSTEM

Cyrus CD-Xt SE CD transport
Aesthetix Calypso preamplifier
Icon MB845 Monoblock power amplifiers
Quad ESL-57 loudspeakers (One Thing modified)



RUSS ANDREWS FUBAR II USB £125

The test starts with this very humble USB-only DAC, running up to 16bit, 48kHz sampling rate with no fancy tricks like upsampling. It's an unashamed budget box that spans a little over 50x80x105mm, so is small enough to be placed almost anywhere. Inside, it sports a Burr Brown PCM2702 DAC chip, not that you'd ever know with its racey red ribbed gunmetal casing (although a limited edition grey version is available, however). The fascia has no controls however, and only three lights are present including power, 'suspend' and another for 'playback'. The rear of the case includes a simple on/off switch, USB connector and DC power slot. The Fubar has been designed with computer use in mind, with plug and play functionality.

SOUND QUALITY

All sound tests were based on a PC running WAV files that began with The Sugababes' 'Stronger' from the 'Angles With Dirty Faces' album. Immediately, the default sound – an admittedly reasonable noise from my Creative Audigy soundcard – was lifted over every frequency providing a universal sonic improvement, fine bass punch and real insight for such a diminutive, low priced box. The problematically excessive peak limiting shoe-horned into the mastering is present here, the brightness hitting you square in the eardrums somewhat, reducing long term enjoyment.

Can's 'Yoo Doo Right' from 'Monster Movie' displayed a

transparent performance, as the Fubar II strips all instrumental colour, laying the music bare. While this adds to the 'truth' of the rendition, the Fubar II can be accused of excessive enthusiasm, like a Beaver on speed attacking the bark of a tree. That rather bright image is not suitably recompensed with enough detail and information...

Playing Carol Kidd's 'Dreamsville', and 'A Nightingale Sang In Berkeley Square', and you realise where the Fubar II's spiritual home lies – jazz. In contrast to the rather fatiguing rock tracks, Kidd's warm vocal backed a discerning bass that was lifted and posed to the ear, displaying those

difficult to reach lower tones that are sometimes obscured in the mix. As for the piano? Well it positively cavorted across the soundstage. The finely picked acoustic guitar solo secured an admirable midrange performance, that was also complimented by a light and airy treble.

The Fubar II should really be judged within its computer niche, because when it's shoved up against quality hi-fi kit, it does suffer in its lack of connective adaptability and monochrome sound. That said, it certainly gave a good account of itself and should be seriously considered for those computer users looking to improve their basic hardware.

MEASURED PERFORMANCE

The Fubar identifies itself after a USB handshake as a Burr Brown PCM2702. It works up to 48kHz sample rate and 16bit resolution the manufacturers say, but it accepts a 24bit word we found and distortion drops from a high-ish 0.4% from 16bit to 0.16% from 24bit, so there is some benefit to using higher bit depths in spite of the 16bit spec., and mediocre 16bit performance. Although not up to best CD DAC standards the Fubar manages competently with 16bit, fully resolving a -80dB signal and giving better results from a -80dB dithered signal, returning a very reasonable 3.2% distortion figure. With low noise and no large quantisation products EIAJ Dynamic Range was fair at 104dB, a peculiar noise spectrum having impact here.

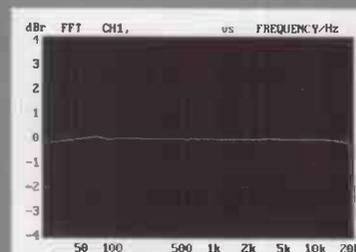
Our frequency response analysis shows the Fubar is flat out to 21kHz and very accurate in this area, so although small and not purposed for traditional hi-fi components it has a hi-fi performance. Output was spot on the Philips standard at 2V exactly.

The Fubar gives good results and

is a decent USB DAC, approaching best hi-fi standards. NK

Frequency response (-1dB)	2Hz-21kHz
CD	
Distortion (%)	
0dB	0.001
-6dB	0.001
-60dB	0.4
-80dB	5.5
Separation (1kHz)	118dB
Noise (IEC A)	-101dB
Dynamic range	104dB
Output	2.0V

FREQUENCY RESPONSE



VERDICT Fine entry level computer-only DAC, but not strictly an audiophile hi-fi product however.

FUBAR II USB £125
Russ Andrews
 ☎ +44 (0)845 345 1550
 www.russandrews.com

FOR
 - insightful
 - detailed bass
 - low price

AGAINST
 - a tad bright
 - limited tonal palette
 - USB only



MUSICAL FIDELITY V-DAC £170

The first real hi-fi DAC of the group, this is small in stature at just 40x95x155mm, and comes stripped of extraneous buttons, while the sturdy chassis is very simple in form. Lurking within is a modern Burr-Brown DSD1792 chip and a SRC4392 upsampler. The orientation of the casing is a little odd, it has to be said. There is no front-to-back reference to the V-DAC, the lines of operation run left-to-right. So, on the left is a pair of phono outs whilst, on the right, is a USB port, a coaxial input and a switch to toggle between them. You also get an optical S/PDIF input and a DC power connector.

SOUND QUALITY

The V-DAC performed superbly given its modest price and packaging, meaning that so much more music was allowed to flow forth from this simple box than the Fubar II USB-only design. Indeed, its nature rather reminds me of the wonderful Acoustic Energy Reference One loudspeakers in its clear, concise sound. It's a low distortion design for sure, and this was best illustrated playing the Sugababes' track which produced none of the usual vocal sibilance that was heard via the Fubar II for example, whilst any harsh treble tones were absent. Yes, the track is damaged via excessive peak limiting and the V-DAC can't do anything about that, but its design makes the track's rather 'offensive' character

at least bearable. In fact, it even allowed the few positives of the recording to emerge, such as the meaty bass and impressive instrumental separation.

Can's drum-heavy track sounded impressive, revealing a cavernous yet sensitively organic bass drum to flower, and there was oodles of midrange detail with the DAC picking out relatively subtle analogue synth noises. Carol Kidd's jazz track was similarly impressive, bringing a bucketful of clarity to an already polished presentation that quickly sat next to a confident midrange. It's not quite as polished as the higher end products here,

but the V-DAC still doesn't keep reminding you how cheap it is.

Via the USB input, the WAV source tracks still offered a wide soundstage and deep, rich tones. Can's track remained organic with midrange showing greater finesse than the Fubar II. Finally, the wonderfully balanced performance of Carol Kidd was accompanied by a vivid midrange that added to the general musicality of the product.

This isn't just a good DAC at the price, it's a great one. It had me scratching my head at how Musical Fidelity can produce something so good for so little money.

MEASURED PERFORMANCE

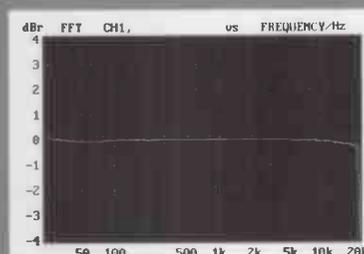
The V-DAC has a small roll down in high frequency output, just enough to ensure there's no treble 'spit'. This pulls the upper response limit from 21kHz to 20.7kHz, a miniscule and inconsequential reduction. The result was identical on S/PDIF and USB and will give both a balanced and smooth presentation.

Linearity was best of the group with 24bit code via S/PDIF, distortion dropping to just 0.015% at -60dB, showing what an improvement higher resolution can make via a high quality DAC. From normal 16bit code, distortion measured a still very low 0.2% and EIAJ Dynamic Range was commensurately very high 113dB – again best of the group and also comparable to the best hi-fi DACs available. USB gave slightly worse results, as it did with the other DACs, 16bit distortion rising to 0.3%, and 24bit 0.15%. Output was normal at 2.1V, channel separation high and noise low.

The V-DAC measured very well all round, via S/PDIF and USB, offering the

best results within this group. NK	
Frequency response (-1dB)	2Hz-20.7kHz
CD	
Distortion (%)	
0dB	0.003
-6dB	0.002
-60dB	0.2
-80dB	4.3
Separation (1kHz)	108dB
Noise (IEC A)	-117dB
Dynamic range	113dB
Output	2.1V

FREQUENCY RESPONSE



VERDICT

A budget *tour de force*, and no mistake! A smooth, open, low distortion sound without the nasties normally expected at this price.

MUSICAL FIDELITY

V-DAC £170
 Armour Home Electronics
 ☎ +44 (0)1279 719944
www.armourhome.co.uk

FOR

- low distortion
- bass power
- clarity
- midrange detail

AGAINST

- nothing at the price



BERESFORD TC-7510 £186.29

This DAC resembles a miniature amplifier, its casing spanning 40x245x110mm, and whilst somewhat basic it can still be described as sleek looking. This black box is unassuming, a welcome design tone indicating a sense of confidence. Internally, a Class A analogue output stage is said to help reduce crossover distortion, while a 'virtual' DC power supply covers varying voltages. The front fascia features a selection of neat yet small brass button selectors to key in two coaxial, one optical and one USB input. A power button and volume control are also present. At this price point it was somewhat surprising to see a headphone socket too. The rear offers two sets of analogue outputs, two coaxial inputs, a USB port and optical input plus a DC power connector.

SOUND QUALITY

Playing the Sugababes track, the Beresford revealed an immediately incisive but sometimes clinical sound. As such, this DAC produced a highly transparent rendition that revealed subtle tonal characteristics, especially within the lower bass area. The excessive peak limiting of this track was evident but not too severe, and while the soundstage was a little shallow and showed a relative lack of musicality compared to the V-DAC, its superb transient attack produced a punchy performance that was fun to listen to. The naturally transparent character of the midrange was even more impressive on the well mastered Can song, where the notable transient speed was even more effective on this drum-heavy track, whilst retaining the Musical Fidelity's more organic

interpretation.

Moving onto Carol Kidd's easy-going performance, the Beresford served up a very clean sound that was a touch more strident than the V-DAC. Although the Beresford did add a greater degree of transparency, it also on occasion did threaten to tip over towards sounding sterile. Kidd's rendition was delivered with a broad sweep along a wide soundstage, which came as a slight improvement over the V-DAC in this respect at least.

Plugging the USB cable into the TC-7510 proved an enjoyable exercise, as on the Sugababes track, the soundstage offered an impressively three dimensional picture and a wholly clean vocal performance, but without the bass power of the V-DAC

or indeed its silky, distortion-free presentation. Moving onto Can, who are always slightly grubby long-haired layabouts, and via the Beresford they appeared to have taken a long shower prior to a quick visit to the barbers. A clear, clean interpretation offered sparkling midrange and treble, and these qualities transferred easily to the Carol Kidd track where the treble was particularly light and airy while Kidd's voice provided a subtly nasal quality.

An interesting contrast to the V-DAC, this offered more light and shade, providing an effective alternative to those wanting more transparency and insight in their music, although tonally it wasn't as agreeable.

MEASURED PERFORMANCE

Our frequency response analysis shows the TC-7510 is another flat response DAC, with an upper response limit of 21kHz from a 44.1kHz sample rate signal. This sort of response shape gives fairly obvious treble and sheen common to CD, so the DAC1 will not soften out CD sound.

Distortion levels were low at high levels, where as usual full 16bit resolution is available, but increased toward lower levels, the telling -60dB showing linearity was poorer than usual, distortion measuring 0.45% on the right channel and 0.32% on the left channel, a degree of variability not common with quality audio DACs. USB input gave a similar result to S/PDIF as expected. The EIAJ Dynamic Range value was low at 105dB in consequence, against a common 110dB or more. Distortion halved to 0.2% with a 24bit signal, but this is still poor, matching typical 16bit resolution.

Output was normal at 2.32V via the phono outputs; there are no XLRs.

The Beresford uses a DAC of mediocre quality for audio purposes, but otherwise gives a fair result from

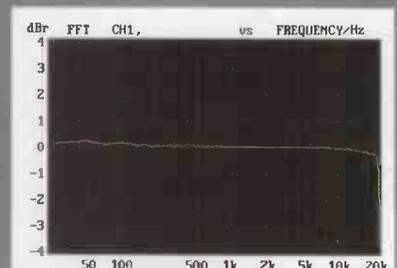
USB as well as electrical and optical S/PDIF inputs. NK

Frequency response (-1dB)
CD 2Hz-21kHz

Distortion (%)	
0dB	0.001
-6dB	0.002
-60dB	0.45
-80dB	7

Separation (1kHz)	91dB
Noise (IEC A)	-120dB
Dynamic range	105dB
Output (bal.)	2.32V

FREQUENCY RESPONSE



VERDICT ●●●●
Musically revealing DAC providing a clean signal, but can sound analytical at times.

BERESFORD TC-7510 £186.29
Beresford
+44(0)7917896868
www.beresford.me

FOR
- clarity
- transparency
- airy treble

AGAINST
- sometimes clinical



CAMBRIDGE AUDIO DACMAGIC £229

This new incarnation of the Cambridge Audio classic offers a friendly design with a brushed aluminium case, measuring 50x215x190mm.

You can even stand the chassis on its end, just to be contrary, placing it within a low profile rubberised stand. The power, unlike the other DACs seen here, is supplied by an external 'wallwart'. Accompanying the dual differential Wolfson WM8740 DACs, the chassis front features an on/off switch, a three-source selector plus a filter/phase selector. A handy row of sample rate lights complete the frontal offering. Apart from the DC power connector, the rear provides a USB input, two phono coaxial and two optical inputs plus a phono and optical output along with a pair of balanced outputs and a pair of unbalanced phono outputs. Its switchable filter rates I am sure will seduce some in the showroom, but I can't say I found them terribly useful - more of a pointless distraction, in fact!

SOUND QUALITY

After a good deal of faffing around, I settled on the 'Linear Phase' filter as the best of the worst, and duly spun up the Sugababes' track which immediately exhibited a sound quite different to both the V-DAC and the Beresford. The Cambridge offers an impressively grand soundstage - majestic even. Listening to this little box of tricks, you feel that you really should get dressed up for the occasion because that's what the DacMagic provides - a live gig magnificence. There's also a distinct musicality about this DAC. I wouldn't say it's toe-tapping, rather it's a touch naughtier... instead of toe-tapping, you're offered bottom-swinging soul!

Playing Can, you get the feeling that the Cambridge is a jack of all trades but a master of none. This is not a derisive comment, rather I feel the DacMagic might not excel at any one particular area of musical presentation, but sounds good all round. Its bass is present and quite forceful, whilst midrange gives you the information you need, and its treble is lively and expansive. Still, no one single aspect of the musical spectrum grabbed me by the throat, unlike both the V-DAC and Beresford. Similarly, The Carol Kidd track was a bit of a mish mash. Despite the musicality, the acoustic guitar solo was a little muddled and midrange bloom tended

to fill in the more complex areas yet the vocal was effortless and well portrayed.

Turning briefly to the USB source, the DAC offered a broad soundstage with a sometimes muted bass via the Sugababes, but was much happier on the well mastered track from Can where it profited from a fine midrange. Indeed, in many respects the DacMagic was more impressive responding to a USB source than a CD source.

This mysterious little box is feature-packed and works very well (especially on USB) but for better and for worse, doesn't have the obvious character of other products here.

MEASURED PERFORMANCE

The DAC Magic has a wide, flat frequency response with CD our measurements show and there was almost no change at the three filter settings, as on the first sample. Both Min (minimum) and Lin (linear) Phase both gave a very sharp roll off at 20.1kHz with no sign of stop band ripples or throwups. The Steep setting, shown, curtailed response just a fraction, to 19.8kHz (-1dB) but did not affect pass band response, so sound quality differences will not be attributable to changed response shape. Flat frequency response as shown usually gives a bright balance from CD. Output extended to 24kHz with a 48kHz sample rate signal and USB gave identical results to the optical input, only distortion increasing slightly to 0.35% from 0.2% from 16bit code. This is still a good result and shows the DacMagic works well with computers and portable players.

From CD distortion levels were as low as the best converters available, a figure of 0.2% at -60dB being as good as it gets with 16bit resolution. As a direct result EIAJ Dynamic Range measured a very high 114dB, so the DAC Magic should sound clean. With 24bit code distortion dropped to a low 0.04%.

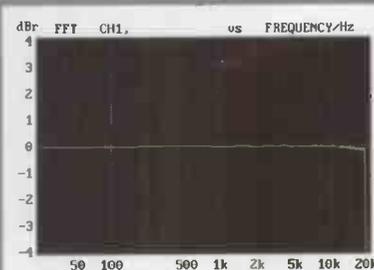
Output was normal at 2.1V via

the unbalanced phono outputs and 4.2V from balanced XLR. Measured performance from XLR was otherwise similar to the phono output.

The DAC Magic gave an impressive measured performance and is an imaginative design. NK

Frequency response (-1dB)	
CD	4Hz-20.1kHz
Distortion (%)	
0dB	0.0005
-6dB	0.0008
-60dB	0.2
-80dB	4.5
Separation (1kHz)	112dB
Noise (IEC A)	-115dB
Dynamic range	114dB
Output (bal.)	2.1(4.2)V

FREQUENCY RESPONSE



VERDICT

An innovative and flexible product, this is a svelte yet impressive sounding performer.

CAMBRIDGE DAC

MAGIC £229

Cambridge Audio

+44 (0)845 900 1230

www.cambridge-audio.com

FOR

- grand presentation
- feature-rich
- musicality

AGAINST

- fiddly filters
- occasionally bland



MGL SYMPHONY MINI DACPRE £345

Compared to the other DACs reviewed, the Symphony is almost industrial in its aspect. The case is big and bold and rather hulking. The control fascia is dominated by two control knobs that look as though they been designed for men who work on oil rigs. One is a volume control, the other a six-source input selector. You also have a power switch and headphone socket. In addition to the Wolfson DAC chips within, the rear features two coaxial inputs, two optical inputs and two sets of phono line ins. You also get a set of phono outs and a set of mini-DIN outs and a figure-of-eight power cable. A USB port is available via an optical port convertor, but this wasn't supplied with the review model. Additional input and output modules are available at extra cost. Options include an upgraded power supply for £51, balanced outputs for £85, two sets of analogue inputs for £64, a remote control that will set you back £51, transformer isolated digital inputs for £34, an I2S digital input for £42 – or you can buy a 'Plus Package' containing everything but the I2S input for £198 (pound equivalents of Euro originals).

SOUND QUALITY

With no USB port, the sound tests were wholly devoted to the CD source. The initial impression after spinning the Sugababes track, was of an intriguing mixture of fine midrange detail (though not quite as impressive as the V-

DAC) and a grand presentation of *la* DacMagic, although not with that same degree of depth. In fact, the mids seemed enhanced because of that impressive soundstage which seemed to offer them space and time.

Similarly, there were the same array of 'goods' and 'nearlies' with Can's finely mastered yet drum-heavy track. Comparisons with the V-DAC and Beresford were not particularly good for the Symphony, lacking as it did the organic nature of either. There was no real bass heft present, nor was there much in the way of drama. Bass was rather on the polite

side, although the Symphony still produced a nice clean treble and upper midrange which was suitably silky.

That smooth midrange and treble performance was highlighted with the jazz-inflected Carol Kidd, whose vocal performance was wholly attractive and suitably feminine. In fact, the Symphony appeared to much prefer the jazz pathway. Its combination of midband detailing and polite bass response was highly effective here. This DAC tippy-toes around the rock firmament whilst welcoming jazz with open arms.

MEASURED PERFORMANCE

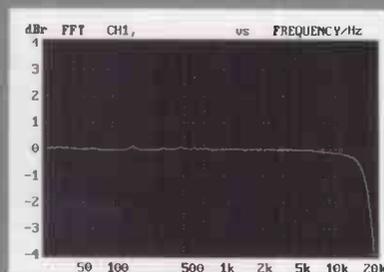
The MGL has some unusual characteristics, one of which is a restricted upper frequency response limit of 16kHz (-1dB), instead of the usual 21kHz imposed by the anti-aliasing filter of a 44.1kHz sample rate system. Subjectively however, this does remove some upper spit from CD and isn't necessarily perceived as a bad thing in practice; Chord Electronics DAC64 had such a limit and didn't suffer. The lower limit of this DAC is also limited to 10Hz, where most reach 2Hz. Our analysis has an up tilt at the low end (left) due to the presence of a little hum - inaudible but it should not be there all the same.

Distortion at full level (0dB) was excessive, measuring 3%. At -6dB it was still unacceptably high at 0.8%, where 0.001% or so is expected. At -60dB it was still on the high side at 0.25%, with a figure of 0.33% from 24bit via USB - a peculiar result. Output was normal enough at 2.4V.

The MGL suffers all round from a poor measured performance by audio standards, high distortion being most worrying. It can only be justified by its functionality. NK

Frequency response (-1dB)	
CD	10Hz-16kHz
Distortion (%)	
0dB	3
-6dB	0.8
-60dB	0.25
-80dB	3.9
Separation (1kHz)	
Noise (IEC A)	81dB
Dynamic range	-99dB
Output	110dB
	2.43V

FREQUENCY RESPONSE



VERDICT

Impressively built, this smooth DAC is a good partner for soft jazz-styled music but lacks force and focus.

MGL SYMPHONY MINI DACPRE £345
Symphony
+44 (0)20 32874171
www.mglaudiolabs.com

FOR

- midband detail
- impressive soundstage
- flexibility

AGAINST

- mediocre detail and grip
- measured performance



STELLO DA100 SIGNATURE £675

This is something of a favourite of ours, since we first reviewed it in the August 2008 issue of *Hi-Fi World*. The Stello is fully equipped, looking and feeling like a proper piece of hi-fi. There's a standby button and attendant light along with a five-source selector plus an upsampling button that, after tests found that sound was improved with it on, was left activated during the review. The rear of the chassis, measuring 212x55x290mm, packs in an IEC power socket, two phono outs, balanced outs and AES/EBU, coaxial, optical and USB port along with a power switch. There's also a rare I2S connector to enable an accurate, jitter-free connection to the matching Stello CDT100 transport. Inside, a discrete Class A analogue output stage and large toroidal transformer rated at 25A can be found.

SOUND QUALITY

The first impression of the Stello upon spinning the Sugababes track was of a rather crisp and detailed sound that, whilst not bright, did nothing to hide the excessive peak limiting distortion from this track. Whilst not quite the most transparent DAC in the test, bass performance was very impressive, sounding both atmospheric and detailed. There was a rare sense of air around those lower registers that did provide a welcome dynamic dimension to the midband. This was further improved when the balanced outputs were used.

Playing the Can track, again the bass detail impressed and gave this drum-lead piece real excitement. Although lacking the

upper register incision of both the Beresford and the clarity of the V-DAC – being not quite as immediate – the Stello did surprise with its drive and dynamics. It also picked out the rather subtle analogue synth warbling rather well. Carol Kidd's vocal strains sounded particularly mature as the lower midband elements in her voice were presented well, accentuating just how significant and essential she is to the jazz vocal scene. Although not quite as explicit as the V-DAC, the Stello's midband maturity did aid the overall balance, something that more revealing higher end ancillaries would welcome.

Connected to a USB source, the Stello continued its thumping bass response which was both full

and rich on the Sugababes track with a wide soundstage and well modulated vocals. Similarly, the Can track produced an impressive drum-based performance which, although less musically enthralling than the V-DAC, was still fiercely punchy. That bass performance continued to the double bass on the Carol Kidd track, the detailed tracking of the acoustic guitar solo was similarly striking.

Although not as lyrical sounding as the much cheaper V-DAC, the Stello performed very well with music that utilised complex or tonally interesting lower registers, showing a notable command of this frequency area whilst also integrating a noteworthy dynamism. A very powerful performer, then.

MEASURED PERFORMANCE

Frequency response of the DA100 Signature was level across the range, with just a gentle drop down towards 20kHz which will ensure a smooth top end, and extension down to 2Hz at the low end. Distortion levels were low across the board, with a more than acceptable figure of 0.24% at -60dB.

The EIAJ dynamic range figure was again a respectable value of 109dB; a little short of the best at 112dB but perfectly acceptable nonetheless. Channel separation was good at 88dB and the noise levels from the player were very good, measuring -105dB. Results were consistent across both balanced and unbalanced outputs, the former also giving an output level figure double that of the unbalanced, as is common.

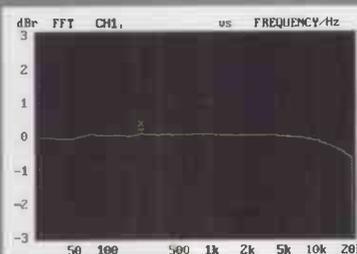
Engaging upsampling on the DA100 Signature DAC did not affect frequency response, but lowered the noise floor of the unit further – removing a noise peak at 39kHz and dropping the level at this point by 15dB. All in all, the Stello measured well and should turn in a fine performance. AS

Frequency response (-1dB)
CD 2Hz - 20.4kHz

Distortion (%)	
0dB	0.05
-6dB	0.022
-60dB	0.24
-80dB	2.9

Separation (1kHz)	88dB
Noise (IEC A)	-105dB
Dynamic range	109dB
Output (unbalanced/balanced)	2.4/5.2V

FREQUENCY RESPONSE



VERDICT ●●●●●
Finessed sounding DAC with strong driving bass and plenty of atmosphere.

STELLO DA100 SIG. £675
Select Audio
+44 (0)1900 813 064
www.selectaudio.co.uk

FOR

- dynamic articulation
- bass weight
- refinement
- connectivity

AGAINST

- nothing at the price



BENCHMARK DAC-1S £930

This is the most expensive DAC in this round-up, and the most professionally designed of the bunch. By this I mean 'studio professional', which shows the company's pro audio roots. It's well made, sturdy and solid whilst looking like it can take the knocks and last the distance. Measuring 450x200x210mm, the Benchmark provides enough presence to be noticeable but not enough to dominate. The fascia, featuring a cut-out design that some might consider stylish, includes a nicely balanced and handy stepped volume control – the only example of such here – along with two headphone sockets and a coaxial/XLR/optical selector. The rear of the case includes a wealth of options including an IEC power slot, a pair of phono outputs, a pair of balanced outputs, a variable/calibrated selector, a coaxial input, an optical input plus another supporting XLR. However, unlike the DAC1 USB reviewed in the February 2008 issue of *Hi-Fi World*, there's no USB port. Inside, the box features UltraLock technology, designed to reduce jitter along with a large toroidal transformer and neat, surface mounted componentry to reduce the signal path between each chip.

SOUND QUALITY

Along with the V-DAC, the Benchmark made me sit up and take notice, dragging me out of my slumbers with superb bass control, explicit midrange detailing and a rousingly musical demeanour. Playing the Sugababes track, despite a slight increase in perceived harshness when compared to the V-DAC that did place some emphasis on the peak limiting, the Benchmark impressed with its fine control of bass. In fact

this DAC took hold of bass like a lion handles a dead zebra. The Benchmark shook it until the bass realised that the DAC would do whatever it damn well pleased!

The immense low frequency control carried over to the Can ditty. In fact, as this piece features a superior master, the bass detail was far better nuanced. It was as if each sub-particle of each tone was taken, examined and carefully considered before being released to maximise the production. The tremendous sense of realism carried over to the Carol Kidd CD, where Kidd's vocals featured a delicate sheen and femininity that added to her performance by imparting a touch of vulnerability. The midrange was best

represented by the dynamic acoustic guitar which screamed 'Steel!' and the treble tinged cymbals stretched through space and time. The Benchmark was as at home with this rather precise and considered jazz piece as it was on more driving rock.

Considering its still fairly modest price in the great scheme of things (well, a Chord QBD76 costs three times as much!), this is a superb digital-to-analogue conversion tool. But isn't it interesting that to my ears at least, it took a DAC costing almost a grand to match the V-DAC in terms of musicality? Sad that, but the Benchmark did perform brilliantly. In fact, upon spinning any CD, it takes but a few seconds for you to realise that it is money well spent.

MEASURED PERFORMANCE

The DAC1 has a wide, flat frequency response with CD, our analysis shows, and this is the sort of response shape that gives a fairly obvious treble and the sheen common to CD, so the DAC1 will add no warmth.

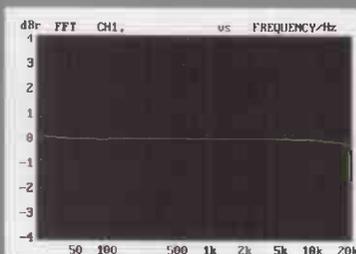
Distortion levels were very low throughout the unit's dynamic range, a figure of 0.18% at -60dB being as good as it gets with 16bit resolution from CD. As a direct result EIAJ Dynamic Range measured a respectably high 111dB, so the DAC1 should sound clean enough in use with CD. With higher resolution 24bit code distortion dropped to just 0.03% through S/PDIF, again as good as it gets, so the DAC1 is very linear and up amongst the best in this respect.

Output was normal at 2V via the unbalanced phono outputs and, unusually, a low 1.2V from balanced XLR output sockets. It is common for the balanced output to be double that of the unbalanced, although it does not have to be when balanced output line drive amps are used. It's best to use higher voltages for lines to better resist interference and noise so this result is a surprise. Measured performance from XLR was otherwise similar to the phono output.

The DAC1 provided a good measured performance and should work well enough in use. NK

Frequency response (-1dB)	
CD	4Hz-20.7kHz
Distortion (%)	
0dB	0.001
-6dB	0.0017
-60dB	0.18
-80dB	4.4
Separation (1kHz)	
Noise (IEC A)	-114dB
Dynamic range	111dB
Output (bal.)	2(1.2)V

FREQUENCY RESPONSE



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

BENCHMARK DAC-1S £930
SCV Ltd.
☎ +44 (0)20 8418 1470
www.scvlondon.co.uk

FOR
- bass articulation
- midrange detail
- treble air
- overall musicality

AGAINST
- styling
- price

Time was, back in the early nineteen nineties, that everyone was clamouring for the quick, painless upgrade that was an off-board DAC. Remember the Arcam Black Boxes, the Audio Alchemy Digital Decoding Engines, the DPA Enlightenments? Then suddenly the whole genre seemed to die a death, to the point in the middle of this decade that it was almost impossible to buy anything cheaper than a Chord DAC64 at well over two thousand pounds! Now though, the standalone DAC is back, many with upsampling and/or USB connectivity, and we're left wondering how the little blighters ever went away...

This round up showed me that there is a lot of quality on offer, from just a couple of hundred pounds. All bar the Fubar will usefully upgrade a decent early nineties budget CD player such as the Marantz CDS2SE, for example, offering more detail, dimensionality and a generally more svelte yet musically engaging sound. Still, there wasn't a simple procession upwards as you spend more. True, the extra cash always seemed to buy

you superior packaging and more inputs, but there it all ended...

Kicking off, in reverse order, and the

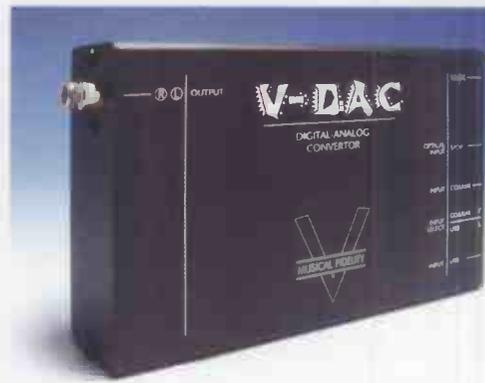
wee Russ Andrews Fubar II is a fine little niche product - designed for computers only. It will improve on most people's soundcards; merely adding this box to your PC or Mac will considerably augment its overall audio quality, making iTunes listenable, or DVD movies more enjoyable thanks to a decent, clean soundtrack coming through your main hi-fi speakers.

In fifth place came the MGL Symphony DACPre. A functional looking device, it adopted an almost beatnik love for jazz, but then seemed to want to hide behind the nearest speaker cabinet when the rock musicians turned up. I liked its small footprint and its flexibility, but the sound didn't really do it for me.

In fourth place was the Beresford TC-7510. This DAC produces such a clear, clean sound that just about any vocal track you throw at it will benefit. Rock music will lap it up too because of its bass punch and vivid, transient performance whilst jazz will appreciate its transparent personality. It's a lot of sound per pound, and nice in an open airy way that will unlock some of the more nasal sounding entry-level digital sourced systems it's likely to be used with.

In joint third place, enter the Cambridge Audio DacMagic and Stello DA100 Signature. I loved the magnificence of the Cambridge Audio's soundstage that grandly announced itself to the listener, although it wasn't quite as fluid as it might have been thereafter. Still, it's a great, affordable, do-it-all DAC at a very reasonable price.

The same can be said of the Stello, albeit at a higher level. This proved happiest with power and meat in its music. Its thumping bass, smooth treble and highly sophisticated sound was very 'high end hi-fi', and in some ways has the class to hold its own in a top end



best value: Musical Fidelity V-DAC

Fidelity's V-DAC, and oh what a performance! The fact that this DAC is second in the list at just £170 is pretty amazing in itself. The fact that it was only comprehensively pipped to the post by a DAC that's nigh on £1,000 is remarkable. Don't be fooled by the case that looks like it's been made in a shed by someone with a Woodbine hanging out of their mouth - there are serious gubbins within. The sound is remarkably clear and the price low, and so very musical with it. There were obvious weak points, such as the lack of a

"if you want something considerably better than the Benchmark, you'll have to save up rather a lot more cash..."

system and not let the side down. It responds particularly well to a good transport, we found. For example, it will tell you the difference between the already superb Cyrus CD Xt SE and an Esoteric at five times the price more readily than almost any others here. But still, for all its obvious ability, it didn't quite float my boat musically. It never really undid its top button and relaxed like it should. Powerful and grippy as it sounded, there was always a slight detachment, a perceptible unwillingness to engage with the music's soul, however superbly it handled the more technical aspects of the music. So for this listener, the top honours went elsewhere...

In second place came Musical

truly substantial foundation-shaking bass, but these still didn't detract from its intrinsic soulfulness. And importantly, where it shone, it shone very brightly indeed, winning any listener over with its charm and sheer love of life.

And finally, the winner for me was the Benchmark DAC-1S. This box screams quality from within (even if it doesn't necessarily scream it from without), taking mere seconds for you to exclaim, "oh yes, this is the one." It is punchy and prodigious of bass yet extended in treble, and as expansive as anything here and yet subtle and beguiling too. For me, it ticked all the boxes and made the reference Cyrus CD XT SE transport sing - but then so it should at its not inconsiderable price. Put one of these on the end of any sub-£2,000 CD spinner and it's going to do some good, and the older the machine is, the more improvement it should make. It has almost all the finesse of the Stello, more bounce than the Musical Fidelity, and a good deal more besides. If you want something considerably better than the Benchmark, then I'm afraid you'll have to save up rather a lot more cash...



overall winner: Benchmark DAC1S

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<p>WHAT HI-FI? ★★★★★</p>  <p>Accessories IsoPlug, DeMag CD, etc...</p>	<p>EDITOR'S CHOICE HI-FI CHOICE</p>  <p>Sirius</p>	<p>BEST BUY HI-FI CHOICE</p>  <p>Solus</p>
<p>WHAT HI-FI? ★★★★★</p>  <p>GII Mini Sub & Vision</p>	<p>WHAT HI-FI? ★★★★★</p>  <p>Orion & Gemini Two levels of high quality filters</p>	<p>BEST SYSTEM WINNER</p> <p>PRODUCT OF THE YEAR HIGHLY RECOMMENDED</p>  <p>Sigmas</p>
<p>WHAT HI-FI? ★★★★★</p>  <p>Nova</p>	<p>WHAT HI-FI? ★★★★★</p> <p>Product of the year 2005</p>  <p>Titan</p>	<p>WHAT HI-FI? ★★★★★</p>  <p>Mira Dedicated TV filter</p>

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MY AUDIO DESIGN DIAMOND SIGNATURE £449/0.5M

This unusually named company is run by Timothy Yung, a Hong Kong Chinese who seems far more proud to base his company in the UK than most of our homegrown manufacturers! Tim takes an obsessive interest in materials technology and manufacturing processes, almost to the extent that he regards the commercial retail side of his business as an annoying distraction, which in my experience runs counter to the approach of many other cable companies! The Diamond Signature is hand crafted with four "99.9997% ultra pure Diamond Die Silver" strands, said to be the highest

purity available to the commercial world. It is apparently extremely labour-intensive to make, using a "Quad Cross Weave" to combat RFI. Extruding the silver conductors from a diamond die is claimed to eliminate corrosion, oxidation and contamination from the manufacturing process, ensuring the highest purity of the Silver. "The best medical-grade ultra thin PTFE dielectric" is used, as is DeoxIT on the connectors of this, the company's flagship model.

This is certainly a distinctive sounding interconnect, possessing one of the most open and accurate top ends I've heard at almost any price. Duran Duran's 'Lonely in Your Nightmare' is a fussy pop production, full of early eighties studio trickery, yet the MAD cable cut through it like a hot knife through butter, making my current mid-price reference cable, the (admittedly £150 cheaper) Missing Link Link Cryo Reference interconnect actually sound quite diffuse. Given the great quality of the latter, I wasn't prepared for the extra treble clarity the Diamond Signature was bringing - I could even hear the tape hiss running all the way through the song. It's an amazingly

fast and transparent sounding cable, one which seems to have little or no overhang; instruments start and stop with tremendous alacrity. The midband is superb too, although here the MAD was less obviously superior and better described as 'different'. Whilst it made the Missing Link cable still seem quite opaque by comparison, the Link Cryo seemed a touch more dynamically explicit and rhythmically animated sounding. In no way could the MAD cable be called slow, but it seemed more interested in rendering the recorded acoustic to the highest possible resolution, whereas the ML focused more on getting into the groove. Bass was brilliantly taut and supple, but slightly less weighty than the Missing Link. Overall, this is an exceptional cable design, but you should be aware it's all about mouthwatering insight and slightly less concerned with guaranteeing the listener a cheery time. It needs superb ancillaries and top notch recordings to work with; given these it will take your breath away.

DP

[Contact: +44 (0)207 839 8880, www.madengland.com]

soundbites

CLEARER AUDIO COPPER LINE ALPHA POWER HUB £65+

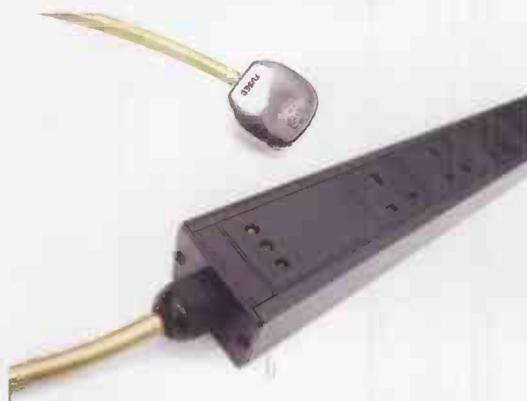
Designed to be "a first class entry-level power supply solution for both hi-fi and home cinema systems", the Copper-line Alpha Power-HUB is manufactured from high quality extruded aluminum, and comes directly hard-wired with Copper-line Alpha Power Cable. The large socket contacts are made from copper alloy, providing low impedance. High purity large gauge 2.5mm² conductors are used internally, capable of carrying currents of up to 26A (6000W). A new active filtration mains noise system called Hyperion is fitted, using two high performance capacitors to filter both common-mode and differential-mode noise, and it's said to allow over 17A (4000W) of continuous current delivery. Status LEDs show that the HUB is powered and the

Hyperion system is active. A new feature called Earth-View constantly monitors the ground integrity; should the integrity of the ground become compromised then the status indicator will go out. There's also the company's Gatekeeper Surge Protection which only activates when a surge or transient occurs. All three channels (live-neutral, live-earth and neutral-earth) are protected with surge currents of up to 10,000A being clamped in less than 25 nanoseconds, the company claims. Prices start at £65 for a 4-way, including 0.5 inlet cable, and there's a sixty day money-back guarantee.

Sound quality is excellent for such a budget product; I found this compared very well with any sub-£200 power block I've come across. It's very clean sounding, presenting a satisfyingly 'hash-free' sound in my own room. Treble proved nicely

sweet, midband expansive and open and bass decently tight and propulsive, even if it wasn't quite the most impactful I've heard. Still, an excellent all round product at the price. DP

[Contact: +44(0) 1702 543981, www.cleareraudio.com]



Deja View

Audio Research Corporation's new VSi60 integrated valve amplifier is highly reminiscent of the classic VSi55 it replaces. That's no bad thing, opines David Price...

It was back in 2003 that I reviewed Audio Research's VSi55 integrated 'tube' amplifier, concluding that it was a superb product that would appeal to a completely new sort of valve amplifier enthusiast. My reasoning went that the '55 was about as close the classic Naim solid-state sound as you could get, but done with valves. As such, you kept many of the beguiling benefits of the latter, whilst offering up the energetic, seat-of-the-pants performance of the former.

As American and British tanks rolled dramatically into Iraq in the early summer of '03, I didn't so much as reach for my television 'on' button, such was my interest in this amplifier. I ended up running the VSi55 for several months, taking great care to make sure their UK importer Absolute Sounds contacted me to ask for it back, rather than me foreshortening its tenure in my listening room by calling them to let them know I'd finished with it.

After a good time spent with Perigee Acoustics FK-1F, it found itself driving Quad ESL57s modified by One Thing Audio, and this combination sang like a bird. I remember the Audio Research taking the Quads up to very high levels (yes really), with oodles of bass, space and depth, allied to an utterly transfixing musicality. True, it didn't quite have the subtlety of the best parallel single ended tube amps, running full Class A rather than the VSi55's mix of A and B, but gosh it was fun. Nigh on

unforgettable, in fact...

So now, exactly six years later, its replacement (this, the VSi60) is back in my listening room, bashing the Beryllium of my Yamaha NS1000Ms, assaulting the aluminium of the Vivid B1s and poking the plastic panels of my Quad 989s. As I play, 'I'm Mandy, Fly Me', from an old 10cc LP, I'm beginning to remember why I made all the fuss. I love valve amplifiers, but I've had mixed experiences with them in my room driving my speakers. But the ballsy nature of the Audio Research is such that it's not scared of anything I've got here to try them with. And moreover, it's just as 'up for it' as I remember its predecessor was.

This 10cc track can sound a little laconic via many amplifiers; even ones as good as my reference Sugden IA4 (about the same price as the AR) can make a meal of it. Not the VSi60 though, whose rendition is as intense an experience as listening to 'Anarchy In The UK' through a PA stack. It has an eerie way of elevating the listening experience, making the listener 'feel' it almost as they would if they'd had one more Jack Daniels than was good for them. But then you look down at the bottle in your hand and realise it's only Evian you're swigging!

The company claims 50W RMS per side for this amplifier, a fraction more than its predecessor if I remember rightly, and that's a lot for a valve amplifier. Physically it's almost practically indistinguishable from the model it replaced, being quite a large device at 356x203x406mm and weighing in at 15.8kg. The centrally mounted milled anodised aluminium top plate is available in black or silver finishes, with a matching front plate. The review sample was in 'retro' silver, but personally I prefer the more purposeful black. The powder coated steel casework is to a decent standard, but not exactly lavish.

The gently recessed front panel features the same long LED volume display as its predecessor, which also shows source selected and whether muting is engaged or not. To the right is the bank of control buttons, including power, mute,

source (which toggles through the five inputs, and volume up and down. All these controls are duplicated on the supplied remote. I do like the fact that this is labelled in English (i.e. 'Up', 'Down') like the warning light cluster on Triumph 2000 dashboards, rather than in universal international gobbledegook symbols. Round the back, there are five pairs of phono inputs labelled CD, Tuner, Video, SE1 and SE2, plus a full-range mono subwoofer output, voltmeter test points for setting bias, reasonably sized loudspeaker terminals with both four and eight ohm taps and an IEC mains socket.

The preamp section of the VSi60 is passive, but with microprocessor switched relays. On switch on, there's a thirty second warm up phase when the speakers are automatically muted. Audio Research say short paths are used, and there's a new J-FET input stage for low noise, with 6H30 driver tubes. The Svetlana 6550C output tube is used, as per other Audio Research valve amps, here running 7dB of negative feedback. These are mounted on very sturdy valve bases (considerably more rugged than some, I might add) and are said to be soldered to heavy plated-through circuit boards, with "the finest audiophile-grade parts" being used, along with proprietary Litz internal wiring. The amplifier is completely hand soldered and assembled, and one look under the hood testifies to this; the wiring isn't messy as such, but let's say it's laid out with the accent on ruggedness rather than aesthetic beauty!

SOUND QUALITY

Given that I wasn't expecting the last word in sophistication from this new Audio Research, I momentarily put aside my prized pressing of Debussy's Preludes. The 'Submerged Cathedral' would have to wait its turn in the queue, until I'd exhausted my supply of nineteen seventies classic rock LPs for which I knew this amplifier was built. Sure enough, Sniff'n' the Tears' 'Drivers Seat', a slice of pre-punk 1977 power pop went on the Sony transcription turntable first, and the





VSi60 duly delivered the goods I'd been waiting for.

Yes, this is a *spirited* amplifier, so much so that I almost felt I should be testing it for psychopharmacological drugs. What it does to music is more than just make it exciting; you could say it has psychoactive properties. From the first bar, the ARC puts its cards plainly on the table. Bass is going to be big, like it or not, and fast too, and tuneful to an extent that it's almost distracting if you're the sort who likes valves to supply beautiful background music. If you were comparing valve amplifiers to musicians, most would be Barbara Streisand, whereas this is more like Lemmy. Even the Vivid B1s, which behaved meticulously with the Sugden, sounding impartial in the finest monitor tradition, seemed to be letting their hair down a bit all of a sudden now. I just couldn't get this infectiously catchy Sniff'n'the Tears classic out of my head.

If the bass is vast and elastic, like an enormous bouncy castle, the midband fairly closely follows suit. It's clean alright, even if there is the *slightest* sensation of a tube-like

sepia tint here, and it spans a wide physical space. I wouldn't say the '60 is peerless in the amount of low level detail it can throw out, but it does the high level stuff so well, you really don't care. Like the Vivid speakers, it loves to throw sunlight on dynamic accents, subtle or otherwise, and the result is a riot of toe-tapping on this or any other track. Treble is not the ARC's strong suit; nice as it is, there's always a hint of splash to hi hats and a slightly curtailed feeling

"it's not a valve aficionado's valve amp, but rather a music lover's..."

to atmospheric music. The cymbal work on this vinyl pressing sounded ever so slightly 'shut in', whereas the Sugden was a tad more delicate and atmospheric.

Next on the deck just had to be some more classic rock. ZZ Top's 'Gimme All Your Loving' is a touch on the AOR side of the genre granted, but the VSi60 managed to make lead singer Billy Gibbons' vocals sound more like Slayer than the Doobie

Brothers. Yes, just as you'd expect, that kick drum got the ball rolling with aplomb, signalling a declaration of intent from this amplifier that, as the great Spinal Tap would say, "tonight I'm gonna rock you". Bass on this song isn't quite as powerful, instead the focus falling to the superb guitar work (lead and rhythm), and the Audio Research loved this. Whereas the Sugden was terribly British and matter of fact about this, the Yank

amp was cooking on gas. I found it so much more rhythmically engaging; whereas I'd listened with interest to the recording details via the Sugden, I just got lost in the music via the Audio Research.

The same thing happened with Bob Marley's 'Jamming'. The '60 was pure pleasure from beginning to end, imparting that supernatural rhythmic swing that this track has embedded deep within. But via the

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PLYMOUTH SOUND

Audio Research Corporation is one of the oldest continually operating manufacturers in American audio. The company was founded in 1970 in Minneapolis, and has grown steadily over the last quarter-century. It occupies a large production plant and administrative headquarters in Plymouth, Minnesota. A research-only facility has also been established in Palm Desert, California. Its founder and president William Z. Johnson began designing custom audio electronics in the early 1950s, and also operated a specialist audio shop until the mid-1960s. He was a big name behind the renaissance of 'tube' audio in the US. The company is particularly famous for its after sales service; Audio Research technicians can still repair, refurbish and restore any product ever manufactured during the company's thirty year history.

IA4, it was suddenly as if a group of highly proficient Japanese classical musicians had suddenly taken over the instruments, sounding meticulously perfect but somehow not quite as good as the real thing. Bass was a joy; via vinyl this song has copious quantities of low frequencies (good for moving stale air around the room, the morning after the night before, I find), and the Audio Research was like a dog with a bone - eager to show me what it had just found. Once again, it was deliciously tuneful, and even at high levels through my tube terrorising NS1000Ms showed no sign of strain. Again, midband was wonderfully expansive and infectiously rhythmical, while I sat there aghast as snare drum rim shots jumped right out at me, whereas with the Sugden they might as well have been recorded in the library down the road.

Highly revealing speakers do show the VSi60 to be a flawed gem all the same. There's a certain colour to its sound; an orangey-brown tint that makes different recordings, with their own acoustic signatures, seem just a little bit less distinct. The dry 'tautness' of Compass Point (Nassau)

where Grace Jones recorded 'Private Life' seems just a little closer to the colourful warmth of at Stax's South Memphis studio where the 'Shaft' soundtrack was recorded, for example. Good solid-state Class A amplifiers like the Sugden have an icy clarity that throws these differences into sharp relief, but the Audio Research does not. Also, I was never completely convinced by the VSi60's treble performance. Although not quite as 'clangy' as your average solid-state amplifier, so much more is possible than its rather perfunctory rendering of the sound of a cymbal being struck. To my ears, the VSi60's treble is just a little too crisp and sharply etched to be completely invisible, although at least it's never harsh like some solid-staters.

All of this made listening to classical music an interesting experience, if not an accurate one. Yes, this Yank tank is riotously musical even with a sober DG digital recording of Vivaldi's 'Four Seasons', making the violins positively sing for me and serving up a satisfyingly capacious soundstage in which to place them. But no, somehow I didn't quite appreciate the instruments' natural timbre as well as I should have - or could have via the similarly priced solid-state Sugden. Still, switching back to jazz in the shape of Herbie Hancock's 'Maiden Voyage' and suddenly all was forgiven, with the VSi60 is telling me in no uncertain terms that, "it don't mean a thing if it ain't got that swing"...

CONCLUSION

Personally I love this amplifier, but will concede that it's not all things to all men. Probably one

of the most 'solid-state' sounding tube integrateds around, it allows transistor amp owners to go thermionic without leaving their comfort zone. It also lets people like me, who know exactly what music they listen to and ancillaries they use, to parachute in a valve amplifier when normally only a solid-stater is powerful enough. But what it won't do is please the fully paid up valve brigade, who love to be cosseted, wrapped in silk and serenaded by their glowing glass bottles. It's not a valve *aficionado's* valve amp, but rather a music lover's - or more precisely, a rock, pop or jazz music lover's. Not having the Audio Research VSi55 to hand any more, I can't comment authoritatively on the relative changes, but I'd wager that the new VSi60 is a fraction more powerful and just a touch more open and svelte sounding - all of which are steps in the right direction. This is a great product then, a truly charismatic, distinctive amplifier aimed at audiophiles who know precisely what they want.

REFERENCE SYSTEM

- Sony TT-S8000/OL Silver/Ortofon Windfeld t/t
- A.N.T. Audio Kora 3T Ltd. phono stage
- Sugden IM4 integrated amplifier
- Yamaha NS1000M loudspeakers
- Vivid B1 loudspeakers
- Quad 989 loudspeakers

VERDICT

Broad shouldered, barrel-chested bruiser of a valve amplifier with a compellingly musical character.

AUDIO RESEARCH

VSi60 £3,298
 Absolute Sounds
 +44 (0)20 89 71 39 09
 www.absolutesounds.com

FOR

- exuberant nature
- visceral power
- supple, fluid rhythms
- convenience, accessibility

AGAINST

- restricted tonal palette
- unatmospheric treble

MEASURED PERFORMANCE

The VSi60 uses single push-pull output pairs of 6550s working with fixed bias to deliver 40 Watts per channel (1% thd) into either 8 Ohms or 4 Ohms. Power levels from each were almost identical so secondary coupling efficiency is good. 'Fixed bias' is a misnomer by the way: it means the bias has to be adjusted regularly, unlike Auto bias which needs no adjustment but gives less power.

Distortion levels were very low, hovering around Harold Leak's ideal 0.1% figure in the midband, except close to full output (0.6%) and comprising innocuous sounding second harmonic. The output transformers, as small as they look, worked very well at low frequencies, with just 0.2% distortion at 1 Watt, 40Hz, rising to 1% near full output. At 10 Watts, 0.35% of second harmonic distortion at 40Hz suggests clean sounding bass compared to many valve amps. However, damping factor is low at 1.7, suggesting little feedback (a feedback valve amp usually manages 3-8) and soft bass with under-damped (bass heavy) loudspeakers.

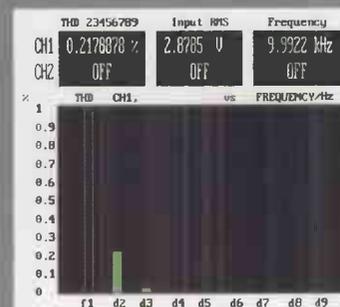
Input sensitivity was low at 400mV

and bandwidth also restricted to just 23kHz (-1dB) again suggesting low feedback. Lowering feedback produces a more dynamically expansive sound.

The VSi60 measures well all round. It should give a tidy yet impressive sound, much like its predecessor. NK

Power	40 Watts
CD/tuner/aux.	
Frequency response	3Hz-23kHz
Separation	98dB
Noise	-96dB
Distortion	0.2%
Sensitivity	400mV
Damping factor	1.7

DISTORTION



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Three very different standmounting loudspeakers face off up against one another, as Noel Keywood referees. Read on to find out which delivers the knockout blow!

Boxing Match

Do you want to perfectly hear the rosin in Nigel Kennedy's bow strings, or have John Bonham's epic drumming pin you against the back wall of the lounge? It isn't easy to find a loudspeaker that can manage both well. Stringed instruments, especially violins, can sound stunningly natural through electrostatic loudspeakers like Quad Musikwiedergabe ESL-57s, but forget hearing and feeling one of Bonham's cataclysmic drum sequences. For that you need a big horn. A Tannoy Westminster Royal SE will do nicely, or perhaps the little known JBL Everest DD66000. But then Nigel's violin will not sound quite the same...

Neither loudspeaker is an easy proposition for the average home, nor the average pocket. But designers strive to approach their famed and loved abilities in smaller, simpler packages that will sit atop a loudspeaker stand – and that is what I am looking at here. We chose a rare-in-the UK JBL LS40 to see how Americans condense down the horn sound into something that will fit into the lounge – even a U.K. lounge. Is it a mini-Westminster? No, it's a mini-Everest DD66000, which is a very

different animal to the Westminster! A Westminster comes with a bass and midrange horn; the DD66000 has a midrange horn only, using conventional bass units; two 15in monsters no less! The LS40 uses a similar drive unit arrangement.

Adopting an altogether less visceral approach to music reproduction is a new design from Roksan, the TR-5, fitted with a ribbon tweeter. It isn't an electrostatic but ribbons can give superior results to domes and reproduce strings really well. Electrostatics are very specialised, only a handful of manufacturers making them worldwide. They are expensive and need mains power. Across the treble regions at least, where metal domes and horn loaded tweeters can give miserable results, a ribbon tweeter can give an electrostatic a run for its money. As always, this is the theory but the practice can be different.

Nowadays the Chinese imaginatively produce anything that has ever been devised by mankind's fertile inventiveness, if not always so well, and this includes ribbon tweeters. This is why they are suddenly becoming common on commercial loudspeakers. Cheap they are;

cheerful many are not. Happily, our B&K measuring microphone and Clio measurement system can easily sort the cheap from the cheerless, as you'll see in this review. Happily, Roksan have long experience and keep a firm grip on their sound so the chances of the TR-5 getting a 'cheerless' ribbon were slim. But is the end result a match for an ESL-57?

Or should you just forget wacky designs that seemingly attempt the impossible, and miss the point in the process, and instead buy a good, modern conventional loudspeaker like B&W's new CM5? Perhaps a Quad will forever be a Quad and a Tannoy a Tannoy, and neither can ever be distilled into a stand-top package. This raises issues of balance and maturity. B&W loudspeakers do not conspicuously excel in any one area, they just manage to do everything respectably in a well-balanced way. Okay there's always too much treble (a B&W trademark) but otherwise, weaknesses are hard to find, leaving a confused buying public happy to make them one of the UK's most popular brands. The small standmounting CM5 in this report is brand new and fought its corner rather well on not being wacky, I thought...



B&W CM5 £790

Whilst the Roksan and JBL loudspeakers try to escape today's two-way design idiom, B&W happily stay with a standard and consistent engineering approach to their loudspeakers. They use distinctive yellow woven Kevlar cones for their bass/midrange units, almost always accompanied by an aluminium dome tweeter. The bass unit is loaded by a port because it gives the lowest bass from a small cabinet. Another consistent feature of B&Ws is their use of a simple first order crossover to the tweeter, which they claim gives a purer upper midband.

SOUND QUALITY

B&W have set the tweeter to dominate and it is very obvious most of the time. There's a thin hiss to upper treble that comes from the measurable lift in high frequency output. As the Eagles 'Somebody' gets into its stride it's plain to hear the sibilant content from Glenn Frey's vocals is emphasised. Cymbals sounded thin too and the tweeter sounded overly prominent and none too couth. In all other ways, the CM5 was simply more adept in what it did than either the JBL or the Roksan, and tweeter apart, possessed cleaner, tighter and punchier bass than the bloated JBL or the reticent Roksan. For a relatively small cabinet

the CM5's bass had real punch. It was tight and fast, yet powerful too, which is a great blend of properties that I suspect will appeal to a wide range of listeners. There's no deep bass rumble but the speaker has bass pace, and that's rare.

Midband is conspicuously clean and clear. I don't find Kevlar quite so neutral; it has its own slight 'schhh' sound. But it is less coloured than

most metal cones and you can hear this with strings in particular, where metal cones are just too 'shiny' sounding to be convincing. The CM5 scored in being highly detailed and insightful as well, to a degree the others could not match.

So in spite of the B&W CM5's excessive treble it was still the best balanced loudspeaker of the group and has considerable strengths.

MEASURED PERFORMANCE

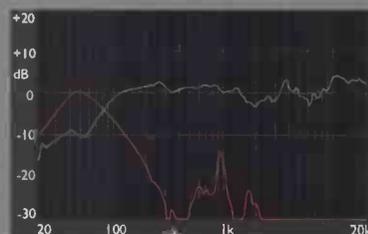
The standmount CM5 has a smooth and even frequency response over the most critical music frequencies. B&W use a simple, first order high pass crossover to feed the tweeter however and this gives measured response undulations caused by phase cancellation, a feature in our response plot that can be seen as dips, but these vary with microphone (and head) position. All the same, tweeter output is +2dB up above 10kHz and this will add a bright edge to the sound, at least when full range recordings are played. Bass rolls down smoothly below 100Hz to suit near rear wall placement. The port peaks at 50Hz, quite a high frequency, and will add punchy weight to bass.

Sensitivity was good at 86dB from one nominal watt of input, so amplifiers of 40 Watts or so will give high volume. As a load the CM5s are very reactive and obviously little attention has been paid to this by B&W. Amplifiers give varying results when faced with a load like this. The bass unit had a 4.1 Ohm DCR and measured impedance with pink noise was 7 Ohms.

The loudspeaker's decay spectrum was clean enough, with no strong overhangs so colouration will be low.

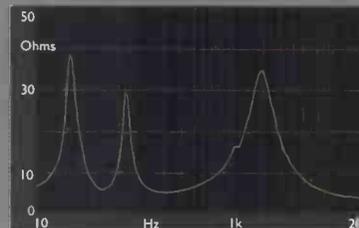
The CM5 looks like a clean sounding, well balanced design meant for near wall use. It will have the usual brightness to its sound B&W prefer however. NK

FREQUENCY RESPONSE



Green - driver output
Red - port output

IMPEDANCE



VERDICT

A great small loudspeaker, but compromised by excessive treble from a not-so-wonderful tweeter.

B&W CM5 £790

Bowers & Wilkins

+44 (01903) 221 500

www.bowers-wilkins.co.uk

FOR

- cohesive bass/midband
- very detailed
- good bass quality

AGAINST

- excessive treble level
- poor treble quality
- incohesive



ROKSAN TR-5 £895

Roksan's new Kandy TR-5 stand mounting loud-speaker is a complete contrast to the JBL LS40. Where the latter has been tailored to be a real room shaker with no absence of treble, the TR-5 really is a ribbon tweeter with a bass unit attached. I've designed this sort of arrangement myself in the past and know the difficulties – most of which the TR-5 doesn't try very hard to avoid! First out, most physically compact ribbon tweeters don't reach lower than 4kHz – far too high to crossover smoothly with a bass/midrange unit. Yet Roksan ignore this, as do manufacturers like Zu I have to say, and pair it with a 130mm (5in) coated paper bass unit all the same. The bass/mid driver must be small if it is to struggle up to 6kHz – an almost impossible task. But of course, a small bass/midrange unit isn't going to give you kick-arse bass. Never mind, with a cabinet of reasonable proportions it is possible to get slightly over-damped bass that suits near-wall placement - and bingo! we have a loudspeaker. But what sort of loud-speaker do we have?

I was hardly aware that the loudspeaker actually had a treble unit, its treble was so smooth and character-free. The TR-5's ribbon tweeter sounded almost silky smooth and all but 'not there'. Close miked cymbals high in the mix on Steve Earle's 'Copperhead Road' had just the slightest hiss to them, but still they were clean and easy on the ear, although I was using the Icon Audio

MB845 power amplifiers that lack the sting of much solid-state. Roksan Kandy amplifiers will likely do nicely though.

The gap betwixt mid and treble was pretty obvious, I have to say, and I was often aware that vocals had a softened presence. Listening to Renee Fleming singing Madame Butterfly for example, where there was little upper treble in the music to excite the tweeter, then I was listening to the bass/midrange unit working almost alone, making for a very mellow sound. However, the upside to all this was that the TR-5 could be turned right up in volume and remain easy on the ear, and that is what I found myself doing often. Even when positioned close to a rear wall bass wasn't heavy, and for many this may be the TR-5's greatest drawback: it has a light-ish balance. All the same, bass quality was very pleasant and in smaller rooms – 14ft or less – the TR-5s may work nicely with room modes to sound just right in terms of overall balance.

In spite of their weaknesses, the TR-5s were beautifully clean

in their sound, easy on the ear and very enjoyable I felt, rather more so than their metal dome tweetered competition. Yes, Nigel Kennedy sounded wonderful through them. The TR-5s are a breath of fresh air in possessing a simple, easy delivery that is soothing and enjoyable.

MEASURED PERFORMANCE

Frequency response of the K2 TR-5 is characterised by a broad dip between the bass/midrange unit and the ribbon tweeter, extending from 1.5kHz up to 4kHz; sufficiently wide to be audible, heard as a softening of the sound, with reduction of vocal intelligibility. The ribbon tweeter works from 4kHz upward it seems, much like others of its size, and inability to integrate with a standard bass/mid is a common difficulty Roksan have not overcome in the TR-5. The tweeter itself works well enough, although the 16kHz spike in its frequency response may well be heard as a 'sting' at times.

Output from the bass/midrange unit is smooth and even, low frequency output falling away gently below 200Hz, an over damped response appropriate for near-wall mounting. The K2 TR-5's bass rolls down slowly, supported by healthy output from the port at 55Hz, which measured +6dB up on forward output at 80Hz. In medium sized rooms it will go low, whilst sounding tight and fast, but not bass heavy.

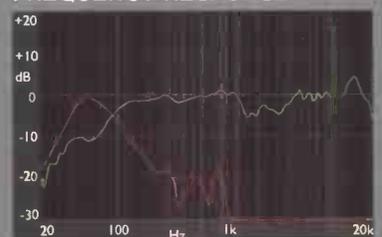
Sensitivity was low at 84dB so reasonable amounts of power will be needed - at least 40 Watts - for high volume. A high measured impedance of 8 Ohms contributes to this, and as a load the K2 TR-5 is peaky and reactive in the mid-band, although quite well damped in the bass where it needs to

draw amplifier power.

A very strong feature of the K2 TR-5 is an unusually clean decay spectrum that suggests it will be free from colouration - more so than most. So a super clean sound is likely.

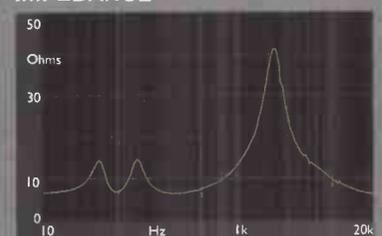
The K2 TR-5 is likely to sound tonally balanced, have tight, punchy but not overblown bass, highly detailed treble but a somewhat soft or warm quality to its midband. NK

FREQUENCY RESPONSE



Green - driver output
Red - port output

IMPEDANCE



VERDICT ●●●●£

Easy on the ear and tidy all round, this standmounter is warm sounding yet fun to listen to.

ROKSAN TR-5 £895
Roksan Audio Ltd
☎ +44 (0)20 8900 6801/2
www.roksan.co.uk

FOR

- easy sounding midband
- smooth, extended treble
- clean bass

AGAINST

- midband warmth
- light bass balance
- little deep bass



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JBL LS40 £999

The JBL LS40 is the most characterful design of the group, largely because JBL are a U.S. manufacturer of large loudspeakers, including many horns. JBL narrow down the parentage of this loudspeaker as being ultimately the Project Everest DD66000. This is a behemoth with two 15in woofers no less, a massive midrange horn and a tweeter. With a weight of 142kgs, it is heavier than the Tannoy Westminster Royal SE I mentioned earlier! In scale, the LS40 is less ambitious, coming in at a more manageable 13.5kgs. It still has a horn loaded tweeter and horn midrange however, just like the Everest, plus a pulp cone woofer, only the sizes being different. The LS40's 5cm (2in) titanium midrange driver, horn loaded to fire forward in a controlled manner, is especially unusual and you can see its large, flared throat in the pictures.

So what's this all about? In a nutshell, dynamics. It's about giving a loudspeaker a punchy and exciting sound, which subjectively is what big horn loudspeakers do well, often at the expense of smoothness and subtlety. But many of us – perhaps most – like a loudspeaker that can seemingly put a performance into a room, rather than paint a sedate picture of it between the loudspeaker stands. How well did the LS40 manage?

The LS40 has very strong bass, as we suspected from its measured frequency response which shows output steps up and is prominent over the bass region below 200Hz.

Bass lines jumped right out of the cabinet as a result and had enormous presence in the room, the prominent bass lines of Angelique Kidjo's CDs swelling through the room with pervasive power, for example. However, the port makes a big

contribution so there's plenty of low bass, but quality isn't so good, bass notes sounding soft and ill defined. I had reservations at times, with Skunk Anansie's 'Hedonism' to mention just one example, where the bass was cabinet bound and sometimes of peculiar quality.

The midband, by way of contrast, sounded smooth and clean – and there was just the expanded dynamic horns are renowned for. So Skin's voice fairly leapt from the speaker, her challenging delivery deftly conveyed. I revelled in vocals through the LS40, so clear and projective were they.

Unfortunately, the tweeter has an obvious sting and could sound ragged too; often it was too forward to be acceptable I felt; much better is possible nowadays.

The LS40 tries to be a large loudspeaker but it doesn't manage it too well, mainly because detail design was poor. Tidied up, with cleaner bass and smoother treble it could excel, so the essence is there, even if the execution isn't.

MEASURED PERFORMANCE

Our third octave, pink noise analysis of frequency response of the JBL LS40 shows a relatively even result nicely aligned horizontally along the 0dB datum line. However, the treble unit is +3dB up above 7kHz and the bass unit has an impressive subsonic output down to 20Hz. Our more detailed stepped and gated sine wave response reflects this, but multiple peaks and troughs obscure the overall trends. This is a common problem with horns; they have a very uneven response under measurement. Subjectively the brain is aware of this but it cannot detect it with certainty, so the sound is balanced and even, but the quality is 'different' (less svelte) in its unevenness. The tweeter will sound obvious and spiky though; its chamber is likely the problem.

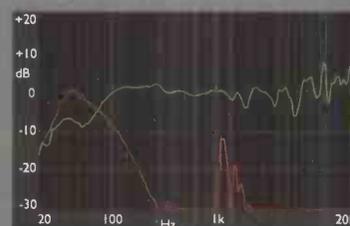
The port is +7dB up at 80Hz, making it no less than +12dB up on forward output so it has a big presence at 40Hz, meaning the LS40 will rumble strongly at low frequencies: it has big bass. However, there's no bass peaking so it isn't resonant bass and the LS40 will likely sound well controlled, if powerful at low frequencies.

Sensitivity was average at 87dB, disappointing for a large enclosure with horn loaded drivers, especially as overall impedance measured out at 6.2

Ohms. The decay spectrum was clean except for a small amount of overhang at 150Hz that may add some thrum or thickness. Distortion levels were low.

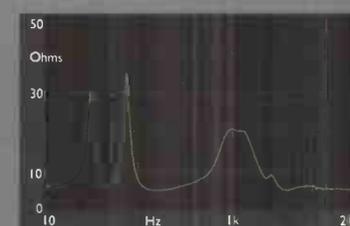
The LS40 will have a distinctive sound measurement suggests. The total balance is even but there is unevenness across the midband and highs are accentuated and all this will reflect in the sound. Big, deep bass will impress. NK

FREQUENCY RESPONSE



Green - driver output
Red - port output

IMPEDANCE



VERDICT

Captivating sound, but crude treble and overly heavy bass allied to boxiness limit its all round appeal.

JBL LS40 £999

Harman Consumer UK

+44 1707 278100

www.jbl.com

FOR

- fine midrange dynamics
- powerful deep bass
- punchy nature

AGAINST

- poor quality treble
- mediocre bass quality
- boxy thrum

B1

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Sound.



The best loudspeaker is one that you can't hear. Sounds odd, doesn't it? But it should be all about the music; you don't want to have this disturbed by the distortions and reflections a traditional speaker enclosure presents.

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VIVID audio

There is merit in balance, and in this group B&W's new CM5 standmounter shows how convincing a well honed loudspeaker can be, with only the tweeter being a blemish. However, some people seem oblivious to this sort of effect and for them the CM5 will tick just about all boxes. It has great bass for its size, which makes it sound fast and punchy, it has a super clear midrange and plenty of detail, plus excellent stereo imaging. Ignoring the emphasised treble; as I played a wide range of music the strengths of the CM5 became apparent. The peculiar bass line of Josefine Cronholm's 'In Your Wild Garden' made JBL's LS40 sound as if it was in trouble; I couldn't hear into what the bass player was attempting to achieve with a sustained note that made the LS40 seemingly stall. The CM5 got right into what was happening, putting both space around the player and injecting sufficient detail to make the bass player's fret work and intentions obvious. By any standards the CM5 has insight and at low frequencies it illuminated the performance by bringing out more of what was happening than most small loudspeakers. Drum solos were punchy and enjoyable, so being conventional didn't hold any drawbacks here. The CM5 is expensive for its size but it is also very capable.

In contrast the chunky looking JBL LS40 was bloated, making bass power a priority. Listeners who want subsonic power to move their chest will find it here though; the LS40 goes way lower than its rivals and has far more heft as well. It does play bass lines too; I could hear individual notes in the heavy, walking bass line of Angeliq Kidjo's 'The Sound of the Drums' quite easily, but there was a boxy warmth, making it seem that the whole assembly was under pressure and working hard. What actually happens here is that delayed energy from the box is coming out through the cone, giving the boxy sound.

Strong bass that runs deep certainly made the LS40 the most powerful sounding loudspeaker of the group and in this respect it made a stab at being a mini-DD66000. The horn midrange unit was the bit I admired most though. Not only did it remind me that a three-way with a decent midrange unit sounds more seamless than most two way designs, but also that vocals can sound very alive, strongly embodied and all-of-a-piece through a projective horn drive unit. Jackie Leven singing 'Sad Polish Song' had depth to his voice, strong dynamics giving him a presence that was gratifyingly powerful. Here the

LS40 was impressive and lived up to its promise of a horn sound from a small box. Pity then that the tweeter was so poor, being something of a blemish on a promising package. Ignoring this, as some listeners may, I would say the LS40 is successful in capturing the essence of a horn loudspeaker like the massive DD66000, if a little compromised by JBL's distinctive voicing that's short on subtlety. You never know, matching it to a smooth vinyl front end with a nice full sounding valve amplifier might really make this a usable loudspeaker.

The Roksan K2 TR-5 is a great speaker to listen to. Strictly speaking

vocals had a soft edged demeanour and had to ignore the effect. The TR-5 really does a great job in spite of this – and its light bass. It offers a better take on music than most dome-tweetered rivals, especially its competitors here. I'm very sensitive to treble quality, perhaps because I have lived with electrostatics, and for me Roksan's ribbon would likely be a clinching advantage in a buying decision. All the same, it isn't quite an ESL-57 clone I have to say, even if it is as easy on the ear.

As always, final choice is personal, especially when each of these loudspeakers has a sound made distinctive by their 'voicing' for the

"the Roksan offers a better take on music than most dome-tweetered rivals, especially its competitors here..."

it isn't accurate and Audiosmile's Kensai I reviewed in our June 09 issue managed to combine ribbon tweeter and dynamic bass better, if at greater cost. But immediately when I heard the TR-5 I liked it, and continued to after extended listening. The upper midrange dip lessens detail and insight, but it also makes for a very smooth, easy sound that almost magically lacks the hard midband glare of CD. It was a "turn it up" loudspeaker: if I did this with the JBL I was overwhelmed by its bass and strung by its treble, and if I did this with the B&W the tweeter became difficult to tolerate and the upper midband proved unforgiving. So the TR-5 is a real smoothie, but its ribbon tweeter ensures there's still plenty of clean treble. Okay, I was aware that

market place. A pity really, because they all have merit and with a little bit of honing each could be made more neutral ambassadors of their particular idioms. JBL certainly have something to offer, but the LS40 needs refinement. B&W know what they want and just do it; there's no doubt that much of the CM5 impresses. In this group Roksan's TR-5 was the easiest and most immediately relaxing listen, showing that ribbon tweeters have a lot to offer. It may not have the delightful purity of the Quad Musikwiedergabe ESL-57 I spent a little time in front of at the Munich High End Show a few months ago, but it has its own easy manner that beguiles. A points win to Roksan, then, even if there was no straight knockout.



Yours, Sincerely

Lacking the superfluous video functions of its rivals, Rotel's new RSX-1550 is designed as an audiophile AV receiver rather than a 'jack of all trades and master of none'. Noel Keywood decides whether it's for him...



If you got rid of all the rubbish that festoons AV receivers wouldn't they be cheaper and easier to operate?", I once asked John Dawson, founder of Arcam. "No", was his reply. I was wrong again, and Rotel's RSX-1550 receiver appears to back him up. From a dedicated Japanese audio manufacturer, it discards a lot of video paraphernalia and majors on audio, so appears to be a great potential choice for those that want good sound quality. But there are no savings to be had, as it costs a surprisingly high £1,400. Can the RSX-1550 justify its price?

The Rotel doesn't in fact drop all the bits I was alluding to as "rubbish", just many of them, which I will detail later. From its basic specification it also loses arguably more contentious items, like two amplifying channels; this is a 5.1 receiver, not 7.1 like most, including the all-conquering Onkyos which are my benchmark in the field. Since the Back channels are synthesised from the Rears in a 7.1 set up and this puts four loudspeakers at rear for three up front, it's a defensible decision to make, but it does eliminate the option of bi-amping the front loudspeakers for better quality.

What you get then is a 5.1 channel receiver that delivers well over 100 Watts per channel, our measurements show. It can be made up to 7.1 by the addition of a two channel (stereo) power amplifier. It has four rear panel HDMI inputs with full processing from them (1.3a standard) and one HDMI output to the TV. Connect up a Blu-ray or perhaps DVD player and you can play CD, video DVD and Blu-ray discs. If you buy the newly released (in the USA) Oppo BDP-83 player then you

can also add SACD and DVD-Audio discs to the roster of audio formats.

The RSX-1550 does not handle native DSD code from SACD, transcoding it to PCM at 88.1kHz rate for its 24/192 spec. onboard DACs. So SACDs will play through the Rotel, but not to full quality, our measurements confirmed.

From Blu-ray the RSX-1550 handles Dolby TrueHD and DTS HD Master Audio losslessly compressed formats, as well as PCM up to 24/192, so all high definition Blu-ray audio formats are catered for.

Rotel fit a very respectable VHF/FM tuner, an AM tuner but not DAB, or internet radio through an ethernet cable from an internet router. The ethernet socket fitted is for a computer connection requiring proprietary software; the Rotel cannot read computer music files via this link, unlike the similarly priced Onkyo TX-NR906 I reviewed in our March 09 issue.

Finally, the Rotel has no phono stage. Obviously, it will accept an external stage, but this brings up another issue: Direct mode as it is usually called. Rotel offer a Bypass mode, so an external phono stage isn't routed through the input ADC, which degrades quality. Where Pure Direct on Marantz and Onkyo receivers bypasses the ADC, all DSP settings as a result, and displays, the Rotel has no such ability - a pity. I usually hit the Pure Direct button to ensure I bypass all the toot embedded in most AV receivers and there is a definite improvement in focus and resolution. So Bypass is useful for an external phono stage, but it doesn't perform the usual Pure Direct function, and the Rotel needs this facility I feel. Not for no reason do Marantz and Onkyo fit this as a large 'panic button' for distressed

audiophiles!

I was happy to see no mention, nor any sign of, THX Cinema modes or Audyssey loudspeaker tuning. Measurement and listening show the Audyssey loudspeaker equalisation system manages nothing either useful or intelligent, and automatic level adjustment sets rear loudspeakers too high, yet it gets much else nicely sorted. With the Rotel it is all done manually. For more details see the handbook at www.rotel.com/content/manuals/rsx1550.pdf. Distances (time delay) and loudnesses can be adjusted. Although there is no graphic equaliser, there are spectrum extreme trims to tweak upper treble and lower bass, known as Contour Setup.

There are 7.1 preamp outputs for external power amplifiers, and a 7.1 multichannel analogue input for connection of older SACD and DVD-A players lacking HDMI.

Rotel fit lines of Composite and S-Video inputs on the rear, which I find a little baffling as these are now archaic - one set would do. There is one set of high quality Component analogue inputs and one output for analogue monitor connection. Analogue video can be sent out as digital over HDMI, but digital video cannot be sent out as analogue through the Component outputs, so, say, a video from a Blu-ray player cannot be sent to an analogue monitor or projector. Upscaling is provided, so DVD can be upscaled to HD spec. but as most DVD and Blu-ray players do this internally, as do most TVs, again it's a feature I see little need for.

Unfortunately, the receiver's front panel carries no inputs at all, nothing for an iPod, nor anything for a video camera. The dot matrix display panel isn't very large and its displays are spindly and inelegant.



The On Screen Display (OSD) for the TV is also prosaic, in operational methodology, sparse symbolism and crude graphics. It's none too easy to comprehend and the handbook isn't much help either. I suspected the origins of all this lie in a Chinese factory and sure enough the Rotel is Made in China. This makes for a poor user experience and I'm surprised at how companies like Rotel and Denon seem uncomprehending about such things in a market so dominated by Onkyo and Marantz who do it all so much better.

At least Rotel fit decent loudspeaker outlets at the rear, ones that don't wobble and accept 4mm plugs, as well as spades and bare wire.

SOUND QUALITY

Spinning CD in a Samsung BD-PI600 Blu-ray player acting as a transport, digitally connected via S/PDIF using an optical TOSLINK cable (because Samsung relock their outputs for incredibly low jitter) it was fairly obvious that the RSX-1550 gave a full-fat version of the Rotel sound I know and respect. The Stranglers singing 'Always The Sun', from the 'Dreamtime' album, had real bite to leading edges from the drums, and a firm presence from Jean Jacques Burnel's sinuous bass lines. With hard etched outlines, a sufficiently wide timbral palette able to well express differences between instruments and a captivating sense of depth that allowed the stage to fall away backwards convincingly to provide a sense of depth, I found the Rotel had its own charms and soon relaxed into using it with a wide variety of

Rock and Classical albums.

It does have an etched-from-stone feeling of solidity to its sound. The Rotel is strong in providing a good, solid drive to music with real kick in the bass, the like of which is only improved upon by the similar sounding by slightly more svelte Roksan stereo amplifiers. I think classical enthusiasts may question the hardness of tone brought to strings, but there's usually a trade-off somewhere. Where the Rotel neatly sidesteps overall criticism is in its ability to impress a sense of dimensional composure on the sound stage, so where an Onkyo will sound very powerful in the bass and full bodied, it is a bit more blanchmange-like in its sound stage imaging qualities. Hard and firm outlines aren't quite its strength.

So spin Compact Disc through the Rotel RSX-1550 from a decent transport and it rocks in a satisfyingly earthy way, yet it has some svelte audiophile properties too. Re-connecting via HDMI to the Samsung and spinning a 24/96 PCM recording of Chris Botti's 'Live' concert on Blu-ray again brought forth fine dynamic contrasts, a silky smooth trumpet yet one made of brass, not another metal more ferrous in nature. The Rotel was fully able to convey the usual easy, uncomplicated mix from the sound desk that you get from these 24/96 HD concerts, and the commensurately full bodied sound of the instruments within a large space that imparts a good live atmosphere, bringing the glory of a good HD recording right into the home. In this area Rotel's receiver excels, at least

if you like its type of presentation, and I think most people would. Only Marantz manage to inject a little more sparkle, avoiding the structural hardness of the Rotel's sound, if not improving on its depth of staging and sense of dimensionality.

Spinning the Trondheim Soloists' 24/192 Blu-ray music disc of 'Divertimenti' again brought forth a richly textured and full bodied delivery from their strings, with what was almost a growl from bowed downstrokes across the lower strings; the Rotel's strong dynamic resolution helped give instruments force. As usual, straight PCM gave the best results, very tidy and well composed, whilst Dolby TrueHD was a little soft on transients, which surprised me a little, and DTS HD Master Audio was vivid with an impressively large sound stage. Dolby True HD usually comes out well, close to DTS and uncompressed PCM through most receivers when I make this comparison, so quite why the difference here I do not know.

Another difference, but an expected one, was the relatively mediocre sound from the SACD Divertimenti disc (played on an Oppo DV-980H). This usually provides a smoother, more svelte delivery than PCM, at least when played through quality DSD decoders like those to be found on Onkyo's excellent PR-SC886 preamplifier I





Tucana II

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

Tucana II

Borrowing heavily from developments pioneered in the staggering Leema Reference Series Altair IV amplifier, the Tucana II is an even more accomplished performer than its multi-award winning predecessor. Improved dynamic range, resolution of fine detail, and remarkable clarity help the Tucana II present music with life-like verve into even the most fussy of today's audiophile speakers. This highly refined amplifier can deliver over fifty amps to each channel with a vice-like grip and precise control of the loudspeakers.

New features on the Tucana II include an MP3 input, balanced input, headphone output, direct input selection, adjustable input gain, and a balance control.

The Tucana II helps even the most complex music make complete sense.

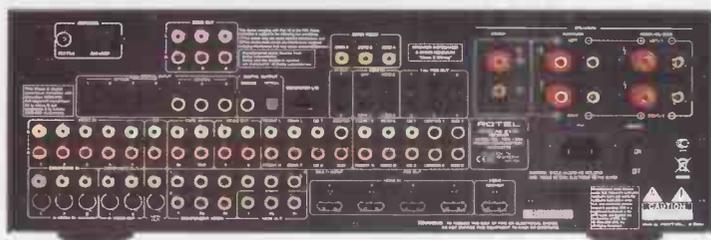


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reviewed in the July 2009 issue. Not through the Rotel though, which came across as unfocused and a little coarse. I found this held with other SACDs played on the Oppo, so whilst it copes with the format, it does not really do it justice. All those with a large SACD collection may well want to look elsewhere, Onkyo paying most attention to getting the best from DSD code.

VHF/FM had a nice even balance as measurement suggested it would, with neither the slight softness that is common, and no treble spikiness either, both effects arising from the ripples of a mistermated mpx filter. Rotel engineer this section well, so lovers of ye olde quality radio will be greeted by a solid, tonally well balanced and punchy sound with plenty of bass kick, always useful on Radio 2, the station that once was Virgin, Heart and the many others. I

noticed that Steve Wright's voice on Radio 2 was a little more forward than usual, and vocal consonants quite strong, but this is likely because the midband has no droop to soften detailing. The stereo stage was well defined, again probably because higher frequency information was being fully conveyed. But with solid bass and a full bodied sound both Rock and Classical were well reproduced, if with the dry, solidly structured quality that the amplifiers posses.

The tuner must be manually tuned in using a list of stations because auto-scan sensitivity was too great - even with a poor indoor dipole I tried - to avoid settling on distant repeat transmitters, unwanted noise and suchlike. So Classic FM came in at 100.6MHz and 100.9MHz with auto-scan and it would be difficult for most first time users

to decide which was best, noise being just detectably lower with the correct (for Central London) 100.9MHz frequency. But then, many AV receivers suffer this sort of thing. For assessment I used a large outdoor array as always, aimed at the Wrotham transmitter that serves Central London I should add, to get the tuner into full quieting where hiss is at a minimum.

The remote control has its own logic, one I did not find especially easy, but this is usually just a matter of familiarity.

CONCLUSION

Listening to music through the Rotel RSX-1550 from CD, DVD-Audio or Blu-ray, I appreciated its rock-solid delivery, soundstage depth and generally svelte performance. The VHF/FM tuner was impressive too, so the receiver manages very well at a fundamental operational level. It does what it says on the can, and does it well. Sadly though, it could have been better still. Let down by poor user menus, dubious styling, mediocre displays and an absence of features, it may struggle in a fiercely competitive market. Sometimes, good intentions just aren't enough.

VERDICT ●●●●
Fine general sound quality, but very short on features at a high price.

ROTEL RSX-1550 £1,400
ROTEL UK
☎ +44 (0)1903 221761
www.rotel.co.uk

FOR
- most digital formats
- good VHF/FM tuner
- punchy sound

AGAINST
- no DSD decode
- no display mute
- no internet radio

MEASURED PERFORMANCE

The chunky Rotel produced 112 Watts into 8 Ohms and 170 Watts into 4 Ohms, most loudspeakers nowadays being nearer 4 Ohms than 8, so it will deliver plenty of punch in practice.

Distortion was very low right across the audio band, and especially at high frequencies where the analyser was measuring noise rather than the usual crossover distortion, reminding me that Rotel are a hi-fi company and know how to design a good amplifier. Input sensitivity was on the low side at 370mV via CD in, so low output external phono stages may require a high volume setting. Noise was low enough with 'Bypass' mode selected, but mediocre as usual due to the budget ADC in circuit with Stereo selected. These days sources are usually digitally connected, avoiding the input ADC, which here reaches 22kHz and no further.

CD worked very well, with flat response to 20kHz, low distortion (0.22% at -60dB) and noise. DVD and Blu-ray based PCM at 24bit resolution gave even lower distortion (0.1% at -60dB) than CD, so the Rotel can resolve differences rather than smothering them, and 96kHz sample rate bandwidth extended to a respectable 43kHz (-1dB). Although bandwidth with 192kHz sample rate also reached 43kHz at -1dB instead of dropping like a stone at 48kHz due to the anti-aliasing filter, it smoothly rolled down to measure -7dB at 90kHz, so the Rotel has 24/192 DACs and usefully extended superonics.

Rotel say the SACD from an Oppo DV-980H set to deliver raw DSD via HDMI was converted to PCM, either in the Oppo player (an HDMI handshake can reset to PCM, Oppo

say) or in the Rotel itself, sample rate being flagged up as 88.1kHz and analogue bandwidth measuring a respectable 33kHz. Since distortion at -60dB measured 0.24% against a possible 0.03% or so for DSD decoded well, the Rotel only handles SACD for convenience, not to fully realise its performance.

The VHF/FM tuner is a good one, with wide flat-ish response to 17.5kHz before an mpx filter cuts in to remove pilot tone at 19kHz. Only a small termination ripple from this filter can be measured, bringing treble down by -1dB or so at 10kHz to slightly soften treble. Hiss was low at -70dB at full quieting, this being achieved with 1mV or more from the aerial. Distortion was reasonably low and channel separation fine.

The RSX-1550 turns in a very tidy measured performance all round. It isn't up to Onkyo standards, but it gets closer than most and sound quality should be good. NK

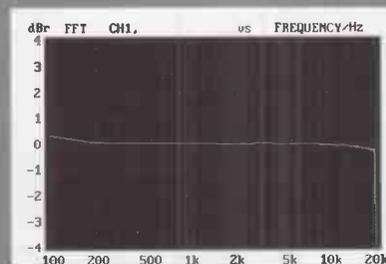
Power	112W
Frequency response (Direct)	6Hz-57kHz
Separation	82dB
Noise (A/D, Direct)	-80/-87dB
Distortion	0.02%
Sensitivity	370mV
Damping factor	32

CD/DVD/SACD	
Frequency response (-1dB)	2Hz-20, 43, 43kHz
Separation	81dB
Noise	-108/110/110dB
Distortion (-60dB)	0.22, 0.1, 0.24%

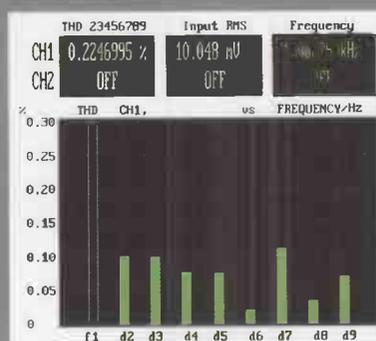
VHF TUNER

Frequency response	18Hz-17.5kHz
Stereo separation	38dB
Distortion (50% mod.)	0.22%
Hiss (CCIR)	-70dB
Signal for minimum hiss	1mV
Sensitivity (stereo)	60µV

CD FREQUENCY RESPONSE



CD DISTORTION



Respect Due

As its name suggests, Kudos's C30 floorstanding loudspeaker has been acclaimed for its expansive and engaging sound. So will David Price pen a paean of praise for it? Read on to find out...

From the spry, smooth, expansive panel sound of Quad's 2805 electrostatics to the clarity, space and speed of Martin Logan Spire hybrids, from the translucent cohesion of Vivid's

BI moving coil multi-ways to the gripping lyricism of Tannoy's Prestige Kensington Dual Concentrics, there is so much to choose from if you have over £5,000 to spend on a pair of loudspeakers.

The choice can't be likened to alternative cover versions of the same song, either - because Quads use dramatically different technology to the Tannoys to physically produce the sound, for example. It's not just about slightly different renditions of the music heightened by marketing hype then, but basic differences in the way the music is played, thanks to the fundamental physics of the transducing process itself.

Indeed, the diversity is so dramatic at this price point that buyers looking to spend one tenth of the money should thank their lucky stars, as they have far less profound decisions to make. For example, if you want 'warm' then there's the Q Acoustics 1050i, and if you want 'cool' the KEF iQ50 does the job. For all other combinations, refer to a couple of products from Monitor Audio, Mordaunt Short and Acoustic Energy and that's your lot. Mind made up in the space of an hour or two in a dealer dem room, with no searching "how do I listen to music?"-type questions needed!

Where then does the £5,250 Kudos

C30 come in, in the great scheme of high end loudspeakers? Well, in engineering terms, it's thoroughly conventional; no charged pieces of plastic film here, or curious metal domes and curvy cabinets. Instead, it's fair to say that this loudspeaker is completely straight down the line, with the only ace up its sleeve being its high quality drive units used, and the loving way in which they've been installed in a well made but standard enclosure.

Sadly then, this won't buy you bragging rights at your nearest audiophile club or with your friends down at the local pub, but that's to miss the point. Whilst I'd always in theory prefer an intellectually elegant solution, ultimately what matters is whether the solution in question actually works. The Ikeda iT-407 tonearm is a perfect case in point, as it looks like something out of the ark, being utterly conventional in design with no trick technology. Yet it nevertheless is made with superlative precision, and both measures and sounds, superb. A wonder of modern science the SME Series V may be with its stealth bomber looks and fancy magnesium materials, but still the Ikeda feels smoother to the touch and sweeter to the ear...

Obviously then, what counts is how well Kudos have fettled those expensive but conventional Seas drive units, specifically a 120mm paper (with Nextel stiffening) coned mid/bass unit allied to the high end Crescendo tweeter, plus another 120mm driver acting as a passive woofer only (making them effectively a 'two and a half way' design). They're all aspirated via a minimalist, low order crossover populated by audiophile components, including Clarity Cap capacitors and silver wiring.

The sizeable 1,120x200x270mm enclosure is constructed from solid 18mm MDF, with a choice of cherry, sycamore, walnut, rosenut or oak veneers done to a high standard, while rosewood and ebony are available at extra cost. There are two bass ports, one rear mounted and the other firing down to a black lacquered wooden plinth. Inside the boxes, the enclosures are subdivided internally, so that each cone driver is loaded by its own separately ported sub-enclosure. The ports themselves are large and flared, and have the option of foam bungs. Round the back, two pairs of good quality gold terminals are mounted through a solid recessed panel.

The overall impression is of a well made loudspeaker, but still it's fair to say that they don't exactly

'wear their price on their sleeves'. From the outside at least, you'd struggle to imagine them costing more than Monitor Audio's GS60 for example, at well under half the sticker price. Still, one thing I did heartily approve of is how easy the Kudos C30 is to position. They seemed to work well from the word go in my medium sized listening room, although I'd say they're not so comfy closer than 30cm from the rear wall. I toed my review pair in just a little, but only slightly. Do make sure than the spikes anchor into the carpet properly though, as these are long, tall cabinets with a highish centre of gravity.

"through the C30s, the song flowed beautifully, romping along with all the enthusiasm of a puppy in a park..."

SOUND QUALITY

The Kudos C30s have an interesting sound, but much as I liked it, I could never describe it as neutral. Switching from a loudspeaker such as the Vivid B1 or the Quad 989s that were - at different times - also in my listening room and both of which sport smoother response plots, it was obvious that there's a degree of top end lift going on, giving the sound an atmospheric presence. Of course, if the Kudos drive units were less than couth, this would be less than pleasant but happily this wasn't the case, so whilst the treble was certainly explicit, it wasn't hard. Likewise the low bass, which although prominent was pleasantly tuneful, making for a big, bouncy sound.

What we have here then is a large box that announces its presence to the listener - it's not about dissolving into the ether as per the Vivid B1, but rather providing an interesting and enjoyable rendition of the music. The Who's 'Won't Get Fooled Again' via vinyl LP showed me just how enjoyable they could be. Obvious as the treble is, they still sounded polished and sophisticated, with very little grain or grit at any volume. Indeed, there was the sense that some of the rough edges of the music had been gently removed whilst the intrinsic detail had been preserved in all its finery. I heard a deliciously 'ripe' bass guitar sound, clean and compelling snare drums and silky, atmospheric hi hat cymbals. Roger Daltry's classic rock vocals

sounded no less urgent through the C30s than others, yet didn't quite have the bite. Still, the song flowed beautifully, romping along with all the enthusiasm of a puppy in a park.

Moving to the modern structures of 4hero's 'Give In', and again I found the soft warmth of their bass evident, but if anything it had a euphonic effect. Low bass is limited, lacking the subterranean extension of my reference Yamaha NS1000Ms for example, but slightly further up the bass guitar fretboard the big Kudos floorstanders sounded richer and more 'fruity', filling up the room with a sumptuousness that underpinned the song beautifully. There is the slightest sense of both the ports

working, and also the cabinet playing its part, but it's not an unpleasant effect and doesn't impede what is a commendably supple and fluid low end.

Moving up the scale, there's a delicacy and precision to percussion, helped no doubt by the fine quality tweeter, that catches the leading edges of the notes deftly yet relays them with finesse. On this track, vocals came over in a pleasant if slightly recessed manner; there's a sense that the C30 isn't projecting them with the clarity of some price rivals, and neither do they have the accuracy of placement either. I found



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AMPLIFICATION

T+A Power Plant. Ex-dem, unmarked. HiFi Choice Best buy award. Stunning integrated amp and a great saving on new price. Finished in silver. (£1499) £POA

NAD Master Series M3 integrated amplifier. One owner from new and only 6 months old. HiFi Choice Editors Choice award. Balanced design with dual mono amplification. Stunning performance. Unmarked condition, boxed, manuals. (£2300) £1395

T+A Caruso. One box CD, Tuner, amplifier. Can be used with the built in speakers or as a pre with other amplification or with active speakers. Just got a best buy award in HiFi Choice group test (June 2009). £1695, ex-demo. £POA

Wavac MD805m Valve monoblocks. 1 owner from new and very very rare indeed. Stunning reviews. cost new (£17000) 16 months old only, unmarked condition, original boxes and packing. Price includes a 5-year warranty for the new owner. £6995

Plinius P8 Power amplifier. Boxed in excellent condition. One very minor mark to front plate. One owner from new, great reviews. (£3600) £1495

MBL 7008 Integrated amp. 1 owner, boxed, manuals. As new condition. Brilliant reviews. (£6500) £4878

Van den Hull (VDH) Array A-1 pre-amplifier. One owner from new and a very rare item indeed. Cost best part of £3000 when new, this pre-amp will surprise many with its incredible performance. £1395

MBL 6010D Reference Pre-amp. Boxed in as new condition, one owner from new and a huge saving on new price. (£16800) £7999

Quad 909 Power Amp. One owner, 4 months old. Unmarked, boxed, manuals. (£999.95) £625

ASR Emitter II Exclusive (Version Blue). One owner from new and approx 18 months old. This is the full 4-box version (150kg!) with built in power conditioners. Comes with the essential original 20amp power cables. Black with silver side cheeks. Unmarked condition and a unique opportunity. Latest model with gold circuit board. (Retail cost new £14500) £7995

Eastern Electric MiniMax Pre. Boxed in as new condition, one owner from new and only a few months old. 5 year warranty. FREE Chord SuperScreen mains lead (£95) Fantastic reviews. (£1195) £795

DIGITAL

T+A Music Player. Ex-demo, unmarked in silver. Stunning CD player with network capabilities and also digital inputs. (FM Tuner and internet Radio). HiFi Choice Best Buy award. Good saving on new price. (£1999) £POA

MBL 1431 CD Player. This Red Book CD Player has been heralded as the best CD Player that can be bought for under £4000. CES announced "The new king of the affordable high-end CD Player". One owner from new in silver. Unmarked condition. Boxed, manual, remote. (£3200) £1999

Naim CDX2 - One fastidious owner from new and only 24 months old (2007). Unmarked condition, boxed, manual. (£3250) £1895

Raysonic 228 two box cd player. Stunning red book cd replay. One owner, upgrade vintage Mullard NOS valves included (cost £300). Unmarked condition. (£3800 - £4100 inc valves) £2495

Acoustic Arts DAC1 mk4. Fully balanced or single ended operation, current spec. One owner from new, unmarked condition. Boxed, manual. 5-year warranty for the new owner. (£3950) £2295

McIntosh MCD201 SACD player. One owner from new in outstanding condition with original box/packing. Great reviews. Built in pre-amp, so can be used directly into a power amplifier. (£3495) £1895

Sugden CD21 Series 2 one owner from new, unmarked condition, boxed, finished in the premium Graphite, manuals, remote. (£1400) £895

Linn Ikemi CD Player. Absolutely mint condition. One owner, boxed, manual. A simply stunning red book cd player. Uniquely, the Linn has an AES/EBU digital output, making it an excellent transport for use with a high end DAC. (cost new £2000) 5-year warranty £949

MSB Platinum DAC III. One owner from new.

Amazing Stereophile review. Boxed, manuals, unmarked. With volume control and balanced analogue input. (£6600) £3650

LOUDSPEAKERS

Acoustic Energy AE1 mkIII reference speakers (£2441). Finished in the premium Piano black with matching AE1 reference stands (£400). One owner, unmarked condition. New was £2841. Now £1395

Audio Physic Scorpio boxed as new in Cherry, one owner from new, excellent condition. (£3800) £2495

Klipsch P-39F Flagship Palladium Speakers. Simply breathtaking with stunning recent review by Stereophile magazine. Ex-demo with a few minor marks. Finished in the Merlot veneer. (£14798) £POA

Audio Physic Avanti V speakers. Finished in the Macassar Ebony (premium finish), ex-dem. Unmarked condition, sensational performance and reviews. (£9823) £POA

Quad ESL 2805 electrostatic speakers. Finished in black, one local owner from new, boxed, manual excellent condition. Price includes a 5-year warranty for the new owner. (£5500) £2995

Focal Electra 1007 Be speakers with original matching focal stands. One owner from new, Classic Finish. Cost new including stands £2900.00 a bargain at £1650 inc. 5-year warranty.

Audio Physic Scorpio II - Latest model, finished in cherry, ex-dem, unmarked condition. (£3773) £POA

Revel Performa M22 Speakers. One owner from new, boxed in cherry. A couple of minor marks. Stunning performance. (£1700) £895

Manger 103/3 ZeroBox ZB speakers. One owner, around 30 months old. Very rare, cost new today £7.5k for standard finish. £8.5k in Burr veneer finish of this pair. Boxed, excellent condition, slight fading to one of the Burr Veneer joins, under the laquer with no marks anywhere on the external finish. This minor blemish is reflected in the bargain price of only £3295.

MBL 111E Loudspeakers. Finished in black. One owner from new, very very rare. (£24500) £15475

Tannoy ST200 supertweeters. Top of the range and only 4 months old. One owner from new. Boxed, unmarked. Being sold only as a package with the Superlinks below. (£1200) £749

Tannoy Superlinks - for use with any Tannoy supertweeter. 1 owner only 4 months old. As new (£300) £150

ATC SCM19 in Cherry. 1 owner, as new. (£1524) £995

ATC SCM 50 ASL active speakers in Yew, one owner, unmarked. Current spec (£9415) £5495

ANALOGUE

SME 30/2a - complete with SME V tonearm. One owner from new. Boxed in excellent condition. Price includes a low hours Ortofon Rohmann Cartridge that cost new over £1000. (£15000) £7995

Eastern Electric Minimax Phono Stage. This probably holds a record for the most outstanding reviews of any product currently available. Boxed in unmarked condition. One owner from new, only a few months old. Simply sensational (£1495) £949

Whet PS20 complete with MSU20. One owner from new, stunning 2-box phono stage in black, original box and packing. Incredible reviews. (£1299) £595

MAINS CONDITIONING

QED Qonduit MDH6 mains block. 6-way mains filtration and protection hub. Unmarked condition, a bargain at this price. (£239) £119

Vertex AQ Taga - 6-way distribution mains filter. Great reviews. One owner from new, unmarked. (£868) £595

Vertex AQ Jaya, boxed with manual, some very slight marks, one owner. (£302) £225

Isotek GII Minisub, boxed new, unused. Huge saving on new price. (£599) £425

Isotek Premium Mains Cable. Boxed as new - 1.5m - Three Core Annealed Oxygen Free Copper for better signal transmission - (£75) £49

CABLES

Vertex AQ HiRez Solfonn XLR interconnect. 1.5m. 8 months old. Original Technology demonstrator for the new HiRez range of cables. As new condition, stunning performance. (£2990) £POA.

HMS Sestetto Mk2 XLR Digital Cable. Wonderful digital aes/ebu cable with original box and packing. 1m Length, 110ohm - £95

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* terms & conditions apply



this beautiful slice of modern soul music suited the Kudos C30 perfectly, making a very nice noise indeed.

Switching to some beautifully mellifluous 'rare groove' courtesy of Isaac Hayes and 'Cafe Regios', and once again the big Kudos boxes were in their element. Whereas my other references tried harder to tell me what was happening with the recording, warts and all, the C30s didn't care for such pedantry, and instead jumped right into the groove. As people used to say in the old days, "they have a lovely tone". Well, maybe it's not an accurate one, but it's a pleasant one all the same, and this flattered this venerable recording brilliantly. The result was a beguiling breeze through five minutes of the best soul musicians of the early seventies (Isaac Hayes's backing band was the Stax house band, Booker T & The MGs); it was unalloyed joy.

Moving to the lean, electronic

strains of Kraftwerk's 'Musique Non Stop', and these loudspeakers did less well. Here I could discern the C30s 'editorialising' just a touch too much for their own good. Where both the Yamaha NS1000M and the Vivid B1 tried their hardest to do a disappearing act on this track, the C30s were very much the elephants in the room. True, they imbued the song with a satisfyingly big bass once again, but it was obvious that in terms of speed they couldn't hold a candle to the other two. They seemed to sit on transients slightly, slowing them down and reducing their dynamic impact, whilst at the same time adding a 'thump' all of their very own. Across the midband, the C30s threw out a wide soundstage, but it was quite diffuse all the same, seeming unable to commit to precisely where particular elements of the mix were supposed to be. Again, there was a subtle loss of low level detail across the midband, although the treble was if anything over explicit, adding an artificial atmosphere that simply wasn't present on the original recording. I did still enjoy the Kudos C30 via Kraftwerk, but felt it wasn't telling the whole story all the same...

Ultimately then, this big and expansive sounding box is just a little too characterful to be suitable for all types of music. Although tuneful, its low end is a little slow and too prominent for some, whilst the midband has a pleasing tone but can seem opaque with music of the highest intensity. Treble has space, pace and grace, but like the bass can seem a little obvious. The Kudos C30 certainly plays a tune well, but is not the most dynamically accomplished with the last few percent of a vicious snare drum thwack. Still, its sizeable physical presence and naturally rhythmic gait means that it doesn't sound strained, nor ever like it's trying too hard.

REFERENCE SYSTEM

- Sony TT-S8000/OL Silver/Ortofon Winfield turntable
- A.N.T. Audio Kora 3T Ltd. phono stage
- Sugden IM4 integrated amplifier
- Yamaha NS1000M loudspeakers
- Vivid B1 loudspeakers
- Quad 989 loudspeakers

CONCLUSION

With over £5,000 to spend, you need to know what you want before you go out and buy it. Some will want the forensic precision of a speaker such as the Vivid B1, others will crave the delicate and dark sounding Quad 2805. If you're minded to choose an altogether more characterful loudspeaker however, you could do worse than consider the Kudos C30. It's not all things to all men, but those seeking a large, airy and spacious sound that's nicely finessed will like it. Moreover, it should prove a fine match for somewhat cold and clinical sounding transistor power amplification, which will gain in expression going through these. In absolute terms then, the Kudos C30 is not a great loudspeaker, but it's an interesting and enjoyable one all the same. If you're in the market for a sizeable and sumptuous sounding floorstander, make sure you give it an audition.

VERDICT

Big hearted sounding, musically adroit floorstanders, although not quite the last word in neutrality.

KUDOS C30 £5,250
 Kudos Audio
 +44(0)845 4586698
 www.kudosaudio.com

- FOR**
- overall musicality
 - pleasant tonality
 - finessed treble

- AGAINST**
- high end ancillaries needed
 - cabinet colouration
 - midband clarity
 - bass grip

MEASURED PERFORMANCE

Frequency response of the C30 is dominated by tweeter output +5dB above that of the bass/midrange unit, a massive lift that will make the C30 sound obviously bright, by a considerable degree. This is not an accurate loudspeaker by any stretch of the imagination but has been voiced to stand out in the showroom perhaps. Output from the bass/midrange unit is fairly flat and even, extending down to a peak at 80Hz our third octave analysis shows, a classic underdamped response that will give lively bass. The large rear port lifts output around 50Hz, and it measured 7dB up on forward output at 80Hz so its contribution to subsonic output is considerable, giving the C30 plenty of bass left.

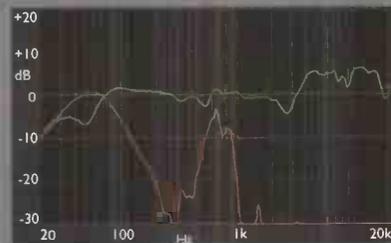
The impedance curve has some steep slopes so it is reactive around 2kHz. The bass unit has a 3.5 Ohm DC resistance but overall impedance measures 7.1 Ohms with pink noise. With a sensitivity of 87dB the C30 does not need huge amounts of power to go loud but it is not an especially load all the same, by current design standards.

A 200mS decay spectrum showed the C30 is reasonably free from colourations except for some overhang at 80Hz where the cabinet peaks. The bass and midrange look clean though,

with just a little cabinet colouration around the 700Hz region clearly seen from rear port output (red trace), as well as the forward decay spectrum.

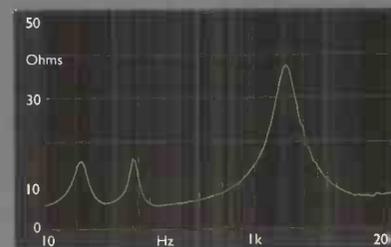
The C30 has been engineered to sound big and very lively. Its treble is very prominent though and may overwhelm all else. NK

FREQUENCY RESPONSE



Green - driver output
 Red - port output

IMPEDANCE



mail



LETTER OF THE MONTH PRIZE



KEF iQ30 LOUDSPEAKERS

Visit our website at www.hi-fiworld.co.uk or send your emails to letters@hi-fiworld.co.uk. Letter of the month wins a pair of KEF iQ30 loudspeakers and one years FREE subscription to Hi-Fi World.

A pair of KEF iQ30 loudspeakers is on their way to **JIM THORPE**, Letter of the Month winner in our AUGUST 2009 issue.

Letter of the Month

ONE WAY

The comment on the 'mediocre bass response' of unipivot tone arms in the Origin Live Conqueror arm review brought to mind an experiment I did a couple of decades ago with a Keith Monks mercury unipivot arm.

For those who don't recall the Keith Monks, it was a quite interesting, innovative design originating around 1970 or so. There were two particularly interesting design factors. The first and most obvious were the mercury baths used to transmit the signal from cartridge to the arm leads. The signal went from the pickup to 4 pins in the pivot area that sat in 4 small, mercury baths and then to the output. This allowed the entire arm (wand with counter weights) to have no solid connection so it could simply be picked up off the pivot post. This made it simple to change cartridges even with the non-detachable head shell and to have multiple arm/pickups set up and changeable in seconds. The mercury baths, though, were most responsible for the loss of favor of the arm in later years (as well as the very low effective mass) as moving coils took over from moving magnet pickups. The mercury was really not that good an electrical conductor and while it was fine for the higher output moving magnet designs it was too poor for the lower output moving coils. And that's not to mention the open air mercury baths evaporating into the atmosphere in one's listening room.

The second feature was the one that was relevant to my experiment. Normally a unipivot is simply a hardened, very sharp point that fits in a cup in the arm. But the Keith Monks point never contacted the cup itself. Instead there was a circle of tiny ball bearings just below the cup and the

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ADJUST +

This is where Adjust+ starts its work. You can find the correct position of azimuth in very short time resulting in a wider, better focussed soundstage and imaging. The sound is richer in timbre and dynamics, everything is more relaxed. Resolution is extended and macrodynamics is improved.

May we introduce: **ADJUST +**

Being a vinyl addict you have spent a lot of money for your records. No doubt you want to listen to them at the best level possible. And no doubt you have set up your turntable with a Protractor so that overhang and offset is adjusted correctly. Do you think this is all you can do and everything is fine or is there any doubt?

Correct azimuth (HTA) is necessary to have a proper geometrical position of the stylus - and with it the coils of the generator - to track the grooves of your records. As a result you get a minimized crosstalk and it is set to be consistent on both channels. Still you think this can be done by putting the cartridge in an upright position? Unfortunately this is correct only in very few cases. Doing so you run into risk to have a misalignment resulting in higher stylus wear, worse sound reproduction and higher wear on your records!

The azimuth of a cartridge affects phase, as Adjust+ shows so cogently. Is this why Unipivots, whose azimuth varies, have a 'sound' ?

point of the unipivot fitted into them until contact was made without the point itself taking any load.

I decided to try mass loading the pivot area of the arm. I wasn't worried about harming the unipivot point with the extra load because of the design explained above. And I figured that since the extra mass was at the pivot point I wouldn't significantly affect the effective mass of the arm. I piled a large amount of Mortite (sort of like Blu Tac) on top of the arm at the pivot. And to make it appear reasonable I wrapped the Mortite with some aluminum foil and topped it with a 45 RPM adapter.

Everything tightened up. The improvement in the bass was most noticeable but the increased focus and detail was obvious bottom to top. By the way I need to admit that the idea for the mass loading was not original with me. I got it from Magnepan, the speaker manufacturer, who at the time made a unipivot arm (with more

conventional bearing arrangement) that employed high mass in the pivot area. I have occasionally wondered why no one ever pursued this concept further. It could lead to an arm that combined the advantages of both the unipivot and conventional format.

Allen Edelstein
New Jersey, USA

Thanks Alan. I too once used the Keith Monks but mercury is poisonous, difficult to handle, suffers an oxidised surface scum and used to rot the copper pin contacts, I seem to recall. I soon fell out of love with it! Having used Decca International, Hadcock and various other Unipivots I eventually gave up on the idea, as none of them seemed to offer a particularly firm, well defined sound: it was all too nebulous for me. Since looking closely at the importance of correct headshell azimuth, using the Adjust+ measurement and set up

system from Dr Christian Feickert, in our September and October 08 issues, I suspect allowing a cartridge freedom of movement in this plane is not a good idea, even if you do pile weights on top. These days, a better understanding of the sonic properties of an arm's structure is being pursued, by us using an accelerometer to measure headshell behaviour and by Karl Heinz Fink who reports similar findings using a Polytec laser interferometer.

NK

GLOWING PRAISE?

The DIY features included in *Hi-Fi World* which have set the magazine apart from the competition seem to have changed greatly in character. In one way this is good since at one time all we seemed to get was yet another valve amplifier until virtually all the possible circuit configurations had been used up and little else. While I like valve amps and building them, I did find myself thinking that the budding speaker builder or digital constructor was not really getting much of interest. Things have changed greatly now, speakers are now taking centre stage to a large extent probably because they are the main interest of Peter Comeau, I would suggest that a better balance could be struck.

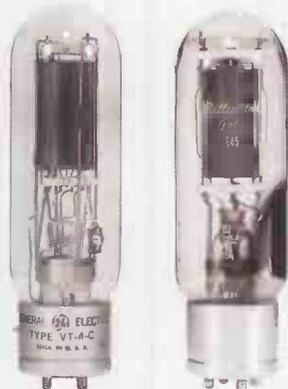
I found myself interested in the remote control unit recently introduced, thinking that here was a unit I could probably use. I had gained the impression, rightly or wrongly (wrongly as it turned out), that it would be in a separate box. This would have enabled me to replace the pot in my home built 211 integrated with a motorised version and bring out the motor leads to the external unit. I could omit the components for input switching which I do not need and program it to my remote control. As presented it will not do that and is not even retrofittable to previously constructed pre's. Since remote volume control is so useful, and remote input switching so rarely used, a simple externally housed control unit which can be added to a standard World Design pre, or a home constructed integrated could prove very popular. How about it?

Noel Keywood's review of the Icon Audio MB845 is a good example of the kind of review which seems to have a broad appeal even amongst those who would never dream of buying one. A review of something so different to the norm almost guarantees to raise the curiosity and makes very interesting reading and a good read is what sells magazines. Noel does, however, seem just a little confused about the hierarchy

of the 211 family of valves. Basically the hierarchy is this.

211 - Described by General Electric as a General Purpose Plotron it is a medium mu power triode which means that it has a high anode impedance. This makes it suitable for Class B transmitter service. It can be used as an audio amp but requires a high impedance load and is unable to provide a lot of current even with the grid at zero volts. For good power it must have either a very high HT voltage or the grid must be driven positive, Class A2, which places big demands on the driver stage.

805 - A development of the 211 specifically for transmitter use it is a high mu power triode with a very high anode impedance. The grid has to be driven positive to get any real current



Radio stars - the tall 211 (VT-4C at left) and squatter 845 both provide superb sound quality.

through it, eminently suitable for class C radio work. It is possible to use it as an audio valve but it isn't really suitable. For hi-fi use it is a non-starter.

845 - Specified by RCA as an audio power triode this is not a radio valve, it is a straightforward audio valve. It is a low mu power triode with a moderate anode impedance and will pass plenty of current without need to drive the grid positive, indeed the grid is not designed to handle grid current so this should be avoided. The 845 has a higher anode dissipation than the 211 and can deliver more power. Its requirement for considerable negative grid bias voltage means that lots of signal volts are required.

Both the 211 and 845 are very linear. In working with these valves I have found that for best sound an HT very close to the maximum of 1250 is needed. If a moderate voltage is applied and then progressively raised a point occurs where the afterburners kick in and the sound takes on the colour and life that these valves are renowned for. This is rather inconvenient since power supply is greatly simplified if the HT is kept below 1000 and at these higher

voltages more bias is needed and the grids more difficult to drive - but it is well worth it.

There is a world of difference between the Icons and the parallel single-ended amp HFW built. From my experience I would guess that the single ended would blow the push-pull Icons into the long grass. Single-ended well engineered really is that good. You really don't know what the 211/845 can do until you've heard a good single-ended. I use a 211 single ended at 1,200 volts HT which I built 12 years ago. It has never given a day's trouble and easily delivers enough power for my 12" Tannoy Monitor Golds in 65 litre cabinets. Musical bliss!

Dave Dick

Thanks for the interesting letter Dave - and the earwiggling at the Bristol Show! The exigencies of life are a little beyond my control - as hard as I try! - so if amplifier designer extraordinaire Andy Grove is with us we can publish superb valve amplifier designs, but when he goes to work for Audionote, then we cannot. And when loudspeaker designer extraordinaire Peter Comeau joins us we publish great loudspeaker designs, but when the Chinese lure him away, we cannot. As much as I'd love to be able to wave a magic wand, Harry Potter-style, to solve this problem I am afraid there will always be dark forces I am unable to defeat! Good designers are not easy to come by, and we only ever publish DIY articles and circuits that meet the highest standards, something everyone appreciates. I'm aware that our quality amplifier and loudspeaker designs are popular and much discussion is taking place on this subject, so I am trying to rectify the situation.

Look at the RCA spec sheet for the 845 and you will see it described as a "modulator and audio valve" so it is used in transmitters, if not as an output device, so transmitting valve is a common enough if perhaps loose description. Please allow me a little journalistic leeway here!

I'm sure readers will be interested in your observations, and your experiences with a 211 amplifier. **NK**

HARD TALK

I would like to disagree with Noel. It is probably the first time, but it is not strictly on a hi-fi issue, so I am not too worried. In June 2009 he said he can't trust hard drives. He further argues that one doesn't have to back up CDs or LPs. I don't think I am alone in having numerous CDs 'failing' or

having the odd LP becoming unplayable. If that happens then you try to replace the article in question, you don't give up on the format. The difference with a hard drive is that if it fails your whole collection is lost. Even if you still have the original music it may still mean a lot of work to recover from the loss. In the letter Noel was responding to, Brian Garner had proposed a RAID system to keep a constant back-up. I would say for a music only collection this is unnecessary and largely self-defeating. Disc failure is measured in Mean Time Before Failure (MTBF). RAID systems are



Detritus of modern life - a pile of dead hard drives!

constantly backing up, so all the hard drives are working a lot. This means their chance of failure becomes greater. It also means the noise level and energy consumption goes up. This system is designed for constantly changing storage. What most people would actually need for a music collection is an external hard drive, less than £100, and just back up when they have added significantly to their collection. The rest of the time you can turn it off, stick it in a cupboard, whatever.

I would also disagree that hard drives have not improved in reliability. I have had a number of hard drives fail, but none for the last six years or so. I think that might be related to the 'umbrella principle'. Take an umbrella and it won't rain - back up your hard drive and it won't fail. One final point, there are hard drives available that don't use fans for cooling and are supposed to be near silent. I haven't tried one myself so can't comment - anyone out there with experience?

Brian

Ah, but you need to be aware of probability Brian, because if you have not suffered a hard drive failure in six years I think it likely you are about to suffer a massive one soon! Needless to say the magazine as well as myself at a personal level uses hard drives and although things have got better as you say, we still suffer massive

failures from time to time. Apart from all the piddly Flydrives and suchlike that expire regularly, I bought an early LaCie 1 Terrabyte drive for video storage and its controller packed up in just three months. Luckily, the discs were okay and I managed to retrieve all data simply by installing them in the host computer, but losing 1TB of data means whole music, picture or video collections to could up the swanny, not just a single disc or tape. So large capacity hard drives have the potential to row us into a lot of trouble, something that is worth bearing in mind. **NK**

It's a fair point to make, I think, that hard drives are not as hardy as some believe. Just because one person hasn't had an HDD failure in no way means another person won't! With this in mind, you do have to be rigorous in backing up your hard drives, be they for music or anything else. That's why I think Naim's system used on the HDX is an elegant one; left permanently on, the HDX will back its primary drive up to its reserve drive, discreetly and usually in the middle of the night. The system has been criticised by some for being over the top, but obviously only by those who have been lucky (so far) in life's hard disk lottery! **DP**

SPIN DOCTORING

I have been an avid reader of Hi-Fi World for the past few years and notice that from time to time you mention the Technics SL-1210 (or SL-1200) turntables, usually in answer to reader's letters wanting a reasonable mid-price solution to spinning the black vinyl! As the owner of a NAD 533 Turntable (re-badged Rega Planar 2) fitted with a Goldring Electra cartridge, I was pretty sure I was missing out on a lot of the information contained on my black stuff. The rest of my kit (Cyrus 2 + psx amp, TDL RTL3 'speakers) seemed pretty good at reproducing CD (from an Arcam CD73). So I thought...lets give it a go...see if I can improve my vinyl sound quality. So, as I already had a mint Rega RB250 (on my NAD) to hand, the first thing was to find that turntable. The obvious e-bay source turned out to be a bit frustrating. I think too many people have been reading Hi-Fi World and are chasing all those Technics decks that constantly appear on the site. Prices for a turntable in some far off place (which you can't even inspect first hand) rising to anywhere up to £180-£200 (plus £30 delivery in most cases). So I took the alternative route of checking the Free Ads websites...and Gumtree came up trumps! The Advert said the turntable was only purchased in late 2006, never raced or rallied (being part of a bedroom set-up) and still with

all the original paperwork (instructions, sale receipt, warranty). No box, but hey-ho you can't have it all. The guy lived only about 60 miles from me too and wanted £150! So I e-mailed him asking if it was still available and (cheekily) if it was, would he accept £135 (thinking that paid for my diesel costs). The reply was positive...Yes it was still for sale and yes he'd accept my offer. So a date and time was agreed and I set off to deepest Romford!

Upon arriving at the address, the door was answered by an affable young man (in his mid-twenties I'd guess) and after saying hi to his Mother, I was ushered upstairs to the mixing room, aka the chap's bedroom. There he had two SL-1210s, a mixing thingy and a DJ CD thingy...along with amp and behemoth (unidentified) speakers. I was thinking 'pity the neighbours'.

The turntables were both immaculate and had obviously never left the bedroom since he bought them. He showed me the original receipt, demonstrated that it actually worked (playing some Drum'n'Bass) and the money exchanged hands. He disconnected the Technics and I went over to pick it up from the shelf upon which it stood. My God I uttered... the thing weighed a tonne (eleven kilos to be precise) and I was immediately struck by its rugged construction (investment cast I think with a rubber cover).

After I had got it home, I studied the instructions and then truly marvelled at this fine piece of Japanese Engineering. Okay, so the arm is not rated (by the audiophile press at any rate) but just feel the quality, marvel at the little pop-up light that helps you guide the needle into the groove or the way the on-off switch clicks positively between positions (and then doubles up as the red strobe source). I don't particularly see the need for the pitch control with its green light (the speed seems spot-on) but it again feels good in operation. Compared to my piece of MDF, for that is the basis of my old NAD 533, it shouts value for money (I'd even go so far to say I'd actually PAY £450 for a new one!).

Anyway, I ordered an Origin Live arm mounting plate / adaptor and bought a new Goldring 1012GX to fit (as this seems to be highly regarded by the Hi-Fi press). Once it had all arrived, I then stripped the Rega arm off my NAD (5 mins) and carefully dis-mantled the Technics (for that is basically what you have to do in order to fit the arm) bagging up and labelling all the fixings to make sure they went back into the correct holes on re-assembly. The whole operation took me about an hour.

With the arm fitted, I mounted the cartridge (using a downloaded template) making sure the screws were tight, then sat down with a beer to have a listen to

Rush of Blood to the Head by Coldplay. Well... what a difference to the NAD! Obviously, for a proper comparison I should have fitted the new cartridge to the NAD and then having a listen (I could have also done the same with the previously un-Rega'd Technics... simply replacing the cartridge). Anyway I was too impatient so it was gung-ho straight on and I can only comment on what I have now. The bass seems sooo much tighter. The mid seems at least 20% better too...more clarity. So I am pleased and the whole exercise has cost me about £290 (I've yet to ebay the Technics arm and the remains of the NAD but I am confident of getting back at least £40 thus reducing that to £250!!!!).

There are other improvements I can do.. Michell Tecnoweight (£70) SDS Isoplat mat (£80) to name two that spring to mind (let alone external power supplies, strobe disablement, etc, etc) but do you know what, I might not even bother! It sounds great as it is, looks bloody amazing (I've had mates around saying wow look at that!) and it has hardly cost me a bean. There are lots more kids out there swapping turntables for DJ CD thingys and downloads onto laptops so look at the free-ads (I'd steer clear of inflated e-bay prices) and bag one of these classic pieces of Japanese hi-fi, grab a Rega arm (£130), adaptor plate (£40) and fit it with a Goldring 1012GX. Then settle back with a beer and a smoke, pop on that favorite LP and allow yourself a smug smile! regards,

Garry Capon (Aylesbury)

Thanks for that Gary. Now the single hole fixing Rega RB300 has been replaced by the curious three-hole bracket secured RB301, older RB250s and 300s may become more common second-hand. Trouble is they will always be popular, so bargains may be rare. But anyone wanting the best from this combo should consider the latest RB301 because it improves on the RB300. For lots of lovely pictures and a nice, simple explanation of the Technics Direct Drive system and improvements to it, go to the Soundhifi site at www.soundhifi.com/SL-1200/index.htm. **NK**

Hi Gary - we've been banging on about modded Technics '1200s for about five years now, and I think the message is finally getting through that they're brilliant things to tweak up. However, it still amazes me that so many people discriminate against them because of their DJ connections; don't forget that before all that they were called SL120s, and came fitted with SME pickup arms (and usually Shure M95EDs or



**Another chance to feast your eyes upon this exotic combo!
It's an SME V one-piece cast magnesium tonearm with Koetsu Red MC cartridge, mounted on a Technics SL-1210 turntable fitted with a Timestep external power supply by Soundhi-fi.**

suchlike) via specialist hi-fi dealers! They ended up being adopted by DJs in the late nineteen seventies because they're the toughest compact and affordable turntable around, as anyone who's ever had them apart will have discovered. **DP**

BACK CUE

I have been a subscriber to your excellent magazine (got to say that to get this printed!) for the past 4 years and have been a keen enthusiast of the Technics direct drive turntables, having purchased an SL1500 way back in 1977 when I was living and working in the UK. In about Jan 07 I renewed my interest in quality music reproduction and splurged out on KEF 203 speakers driven by a NAD M3 and NAD M5 SACD player, supplemented by a Velodyne DD15 effectively Bi-Amped with the NAD.

The equipment is excellent. Even so I could never convince myself that I was listening to the artists rather than a recording when playing my SACDs of jazz and classics. So I renewed my interest in Vinyl and turntables after reading your articles on the subject over the years. Your series on direct drives and the arm mods to a Technics SL-1200 convinced me that this represented the way to go, as compared to Mechano sets with separate motors and platters driven by elastic bands!! So I went and bought myself an almost new SL-1200 MkII for the princely sum of \$500.00 and proceeded to equip it with an Origin Live modified Rega RB250 arm fitted with an Ortofon Rondo blue MC cartridge and the Isoplatmat. The unit is mounted on a 30kg slab of fine grain, milled sandstone supported by a lightly inflated cycle tyre. The system will shortly be augmented with the World Designs Phono3 valve amp. which I am now building

Now this is where I take to task all those who immediately go into paroxysms of acoustic delight whenever they apply a mod to their equipment and are deluded into believing they are hearing an improvement to the sound! They often are most certainly not. These would be the same people who want to switch off the strobe light on the SL-1200 which they can see, whilst the unseen transformer is rattling away like a cowbell in a stampede!!

For instance, the platters on the Technics turntables have a rim on the outer edge that really serves no more use than being cosmetic. However, if the mat is any larger than 287.2mm (and most are I believe) it can be of critical importance when adding this mat to the platter because all it will do is sit on the rim edge with no contact where it matters. The result is indifferent sound quality and in fact an impairment, as I very quickly discovered. I will say I had not added the little cork pieces, provided by Origin Live, to the platter which effectively raises the mat above the rim as these were offered as an option for sound improvement to be tried subjectively. Indeed, the soft rubber mat offered with the SL-1200 also overlaps this rim! The use of a record weight (I machined my own from cast lead) can make matters worse, predicated on the stiffness of the mat, as it will deform the record during playing.

The heavy copper mats becoming popular are even more of a problem as even copper will effectively oscillate or vibrate at a harmonic if treated like this and at 3mm thick they will not distort to contact the platter!! Otherwise they represent an excellent option as they add a relatively dead mass to the 'rotating system'. For anyone contemplating using any sort of mat on the SL-1200 platters, it can be no more

a thing of beauty to be seen & heard



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Pure Sound Rubato copper turntable mat.

than 287mm in diameter if it is to correctly seat on the platter, anything larger than this is worse than useless, unless it is machined with an undercut at 286.5 to allow for the rim.

It was at this point that I decided to evaluate the properties of the SL-1200 as a whole, looking at both the electrical/electronic and mechanical aspects of it's design.

The first obvious improvement was to remove all AC from the unit, and especially the transformer which is a positive source of both electrical and mechanical noise. I commenced to do this when it was brought to my notice that a DC power supply was available from an independent supplier. It duly arrived and I commenced to read the tech info at which time I referred to the service manual circuit diagrams for the Technics. The DC output of this unit is designed to be easily soldered to the existing inputs to the rectifier bridge, thus the novice does not have to worry about polarity. However, here is the conundrum: the bridge across which we are connecting the shiny new DC power is part of the reason why we are replacing the internal supply in the first place! It is not a particularly powerful device and to boot we are going to use only two of the 4 diodes in the rectifier bridge all of the time to conduct the current, depending on which way around we connect the two wires.

This prompted me to investigate the connection of the new DC supply directly into the regulator circuit by carefully removing the rectifier bridge on the main circuit board and connecting the external DC supply to the positive and negative points. In fact, I believe the 'stiffness' of the power regulation to the motor control driver can be further improved by increasing the value of the output capacitor C3 (now 22uF) to about 270uF (I am currently working on this).

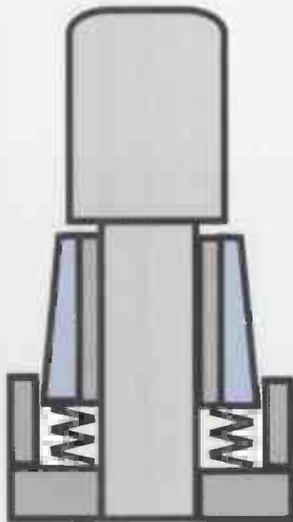
The power regulator used on the SL-1200 is rated at 4amps. Some have suggested that the regulator itself should be replaced with an external supply, but I do not believe this is required. I do understand from a forum site that a

company in the UK does in fact offer an external power supply to do this job, but I have had no luck contacting them.

The enhanced power regulation will be particularly advantageous to those using the 2kg copper mats as more current will be required to bring it up to speed and sustain exact speed due to the added friction on the spindle thrust bearing.

Which now brings me to the ultimate improvement, the bearing assembly. This consists of a 7.125mm spindle rotating in a phosphor bronze bush, the thrust bearing for which is a sliver of what appears to be ceramic contained in the bottom bearing seat. The 'fit' of the bearing is not exactly of high precision, as movement of the platter can be detected when the platter is alternately lightly pressed down at the rim across it's diameter.

I have come up with a much improved proposed design which uses a 14mm shaft ground from solid carbide and which incorporates the platter taper and top record locating spindle all as one piece. This will rotate in a precision honed bearing fitted to a tolerance of 0.005mm. The thrust will be taken by a ceramic ball housed in a PTFE hemispherical pad and rotating in an oil bath. The whole will be housed in a solid



Here's our solution to the difficulty of centering an LP on the spindle, a spring loaded tapered sleeve. It's a bit simpler than Nakamichi's !

brass housing designed to be an exact replacement for the existing unit. I am expecting my first prototype to be ready sometime in late August.

I have also made a solid 5mm thick copper arm-adaptor plate, this has not made any startling improvement to the sonics that I can honestly detect, but seems to have improved the response of the cartridge to the torture track on the Hi-Fi News test record (band 9)

Finally, the existing support feet

should be replaced by 5 (one in the centre) soft sorbothane hemispherical type supports (available from many suppliers) and which will lower the centre of gravity as far as possible.

Yet another interesting aspect of Vinyl, what is the accepted tolerance on the hole in the middle?? And what is the industry accepted size for the spindle? I have found there to be a startling variation with as much as 0.4mm. In fact, using the Technics spindle of 7.125 as a guide, the looseness of some records is quite alarming!! Here again the quality of reproduction must suffer as the record is now rotating out of centre, as most probably are!

I have specified a diameter of 7.25 for my new spindle, and am prepared to open up the hole with a reamer if I get an LP that is too small.

I believe that if all of the above modifications are carried out then the effect will be to have an excellent quality turntable that will out-perform most of the elastic band models selling at silly prices.

On a final note, no pun intended, I read your technical reviews with much interest. However, do you think you can be more consistent in the way you do or do not provide measured data. For instance in a recent article on a tone arm you provided a graph which in my mind condemned this particular arm for it's very high resonant peak at 250Hz. However when reviewing the new carbon arm from Origin Live, 4 pages on, you supplied no data whatsoever. The cynic might be caused to think that this is because it is too bad to publish!!

**Mike New
Sydney, Australia.**

Hi Mike. That is all very interesting - real hardcore DIY and there's nothing quite like it! I presume the UK supplier to which you allude is Soundhifi who have put a lot of info up on the 'net. Readers can find then at: www.soundhifi.com/SL-1200/index.htm. As Soundhi-fi have a stand at most UK Shows and the ever enthusiastic Dave Cawley bends my ear at length over the issue of turntables, arms and every thing to do with them, I'm sure you can get into contact with them; Dave isn't backward about coming forward, as they say. Anyone wanting an SL-1200 modded should contact Soundhifi. We run a couple of old Pioneer Direct Drive (PLC-590s) as test mules and I am wondering about an SL-1200 as a future replacement. Your observations on the Technics bearing are intriguing and we look forward to learning about your new replacement. However, if you over-size the spindle this will draw howls from users; better to under-size so



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Courtesy Nakamichi UK

The turntable that centred discs for you: Nakamichi's amazing Dragon.

all LPs drop on. Eccentricity results in a wow component at 0.55Hz and if this is big enough it does degrade pitch stability; there's a small loss of grip in timing. Nakamichi once solved this with one of the world's more complicated turntables, I seem to remember. And I must carefully centre our DIN Wow & Flutter test disc, using its locked outer groove, to get representative speed stability figures from turntables under measurement. So eccentricity is an issue. A small, lightly sprung tapered sleeve would auto-centre discs however (I've just thought of it!) - see my diagram. It's simpler than Nakamichi's solution.

We cannot, in all cases, measure an arm for entirely physical reasons (i.e. we don't have it to measure!). If it is fitted and reviewed off-site it isn't always practicable to break down the entire turntable and arm assembly for shipping to our London offices for measurement, where it must be built again, before being disassembled for return. Why? One reason is time and the other is shipping damage: the boxes are thrown from lorries and the more we move a delicate item the more likely it is to suffer damage. This is a significant issue and causes a lot of grief; the Inspire turntable in this issue arrived with what we thought was an eccentric motor pulley, but after travelling far across Britain to fit a newly machined pulley Inspire found the motor spindle was bent! This was caused by it being thrown off a lorry. Old Classics sent in for review in makeshift packing suffer especially and we advise they are not shipped by couriers because of the likelihood of damage. So as usual, it's a case of Cock-up, not Conspiracy! We try and measure arms though, using an accelerometer to assess vibrational signature, and are surprised by how much interest this has generated around the world.

You do not have to write poems of praise to us to get a letter

published. We publish letters solely on the basis of their general interest to readers. **NK**

Hi Mike - thanks for your excellent, considered contribution. As you'll probably have read by now, last month I tried a Timestep power supply for the SL-1200 (and also fitted an SME Series V and Koetsu Red too). The results were breathtaking, and whilst I'd not expect everyone to similarly equip their SL-1200s, it just shows you what's possible when serious attention is paid to the power supply.

My only other comment is about mats; I find the SL-1200 (with beefier power supply or not) doesn't like mats that are too heavy, such as the Rubato pure copper mat (reviewed in the May 2009 issue of Hi-Fi World). Whereas the SDS Isoplatmat adds a small amount of useful mass to the platter, giving a less edgy sound, the Rubato seemed simply to get the Technics motor servo working overtime, resulting in a more forced, strained sound. So I think there's a 'critical mass' there, and we need to find it. With this in mind, I'd be interested in your or anyone else's follow up comments. **DP**

EASTERN PROMISE?

My Domestic Director (Significant Other) has decreed that I can only listen to my hi-fi at levels not much higher than conversation level, which is very low. My present loudspeakers are the Linn Index II. At low levels these loudspeakers sound insubstantial and weedy. I need a pair of loudspeakers that perform well at low volume levels. A friend of mine who distributes Harbeth locally says his brand of loudspeakers is suitable for such listening purposes. He recommended the HL-3P (now in ES-2 guise) and Compact 7 models to me. However, I countered him by saying that these are low to medium efficiency loudspeakers. I have heard reviewers say high efficiency loudspeakers sound lively whereas low efficiency loudspeakers are

more laid back and duller (volume levels not mentioned). Therefore, the latter require high-powered amplifiers to bring out the sound (presumably resulting in high volume levels). This would be prohibited in my domestic environment. I covet your comments on these statements and request your recommendation for suitable loudspeakers that will sound good at low volume levels in a 2.5 x 3 m (sparsely furnished) living room. I listen to middle-of-the-road music. The Index are connected to the Linn Klassik but I do have a range of amplifiers from the Naim NAIT (I) to the Quad 909.

best regards,

S. P. Tan
Upper Thomson Road,
Singapore

*Hi Simon. Sounds to me that what you really need are headphones. It is almost impossible to get much from loudspeakers at very low levels, as all low level information is smothered by background noise, perhaps of crickets where you live. A pair of KEF iQ30s are worth investigating as they are compact, will take up little of your room's space but also sound lively and dynamic. **NK***

I think you're in a bit of a muddle here, S.P.! Starting from first principles, you have a small listening room for which you need smallish speakers. If you get big ones (or even medium size floorstanders), they will simply set the room off with all manner of booms and thuds. Speaker-room interaction, or lack thereof, is your priority. With this in mind, the Spondor S3/5s mini-monitors (£725) are a good starting point, with a very clean and smooth and even sound. I use a pair in my smaller secondary listening room, and find them most enjoyable; far superior to the likes of Linn Indexes. There's now another one to consider too; the Audiosmile Kensai. These are about twice the price of the Spondors, and use ribbon tweeters and metal mid/bass units, so are a bit more engaging and analytical, but even more transparent than the already very impressive Spondors. In both cases, these mini monitors need a decent bit of clean power, but your Quad 909 would suit perfectly here. Although I agree that some other designs of similarly modest efficiency can sound a little 'sat upon' and lifeless until they're given lots of Watts to play with, both these sound great at low levels. **DP**

PUBLIC APPEAL

Dear Sir. You know I think that music critic from the Telegraph is right. You don't need great hi-fi to appreciate great music and performance. How many of us started listening by playing 45s on



Audiosmile Kensai - a very high quality miniature for small rooms.

Mum and Dad's radiogram? Or getting a cassette Walkman for Christmas? Or indeed receiving an iPod for a landmark birthday? The fact is, hi-fi is no longer the "must have" product for many because times have changed. We have all moved on. Except, that is, the hi-fi retail business. I expect magazines such as yours to defend the hi-fi retailers because you, like them, are a part of the industry. But let's face it, how many of us have really had a good experience buying hi-fi? Either now or in the past? How many of us have wanted to buy something to find out it's only available many miles away? Or a retailer can't (or won't) sell an item in one town because you live in another and they have agreed with the manufacturer not to provide items by mail order. You see, it's not the hi-fi that has a problem. These days it sounds better than ever. It's the way hi-fi manufacturers choose to interface with me, Joe Public. Why do lots of people flock to Tesco for a £16.99 CD spinner? Because it's convenient and good value. Not because it's the best they can buy.

Recently you reviewed the excellent new Rega deck. It costs £500! How can a music loving teenager with shallow pockets even dream of such things? "Aaah", you say. "T'was always thus". Yes, it was. I was one of those spotty teenagers who took the number 12 bus to Regent Street and spent a couple of hours drooling in the Sony shop circa 1976 (I wanted an Elcassette). But because music and hi-fi was in the "mainstream" for consumers I cobbled together what I thought was hi-fi fairly easily and cheaply. Nowadays the young don't have to. They have their iPods or phones. Music at their convenience. Not the convenience of record companies or hi-fi manufacturers and retailers. Things have changed. iTunes has destroyed the record industry. The Walkman destroyed hi-fi. Not the concept, but the way music is consumed. Actually the Walkman (and the iPod) deliver music at a far higher level of quality than I was listening to in the early 1970s (BSR decks and

radiograms). I suppose I was lucky. I went into pro audio from school working for the Decca Record Company at their West Hampstead studios.

Those days of fabulous Tannoy monitors, 12 inch SME 3009s fitted with Decca-London cartridges, Scully and Studer tape machines and Neve desks Aaaaah. All powered by Quad amps, by the way.

Now I have a nice hi-fi, not at the cutting edge. With a couple of record decks, a Garrard 401 and a Technics SP10. Rogers LS8as bi-amped by Musical Fidelity X50s. I also use a Michell Argo powered by a Hera. I listen to the music on this system. Not the sound it makes. The reason? I love music. Just like you and hopefully just like the critic in the Telegraph who so flustered readers to this magazine. How great is it to be silenced by the performance? To feel the room around Miles Davis and the group? To be lifted by the performance that hi-fi can bring.

An astronomer named John Dobson brought telescopes into the street and just waited for people to ask if they could peer at the stars through them. He brought the science of astronomy to the people by being with the people, demonstrating the wonders of the universe. Why can't hi-fi manufacturers do the same? Why aren't the demonstrations in shopping centres everyone can be a part of? You don't need silence to appreciate the performance and you don't need

protected dealer networks to market great electronics.

So here's the test. Let's see hi-fi on the streets and hear it too. Let all the major manufacturers or retailers market real value for money entry systems and let's all remember that we listen to hi-fi because it brings us closer to the emotion, the reality that was the performance. I'm going to continue reaching for the unreachable. Right now there's a teenager somewhere looking in a shop window vowing to one day "own one of those". Let's hope it's not a 21st century Elcassette!

Keith Gooden

Hi Keith - you make some very salient points. I've long been worried about how hi-fi is going to be sold to a new generation of customers in 'mature' markets such as the UK. The problem is that because we had our great hi-fi boom in the nineteen seventies, most specialist retailers are still using a thirty year old approach to selling hi-fi. Whilst there's nothing at all wrong with high quality dem rooms and top quality advice (indeed, it's the Holy Grail), the way this is presented to the public could I feel do with a little more thought.

Most retailers function almost as a library; it's like a club you join, which you attend to gather knowledge. You seek it out, and you obey its protocols, and then somehow it rewards you for your travails. Nowadays though, I think hi-fi retailers have got to start moving more towards the customers (both psychologically and physically), and make them realise they really need that great hi-fi, even if they don't know they do yet. I am afraid this involves better people skills and sales techniques than are found in many dealers, which is why some are struggling now. But I remain convinced there are still a great many good dealers around, despite what some forum denizens say. I certainly meet a good few on my travels, and as I always say, there's absolutely no substitute for finding a decent dealer and listening for yourself. If you'll excuse the pun, the simple process of



REGA PLANAR 3 - too expensive for modern teenagers?

auditioning two products side by side speaks volumes! **DP**

TIP OFF THE OLD STOCK

My current system consists of a Project RPM4, Denon 103r, Michell ISO (Tom Evans modified), Grado RA1 headphone amp and Grado 325i headphones. I would like to upgrade my turntable to a Michell Tecnodac as I feel the Project is not doing the rest of the system justice. The reason I am writing is that I'm stuck about which arm would suit the Denon, as I understand that Denons are fussy about arm choice.

Don't get me wrong the Denon sounds good with the Project; however this has been my first and only turntable and so I don't know any different. I have my eye on a Michell Tecnoarm or a Origin live modified RB250; would these be suitable? I have a budget of approximately £1,000 but would stretch a bit further if necessary. Your opinion would be gratefully received.

regards

Steve Taylor

Spending £1,000 on an arm for a budget moving coil cartridge costing around £300 seems like overkill to me Steve. I know the Denon is hyped up on the 'net by those who have heard no better as a 'giant killer', but it is not. It provides a tidy sound that is good for the price. A few years ago the rather bland sounding DL103 could be had for around £100 and the brighter DL103R for £180, attractively low prices for what masquerade as high end items I'll admit, but that appears to have become £280 recently so the picture has changed. Both work well in a Rega RB250/300 arm and need no better. If you want to move up the ladder without spending too much try an Audio Technica AT-MC09 MLII moving coil cartridge. It truly is a bargain, providing a taste of MC greatness. **NK**

It's common knowledge amongst the small but very vocal band of Hi-Fi World-reading Denon DL103 fans that Noel and I are not huge fans of this cartridge! And as such I'd agree with Noel that actually you should simply upgrade the cartridge to an Audio Technica AT-OC9 (or personally I'd go for the AT-33PTG). But given that you may well take issue with our feelings on the DL103 and wish to retain it, then I would indeed go for a Michell TecnoDec, as it is a considerable improvement on the Pro-ject. As to which choice of arm, the Jelco SA-750D plus extra Sound Hi-Fi cartridge stabiliser weight, would be ideal for the DL103 to give of its very best. However,

if you're looking at upgrading your cartridge soon anyway, I'd go ahead and get the matching Michell TecnoArm a, which would track the likes of an Audio Technica OC9 with greater success, and work well even with top quality, premium priced MCs such as the new Ortofon Cadenzas.

DP

PRE SELECTION

Over the years components have come and gone in my system, searching for ever better sound quality and musical enjoyment. I've made a few sideways and some backwards steps in this hobby, but have a pretty well sorted system in terms of musical enjoyment, and that is the aim of this game. My system comprises Musical Fidelity NuVista 300s driving Sonus Faber Electa Amator IIs, fed by a front end of Chord Blu/Dac 64 MkII. Whilst only the Chord's can be considered modern, I view the NuVista and EAlls as classics, and have no intention of replacing them unless they fail. Besides, they still got that swing, or more appropriately they have rhythm, dynamics and indefinable groove that connects me to the music which is primarily 70s funk, soul and jazz.

I've been searching for my ideal



Noel says, replace the Denon DL103r (left) with an Audio Technica AT-OC9 MLII (right), but not every reader will agree!

pre-amplifier for a while, and have used Musical Fidelity XPre v3 as a stopgap. I auditioned a modified Music First Audio Classic Copper pre-amplifier with MkII transformers in my system, and was very impressed by the top to bottom coherence, and level of additional detail I heard. I was fortunate to see Billy Cobham live at Ronnie Scotts, so playing back his Live in Europe I found his band transported into my lounge. I don't want to use the usual hi-fi cliches, however I heard into the recording and the instruments sounded like real instruments, i.e. the cymbals shimmered instead of sounding like pieces of sheet metal.

So you ask, what's the problem, namely the EAR 868L which has equally glowing reviews. I have a lot of time for EAR designs and am always impressed by their show demonstrations. I just auditioned the EAR 868L at a dealers

and had my Musical Fidelity XPre v3 on hand for comparison. The EAR was more musical, the notes decayed and had more body, i.e. a cymbal sounded like a cymbal not a piece of metal, and a double bass had body. Was it 10 times better than my MF X Prev3, no, but it was definitely more musically involving. Ideally I'd like to demo the EAR 868L in my system, but that isn't going to be possible, so I'd appreciate your comments on how the EAR 868L compares against the MF Audio Copper sonically?

Facilities wise, they give me the same connectivity, and both have remote, so it's down to the musical presentation. I intend the pre-amplifier to be in my system for the long-term, so want long term satisfaction.

regards,

David Waterman

An interesting question, David. Here we have two (to use the dreadful term that Noel hates!) 'state of the art' pre-amplifiers that showcase the respective strengths and weaknesses of each design approach. Starting with the MF Audio, and it's simply a transformer volume control, admittedly a very well made one

with top quality components. The EAR of course is an active valve design from one of the acknowledged masters of the art. Sonically, the MF Audio is 'drier' and more quiet. By comparison, the EAR adds a touch of warmth (just a tad) to the signal, making for an ever so slightly more diffuse sound, with less solidly placed instruments within the soundstage and a slight loss of low level detail. However, the EAR also shows just how dry the MF Audio is; the latter gives a more orderly presentation, but it is more lifeless too. All is in its box, present and correct, but somehow the music has less bounce, less animation, less sense of purpose. Outright (global) dynamics are better on the MF Audio, but still the microdynamics (rhythmic accents) seem superior through the EAR. Ultimately, both products are superb,

and it's really six of one and half a dozen of the other; simply buy the one you think suits your system and/or your music tastes better. Looking at your preferences, my hunch is that you'd enjoy the EAR more. **DP**

STAGE SHOW

After a couple of decades where my hi-fi interest has been in hibernation I got myself a Squeezebox about a year ago. Suddenly it was fun again. One thing sort of led to another and I got myself a couple of Martin Logan Purity 'speakers, a Lyngdorf DPA-1 preamp, a Transparent Power Isolator 8 and my old CD player got thrown out. I guess I got a bit carried away, but now it was even more fun. I then started to contemplate what to do with my rather old record player, a Walker CJ-55 with a Mission 774 arm that I bought in 1981. Also here one thing led to another, now it has new cabling, Van den Hul 502, a new pick up, Benz Ace Low, a new motor, DC 200 from Origin with the advanced kit, and

have been trying to find some info and comments about the Sugden but it seems impossible, so now I am turning to the experts. Do you have any idea how well my Sugden stands up to today's standards? If I were to look for an alternative that should give a real improvement in sound what kind of price range would you suggest, I am talking about soundstage, details etc. As I mentioned I am really not dissatisfied about the sound today but that darned upgradeitis won't stop itching.

best regards
Stefan Lagerquist
Sweden

Oh dear Stefan - looks like you've got another dose of 'hi-fi man flu', doesn't it? Your Sugden phono stage is good, like everything Sugden has ever made in my opinion, but it is not quite up with the latest and the greatest. Whilst I realise that phono stages are immensely subjective (more so than you'd

airy top. By comparison, all transistor phono stages sound ever so polite; you'll get a more clinical, matter-of-fact presentation that rather misses out the heart and soul of the music. That said, there are some such as the A.N.T. Audio Kora 3T Ltd. which don't quite fall down into this trap, simply giving a slightly more ordered version of the Icon Audio PS3's big hearted presentation, so if you can also audition this then please do too. **DP**

TOTALLY WIRED

I just subscribed from overseas to your splendid magazine and I enjoy reading every page of it, even the vinyl section, although I got rid of my own vinyl and turntable a few years ago. But hey, you never know, I might start again in a few years.

It is absolutely exciting that the old MM and MC techniques are still being developed and improved significantly. I now have what I consider to be quite a good middle of the road set - according to high end standards that is, anyway. It consists of a Marantz SA8003 SACD player, a Marantz PM7200K1 integrated amplifier (which I, of course, only use in direct source and Class A), and B&W DM604 S3 speakers.

Recently I adapted my cabling from standard to better stuff and I installed Padis Furutech high end fuses. The power cables are now Inakustik Black and White Referenz PC 1502, the power wall plug is HMS, the interconnect is Inakustik NF 102 Black and White Referenz and the LS cable is Inakustik bi-wire Black and White Referenz LS 1002 (4x2,5 mm²).

Until recently I used a very thick Eagle single wire cable (4 mm²). When I applied the Inakustik LS cable for the first time I, of course, got rid of the terminal bridges on the B&Ws. At first I was really happy with the increased detail in the sound reproduction. Especially the mid-high was much cleaner, more detailed and focused and



A tube preamp like the EAR 868L brings sweet life to music.

last but definitely not least new oil and counter weight (76 grams instead of standard 62) from Audio Origami. I must say I didn't know that my old Genesis, King Crimson, Cat Stevens, Emerson Lake and Palmer, etc, etc, had it in them, what a joy.

But now to my dilemma. I have this Sugden Optima Phono Amplifier and even though I must say I am really happy about the sound coming out of it I am a bit curious what could be achieved with another phono amp. I

think), I personally would suggest you invested in an Icon Audio PS3 if you can possibly afford it. If soundstaging is your priority, as you say, then this just about beats everything I've heard under about £3,000. Being a valve design, it is definitely on the warm and euphonic side, but isn't that the point (and joy) of vinyl anyway? The result is a truly big sound that's expansive in terms of stage depth and left-to-right soundstaging, as well as having a thumping bass and sweet,

The listening experience at house of linn is so good - demonstrations last for hours....



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A tube phono stage with regulated tube power supply, for that extra bit of silkiness, the Icon Audio PS3.

also more prominent. But there was something missing: with the mid-high dominating the scene the sound was very aerial and there was much less low. The sound had become harsh, it lacked musicality, a certain fluidness.

So, I was left with very mixed feelings: I was happy with the better detail but the sound had gone. I decided to revert to my old Eagle cable, perhaps it being so thick took care of a good tight bass reproduction? But before I did this I decided to try a weird experiment: I put the bridges back but I left the bi-wire Inakustik assembly in place (basically this is single wire with double cross section). Much to my astonishment (and contentment I must say) I got everything back. The tight strong bass, the pleasant fluid musicality and I kept the increased cleanliness and detail in the mid-high.

So what was the conclusion here? The improved sound quality is brought along by using a better loudspeaker cable indeed, but bi-wiring has only an adverse effect? Or is this just a peculiarity of my system? The answer actually lies in the sheer thickness of the cable: putting back the bridges physically doubles the available cross section for both bi-wire terminals.

Adamant to apply proper bi-wiring to my system I choose to add a separate Inakustik Black and White Referenz LS 502 (same cable as LS 1002 but single) for the midhigh section and use the full width of the LS1002 for the low section. At the amplifier terminals I had to apply sturdy WBT plugs in order to securely combine the three cable ends in one terminal. The result is okay now. I have a sound that is detailed and balanced and listening to older albums I hear so much detail that they sound different to me, not in an unpleasant way, more like an adventure: as if I hear for the first time the instruments separated.

So: cables matter and bi-wiring with a better cable changed my system sound quality very audibly, notwithstanding what high end skeptics may claim.

My hi-fi set can be viewed at <http://my.hifi.nl/index.php?user=13835>. One of the thumbnails shows the bi-wiring on the loudspeaker.

Met vriendelijke groet, Rudy Deblieck Opglabbeek.

Thanks for your experiences Rudy. Yes, cables do make a difference and it is always interesting to hear others say so, since nothing can be proved. I always use Van den Hul carbon sheathed cables as they are very smooth sounding and cohesive, but others find them too laid back. It's very much horses for courses. **NK**

ANALOGUE FOR ALL!
If we want to push analogue then I'd suggest we go back to when BBC Radio One had their Radio One Roadshow, when the then radio celebrities were followed in a sense as idols or icons. How about using the technique to allow people to listen to how audio can sound, having a roadshow with known celebrities that own real audio, doing audio gigs as do musicians and bands etc. I'm sure very many more people would follow true audio knowing a celebrity has the stuff. The Radio One road show had a large lorry or van, went to places like Brighton, W-S-M, Liverpool, Manchester, etc. The Radio One Roadshow was a success traveling the country selling the music and the celebrities etc. With a concerted effort and obviously some one to do it, then CD and vinyl may have a chance in the future.

Reading the Collins - English Dictionary it shows digital as any number between 1 and 9, etc, the dictionary shows analogue as an object or some thing to measure an object. So what is an object? A statue, a vase,

a dustbin, an atom! If then analogue represents an object, then analogue is everything that exists and digital is only the number of things that exist! So therefore everything is analogue! from the largest object to the smallest. In mathematics then, zero is absolute! and 1 to 9 etc are only theatrical unless there is energy or mass, so digital doesn't exist unless we have energy and mass.

The marketing of digital is extremely clever but maybe now over the top, so therefore as analogue is everything that exists why don't we advertise it so, certainly more than we do. Digital is fictitious unless we have analogue, it's as simple as that. Let's start realising that digital and computers are just another tool in our armoury. Many thanks for a fine magazine.

J.S. Ridsdill, Somerset

Jeremy, I love the thought of 'theatrical' numbers as you put, perhaps doing a stage show for us? But I know what you mean. The funny thing about digital is – it isn't! All signals are analogue, including digital ones, so digital is analogue in any case. In truth it is digital code on an analogue signal. This is somewhat hypothetical until you reach the problem of high data rate digital signals being transmitted down a cable. Then the analogue bandwidth of the cable must be sufficient to support the analogue bandwidth required by the digital signal - if you see what I mean! This was for a long time a problem with computer cables; data rates increased but the cables were not able to support them - result, computer crash. Parallel cables were worse

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Radio 1 roadshow travelled around the UK to spread the message and the fun. Should hi-fi do this?

than serial, because serial can be more easily constructed to possess very high analogue bandwidth and thus support very high digital data rates. That's why modern computer interconnects are simple little things. End of lesson. Theatrical digits are far more entertaining methinks!

I am sure the industry would do roadshows, if it had the BBC's budgets. I read that the license fees brings in £4bn per annum. **NK**

OLD FRIEND

I have only fairly recently began to buy and become a fan of 'Hi-Fi World'. What a gem of a magazine it is! I am specially delighted with the articles



Sony TC765 open reel tape recorder - a blast from our analogue past.

on "vintage hi-fis" to complement the advertisements for these items. I noticed in one issue an advertisement for "Hi-Fi Yearbooks" - (& Hi-Fi Lovers Bible). I myself have tried (in vain) to purchase old copies of these. Would it be possible to have a special edition published to feature the best of those over several years - specially as lots of your readers are into vintage hi-fi.

Finally, having read your superb article on Reel To Reel tape recorders - what about a Reel! golden oldie article about Battery Portable machines. I have two UHER 4000s but sadly I don't know of anyone who can repair one. Is there someone out there who can?

**Roger Marsden
Sheffield**

Glad to hear you like the mag, Roger. I'm having something of a reel-to-reel revival myself at the moment, with a Sony TC765 just having moved in chez Price, much to the bemusement of 'her indoors' who isn't currently having anything to do with it! (Still, as an aside, this time last year I bought her a Sony WM-DC2 Walkman for £30 and she's now well and truly weaned off her iPod Nano, and taping my Peter Gabriel LPs onto new old

stock Chrome cassettes she's bought on eBay via my Nakamichi 600! So heaven knows what will happen next...) Anyway, my fave tape recorder fixer upper is I.C.P. Electronics (+44(0)1202 684446) in Poole, down on the South coast. They're a long way away from you, so you might like to make local enquiries; do a bit of sleuthing around the local video/electronics repair shops; someone is bound to know someone. Also, check to see if there are any hi-fi clubs in your area; that would be a good way to get a lead, too. **DP**

DISC-OGRAPHY

Twenty five years ago I could still, just almost, buy a budget LP for £5. Choice, however, was pretty limited with CD replacing LP. I don't know what that £5 equates to today, but it will still buy me a CD, and the choice is much greater, especially if you include "2 for £10" offers, which can include relatively recent titles such as Paul Weller's '22 Dreams'. I never used to shop at HMV, but for the past 10 years I've made most of my purchases there, as there is always a bargain to be had. At the moment one of their never ending sales is on and I've acquired many, many albums at low cost.

Out of curiosity I had a look on their website, and I found other bargains: Byrds 5 CDs in I think card sleeves boxset: £12 with free postage! I asked in-store how much it would be to order, and was told £23, which was a bit of a surprise. So I just ordered it myself. Being on the minimum wage I'm quite limited to what I can spend on music and video. But at times even I have to raise an eyebrow and ask myself just how much lower prices can go? Incidentally, on their website, I discovered 'The Beatles Remasters' available in September. Apparently, it's been an on-going process for the last four years. Details at EMI.com and more at Collecting Beatles.com. Just hope they sound better than the standard issue. The first four titles will be in stereo.

yours faithfully,
**Stephen Furley
C.Durham**

Yes, the low price of many CDs at HMV is a bit of a shock, but then new titles are still £15 or so, LPs are now £25 and Blu-rays £30. What does that say about the state of the market? **NK**

EMPIRE CALLING

I'd like to thank you for publishing my letter on the Empire Troubadour Record Deck. I dare say one will turn up and I look forward in anticipation to you obtaining one, to see how good it really was (by the standards then.)

Thanks once again, it was very Scottish of you. The highest Accolade I can award.

best regards

Billy Gunn of Scotland

YOUNG PIONEERS

My thanks to Raymond Hodge for asking, and yourselves for answering, the question regarding what cartridges are suitable for the PL-707 turntable (May 2007). On the subject of modifications I must admit to be reluctant to attempt any substantial alterations. Replacement of the mains cable, removing the Perspex cover when playing and placing on an MDF board supported by Focalpods is all that I have been prepared to do. When I bought the turntable in 1985 I remember being surprised to see that the phono plugs had been gold plated. More recently the correspondence concerning tone arm design in Hi-Fi World has reinforced my suspicion that the turntable was a well developed, sophisticated design, best left alone by me. Weakest link I suspect is the PC-6MC cartridge which has the unusual MC design feature of a renewable stylus. After deciding to write I thought it might be informative to compare the sound of the PL707/PC-6MC/Project phono SE against my CD player using Sennheiser 650 headphones and Creek OBH 2 ISE. I think the Cambridge Azur 840C is very good but with a clean stylus the PL707 was clearly better with my 70's Prog Rock - more dynamic, sharper transients and superior 3-D soundstage. Does NK have any opinion regarding Pioneer's idea of using the 'Dynamic Resonance Absorber' in the graphite composite arm?

**Robert Smerdon
Devon P.S.**

The fact that it uses a graphite composite material suggests it will differ to many arms and may well be very good. Dynamic absorbers usually attempted to suppress the arm / cartridge resonance, not arm tube resonances. Irrespective, Pioneer made some good turntables many moons ago and you PL707 seems to be one of them. **NK**

MICHELL SHOCK

Thank you for the past advice on my Michell TecnoDec. I had every intention of upgrading to a Gyro at the Bristol Show but was seduced by the sound of the Naim XS amplifier and bought one so had to content myself with a Technoarm A still partnered by the Ortofon Blue with the addition of a Cambridge P640p phono stage. I will eventually change the cartridge to an Ortofon Black and will probably have maximised the potential of the



Got a Michell TecnoDec? Then get a GyroDec SE, says David!

Technodec by this time. What do you think?

My current problem is the gulf of difference in sound between my vinyl and CD collection. I have a large CD collection which currently plays through an Eastern Electric Minimax player and Musical Fidelity Tri Vista DAC. A smooth sound without the excitement and dynamics of Vinyl. Many of my CDs are quite rare jazz issues and I would like to enjoy these to the full. I enjoy the Tri Vista DAC and the Minimax always sounds better when it is a part of the system. Would a Cyrus CD Xt SE transport be worth considering?

My final query is regarding my stand mounted Dynaudio 1.3 speakers. For some time I have thought that floorstanders would make a huge improvement but would want something of the same quality as the Dynaudio.

Loudspeaker leads are Sonic Link S300, interconnects are a mixture of good mid price choice from Chord, Sonic Link with Nordost Blue Heaven connecting the DAC to the amplifier. Room size is approximately 7 meters by 3.25 meters.

John Belcher
Bristol North, Somerset

Hi John - first up, I think you should still go for a GyroDec SE when you reasonably can. There's not a huge price difference (and you'd get a good price for your TecnoDec second-hand), but the Gyro really pushes ahead in almost every way (providing it's set-up correctly). This, plus the TecnoArm, plus your existing Ortofon Blue, would fit the bill nicely - and you can upgrade the cartridge when the stylus finally wears out, so you've got good value from it. As for the CD, your DAC is excellent, and it will fly with a Cyrus CD Xt SE transport, which is a fair way better than the Eastern Electric MiniMax's mech. I'd do the speaker upgrade last quite frankly, as only then will you know what you really need. Come back to us when you've got your sources sorted! **DP**

CLASSICAL SCORE

Having known a few classical musicians, I gather that they often follow the performance with a score, or if a detail is unclear or even inaudible because of poor recording or reproduction they compensate automatically. Those who are record collectors frequently concentrate on their own instruments and have an interest in matters of performance style, which is usually discernible even in very old and poorly reproduced recordings. However, those of us who just want to enjoy the experience, and maybe are unable to read music, hope to hear something approaching the fidelity of a live concert, which is why we are willing to spend sometimes inordinate amounts of money on records (of all kinds) and equipment. The expectations are quite different so there should be no room for disagreements.

Yours faithfully,
R. Mark Hodgson
Bromyard Home

DUST BUSTER

I have had many dusty things happening in my house recently. I have around 500 hundred bits of vinyl in the house, both singles and albums. I would imagine with all the dust kicking about the house and the vast amount of vinyl kicking around very cheaply from charity shops, also most likely dusty, it might be an idea to invest in a proper piece of kit for cleaning vinyl.

I note that you covered the Keith Monks machines, but, in terms of pricing, this could be beyond a lot of your readers. There does seem to be a few cheaper alternatives available (Okki Nokki, Moth, VPI) I was wondering if any of these (I am thinking about the law of diminishing returns) can provide 80 - 90% of the performance at half the price. I feel pretty sure that my missus would be none too happy if I spent two grand on a record cleaning machine. Any advice?

Ewan Scott
Project Engineer,
Aberdeenshire

Well Ewan, you're in luck. Let me direct you to the July 2009 issue of Hi-Fi World and my review of the Moth Mk.II.Pro on p.103 which should do the job nicely for around £450. This solid, neat - if rather noisy - record cleaner will go much further than removing the dust from your vinyl, although it does that very well. It will reach down into those dark grooves and wrench out the gunk and muck that loves to collect there, improving the overall sound quality of your records. Even brand new records will benefit from a session with the Moth. One thing, though, if/when you buy the Moth, they'll probably try and foist their own cleaning liquid at you. It's a decent recipe but I much prefer the alcohol free L'Art Du Son (try www.audiodestination.co.uk) which is much kinder to vinyl and, in my opinion, is more effective. **PR**

TOP CUT

I greatly enjoyed (and agreed with) the robust responses from NK and DP to the Daily Telegraph's reviewer's letter! Are Salisbury and Cambridge not in deepest Telegraph country?

I have been investigating USB and SPDIF outputs from a PC running Windows XP to a Quad CDP9911 as a digital 'pre-amp', to Cambridge Audio Dacmagic and Terratec Phase 26 DACs. The S/PDIF is via the PC internal '192 kHz' sound card. I find I am unable to get data outputs above 48kHz and using Foobar 2000 and Winamp players I get no output at all from 96kHz files. Cambridge Audio suggest that this is a limitation imposed by the USB, but I would thought this need not apply to the SPDIF output. Is this a genuine hardware limitation or is Bill Gates keeping us to the DVD/BD 48 kHz / 16 bit digital output limitation to keep in with Hollywood? (a naughty suggestion, but one wonders...) -

David Land
Glasgow

Hi David. I have had the same problem using free Audacity editor software. It can be set to produce a 96kHz sample rate file but measurement shows an upper frequency limit of 24kHz is being imposed, so the data stream is being down sampled to 48kHz somewhere in my PC. I suspect the sound card at present. The reason I am told, is to ensure perceived compatibility: that is, when the data stream is sent to external converters it will play, because most handle 48kHz, but few 96kHz. Readers with experience in Sound Cards (I'm a little rusty here!) may like to throw some light on the issue. **NK**



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Spaced

A retrospective vision of the future, or a special sounding satellite and subwoofer combination? Noel Keywood enters the Space Race with Cabasse's iO2 speaker system...

light 15kgs (33lb). The Santorin 25 subwoofer (£800) however, weighs a substantial 19kgs (42lb) and has a 250 Watt amplifier inside.

The iO2 system can be connected up to any normal hi-fi amplifier. Both left and right loudspeaker leads go from amplifier to the subwoofer. Another pair of leads are then connected between the subwoofer and each satellite. The subwoofer is best sited at centre between the satellites, or as Cabasse show it in their handbook, to one or other side. The subwoofer amplifies bass only (200Hz downward) combining the channels to give mono bass from a single, downward firing,

high power bass unit. The output to each satellite is full range (200Hz upward), the signal passing through the subwoofer unfiltered (i.e. there is no high pass filter). Each satellite has an input blocking capacitor that helps filter out all bass.

Within each sphere lies a midrange unit and, on a pillar, a treble unit, so the satellites are effectively point sources. The subwoofer has rotary controls to set level and cut off frequency. I have always found these devilishly difficult to set properly without a measuring microphone and spectrum analyser and see no reason for the frequency control in this design. The level control could have a calibrated detent too, as it is possible to level match satellites with subwoofer in a proprietary system such as this. Cabasse need to put a little more effort into this so the customer isn't left to twiddle in an *ad hoc* manner to get a decent result. The settings I used were 9 o'clock on Gain and highest frequency (fully

Satellites and subwoofer systems aimed at the home audio market usually get a sceptical reception from us; we rejected a Teufel system as unsuitable for the magazine recently, for example. But Cabasse were brave enough to travel from France all the way to Bristol in the depths of last winter to show off their satellite and subwoofer combo and Cabasse's PR man implored me to take a listen. Forever being open minded(!), I did just that and thought they did sound very nice and tidy. I was followed by many *Hi-Fi Worlders* and everyone agreed – so here's our take on the Cabasse iO2 satellite and subwoofer system. It may not suit hardcore audiophiles, but it did have some

unusual strengths.

Now to me the iO2 looks like a glimpse of the future from somewhere back in the late 1960s. Hovering spheres atop vertical wooden columns supported by a circular base plate aren't quite 'today', and if little green men jumped out then I would suddenly see the joke. But they didn't whilst I was reviewing the iO2s, the only time they lost contact with terra firma being when a visitor nearly knocked one over, because they are top heavy. The satellite loudspeaker on its stand (£900 each - ouch!) is 112cms (3ft 8in) high but weighs a comparatively



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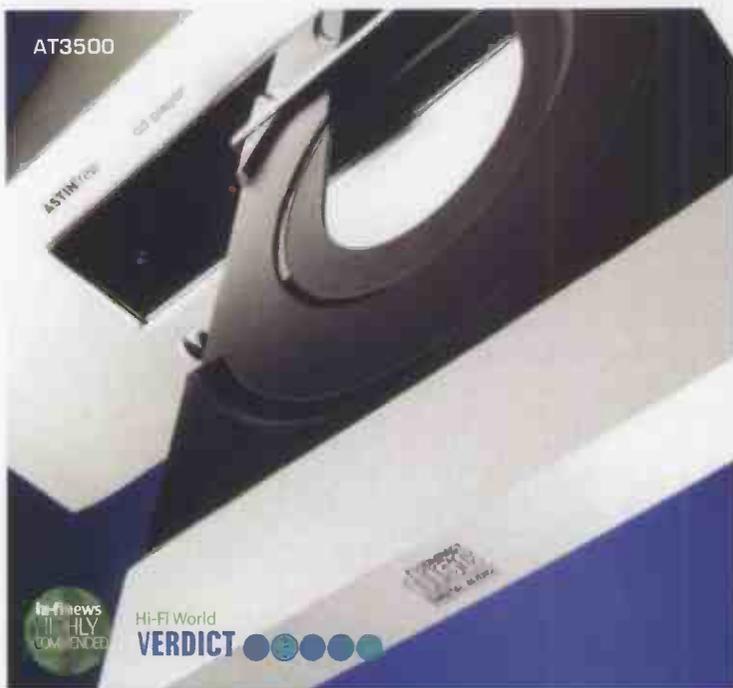
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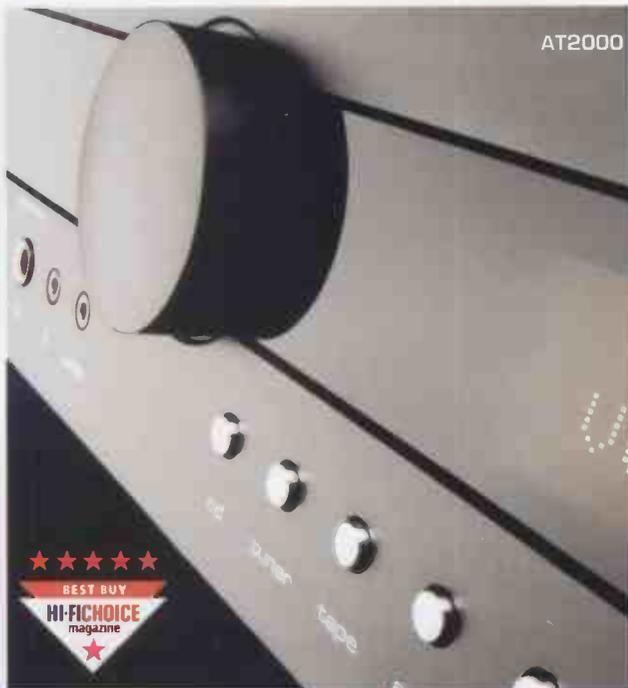
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clockwise) on Frequency, relying on our measuring system to guide me. The Gain control is too coarse, small movement producing large volume changes. Also, the subwoofer wasn't able to produce much power without sounding very strained, even distorted. Cabasse are expecting too much from it: producing full output at 25Hz results in enormous cone excursions; setting a lower limit of 40Hz would avoid this. The subwoofer needs more thought put into it, based on listening and correlation with measurement. When I tried to turn it up a little, the cabinet really started complaining and I got the impression the unit was working up to its limits.

Cabasse have obviously tried to squeeze decent performance from the satellites. Measurement shows they could have smoother, less accentuated treble but they are still no worse in this area than the £1,000 JBL LS40s I review in this issue. Combine this with a unintrusive visual presence and you do end up with a serious satellite + subwoofer system. It gives single channel (i.e. mono) bass below 200Hz so some stereo effect will be lost and, with AV sources in particular directional panning of say, the deep roar of a piston engine aircraft will be compromised because all the lows will come from one stationary source, but only buffs will likely notice this and object. With extra satellites, on stands or off, a 5.1 system can be built.

SOUND QUALITY

Why we all liked these loudspeakers at the Bristol Show became obvious when listening to them. Two properties were striking: they have fabulous imaging and they also have peculiarly vivid midband dynamics. These strengths together hooked me in straight away and they also made the iO2 probably one of the most dynamically vivid loudspeakers I have heard, even surpassing the Zu Essence I reviewed last month in our

August 09 issue. Antonio Forcione's deft guitar work was laid out forcefully before me in 'Tears of Joy'. The strings cut out of the satellites and the guitar's body resonances were made plain. I was quite taken aback at just how vivid - overly explicit even? - this track was, and also how insightful the iO2s were. For diminutive spheres seemingly purposed to disgorge little green men, the way they delivered music instead was fabulous. Taken by their strengths I wasn't too concerned by their weaknesses, which were a lack of lower midrange warmth and body, and some spikiness to treble.

With Elvis Presley singing Fever I could not fault the iO2s. With iridescent images from extreme left - the finger snaps used to illuminate timing - and hand drums quickly rolling across what seemed like an open horizon in front of me, the iO2s were quite unique. I was reminded of the great imaging of early, small Wharfedale Diamonds. Similarly, these spheres stand out, setting up one of the best defined and most open of sound stages I have encountered for a long time. There's an explanation: absence of bodywork eliminates surface wave interference. As always though there is a price to pay: small volume may mean great imaging but also means no bass, and this proved to be the system's Achilles Heal. The subwoofer did not integrate in well, producing heavy, undifferentiated bass that did not euphonically match what the satellites were doing; it was neither spry nor informative. I loved the sound of the satellites but have heard better subwoofers. And since most powered subwoofers reach 100Hz, not 200Hz of this one, alternatives are not available.

In spite of its mediocre subwoofer, the Cabasse's iO2 sub/satellite system still has properties that astounded me by hi-fi standards. But you have to balance its obvious strengths against its equally evident weaknesses, and its high price. Whilst plucked acoustic bass in 'Fever' sounded fine, electric

bass in Loreena McKennitt's 'Gates of Istanbul' was boomy; what I got was very recording dependent and both the subwoofer in itself, and its poor integration hold the system back. In contrast, the satellites were lovely to hear and quite unique in what they could achieve.

The iO2 system from Cabasse has some knock-out strengths, but also weaknesses, and pricing that is out of kilter with the market generally. If this and subwoofer bass doesn't concern you then the iO2 system will otherwise produce a sound stage more impressive than most hi-fi loudspeakers.



VERDICT ●●●●
Satellites that disappear, leaving only a wide open sound stage with fabulous dynamics. Mediocre subwoofer bass though.

Cabasse iO2 £2,600
Cabasse
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www.cabasse.com

FOR
- superb sound stage
- lively midband dynamics
- insightful

AGAINST
- mediocre subwoofer
- limited bass level
- top heavy satellites

MEASURED PERFORMANCE

Our frequency response analysis of the iO2 shows the composite response of satellite and subwoofer in green and satellite alone in orange. This makes obvious straight away that the powered subwoofer is doing a lot of work. It gives smooth output from 200Hz all the way down to 25Hz - extraordinarily low. This is the sort of performance expected from a giant Tannoy or powered Meridian active loudspeaker, but from a smaller cabinet. During tests box noise at low frequencies was very obvious as a long whoomp following each gated sine wave burst, so this graph does not tell the whole story. All the same, the subwoofer doesn't peak up like most so it should produce even sounding bass. To achieve this result Gain was set low, around 9 o'clock, and crossover frequency to a maximum of 200Hz. More or less bass can be tuned in at will of course.

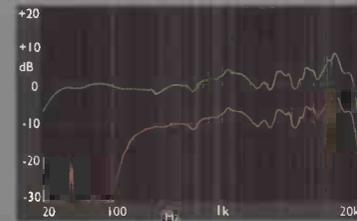
The satellite has a raised midband response characteristic our orange trace shows, with uneven treble from the tweeter, whose output lifts above 3kHz. Its response being none too smooth, the iO2 is unimpressive in this area. It is relatively easy to get a smoother output than this nowadays, using a better quality tweeter.

Sensitivity was a massive 92dB, aided by the subwoofer's output. All the same, the iO2 combo went extremely loud from one nominal watt (2.8V) of input. The satellite's DCR wasn't measurable and, looking at the

impedance curve, rising LF Z shows Cabasse have used a series capacitor to block low frequencies. Above 200Hz it is a 4 Ohm loudspeaker, with a largely resistive characteristic. All in all, the iO2 will consume little amplifier power and should work well with most amplifiers, including low powered ones.

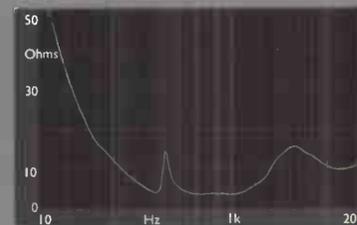
The iO2 delivers good results for sat/sub system. Treble output is high and uneven, so it will sound bright and not so subtle, a midband lift will aid vocal projection and intelligibility and the subwoofer will deliver heavy subsonics. NK

FREQUENCY RESPONSE



Green - driver output
Orange - satellite only

IMPEDANCE





The Verve

Cambridge Audio's new 650A integrated amplifier is a back-to-basics, no frills product with some of its predecessor's spurious circuitry taken out. Paul Rigby is the lucky man who gets to hear it first...

You know, it's not just teenagers who have 'issues'. Even decrepit hi-fi reviewers get the odd bee in their bonnets. Mine surrounds the issue of simplicity. It's dangerous to generalise but there are times, within life, when simplicity is absolutely essential: producing a fine plate of food (to let nature's own flavours flood out); scoring a goal (through ball via Kenny Dalglish, picked up by Rush... bam!) and producing a serious piece of hi-fi hardware.

Of late, I have felt that Cambridge Audio just haven't 'got' simplicity. Reviewing the 740A within the May 2009 amplifier group test, I had a problem with the fussy interface. In this issue's DAC special, my problem with the company's DacMagic surrounded the inclusion of a useless set of filters. Too many cooks...

However, after talking to Matthew Bramble, project leader for the design of the 650A, I was

pleasantly surprised. When discussing the differences between the 640A amplifier and the 650A, when he declared that, "one of the most obvious differences was that we took out the A-Bus circuit, the multi-room circuit (used to connect control keyboards and the like) out of the 650A. We did a bit of market research. We found that most of our customers at this price point weren't using this output at all. If they were going to go to the trouble of installing multi-room in their house they would install the full system. Removing this A-Bus reduced costs and freed up board space. This meant that we could now afford to spend the savings elsewhere."

Hurrah! Maybe Cambridge have finally got the point after all? To be able to take a vox pop of the public's wishes says a lot about how this amplifier was created in the first place and sets it apart from other competing designs which are produced almost to a yearly rota within specific targets. The 650A,

measuring 120x430x350mm, took two and a half years to come to fruition. The majority of that time was taken up tossing ideas from one designer to another (there are always several people on the design team), trying new angles and pitching new variations on accepted practices. For example, as Bramble explained, "...rearranging the speaker terminals on the back to get better crosstalk at high frequency. We tested that, after it was suggested, and it worked so we included it."

Often, when you work from scratch, you're working with the unknown. With the 650A, Bramble and the other Cambridge designers were able to go back and tweak and improve. So, in effect, the life of the 640A was a form of extended testing period for the 650A.

Despite the slow evolution of the upgrade from 640A to 650A, the changes have mounted up to produce a series of improvements that look impressive on paper. For example, with the money saved in dumping



the multi-room circuitry, Bramble was able to upgrade the volume pots. "In the past, we'd used carbon film volume pots at a price that we could afford then. Now we can use the ALPS black box plastic film pots which produce much better channel balance, and it feels much nicer too."

In addition to the better pots, all the internal boards have been re-laid (the layout of a circuit board can be as important as the actual surface components themselves). There are also some improvements in the actual circuitry however, such as the preamp section.

The protection circuitry, CAP5 (Cambridge Audio Protection), was also tuned. Its aim is to measure in real time, the current in the output stage, the voltage across it and so on. If it sees something it doesn't like it'll trigger. The 640A incarnation of the CAP5 circuit was conservatively made. However, "With the 650A, we now allow a greater amount of current as long as it's only for short bursts," explained Bramble. "This helps to produce a more dynamic performance without affecting the measured power at all. Other features include a single, larger transformer with a bigger heatsink and more power but separate transformer taps for left and right channels to give a dual-mono design in an attempt to isolate the signals.

Bramble was pointed in his comment that a phono amp has not been featured. He recognised that to include one would mean that other features would suffer due to subsequent budget limitations and the phono amp itself wouldn't

come up to scratch, either. Similarly, Cambridge resisted adopting Class D amplification because the company doesn't believe that the technology has reached a high enough standard to be beneficial to anything but top-of-the-line amplifiers. In Bramble's words, budget interpretations of the technology, "have not really cut the mustard."

The 650A has been an extended project and each designer has considered each feature carefully. Yet Bramble gets a real kick out of the amp's aesthetics. "It looks more expensive than it really is and we haven't actually spent lots of money on this area. If you look at the knobs,

is not as strange as it might appear, as a top flight reference system will soon search out another amplifier's best (and worst) qualities. In initially tackling the vinyl source, and Kate Bush's album, 'Aerial' (EMI), it was immediately apparent, playing the track π , that the 650A sounded very different. It's an obvious observation to make but the spry solid-state sound of the 650A removed most traces of the organic realism that valves present to the ear. The skin of a drum, the wood of a drumstick, the metal of a guitar string.

Yet whilst important, they are still nuances and it was to the 650A's credit that the basic, essential

"Its appeal lies in the fact that it gets the basics very right, whilst covering its tracks well so its foibles don't offend..."

for example, you can see that we've put skirts on them. Normally, to have a knob machined to have a skirt on it is a very expensive process. However, if you look at the skirts you can see that they're actually separate from the knob, it runs inside the skirt. So we've got the aesthetics of the skirted knob without paying for it."

SOUND QUALITY

Pulling no punches, I slotted the Cambridge right into my high end 845-based valve reference system. How would this lowly £300 integrated amplifier cope? This move

information of the track was present and surprisingly correct. Instruments didn't suddenly hide when the 650A was plugged into the reference system. Treble, via cymbals, was good, whilst the midrange provided all the detail you could require to get the flavour and atmosphere of one of Kate's most eccentric of songs. However, it was both the lower midrange and bass that really stood out for me, as the acoustic guitar had tremendous grip when strings were plucked and the bass wielded a heck of a punch.

This aspect of the 650A's output

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was further highlighted with the vinyl version of Yes' 'The Yes Album' (Atlantic) and the track, 'Yours Is No Disgrace'. If anything, the 650A created more energy and generated a greater degree of musicality with a rock beat. Again, acoustic guitar strumming offered a dynamic attack, bass guitar was big, bold and throaty, whilst the drums were large, heavy and commanding.

One note of caution however, for both Kate Bush and Yes, was the well lit - if not bright - nature of the presentation. It would be wise to carefully dem the 650A with complimentary speakers to balance this aspect of the sound, which is certainly big and bold with a solid stereo image and a wide soundstage.

It was at this point, just before I transferred from the vinyl source to my CD player, that the 650A decided to go on strike. The fault was in no way due to the amplifier, 'twas mine own! I had neglected to realise that budget amps have no business driving big old electrostatic speakers. How in fact, the 650A survived for so long without complaining, is surprising.

However, it was at this point that it threw in the towel. But whilst other budget amps may have died a death, the 650A was saved by its

THE EDITOR SAYS:

The Cambridge Audio 640A was a commendable bit of kit for its sub-£300 ticket price, but as PR says, it tried to be all things to all men, and didn't quite convince anybody. The 650A is an altogether more focused design, showing closer engineering attention to detail, along with a desire to cut the extraneous bits out. The result is a success; it's obviously grippier and more rhythmically engaging than before, yet there's a small degree of extra detail and finesse too. It manages to sound both more powerful and dynamic, yet sweeter too, which can't be bad. During its tenure with us, the 650A ended up driving some very expensive loudspeakers (PR's One Thing Quads, my Yamahas) and in both cases didn't roll over and die without a fight. I found it could go loud with a good degree of finesse into pretty stiff loads, and worked well with both budget sources, like the matching 650C CD player we're reviewing next month, and with my high end vinyl set-up, where it really began to sing. So much so that, given a good source, I soon forgot I was listening to an entry level amplifier - and you can't say fairer than that! DP



built-in CAP5 protection system which prevented any damage and flashed a coded message on the fascia (which was decoded via the manual). To solve the case, all I had to do was unplug the Quads from my system and the 650A woke up again. After hooking up a pair of Acoustic Reference Radiance Ones, the 650A performed perfectly through to the end of the test!

Once the Cyrus/Benchmark CD source was hooked up, the lively nature of the 650A hit me in the face via the Sugababes' 'Stronger' track from the album, 'Angels With Dirty Faces' (Island) as the excessive peak limiting resulted in both a relatively harsh vocal presentation and obvious, damaged upper register tones.

Through it all however, the track offered both drive and punch from the lower registers that resulted in this reviewer doing a spot of animated foot-tapping.

Playing Carol Kidd's 'A Nightingale Sang In Berkeley Square' from 'Dreamsville' (Linn) confirmed that this amplifier is no jazz lover. The double bass player sounded like he'd been drafted in from AC/DC, the piano took a back seat and the bass power demolished any sense of tonal delicacy. Saying that, Kidd's vocal performance was fruity and wonderfully throaty, and the acoustic guitar was both precise and dynamic. Indeed, considering this amplifier's very modest ticket price, it did manage all this really rather well.

CONCLUSION

The new Cambridge Audio 650A integrated is anything but shy, as a performer and as an artefact. I loved its retro styling with the slab-like brushed aluminium fascia, the centrally positioned

large volume knob and buttons a go-go. This all reminded me of the nineteen seventies guitar heroes with their long hair, unwashed jeans, spontaneously combusting drummers and loud, powerful, woofer wobbling bass. In a sense this is what this amplifier is too, as it loves powerful, propulsive music and isn't afraid of saying so. It's not the last word in refinement, tonal colour or subtlety of course, but I was surprised just how much fun it sounded after going back to back with my very expensive high end valve system. Its appeal lies in the fact that it gets the basics very right, whilst it covers its tracks well so its foibles don't offend. This can't be said of many such entry-level amplifiers.

REFERENCE SYSTEM

- Avid Acutus/SME IV/Benz Glider cartridge
- Icon PS3 phono stage
- Aesthetix Calypso preamplifier
- Icon MB845 monoblocks
- Cyrus CD-Xt SE CD transport
- Benchmark DAC-1S DAC
- Quad ESL-57 (One Thing modified) speakers
- Acoustic Reference Radiance One speakers

VERDICT ●●●●●
Full of energy but with finesse too, this is an excellent budget integrated.

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www.cambridgeaudio.com

- FOR**
- powerful bass
 - wide soundstage
 - CAP5 protection!
- AGAINST**
- nothing at the price

MEASURED PERFORMANCE

The Azur 650A produces 78 Watts into 8 Ohms and 121 Watts into 4 Ohms under measurement, so there's plenty of power on tap to drive any loudspeaker to very high volume. High levels will stay very clean sounding, because distortion was very low at full output (-1dB) right across the audio band. Interestingly, Cambridge have managed to suppress crossover distortion very effectively at high frequencies, especially at low levels where it can blight many designs. Our spectrum analysis shows lower order harmonics only, at a total level of 0.003% - very low.

An enormously high upper response limit of 180kHz (-1dB) suggest the 650A uses fast bipolar output transistors or FETs, with plenty of feedback, as this approach (used by Cyrus and Musical Fidelity) also minimises high frequency distortion.

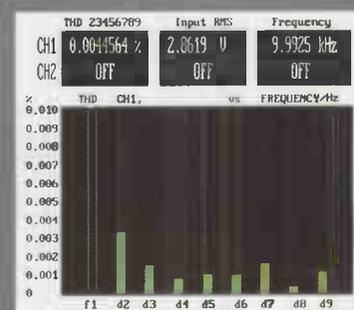
The tone controls are very good, treble offering fine trim of upper frequencies with very well defined properties at low levels of boost and cut above 3kHz. The same applied to the bass control, which shelves response below 200Hz, up to add

warmth or down to tighten bass. The curve was ideal for wall compensation too.

The Azur 650A measures very well in all areas, showing it has been very well designed. NK

Power	78watts
CD/tuner/aux.	
Frequency response	7Hz-180kHz
Separation	95dB
Noise	-110dB
Distortion	0.003%
Sensitivity	370mV
Damping factor	60

DISTORTION





Trew Romance

Astin Trew, Astin Trew & Spendor. No, not a new firm of solicitors, but a dreamboat of a CD system if you're into powerful, beat driven music, says a dotting Paul Rigby...

In business, in life or in sport, there comes a time when the heady achievements of the first team begin to dull and recede into a nostalgia-coated past. When the youngsters have filled their heads with knowledge and starry-eyed ambition, sufficient to step into the breach and assume the position of responsibility, they become the dominant figures. And so it goes with successful hi-fi equipment...

With this intriguingly posited system, consisting of the Astin Trew AT3500plus CD player, Astin Trew AT2000plus amplifier and the Spendor A5 floorstanding speakers, we have a suite of hardware which has just supplanted its older relations; the Astin Trew AT3500 CD player,

Astin Trew AT2000 amplifier and the Spendor S5e floorstanding speakers. Each upgrade has been carefully considered. None are what you might call radical. So why change dramatically, why start from scratch? This is a system, or a team, with a winning mentality. And you know what they say about winning teams.

That is not to assume that the changes imposed upon each box are minor or are to be viewed as a selection of spurious tweaks. Oh no, this is a system where each box has evolved into a new and wholly superior form from its previous incarnation. Taking the source as our first example, yes the casing for the Astin Trew AT3500plus CD player remains the same. The front of the AT3500plus still retains its

simple and spartan selection of basic functions with a poor, cramped display plus a similarly basic yet practical rear port selection on the rear. The heart of the system is a Philips CD12 mechanism while the associated DAC is a Burr Brown PCM1738. Yet, the improvements are all internal, featuring dampers on all of its integrated circuits on the DAC, bonding them with thermal glue plus upgrades to the internal cabling. The AT3500plus also includes an upgraded Philips JAN (Joint Army Navy) new, old stock buffer valve to replace the Electro Harmonix EC88.

The AT2000plus fascia and rear is similarly familiar, and are rather busier than its CD cousin, mainly because it has aspirations to be a part of a multi-room audio and/or AV

unit. Hence, the frontal power amp input allows you to switch from the line level sources to a TV for AV use. This allows your AT2000plus to be part of a 5.1 set-up controlling just the front two channels or, alternatively, a stereo system for the TV. Similarly, a balanced input is present on the rear which will also support a multi-room system option along with Cat5 outputs to allow you to have a second AT2000 in another room. A data connection for RS232 and infrared control signals is also supplied on the rear.

The Class A-biased preamplifier on the AT2000 has a power supply that is based on the latest Mk.2 variant of the Never Connected power supply. Other standard features include a buffer valve that controls the quiescent current to the MOSFET providing a more stable supply and, hopefully, a sweeter sound from those 65 Watts per side.

Again, the enhancements to the amplifier are internal and include the same internal wiring changes as that applied to the AT3500plus that improves the purity of the installed copper cable, a set of silicon dampers on the buffer valve and capacitor upgrades to top-of-the-line Auricaps.

Moving to the final link in the aural chain, the two-and-a-half-way, single-wired, Spendor A5 floorstanders feature a linear flow reflex port system with a cabinet that includes reduced physical internal damping, to diminish low frequency interference but an increase in the rigidity of the dampers themselves to aid the speed of the sound and reduce possible timing issues. The A5s feature a new SEAS-sourced, 22mm wide surround tweeter with a fabric dome that, says the company, was chosen for its enhanced transparency characteristics.

Similarly, the mid/bass unit created by Spendor is a 15cm driver with a new motor system and coil. The cone material is the same as the S5e – EP38 or Engineering Polymer 38. The driver features a crossover that is designed to attenuate the switch from driver to driver, allowing the midrange portion to reach high into the treble areas and the bass part to step down well into the woofer range in an attempt to provide a smooth transfer outside the sensitive 'presence' band. The unit features a bullet-shaped phase plug in the centre, a phase control device that is said to prevent nasty peaks and dips. The woofer, also created by Spendor, was designed to add punch and depth and is optimised to operate at low frequencies, being tuned to take the load over the low

frequency range. Instead of the phase correction cone, it only features a concave dome which helps to make it more rigid. Notably, the bottom of the cabinet features four machined steel stabiliser inserts, fixed rigidly into the cabinet, to take the spikes, that prevents any 'give' and 'play', minimising ambient disturbance.

speaker positioning and the like but quickly became entranced by a 1981 mastering of Kraftwerk's 'Computer World' (EMI) when, in mid-tweak, found myself floating to my listening position. I was half way through the album when I came to my senses. This system just adores analogue synths, and I was struck

"this is a system that will enchant the rock fan, and give the electronica enthusiast palpitations!"

SOUND QUALITY

The system as a whole got off to a great start, even before I began my official testing. I tend to play any old CD when tweaking

by the musicality and fluidity of the performance. In fact, the vibrancy and enthusiasm generated by the masterly 'Numbers' had me upping the volume, and again, and then some more, such was the clarity of the





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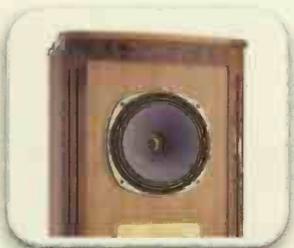
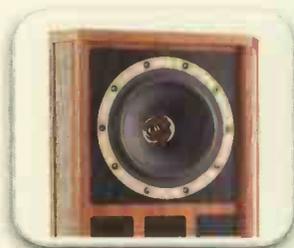
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signal and the clean nature of the presentation.

However, when I replaced Kraftwerk with the Sugababes' album, 'Angels With Dirty Faces' and the track 'Stronger', I almost triggered an accident as the clean sound was replaced with a frenzy of peak limiting distortion at very high volume! It took an athletic leap, head first, to the volume control to prevent a small explosion, shattered windows and a small mushroom cloud appearing over the roof, gently lifting into the sky. Actually, the system coped with this bedraggled track in a sympathetic yet honest manner. The worst aspects of the peak limiting, namely screechy upper-mid vocals and ear-piercing treble, were subdued and civilised by the A5's inherent warmth to allow the album to become listenable. However, the brightness still remained to an extent, so all was not forgiven. A highlight of the track was the strong and controlled bass from the Spondors that, whilst could never be described as seismic, was certainly impressive. The sound stage, whilst constrained by the Astins, was lifted by the Spondors although the stereo image improved when the A5s were canted in to point directly at the head.

It was at this point, spinning a CD featuring such inherent musical extremes, that I swapped the AT3500plus with Naim's CD5 to see how the balance might alter. It did – but not for the better. The CD5 added brute strength to the bass but

no finesse. In fact, the Naim acted like a club bouncer, barging into the music and discarding any detail it didn't fancy examining. You could almost imagine the AT3500plus running behind it with a large sack, collecting the broken detail pieces to use later..

This masking of midrange detail was if anything emphasised when the system was returned to normal and then the AT2000plus amplifier was replaced with a Naim NAC 112/NAP 150 pre/power duo. The broad frequency spectrum suddenly took a nose dive into a bucket of treacle; heavy, yes, but no elegance. The system cried out for midrange balance and clarity. It was with a sense of relief when I switched the Astin amp back to its rightful place to achieve it.

Problems did occur for the Astin/Sendor system however, when I played Carol Kidd's 'A Nightingale Sang In Berkeley Square' from 'Dreamsville' (Linn). In fact, the general validity of this trio as a viable system was brought into question with a jazz approach. Apart from the rich double bass introduction with its deep, resonant tonal purity, the rest of the production suffered. Gone was the usual breathy Kidd vocal, her expressive delivery squashed in a muddy midrange that suffocated the acoustic guitar solo during the middle-eight and subdued the accompanying piano. The excessive warmth was wholly due to the A5s

the frown was replaced with a smile when the Can track from 'Monster Movie' (Mute), 'Yoo Doo Right', was spun. The musicality and fluidity returned once again as the rock-based production slotted perfectly into the system. The Astin Trew pairing brilliantly extracted the subtle Malcolm Mooney vocalisations, floating, freeform, behind the instrumental introduction while the Spondors supplied magnificent upper-mid 'bite' to the drums along with the Astin's love of clarity to give a sense of cohesive maturity to the entire performance.

CONCLUSION

Lovers of jazz need not apply, as there is not enough sparkle in the treble nor enough air around the vocals to excite, whilst organic areas such as acoustic guitar and piano are hampered. On the other hand, this is a system that is absolutely perfect for rock and other beat-driven, high tempo, music where its mixture of solid and rhythmic bass plus clean midrange and treble creates a tonal balance that will draw you deep into the performance. A blend of hardware that cannot keep still – the Astins and Spondors ooze energy, midrange lucidity and bass weight that will paint a silly grin on anyone interested in music with beats. This is a system that will enchant the rock fan, and give the electronica enthusiast palpitations.

"absolutely perfect for rock and other beat-driven, high tempo, music..."



because, when the speakers were replaced with my reference Quad ESL-57 electrostatics, the Astin pairing were let off the leash: midrange tones floated, treble sparkled via fresh and crisp cymbals whilst upper bass was snappy yet firm.

Upon replacing the Quads with the A5s again,

REFERENCE SYSTEM

Naim CD5 CD player
Naim NAC112/NAP 150 pre/power amp
Quad ESL-57 (One Thing modified) speakers
Chord Anthem 2 interconnects
Chord Epic Twin loudspeaker cables
Atacama Equinox XLPro SE hi-fi rack

ASTIN TREW AT3500PLUS	£1,179
ASTIN TREW AT2000PLUS	£1,575
AstinTrew	
☎ +44 (0)1491 629 629	
www.astintrew.co.uk	
SPENDOR A5	£1,495
Sendor	
☎ +44 (0)1323 843474	
www.spendoraudio.com	

Reeling In

The new X Series Walkman has been touted as the iPod beater which everyone knows Sony is capable of producing, but does it live up to the hype? Tim Jarman decides, with a little help from Sony's past masters...



The new Sony X-Series Walkman is a touch-screen digital music player, similar in concept to the iPod Touch. Like the Apple, it features a WiFi internet browser, and can be used to show video and still pictures as well as playing music. Sony have focused the internet connection on music-related activities, so as well as normal browsing, downloading podcasts and viewing pop videos from YouTube can be done easily using the built-in utilities. Noise-cancelling headphones come supplied, which is a world first according to Sony. Equally interestingly, the 3" screen uses OLED technology, the next big thing in full-size TV displays. Other highlights include proper push buttons for commonly used functions like volume, play/pause and track selection, an FM stereo radio and Sony's own S Master digital amplifier in the headphone stage. The NWZ-X1060 reviewed here is the flagship model, with a vast 32GB memory, although a range of memory capacities (and prices) are available.

One thing that limited the market appeal of early Sony digital music players was their use of proprietary codecs and software. Vivalty though, the X-Series is altogether more inclusive, playing either MP3 or WAV (Linear PCM) files and comes with Windows Media Center 11 software for file transfer. Sony loyalists may find this a strange policy after years of hectoring about the superiority of ATRAC, especially as there is no ATRAC codec on board! The X Series won't talk to Sony's Sonic Stage software either, so you'll have a lot of converting to do if you want it to replace an earlier Sony model.

ON THE ROAD

The NWZ-X1060's built-in FM radio proved okay, although tuning was tricky because it is done by scrolling up and down a list of every frequency in the band, and the receiver only updates when the numbers stop moving, so you don't hear the stations as you scan past them. Charging of the built-in battery is via the USB lead, and because Sony don't supply a separate charger you have to connect the unit to a computer for up to three hours to charge it up. This is not always convenient if for example you are way from home a lot.

Before I started serious listening, I first reacquainted myself with its main competitor, the ubiquitous Apple iPod Touch. As ever, the sound was superficially clean and full of detail via the Touch, although bass was weak and the treble had a slightly sibilant and gritty edge to it. The soundstage also did not appear to extend much beyond the headphones (in this case the excellent Sony MDR-D77). This is depressing, as we've heard every generation of iPod get worse in sonic terms, although needless to say the packaging and user interface is sublime, as is the wonderful iTunes software.

Sonically, when compared to the iPod, the NWZ-X1060 instantly had a fuller sound with a stronger bass line and the headphone stage gave the impression of being a more refined design, driving the phones with an authority that the Apple machine lacked. Although more effectively suppressed, the same grittiness was still there in the background, and this appears to be a side effect of the MP3 encoding which was in both cases 192kbps, the highest that the

Microsoft software supplied with the Sony will allow. Still, the new Sony will play 320kbps AAC ripped via iTunes if you so wish, and it truly sings with these. So there is sonic gold in the hills, if you can be bothered to find it!

PAST MASTERS

Sonically the Sony had the Apple licked then, but how did it fare against the stiffer competition of Sony's own top models from yesteryear? Normally, a standalone review of a portable music player wouldn't invite comparisons with this Japanese company's illustrious past, but Sony boldly claim that the X-Series offers "the best ever Walkman sound quality", no less! Oh dear, that's precisely the sort of challenge that *Hi-Fi World* can't not take up...

Alongside a lot of decent, worthy but unremarkable stuff, Sony's canon includes the very best Walkmans and Discmans ever produced, and these were duly wheeled out to meet the new challenger. Representing cassette we have the 1988 WM-DC2, the peak of development in the cassette line and bristling with refinements such as a quartz locked DD capstan motor and Dolby C NR. For Compact Disc, the mighty 1989 D-Z555 is the choice, in the early nineties this was a serious piece of kit that still stands up today. For MiniDisc, the 2006 MZ-RH1 will defend the format's honour and finally Sony's first real attempt to take on the iPod, the 2007 NW-HD1 hard disc music player, is brought into play. This is an impressive amount of firepower, and not something any other rival manufacturer, from Apple to Archos, could muster...

The NW-HD1 in its original form plays ATRAC files only and so the

the Years...



from left to right:
 Sony WM-DC2 Walkman,
 Sony D-Z555 Discman,
 Sony MZ-RH1 MD Walkman,
 Sony NW-HD1 Network Walkman,
 Sony NW-ZX1060 Walkman (new).

test model was loaded with suitable files recorded at 256kbps, this being the standard "Hi SP" format that the latest Hi-MD recorders use when set to "standard" quality. The NW-HD1's problem has always been lack of volume and its basic headphone stage is no match for that of the X-Series, which is not only much louder (allowing a wider range of headphones to be used effectively) but it gives a much fuller bass sound. Against this the NW-HD1 sounded a little bland, although for music of a more gentle nature it offered a sweeter midrange and a slightly wider soundstage, possibly both courtesy of the ATRAC format. The X Series is definitely an improvement generally however.

Carrying on with the digital formats, the MZ-RH1 Hi-MD recorder was next into the ring. The recordings uploaded to this were the same as those used for the NW-HD1 so comparisons were quite straightforward. Although Sony claim that the S Master digital amplifier in the X-Series is new, the MZ-RH1 has a similar arrangement known as an "HD digital amp and high capacity coupling condenser". The effect is very similar, on full tilt both give similar levels of volume and neither fell apart as the setting was extended. If anything the MD machine served up even more bass than the NWZ-X1060 and this combined with the ATRAC advantage demonstrated by the NW-HD1 made it an altogether more enjoyable listen. The two did have an essentially similar character however, and in the end I felt that I was comparing two codecs rather than the two very different devices.

So far so good then, but now

it's time for the big guns. Although not strictly a Walkman, the D-Z555 Discman is a practical portable device and a simply stunning performer. It offers the sort of "walk-in" soundstage that the smaller digital machines using their compression-based formats came nowhere near to matching, and the detail it could resolve was simply stunning. The angular late eighties styling may make you expect a hard-edged aggressive sound but nothing could be further from the truth, smoothness and refinement were the main characteristics of the '555. If there was a weakness it was that the headphone stage lacked the finesse of that used in the X-Series and the Hi-MD when extended, but using the MDR-D77 headphones the sound was so loud at this stage that it almost felt as if the world was going to end.

And so to the joker in the pack, the WM-DC2. Although it may look like the personal stereo that you once took to school this particular model is a real wolf in sheep's clothing. The combination of a genuinely stable tape transport, an excellent head and top-drawer electronics make the WM-DC2 as close to transparent as any cassette portable can be. This means that the quality of the results depend uniquely on your ability to master the tapes and the quality of the equipment that you do it on. With the other models I tested there is nothing much you can do about the basic quality of the software but the cassette Walkman lets you take the sound of your esoteric turntable and high-end phono stage with you. For this you'll need a top cassette deck to make the recordings, so it's not an easy thing to do, but if you can

manage it the results are amazing. To some extent all the other machines never let me forget that I was wearing headphones but with the WM-DC2 I felt as if I was walking through an invisible concert hall, it really was that good. Against this there was a small amount of upper midrange muddle that has been largely eliminated in the squeaky clean digital world when sensible bit rates are used.

CONCLUSION

So, against such stiff competition, we *cannot* agree that the X-Series is the best sounding Walkman ever. Unfortunately for Sony, they've already made that, arguably in several incarnations! However, just because the PR hyperbole has been found lacking doesn't mean that Sony's latest Walkman is a stinker. Quite the reverse in fact, as it's clearly ahead of its greatest commercial rival, Apple's iPod Touch. The new X-Series is amongst the most impressive MP3 players that I've heard, and one simply must hear it before plumping for the default option iPod the next time you upgrade.

So why can I feel a tear forming in the corner of my eye as I flip through the album covers on that beautiful OLED touchscreen? I promised myself that I wouldn't use the word "derivative" in this review but it can't be done; the best old Sony personals were often so mould-breaking that they looked like they'd been found amongst the wreckage on the sands of Roswell, but the X Series feels little more than the iPod Touch Mk.II. It is a very fine machine, but still lacks that essential Sony-ness we all used to expect from a high end Walkman.

VERDICT ●●●●●

State-of-the-art modern music portable with excellent sonics and great flexibility, even if it's not quite the stuff of legend as with Sony Walkmans of yore.

SONY NWZ-X1060 (32 GB)

£230

Sony UK Limited

☎ +44(0)1932 816786

www.sony.co.uk

FOR

- smooth, powerful sound
- superb build
- brilliant screen

AGAINST:

- derivative concept
- middling interface
- fiddly FM radio

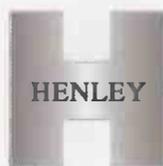
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Sevenoaks Sound & Vision, Southgate • Sevenoaks Sound & Vision, Holborn • Technosound Systems Ltd., Dunstable
Hi Fi Sound, Darlington • Unilet Sound & Vision, New Malden • Videotech, Huddersfield • Zouch Audio, Asby-De-La-Zouch

WORLD CLASSICS

DIGITAL

CAMBRIDGE AUDIO CDI 1986 £1500
Inspired Stan Curtis redesign of Philips CDI104, 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-PI200 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.



In this heavily revised section, you'll find the great and the good from audio's glorious past. Most are seminal designs which have earned their place in hi-fi history, but 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. Think we've overlooked something? Then write in and let us know!

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 superdeck 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 PL12D 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 CS50S 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.

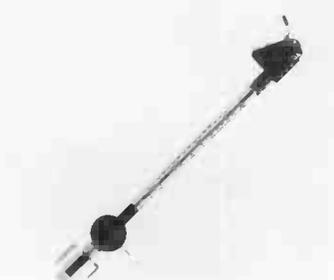


LINN ITTOK LVII 1978 £253

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 80W 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/PS1 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.

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.

CROFT MICRO 1986 £150
Budget valve pre-amp with exceptionally transparent performance.

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.

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.

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...

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 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.

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.



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 rigueur 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 £1000PR

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

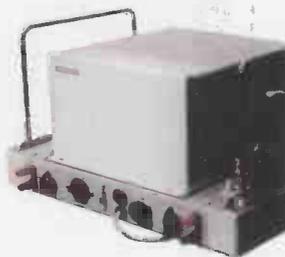
The first of the current dumpers is a capable design with smooth, effortless power and a decently musical sound. 606 and 707 continue the theme with greater detail and incision.

QUAD 303 1968 £55

Bullet proof build, but woolly sound. Off the pace, but endearing nonetheless. Some pipe smoking slipper wearers swear by them!

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.



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.

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 CA53140 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 4.5; 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 AB1 subwoofers for an extra two octaves of bass!

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.



LOWTHER PM6A 1957 £18 EACH

This seminal full-range driver is still manufactured. High sensitivity, as fitted to many classic horn designs.

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 / B110 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 BCI 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 wide-band 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...



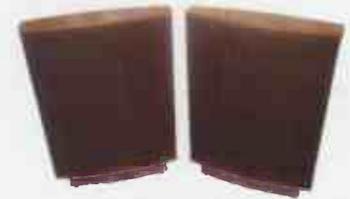
LEAK SANDWICH 1961 £39 EACH

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!



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ADVANCED ACOUSTICS ORBIS PANEL £250

Audiophiles know only too well that it's possible to have the very best system in the world, sat on the very best stands and set up with millimetric precision, but it can still sound poor if the room in which everything is located is not up to scratch. On more than one occasion I have witnessed the old, "which is the most influential component in the system?" debate and listened amused as the source brigade argue with the loudspeaker fans, and then both fall silent as someone pipes up and points out that actually it is the room that has the biggest influence.

Unless you are lucky enough to have a dedicated listening room, it is inevitable that a compromise of system versus furniture positioning will have to take place, but there is no reason why a spot of room treatment cannot be introduced. Well, aside from the fact that most professional room treatments resemble something not too dissimilar to egg cartons stuck to your walls! Equally, if you do have a dedicated listening room, this will still give of its best once judiciously tuned, the problem being of course the need for something more domestically acceptable than the aforementioned egg conveyances.

This is where Advanced Acoustics come in, a company specialising in such acoustic treatment products. And they've just added a new range of products going under the Orbis name. These are freestanding units, five feet tall and available in two variants – the Wall Orbis and the Corner Orbis. Where they differ from the Wall panels is that they are freestanding in wooden plinths and thus can be easily positioned without needing something to lean against or be fixed to.

Both Orbis items consist of an open cell acoustic foam core surrounded by open weave cloth, and can be positioned appropriately so as to absorb unwanted reflections and standing waves. The Wall Orbis is 30in (75cm) wide and 6in (15cm) deep at its thickest, whereas the Corner Orbis is 18in (45cm) wide and 12in (30cm) maximum in depth. The outer cloth covers are available in over forty styles and so there is highly likely to be something in the range to satisfy the visual demands of even the most hardened Laurence

Llewellyn Bowen wannabe!

Advanced Acoustics provided two Corner Orbis panels and two Wall Orbis units for review and I spent several evenings experimenting with them in my own listening room. One of the biggest problems I have is that one of my loudspeakers is in



front of a window and this hard reflective surface does tend to skew the soundstage somewhat. Whilst I normally move the loudspeakers for serious listening as a result, this isn't something I'm keen to do too often as my Ferrographs are heavy, and I was delighted to discover that slipping a corner Orbis into the space behind the offending channel worked absolute wonders. The soundstage snapped back into perfect focus and finer details on the right hand side, which had previously tended to be a little jumbled as a result of those troublesome reflections, came back through loud and clear, as if neatly pushed back into place.

Moving the two Wall Orbis items around showed that the troublesome first

room mode between loudspeaker and listener could be tamed very effectively, adding detail to upper bass and better focus to the lower midrange. However, one on each side of the room proved too much, but one on its own (on either side of the room) was not quite enough.

Consequently I moved the second

Wall Orbis to behind my listening seat and was pleased to hear that the low bass was now in no way curtailed by the introduction of these absorbent panels (which can be a side effect if you over-damp your room) and actually gained both impact and a better sense of timing. There was now no hint of a kick drum being lost in the mix, or a double bassist seemingly struggling to keep up with the rest of the orchestra; the Orbis panels seemed to help everything knit together perfectly.

As a final step, I did bring in the fourth panel and try it in several positions, but this did indeed prove a step too far in my relatively small listening room, muddying upper midrange and seemingly draining the life from more upbeat music, no matter where I placed it. As always, judicious experimentation is the key and make sure to use no more than you actually need!

In summary then, the Orbis Corner and Wall panels are highly effective room tuning devices. Whilst I personally feel that Advanced Acoustics' conventional wall-mounted panels are a better visual proposition for permanent installations (as they are much slimmer and less noticeable), the fact is that the Orbis units can be easily moved around and also completely removed if required once your listening session has ended and your room is required for domestic duties once more. Consequently, they should be high on any serious audiophile's audition list. **AS**

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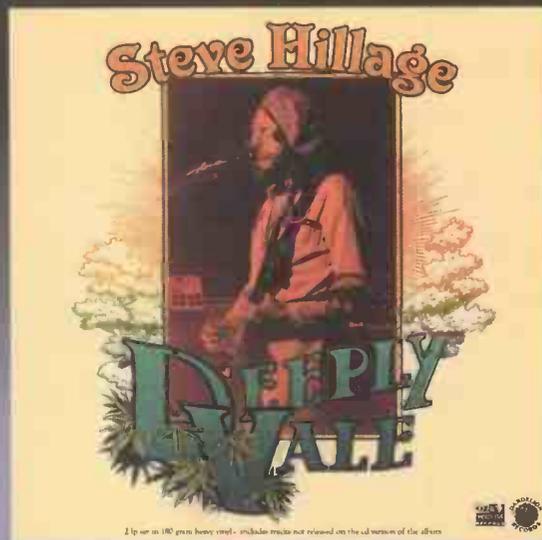
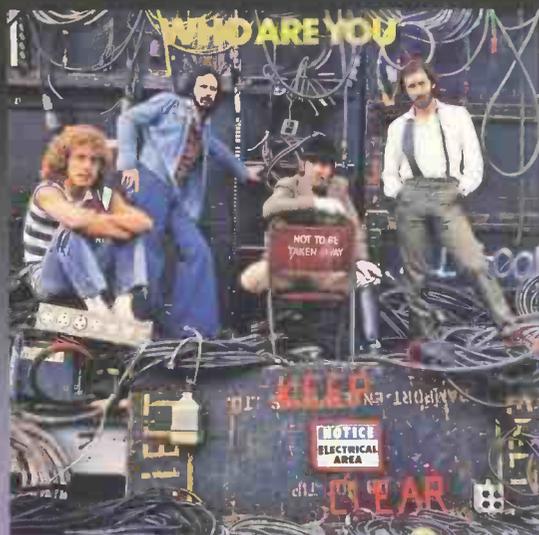
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THE WHO
Who Are You?
Classic Records

Seen by many as the last proper album by the band (Keith Moon was to die soon after its release), this is a patchy album by the group's high standards, neither fully addressing contemporary themes or staying loyal to their roots. Fans should be happy however, as this is the best version of the album on vinyl ever released. An excellent master.

Classic Records supplied the LP in both 140gm and 200gm weights for review. One thing that has continuously bugged me for many a year is the difference between standard and heavy vinyl weights. Do they actually sound different? Most people say no, apart from a certain level of anti-warping protection that is offered by the thicker vinyl. Using both variants I was able to properly test for differences, utilising an Avid Acutus turntable. Incredibly enough, I did hear sound differences. I express surprise because I really

didn't expect any. What did clearly emerge was a greater depth to the entire presentation that worked like a pyramid, affecting the bass resonances the most and then trailing away as it reached towards the treble areas. So, on the 200gm version, the bottom end offered a meatier presentation whilst the midrange, less affected, still produced a fuller, slightly sweeter, tone.

I'm still not *totally* convinced however, that this test, successful though it was in this case, is a universal result. Classic Records has the most advanced vinyl production and pressing capabilities in the world and, to be frank, it has the capacity to exhibit improvements. Other record labels, with standard production facilities, might not show the same degree of enhancement, if at all. As such, all I can conclude is that in the case of Classic Records, 200gm is best. Middling though it is in the Who's classic canon, 'Who Are You?' is still an enjoyable listen.

STEVE HILLAGE
Deeply Vale
Ozit Records

Steve Hillage is one of those musicians with a long illustrious career that too many people just don't know about. He's transcended entire genres with great success and is one of the best guitarists the UK has ever produced. Member of cult-prog rock outfits such as Uriel, Egg and Khan then the spaced out circus that was (and still is) Gong, Hillage went solo in 1975, releasing 'Fish Rising'. After a range of solo albums, Hillage joined Techno Dub legends, The Orb in 1989 and then formed his own melodic trance/techno outfit, System 7 along with Miquette Giraudy, which is still recording original albums to this day.

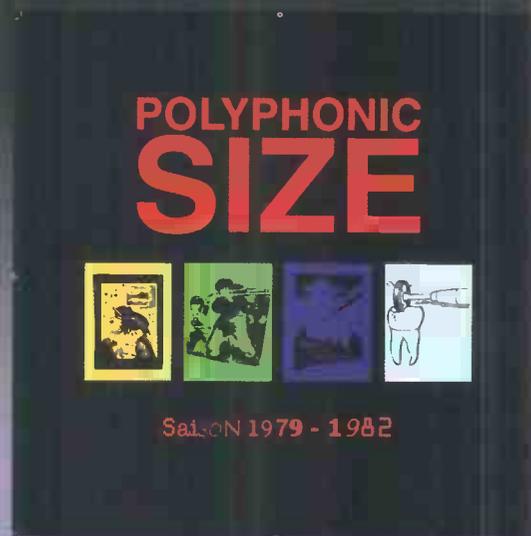
This album, which has been produced on the back of recently discovered tapes, takes us back into Hillage's past and his early solo years. Taped at the free rock outing, the Deeply Vale Festival in 1978, during Hillage's 'Green' LP era when his work adopted tones of Pink Floyd,

i hear loving

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Berlin-era Bowie and Prog, this double album, presented here in an attractive gatefold, takes tracks from the albums 'Green' plus 'Motivation Radio', 'L' and 'Fish Rising' and the Beatles cover, 'Getting Better'.

The live performance is excellent from Hillage, whose guitar work has always been one of the Seven Wonders Of Rock, but the LP sound quality is not exactly audiophile standard. This recording suffers from a bed of hiss that underlies the whole performance.

That said, as the only surviving transcription of the performance (we think), it serves as a valuable archive. Hillage fans should be happy that Ozit has prevented it from being lost forever. Limited to 500 copies, and arriving with a good quality gatefold plastic cover that opens with the sleeve plus poly-lined inners, this is a valuable and collectable release for Hillage cognoscenti.

MISSISSIPPI FRED McDOWELL "I Don't Play No Rock'n'Roll" Pure Pleasure

McDowell was blues through and through. When you hear him, you hear the likes of Charlie Patton with his gruff vocal style and aggressive guitar playing, utilising a bottleneck attack that took no prisoners. McDowell was an oddity in the blues scene because he appeared, during the mid-sixties, from nowhere as an ageing genius, amazing all who heard him. Other blues greats of the time had some form of archive to draw upon, 78s, old field recordings and the like...

The title of this album is both

a measure of the man but also a back-handed dig at other artists in the contemporary blues field who watered down the blues to incorporate other genres. Possibly because they felt that the blues needed to be more progressive or possibly because they were chasing the dollar. McDowell was having none of it, however. Star fans did want it, as his works were covered by the likes of The Rolling Stones and Bonny Raitt. That said, some blues purists thought that McDowell was 'selling out' because, like Dylan before him, he picked up an electric guitar and had a young white backing band for this 1969 release and, again like Dylan, the resultant music sounds pretty darned good.

The record, which was initially released on the Capitol label, has been mastered by Steve Hoffman in the USA from the original master tapes, and it shows with an excellent presentation. In conversation with Pure Pleasure owner Tony Hickmott, he did say that, as the original tapes were present in the USA, it was easier to ask the US-based Hoffman to master this release than arrange tape copies to be made and transferred to the UK. An excellent release and an essential listen for any blues fan.

POLYPHONIC SIZE 30 Years After - When The Size Was Polyphonic Vinyl-On-Demand

Launched in 1979, this group, which combined electro with pop and a slice of new wave ethics thrown in for good measure, produced their first

EP on the small underground record label, Sandwich Records. Later, friend of the band JJ Burnel, the bass player from The Stranglers, would produce and occasionally play and even sing with the band.

This set focuses on the first three years of the band's existence and is packed with rarities. The material includes unreleased tracks, demos and outtakes, all of the singles released in this period including the maxi singles plus the first LP produced by JJ Burnel. On top of that little lot are B-sides and rare tracks and unreleased material remastered from the band's founder, Roger-Marc Vande Voorde's own archives. The music itself ranges from a pastoral version of Kraftwerk with a smooth vocal blended with easy-going organic synth noises to a more, post-punk variable of, say, Wire. It definitely edges toward rather left-field regions of electro, that period when bands liked to portray a more robotic, dehumanised vocal style but, in this case, via the French language.

Presented as a luxurious box set, the package arrives in a pizza-style box. Insides are four LPs, each in their own wax-coated inner sleeve which are placed within their own outer covers plus a large format booklet printed in colour on thick card presenting lyrics, photographs and more. Limited to just 600 copies, this is a real treat for fans of the band and a discovery for those of us who enjoyed the electro stylings of the early eighties, a highly significant period when we were on the cusp of the digital age. An excellent and varied suite of music. **PR**



Riptide

After the now defunct Ripfactory Ripserver comes the new Illustrate RipNAS. If hard disk based digital music is your game, then remember its name, says Patrick Cleasby...

It's hard for newcomers to get their heads around the subject, but playing music via computer networks is getting ever more popular. Indeed, as soon as you try it, you begin to see why. Having instant access to all your Compact Discs on one central server, with no need to faff around with CD jewelcases and storage racks is an amazing boon.

The trouble of course is that until recently the music itself has had to be stored on home computers, and this isn't the most elegant solution given that your PC or Mac is probably doing other things already. So what the world needed was a purpose-designed box that can store all your digital music, automatically ripping it in the best possible quality.

There have been several attempts at this, not least Ripfactory's Ripserver, but they've fallen by the wayside for a number of reasons. And now it's the turn of RipNAS to try. The maker of the new RipNAS is Illustrate, the company that first gave the world dbpoweramp CD ripping software which many folk who listen to their music from their computers via NAS (Network Attached Storage) drives will know and love, so it's off to a good start...

RipNAS is a bespoke NAS device in a small 240x250x190mm box,

designed to let you feed your CDs into its slot and rip them to the built-in hard disk drive, along with all the associated metadata (album/artist/track, etc., information) and artwork. The idea is then that you play it through a network music player such as a Linn DS. Effectively then, you can think of the RipNAS as a kind of 21st century 'CD transport', while the network music player is the DAC.

Both the now-defunct Ripserver and the new RipNAS we're looking at here are both expensively priced in comparison to common-or-garden NAS solutions (the ITB RipNAS here costs £875). But the experience of getting the best out of Digital Audio Extraction (DAE) doesn't come cheap; it's a job that is easy to do cheaply but hard to do well...

They are both, in common with most of the networked digital music community, designed to use lossless CDDA compression using FLAC, and allow for simultaneous high quality MP3 creation for mobile portable use. Both are designed to be usable by those unwilling to get into building their own machine to do this job.

Although both are effectively specialised, cutdown, headless PCs, built to a near silent fanless design, the Ripserver was cunningly built on the Linux operating system. In theory this was inexpensive and

open-source, but in reality the last-minute change to the CentOS Linux distribution before shipping meant the whole thing was built on sand. Take a look at the near-dead forum at www.ripserver.co.uk and you will read tales of units that simply stopped working under the weight of their own software complexity. The lack of support responses (even post-receivership the founder occasionally posted there) is in marked contrast to the vibrant, proprietor-led discussions on the www.dbpoweramp.com forum.

The proprietor (and the brains behind Illustrate and dbpoweramp) Steve Elkins, aka Mr. Spoon, had an altogether different plan. He had presumably spotted the viability of the slightly obscure Windows Home Server (WHS). It is a variant of Windows that unlike the abhorrent Vista actually quietly and unassumingly does the job it was designed to do, which is being the hub of a home network responsible for supplying resilient folder sharing, PC backup, media streaming *et cetera*. To these more solid foundations he added a carefully selected TEAC DVD drive (see the statistics on its exemplary error correction as a sticky on the RipNAS forum), and his already highly regarded accurate ripping and conversion software

(namely dbpoweramp), supplementing these with a music-only alternative to Twonky Media Server called Asset uPnP/DLNA.

Asset was developed in collaboration with Linn to provide a back end for their DS machinery, but is equally able to serve a surprisingly common uPnP front end like the PlayStation 3. The NAS could also service Sonos, although as that is 16bit only it needn't concern us here. As with the Ripservers, for networked iTunes integration the Firefly DAAP (Digital Audio Access Protocol) is employed, but here it is much more useful, as the RipNAS is cleverly able to present its FLAC files to iTunes as if they were .WAV files. Finally, and thankfully for the 24/96-capable Logitech Transporter community, SqueezeCenter 7.3.2 (apparently once again to be re-baptised Squeezebox Server in the 7.4 I updated to) is provided out of the box.

SET UP

Like the old Ripservers, the RipNAS package consists of a simple black box (which in this case is flatter and more attractively presented with cooling heatsinks each side and a top grille), a manual, a laptop-type power supply and an ethernet cable. Both are PCs to which one can attach screens and keyboards, but you should never need to.

Thoughtfully, Illustrate have also supplied a PC Setup disc for Windows Home Server Connector (the means by which one adjusts settings and views ripping progress on the machine from your own PC), along with a system restore USB key and insertable CDs to trigger optional encode settings. The RipNAS ships with default encoding of just FLAC - options include switching to Apple Lossless, and I used the option to rip to FLAC and Lame-encoded 320kbps MP3 simultaneously.

No matter how good Windows Home Server is, its Connector add-on proved painful to install, failing on XP SP2 and limping to completion on Vista. But then again I did need to switch on one of the RipNAS ancillary encode DSP settings, the one called 'HDCD', more of which later! Thankfully I was later to discover that by downloading Remote Desktop Connector 2 from Microsoft's Mactopia, I could access the WHS console from my Mac

desktop - as well as being able to access the FLAC data in the /Music share automatically in the finder window. I just needed to authenticate using the Administrator details provided on the bottom of the device. Tweak stuff of course, but if you just want to get going with the minimum of fuss, the RipNAS isn't that much harder to configure than a WiFi printer.

As people's FLAC music collections become ever bigger and more ubiquitous, it becomes important that old collections can be dropped onto new servers easily. In this regard the RipNAS excels - as even for Apple users as myself with multiple terabytes of music on HFS+ disks, it permits a viable option. Where the Ripservers was always slow and unreliable in network transfers of bulky data (slow, secure FTP via Fugu being the only route) on the same 802.11 network the RipNAS permits easy drag and drop at near normal speeds. Even better, Mac tagging operations over the network using the excellent sbooth.org's Tag application work reliably, whereas they never did on Ripservers.

RIPPING AND AUDITIONING

Starting off with the new RipNAS from scratch, I found myself spending a weekend simultaneously ripping CDs to it and copying some data over the wireless network. The 2GB of RAM enabled the RipNAS to cope impeccably with these simultaneous demands as a 'set up' task.

One of the great advantages that dbpoweramp has over the Ripservers alternative is that the software makes use of the internet-hosted Accuraterip database to check that you have a 100% perfect rip. The WHS RipNAS console gives a pictorial representation of the accuracy of the rips, calling them 'secure' if they were ripped successfully but not found in the Accuraterip database.

Given its fine build quality and ease of set-up and use, I was duly very interested to find out how it actually performed as a digital music source. In other words, how well did it rip and then play CDs? Well, luckily I had a goodly number of music files available to me which editor DP had ripped when reviewing the Naim HDX earlier this year, and thoughtfully copied to me, purely for research purposes of course! Concentrating on the Pet Shop Boys 'Pop Art', a selection of tracks all demonstrated a marginally smoother bass tone, and a fractionally

more convincing vocal in the RipNAS tracks. Now, given that the HDX is capable of superb quality rips, the RipNAS turned in a brilliant performance. Make no mistake, all accuracy-checked files done on this machine

are the definitive versions. The other useful area to test is how well the architecture copes with 24bit playback. This was easy enough with 24/96 vinyl rips, Brand X's 'Euthanasia Waltz' sounding particularly lively, or 24/48 DVD-A rips like NIN's 'The Downward Spiral', with 'Hurt' sounding as scarily spooky as ever. In short, in sonic terms the RipNAS performs *par excellence*.

For me personally, this little box of tricks provided the Holy Grail of Compact Disc ripping, which is the ability to seamlessly make 24/44.1 FLAC files from HDCD source material. I realise that not *everyone* cares about HDCDs any more, but the format still has a goodly number of fans worldwide. Whether I simply made new rips such as the Neil Young Archives CDs, or got the software to 'inflate' previous 16bit lossless rips which preserve the HDCD flags (Mr Spoon's ingenious dbpoweramp batch conversion can 'inflate' them to their true 20 bit loveliness, in a 24bit FLAC wrapper), the system worked superbly. The trick was performed on The Cars 'Let's Go' from the HDCD Candy-O remaster, and all that new-wavey top end was much less abrasive in the enhanced version. And with the conversion software on board these derived tracks can easily be transmuted into MP3 for higher quality mobile listening. Wonderful!

CONCLUSION

This is a premium priced product, but is very powerful and flexible if you want it to be, and if you don't then you'll find it pretty easy to set up and get going. However you configure it, the good news is that it works superbly, giving top quality rips and thus serving as a fine network music source. Personally, I initially found the Windows Home Server basis of this product off-putting, but having been told by industry-types that both the OS and the product were robust, I began to trust it and was rewarded with a very reliable, glitch-free user experience. With decent build, superb software and great performance, the new RipNAS justifies its premium price and is surely one of the very best products of its type that we've seen so far.



Windows Home Server Settings give powerful set-up options for the RipNAS...



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Here's your chance to win one of the best modern miniature loud-

speakers around, the Audiosmile Kensai, which received a rave review in the June 2009 edition of *Hi-Fi World* magazine! Here's some of what Noel Keywood said...

"I'm used to high quality miniatures, but still the Kensais took me by surprise. Not only are they deeply proficient at a technical level, they're beautifully voiced and sound wonderfully natural. Each speaker uses a small 12cm diameter magnesium coned bass/midrange unit. Magnesium is both light and very rigid, favoured in aircraft manufacture. Audiosmile have used a bass loading that gives about the deepest bass I have ever heard from a small cabinet. It was almost a shock, because not only does the Kensai go low but it also has an easy and natural rhythmic pace that made my bass-heavy test tracks from Angeliqe Kidjo albums sound perfectly weighted. They also use an Isoplanar ribbon tweeter; if you want to hear treble that's light, delicate and all but colour-free then an Isoplanar unit gets close to an electrostatic. Put all this lot together and you get a delightfully integrated sound from a loudspeaker that has a wonderfully consistent character, largely because the drive units not only work well in themselves but also together. The Kensai is fast, yet also pure in its tonality, with

surprisingly little character of its own.

The Kensai is quite forward, so makes its case known from the off. Celine Dion singing 'I'm Alive' was brightly lit and very expressive... what these speakers have is superb intelligibility. Meanwhile, bass was strong yet spry and punchy and the rhythmic timing spot on. This picture was repeated with Nigel Kennedy's engagingly energetic yet expressive renditions on violin of works such as Vivaldi's 'Spring', where that every fine nuance of expression within his playing was captured with a surety that brought out his musicianship. The sudden, final adagio was a good example. I suspect this is partly explained by the Kensai's lack of hash and overhang. Strings were also very well separated with no sign of the agglomeration that dogs so many loudspeakers when

attempting to reproduce violin. In a nutshell then, with their light, airy sound, wonderful detailing and crisp sense of timing, the Kensais reproduced violin almost to perfection. Audiosmile's new Kensai is a loudspeaker that justifies its manufacturers moniker: it made me grin alright. It's a nicely judged and thoughtful piece of engineering that produces a great sound, quite unique in many areas and very impressive too. So, if you are looking for high quality miniatures that seemingly offer the impossible from a diminutive cabinet, you'll find these raise more than just a smirk."

For a chance to win these great loudspeakers, just answer the following four easy questions. Send your entries on a postcard only by 31st August 2009 to: **September 2009 Competition, Hi-Fi World magazine, Unit G4, Argo House, The Park Business Centre, Kilburn Park Road, London NW6 5LF.**

QUESTIONS

[1] What's the diameter of the mid/bass unit?

- [a] 12cm
- [b] 15cm
- [c] 20cm
- [d] 30cm

[2] What metal does the Kensai mid/bass driver use?

- [a] magnesium
- [b] aluminium
- [c] beryllium
- [d] titanium

[3] What type of tweeter is used?

- [a] Isoplanar ribbon
- [b] electrostatic panel
- [c] piston metal dome
- [d] plasma

Noel said the Audiosmile justifies its what?

- [a] moniker
- [b] price tag
- [d] size
- [c] weight

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**JUNE 2009 MYRYAD Mi WINNER:
Mr. P. Ward of London**

"this month's group test shows there's life in the old dog that is Compact Disc, yet..."



david price

Has digital's dough cooked, or does it still need longer in the oven? It's a funny thing to say but digital audio - as we generally experience it - is way past its sell by date. Undercooked but over-ripe, the specification of Compact Disc (and, by association, all its compressed and non-compressed computer file variants), is positively prehistoric...

Think of it like this. When CD was born in 1982, the business world was just beginning to adopt a radical new IT system called the 'IBM Personal Computer'. Sporting an Intel 8088 processor running at a dizzying 5MHz, it was essentially an 8bit 'silicon chip', and had I think 64K of memory, a black and white monitor and a tape drive. Times have changed in the computer world I should say, but a trip down to your local record store will show that the music sector has virtually stalled for a quarter of a century.

Indeed, the audiophile end of the hi-fi world has actually gone back to basics. By posting impressive hardware sales growth in the turntable market, it's the equivalent of the entire IT sector spurning their PCs and going back to DEC minicomputers, complete with open reel tape memory drives!

Of course, high quality digital has had its brief flourishes - rare moments in the course of recent history when it just about looked like the game was going to be moved forward. Digital Audio Tape, lest we forget, appeared just four years after CD, and in sound quality terms at least was a small but significant step forward. As anyone who's ever heard a DAT machine running at its native 48kHz sampling frequency will know, yes it really does sound quite a bit better. More open, smoother and more spacious, the big difference that slightly higher sampling frequency

shows you just how marginal CD's 44.1kHz rate is. So much so that you almost get the feeling that it's '0.1' just about saved its life!

After DAT, we had DVD-Audio (DVD-A) and Super Audio Compact Disc (SACD). Like the proverbial London buses, two new formats arriving at the same time was just what we *didn't* want. Those working to ensure the survival of CD couldn't have planned it better if they'd tried. Actually, both formats had real merit, but they practically cancelled each other out. Punters were confused, and returned instead to their sixteen bit, 44.1kHz comfort zone of Compact Disc.

We did extensive measurement at the time, and I spoke to a lot of digital brainboxes like Professor Malcolm Hawksford. The consensus of opinion was that both new formats were flawed, but far less so than CD, and offered different 'flavours' of digital. DVD-Audio's 24/192 specification was technically superb, but the 'brickwall filtering' at very high frequencies (way past the audio band) could still in theory leave fingerprints further down the spectrum, which the ear could hear. SACD of course bypassed the need for such intrusive filtering, but didn't quite have the same depth of detail (i.e. resolution).

In practice, the two systems sounded superb - and different. DVD-A was super clean and detailed, with loads of physical grunt, whereas SACD was rather beguiling and sweet. Both were dramatically better to CD, but all my early listening tests ten years ago taught me something very interesting indeed...

Despite the impressive specs, so-called 'hi res' ultimately depended on the quality of the hardware involved, not the software. A real ear-opener was listening to Ken Ishiwata's super-tweaked CD63 KI DP CD player playing the CD layer of Simple

Minds' 'New Gold Dream' album, then switching over to a £2,000 Sony SCD-9000 playing the SACD layer. In almost every respect, save a degree of treble air, the hot-rodded CD player won hands down. The KI DP was (and still is) a brilliant CD spinner, but the Sony was no slouch as an SACD tool - so it shouldn't have been the rout it was.

So, given that 'it ain't what you do, it's the way that you do it', this takes us back to, ermm, the future. Hi-res audio does live on, in a way, via digital downloads from select labels such as Linn Records and Naim Label, and also in a round-about way via the new standards appearing on Blu-ray players. But it's fair to say that the world was offered the chance to buy better (and with SACD to keep CD too, so the discs would play on legacy machines as well), but it simply wasn't listening. Now we're back to the problem of making that Red Book CD standard, a thing of almost archeological interest as opposed to the 'white heat of technology', work half decently.

The good news is that ever better performing DACs, upsampling (where the 16/44.1 digital audiostream is spun up to twice or four times its native sampling frequency and then fed into 192kHz-capable DACs), and superior analogue audio output stages (sometimes even with valve buffering), can really polish the, ermm, whiffy thing.

This month's group test shows there is life in the old dog that is CD yet. A middling or ageing CD spinner can be usefully upgraded by buying a decent DAC, and if you've really got the funds to commit, the best modern technology means Compact Disc can be made to sound really rather good. Still, one of my gravest reservations remains - if only they could 'upscale' its nasty little jewelcases to full 'prog rock'-spec twelve inch gatefold LP size! ●

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"master tapes are time capsules that contain the sights, smells and cultural coding of the performance..."



paul rigby

I'm fascinated by master tapes, not just because they hold the essence of the creative process. They're time capsules that contain the sights, smells and cultural coding of the performance. And not just because they provide the best quality sound that audiophiles like you and me adore. It's because they are rolls of mystery – and I do like a good mystery. The tape may feature labeling telling you who recorded it and when and what's on it. Other tapes have no labeling at all. No matter however, because you never really know until you play it. Yes, the tape may feature the recording of an album but will it also feature alternate takes, intriguing chatter from the band members, long forgotten songs or even music from other artists? It's not been unknown for studios to record over tapes meaning that, when an album session had finished from one band, the unused portion of the tape at the end contains part of a session from a completely different band or artist. You just can't tell!

Mark Powell, who runs the niche label Esoteric Records (part of the Cherry Red group (www.cherryred.co.uk/esoteric/index.htm), is of the same mind. A big fan of prog, space rock and quality blues rock, Powell's label is packed with bands such as Hawkwind (via the Atomhenge imprint), Spooky Tooth, National Health, Man, Egg and Barclay James Harvest plus many more. He used to manage the Canterbury scene outfit, Caravan and has been in charge of a number of projects for a range of similar bands for just about all the major labels in the UK.

Powell is persistent in his search for sound quality and taking his search back as far as possible to the original source. This has meant

that he is often able to exploit his excellent connections to utilise original multi-track masters, a highly privileged position to be in. In fact, many of the audiophile vinyl outfits that are featured in these pages never get anywhere near multi-track masters, even if they exist in the first place. This means that Powell can not only remaster his works from original tapes, but sometimes has the opportunity to remix them to take advantage of advanced studio equipment of today and, thus, to enable today's hi-fi equipment to extract even more information.

"For example, when we did the Man catalogue last year, particularly 'Back Into The Future', some of the album was originally recorded at the Roundhouse. I was able to go back to the original Roundhouse concert multi-tracks and add the entire show as a couple of extra bonus discs to that original release. We've recently been doing that with Hawkwind too. With the album, 'Quark, Strangeness And Charm' we added an extra disc featuring alternative tracks and out-takes," said Powell.

It seems odd that in the twenty first century, we are still being surprised with finds, and not just via forgotten corners of dusty archival major label libraries. Sometimes these surprises occur when the band itself owns and stores its own tapes. Powell was responsible for the recent reissue of the Moody Blues catalogue via Universal. The band looked after their own master tapes. "I went to their offices and their tape storage room," said Powell, "and was able to wade through all the tapes myself. There were a number of things that were not clearly labelled or you suspected that there might be something interesting. During this

time I stumbled over two completely unreleased songs that no one had ever heard of before. One, written by Justin Hayward, from January 1973 for an aborted album that would have followed on from 'Seventh Sojourn' (1972) but never had been released. There was another track that was found on the tapes for 'Every Good Boy Deserves A Favour' (1971) which was a Justin Hayward/Ray Thomas composition. When you rediscover this sort of thing, bands say, 'Oh, now I remember doing that, I'm glad you found it.'"

Another example occurred with a new Esoteric release, 'The Spooky Tooth Anthology 1968-1974'. The two CD package includes two previously unissued tracks: 'When I Get Home' and 'Something Got Into Your Life'. Both were included on a master tape from the 'Spooky Two' album. "These songs may have been found on the master tape," said Powell, "but they were recorded and promptly forgotten. The two forgotten tracks were recorded mid-November 1968 but the 'Spooky Two' album was recorded in January/ February 1969. In fact, the music for one of the 'missing' tracks was used within the 'Ceremony' (1970) album, which we have also released."

Powell's primary format is CD, and for digital fans out there, his works should be examined on sound quality alone. He produces his records via carefully selected mastering houses such as Audio Archiving Company in North London (packed full of original ex-Decca equipment). Finally, for analogue fans, Powell revealed the excellent news that Esoteric will be launching its very first vinyl editions soon using four Hawkwind albums to test the water. As soon as I can grab 'em, I'll review 'em! ●

“ THE ULTIMATE REAL WORLD TONEARM ”

HI FI WORLD MAY 2009

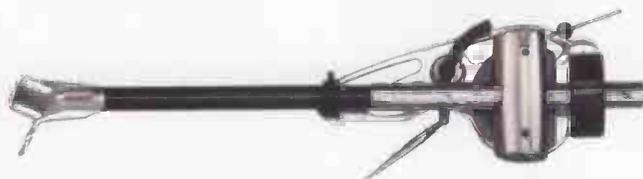
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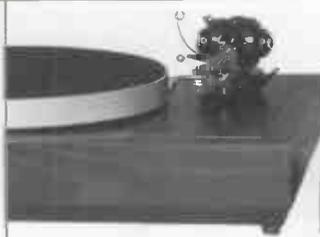
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"the longer it takes to switch off FM, the more people will choose to listen via the Internet..."



steven green

In response to the Government proposing that FM stations should be switched off in 2015, I've started a 'Save FM' campaign whose main aim will be to try and stop the BBC switching off its national FM stations. Another aim will be to campaign for the BBC to switch its stations from DAB to DAB+ as soon as possible, and that they should definitely do this before the BBC's FM stations are switched off. If you support the campaign's aims, please sign up at www.savefm.org.

In my opinion, the most effective thing that people opposed to the plans for FM can do at the moment is to contact the BBC Trust ([trust: enquiries@bbc.co.uk](mailto:enquiries@bbc.co.uk)), and request that the Trust carries out a public consultation on the issue. The BBC Trust regulates the BBC, and in the Trust's own words it, "works on behalf of licence fee payers", and it says it will consult with the public "when there has been a proposal for a... significant change to an existing service". Well, you don't get much more *significant* a change to an existing service than proposing to switch it off!

The main question that such a consultation should ask is obviously whether the public is in favour of FM being switched off at all, but also for those people that aren't completely opposed to the idea they should be asked whether they're in favour of FM being switched off in 2015, or whether they favour a more reasonable switch-off date, such as 2020 or 2025, which would allow the public to replace their existing audio equipment at a more reasonable pace.

Another important question that the public deserves to be asked is whether they think a digital radio system that is proposed to replace

FM should provide the same level of audio quality as FM does?

The plans to switch off FM stations in 2015 were discussed on Radio 4's 'Today' programme, on 'Feedback', and on 'You & Yours' in the week following the announcement, and on each occasion the presenter said that they had received an overwhelming response from the audience, and that listeners were almost unanimously opposed to the idea. So I think that answers the question about whether the public is in favour of the plans as they currently stand. And it's common sense that no sane individual would actually want digital radio to deliver lower quality than FM does, yet that's precisely what anybody that currently receives FM with good reception quality will end up with if DAB replaces FM without the broadcasters switching to DAB+ first. So if the public isn't consulted on these issues, then to my mind it wouldn't be legitimate for the BBC to switch off its national FM stations, because doing so would clearly be acting against the will of licence fee payers.

When you look at the motivation behind forcing the public to adopt DAB as quickly as possible, the decision becomes even more outrageous. The official justification set out by the Department for Culture, Media & Sport is that switching off FM stations would save the commercial radio groups £40m per annum in transmission costs. But such cost savings are dwarfed by the estimated £5 to £7 billion that consumers would have to spend on replacing existing audio equipment that can only receive analogue radio – and why should the public bail out commercial radio anyway? And in return for spending so much money, the large majority of people will, in my opinion, receive *no benefit*

whatsoever, because the vast majority will simply carry on listening to the same stations as they did on FM – just at lower audio quality...

In reality, far and away the main reason behind this decision is actually because the broadcasters are petrified that the longer it takes to switch off FM the more people will choose to listen via the Internet rather than via DAB, and because of the almost infinite amount of choice available online, the broadcasters think that people who listen via the Internet would be less likely to listen to their stations. So consumers are effectively being asked to spend up to £7 billion so that the BBC and commercial radio can hang on to their listeners.

Considering that it was the BBC and commercial radio that recommended to Government that an early FM switch-off date should be set, and the Government merely went along with their recommendations, it would be nice to think that a BBC Trust consultation about the whole affair would ask the public whether it thinks that the BBC should take long-term strategic decisions that help it hang on to its listeners when such a decision is completely against the interests of licence-fee payers?

Another question they could ask is whether the public wants to adopt the twenty-year-old DAB system that the rest of the world has turned its nose up at using, and especially at a time when there are technologies just over the horizon that promise to transform the speed of mobile broadband systems in a similar manner to when fixed-line Internet switched from dial-up to broadband? In fact, they could simply replace all of the above questions in the consultation with this one: are you in favour of being conned by the broadcasters? ●

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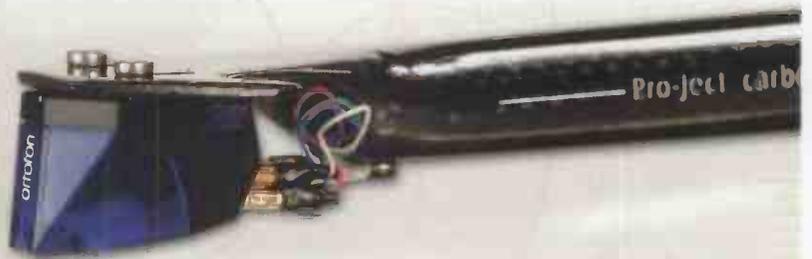
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"DAB has absolutely no useful future. The £40 million already spent on setting up DAB was a waste."



noel keyword

I never thought our wails of despair over the BBC's determination to impose DAB radio on us would ever be heard, let alone fall on fertile soil. But after reading Libby Purves's beautifully crafted protestation in *The Times*, followed by a coolly analytical critique in the *Guardian*, I was left in silent joy. Wow! People these days really do not want to tear down what serves them well just for the sake of it; and DAB is already a redundant technology; better technologies are around the corner. So spending more license fee payer's money on DAB makes no sense. Now others are joining us in our protest at VHF/FM switch off and the uselessness of DAB!

Whilst both Steve Green and I have constantly criticised the archaic nature and outdatedness of DAB, Libby Purves weaves her story around the day after VHF/FM switch off, a lovely hook if ever there was one. This is the day when the meek and innocent – pardon me getting Biblical! – wake to find their radios have gone silent. In particular, all those souls who cherish late night listening to their favourite programmes, or who love to wake up to chirpy morning radio providing news, chat and music through the smooth, mellow sound of VHF will find it gone. Around 120 million radios will fall silent. Scaffolders across the UK will have nothing to sing to, car radios will retune to the buzz of ignition noise and old ladies will lose a domestic friend.

Shut off is scheduled to occur when more than 50% of UK radios can receive DAB and that, ipso facto, VHF/FM has become minority listening and can be switched off. That means around 60 million radios will be instantaneously reduced to silence, to serve their function usefully no

more, reduced to junk although still fit and able for their purpose. What this means to the millions of listeners suddenly cut off doesn't matter one jot of course. Because shutting off VHF/FM serves the BBC's long term goals – to preserve its future – if no one else's.

But the long term goals of the BBC are another story. Let's stick with 'shut off' for the moment. At this time, not only will radios across the UK fall silent, a large transmitter network based on giant masts sited on distant hills will also be phased out. The Wrotham transmitter serving London isn't anywhere near London in fact; it is sited on a distant hill thirty miles South East in the fields of Kent. VHF/FM was based upon a network of transmitters far from the urban environment. Not so with DAB. Its shorter wavelength is less durable, more affected by obstructions such as hills and buildings. So whilst distant Wrotham, a memorable landmark only to sheep, is able to get through to London's teeming millions, the DAB transmitter at Alexandra Palace is deep within London's urban fabric yet can reach neither my home nor Hi-Fi World's offices just three miles away. How sad is that?

The BBC has the answer: spend even more license fee payer's money, around £100m, to fund another 600 (yes, six hundred!) transmitters around the UK. So expect a DAB transmitter to pop up close to you. Perhaps alongside the mobile phone transmitter sitting atop a school that everyone is already worried about. Quite rightly too: VHF/FM field strengths are usually miniscule because the transmitters are so far away. Local DAB transmitters will produce a high local field strength. If mobile transmitters are a concern, adding to them with a DAB network

only increases fears. But whilst I doubt our children are about to get microwaved by DAB, we still do not need to increase the number of transmitters in the UK – especially by installing an already outdated radio system that will cost a huge £40m per annum to maintain and which, I believe, will be soon overtaken by a far more useful system.

Out of the home, I'll put my money on the mobile phone network rendering DAB unnecessary, because it is overwhelmingly more useful. It is already possible to get mobile internet and stream radio from the 3G network. Although this could clog it up, the mobile network, unlike DAB, is extensible and being continually improved to increase capacity and coverage, with 4G and other technologies over the horizon. It is likely to be able to cope with 128kbps radio streams, even to cars, in future. Wherever you can use a mobile on Britain's road network, your car can be online too – and this is intriguing. Pull into a layby and you can send a couple of e-mails, even a picture of the surrounding countryside. Your car could conceivably send its position home to the family, and a diagnostic message to an internet garage. Radio wise, it makes 10,000 or so internet radio stations available in the car. At home, internet radio makes more sense than DAB.

Put all this together and it means DAB has absolutely no useful future. The £40 million already spent on setting up DAB was a waste and spending more on another 600 transmitters only compounds the problem. This money could better be spent on maintaining the VHF/FM network so the apocalyptic switch off Libby Purves so deftly described need never occur. Britain does not need DAB. ●



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"the pursuit of perfect sound can often leave some very basic safety precautions bypassed..."



adam smith

My mind has been wandering to the topic of electrical safety this month, after a couple of happenings, although I hasten to add neither were of the 'fizz, crackle' variety! The first was the arrival of a new box of delights from good old eBay. Given that I have a Sony PS-Q7 mini turntable, I reasoned that I really ought to have the rest of the early nineteen eighties FH-7 system to go with it. Well, sometimes such things take surprisingly little time on the 'Bay, and I found one for the princely sum of £28, albeit in a predictably filthy and non-working state...

It finally plonked on to the doormat last week, and I spent a good couple of hours cleaning and delousing it. However, my attention was grabbed by the fact that the mains lead had a large insulation-tape style bulge along its length, with two different leads protruding from either side; clearly this needed investigation before power was applied. What I found made me grimace, as I am used to finding extensions applied by wires being twisted together and then wrapped in tape, but this took things to the extreme, as all four wires had been stripped by about two inches, then merely laid together and wrapped! How much of this has contributed to the intermittently working state of the unit I have yet to find out, but I won't be surprised if it seems okay once I have completed surgery!

The second event was the disappointing news that a fellow hi-fi journalist, a gentleman who I respect greatly, has put pen to paper to write

about improving your hi-fi system by faffing about with mains leads and fuses. Fair enough if you believe this makes a difference (I personally do not) but then he also went onto the merits of removing fuses from plugs, or using types of plugs that do not have fuses in them in the first place, which frankly, disturbs me greatly. Not only this, but he then also rightly mentioned that this may not sit too well with the UK mains safety laws, which he then described as "stupid".

This, I feel is very definitely a step too far as, although a good deal of us have plenty of knowledge when dealing with such items, the laws are there to protect those among us who lack common sense or the correct knowledge of electrical procedure and safety. Removing that fuse may give you more space around the hi-hats or whatever, but it also means that your 13 Amp rated mains cable is suddenly the weakest link in a ring main that has a 30 Amp breaker on it, as per standard UK mains house wiring. Should anything go wrong, that cable is going to become very hot very quickly and if you're not home at the time, there is a good chance that you won't have much of a home left to come back to when it does.

It seems not as uncommon as I would like, that the pursuit of a perfect sound can often leave some very basic safety precautions bypassed. It does not even have to be as extreme as removing a fuse either; after all a few years back, many Linn LP12 owners swore that sonic improvements could be had by removing the wooden baseboard to the deck. Maybe it did, I cannot comment as I have never tried it, but

all I do know is that suddenly there was 240V mains exposed underneath the deck, which is never a good idea. Some might argue that it would be pretty difficult to get a hand in there and I would concur, but what about the day the owner or owner's wife/partner/butler moves the deck to dust underneath it and does not realise? Few people appreciate that as little as 30 milliamps (that is to say, thirty millionths of an amp) applied directly across the heart is enough to kill, and only an RCD directly on the socket will stop that if you inadvertently 'shake hands with the National Grid'.

As a final thought, as part of my day job before I come home, put my tights and cape on and transfer my Y-fronts to the outside of my trousers in order to become 'Hi-Fi Reviewer Man', I gained training that qualifies me to work on power supplies that can deliver up to 3,300 Volts and 50 Amps, and part of this involves the obligatory training video, featuring gruesome pictures of the burns, scars and leftover stumps of previous limbs that can result when things electrical go wrong. Remember that voltages can measure up to the thousands in valve amplifiers and electrostatic loudspeakers and safety should *never* be taken lightly. In fact, why not take a few moments next weekend to make sure that all your mains leads are in good physical condition, that your plugs have the right fuses in and that the connections inside them are done up tightly? Maybe you won't gain any sonic improvement from those newly tightened screws, but at least you'll be secure in the knowledge that you can listen in safety. ●

vinyl section

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news



FAT POSSUM

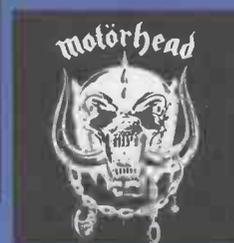
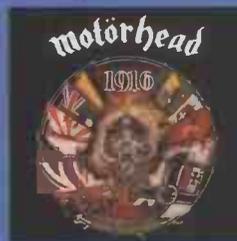
Famed for offering down and dirty blues recordings from the likes of Junior Kimbrough and R.L. Burnside, Fat Possum Records has released three records of a slightly different, more contemporary, hue. Jack-O & the Tennessee Tearjerkers' 'Jack-O Is The Flip Side Kid' still proffers that blues vibe serving off the back of a raw production but adds high energy R&B to boot.

'New Moon Hand' features the crusty voice of Willem Maker, a singer/songwriter with an edge that'll cut your throat. He's angry, he's full of blues and he doesn't give a damn – but you should. Finally, John Paul Keith & The One Four Fives' 'Spills And Thrills' offers psychedelic garage rock and country blues with a sprinkling of surf guitar and throw-back rock'n'roll.

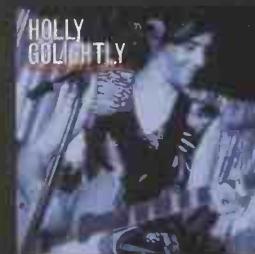
MOTORHEAD TRIO

Fans of the metal masters will be interested to hear that Pure Pleasure has released '1916', the 1991 album release that maintained the outfit's strong sound. Mastered by Ray Staff, the album has been pressed by audiophile outfit, Pallas, in Germany.

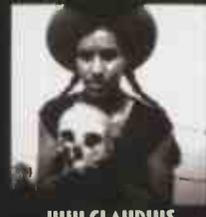
Devil's Jukebox has also released a couple of Motorhead albums, two versions of the debut LP. The first, aping Classic Records, offers a 'Super-CLR-X' profile, that removes the vinyl black to offer you a clear vinyl disc, providing improved sound quality due to the lack of those magnetic, ferrous particles. It's limited to 666 copies. As is the second edition, a DMM master on purple vinyl, that comes with a bonus, 1-sided 12" featuring a range of rare b-sides and the 'Beerdrinkers' EP tracks.



HOLLY GOLIGHTLY
"Up The Empire"



THE CHATHAM SINGERS



JUJU CLAUDIUS

THEY'RE DAMAGED

A splurge of vinyl from Damaged Goods Records includes the excellent 'Archive From 1959 - Billy Childish Story', a triple album, the package examines his rock and roll output, packaged in a double fold-out gatefold covering music from 1977 to 2009. Check out three Holly Golightly reissues: 'Painted On' (1997), mixing garage rock and R&B with an old Americana vibe, 'Up The Empire', a live recording of low-key, laid back tracks (1998) and 'Down Gina's At Three' (2004) which continues the mood, creating a fine ensemble piece in which her skill lies in her interpretive abilities. Also look out for The Chatham Singers' 'Juju Claudius', featuring Childish and his own brand of blues rock, plus Roxy Epoxy and The Rebound's 'Band-Aids On Bullet Holes', a mix of punk and synth rock.



JAZZ FROM DOXY

Corralling a range of classic jazz from the mists of time, Doxy has released another worthy batch including Bill Evans's 'Everybody Digs Bill Evans', the classic 1958 release that showed Evans as a brilliant interpreter of standards. 'Mingus Trio' is based on the Blue Note release, 'Mingus Three' (1957) with Hampton Hawes and Danny Richmond, one of only four trio albums Mingus made. An excellent recording that examines the blues from a bop perspective. Also look out for Miles Davis' 'Miles 1954', a double album which collates the albums 'Walkin'', 'Bag's Groove' and 'Miles Davis And The Modern Jazz Giants', Sun Ra's 'Medicine For A Nightmare: The Singles' from the mid- to late-fifties and The Modern Jazz Quartet's '2', combining the albums 'The Modern Jazz Quartet 2' and 'Concorde' from 1954 and 1955.

WAX FROM WARNERS

Warners has re-released some classic albums on its Back To Vinyl imprint, on 180gm vinyl. They include James Taylor's excellent 'Mud Slide Slim And The Blue Horizon', (1971). Featuring the hit single, 'You've Got A Friend' this is an album that exposes the soul behind the man who was, at that time, a depressed junkie who couldn't keep a girl to save his life.

Van Halen's self-titled album (1978) forced a sea-change in rock because of Eddie Van Halen's guitar style, David Lee Roth's circus showmanship and, above all, lean, honest music. Like The Sex Pistols' 'Never Mind The Bollocks', this album was a shock (in a good way). Also look out for the Misfits' 'Walk Among Us', a camp-punk classic from 1982 that gave Kiss a few lessons plus a couple of Van Morrison classics: 'Moondance' (1970) a light, if not sweet, work and 'Astral Weeks' (1968), an emotional outpouring of his past.



...AND FINALLY

Let's squeeze in a few more. First up is a new release via Naim and the wondrous guitar skills of Antonio Forcione. 'Ghetto Paradise' is a 1998 reissue of an uplifting piece of guitar-based jazz covering a range of styles. 'Flick The Vs' via King Cresote (Domino) is Scottish singer/songwriter Kenny Anderson's fifth album, that arrives with a MP3 download code within. A quirky folk-pop creation it also features krautrock, techno and electro. A sonic adventure. New out on ECM is Keith Jarrett's 'Yesterdays'. Joined by Gary Peacock and Jack DeJohnette, Jarrett takes standards such as 'Stella By Starlight' and 'Smoke Gets In Your Eyes' and successfully transforms them for consumption in the 21st Century. A perfect link from past to present. Arriving as a limited edition pressing on yellow vinyl, complete with a free MP3 download offer, Paranoid Vision's 'Beware Of The God' (www.paranoidvisions.com) sees the ageing Irish punks still able to produce bile on demand while rooted in trad-1977 rock vibes. PR



Total Eclipse

Adam Smith takes a listen to the stylish Eclipse turntable, from new British company, Inspire Hi-Fi...

Despite the resurgence in interest in vinyl going on at present, it is still quite something to see a brand new turntable launched by a brand new company, let alone two in a short space of time! The difference between the two is that the Claro Clarity09, reviewed on page 108, was developed by a company already well versed in engineering, but the Inspire Eclipse seen here marks a completely new departure for the man behind it, Robert Isherwood.

Robert spent thirty years in a career with the Royal Mail before taking early retirement in order to fulfil a long-held dream of making exclusive hi-fi equipment, and the Eclipse turntable is the first fruit of these labours, with the promise of a phono stage to follow in due course. Robert's approach was a fairly simple and logical one. He explains that, "when I designed the basic prototype of the Eclipse, I had already listened to many turntables costing many thousands of pounds and I understood their limitations, in terms of both sound and looks. I wanted a

product that would appeal to not only those reawakening to vinyl, but the younger generation who currently have a high end CD only system - I knew there was a growing market to tap into with the right products, built in the right way, and designed to impress in sound, looks and cost".

Consequently, Robert did not rush into anything and took time to consult experienced electronic and mechanical engineers who helped him to pull the final design together and finally put his ideas into practice. The end result is a turntable that consists of finely engineered parts, all of which are sourced from the UK, with the exception of the motor, which hails from Holland. Finally, Robert has aimed to price the deck at what he feels is a realistic point, undercutting more expensive decks that he feels the Eclipse is more than capable of tackling head on. So, what does your two and a bit thousand pounds buy you?

Essentially a two-part design, the Eclipse consists of an acrylic base board underneath which are mounted three feet. On top of this sits the main plinth, supported on three cone-shaped metal supports that locate in small cut-outs in the lower base. The cones are more complex than they first appear however, as they incorporate Sorbothane shock absorbers in their centres, for isolation and vibration resistance. The half inch thick metal subplatter is belt driven from an electronically controlled motor, and spins using a bearing and bearing housing that are individually machined to match each other. These items all support a 20mm thick machined

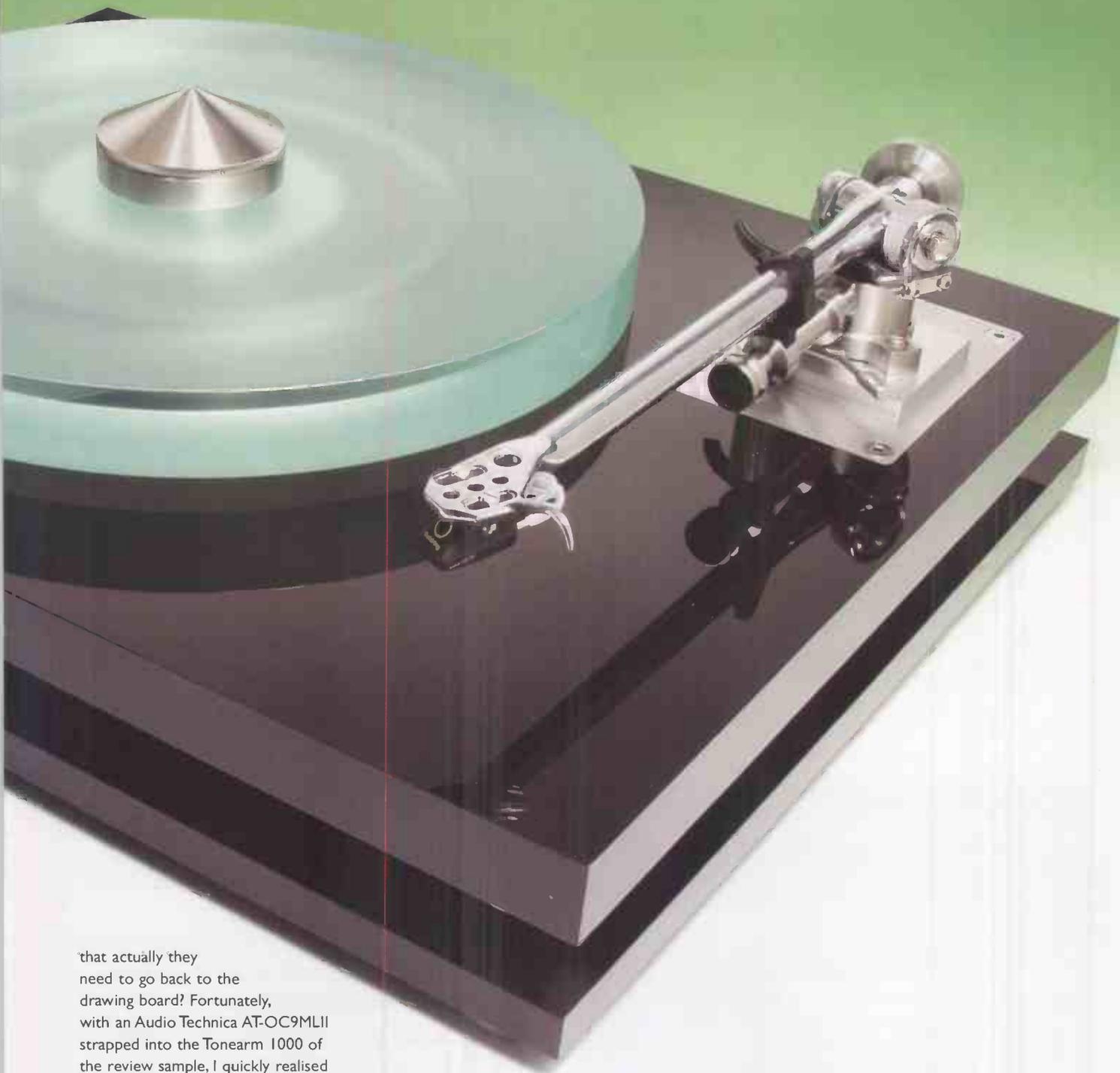
aluminium platter with a glorious green tint to it and the boy racer in me can't help thinking a spot of LED illumination is called for here! Finally, a superbly machined record weight slips snugly over the spindle to hold everything securely once spinning.

The arm is mounted on a superbly machined arm base, and it is here that Robert has definitely thought 'outside the box' a little. Resisting the temptation to fit the highly competent but rather ubiquitous Rega RB251/301 variants, he looked further up Rega's range and, as a consequence, the Eclipse is available with the Inspire Tonearm 700 or Tonearm 1000, based upon, you've guessed it, the Rega RB700 and RB1000. The Eclipse can also be supplied with an SME armboard, or without arm, and complete with the armboard of your choice, so there should be something to please pretty much everyone here. Finally, the Eclipse comes with a neat black acrylic dust cover for the platter, and no it shouldn't be used as a turntable mat!

SOUND QUALITY

When you are the first reviewer to be lucky enough to have your grubby paws on a brand new design that no-one else has heard, there is always a sense of trepidation - what if it's no good? How does one break it to a hopeful new manufacturer





that actually they need to go back to the drawing board? Fortunately, with an Audio Technica AT-OC9MLII strapped into the Tonearm 1000 of the review sample, I quickly realised that this was not going to be a call I would be making. The Eclipse is a beautifully balanced performer from head to toe, and worked its spell on me very quickly, although I was pleased to hear that, as time went on, the deck simply opened up more and more to become a real dazzler.

Consider for a moment a few of our favourite turntables here at *Hi-Fi World*; the Michell Orbe and GyroDec with their fabulous soundstage width; the SME 10A with its 'get up and walk around in' image depth; the good old Garrards with their bass power that can frighten horses and the high end direct drives with their fleet-footed rhythmicity. Well, the Eclipse is like none of these; it seems to have no intention of trying to topple any of these

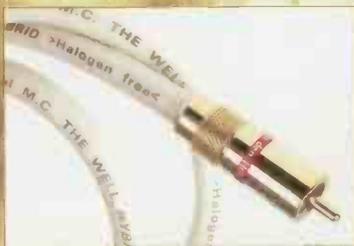
"it appears to have no desire to astound in any one area, but affects an easy air of complete competence in all of them..."

decks from their respective perches. Instead, it appears happy to sit quietly at the side and simply get on with making music, which is something that it does brilliantly.

Dropping the stylus into the opening bars of Roxy Music's 'Avalon' showed that the Eclipse shines at sorting out the finer details of music and bringing them right out of the loudspeakers. Bryan Ferry's vocals were rich, intimate and emotive, with

the superbly tight rhythm section backing him laid out immaculately. Even better was 'I Can't Tell You Why' from the Eagles' 'Hell Freezes Over' double LP, which apparently had Timothy B. Schmidt knelt in front of me on the floor singing for me – impressive if slightly disturbing. At all times, the Eclipse excelled at simply laying out the performance in a way that made me feel I was hearing the band exactly as they intended.

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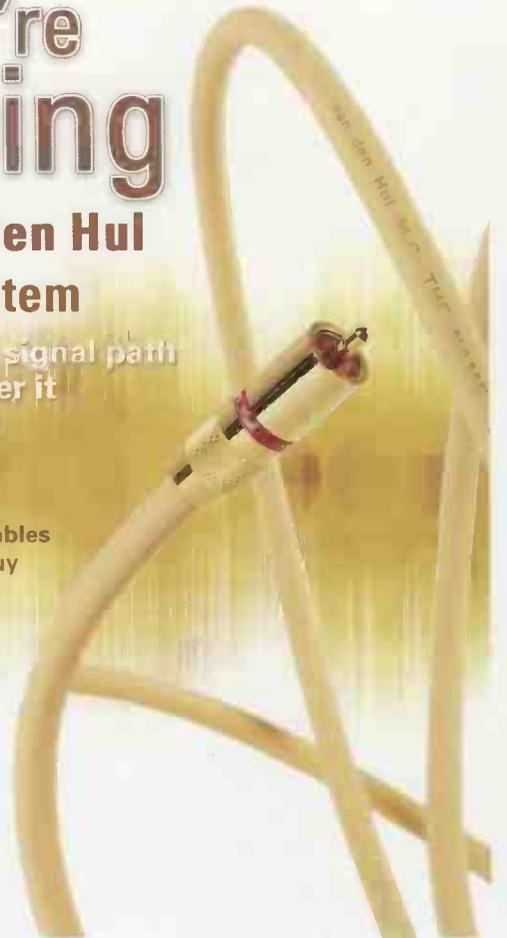
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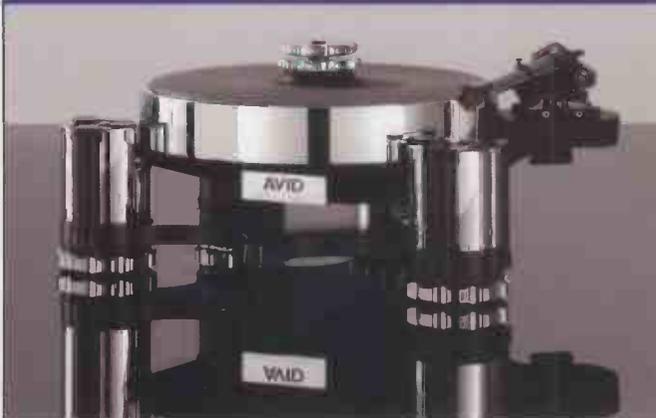
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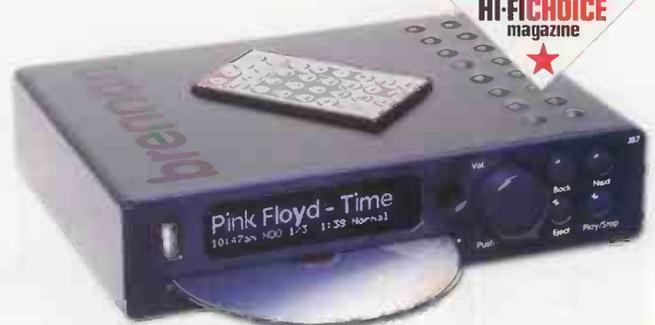
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mentioned earlier, I have to say that it reminds me in many ways of the Roksan Xerxes.20 Plus, which is to say it appears to have no desire to astound in any one area but to merely to affect an easy air of thorough competence in all of them!

Richard Isherwood took a gamble on his new baby, and I would say it has paid off handsomely, as the Eclipse/Tonearm 1000 combo is a capable vinyl spinner. It does what it does without recourse to any special tricks or eyebrow raising engineering innovations, but is simply superbly designed and built. Offering a fine mix of across-the-board musical ease in a well built and very stylish package, this turntable deserves a premium position on your audition list.

All this comes about as a result of the Inspire's fine sense of uniformity and evenness across the midrange and treble. This flows together so well that the overall effect is to imbue music with a lush expanse of detail and ebullient warmth, but with a delicious sprinkling of light top end delicacy as a garnish. Acoustic instruments stand out as natural and full-bodied, whilst the Eclipse also easily captures the grittier style of electronic instruments and never leaves you in any doubt as to what is playing. An amusing example of this was a recent car boot sale seven inch single purchase of the Rah Band's eighties-tastic classic 'Clouds Across the Moon' where the Eclipse pumped out the synth bass line with vigour, yet added a delightful tremor to Liz Hewson's vocals and melded the two perfectly.

At the low end, the Inspire is a solid and musically adept performer. True, it doesn't dig as deep as my 301 but at the same time it never feels soft, or half-hearted at the bottom end, offering superbly layered detail and a fine sense of punch and timing. One slight caveat here, however, was that this good low end activity only really appeared after I fitted a slightly tighter belt to the deck – the one supplied seemed a little loose and, on occasion, I could sense it slipping very slightly. Fortunately, the Smith vinyl odds and ends box is positively overflowing with suitable candidates and substituting one of these made a big difference. I trust the manufacturer will take note, and keep a keen eye on belt sample variations...

A final honourable mention must go to Robert's choice of arm – as regular readers will know I admire the Rega

RB251/301 and believe them to be affordable marvels, but have long felt that perhaps they are not quite the best partners for some of the exotica upon which they sometimes find themselves perched. This is my first encounter with an RB1000, however, and I have to say it may look similar to the RB301 but it's quite a different beast. The RB1000 has real depth, scale, insight and emotion and suits the Eclipse down to the ground. I have no doubt that an SME-equipped deck would be a wonder to behold but the RB1000 seems incredibly at home on the Eclipse – they make a formidable pairing.

CONCLUSION

Having determined that the Eclipse is not out to steal the respective crowns of the turntables

REFERENCE SYSTEM

Garrard 301 turntable
Alphason HR-100S arm (Cardas wired)
Audio Technica AT-OC9MLII cartridge
Anatek MC1 phono stage
Naim Supernait amplifier
Ferrograph S1 loudspeakers (modded)



MEASURED PERFORMANCE

With the Rega RB1000 arm the structural resonances of the RB300, such as they were, have been comprehensively suppressed, possibly by the use of internal damping, to yield a vibrational signature that is all but free of basic arm tube 'bending' modes. Also missing is the high frequency clutter that afflicts most arms, as it did the RB300, and this is something of a mystery to us, as it seemed likely to be a headshell phenomenon but the RB301 headshell is unaltered and laser interferometry shows it is in the tube, I am told. Whatever, the RB1000, like the recent RB301, is an even better arm than the basic RB300/250 variants, giving a fantastic measured performance by current standards.

The Inspire Eclipse turntable

proved very speed-stable, unweighted wow measuring 0.135% and IEC weighted wow just 0.058% - both very low values. Absolute speed was +0.3% fast on our sample, an amount that is too small to be perceptible.

The Eclipse measured well all round and should give fine results. NK

WOW & FLUTTER



VERDICT

Superb build and finish allied to an effortlessly musical sound, makes the Inspire Eclipse a highly impressive debut.

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FOR

- balanced performer
- effortlessly musical
- design, build, finish
- elegant arm choice

AGAINST

- belt slackness on this sample

Going Straight

Is the architectural precision of Trans-Fi Audio's new tangential tracking Terminator T3 enough to tempt Adam Smith from pivoted pick-up arms? Read on to find out...

I was pondering to myself the other day that the recent upsurge in vinyl-related activity has brought forth a new breed of manufacturer and enthusiast. After all, consider for a moment that, back in vinyl's heyday, a good number of the machines that played it either came from a huge Japanese corporation, or from a well established engineering firm. However, moving forward to today, things seem to have changed a little...

You see, there seems to be creeping into the vinyl realm a few individuals for whom one name is sufficient: they lurk in the shadows of the market, occasionally swooping in to perform a feat of engineering daring and brilliance before returning to the darkness. They leave behind nothing more than a happy customer, a brief flitting shadow on a wall and, more often than not, a breathless beauty of a product.

Number one in this field is our own favourite vinyl mad professor from north of the border, Audio Origami's Johnnie, but hot on his heels is a new contender; a man known only as "Vic". Vic, is, of course, the owner, founder and design boffin of Trans-Fi Audio, and regular readers may remember the Evolution tonearm that I reviewed back in the



June 2007 issue of *Hi-Fi World*. It was cute but

looked a little home-made, and I recall Noel and I harbouring ever so slightly uncharitable thoughts about how good it might (or might not) be when it arrived. The joke was on us however, as it turned out to be a brilliantly capable device that measured well and sounded even better. So the news that the Evolution had evolved into the Terminator sure made my ears prick up. This I just had to try!

The Terminator is indeed a notable step up for Vic, as it's nothing short of a superb piece of engineering. The basic recipe of parallel tracking air bearing is the same, but the whole design has been rethought, and cleverly so. The air trough is now inverted, and the arm saddle sits on top of it but with the arm itself hanging down underneath, resting in two supports in a knife-edge arrangement. This has allowed Vic to shorten the twin-walled carbon arm tube and means that the Terminator has a smaller footprint than the Evolution, although it is obviously taller. Small thumbscrews allow for easy adjustment of the main air beam's leveling and a micrometer permits simple VTA adjustment, even whilst the record is playing if you're feeling brave! Vic is not a man who sits still however. Since supplying the review sample the design has

moved on again to the T3 Pro, with superbly etched precision markings now showing VTA height (although the digital micrometer gauge is still an option), a sturdier yet simpler modular construction and the front of the arm housing bearing a 'Terminator' logo.

Fitting the arm is a little tricky as, although Vic makes it to fit the measurements of your deck that you supply when ordering, it conforms to no standard mounting pattern. As an example, the mounting spacer on the review sample was just the wrong size to either fit into a standard Linn hole, or comfortably locate above it – I had to raid the Smith washer tin to make some mods to suit.

Also worth bearing in mind is the considerable weight of this solid construction. I had intended to try it out on my recently acquired Ariston RD80 but it sent the suspension crashing down to its bump stop, much like a hoodie crashing over a sleeping policeman in his Vauxhall Nova, as soon as I dropped it into place! Fortunately my Garrard 301 is made of sterner stuff...

That said, once the structure is in place, set-up is an absolute doddle. The arm wand simply lifts out of the cradle to allow cartridge fitment (and spares can be purchased for £100), there are a set of tapped and a set of

untapped holes in the headshell for simple fitting of cartridges whether they require a fixing nut or have their own tapped holes, and two counter-balance weights and a very long screw thread allow for a wide range of cartridge weights and tracking forces to be accommodated. Finally, a grub screw in the bearing housing allows the effective length of the tube to be varied according to deck and cartridge. With everything balanced and floating, I was ready to listen.

SOUND QUALITY

It seems fitting that this device is supported on a cushion of air, as 'air' was the first word that popped into my head as the Eagles launched into their live version of 'Hotel California'. This was because the performance stepped out into the room in a remarkable manner. Don Felder was larger than life on the right of the soundstage with Joe Walsh just on the left, and the way in which the boys filled the space in front of me was really most impressive, although I did note that the Terminator shares a trait with the Evolution in that the soundstage is not the widest in the game – it definitely tails off quickly beyond the limits of the loudspeakers.

A good parallel tracker should always offer a sense of cleanliness to the sound, owing to the lack of distortion from the right angle that the stylus maintains with the record's groove across the width of the playing surface, and this could easily be discerned through the Terminator. Top end detail was lush and superbly focused, but without any trace of harshness or sibilance. Cymbals tapped delicately sang out perfectly from the depth of the soundstage and steady hi-hat beats were snappy and crisp. Further down the frequency range, the Terminator proved adept at pulling the details of instruments to the fore, be they the acoustic guitars used by the Eagles, or the harpsichords interplaying expertly on Bach's 'Concerto in C Minor for Two Harpsichords and Orchestra'.

In all cases, the Terminator seemed well able to capture the innate essence of every instrument it was asked to play. Plucked guitar strings started with surgical precision and decayed softly into the distance, and yet, when I decided to spin the League Unlimited Orchestra's version of 'Don't You Want Me?', from the 'Love and Dancing' album it proved equally happy and relaxed with the task at hand. This LP is an instrumental reworking of a handful of the Human League's hits and features some deliciously eighties synthesisers, naturally. The Terminator laid them out perfectly and made the differences between each one clear. Sadly my knowledge of synthesiser models is not as good as editor DP's, but I bet he could have named them all! [Roland System 700, Roland Jupiter 4, Korg 770, Casio VL-1 and Roland MC-8 Microcomposer. Will that do? - Ed.]

The detail retrieval abilities of

weakness.

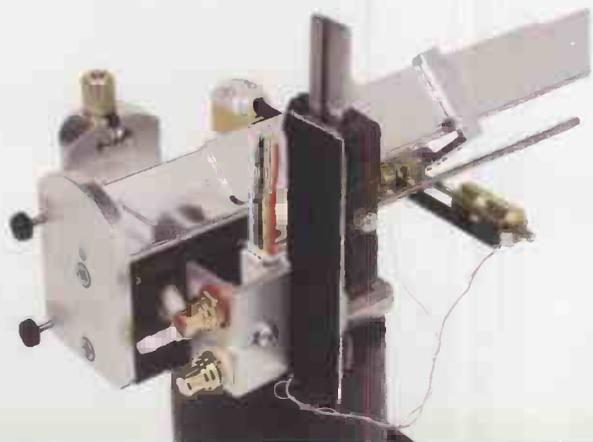
This recording is not an especially brilliant one, being rather compressed and 'busy', but the music bounds along with gusto and the Terminator cleaned the window into it very nicely. Where it faltered was by not quite grabbing the underlying rhythm that is buried in the depths of the groove – the aforementioned Jelco was definitely a little rougher around the edges but seemed to get into the swing of things with greater ease and more assured fluidity. Moving back to Kari Bremnes confirmed my suspicion that the Terminator is still soft and slightly lacking in focus at the bottom end; its bass goes deep and still offers fine levels of basic detail, but the overall performance is ever so slightly disjointed and restrained. Unfortunately this is rather spotlighted by the rest of the frequency range being so focused and competent.

"Trans-Fi have built on the strengths of the Evolution to offer a highly capable and enjoyable air bearing tonearm at an affordable price..."

the Terminator however, meant that I kept heading for the softer stuff to really hear it in action. A fine point during listening was Kari Bremnes' 'Lover in Berlin' from her 'Norwegian Mood' album and this really was a glorious performance. The lady's vocals are sublime; softly intoned, deliciously husky and backed with a solid double bass line and some ever so delicately felt percussion. Once again, soundstage width was not as capacious as say a Jelco SA-750D, but once again that fabulous insight made the whole experience captivating. A slight nagging concern did lead me to spin something a bit heavier and faster, namely the title track from the Kevin McDermott Orchestra's 'Mother Nature's Kitchen' LP and here the Terminator did show a slight

CONCLUSION

We vinylistas can only be thankful for the aforementioned mystery men lurking in our midst. It is because of them that products like the Terminator exist and act as more proof that manufacturing in this country is far from dead! Trans-Fi audio have built on the strengths of the Evolution to offer a highly capable and enjoyable air-bearing arm at an affordable price. It is now better finished and yet more handsome, albeit in a Middlesbrough Transporter Bridge kind of way, and turns in a convincing performance. If your fingers are up to the rather fiddly task of fitting it, then the Terminator deserves to be high on your audition list.



REFERENCE SYSTEM

Garrard 301 turntable
Jelco SA-750D tonearm
Audio Technica AT-OC9MLII cartridge
Anatek MC1 phono stage
Naim Supernait amplifier
Modified Ferrograph S1 loudspeakers

VERDICT ●●●●£

Solid, well built and highly capable of extracting fine detail from those precious vinyl grooves, the Terminator means business.

TRANS-F1
TERMINATOR T3 £650
Trans Fi Audio
www.trans-fi.com

FOR

- superb mid and treble detail
- impressive image depth
- industrial styling
- easy adjustments

AGAINST

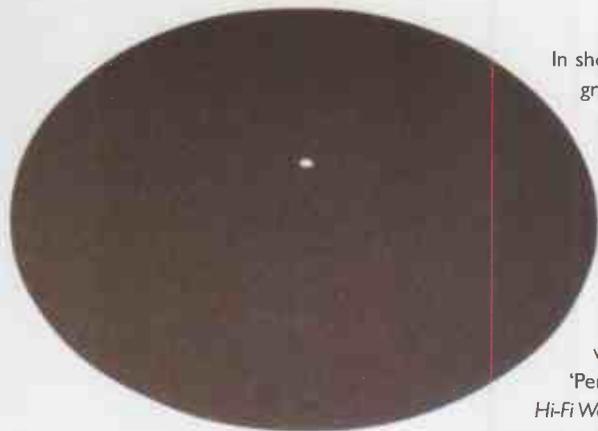
- bass a little soft
- still not easy to mount



DIAMOND 10 SERIES

For almost 30 years, Wharfedale's famous Diamond speakers have served as the classic entry point to true high-fidelity sound, their exceptional value for money earning dozens of awards around the globe. Now, with the introduction of the Diamond 10 Series, Wharfedale has again raised the bar for affordable, high-performance loudspeakers.

The latest evolution of this classic speaker range builds upon the success of its multi-award-winning predecessors with numerous enhancements, including a more rigid enclosure and a high-gloss, polymer-finished front baffle, giving greater support to the new, improved drive units. The result is a sound that's crisp, focused and spacious, effortlessly dynamic yet firmly in control. Add the visual appeal of elegantly curved cabinets, enhanced by a choice of six perfectly formed finishes, and it's clear: the new Diamond 10 Series is the sparkling jewel in Wharfedale's crown.



ORIGIN LIVE UPGRADE TURNTABLE MAT £39

Turntable mats are something of an inexact science. But going back to basics, and you *can* rightly state that mats have to decouple the record from vibration entering via the turntable; vibration which can be via ground-borne movement caused by the speakers or general nasty noises from the turntable itself. Also, the action of the stylus in the groove can actually 'wobble' the record, so a mat has to grip the record and stop it vibrating as a result of the stylus's passage through the groove. Taking this to its logical conclusion, there's even the possibility of slippage of the record as heavily modulated grooves impose a load on the platter and the point of least resistance gives way.

In short, a platter mat must grip the record physically but at the same time mechanically decouple it.

Like many companies, Origin Live have been experimenting with turntable mats for a while, and their original 'Performance' mat [see *Hi-Fi World*, October 2008]

has proved popular since its introduction. Indeed, one has found its way on to my Sony TT-S8000 direct drive, in preference to the Sony's standard oil-filled rubber mat, and even the Sound Dead Steel Isoplatmat, which I find works brilliantly on the Technics SL-1200 but not quite as convincingly on the Sony. The new OL mat is described simply as a 1mm thick disc made from a "mystery material mix". I can only add that it's slightly floppy and smells like a wheelie bin liner. It comes with a money-back guarantee if bought direct, and there's an introductory offer of £10 off the standard £39 price before the end of August.

On my aforementioned Sony direct drive with its slightly resonant aluminium platter, the difference between the two Origin Live mats

was striking, even in the first four bar phrase of ZZ Top's 'Gimme All Your Loving'. Whereas the older mat was very lively and enthusiastic sounding across the midband, the new mat maintained the rhythmic punch while serving up a slightly deeper, darker sound. There was more definition to snare drums; I could hear precisely when they started and stopped, and their studio reverb, whereas the older mat gave a lighter, brighter but more diffuse sound. I found that the stylus seemed to scythe further into the innermost recesses of the mix, throwing more detail at me, or at least blurring what was already there less. There was no dramatic change in tonality, but the older mat definitely did seem to be adding a brighter light to the upper midband, along with slurring it slightly. With the 'Upgrade' mat, bass guitars sounded a tad deeper, rhythm guitars cut through the mix better and cymbals seemed a touch more realistic but with less glare. Overall, this is an interesting product, and I've no hesitation in recommending it. Of course it may not suit everyone, but there's always that money back guarantee. As for me, I'm sticking with the 'Upgrade'.

DP

[Contact: +44 (0)2380 578877, www.originlive.com.]

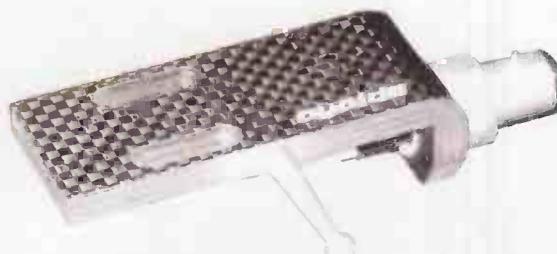
soundbites

OYAIDE HS-CF HEADSHELL £100

Back in the nineteen seventies, the first upgrade you could make to practically every turntable on sale was to buy it a decent headshell. There were a number around, made out of carbon fibre or magnesium, from the likes of Nagaoka and ADC, and it was a simple tweak that worked every time. Since then, this was all forgotten about, lost in the mists of time. After all, who uses a tonearm with a detachable headshell these days, anyway? Ermm, well Technics do for a start, in the world's best selling turntable (go figure the model number!) and there are ever more S-shapes arriving on the market now, not least Jelco's super little SA-750D. For these arms, Oyaide have a brilliant new product. The HS-CF

is a 4mm thick headshell is made of Carbon Fiber Reinforced Plastic, composed of seventeen layers of Toray 1k cloth carbon fibre material. The socket is made of aluminum with resin press fit inside. The pins are gold-plated brass, and the lead wires are 5N pure silver which are insulated with a double layered silk covering. The rhodium plated lead tip is made of phosphor bronze. Needless to say, being a premium priced Japanese product, the quality is superlative; think SME Series V fit and finish.

Compared to the stock Technics item on the aforementioned popular direct drive, I noticed a considerable improvement in mid band and treble focus using a Goldring G1042. Bass also got a slight filp, but most impressive was the increased



instrumental texturing and superior dynamics. Although not all the problems of the stock Technics arm can be attributed to its headshell, the Oyaide shows what a big difference a top notch headshell can make; it's just as profound an upgrade as any expensive turntable mat. Overall, a brilliant product and worth seeking out if you can bear its premium price. **DP**

[Contact: www.oyaide.com]



Limited runs are often little more than a marketing wheeze, jazzing up a run of the mill mass production object with an aura of mystery. But in the case of Claro's Clarity 09 turntable, there really won't be more than thirty pieces made. Adam Smith explains why...

Limited Edition

In these recessionary times, there are some victims of the credit crunch that tend to go unnoticed. Certainly when a larger manufacturing company closes its doors, the results make the news, but the smaller engineering firms who maybe lack the, incentive, vision or simply cash to widen their horizons and continue, simply slip away silently into the night. Fortunately, it would appear that Claro Precision Engineering is not destined to be one of these.

Claro's story goes back to 1978 when they started out as a toolmaking company, and later apparently gained an enviable reputation for making beer pumps! But it was more recently that the company was approached by a 'businessman' to design and manufacture a turntable, for which the mysterious customer would buy fifty units. Lots of hard work and £30,000 worth of investment later, the product was ready but

the customer was nowhere to be seen, leaving behind unpaid bills and bouncy cheques...

Many lesser companies would probably have thrown in the towel at this point, thrown the bits away and headed down to the pub for a consoling pint, but designer Peter Curran and Managing Director Martin Doxey persuaded the rest of the company to take the bull by the horns and sell the decks themselves. A prestigious UK hi-fi dealer gave a helping hand by taking twenty to market under his own turntable's name, but Claro made a few tweaks, announced the birth of Claro Audio and the Clarity 09 was ready to go, with its strictly limited run of thirty items.

I have to say that the Clarity 09 is an impressive sight. On first perusal, it is not difficult to work out that a precision engineering company brought it here from the drawing board. Lest we forget, the likes of Avid and SME are also precision

engineers who make components for other industries, so the fact that I am mentioning Claro in the same sentence as them for their first product is praise indeed. And it is certainly well deserved, as the deck is fabulously finished.

Technically, the recipe is very simple – a plinth made from aluminium machined to a tolerance of ± 0.01 mm is supported on three machined aluminium feet with upturned cones on which the deck rests. In the centre spins a CNC machined subplatter that is perfectly concentric and balanced, and on top of this lives a solid acrylic platter, machined and polished to give a completely imperfection-free frosted finish. Interestingly, the spindle is a separate item from the main bearing, which is a brave move given the possibilities of non-concentricity to which this can give rise; it's a lot easier to make the spindle and main bearing one item. However, any last doubts about Claro's engineering

abilities should be neatly dispelled by glancing at the highly impressive wow and flutter figure of 0.053% that the deck turned in [see MEASURED PERFORMANCE].

Power-wise, the Clarity 09 is a twin motor design, and this gave Peter Curran his biggest headache. All the motors he tried were far too noisy and, when he found one that was quiet, it would barely move the platter! However, as Peter succinctly puts it "two times silence is silence" and so the decision was taken to use two motors; these sit opposite each other and their pulleys contain two grooves for speed change. Interestingly, Clarity use two separate belts, so one pulley has its 33rpm groove at the top and the other at the bottom. As both belts must be moved for speed change, which is a bit tricky, I developed a neat 'grab both, spin the subplatter through 180 degrees and release' technique that worked a treat. For arm mounting, our sample came with an armboard configured for the new Rega three point mounting, but those for the remaining decks are blank, and will be made to customers' requirements.

Finally, the deck is topped off by a stylish clamp with the Clarity 09 logo machined on top and this item caused the only hiccup of the review session – it's about the same size as a 45rpm single's label and I found the side of my cartridge crashing into it on a couple of occasions before the end of the record's runout groove had been reached, resulting in some worrying thuds through my loudspeakers – so best be quick with that cueing lever as the music fades!

SOUND QUALITY

It is surprising how the physical character of a component can be reflected in its sound, such as the airy sense of atmosphere offered by the airbearing Trans-Fi arm reviewed this month, and the Clarity does it again. With a Rega RB1000 arm and Audio Technica AT-OC9MLII cartridge fitted, the first impression I had was of the sheer power, drive and gusto that it has. Without wishing to upset the rubber band brigade, it sounds most unlike a belt drive deck, because bass is deep and confident, while rhythms are locked down tighter than a whale's blowhole at fifty fathoms [? Ed.]. Spinning some magnificent early nineties chart rubbish in the form of Haddaway's 'What Is Love' had my Ferrographs' B139 bass drivers really motoring, and I had trouble wiping the silly grin from my face. If you are a fan of low end action, as I am, this is a deck you need to check out.

Slipping 'Jupiter' from Holst's

Planets Suite under the stylus, the Clarity 09 almost blew me off the sofa; the force of its presentation during crescendos had me edging the volume higher just to feel its impact. Yet during the quiet passages from the album I was pleased to hear that the Clarity is not all bang and thump, as it has a wide and well-ordered soundstage, pushing out beyond the edges of the loudspeakers very nicely indeed. In the centre, things are not as deep and capacious as an SME 10A but then it should be remembered that the 10A is rather dearer, and

"the Clarity 09 pulls everything from the depths of a recording and serves it up in a highly appealing manner..."

I still think the Clarity goes a little wider. Within that centre space however, performers are well defined and given plenty of room to breathe, making for a detailed midrange performance topped off with a good dose of finely honed and crisp treble.

Instrumental detailing was first class, whether the item in question was electric or acoustic, and the Clarity 09 lapped up good recordings, laying them out in a manner which made them a pleasure to listen to. The percussion from 'Isn't it a Little Late?' on Eleanor McEvoy's 'Yola' LP skipped along with great deftness of touch, and the lady's voice was magnificently emotive and fulsome. However, I did find a slight chink in the Clarity 09's armoury when it came to poorer recordings, such as the musically superior but sonically compressed original version of 'It's All Coming Back to Me Now' from the eponymous Pandora's Box LP, where the Clarity made things seem a little thin across the midband, robbing Elaine Caswell's vocals of some of their power when things got into full swing. I suspect it was actually doing a very good job of highlighting the recording deficiencies, but some decks don't make it quite so obvious...

Ultimately though, the Clarity 09 more than lives up to its name, as it really pulls everything you want to hear from the depths of a recording and serves it up in a highly appealing and pacy manner. From the top of the frequency range

to the bottom, the Clarity is an even-handed and sanguine performer that never gets in the way of the music. Whether I chose to spin something loud and ridiculous, or something smooth and cossetting, the Clarity 09 was happy all the way, and is one of that select band of review items that had me spinning tunes far later than I



intended. It resulted in a much bigger pile of played records than I had anticipated. Put simply, once you start listening to it, it's a shame to have to stop.

CONCLUSION

Although new to the hi-fi market, Clarity Audio clearly know a thing or two about precision engineering, and the Clarity 09 turntable shows how much. The deck is magnificently designed, built and finished, and this shines through in its sound, which is confident, bold, detailed and never less than captivating. It's a fascinating proposition, making a fixed run of just thirty units, conferring as it does a degree of collectibility to the turntable. But I am told that if the Clarity 09 sells out, the company may come up with something even more exotic and expensive. All I can say is that, were I in the market for a new £2,000 turntable, I'd seek this out with a great sense of purpose, worried that I might end up as number thirty one!

REFERENCE SYSTEM

Rega RB1000 tonearm
Audio Technica AT-OC9MLII cartridge
Anatek MC1 phono stage
Naim Supernait amplifier
Ferrograph S1 speakers

VERDICT

Made with the millimetric precision of a medical instrument, this superbly crafted turntable delivers a sonic performance to match its build.

CLARITY CLARITY 09 £1,800

Clarity Audio
+44 (0)1423 799933
www.clarity-audio.co.uk

FOR

- dynamic gusto
- insight and detail
- wide soundstaging
- build and finish

AGAINST

- only 29 left!

MEASURED PERFORMANCE

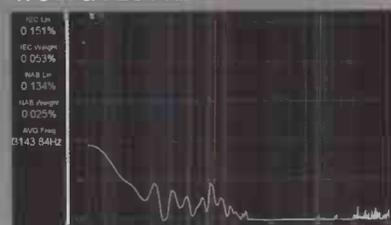
The Clarity came without an arm, but drilled for a three-point fixing Rega arm so we fitted an RB301 for the review. In the recent Rega RB301 upgrade of the original and highly regarded RB300, structural resonant modes, such as they were, have been almost completely suppressed to give an unusually clean vibrational signature our analysis shows. So the RB301 is an even better arm than the basic RB300/250 variants, giving a superb measured performance where tube resonances are minimal.

The heavy Clarity platter and twin motor drive system was very effective, unweighted wow measuring 0.151% and IEC weighted wow just 0.053%,

both very good figures. Absolute speed was -0.2% slow, a negligible error, suggesting the Clarity has been carefully trimmed for correct speed.

The Clarity with Rega RB301 was a strong combination that provided an excellent measured performance. NK

WOW & FLUTTER



RETRO

REPRODUCTION

QUALITY HIGH FIDELITY & VINTAGE

AMPLIFIERS	
Arcam A80 integrated amp	£295
Arcam P75 power amp	£225
Arcam P85 power amp boxed mint	£295
Art Audio vinyl one with volume control	£795
MM MC £1700 new	£795
Audio Analogue Puccini special addition	£345
Audio Innovation Classic 25 EL34 integrated amp	£495
edition of the silver tones	£495
Audio Research M300 MKII monoblocks boxed	£2295
AMR 77 Titanium finish flightcased x dem	EPOA
Bel Canto valve pre amp remote control SEP2	£895
upgraded to SEP3	£1115
Cambridge Audio P50 integrated amp mint condition	£195
Concordant exultant valve pre amp	£495
with phono stage	£175
Cranston DC pre amp	£495
Croft EL34 integrated amp with phono stage	£395
Cyrus 7 integrated amp	£395
Cyrus 8 V52 integrated amp silver boxed	£2495
E.A.R. 800 power amp boxed	£1495
E.A.R. 864 valve pre amp x dem	£2495
E.A.R. 509 MKII black chrome finish boxed	£2495
Edison 12 valve power amp	£2495
EVO 2 integrated amp boxed remote	£2495
Gammut D200 MKIII as new boxed	£2195
Graaf GM70 phono stage	£995
Hovland EL34 power amp	EPOA
Hovland valve pre amp phono	£495
Koratalo renaissance mono blocs 30W class A	£595
Krell KSP7B pre amp	£595
Krell KAV 3000 integrated amp	£995
Leak TL100 power amp mint condition	£495
Leak TL124 rare hammered paint finish 1961	EPOA
Linn LK100	£225
Linn Aktive amp module	£95
Linn Klout power amp	£495
Mendian FB1 Ferrari red with docking station	£1195
MicroMega integrated amp	£195
Mission pre power logo styled case serviced	£795
Minimax power amp	£495
Musical Fidelity A52 CR power amp	£475
Musical Fidelity F22 valve remote	£495
pre amp with phono	£495
Musical Fidelity F15 hybrid class A power amp	£795
Naim 50.3 power amp boxed	£395
Naim 112 pre amp remote control	£495
Naim 150 power amp boxed mint	£245
Naim flatcap olive green	£245
Nakamichi PA-75 centre amp Nelson Pass 200w	£195
PS Audio IV pre amp with separate PSU	£295
PSXR silver boxed	£295
Quad 2 mono blocs mint original valves	EPOA
Quad 303 power amp boxed	£195
Quad 405 power amp boxed	£695
Quad QC24 pre amp unopened new	EPOA
Radford ST 25 MKII power amp	£895
Renaissance music re-performance moving coil	£360
phono stage with external PSU new £1795	£245
Rega Mira integrated amp remote boxed mint	£245
Roiel RA-01 integrated amp	£245
Roiel RB-03 power amp	£145
Roiel RB970 BX power amp	£295
Sugden Amp Master Transimpedance power amp	£345
Sugden addition-P power amp	£345
Sunray Audion pre with phono stage	£345
equalisation controls	£345
Sonnesteer Campan integrated amp	£345
Thorens TTA 2000 class A power amp	£350
Tube Technology Fusion integrated amp	£795
Unison Unico with phono & wooden remote boxed	£595
SPEAKERS	
Acoustic Energy AE1 stands	£195
ATC Solo12 stander	£895
AVI Active Pro 9 speakers Rosewood finish x dem	£795
Apogee Centaurus Slant 6 ribbon	£895
hybrid speaker new £3000 boxed	£895
Casile Howard 2 Oak finish	£95
Celestion DL4	£95
Beaumont Virtuoso reference lowther	£2995
Cyrus CL50	£245
Gamma floor standing speaker new £5000	£995
Heybrook Quartez	£995
JBL TI-6K floor standing speakers as new	£795
JBL century 100s	£195
JM Lab Electra 5030 walnut/cedar speakers	£195
JM Lab Electra C300 centre speakers	£195
JM Lab Chorus speakers	£225
KEF Reference 1s black finish	£495
KEF Celest 3	£95
Kingsound Queen Electrostatic speakers x dem	£995
Leema floorstanding speakers rosewood	£895
finish £2000 new	£895
Leema sub ex-dem	£795
Leema Zen speakers ex-dem	£225
Linn Kan with stands MK1	£295
Linn Kellid Rosewood Solid Marble floorstanding	£295
speaker with Dynaco drive units	£295
Martin Logan Aenius II	£1195
Martin Logan Aenius	£945
Mission J51 rosewood	£175
Mission J50 limited edition anniversary	£295
Mission 775s boxed	£495
Mono Pulse 32A 8 months old ex dem.	£495
Musical Stones Italian Solid Marble floorstanding	£495
speaker with Dynaco drive units	£195
Nagoka Swan high efficiency speaker cult item	£195
Neat MS7 2 years old new £7500	
ProAc Tablett 2	£3295
Quad ESL 969 Electrostatic speakers	£1995
Revolver R33	£345
Ruark Equinox last edition	£995
Reference 3A royal vitosus with matching stands	£2495
Royd Herald	£145
Serfortian early 80s corner speaker pair	£375
Ignony 1st 355HPD recently serviced by	
Wembley Loudspeakers	£495
Tannoy 15' Monitor Golds	EPOA
Tannoy Eclipse	£75
Technics SL11 MKII honey comb disc speakers	£95
Usher X-718 bookshelf speakers boxed	£595
Wharfedale W3 omni directional speakers	£195
Yamaha NS100 bookshelf speakers	£195
TURNTABLES	
Audio Technica OC9 re-issue cartridge	£195
Dynavector X2Z	£495
EAR R34 P mm/mmc with volume new style xdem	£995
EAR 324 phono stage	£2295
Garrard 401 mint condition	£395
Koetsu black cartridge unused	£75
LD Minstral phono stage	£245
Linn Basic Turntable with basic tone arm	£195
Linn Archive cartridge as new	£395
Michell Gyrodec SE with Rega arm 4 mths old	EPOA
Michell Gyrodec with Rega arm with	
new style motor	£995
Michell Hydraulic Transcriptor	from £495
Musical Fidelity XLP	£125
Naim Avo Avd slide	£95
Nottingham analogue horizon	£345
Rega P5 with P700 tone arm	£445
Rega RB300 with Incognito re-wire	£175
Rega planner 2 no tone arm	£195
Technics SL150 direct drive SME cut-out	£3295
SME 3009 tonearm series II improved with	
phonoplug boxed	£225
System Deck electronic	£245
Technics SL150 direct drive SME cut-out	£195
Technics SL1200 MKII	£195
Thorens TD166 MKII	£95
Thorens TD124 MKII mint condition with	
superb plinth	EPOA
Thorens Turntable TD160 with tonearm	£195
Thorens 125 MKII Turntable	£195
Transcriptor Uni Pivot tone arm	£795
Trichord Dino phono stage 6mths old	£295
CD PLAYERS, DACs	
AMR CD 77 Titanium finish flightcased x dem	EPOA
CEC 33000 CD player	£275
Chord DAC 64	£895
Cyrus DAD 3 Q24	£295
Cyrus PSXR	£295
Naim DAC	£245
DCS Purcell upsampler factory serviced	£995
DPA little bit 7350 DAC	£95
Eera DL2 CD player boxed as new	£1495
exposure 2010 CD player	£295
Hi-Fi World 24bit 96khz valve dac as featured	
in the Hi-Fi World supplement Apr.&Jun. 1998	£295
Leema Antlia CD	EPOA
Lector CDP 711 CD Player Top Loader 2 boxed	£1295
NAD 525 BEE	£195
Naim CD3 boxed as new	£295
Nakamichi CD player 2	£175
Musical Fidelity FCD tube CD player with	
balanced & single ended outputs new £1600	£595
Quad 77 bus CD player	£295
Quad 99 CDP CD player	£495
Rega Planet Transport & DAC	£445
Resiex Matinee CD transport	£95
Roksan Kandy II DVD player	£295
Sony CDP X-B920E	£125
Sony SCS ES SACD player	£495
Tube Technology P-01 24bit transport	£295
Tube Technology valve DAC64	£195
MISCELLANEOUS	
Musical Fidelity FT Tuner balanced and	
single ended output rare new £1000	£395
Denon DRW500 top of the range double	
cassette deck	£95
Macrum Dynalab Etude Tuner with aerial	£795
Sansui 1 receiver	EPOA
Sony 777 ES DAB tuner	£225
Technics SLJ1 parallel tracking turntable	£95
PS Audio statement biwire speaker cable	
boxed as new	£795
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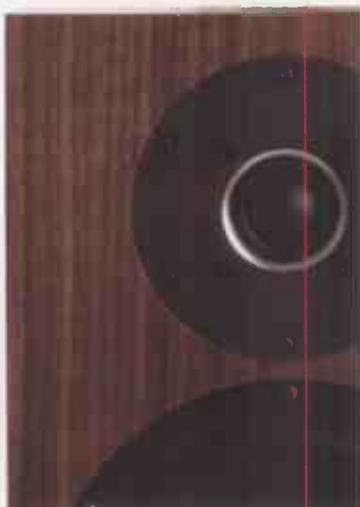


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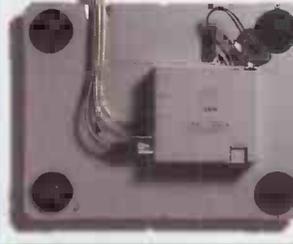
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Cyrus **NEW**

Following the remarkable 'Servo Evolution' CD players, Cyrus has introduced a new range of amplifiers. Featuring circuitry developed for its DAC XP, the **8 XP d** and **Pre XP d** include digital inputs - ideal for playing music stored on your computer - while the entry model, **6 XP**, is based on the 8 XP but without the digital option. These new models also include two-zone multiroom capability.



The award-winning Servo Evolution CD players - CD6 SE, CD8 SE & CDX t SE



Roksan Kandy K2

Roksan replaces its hugely successful Kandy series with the Kandy K2 amplifier and matching CD player.

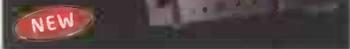
Pro-Ject Genie MKIII **NEW**

Replacing the Genie 2, the MKIII version includes a new motor, more stable motor base and a new tone arm with traditional anti-skate. Supplied with an OM3e Ortofon cartridge fitted, the Genie MKIII is available in Standard Black with White, Piano Black and Red finish options available at extra cost.



Marantz 30th Anniversary KI Pearl

To celebrate 30 years with Marantz, its Brand Ambassador, Ken Ishiwata, launches the KI Pearl SACD player and integrated amplifier. These products are limited to just 500 units each.



Arcam FMJ Series

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LOUDSPEAKERS



Sendor A5 and A6 **NEW**

The A5 offers exceptional performance in relation to its compact dimensions. New drive units ensure clear and natural mid-range and beautifully open treble. The A6 utilises technology developed whilst developing the ST loudspeaker with its asymmetrically sculptured tweeter faceplate and refined 18cm bass/mid driver.



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Dali Lektor **NEW**

Dali complements its range with the Lektor 2. Only slightly larger than the award-winning Lektor 1, this new model represents outstanding value.



KEF KHT3005SE

Award-winning 5.1 speaker package available in high gloss black or silver.



Radius HD

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Q Acoustics 1010i 5.1

Smart styling complements the Q Acoustics' award-winning performance.

ALL-IN-ONE SYSTEMS

Denon D-M37DAB

Denon's micro systems are back. This award-winning model, available in silver or black, features a CD player, capable of reading MP3 and WMA discs, a DAB tuner, 30W amplifier and optional SC-M37 speakers.



Arcam Solo Mini

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Teac Reference Series 380

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B&W Zeppelin

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Sonos

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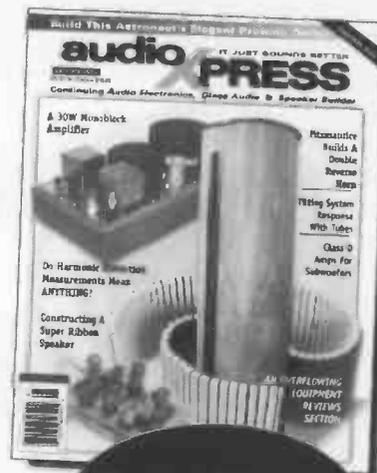
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Roksan L1 Preamp (wall wart included) S/H	2299	695

Amplifiers

47 Laboratory Power Humpty x-demo	1425	799
Audio research VT 60 S/H	N/A	799
Anatek A50R Remote class A integrated x-demo	1850	999
Audio Research VS115 stereo power amplifier x-demo	4988	3995
Gryphon DM100 Dual mono power amplifier S/H	15000	3999
Krell KAV400 Xi Integrated Black S/H	2989	1599
Krell Evo 402 400w stereo power amplifier Black x-demo	12900	8999
Krell Evo 302 300w stereo power amplifier Black x-demo	8950	7160
Quad 909 Power amplifier S/H	999	599

Loudspeakers

Avalon Opus Cherry S/H	16000	6999
Konus Essence Floor stander zebrano x-demo	2800	1350
Martin Logan Vista Dark cherry x-demo	3490	2750
Martin Logan Fresco pair inc stands S/H	1500	699
Martin Logan Aerius Oak S/H	3999	1099
Martin Logan Vantage dark cherry x-demo	5149	3999

Martin Logan Summits Cherry X-demo	8998	5999
Pen Audio Charm Active Subwoofer x-demo	1995	899
Quad 22L Maple Floorstanders S/H	895	399
Rega R1 Cherry x-demo	298	198
Sonus faber Minima Classic inc Stands x-demo	2970	1899
Sonus faber Cremona Elipsa Maple x-demo	12980	8500
Wilson Benesch Arcs S/H	2250	1199
Wilson Audio System 8 obsidian black S/H	23998	13750
Wilson Audio MaxxII obsidian black x-demo	45000	27500

Cables and Accessories

Attacama Equinox 3 tier stand x-demo	375	199
Attacama Europa Reference 8 3 tier S/H	550	299
Cardas Golden Cross 1m XLR-RCA S/H	850	399
Cardas Cables Golden Cross 3m Bi wire speaker cables	1999	999
Cardas Cables Golden Power Cord 33inch UK-IEC mains	325	162
Cardas Cables Golden Cross 6m set of RCA interconnects	2830	1415
Densen De-magic BNIB	10	5
Electrocompaniet ECS1 M6 feet x4 BNIB	189	49
Cogan Hall Intermezzo EMD 0.75m RCA S/H	N/A	99
Eichmann Express 4 interconnects BNIB	80	49
Finite Element Resonator BNIB	320	225
Mana acoustics Mini table S/H	240	75
Madrigral MDC1 1m AES/EBU 110 ohm Digital Cable S/H	420	199
Siltech HF9 AES/EBU 1m Digital S/H	420	199
Spectral MI-350 20ft interconnect S/H	2100	899
Transparent Reference SC 2x10ft x-demo	6192	3399
Transparent Balanced Reference 2x30ft x-demo	6345	3499

Tuners & Tape decks, power supplies

Magnum Dynalab FTR remote/Tuner for Etude S/H	395	199
Living Control		

We have a large record collection mainly Jazz and Classical from £3.00 up to £20 for some boxed sets. Please call for more details.

Midland Audio X-change are looking for All high end audio separates best prices paid for good examples.

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- Densen
- DNM/Reson
- Electrocompaniet
- Finite Elemente
- Jadis
- Koetsu
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- Lavardin
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- ProAc
- Rega
- Siltech
- Sonus Faber
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- Wegg 3
- Wilson Audio

Midland Audio X-change are looking for Audio Research, Krell, Mark Levinson, Naim Audio, SME, Wadia.

FREE READER CLASSIFIEDS

TERMS AND CONDITIONS: Only one advert per reader. No Trade adverts. This section is strictly for readers selling secondhand hi-fi equipment only. Maximum length per advert is 30 words. Adverts over 30 words will not be accepted. Telephone numbers and E-mail addresses are treated as one word. Model numbers are treated as one word i.e. Quad 303 = two words. Email your advert to: classifieds@hi-fiworld.co.uk or fill in the form on page 129 and post it to Hi-Fi World Free Readers Ads, Suite G4, Argo House, Kilburn Park Road, London NW6 5LF. Sorry, we cannot accept adverts over the telephone. The Publisher reserves the right to judge submissions.

OPERA SECONDA speakers. Stunning finish in cherry veneer and black leather £875. (£2000 new). Unison Research FM/RDS/AM valve Unico 'R' tuner £575 (£1275 new). Both mint and boxed. Superb reviews. Tel: 023 8073 8935

ABOUT 70 Vinyl albums, good condition, for £50, with free belt drive Sony turntable. Working order. Wanted: Good single ended integrated amp, KT88 or EL34 preferred. Tel: Stanley 07951 553 091 (London NW)

KORA EXPLORER 90si quality sounding 60 watt hybrid integrated amplifier. Current cost £700 boxed with manual and spare valves. Excellent condition. £225. Tel: 07729 600 847 (West Sussex)

REGA PLANAR Two RB250 £50. Denon DRM500 cassette deck £20. Tel: Martyn 0753 426 9797 (West Midlands)

B&W 686s, 6 months old, hardly used. Half price. Tel/Text 07716 139 026

NEW REFERENCE Roksan Artemiz tonearm cable upgrades Linn/SME £110. New Sound Dead steel turntable mat £59. Benz Micro MC20 E2L mint/boxed £90. Rega Elys MM cartridge, excellent £45. Tel: 01243 863 371 (West Sussex)

ONE PAIR ESL 63s speakers for sale mint condition, can demo, buyer collects, could deliver within limits. £725 ono. Chord Rumour 2, 8 metres Aircloc Connections £80 pair. Tel: Graham 01482 641 261

TECHNICS DIRECT drive turntable with Ortofon VM8-30, good condition, plinth cover, £100, no offers. Mains isolating transformer, seven amperes, many taps, £50, (ex Atomic Energy Research Establishment) Tel: Stanley 07951 553 091 (London NW)

DYNAUDIO CRAFT cherry finish plus Something Solid stands, boxed, very good condition, £890 ono. Musical Fidelity P270 II, unboxed, lamp, not operational but amp works ok, £250 ono. Tel: Rob 01384 396 657 (West Midlands)

LOWTHER LOWTHER Acousta Twin cabinets wanted. Made late 1960's. Also PM7A drive units. Any condition. Working drawings. Twin feet. Drive unit mounting screws. Tel: Jeff 020 8220 0380

WANTED: REGA P2. Can pay up to £100. Can collect in Chesterfield area. Otherwise must post. Tel: 07983 913 214

QED TS20 2 way tape switch-box interconnects: 2x Kimber Tonik, 3x Cambridge Arctic One Cambridge Pacific, offers? Tel: 0121 476 8507 after 6pm (Birmingham)

LINN INDEX speaker stands, black, £35. Rega Planar 3 with RB300 arm, £150. Cyrus DAD 1.5 CD player with remote £125. Goldring 1012GX cartridge, needs stylus, £40. Tel: 01925 470 619

QUAD FM3 tuner £70. Quad 405 power amp £160. Both in good condition. Tel: 01278 459 556

SNELL TYPE E. with Pirates stands £450. Quad ESL 57 One Thing rebuild £600. Audio Innovation First Audio monoblocks £450. No offers. Tel: 01986 872 933 (Suffolk)

MUSICAL FIDELITY A1001 Class 'A' integrated amplifier, 200wpc. Excellent sound and condition. Manual and remote. Must be collected (30kg) £860 ono. Tel: 01905 772 175 (near Worcester)

MONITOR AUDIO Bronze BR2 speakers £95 and Denon RCD M37 DAB CD receiver £120. All mint, boxed. Tel: David 020 8656

MICHELL ARGO pre-amp £200 (boxed) M&K V125 12" Sub £200. Project Debut III black £85. Cambridge Audio 640p MC-MM phono-amp £65. Mordaunt Short Pageant Series II (boxed), teak, £60. NAD 3020 pre-amp £20. Tel: 01722 334 694 (Salisbury)

TANNOY DUAL Concentric 3LZ 10" Monitor Golds, mint condition. Offers over £600. Sansui 1001 SP 3 way speakers tone controls £150. Optimum speaker stands glass wood, £50. Tel: Derreck 01455 220 214 (Coventry)

CROFT MICRO 25 New Line pre-amp with MM phono stage. Brand new with box and lead, £450. Tel: 01562 887 558 (West Midlands)

AKAI REEL to Reel GX221D 3 head, 3 motor, auto reverse. Free to good home. Tel: 01422 373 812 or Email: lindawoodhouse146@btinternet.com (Halifax)

NAIM AUDIO CDS2 CD Player and power supply. Brand new Laser mech fitted in June. Naim 102 pre amplifier. Naim CD1 CD player. Croft Epoch (special) valve preamplifier. Lector Zoe valve pre amplifier. Two (Russ Andrews) Kimber signature Power cords 1 mtr Cardass interconnect, 1 mtr Length (Quality Cable) 2 Kimber Power Cords, 0.5 mtr length Din to Din attenuated interconnect great for Naim pre to CD. Cabbasse 100 wpc mono power amps (transistor. Please telephone for sensible prices. Tel: 020 8534 2181

AUDIO ALCHEMY DDE3 and dedicated Power Station 3 digital to analogue convertor. Fully HDCD compatible coaxial optical inputs. Audiophile sound. Rare opportunity, £350. Tel: Robert 07968 597 935

DECCA FFSS Head Mk3, recent overhaul £130. Systym 931S speakers £150. Quad 33 disc and tape adaptor cards £10 each disc amplifier modified £15. Tel: 01344 776 445

WANTED: DAMAGED early D/E type Hadcock arm. Please text: 7958 023 685

PAIR DECCA KELLY MkII horns and Kelly 12" bass units in Mordaunt design infinite baffle cabinets. Bass units now need foam surrounds replacing. What offers? Tel: 01524 791 555

REGA P5 turntable with RB700 tonearm and new Elys 2 cartridge. Unmarked mint condition with original packaging. £395. Tel: 01639 641 043



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WANTED: ARMSTRONG 222 valve amp. Must be in good/very good condition. Reasonable price pair. Tel: Matt 07757 985 133

WANTED: LOWTHER speakers and or amplifier. Tel: 07958 939 424

MERIDIAN 200 CD transport full remote, manual and packaging. The best audiophile sound. £225. Tel: 07968 597 935 (Midlands)

EAR 8L6 50W tube amp (20 kilos) fabulous sound £1790 (£3100). Classe CAP151 225wrms (18 kilos) £995 (£2195) Meridian 596 CD/DVD upgraded to MSR £899 (£2500). All excellent. Can send. Wanted: IMF. Audiolab. Tel: 01206 510 392 pm

MORDUNT SHORT Performance 860, floorstanding speakers, in piano black. These received excellent reviews, (can email reviews and photos). Cost new £1,900. Now £550. Excellent condition. 01424 446282. Hastings, Sussex

YAMAHA NS-1000M speakers very nice 750 pounds. Luxman MQ-50, Klasse A 50watt valve amp 1600 pounds excellent. Kenwood KT-917 Tuner excellent condition 450 pounds. Tel Sweden: +46 477 10734.

DESPERATELY SEEKING a replacement laser assembly for my Technics SL-PI200B C.D. player, if you can help or advise please email laurence@waitrose.com thank you.

FOR SALE: Rega system Rega P3 (green) Turntable (arm but no cartridge), Rega Brio Amplifier, Rega RI Speakers (maple), Rega Turntable wall shelf, Partington super dreadnought speaker stands. plus qed silver anniversary speaker cable 2x2m. Great little vinyl-based entry level system For quick sale as a WHOLE SYSTEM : £550.00! Tel: Des 0207498-8902.

MUSICAL FIDELITY E100 amplifier. E600 CD player, E500 FM tuner. Owned from new, all in perfect working order and excellent condition (one small nick on CD). Gloss black, well reviewed. C/WVDH leads, system and individual remotes. Boxed. (£1800) £599 ovno (N. Kent) 07961 023253

LINN KABER Aktive speakers black £500. 3 LK100s £200 each, (used with WDA valve pre sounds great) All excellent condition. Aktive cards included if bought together. Tel 01647 61421. pat.tranter@yahoo.co.uk

SPEAKERS. BOWERS and Wilkins, CM2. Rosewood. Absolutely as new. £175 per pr, or offers. Collect from adjacent Junc.9 M5 or negotiate delivery. Tel: 01684 275399.

ROWLAND RESEARCH Model 7 amplifiers. Beautifully over engineered and frequently cited as one of the best sounding amplifiers of all time. Class A. 350+WV into 8 ohms, 2,000+WV into 1 ohm. Truly iconic. Original owner selling. One living-room use only. Appearance 'as new'. All original boxes, manual, test certificates and documentation. £3,250. David Benjamin Tel: 01202 875192.

FOR SALE: Pioneer SA9100, accompanying tuner also available. Well looked after. Volume rises and falls, some crackling, so will need some repairs. Contact iwanthomas@hotmail.com for info or offers

SINGLE LOWTHER TP1 cornerhorns loudspeakers with PM2c unit in good condition and working order £550 ono - Jamo D830 concert 8 excellent condition light oak and boxed £550 ono 07708361905 Merseyside.

NAIM CDX2, boxed, immaculate condition, £1550. Naim n-sats, boxed, almost unused, £550. Naim NAT05, boxed, new May 2009, £650. Email: chris@cmetcalf.l.wanadoo.co.uk

GARRARD 301 (strobe platter, oil bearing) £550, Quad 33 / 405 £170. Telephone 01189 413708.

REVOLVER CYGNIS Loudspeakers, as new 14 months old, superb reviews. £4250 (£6000) ono, buyer must collect. Tel 01843600722 evenings. (Southeast Kent)

PS AUDIO POWER Plant Premier, patented, complete AC mains re-generater! This is not one of those dynamic sapping mains filter! But a pure 230v AC power supply with all Noise and Distortion removed. Awards Winner!! Cost £2000:00 new, Ask £1295:00 Tel 07859 388167

FOR SALE: Revox B760 FM Tuner. Excellent condition, £350 o.n.o. Buyer to collect. Email PETER.WATKINS2@sky.com Tel.01384 241667. (West Midlands).

LFD MCT Phonostage. True high end. Two Years Use. £3000 when new. £1600 now. 07853422832

CLASSE CAP101 integrated, silver boxed 100wpc £550. Theta Chroma 396 DAC Black boxed £230. Kef XQ1 speakers black, silver stands boxed £390. Kent Simonburdett64@yahoo.co.uk or text 07834121234

PROAC STUDIO 250's, pair of quality floor standing speakers for sale, good condition photos available. Original cartons with it but these are heavy speakers so collection would be the best option. £950 Tel Dave 01142360166 Sheffield. scooby@what20.freeserve.co.uk

MUSICAL FIDELITY Tri-Vista 21 DAC. One owner. Box, certificate, manual, Russ Andrews Yello power cord, £550. Prefer buyer collects or can deliver reasonable distance. Pete, North Wales. Tel: 01492 596496

UNIQUE B&W 805 in stunning Carbon Fibre, fantastic sounding, ideal as a centre speaker or as an ornament for the Hi Fi collector. £350.00. Tel: 07939 094299

LEAK TROUGH-LINE 11. Tuner. Retro-fitted stereo decoder. Art-Deco style fascia. Pickup preferred. Sensible offers. Tel: (01745) 33161. Mob 07714530889. Rhyl, North Wales.

CYRUS 6VS2 amp + matching Cyrus cd6s cd player, 7 months old with receipts, boxed, mint £675 (£1350). Lee West Midlands 01384 412234 leet2009@hotmail.co.uk

210 NEW/UNPLAYED /sealed vinyl LP's at 50% of new cost. 60 second-hand albums from £3 each. I will separate if necessary. Tel:-Roy 01453 544354 for list.

NAKAMICHI ZX-7 cassette deck, 3head, full manual calibration, just serviced by B&W (Nakamichi) boxed, mint, very rare £495ono. Pioneer PDR-509 CD Recorder hardly used, as new £85. Simon 07759205820 / 01483271669. (Surrey)

ARCAM SOLO - (Silver) Amp/CD/DAB/FM - £450. B & W 685 (black) Stand mount speakers - £220. PRO-JECT Phono Box SE MC/MM - £60. Bill - 0208 464 9055 (Bromley - SE London)

JOHN LINSLEY Hood Stereo Mosfet power amplifier. Hart pcbs, fully built, cased. Good offers considered Tel 07779 199 392

CLASS A stereo power amplifier. JLH 15W single ended design. Amp and PSU fully working, but requires casing to complete. Good offers secures. Tel 07779 199 392.

FOR SALE: Four channel power amp using Maplins 50/70W modules. 300VA fully regulated PSU. Fully built, cased, ready to use. Ideal for active system, Bi-amping or bridging. Tel: Tel 07779 199 392.

PYE HF25 monoblocks. fully overhauled valve specialist 2008, superb sound £1995. Garrard 301 excellent with manual, plus rare Pritchard Audio dynamics (ADC) tone-arm, Shure m55e, plinth, £750. 01842 812895

OPPO DV980H DVD player as new £135 Dali Ikon Vokal 2 centre channel speaker as new £249 Tel: 020 8951 3178

OPPO DV980H DVD player as new boxed £135 Dali Ikon Vokal 2 centre channel speaker as new £249 Tel : 020 8951 3178

LINN SILVER Interconnect leads. New 1.2mtr pair: RRP £190, sell for £110 + £3p&p. 2 pairs available. Contact James, braceposition@hotmail.co.uk

ROKSAN CASPIAN integrated amplifier, very good condition and working order, £275. Contact Robin on 020 8670 6828.

WANTED FAULTY or non working Quad 44 preamps, Quad 405-2 amplifier boards, Quad 33 panels. Also required for spares Quad fm 2 tuner. Contact Mike 01758 613790.

PRIMARE V20 Disc Player. High-end CD/MP3/SACD/VCD/DVD player. With new Primare system remote. Instructions. Excellent sound. Basically pristine condition. Excellent price £185. Enquiries/photos available klugheit.123@gmail.com.



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MUSICAL FIDELITY

Stereonow

Lyngdorf RoomPerfect – “just another gimmick”

And that self-appointed expert went on to say that “all class D digital amplifiers are s..t too!” Hmm. No prejudice there then.

I'm Howard Popeck – the owner & sole employee here. I've been in this business, on & off, since 1976. Lyngdorf are really onto something. They've gone further towards achieving a practical & credible real-world approach to removing the room from the “good sound” equation than anyone else. Yes, anyone.

Over half of what you hear on your hifi is created by the acoustics of your listening room. This fundamental problem affects any system & is the primary reason why good components simply don't give good sound in most rooms. Lyngdorf reduces the distortion that rooms create from a typical 20db to less than 2db.

Do you want proof? Good. **So, when can I visit?**

I offer RoomPerfect in three options; the DPA-1 digital preamp, the RP-1 standalone room correction processor & as part of the extraordinary TDAi 2200 full digital integrated amplifier. You'll be amazed. You might not buy it. You might not be able to afford it. But you'll be taken aback. I guarantee it. Naturally, I have the CD-1 CD player & the mighty Millennium IV on demo too...

In a nutshell: It's Lyngdorf – & done right because *I* come to you.

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NAKAMICHI 480Z. Needs minor mechanical repair and a service. Free to anybody who will collect it from St.Albans. mgoodman@iee.org. 01727 837044

SOUND ORGANISATION Z560 Hi-Fi Stand. Former What Hi Fi 5* equipment support. Silver metal frames with 5 adjustable Silver coloured glass shelves in "as new" condition. Collection only. £50.00 for a quick sale Contact. Tel. 01324 638642 or fotherw@tiscali.co.uk

ATC-SCM 10 passive monitors in rosewood + stands, boxes. VGC £280 ono. 01372 729569 (Surrey).

AUDIO ANALOGUE Bellini preamplifier and 2 x Donizetti power amps in excellent working order. Italian handcrafted amplifiers. £580.00 (may consider splitting) For further info Tel. 01324 638642 or email fotherw@tiscali.co.uk

LEAK 2075 speakers immaculate teak £595 JBE Slate Mk3 directdrive turntable £495. EAR 834P mm/mc valve phono stage £395. B&W 1800 speakers £195. 01798 813133 reconcile@bdlrs.freereserve.co.uk

REVOLVER CYGNIS Loudspeakers, as new 14 months old, superb reviews. £4250 (£6000) ONO, buyer must collect. Tel 01843600722 evenings. (Southeast Kent)

NAIM NAC A4 white speaker cable 10 mtr pair £40.00. QED phono/phono interconnect lead £5.00, A&R Cambridge T21 FM tuner teak finish immaculate condition £30.00. Pioneer PD 6700 compact disc player black £50.00. Nakamichi 680 ZX 3 head twin speed cassette deck £150.00. SME 3009 Mk2 10" detachable headshell tone arm £20.00. SME armboard for Linn Sondek LP 12 turntable £5.00 Telephone 01228 544376.

ARCAM CD82T boxed as new £450. Sugden A21 Boxed as new £ 900. Wharfedale Pacific Evo 30 floorstanders maple boxed £399. Tel 01493 665761

QUAD 2 valve amps plus pre amp , working order, great sound, made 1959, with manual . £ 895 Contact 01773 520671 Derbyshire

15" SILVER TANNOY Dual-concentric Horn with cross-over. All excellent unmolested. Best offer over 3500 US dollars. Pictures on request. Serious inquiries only please. Shipping from U.S. actual cost. joensab@hotmail.com

FOR SALE. Tri Vista 21 DAC box and paperwork excellent condition. Also Icon Audio stereo 300b integrated amp box and paperwork excellent condition, under a year old. And Marantz cd 63 mk2 ki signature cd player ,XLPS phono stage. Tel...Alan 07843124606

NAIM CD555 £7500 no. 24**** 555PS £3000 no. 23**** NAC552/PS £9000 no. 25**** All bought new, mint condition, boxed with all accessories. Contact aawheal@aol.com.

FOR SALE. Quantity of 10.5 inch open reel tapes, some unused! TDK, Maxell, Zonal, Scotch, Basf, etc. all boxed. Also 7 inch available. Wanted. Audiolab 8000A Amp. Phone Ray 01733 347308

REGA P3 (no cartridge), Rega Brio, Rega R1 Spkrs., Partington Spkr.stands, Qed Spkr. Cables & Wall-shelf. For Quick Sale As Whole System: £550.00. Tel: Des 0207498-8902

NAIM NAIT 5i Amplifier Naim Nait 5i CD Player Mint condition as new £650 Tel: 02380 224003

I HAVE a Bill Beard BB-100 amp for sale. It needs checking on the power supply side and new valves. It has the cover as well but it needs a puncture weld and repainting I guess. I will accept offers around 480£. I also have a 500W sub amp and a Shiva 12" Woofer (2 x 600W RMS) made by Adire. Price 500£ Dan 07872148082

ARCAM CD73T cd player. Silver, original box with manual, remote, immaculate. £150 posted (£450). Lee West Midlands 01384 412234 leet2009@hotmail.co.uk

ATTWOOD CONCERT Stage moving coil phono amp, the most sublime and lyrical phono stage under £1,000 (see last month's review in this magazine). Mint condition. Cost £695, sell £480. 020-8366-2647.

WANTED: Top quality Hi Fi separates and complete systems, Naim, Linn, Cyrus, Meridian, Arcam etc, fast, friendly response and willing to travel/ pay cash Please call me on 0781 5892458

YAMAHA NS-1000M speakers excellent condition, 750 pounds. Target stands 150 pounds pair. Tel Sweden: +46 477 10734 Kent

LINN KOMPONENT 110 floorstanders in silver.also component 120 subwoofer all 2yrs old.orig.cost £1600 yours for £400.tel.01777 711386 (notts)

OPERA SECONDA speakers. Stunning finish in cherry veneer and black leather £875. (£2000 new). Unison Research FM/RDS/AM valve Unico 'R' tuner £575 (£1275 new). Both mint and boxed. Superb reviews. Tel: 023 8073 8935

ABOUT 70 Vinyl albums, good condition, for £50, with free belt drive Sony turntable. Working order. Wanted: Good single ended integrated amp, KT88 or EL34 preferred. Tel: Stanley 07951 553 091 (London NW)

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 those 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

(East Sussex) Turntable parts - wide range of spares and accessories, plus arms and cartridges. Tel: 01892 654534

CARTRIDGE MAN

(Len Gregory, London) Specialist cartridge re-tipping service and repairs. High quality special cartridges. Tel: 020 8688 6565 Email: thecartridgeman@talktalk.net www.thecartridgeman.com

AUDIOLAB

(Phil Pimblott, Leeds) Renovation, repair and restoration. Specialist in valve hi-fi, radio transmitters, cinema amps, kit building. Tel: 0113 244 0378 www.audiolabs.co.uk

QUAD ELECTROACOUSTICS

(Cambs) Quad's service department, able to repair almost all Quad products, from the very first. Tel: 0845 4580011 www.quad-hifi.co.uk

ARKLESS ELECTRONICS

(Northumberland) Specialist in repairs, restoration and modifications to all amplifiers, valve or solid state, ancient and modern. Tel: 01670 829891 Email: arklesselectronics@btinternet.com

SOWTER TRANSFORMERS

(Brian Sowter, Ipswich) Large range of audio transformers for valve amps, cartridges, line drive, Interstage plus all associated services. Tel: 01473 252794 www.sowter.co.uk

WEMBLEY LOUDSPEAKER

(Paul MacCallam, London) Comprehensive loudspeaker servicing. Tel: 020 8 743 4567 Email: paul@wembleyloudspeaker.co.uk www.wembleyloudspeaker.com

EXPERT STYLUS COMPANY

(Wyndham Hodgson, Surrey) Stylus replacement service for all types of cartridge. Including precise profiling for 78s Tel: 01372 276604 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

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

HADEN BOARDMAN

Repair, service & modifications; classic & modern. Collection available. Redundant / faulty equipment purchased, selected new equipment available. Tel 01942 790600 www.audioclassics.co.uk

Dr MARTIN BASTIN

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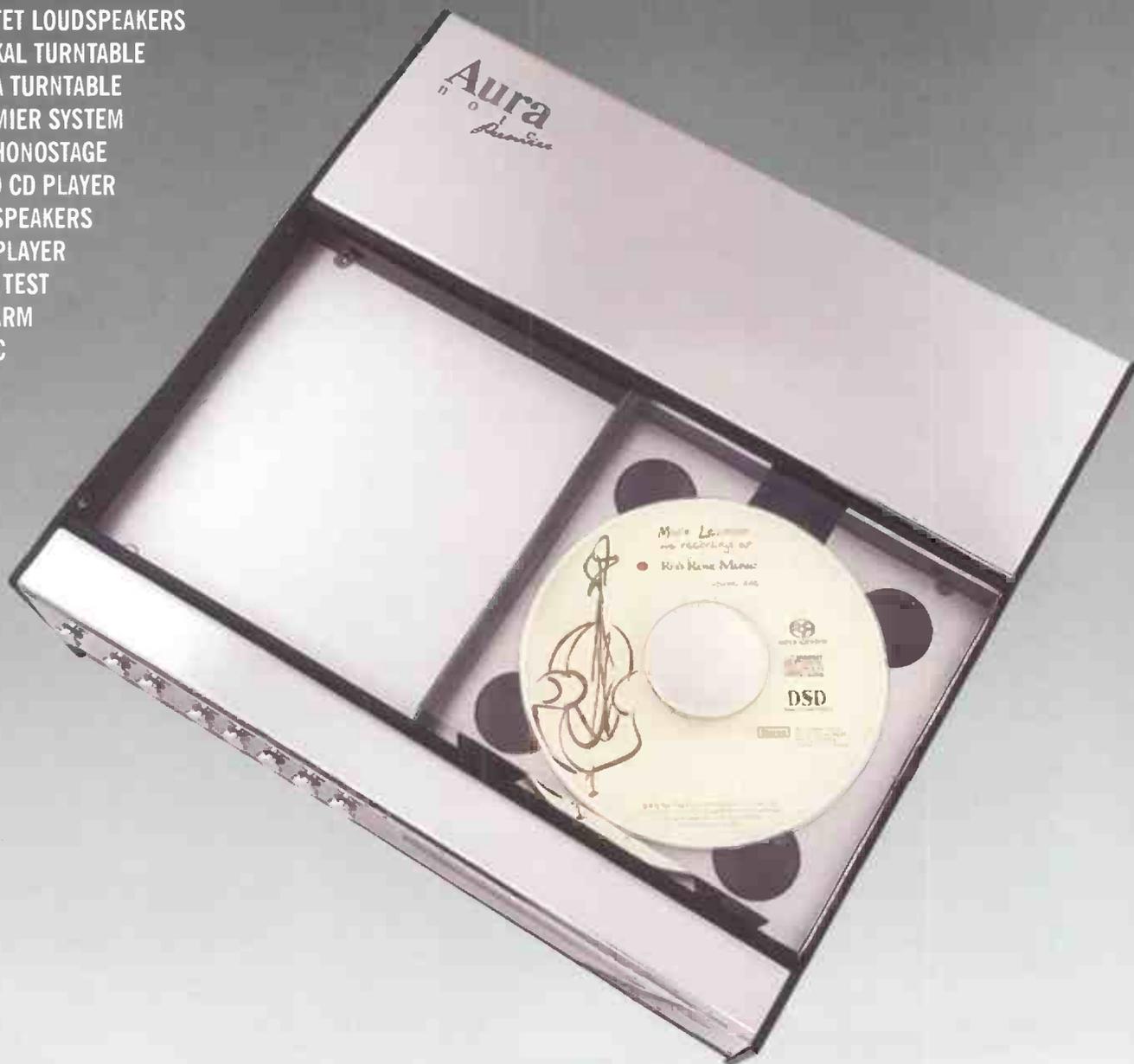
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NEXT MONTH

October's Hi-Fi World is a celebration of both analogue and digital. We have the very newest Linn Sondek LP12 with the excellent Radikal DC motor upgrade, and Avid's brand new Super Diva turntable. Then there's the latest dCS Paganini transport and DAC plus Naim's new CD5xs mid-price CD player. Add in a wealth of other new products, such as the just-upgraded Yamaha Soavo 1.1 Piano loudspeaker and the Aura Note style system [pictured], Wharfedale Diamond 10.1 mini monitors and Leema Agena phono stage, and it's another bumper issue to keep you entertained as the long nights begin slowly to draw in!

Here's just some of what we hope to bring you:

DCS PAGANINI CD/SACD TRANSPORT & DAC
YAMAHA SOAVO 1.1 PIANO LOUDSPEAKERS
ELECTROCOMPANIEC EC4.8 PREAMPLIFIER
WHARFEDALE DIAMOND 10.1 SPEAKERS
CAMBRIDGE AUDIO 650C CD PLAYER
TRIANGLE QUARTET LOUDSPEAKERS
LINN LP12 RADIKAL TURNTABLE
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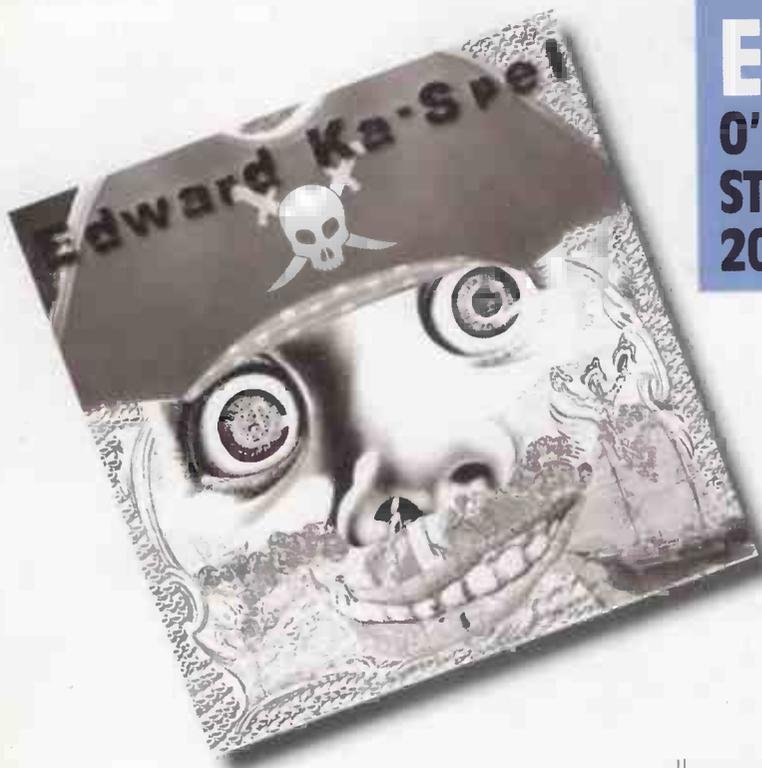
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EDWARD KA-SPEL

O'ER A SHALABAST'R TYDE STROLT AY

2003

The problem with radio, TV, magazines and the newspapers is not what they say, it's what they don't say. It's not who they talk about, it's who they leave out. What we forget is that the media is run by and produced by people, just like you and I. Not supermen and women. People with their own tastes, their own bias and agendas and their own sense of justice. And so, just because they print something, it doesn't mean that it's right. Similarly, just because they don't print something, it doesn't mean that it should be ignored...

A case in point is Edward Ka-Spel, an artist that isn't written about or listened to by the so-called opinion formers. But does that make his work less worthy than The Beatles, Frank Sinatra or Mozart? Ka-Spel suffers, as do thousands of other artists, through a lack of exposure. Yet, there are people of passion and conviction out there who at least attempt to redress the balance.

Chris McBeth's Beta-lactam Ring Records (www.blrrecords.com) is one such source of support for Ka-Spel, founder and lead singer for the cult outfit the Legendary Pink Dots, and others like him on the label such as Nurse With Wound, Volcano The Bear, Troum, Andrew Liles and more who are bringing us music which might not fit the chart mould but which certainly widens our musical appreciation.

Originally released in 2003, 'O'er a Shalabast'r Tyde Strolt Ay' wouldn't know a three-chord pop sequence if it fell over it. This is an album of sonic washes, dark ambience and sounds from the universe. Ka-Spel

"an album of sonic washes, dark ambience and sounds from the universe..."

himself can also be heard in both treated and untreated vocalisations lending further layers of mood that shifts like the Sahara sand, reflecting sounds that follow the same parallel pathway, then conflict, then merge as one. For the new reissue of this album, on BLRR, Randall Frazier handled the remastering. A task which he saw as a way of extracting more musical information from the performance than was present on the original release – an audiophile-friendly mission, therefore.

Frazier used a preamp clone from a late-sixties console to process the signal. "I try to avoid downsampling (that is, taking a 24bit file and reducing it to a 16bit file for CD) in the computer as much as I can. I do that through the preamp clone," he said. Is that a big deal? Well, yes it is, actually. The reason being that, "something happens when you ask a computer to do these mathematical calculations to your mixes. There's often weird little anomalies that happen. I'm not talking about glitches and pops because they are obvious errors. No, this is something else. When using the computer, the music seems to lose a dimension, a lack of depth and space. What's really happening here is that part of the data is being 'smeared' and 'blurred'. Hence, sampling down in the console does the same job as the computer but in an analogue fashion."

So, Frazier downsampled the original 24bit Ka-Spel music in the

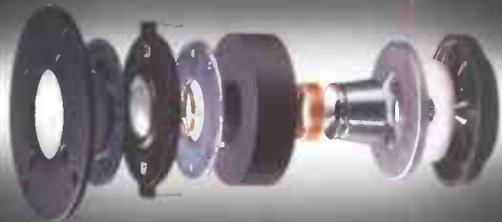
console. But that's not all. A computer would downsample and then save the code and you're done. Frazier, in this case, used the console to downsample the Ka-Spel album which then played that signal – it didn't actually save the signal. Frazier then chose the best quality piece of kit to do the saving. It's a bit like having an integrated amp on one side (the computer process) and a preamp with a couple of monoblocks on the other (the console process). Each part of the process is divided and given to the bit of the hardware especially made to do the best job.

Frazier then manipulated the Ka-Spel album via CuBase. "I prefer it to Pro-Tools," he said, "as you can get locked into the Pro-Tool 'system.' You're stuck with the hardware that they provide, CuBase allows you to assemble your own system from the ground up. It requires a bit more know-how but you're not tied down to limited choices."

Frazier mastered the album in his own specially designed room. We have heard Noel's words of wisdom on the sound of a room in past issues, and Frazier is certainly of the same mind, making sure he neutralised the room's acoustics so at no time did the sound of the surroundings influence the master in any way. The result is an exceptional reissue which does squeeze more sound out of the original, moving the final release that bit closer to Edward Ka-Spel's original vision. **PR**

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2-way system

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two 7" woofers

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nominal impedance: 4 ohms

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dimensions (w x d x h): 34 cm x 48 cm x 123 cm



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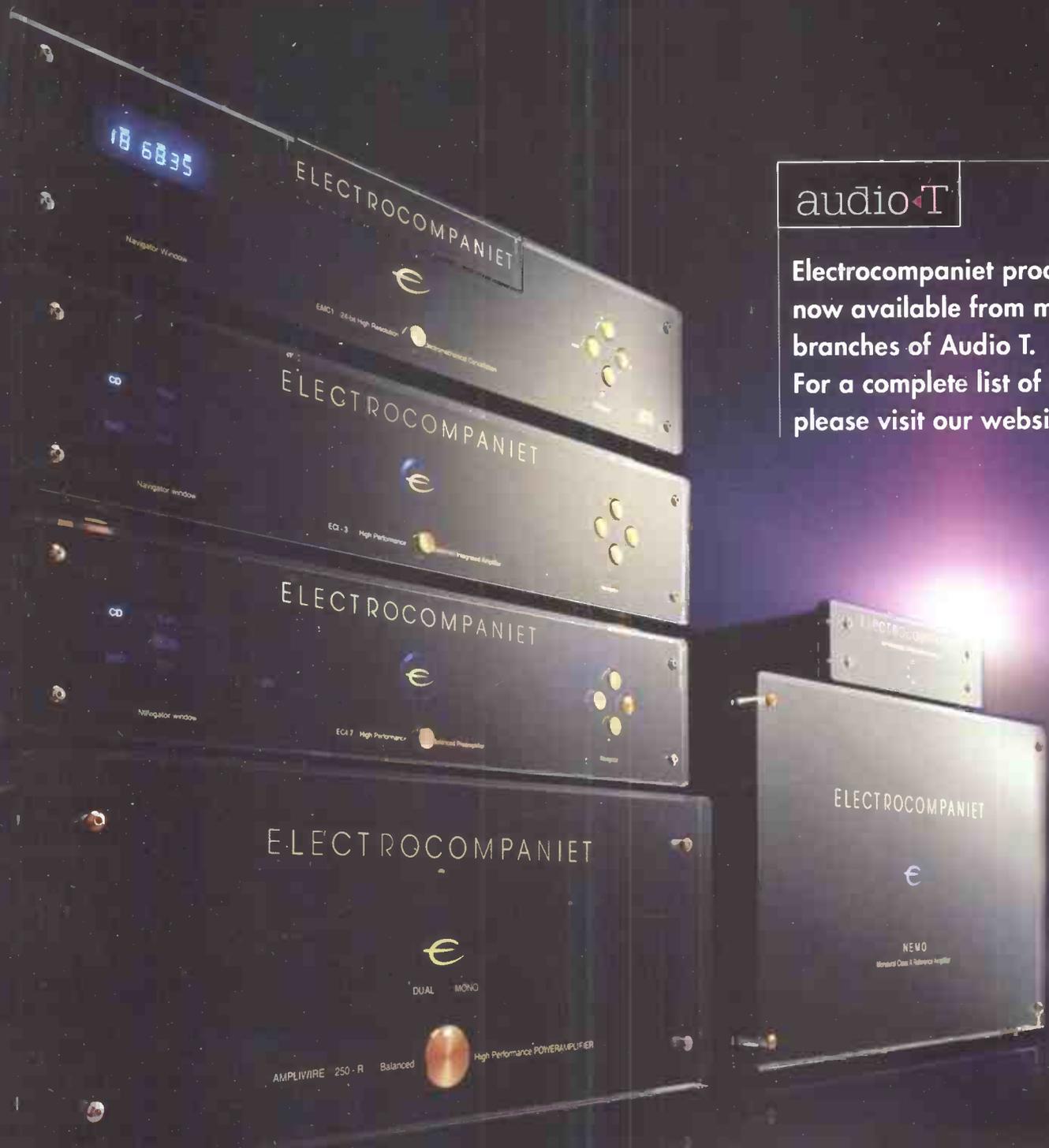


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