

COMPETITION
WIN A STELLO EDITION
DA 100 SIG GD RLAYER
WORTH EL, 3201

Made in England, Of Huntingdon

Made in England, Of Hunt

MARCH 2009

\$\left(\sigma\) \(\frac{1}{2}\) \(\frac{1}2\) \(\frac{1}{2}\) \(\f

AVID ACUTUS turntable









EDITOR

David Price

tel/fax +44 (0) 1275 371 386 e-mail: editorial@hi-fiworld.co.uk

DESIGN EDITOR

Faiza Chunara

tel: +44 (0) 20 7625 3129 fax: +44 (0) 20 7328 1844 e-mail: adproduction@hi-fiworld.co.uk

PRODUCTION EDITOR

David Noble

tel: +44 (0) 20 7625 3134 fax: +44 (0) 20 7328 1844 e-mail: classifieds@hi-fiworld.co.uk

ADVERTISING

tel: +44 (0) 20 7372 6018 fax: +44 (0) 20 7328 1844 e-mail: advertising@hi-fiworld.co.uk

ACCOUNTS

tel: +44 (0) 20 8841 8892 fax: +44 (0) 20 8841 9144 e-mail: accounts@hi-fiworld.co.uk

PUBLISHER

Noel Keywood

e-mail: publisher@hi-fiworld.co.uk

FREE READERS CLASSIFIEDS

tel: +44 (0) 20 7625 3134 fax: +44 (0) 20 7328 1844 e-mail: classifieds@hi-fiworld.co.uk

SUBSCRIPTIONS

tel: + 44 (0) 1442 879097 fax: + 44 (0) 1442 872279 e-mail: hifiworld@webscribe.co.uk

PHOTOGRAPHY

David Noble

tel: +44 (0) 20 7625 3134 fax: +44 (0) 20 7328 1844

WRITERS

Tony Bolton, Patrick Cleasby, Peter Comeau, Steven Green, Andrew Harrison, Paul Rigby, Neville Roberts, Adam Smith.

hi-fi world

SUITE G4, ARGO HOUSE KILBURN PARK ROAD LONDON NW6 5LF www.hi-fiworld.co.uk



It might not have escaped your attention that there's something of a downturn happening in the High Street right now. House prices, car sales and even the wonder of good old Woolworths have taken something of a bruising as we all wake up from a decadelong consumer binge that saw us buying ever more stuff with - yes, you've guessed it - our over extended credit cards...

Well, I'm sorry to say that this hasn't escaped our

little area of the map either - we've seen Zavvi (the CD and DVD retailer) and now Empire Direct (consumer electronics) go into administration recently, and I'm afraid that I don't think this will be the last of it. The hi-fi industry, as a purveyor of pure luxury goods (much as I personally *can't* live without my system), is hurting too.

Well, in the midst of all this doom and gloom, I'd like to add that perhaps this is an opportunity for the specialist hi-fi industry. If a 'body shock' like this doesn't remind it which side its bread is buttered on, I don't know what will.

Internet sales are reportedly strong in the consumer electronics sector, with customers apparently 'going in search of a bargain'. But all this also means buyers will be looking more closely at what constitutes false economy - and that could just mean *more* visits to dealers who can properly demonstrate just what an amazing experience a well balanced, well set-up high quality music replay system can be.

As we often say, buying exclusively on price is a false economy with hi-fi. You've got to get the right components working properly

together to get a truly transcendental sound - and no online purchasing system will do that for you. Meanwhile, there are some cracking products out there (some of which you'll find inside these very pages) and prices through dealers are keen, so it's actually a fine time to buy...

And even if your credit is crunched, you can get a better sound just by getting your kit to work better, or matching it more intelligently. This magazine has always majored in this art, which is why we have nine pages of your letters - packed full of advice and comment - inside. Enjoy!

David Price, editor



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

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

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

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

verdicts



OUTSTANDING EXCELLENT

GOOD MEDIOCRE

POOR VALUE simply the best extremely capable worth auditioning unremarkable seriously flawed

keenly priced

ELECTRONIC MAGAZINE

Go to our website www.hi-fiworld.co.uk to buy an electronic version of this magazine, individual issues or a subscription. At present we do not offer back issues, but hope to soon.



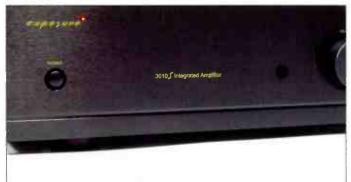


Distributed by Seymour Distribution Ltd 86 Newman Street London, W1T 3EX Tel: +44 (0) 20 7396 8000 Printed by St.Ives, Plymouth Tel: +44 (0) 1752 345 411
Our Agents in Malaysia Millennium Hi-Fi & AV Simon Chang Showroom & office, 500-1-3 First Floor Wisma Indah (Shen Court), Jalan Tun Razak 50400 Kuala Lumpur, Malaysia
Tel: 603 9283 8171 Fax: 603 9281 3762 e-mail: info@millennium-audio.com

All unsolicited submissions and goods are at the owner's risk. We accept no responsibility for such submissions, nor do we undertake to return them.

No material may be reproduced from this magazine without the publisher's written permission. © Audio Publishing Ltd

Exposure meets rival integrated amplifiers from Naim, Roksan and others...

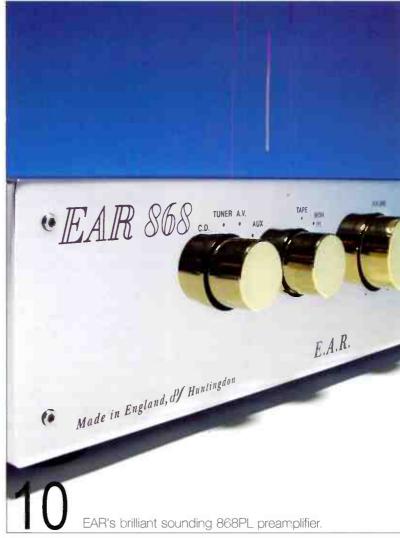








Myryad's innovative new Mi style system...





100

Avid's stunning high end Acutus turntable.

hi-fi world

MARCH 2009

VOLUME 19: NO. 1

AMPLIFICATION

EAR 868PL/890 10

Noel Keywood is beguiled by this stunning tube pre and power amplifier.

INTEGRATED AMPLIFIER SUPERTEST 15

Adam Smith auditions seven of the best sub-£1,200 integrated amplifiers.

ONKYO TZ-NR906 40

This blockbusting high end surround sound receiver is a hit with Noel Keywood.

DIGITAL

PIONEER PD-D9 VS. ROKSAN K2 34

Paul Rigby puts two fine sub-£1,000 CD spinners against one another...

LOUDSPEAKERS

B&W 683, KEF 1070 &

MORDAUNT SHORT MEZZO 6 27

Three big value floorstanders are compared by Noel Keywood.

NEAT ULTIMATUM MFS 38

David Price enjoys these quirky but capable standmounters.

SPENDOR SA-6 62

Noel Keywood samples these mature mid-price floorstanders.

FEATURES

THE SINGLE FILE 60

Paul Rigby pays tribute to the humble seven inch single, sixty years old this

SYSTEMS

MYRYAD MI 64

Patrick Cleasby tries this new British digital-friendly style system.

VINYL SECTION

VINYL NEWS 98

Paul Rigby with all the latest black plastic releases...

AVID ACUTUS 100

David Price auditions one of vinyl's finest turntable moments... $% \label{eq:control_price} % \label$

FUNK FIRM FX 105

Andrew Harrison tries this classic tonearm modification package.

YAMAMOTO YC-03S 109

Andrew Harrison auditions this exotic Japanese moving coil cartridge.

OLDE WORLDE AIWA LP3000 112

This month's Olde Worlde sees Adam Smith remembering a long lost high end parallel tracking turntable.

contents



7 NEWS

Words from the front...

25, 59, 87, SOUNDBITES

Quick reviews of TJ Full Music valves and Atacama Equinox equipment rack, and Philips' MCi500H system, plus Audio Origami's turntable bearing oil and Musical Fidelity's V-DAC.

45 MAIL

Nine pages of your views and queries.

75 WORLD CLASSICS

Our pick of the greatest classic hi-fi separates.

73 COMPETITION

Your chance to win a superb Stello CD-T100/DA100 Signature CD player package worth £1,320!

82 SUBSCRIPTIONS

Ensure your copy every month and save money too!

84 AUDIOPHILE VINYL

Paul Rigby rounds up the latest audiophile releases.

89, 91, 93, 95, 97 OPINION

The team get to grips with matters music, hi-fi and life!

120 DIAL-A-DEALER

A comprehensive guide to UK hi-fi retailers.

123 FREE READERS CLASSIFIEDS

Three pages of second-hand bargains.

128 NEXT MONTH

What we hope to bring you in the next issue.

129 ADVERTISERS' INDEX

130 CLASSIC CUTS

Paul Rigby examines Luther Ingram's Singles Volume 1&2.

niv

67 DYNACO A25 REVISITED

Peter Comeau listens again to this classic loudspeaker and retunes the WD25 to WD25A-EX form as a homage.





Select Audio

www. select audio. co. uk E-mail: select. audio@ tiscali. co. uk Tel: 01900813064





news@hi-fiworld.co.uk

news

HEY, BIG SPENDORS!

The new Spendor A5 and A6 are floorstanding loudspeakers that benefit from important advances in Spendor's drive unit technology, cabinet design and crossover engineering, the company says. The £1,495 A5 and £1,895 A6 use new drive units based on technology developed for the recently launched Spendor SAI, specifically a pair of 15cm units specifically for the new A5 and a new 18cm driver for the new A6, both with a magnesium alloy chassis. A new 22mm wide-surround tweeter for the A5, and an advanced 29mm unit for the A6, combine the extended frequency response of a small diaphragm with the low frequency characteristics of a larger diaphragm to give stable low distortion response over a wide frequency range. "A new approach to lowfrequency engineering with minimum damping of the acoustic enclosure" is employed, combined with a 4th generation Spendor linear-flow port and Dynamic Damping. This is where small low mass constrained polymer dampers at key energy interface points are used to convert any spurious energy in the cabinet into inaudible heat. Internal cables are highgrade silver plated pure copper with halogen free dielectric. Available finishes are light oak, wenge, cherry and black ash. The plinth has a contrasting black satin lacquer finish. For more details, contact Spendor on +44(0) 1323 843474 or click on www.spendoraudio.com.



TUNER SURPRISE

It's not everyday we see DAB tuners with built in iPod connectivity, but that's precisely what the new Arcam FMJ

T32 is. Described as a major performance upgrade, squeezing as much quality out of DAB as possible and adding DAB+ for future-proofing, it sports an "advanced iPod interface that with Arcam's rDock or rLead, brings full iPod remote functionality to any separates system", the company says. There's also a fully discrete AM/FM tuner with switchable Europe/North America de-emphasis and tuning increments. For fine sonics, the T32 uses high performance Burr Brown OPA2134 output op-amps and the Wolfson 8740 from



Arcam's highly respected DVD players, while circuitry is fed from a toroidal power transformer and multiple low noise regulated DC power supplies with components mounted on double-sided fibreglass PCBs. Station selection is via presets or the large front panel knob. The large, clear VFD display has scrolling text and is easily read from any angle or in any light condition. Vital statistics are 430x290x85mm and 5.3kg. For details call Arcam on +44(0)1223 203 200 or click on www.arcam.co.uk.



BLU TOME

Cambridge Audio's first Blu-ray player is called the Azur 640BD. Designed to partner the new Azur 640R V2 AV receiver, it features full HDMI 1.3 output, including bitstream output of all the latest HD Dolby and DTS surround-sound systems plus internal decoding of Dolby Digital EX, DTS ES. Dolby Digital Plus, Dolby True HD and DTS HR surround-sound. A full set of analogue video outputs is supported, plus HDMI 1.3 video/audio, Ethernet, S/PDIF, Toslink and separate dedicated 7.1 and stereo analogue outputs. While natively supporting up to 1080p from Blu-ray discs, the 640BD is also able to upscale DVD discs to 1080p video resolution. Meanwhile, 24 frames per second (fps) progressive scan True Cinema allows films to be watched as the director intended at their original frame rate without conversion for the most natural jog-free panning and motion possible. Supporting Dolby True HD means the 640BD provides audio that matches the original studio masters, the company says. The 640BD is Profile 2.0 compatible to allow for future technological developments. A front mounted USB socket is also fitted. For more details, click on www.cambridge-audio.com.

LUCKY SEVEN

Townshend Audio has a new affordable turntable in the shape of the Rock 7 (R7). A skeletal design, it is said to incorporate all the engineering and functional features of the Rock V but at the considerably lower cost of £999. The R7 in its basic form is supplied without the familiar front-end damping trough characteristic of all Townshend Rock turntables to date. However, the trough and outrigger/paddle are together offered as an optional extra at £499, which will transform the turntable to performance levels approaching the Rock V and surpassing most conventional turntables regardless of cost, the company says. Further upgrades comprise a record clamp, more powerful motor and flat belt, which in conjunction with the optional Merlin II Electronic Power Supply, will give a significant reduction in noise and more accurate drive stability. The turntable is supplied without a tonearm, but with the arm base of your choice, either off the shelf or to special order.

The deck uses a substantial subchassis upon which is mounted the platter bearing, overall levelling counterweight and the optional trough, all of which are suspended symmetrically on three spring/bellows feet. The motor box, which houses the 24 pole 250RPM synchronous motor with its associated two-speed drive pulley, IEC mains power input socket and on/off switch, is positioned independently of the main turntable assembly for vibration isolation. Further vibration reduction is realised by suspending the motor on Nytrol elastic bands. The platter bearing is a unique one-piece precision-ground steel shaft with a hardened bottom-end resting on a steel ball, lubricated by synthetic oil. The top of the spindle has a threaded hole to take the optional Rock record clamp, and the platter is a substantial disc of high density polyethylene sitting on a smaller diameter sub-platter. The metal parts are of solid-steel which is powder coated with a very tough, fine textured black polyester. All the fixings are heavy duty industrial grade stainless steel to ensure maximum strength and extra long life in today's rough and polluted environment. For details, click on www.townshendaudio.com.

OPPO-RTUNITIES

Oppo's BDP-83 is described as a "full-featured universal Blu-ray Disc player that supports BD Profile 2.0 (BD-Live), DVD, SACD, DVD-Audio, Dolby TrueHD, and DTS-HD Master Audio". The BD Profile 1.1 (BONUSVIEW) machine is soon expected to provide DVD-Audio, Dolby TrueHD and DTS-HD Master Audio onboard decoding, and BD Profile 2.0. The audio stage has been refined, with the addition of discrete stereo outputs and an improved power supply. For SACD playback, the BDP-83 supports direct DSD over HDMI and DSD-to-analogue without any PCM conversion—said to be a unique feature. The video side runs an Anchor Bay VRS video processing solution, with Source Direct for DVD and Blu-ray, high definition HDMI scaling, Edge and Detail Enhancement options, and 1080p 24Hz output for both Bluray and DVD. Expect the machines to be in the shops soon, with an estimated price of around £499. For more details, click on www.oppo.com.



HORNED AND DANGEROUS

Klipsch has launched its Reference range of hi-fi/AV loudspeakers and subwoofers into the UK market. Said to offer superb value for money, the range comprises twenty models, including loudspeakers ranging from two-way bookshelf designs at £199 a pair to three-way floorstanding models at £799 a pair, and a choice of four different subwoofers, three surround speakers and three centre speakers. The mainstays are the floorstanders, including the £799 RF-82, £649 RF-62 [pictured] and £499 RF-52, plus three bookshelf models (RB-61, RB-51 and RB-10). They offer Tractrix horn-loaded tweeters and high-output copper-coloured Cerametallic woofers giving extended low frequency capability. Finish options, which vary according to model, include cherry and black veneers. The latest bookshelf speakers all feature high-output woofer cones and titanium compression drivers, mated to the latest generation of square Tractrix Horns — Hi-Fi World was favourably impressed with the £349 RB-61 bookshelf model last month. For more information, click on www.klipsch.co.uk.



FREE FORM

Good news for online music buyers comes with the announcement that Apple is to remove Digital Rights Management (DRM) from all music files it sells via its popular iTunes music retailing website, and move to higher quality 256kbps bitrates, The giant US computer company has finally convinced all the big record labels it distributes to release their music as DRM-free 'iTunes Plus' tracks, sold on the US iTunes site for 99 cents. Currently, 8 million tracks are available as DRM-free iTunes Plus songs, with 2 million more DRM-free songs slated to become available by the end of the quarter. That will make all of iTunes' 10 million tracks DRM-free, the largest music store library on Earth. Apple will also offer an easy upgrade for users to the new iTunes Plus tracks.

At the time of going to press, no prices for the UK iTunes website were available, but the US site's pricing from April now looks like this. There will be three different prices: 69 cents for back catalogue tracks, 99 cents for standard songs, and \$1.29 for new or popular releases. Apple has resisted multiple track prices in the past in order to keep music in iTunes priced simply and consistently, but music labels have pushed for multiple pricing tiers, it is reported. In a press release, Apple noted that all four major music labels, including Universal Music Group, Sony BMG, Warner Music Group and EMI, "along with thousands of independent labels, are now offering their music in iTunes Plus, Apple's DRM-free format with higher-quality 256 kbps AAC encoding for audio quality virtually indistinguishable from the original recordings".

Steve Jobs, Apple's CEO said, "we are thrilled to be able to offer our iTunes customers DRM-free iTunes Plus songs in high quality audio and our iPhone 3G customers the ability to download music from iTunes anytime, anywhere over their 3G network at the same price as downloading to your computer or via Wi-Fi". Apple's Phil Schiller noted that the iTunes Store is the world's most popular online music, TV and movie store, ahead of Wal-Mart, BestBuy, Amazon, Target, and other retailers. The store boasts a catalogue of "over 10 million songs, over 30,000 TV episodes and over 2,500 films including over 600 in stunning high definition video." See www.itunes.co.uk.

BLU-NIVERSAL

Denon's long-awaited top-of-the-line DVD-AIUD universal Blu-ray player is finally scheduled for release in March 2009, and joins the company's reference class AVP-AIHDA preamplifier and the POA-AIHD I0-channel power amplifier in the company's flagship HD home entertainment system [pictured right]. The DVD-AIUD plays Bluray discs at the very highest level, and also Super



Audio CD (SACD), DVD-Audio, DVD-Video and CDs. With the combination of the newly developed, proprietary 4th generation Denon Link in conjunction with HDMI transmission technology, digital signals from discs can be transmitted with negligible jitter to produce a pure, high-quality sound, it is claimed. Price is expected to be £3,299, and the machine comes in a choice of premium silver or black finishes.

Denon also has a new high end pair of hi-fi headphones, the AH-D7000 [left]. Said to combine excellent crafts-manship with state-of-the-art technology, the large 50mm free edge microfibre diaphragms provide extended frequency response up to a claimed 45kHz. High strength Neodymium magnets provide high efficiency and freedom from motor structure non-linearity, the company says. The housings are crafted from real mahogany wood, with intricate internal carving to enhance the natural tonal balance, and are finished in soft satin piano gloss. The lightweight cable features 7N OFC (99.99999% Oxygen Free Copper) wiring, and is finished with an elastomer-coated cloth sheathing. Supplied in a luxurious storage case, the package has a suggested retail price of £799.99. For details, click on www.denon.co.uk.

Denon AH-D7000

enon An-D7000

NOVO TELL

Graham Slee Projects say they have a new headphone amplifier - the Novo is a £235 design available through Hi Audio, and is described as a discrete-transistorised "power amp in miniature" dedicated to headphone fidelity. Usually headphone amplifiers at this price are based on a "cheap and cheerful" integrated circuit, says GSP, but the Novo includes an innovative second negative feedback (NFB) network which signals it to give extra drive



when dealing with the difficult or complex loads most headphones represent. As a result, it's claimed to give an energetic presentation and big punchy bass with great definition. Measuring just 107x125x50mm and weighing in at less than half a kilo, it's powered by a tiny plug style switched-mode power supply, making it an energy saving product which complies with Energy-using Products Regulations 2007. Furthermore it is fully compliant with the European RoHS directive meaning the Novo headphone amplifier is truly green! For more information, call 08450 525259 or click on www.hiaudio.co.uk.



BAY CITY ROLLER

Marantz's new IS301 hand-held iPod dock (£219.90) is an interesting new variation on a familiar theme. Said to bring all the sonic benefits of an audiophile dock, the package includes a compact, detachable Bluetooth-equipped module. Simply plug this adapter into your iPod and it sends audio information, via Bluetooth (A2DP), to the docking station. In turn, the docking station is connected to your hi-fi via a supplied receiver unit. This set-up lets you control the Apple device as usual, while enjoying hi-fi quality sound, Marantz

says. If you prefer, the iPod can be docked in the conventional manner, in the Marantz cradle, where it will be charged and, via USB, can connect iTunes. The cradled approach also means you can even deliver video from your iPod's library when this is wired to the RX receiver unit. The cradle's flexible design means it can be put on a table or wall mounted. Further neat touches are the source and volume controls, making operation a complete breeze. And the IS301's charms are not restricted to the iPod. Almost any A2DP-supporting mobile can connect to the IS301 as well. Enabling even further flexibility of placement, the dock communicates with the supplied RX receiver unit. This comes with an extensive list of audio and visual connections, including analogue audio, video and remote control inputs; outputs comprise audio, component video, S-Video, and CVBS. For details click on www.marantz.co.uk.

BIG HITTER

PMC's new PBIi is a direct development of the heavy hitting EBli and therefore displays the similar traits of ultra low bass extension. delicate razor sharp imaging and gripping presentation from a slimmer aspect, the company claims. It sports a "silky smooth" PMC/ SEAS developed i series tweeter and professionally proven 75mm soft dome midrange also featured in the larger EBI i model, plus a new long throw 165mm bass



driver. The combination of the stiff lightweight cone, huge coil and magnet assembly produces a highly potent device, it is claimed. Although substantially built, the PBI is said to offer an easy load and is therefore easily matched. Integrating the high, mid and bass drivers is a hand built, thirty one element, 24dB per octave Linkwitz-Riley crossover. This network of hand selected, measured and recorded components precisely divides the incoming signal from the amplifier and provides super power handling. Size is 1084x204x401mm, and the PBI i weighs 26kg. Finishes are Walnut, Cherry, Black Ash, Oak. For more details, click on

www.pmc-speakers.com.



Golden EARs

Noel Keywood basks in the glow of EAR Yoshino's new 868 balanced input preamplifier, and the updated 890 matching power amplifier...

modern preamp such as the new EAR Yoshino 868 is an interesting partner not only for EAR power amplifiers like the 890 I used, but also for solid-state power amplifiers, forming a hybrid partnership, with attractions for those not convinced about using a valve power amplifier, perhaps simply because of the heat it produces. A classic arrangement of a preamp like the 868 on display, feeding a power amp tucked away on the floor or a low shelf, makes a lot of sense.

This physical arrangement of items utilises the ability of the 868 to drive balanced signal lines, and also its superb sense of time domain precision and deep clarity to inject much needed zest to the otherwise flattened perspectives and dynamic contrasts that beset solid-state. The bottom line about this preamp I found is that it is, relatively speaking, both an active and intrusive partner.

Don't get me wrong, by 'intrusive' I don't mean it in a bad way, so much as the fact that the 868 is a thoroughly modern thermionic product, quite extraordinarily vivid and dominant. It makes its presence known in no uncertain manner, unlike a passive preamp such as

the Creek OBH-22. The 868 costs £3,552 with valve (tube) phono stage. It has remote control but it is an unattractive and out of style general purpose TV remote from Italy – disappointing at the price. It controls the Alps motorised pot only and cannot select inputs. That's the 868's main drawback however, and for some lack of a headphone output; all the rest is good news for what I found to be a cracking product.

Domestic hi-fi is steadily moving toward using balanced connections and the 868 reflects this. It has one pair of balanced line inputs through XLR sockets, and also two pairs of balanced line outputs supplementing two pairs of standard phono-socket unbalanced outputs; twin outputs allow bi-amping. The balanced XLR socket inputs are for CD players with balanced outputs; the XLR outputs are for connection to a power amplifier with balanced XLR inputs. I used the fine Stello DA100 Signature DAC with balanced outputs and EAR Yoshino 890 power amplifier with balanced inputs to accompany the 868.

Those of you interested in the finer details of such matters may be interested to know that the 868 is a conventional unbalanced design fitted with input and output transformers

to interface with balanced cables, in order to reject common mode interference pickup within the cables. So this is not a fully balanced preamplifier and nor is the 890 power amplifier. Whether this matters or not stirs debate. My view is that tangible benefits do seem to arise from using balanced connections; this doesn't mean that further improvement may not arise from all balanced internal circuitry.

SOUND QUALITY

Generalising, balanced connection seems to result in very well defined leading and trailing edges, making music start and stop sharply, bringing to it a brisk sense of pace and timing. Often it seems almost over-sharp, razor sharp in the time domain, and as I sat and puzzled at the peculiarly tight grip on pace and progression of the 868 I realised that I seemed to be hearing yet again the characteristic signature of balanced cabling, a little more obvious than usual through thermionic amplification perhaps. I should point out that this was with carefully constructed Chord balanced cables between DAC and the 868 preamp, and from preamp to the 890 power amp. As the use of balanced connection spreads I find my increasing use of it is acclimatising me to its characteristic signature.

Once, the fast edge of transients seemed a little too vivid to be real and a little contrived, like the extra sense of speed and insight that comes from simple treble lift. But whereas lifting say, the treble output of a metal dome tweeter to add such a sound works in the short term, it is tiring in the long term - a sure sign of contrivance. Not so with balanced connections and the 868; it was just lightning bolt fast, even at times when it had no right to be so, for example with old recordings!

A few years ago I bought an old classic, The Who's 'My Generation' LP, in newly mastered and minted 180gm vinyl - and have struggled to get it sounding right ever since. The 868 made it sound very right: on this alone it strode over a lot that went - unsuccessfully - before it. Roger Daltrey had sounded like he was singing through a baked bean tin and the rest of the band sounded flat and distant. The 868 changed this, getting right into the performance, bringing Daltrey to life by giving his vocals a raw presence that perfectly matched the Who's cutting lyrics in 'The Good's Gone'. Pete Townsend's guitar cut out of the mix and the whole took on the sort of challenging presence that was The Who. Gone was the flat sound, replaced by a powerfully dynamic and forcefully paced delivery that held me captive, as The Who have done in the past. The 868 has tremendous midband insight that gets out all the finest details in a mix, placed in a coherent delivery that come over as all-of-a-piece. Daltrey was placed hard centre, Keith Moon's drumming was tight and fast behind him, both strongly embodied and dynamically vivid. It was lovely to hear, with a clean cut, freshly minted sound that had the force of a good modern recording, even though 'My Generation' was recorded in 1965.

Fantastic that the 868 could bring 'My Generation' to life so capably, bringing it into contention with the sort of sound I get consistently from 45rpm 12in singles like Goldfrapp's 'Ride a White Horse'. They weren't the same; 12in 45s always kick harder than LPs, especially when they are recorded forty years later. Needless to say, this single punched out powerfully, that trademark synth ripping through the air in the room, the pulsing bass line having visceral power; I was impressed. The 890 power amp kept a tight grip on the Spendors, giving bass both strength and fluidity and balanced connections helped keep the 868/890 sounding tightly timed.

I was of course using the 868's

phono stage here, into which was connected an Ortofon 2M Black cartridge in SME 2.10 arm on a Pioneer PLC-590 turntable. The 868's phono stage isn't like the old 834P, which had somewhat inflated bass under measurement - audible in use. This stage has a little less gain at low frequencies and in consequence it comes across as dry, yet fast and punchy, a bit like our favoured Eastern Electric Minimax I found.

Switching over to CD courtesy of a Stello DA-100 DAC perhaps surprisingly gave a very similar presentation to LP.The 868 has extraordinary midband insight, lifting

is available from the 40 Ohm tap. Measurement showed very low levels of hiss have been achieved, as low as it gets in fact, and there's huge gain so even the weakest output MC cartridges - often the very high quality esoteric ones - will work with the 868. EAR use an unusual grounded grid input arrangement with an input FET in the cathode of the first valve, making this is a hybrid phono stage. The 868 can be had in L form without phono stage for £2,667.

It strikes me that apart from doing the obvious, that is driving a valve power amp like the 890, the 868 is an interesting integrated preamp

"this valve preamp seemingly has magical properties that all but had me puzzled..."

detail right out of any recording I gave it. The 890 power amplifier is grippy and fast, its sense of speed coming both from the use of balanced connection and the KT90s I suspect, a muscular sounding valve, if a little less finessed across the midband than the KT88.

In addition to the balanced XLR input, there are normal phono socket inputs (unbalanced) marked CD, Tuner, AV and Aux, all switched from the front panel rotary selector. There is also a Tape Monitor input with its own front panel switching that allows an off-tape signal from a monitor head to be compared with direct signal being recorded.

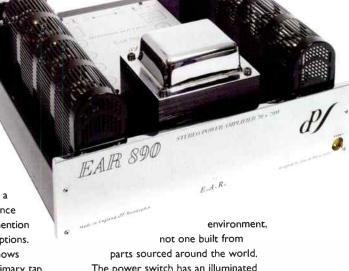
Our review sample came with an optional all-valve phono stage. This

has a rear panel push button switch for selection of Moving Magnet (MM) or Moving Coil (MC) cartridge compatibility. With MC selected the signal is stepped up through a pair of input transformers. The handbook quotes a 40 Ohm input impedance for MC and doesn't mention there are adjustable options. The circuit diagram shows an optional 4 Ohm primary tap and when I looked inside the 868 I found a 12 Ohm tap as well! Lower impedances better match very low output cartridges, damping the generator to reduce high frequency ringing. There's no need for the extra

gain however, because plenty enough

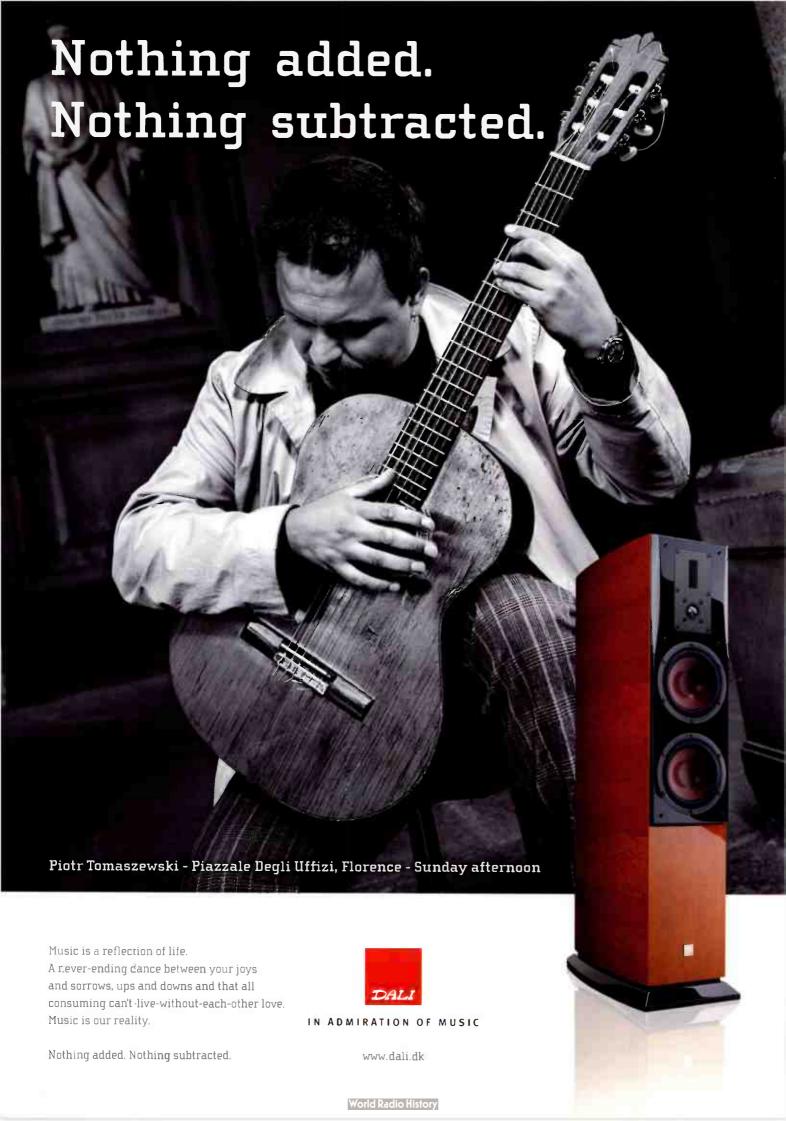
solution for driving a solid-state power amplifier too, where it will inject its own character to produce an interesting hybrid combination able to bring life to all sources, including LP. Hybrid setups like this don't lack power of course, are compact and produce little heat, and have a longer life as power valve replacement isn't required. With all necessary bits onboard the 868 is the only item needed.

Like all EAR products the 868 is strongly built. It has a thick, chrome plated front panel, and steel cover over a steel chassis. With specially turned, gold plated knobs this is a product of its local



parts sourced around the world. The power switch has an illuminated escutcheon, a neat touch. All controls have a solid feel to them and, being weighty (10kgs), the 868 sits firmly where it is put.

The 890 power amplifier uses paralleled pairs of KT90 output valves to achieve its claimed 70 Watts output



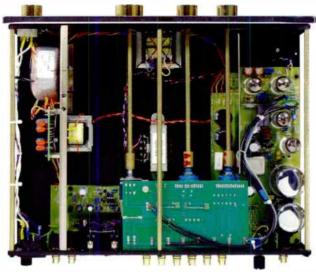
[see MEASURED PERFORMANCE].

The output transformer secondaries of our amplifier were wound to match 8 Ohm and 4 Ohm loudspeakers (our handbook circuit showed 8 and 16 Ohm windings).

An input switch optionally parallels the channels to facilitate bi-amping and, if the 8 Ohm outputs are connected together with a piece of wire, Tim de Paravicini told us, they will feed over 100 Watts into a 4 Ohm loudspeaker. The 890 becomes a monoblock

in this mode. Unbalanced phono and balanced XL inputs through transformers are also selectable.

KT90 power valves are heavy duty versions of the KT88, and a fairly recent development. They aren't quite as smooth and refined as the KT88, having a harder edge to their sound in my experience, yet at the same time they are gutsy and provide plenty



Twin MC input transformers can be seen at bottom right, and valves above. A slide switch selects MC input impedance, not mentioned in the handbook!

of grunt in the right circumstances. In the 890 distortion levels are low even at low frequencies, allowing this amplifier to swing oodles of clean bass from '90s. With feedback giving a fairly low output impedance as valves go, and a damping factor of 12, not so far from that of a Naim at 15, the 890 sounds tight, punchy and fast. It's a real power house, yet has a dry,

controlled bass and a well lit upper midband in usual KT90 style, making for a cuttingly fast delivery, but with the very strongly resolved dynamic contrasts valves can provide. This is another valve power amplifier that makes solid-state sound rather flat and lifeless by way of contrast – and it matches the 868 of course.

CONCLUSION

The new 868 is a great preamp package. With a lively sense of clarity and the usual extra sense of spaciousness to the sound valves

bring, it injects life into any system. I'd suggest anyone considering using a pre/power combo tries the 868 within it, especially if they intend to run LP as well as silver disc. It's always a shock to hear just how good LP sounds when run through a front end so well wrought, and CD too. I was immensely impressed by the way it got the best from both sources.

MEASURED PERFORMANCE

The new 868 preamplifier offers a gain of x4 via its line inputs (CD, Tuner, etc) and outputs, and also phono in to XLR out, and XLR in to out, so its gain is the same whatever input and output combo is used, unlike many preamps with paralleled ins and outs. Distortion was low, as was noise.

was low, as was noise.

The phono input has a very high gain of x1119 with MM, equivalent to x284 in addition to the x4 of the line inputs. With MC selected this was boosted ten times to x11,110 overall, more than enough for the weakest output MC cartridges. Gain can be trimmed back using the 890 power amplifier input gain trimmers for those who don't like a low volume control setting. With MM and MC overload was high at 60mV/6mV and input noise very low at 0.25uV/0.03uV. Equalisation was identical for MM and MC, with a slight +0.3dB lift across the upper midband.

across the upper midband.

The EAR890 power amplifier develops 70 Watts for 1% distortion limit, but clips at 66 Watts. The 4 Ohm tap is well coupled, so develops nearly the same amount, 64 Watts against 66 Watts using visual clip on a 'scope as the reference point. The amplifier's claimed 70 Watts is a bit optimistic; most amplifiers are conservatively rated well below clip and in most books this would be a 60 Watt

amplifier. However, subjectively	the
difference isn't great.	

Distortion levels were very low, down to an extraordinarily low 0.006% in the midband. Even bass distortion was low at 0.3% close to full output at 40Hz, a great result. Feedback is used and, with a damping factor of around 12 - high for a valve amp - the 890 has nearly the same output impedance as a Naim!

Input sensitivity measured 1V maximum via both unbalanced phono inputs and balanced XLR inputs and distortion and noise values were similar through both inputs.

The 890/868 combination works well, offering good amounts of power from an amplifier that will exert good loudspeaker control. The preamp has a lot of options and is well thought through. NK

EAR 868 PREAMP

Frequency response	1.2Hz-81kHz
Separation	72dB
No:se	-102dB
Distortion	0.05%
Gain / overload	x4 / 8V out

Disc (MM/MC)

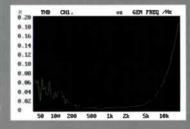
Frequency respons	e 12Hz-58kHz
Separation	57/55dB
Noisa (e.i.n.)	0.25/0.03uV
Distortion	0.06%
Gain / overload	x1119 /x11110

Overload 890 POWER AMP

Power 70watts
Frequency response 4Hz-46kHz
Separation 76dB
Noise -93dB
Distortion 0.05%
Sensitivity 1V
Damping factor 12

60/6mV

DISTORTION SWEEP



DISTORTION SPECTRUM



VERDICT Super fast and vividly clean sounding valve preamplifier with fine phono

stage. Superb...

EAR 868/890 £3,552/£3,861

EAR Yoshino

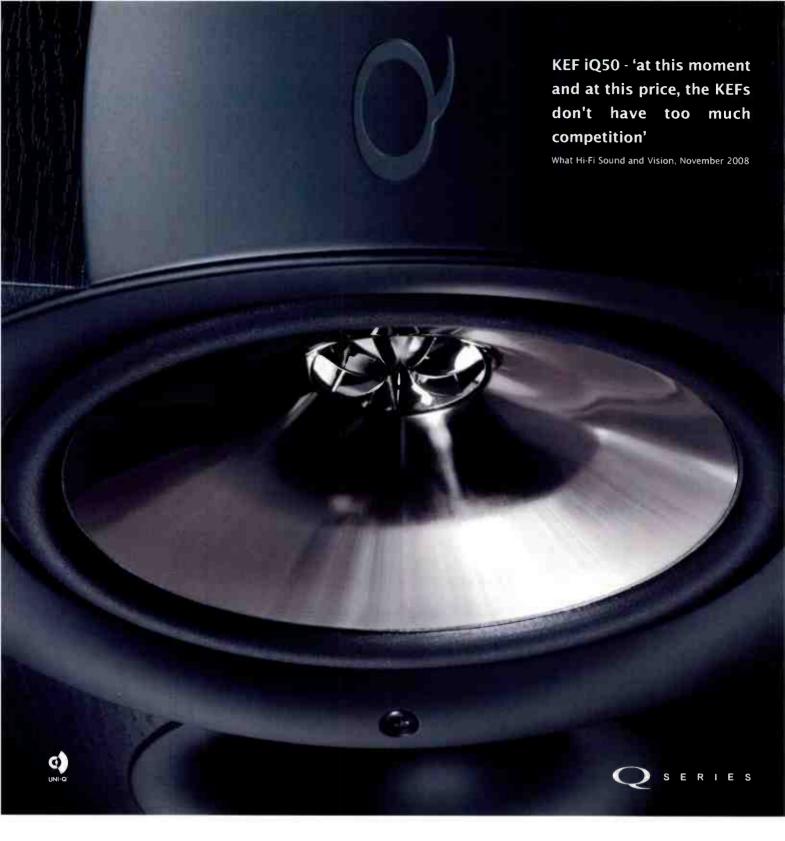
+44(0) 1223 208877 www.ear-yoshino.com

FOR

- dazzling transients
- delicious intricacy
- superb phono stage
- balanced operation

AGAINST

no headphone output



Right on Q

Just when you thought, it couldn't get better.

KEF's new Q Series, the latest development in the most successful loudspeakers series the company has ever produced, manages to achieve the impossible and improve on perfection!

All new models benefit from extensively remapped crossovers to ensure incredibly smooth sound and the unrivalled detailing and off-axis performance of the

new Uni-Q® point source array, featuring the 'tangerine' waveguide, ensures a wonderfully even tonal response throughout the room and helps to deliver outstanding realism.

Audition the new Q Series at your local KEF retailer today.





Power Play

Integrated amplifiers promise ever greater things, but are they really a serious audiophile amplifier proposition? Adam Smith lined up a host of models from the best manufacturers in a bid to find a serious one-box amplifier solution...



s the recession bites, there's never been a better case for the humble integrated amplifier. Once a rather wretched thing, in the eighties it truly came of age, with the likes of the Naim Nait, Exposure 10 and Marantz PM94 bringing hitherto unheard levels of sound per pound to audiophiles on a budget. Since then, we've had all number of contenders, some of which have been superb, others not so...

Surely the mark of a good example of the breed is that - despite its compact dimensions (at least compared to a separate pre-power amplifier) - it makes music fun, and doesn't draw attention to itself in a decent mid-price system. And so it is with all the products you see here, many of which we've reviewed in isolation in the past year. All contenders in this group test have strong merit, be it on price/ performance ratio, build or outright sonics. All have many things in common; they use internal components of good quality, are extremely solidly constructed and offer the sort of sound quality that you generally only found from a pre/power combo a few years

Still – that's not to say they're the same. This is a diverse group, sonically, aesthetically and in terms of price. Some designs are particularly distinguished in certain areas, others just plain all good all rounders. So, read on for the our impressions. One thing's for sure though - this line up, from around £700 to almost twice that and bearing the names of Marantz, Cambridge Audio, Roksan, Exposure, Leema, Naim and Yamaha, proves conclusively that two into one can go.

REFERENCE SYSTEM

Marantz CD94 CD player Naim SuperNait amplitier

Ferrograph S1 loudspeakers (modified)

THE CONTENDERS:

 Marantz PM8003
 £680

 Cambridge Audio Azur 849A v2
 £750

 Roksan Kandy K2
 £750

 Exposure 3010S
 £1,000

 Leema Pulse
 £1,195

 Naim Nait XS
 £1,250

 Yamaha A-S2000
 £1,400



MARANTZ PM8003 £680

his is sturdily constructed, with goodly amounts of Marantz's signature copper plating to reduce earth grounding impedances and minimise electromagnetic radiation in the chassis. The PM8003 uses a dual mono circuit design and current feedback to ensure it is able to handle awkward loudspeaker loads. The circuitry is fed by a wide-bandwidth power supply that utilises a hefty, shielded toroidal transformer and 18,000µF of capacitance. The signal circuits themselves are sprinkled with a healthy dose of high quality components, and also make use of Marantz's Hyper Dynamic Amplifier Modules. The preamplifier boasts bypassable tone controls, a Source Direct button, and six inputs including two tape loops and an MM phono input, plus a preamp output. It tips the scales at 10.5kg,

(HxWxD). **SOUND QUALITY**

measures 129x440x379mm

VERDICT Sweet sounding and Jushly atmospheric performer with a smoothly assured sound.

MARANTZ PM8003 £680 Marantz UK C) +44(0)1753 680868 www.marantz.com

FOR

- excellent atmosphere
- impressive image solidity
- sweet top end
- chunky speaker terminals!

AGAINST

- bass lines rather sluggish

I was both surprised and delighted by the way in which the PM8003 made music come to life. It has a quite uncanny soundstage depth that hangs performances back behind the loudspeakers in a goodly amount of space, to offer surprising atmospherics. Central vocals were vivid and locked firmly between the loudspeakers, with the PM8003s filling the space between them with finely etched musicality.

Marantz designs have traditionally tended to offer a sweet and engaging top end performance, and the PM8003 was no exception. Cymbal strikes proved lifelike and well balanced, hihats crisply etched and the higher frequency elements of an orchestra rang around my room in a highly satisfying manner. The PM8003 offers plenty of top end detail but never once strayed from being composed, smooth and almost liquid in its treble performance.

Switching across musical genres, the Marantz proved largely uncritical of what it was fed. Soft acoustic material was lushly enveloping, with female vocalists offering beautifully judged phrasing. Classical encores rang out strongly and yet dropped to a subtle whisper when required, and a spot of rollicking jazz skipped along merrily. The PM8003 proved to be most adept at layering performances so that the main attraction captured the attention, and the supporting cast were suitably arranged around this.

Heading for the heavier end of the musical spectrum, the Marantz showed itself to be a solid performer. Bass lines were confident and nicely detailed, but there was something of a sense of sluggishness and occasional reluctance to really get into the heart of a rhythm. The PM8003 was never slothful or lacking in low end impetus, it just sometimes felt that it wasn't quite putting all its heart into the performance and was a tad loose to boot. Still, a soaring performance at the price.

90dB

MEASURED PERFORMANCE

Separation

Developing 91 Watts into 8 Ohms and 144W into 4 Ohms the 8003 has plenty enough power. The power supply is a good one - with a damping factor of 44 the bass should sound well controlled. With frequency response extending out to 100kHz this is a very wideband

amplifier.
The distortion spectrum shows the presence of high harmonics, classic crossover distortion. However, with a level of just 0.02% into 4 Ohms at 10kHz levels are well suppressed.
The sweep is especially interesting, showing significantly lower distortion and noise than the other amps here.

Sensitivity was good at 230mV.
The SR8003 measures well and will sound clean and clear like most Marantzes, I expect. NK

Power 91 Watts CD/tuner/aux.

3Hz-100kHz

Noise -107dB 0.02% 230mV Distortion Disc (MM) Frequency response 5Hz-67kHz Separation Noise (e.i.n.) Distortion 67dB 0.15uV 0.03% 2.1mV Sensitivity Overload 98mV DISTORTION 0.05 0.04 0.03

Frequency response



CAMBRIDGE AUDIO AZUR 840A V2 £750

he 'v2' variant of Cambridge Audio's flagship 840A amplifier marked the second outing for the company's Class XD technology, which involves operating the amplifier in Class A at low volumes and then offering a smooth transition into an "enhanced version of Class B" when demand and output require. The new version 2 unit incorporates a newly updated output stage to make the most of it. A positively gargantuan toroidal transformer provides power to the output stage; a smaller item is also present for the preamplifier and displays. Dual mono configuration is utilised throughout and separate transformer taps for each channel facilitate this right from the supply. There's an impressive tally of eight inputs, including one tape loop and one input that can be switched between balanced XLR sockets and unbalanced phonos. Most notable is its half moon volume level display and noisy volume control, achieved through switched relays, which is noisy and, frankly, a bit irritating after a while! The Azur 840A v2 measures a conventional enough 115x430x385mm but weighs in at an impressive 15kg, most of it transformer!

SOUND QUALITY

Moving from the Marantz to the Cambridge proved an interesting counterpoint, as the main performers in the music seemed to have moved forwards in the soundstage to locate themselves directly between the loudspeakers. As a result, the Cambridge gave an impressively 'up close and personal' performance which really pulled the action from the depths of the recording, even if slightly

lacking the Marantz's atmospherics.

Consequently, the Cambridge has a well ordered and intricately arranged soundstage that fills the space between the loudspeakers with absolutely everything that you need to hear, well ordered and blessed of fine insight. Add this to an underlying muscularity and sense of authority and you have an amplifier that is always sure of itself - the rather sterile nature of the 'vl' was a distant memory!

Equally notable was how the frequency range offered by the 840A v2 seemed to stretch that little bit higher and lower. At the top end, the innate form of the cymbals noted when listening to the PM8003 were present and correct, but leading edges of strikes had extra immediacy and precision, adding that little hint of metallic ring to each note. Equally, hihats gained an extra sense of crispness

which seemed to pull the innate rhythmicality of tracks out very nicely indeed.

Down the bottom, the Cambridge has a lovely deep and solid low end. Bass lines were fulsomely detailed and taut, the 840A v2 plumbing the depths of all sorts of music and returning a poised and solid performance with real heft. Yet bass drums were snappy and full of impact, bass guitars blessed with fine rhythmical alacrity and acoustic basses offered up just the right level of resonance to make you realise that it was indeed one of these big beasts being plucked! This is a great and slightly underrated amplifier in my opinion, getting a heck of a lot right. My only caveat was that it lacked that last nth degree of the Marantz's easy, musical flow. Still, you can't quite have your cake and eat it at this

MEASURED PERFORMANCE

The 840A v2 dalivers massive power, 128 Watts into 8 0hms and 225W into 4. Only matched by the Exposure in this group, it's likely to have conspicuously powerful bass. With a high damping factor of 77 it should sound dry and well controlled too. Distortion levels were down to a very low 0.0003% in the midband but rose a little toward high frequencies, reaching 0.01%. There's a steadily falling spectrum of harmonics with second harmonic dominant, so the 840A v2 should sound clean. The distortion sweep also looks very good, shovving very low levels even at low frequencies.

even at low frequencies.

This is a wideband amplifier like the Marantz but unlike the Exposure. The upper frequency limit is 100kHz. This often results in a light, open sounding treble but can also add sheen. Input sensitivity measured 360mV via the normal unbalanced phono inputs, but a low 730mV through the balanced XLR input.

The 840A v2 is very powerful and will likely sound punchy, clean and open. NK

Power	128 Watts
CD/tuner/aux.	
Frequency response	3Hz-116kHz
Separation	95dB
Noise	-106dB
Distortion	0.01%
Sensitivity	360mV
DISTORTION	



VERDICT OOOO

Well built, feature packed amplifier with plenty of weight - both sonically and literally

CAMBRIDGE AUDIO AZUR 840A V2 £750 Audio Partnership (C) + 44(0)845 900 1230

www.cambridgeaudio.com

FOR

- deep, taut bass
- muscular nature
- sense of control
- crisp top end

AGAINST

- noisy volume control!



ROKSAN KANDY K2 £750

oksan's new Kandy K2 is a typically well built product and it comes complete with a good range of features behind that classy fascia. Internally, the K2 has a one-piece main amplifier PCB with component and tracking layout carefully optimised for the best performance. The main transformer and power supply circuits are sited well away from the audio processing areas, and the motorised volume control is located in the centre of the PCB to obviate the need for long tracks. Roksan have carefully selected critical components, such as switching relay and op-amps. Five line level inputs plus a tape monitor loop and an MM phono input are fitted, and a video input and output allow the Kandy to operate as a fixed gain design as part of an A/V setup. It comes complete with a learning remote handset, featuring a backlit LCD screen. The Kandy weighs in

90x432x380mm. **SOUND QUALITY**

at a sturdy 14kg and measures

Once again, I was immediately struck by the astounding silences that the Kandy K2 seems able to generate when nothing is playing - it really is quite surprising in this respect and it was nice to know I wasn't imagining this aspect of its performance when I last encountered it! As well as adding nothing in between pieces of music, this has the advantage of making sure that no fine details ever drop into the noise floor and disappear - if something appears to be lost in your recording, the chances are that the Kandy K2 will find it for you. Additionally, the Roksan

really does excel at filling the

centre of the soundstage with vocals - where the Marantz had hung things back behind the loudspeakers, and the Cambridge brought the action a little further forward to fill the space in between them, the Roksan was incredibly adept at pushing lead vocals right out into the room but without the stridency that is often associated with an amplifier that projects well.

The sonic signature of instruments, both acoustic and electric, were present, correct and vivid through the Roksan, and it once again struck me that this is an amplifier that sounds like a much more expensive design, such is the couthness, precision and transparent clarity with which it approaches music making. The Kandy reveals exactly what needs to be heard in order to allow a piece of music to really come together as a performance, rather

than just a collection of instruments playing along at the same time as each other. However, at the same time it does not perform a sterile dissection, robbing the music of its soul, but maintains a pleasing and apparently effortless musicality at all times.

Once again however, I found that the low end was where the Kandy K2 faltered a little. Whilst it does dig deep and has no difficulties with low end timing or pace, bass notes were occasionally a little overblown, making bass-heavy tracks come across as a little flabby and imprecise. In this respect, it's a little similar to the Marantz, but this is less excusable at the Kandy K2's more elevated price point. As it lacks the precise low end fleetness of foot offered by the Cambridge, it struggles to garner top marks in this company, superb little amplifier that it is.

-82dB

0.005%

450mV

14Hz-62kHz

63

66dB

0.008%

4.5mV

53mV

distortion pattern with a steady decline in harmonic level with rising frequency, unlike the discordant sounding harmonic structure of crossover distortion. This held even with high current delivery into low 4 Ohm loads, suggestive of good sound quality. Power output was high at 128 Watts into 4 Ohms and a massive 210W into 4 Ohms. Factor in a high damping factor and the Kandy K2 should sound tight, powerful and easy on the ear. The phono stage is accurately equalised with gain down to 14Hz (-1dB); there's no warp filter. Sensitivity is normal at

The K2 produces a very amenable

The K2 measures very well and should sound very good. NK

CH2 4.5mV, overload satisfactory at 53mV. 0.020 Power 128 Watts CD/tuner/aux Frequency response Separation 1Hz-47kHz 89dB

MEASURED PERFORMANCE

Noise

Disc

Distortion

Sensitivity

Damping factor

Separation Noise (e.i.n.) Distortion

Sensitivity

Overload

DISTORTION

Frequency response

image articulation. **ROKSAN KANDY K2** £750 **Henley Designs** () + 44(0)1235 511166

Classy looking and sounding amplifier

with a fulsome musical sound and fine

www.henleydesigns.co.uk

FOR

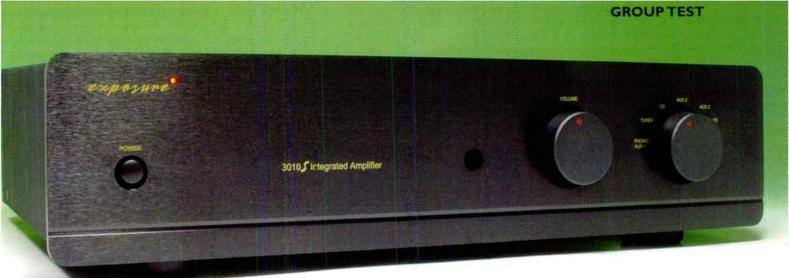
background silence

VERDICT

- fine detail retrieval
- projective soundstage
- styling

AGAINST

- bass a little bloated



£1,000 **EXPOSURE 3010S**

he Exposure 3010 is a pleasingly styled unit, well built and incorporating a goodly range of features, but annoyingly it uses 4mm flush-mounted sockets for loudspeaker connection, thus eliminating the opportunity to use spades or bare wire without the use of some intermediate hardware. Furthermore, the sockets are a sloppy fit and one plug on the end of my loudspeaker cable kept falling out until I wedged it suitably - frustrating.

Feature-wise the 3010S comes with six line inputs as standard, plus the option of an internally fitted MM or MC phono stage. It also has a separate preamplifier output, featuring a Class A buffer stage, allowing the user to operate the unit as a preamplifier, or set up a bi-amping system configuration. The 3010S is available in both black and silver finishes, complete with a very understatedly stylish brushed finish. Vital statistics are 115x440x300mm and 12kg.

SOUND QUALITY

The sound of the 3010S proved difficult to pin down at first. Initially what I was hearing was very clear, very clean and very well balanced in terms of detail, soundstaging and frequency extension both upwards and downwards. The Exposure proved to have a pleasingly well focused soundstage, holding the action of performances well in the space between the loudspeakers, but not stretching particularly far out beyond or behind them, and not projecting out like the Roksan.

Treble detail was well presented, with the 3010S quite content to tell me exactly what was going on within the top end of a performance, but without artificially augmenting this in any way. Cymbal strikes were well weighted and firmly held in the sound's overall ambience and the Exposure offered a fine rendition of the vocals and instruments that accompanied the percussion. At the low end, the 3010S certainly appears to have attained the tautness that Exposure were looking for in its last design upgrade, as it has no problem in following a complex bass line or kicking out a hefty piece of low end action, but at the same time it seemingly had less interest in really picking up the innate rhythm of the music and setting my toes tapping. Furthermore, I was also aware that all those fine details that the Roksan had expertly pulled out of the tracks I was listening to were suddenly more in the background via

the Exposure.

No real issues then - and that sums up this amplifier. It's beautifully neutral, smooth and easy going and never really put a foot wrong during my audition. But neither did it fill me with awe or make me sit up and really take notice at something it was doing particularly well. Whilst I never had the urge to turn it off in dismay and move onto the next contender. I equally never felt the need to spend longer than I absolutely needed to when auditioning it.

So although technically its sound is beyond complaint, this integrated somehow just fails to knit the individual aspects of a performance together into an overall musical whole. I'd recommend it to those seeking a super clean and punchy amplifier, but more subtlety is available elsewhere in this group.

MEASURED PERFORMANCE

The 3010S has very good power supply regulation, heavy current draw affecting the power supply little. As a result power nearly doubled into 4 Ohms compared to 8 Ohms and this usually results in bass delivered with a firm fist. Measured power was high at 128 Watts into 8 Ohms and 225Watts into 4. As most loudspeakers now use 4 Ohm bass units the 228 Watts figure is what the loudspeaker can benefit from and it is only matched by the Cambridge in this group.

Measurement showed the Exposure has a little crossover distortion and our sweep shows it rises rapidly at high frequencies. However, measuring just 0.05% at 10kHz levels are low, helped by a bandwidth limited to 24kHz, Naimstyle. Unlike Naim, however, Exposure amplifiers have a high damping factor, the 3010S measuring a very high 90.

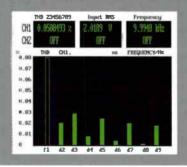
The 3010S is classic Exposure under measurement: fast, powerful, band limited and well damped. It will

sound muscular and have both speed and impact. NK

Power (8/4) 128/225 Watts

CD/tuner/aux. Frequency response Separation 8Hz-24kHz 92dB -101dB Sensitivity Damping factor

DISTORTION



VERDICT Highly competent and neutral

performer that will likely offer a consistent sound across a wide range

EXPOSURE 3010S Exposure Electronics C) +44(0)1273 4238779 www.exposurehifi.com

FOR

- consistent performance
- fine bass weight
- build quality

AGAINST

- not as beguiling as some
- loudspeaker terminals



LEEMA PULSE £1,195

lis is basically a Leema Tucana amplifier with a few suitable cost-cutting aspects applied, including the removal of a few kilos from the dearer item's astoundingly weighty bodywork! The Pulse is no half-pint however, tipping the scales at 12kg and measuring 90x435x375mm. It is available in both black and silver. Power it up using the wonderful-feeling on/standby switch. and it goes through a light-show that would put Blackpool illuminations to shame. Other than this, the Pulse has five line inputs including a tape loop and a front panel-mounted MP3 player jack, plus both MM and MC

phono stages. Also featured are sockets for Leema's LIPS integration facility, allowing the Pulse to configure other devices in a full home entertainment setup. The amplifier also comes with a small and basic remote handset which does the job, but frankly something a bit more in keeping with the solid casework would be nicer...

This is an amplifier that is tonally engaging and one hundred percent musical, taking absolutely every aspect of a song's performance and knitting it into a big, enjoyable and captivating whole. Vocals did not quite project out of the loudspeakers in the almost three dimensional manner offered by up for this by really cutting to performance; I suddenly felt like I was hearing real people singing to them, rather than just reading lines from a sheet....

Instruments were no less in no doubt as to what I was hearing; that double bass over on the left was definitely made of real wood, the tympani over in the background on the right was being struck right in the centre and I could have sworn that the conductor cleared his throat at one point. No matter whether I fed the Leema with subtle acoustic material, some heavy rock, a big orchestra or a nightclub classic floor-filler, it was entirely happy the whole time, turning in a performance that told me exactly what the recording contained, how well it had been recorded and, most importantly, what a great piece of music it was.

My favourite aspect of the

Leema's abilities came down at the bottom end, however. Although not the most muscular here by a good way, bass lines were nevertheless nothing short of superb in musical terms, and the Pulse appears to have been appropriately named as the way in which it grabs the very heart and lifeline of everything you throw at it is simply brilliant. Rhythmically, the Pulse is absolutely spot on and some tracks almost sounded as if they were playing faster than usual as the Leema just took their backing beat and absolutely flew with it. A most impressive product, and one that easily justifies its premium price on audition.

SOUND QUALITY the Roksan, but the Leema made the heart of the emotion in each real words that meant something

captivating, as the Pulse left me

MEASURED PERFORMANCE

Producing 78 Watts into 8 Ohms and 132W into 4 Ohms the Pulse has enough power for most homes and situations. Power supply regulation was good, line voltage falling little under load, so the Pulse has plenty of oomph. Distortion levels were very low in the midband, dropping to a miniscule 0.002% into 8 Ohms. There was just the smallest increase at high frequencies our sweep shows, plus a little rise below 100Hz. The spectrum reveals content to be primarily third harmonic, with no higher harmonics, so this is not classic crossover Distortion wise the Pulse is clean, so it should display no sharpness or grittiness. Input sensitivity is not especially high at 400mV but external phono stages are not needed as the Leema has both MM and MC stages onboard. Neither has a warp filter, so bass will be plentiful, and equalisation was very accurate. The MC stage has very high input sensitivity too, so will accept low output types from Linn and similar. Noise was low-ish on both.

The Pulse measures well in all areas, although it has no distinguishing features. Expect a smooth

Power 78 Watts CD/tuner/aux. Frequency response Separation 6Hz-47kHz -87dB Distortion 0.02% Disc (MM) Frequency response 11Hz-68kHz Separation Noise (e.i.n.) Distortion 76dB 0.4uV Sensitivity 3.3mV 150mV Overload Frequency response Separation 12Hz-68kHz 67dB Noise (e.i.n.) 0.07uV Distortion Sensitivity Overload 10mV DISTORTION

f1 42 43 44 45 46 47 48 49

VERDICT A musically captivating and thoroughly inviting sonic companion.

LEEMA PULSE £1,195 Leema Acoustics C +44(0)1938 811900 www.leema-acoustics.com

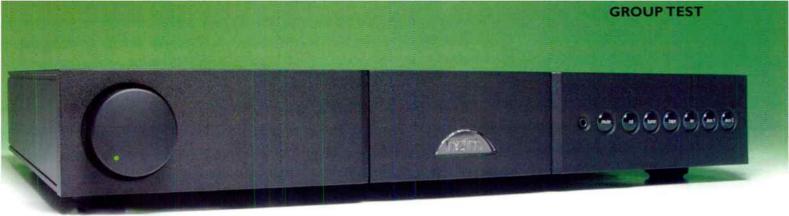
FOR

- brilliant rhythmicality
- superb insight
- deep, solid bass
- fascia illuminations!

AGAINST

- disappointing remote

sound. NK



NAIM NAIT XS £1,250

ow in 5i guise, the entry level Nait is a long way from the company's top integrated - the SuperNait - in Naim's integrated amplifier range. That's where this, the brand new XS comes in - it's a bridge between the two - but it's almost so good that we fear it might deprive the company's entry level pre-power combination of sales.

Although the Nait XS shares similar casework to the Nait 5i, the internal design of the newcomer is actually derived from the SuperNait, but with slightly reduced power output and none of the bigger one's comprehensive array of digital inputs. Instead, the Nait XS offers six line inputs, four of which are available in both phono and DIN socketry, while one is a front panel 3.5mm jack for an MP3 player or similar, and the last is a powered input for one of Naim's phono stages. As a result of all these inputs in the slim casework, the rear panel is a little crowded. Indeed,

I wonder if it wouldn't have been a better idea for Naim to put the price up a little and specify the SuperNait's larger and more impressive looking casework? One pair of loudspeaker outputs are fitted, through secure 4mm sockets and Naim supply a pair of their own plugs for terminating bare wires, if you use these. The Nait XS shares the same dimensions as the Nait 5i, namely 70x432x301mm but it is a little heavier at 8.6kg. Programmable input switching is an option and the XS comes with Naim's NARCOM remote control handset.

SOUND QUALITY

Having been so impressed with the Leema Pulse, I could not help but wonder if the Nait XS could possibly keep up the high sonic standard set by its Welsh stablemate, but it appears that my concerns were unfounded. Not only is the XS just as capable as the Pulse at making superb music, it actually managed to improve on it in a couple of areas, which proved a surprise. Most astounding was that the Naim picked up on every fine detail just as the Leema did, but seemed to clarify everything just that extra little bit more. What this meant was that its musical performance was brilliantly focused and really held my attention.

However, this is not to say that anything was hard and tiring to listen to. One or two of Naim's older designs back in the eighties could definitely be a little fatiguing after a while, but those days are long gone and the Nait XS actually offered an ever so slightly warmer presentation than the Leema, even though it was picking up extra detail. The Pulse could never be described as sterile or cold but the Naim just seemed to round off perfectly any sharp edges that sneaked through to spoil the musical enjoyment. Percussion strikes were

snappy and swift and the main instrumental basis of each track I played were laid out not only between but also around the loudspeakers, the Nait XS blessed with a fine sense of spatiality.

One area in which Naims have been traditionally praised is bass control, and the Nait XS upholds this tradition with ease. Bass lines were confident, taut and blessed with impressive levels of control. Nothing fazed the Nait XS and it affected an air of ease in the way in which it performed. The extra ten watts per channel it offers over the Nait 5i might not sound like a lot, but they are just enough to really give the amplifier a greater sense of purpose when compared to its cheaper brother.

An excellent amplifier then, and one that's so good it almost questions the existence of its cheaper and more expensive siblings in Naim's range. It's an expensive product in the context of this group, but it shows when you listen to it.

MEASURED PERFORMANCE

The XS produced an especially stable distortion pattern that held steady at all levels and frequencies - very unusual and difficult to achieve. Our analysis shows steadily declining harmonic level with rising frequency and this held stable at all frequencies, as the distortion sweep shows. The Naim all but mimicked a valve amplifier in this respect, but that is not to say it will sound the same as sound quality differences are not attributable to distortion alone. Together with a rigidly imposed bandwidth limit of 20kHz (-1dB) it will sound smooth and should be an easy listen, lacking the uncorrelated distortion 'tune' many amps play.

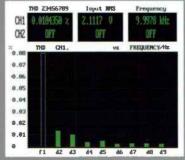
Damping factor was typical of a Naim amplifier - at 15 low, if not very low, so bass will likely be 'obvious'. Power output measured 60 Watts into 8 Ohms and 90W into 4 - plenty enough.

output measured 60 Watts into 8 Ohms and 90W into 4 - plenty enough. The XS measured very well. It will likely have a smooth sound, with obvious bass in the Naim style. NK Power 60 Watts

Frequency response 5Hz-20kHz
Separation 82dB
Noise -92dB
Distortion 0.018%
Sensitivity 120mV
Damping factor 15

DISTORTION

THO 23456789 Input MRS Frequency



VERDICT OCCUPANT OF THE PROPERTY OF THE PROPER

inviting and superbly detailed, the XS justifies its premium price.

NAIM NAIT XS £1,250

Naim Audio (**) + 44(0)1722 426600 www.naim-audio.com

FOR

- fine bass control
- effortless dynamics
- spacious soundstaging
- excellent build

AGAINST

- crowded rear panel



YAMAHA A-S2000 £1,400

his retro styled amplifier is huge - it measures 138x435x418mm and weighs in at a hernia-inducing 23kg no less! It's a feature-packed design - four line inputs are offered, including a CD input with unbalanced and balanced input options, plus a good quality phono stage that offers both MM and MC options via a proper discrete circuit. Pre and power amplifiers are separable and the Yamaha utilises fully balanced circuitry throughout which gets its juice from a massive power transformer and 24,000µF worth of capacitance, so difficult loudspeakers should easily be coped with.

is nicely spread out between the loudspeakers; well ordered and easy to place although not quite gaining the depth perspective of the Marantz or the effortless spatiality of the Leema and Naim. Naturally, its low end is a thing of superlatives; with razor-sharp timing, seemingly endless low frequency reserves and the feeling that your ears (or indeed, loudspeakers) would reach their limits long before the amplifier does, the Yamaha is just the ticket for dub fiends. Equally though, it is more than happy to offer up the subtleties of a gently strummed double bass and picks up expertly on bass guitar string movements.

The top end is certainly revealing, but not harsh. This is not a classic steely sounding transistor amplifier, but does still err towards the brighter side. As a result, high frequencies are crisp and forthright, and the A-S2000 never misses a treble trick, adding delightful shimmer to percussion and a pleasing tautness to the leading edges of plucked guitar strings, for example. On occasion this can mean that the upper mid is a little hard, so this is something to consider when building a system around it. Shrinking violets need not apply, as this is a traditional muscle amp with all the concomitant strengths, and at least a few of the weaknesses too ...

98 Watts

4Hz-72kHz

15Hz-57kHz

2.4/0.15mV

0.02%

0.11uV / 0.05uV

95dB

-99dB

SOUND QUALITY

This is one seriously dynamic powerhouse; if rhythm, power, grip and control are your thing then this is the amplifier to go for as many others sound positively half-hearted alongside. This is not to say that it's all grunt and no feel however, as the A-S2000 is actually quite adroit at pulling the finer nuances out of a recording and letting you know what's going on. It pulls in fine details with ease and so nothing escapes it clutches, whether it's a slip of the hand that a rock guitarist thought he had passed off unnoticed, or a mistimed puff of breath into a flute at the back of an orchestra, the Yamaha will tell you about it. One note I did make however, is that the A-S2000 can almost suffer from information overload at times if your recording is particularly busy, things can become slightly jumbled as it tries to bring everything to you.

In dimensional terms, the A-S2000 offers a solid foundation for the music. Everything

A neatly engineered amplifier that measures well all round, likely to offer the usual svelte Yamaha sound. NK

MEASURED PERFORMANCE

Power

CD/tuner/aux.

Disc (MM/MC)

Distortion

Sensitivity Overload

DISTORTION

Frequency response Separation Noise (e.i.n.)

Separation

Frequency response

The A-S2000 produced 98 Watts into 8 Ohms and 170W into 4 - plenty enough to drive the most insensitive loudspeakers. With a high damping factor of 64, bass should be controlled and punchy. Some crossover distortion was measurable; our analysis shows odd order harmonics, with third dominant. Measured levels were very low at 0.02% at 10kHz, 1 Watt, which may result in a slightly light but fast midband and treble. Both unbalanced and balanced inputs were equally sensitive, needing a very low 150mV for the amp to achieve full output so any source will match. Noise levels balanced showed a 2dB advantage r unbalanced. Phono inputs were accurately

equalised, but had some treble lift (+0.3dB at 10kHz) in the 75uS time constant adding some forwardness and analysis. MC sensitivity was extremely high at 0.15mV, and equivalent input noise (e.i.n.) very low. Overload levels were a little low, but satisfactory all the same. No warp filter exists, but subsonic gain (i.e. below 20Hz) has been rolled down so as not to emphasise warps in the 5Hz region.

CHZ 0.07 0.06 0.05 0.0 0.63 0.00

FOR

- power

- dynamics

feint hearted.

- detail
- build

AGAINST

- well lit upper midband

VERDICT OOO £

A barnstormer of an amplifier, offering

power, poise and dynamic brilliance

in ample measure - but not for the

Yamaha Electronics UK Ltd.

YAMAHA A-S2000

(+44(0)1923 233166

www.yamaha-uk.com

£1,400

oming to a verdict in a test like this is tricky, as frankly there's something here for pretty much everyone.

Whether your taste tends towards drum 'n' bass, large scale choral works, soft rock or Eastern European underground hardcore string quartets, the chances are that one of these amplifiers will fit the bill perfectly.

I was pleasantly surprised at the high standards on offer by all contenders. Some of them are almost priced in pre/power amplifier territory but unless you particularly want to double the box count in your rack, or feel the need to have the future individual upgrading possibilities offered by separating the millivolts and the Watts, then you can free up some rack space, cut your carbon footprint and feel secure in the knowledge that you have not lost out, by going integrated.

Of the contenders here, first to consider for me would be the Exposure, which left me a little perplexed. As mentioned, it is definitely not a poor amplifier; I just felt that it lacked a certain something that really makes it endear itself. In many ways I felt that if this were a car, it would be a Toyota Avensis - a brilliantly competent performer that does everything well but lacks a degree of charm. Still, a good counterpoint to this line of reasoning is a maxim that the great motoring scribe LJK Setright once said to editor DP, "it is not for the car to have the character, it is for the owner"... So don't you dare dismiss the Exposure - no one will come away unimpressed.

Both the Marantz and Roksan really do obviously endear themselves to the listener. Both are spacious and airy performers, the Marantz seemingly putting you in the centre of the auditorium with everything spreading off into the distance before you, and the Roksan almost sitting you right on stage at times with its sheer emotiveness and sense of intimacy. Interestingly, both only really faltered at the low end, the Marantz seeming a little sluggish rhythmically and the Roksan a little bloated at times. Do check them both out, though, if they are in your price range, as you may well find that their many pros outweigh their few cons. At worst they are a tad soft compared to the best of the rest here, but many will find them just as endearing if not more - and a lot cheaper too.

If it's bass you want, then look no further than Cambridge Audio and Yamaha. The 840A v2 and A-S2000 are both seriously gutsy performers that have no trouble at all when it comes to the heavy stuff. Both are powerful, poised and blessed of superb upper bass detail, and neither will turn a hair at whatever loudspeaker you care to hang on their outputs. Ultimately the Yamaha can be a little hard at times, and very

people should be left to their heated discussions whilst the rest of us sit down and listen to it. When you do, you'll find that, yes, the heritage of the Nait 5i can be detected lurking in it, but firstly this isn't such a bad thing, and secondly Naim have built on this to turn out an amplifier that does so much more than might be

"whatever your taste, the chances are that one of these amplifiers will fit the bill perfectly..."

occasionally struggles to really order all the detail it is finding in the music and so the Cambridge is the pick of the pairing for me. That said, though the Yamaha is the sort of unit that feels it might just knock you down if you upset it, but then pick you up, dust you off and take you for a pint — its bad boy charm really is quite endearing! Either way — lovers of bad-ass rock music or drum'n'bass simply won't feel the need to spend any more...

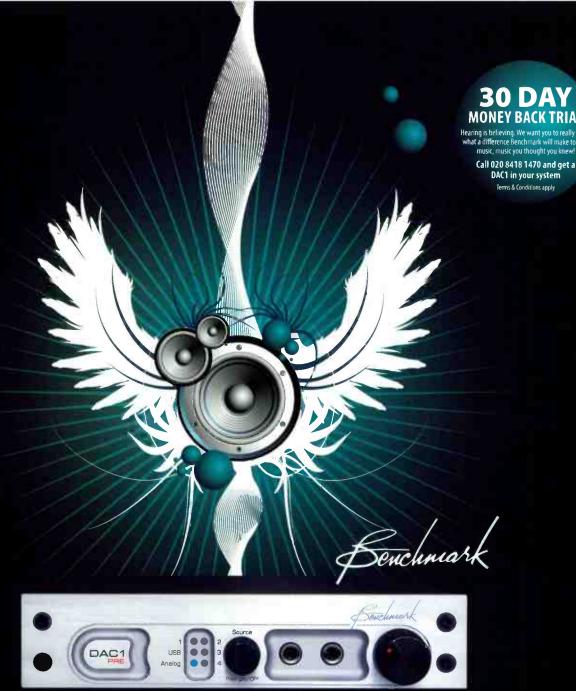
The only problem with the four fine amplifiers I've just mentioned is the existence of the other two in this test. The Leema and the Naim are for me really the stars of the show, seemingly taking the best points of all the other contenders and bringing them together in a way that really just makes you sit down and listen for hours on end. The Leema is a stunningly emotive performer, with real passion and flair, underpinned by a magnificent rhythmicality and topped off with a double helping of poise and insight. The Pulse's light show is entertaining, it is superbly built and it has the sort of soundstage that draws you right into the music.

Trouble is, those cunning chaps at Salisbury obviously saw this coming and sneaked in at the last minute with the Nait XS. Some have demanded to know why it isn't in the SuperNait's bigger case, others have cried that it's just a tarted up Nait 5i. Well frankly I suggest that all these

expected of it. It has a *frisson* of extra warmth and body over the Leema, but without sacrificing any of the clarity, bass agility and sheer *joie de vivre* that marks a great amplifier. The extra power output adds an additional element of control and grip over the 5i, and the bits of the SuperNait lurking under its bonnet ensure that it is never flustered or anything less than totally comfortable. As a result, it gets my vote as a worthy winner.

REMOTE POSSIBILITIES!
Further entertainment
ensued in this test when
I managed to tear myself
away from the Leema's
light show, in the form
of remote controls. Are
you ready? Right then,
The Roksan, Leema and
Yamaha's remotes went
their own way, but the
Cambridge and Exposure
controlled each other and
the Nait XS's handset proving to be the tart of the
bunch by controlling the
Naim, Cambridge, Exposure
and Marantz. Interestingly
my own Naim SuperNait's
remote handset managed
this as well, but didn't seem
all that keen on controlling
the Nait XS! Confused? So
was I...





Sound that only Angels could hear...





"Not just good, but stupefyingly good"

Hi-Fi News July 2008

Until now. Listen, and the Music will Engage You. DAC1 PRE.

Engineers and audiophiles have grown to rely on Benchmark for critical digital audio conversion for more then 10 years - consistently finding themselves engaged in the music in a way that is rarely achieved with digital converters. And it's the same story with the award-winning DAC1 PRE, a mastering-quality, 2-channel 192-kHz 24-bit digital-to-analog audio Converter, preamp and headphone amp.

With the AdvancedUSB™ interface utilizing the UltraLock™ clock system to ensure that the performance of the USB input is equal to the performance of the other inputs, (regardless of the jitter present), and with such a pure, coherent and transparent sound, no wonder it's a HiFi News 'Outstanding Product'.



 $\label{eq:decomposition} \begin{array}{l} {\sf Distributed \ by \ SCV \ London: benchmark@scvlondon.co.uk} \\ {\small WWW.scvlondon.co.uk} \end{array}$

TJ FULL MUSIC 12AU7 AND 12AX7 VALVES £74 PAIR

The TJ factory in China's Tianjan province is run by Liu Zhensheng, a veteran of the tube industry, having worked for the Peking Vacuum Tube factory for many years. He graduated from University in 1955 in vacuum tube technology and holds a number of patents in that field. He is responsible for the design and manufacturing process of all the TJ valves. The TJ 300B Premium Mesh Anode valves already have a following in the UK and many would say they are second only to the Western Electric 300B.TJ have now started producing driver valves and have added the 12AU7 and 12AX7 (ECC82 and ECC83 respectively) to their catalogue. These new TJ 12AU7s and 12AX7s, with their goldplated pins and box anode design, have been favourably compared with other premium valves such as Siemens and Telefunken - and have a price tag to match. I tried both

types in various pieces
of equipment, including a
preamp, phono stage and CD
player, and compared them
with equivalent Siemens,
Telefunkens and my old
favourite NOS Old Shield
Mullard valves. When first
fitted, the TJs seemed a little
bass-light, but after a day long
running in period, the bass
reappeared in full and was extremely
extended and well-controlled...

It was evident from the start that these Chinese tubes produce masses of detail with no strain or unpleasant edge to the sound. Following a session involving frantic valve-swapping, it became clear that the TJs reproduce music with consummate accuracy and clarity. For example, on one particular recording that included a flute duet, with the TJs it was clearly evident that there were two distinct instruments playing, whilst with the other valves, the flutes tended to merge together.



Overall, the sound balance with the TJs was more accurately focused, natural sounding and realistic. In my opinion, the TJs are absolutely superb and fully justify their price tag of £74 for a matched pair. When the cost is assessed against the life expectancy of around 10,000 hours for a valve of this type, it is a worthwhile investment. The TIs outperform the competition in terms of realism and tighter control in the lower registers. It was as though the system had a firmer grip on the recordings when the TJ valves were fitted. An excellent - if pricey - product. NR [Contact: www.diyhifisupply.com/]

soundbites

ATACAMA EQUINOX XL PRO SE (FROM) £250

Atacama has produced this rack as a modular system, so you can move the entire rack, piece by piece, without the requirement for resonance inducing screws or fancy locking systems. Each module takes the form of a hand-made (built in the UK, noless, in black, silver or graphite) metal, skeletal frame which is supported by carbon steel spikes that drop into the pillars of the module sitting below. It's incredibly simple to use and is rocksolid when assembled.

Each module is 640mm wide with a 550mm wide opening and supports a sheet of toughened safety glass (available in either piano black or arctic frost) which acts as a very strong shelf. To deaden and isolate the glass, it sits on four carbon steel ball bearings held in place by two cupped nylon holders topped with a neoprene foam gasket. Again, there are no screws involved here, no glues or sticky tape. Three module heights are available, with 13cm,

18cm and 22cm vertical clearance to accommodate items of differing heights.

Sonically it's very impressive considering the price. Via both vinyl and CD sources, there was a dramatic improvement in overall music control compared to entry level hi-fi supports. Vinyl appeared to be more relaxed and confident, whilst Compact Disc digital sources sounded smoother, better controlled and focused. The sound was - like the Atacama support - more stable at all volumes, especially at high listening levels. There was a sense of solidity and imperturbability that you don't get from entry level supports. Given the market for products such as this, it is fair to say that this hi-fi support system is not expensive, especially when you compare it to high-end audiophile racks. As such, it's a very fine buy - better systems are available but you'll need to pay considerably more for the privilege. PR [Contact:

www.atacama-audio.co.uk]





PEERLESS

QBD76 D to A converter



ould we produce a Digital-to-Analogue converter better than the award-winning DAC64? Yes. Taking performance to a totally different level with advanced features unavailable until now, the Chord QBD76 is in a class of its own.

Designed using latest generation FPGAs with 1.25 million gates, this 5th generation pulse array DAC is truly state of the art. Its new pulse array, 8th order noise shaping and 2608 times over sampling, plus new digital phase lock loop and highly accurate 115 MHz clock, mean that data-related jitter is removed - giving just 3 pico seconds of random clock jitter. Ergonomically, the microcontroller and display gives a clear indication of status, configuration and even frequency. Additionally, the new USB input enables connection to a personal computer so that music can be streamed directly. Uniquely, we have even included a high quality Bluetooth input allowing direct audio streaming from your mobile phone, PDA or laptop.



Chord Electronics Limited

for more information T 01622 721444 E sales@chordelectronics.co.uk W www.chordelectronics.co.uk

exactly Im and weighty at 20kgs. A 25mm aluminium dome tweeter sits at top. Below it, arrayed vertically, are two 165mm concave aluminium cone drive units, each in its own reflex chamber, the top one vented rearward, the lower one forward through a port below the lower bass unit. This is a complex arrangement but one that allows stagger tuning to flatten the impedance characteristic, something Mordaunt Short appear to have done, our impedance trace suggests. The upper unit handles midrange and bass, whilst the lower handles bass only. Front ports can convey colouration however if they output cabinet noise. The Mezzo 6 can be bi-wired and spiked.

he Mezzo 6 is tall at

SOUND QUALITY

The Mezzo 6 has a warmth that makes vocals sound rich and smooth. and darker hued than the KEF or B&W loudspeakers. However, the tweeter comes in quite hard higher up the frequency range, making upper treble a bit relentless and quite dominant. An insightful midrange brought out Gabrielle's vocals nicely in 'Forget about the World', but percussion was sharp and a little hard on my ear through both solid state and valve amplifiers. The tweeter is detailed and less characterful than many, but on the Mezzo 6 set to sound rather obvious. A small amount of boxy boof and slight clothiness, likely from the port, accompanied Radio 4 speech.

Over damped and somewhat unenthusiastic bass prevented the strong bass lines of Angelique Kidjo's 'Fifa' album from really striking out; they remained box bound and ill defined. The Mezzo 6s need to be used close to a rear wall in a medium sized room, on the end of a Naim, but our Icon Audio MB845 monoblocks drove them with alacrity. They showed the Mezzos as insightful across the midband, where vocals were very clearly wrought centre stage. However, Nigel Kennedy's violin could incite a fairly brisk response from the tweeter and its presence was none too subtle. Imaging was good, with a neatly laid out sound stage upon which were well etched images.

The Mezzo 6s have a peculiarly complicated character set, in which there's a dark warmth, and slightly remorseless and obvious upper treble, full upper bass but disappointingly grumbly lower bass reluctant to play a tune. As such they have an unusually characterful sound.



MEASURED PERFORMANCE

The Mezzo 6 frequency response has a flat trend, although this is a second sample; the first had excessive treble. The dip at 2kHz appears to be a phase dip due to low order crossover slope because it moved in frequency with microphone position. Low frequency output lifts around 160Hz and this will add a little warmth and body to the sound, but lower bass rolls down below 150Hz. The front port (red) peaks sharply at 31Hz and helps extend output downward below 60Hz of the main driver but also outputs box noise at 220Hz. The rear port (yellow trace) supports upper bass. Bass unit distortion measured 1% or less down to a low 35Hz, a good result; the front port got down to 60Hz before distortion rose to 12% at 30Hz and lower. Distortion from 100Hz up to 6kHz hovered around 0.3%, a fair result.

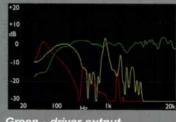
The short term 10mS decay spectrum was clean; the 200mS spectrum shows overhang around 170Hz where the Mazzo 6 looks a little 'hot' and this may colour the sound, and there's overhang at 80Hz.

Sensitivity was good at 88dB, helped by a 3.7 Ohm bass unit. Overall, impedance measured 5.5 Ohms and the characteristic was unusually flat at low frequencies, suggesting amplifiers will be able to exert strong electrical damping. The

Mezzo 6 is an easy load.

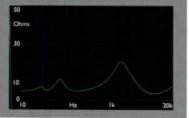
This is quite a complicated design. Treble will be obvious and some warmth will come from the lower midband, possibly accompanied by colouration. Bass is over damped requiring wall placement. NK

FREQUENCY RESPONSE



Green - driver output Red - port output

IMPEDANCE



VERDICT Soft midband, obvious treble and reticent bass give an unusual sound

reticent bass give an unusual sound.

MORDAUNT SHORT

MEZZO 6 £700

©+44 (0)207 940 2200 www.mordauntshort.com

FOR

- easy sounding vocals
- focused midband
- stable imaging

AGAINST

- reticent bass
- prominent treble
- port colour

K-40L

STEREO INTEGRATED AMPLIFIER

Specifications

Type: 2-channel stereo integrated amplifier Input: CD, Tuner, Aux1, Aux2, Aux3

Function: Power on-off, Input selector, Volume control

Output Power: 40W+40W (T.H.D 2%)

Input sensitivity: 0.2V rms Speaker Impedance: 4, 8 ohms

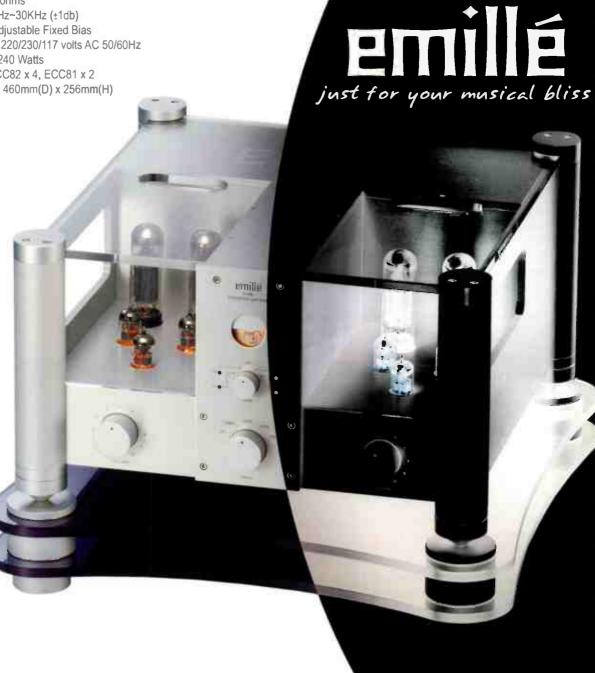
Frequency Response: 15Hz~30KHz (±1db) Output Tube Bias Type: Adjustable Fixed Bias

AC Power Requirements: 220/230/117 volts AC 50/60Hz

AC Power Consumption: 240 Watts

Tube lineup: KT77 x 4, ECC82 x 4, ECC81 x 2 Dimensions: 457mm(W) x 460mm(D) x 256mm(H)

Net weight: 28kg Gross weight:38kg



Distributed in UK by Angelsound Audio Web: www.angelsoundaudio.co.uk E-mail: info@angelsoundaudio.co.uk

Tel: +44 (0)1923 352479

Emillé Labs Division of Kwangwoo Electronics co., Itd Tel:+82 55 382 7373 / Fax:+82 55 383 7375 E-mail:Info@emillelabs.com / Web:www.emillelabs.com

World Radio History

hese floorstanders show just how peculiar, for the want of a better word, the loudspeaker market can be. Whilst I can understand the variability of budget loudspeakers and am relaxed about their foibles, I am a little less easy with the peculiarities within this group, mainly because at £700-£900 they are relatively expensive. Some of the foibles, like the treble lift of the B&W 683 are easily avoided, so B&W must assume customers like it that way. From my experience it is fairly easy to design for smooth treble, as KEF now do, and the results are justified in long term listening.

But it isn't that simple, as there's no doubt that many people prefer obvious boom and ting; keeping things smooth and accurate is an old BBC inspired idea, outdated to many. Nowadays, in showrooms at least, fizzy treble sells and B&W feel they need to pander to this reality. Yet although the 683's tweeter sticks up like a sore thumb in our frequency response graph and is sonically just as obvious, this still didn't sink it. Far from it; excessive treble was an irritation in an otherwise impressive package. It was the 683's general demeanour and tonality that I found appealing: big, spacious, convincingly clear and lovely to listen to whether it was the testing violin of Nigel Kennedy playing, the steady purity of Renee Fleming singing, the breathless delivery of Alison Goldfrap supported by pulsating synthesisers or the thunderous drum rolls of Steve Earle's 'Copperhead Road'. The 683s made them all sound fabulous...

Contributing to this was their ability to exploit the qualities of the preceding system, in which I was perhaps unfairly using 845 valves. But this is a loudspeaker test and I am even less sure about using solid-

but do bear it in mind when buying.

B&W's 683s are meant for larger rooms where they won't induce room boom. KEF field the similarly priced iQ90 for this purpose too. For medium sized rooms where the loudspeaker is likely to be positioned close to a rear wall driving a more audibly resonant space, loudspeaker designers commonly choose to keep bass output in check, using good acoustic and magnetic damping and also, at least in KEF's case, minimise subsonic output. That's what the iQ70 is all about. It isn't truly a competitor to the B&W 683, but their smaller 684. It does however, illustrate the issues those with smaller rooms need to consider when buying a floorstander. It is something I am personally well acquainted with, using an office listening space 28ft square that does not impose its own properties upon loudspeakers, and a lounge 17ft long that does. What works in a big space, like a Tannoy Yorkminster, doesn't work in a smaller one I can assure you! So iQ70s have their place in this world, and quite a valuable one it is too. They are designed to deliver a great sound in a smaller space and I was fascinated by KEF's unusual but clever "bass management" scheme, which uses a series input capacitor to cut out subsonic rumblings that slow down bass subjectively and obscure 'the tune'. The iQ70s had a terrier like grip on bass tunes and I'm sure this will make them popular with many listeners. I couldn't help but notice also that their cardboard

LOW LIFE

We all enjoy good bass. It brings scale to a performance and an involving viscerality. There's nothing quite like feeling the sofa move! Floorstanding loudspeakers are potentially able to deliver stronger bass of better quality than smaller standmounters and bookshelf designs. But many factors affect bass quality, some linked to the loudspeaker, some to the room it is used in and some to the way it is used. Let's take the way it is used first.

Place a loudspeaker against a wall facing down the length of a room and it will excite the room's lowest resonant mode. In a room 12ft long this is at 45Hz, the lower end of the bass scale. The result will be noticeable bass boom. To lessen this it is best to keep the loudspeaker away from the rear wall, difficult in a small room because it reduces living space. Alternatively then, choose a smaller loudspeaker designed for near-wall placement in this circumstance. A bigger loudspeaker will incite boom. Spike the loudspeaker or stand to make it stable, fill a sand chamber if provided because this improves quality substantially, and ensure you use good loudspeaker cables, especially if they are long.

Our measurements show that today's CDs have strong energy levels down to 30Hz, but little below 20Hz. To lack influence at 30Hz a room must be at least 20ft long - quite large. Categorising: less than 14ft is small, 14ft-20ft is medium, above 20ft is large. In a small room use a small standmount or bookshelf loudspeaker to least provoke its natural tendency to boom; in a medium room you can use a medium sized floorstander, usually equipped with a single bass unit. In large rooms anything goes, although small loudspeakers may sound bass light and 'lost'. Understanding this will give the best bass quality possible, but bear in mind only rooms more than 20ft long will not influence the lowest sounds.

"these floorstanders show just how peculiar the loudspeaker market can be..."



Choose your amplifier carefully. In this month's group amplifier test the new Naim Nait XS was tops for its easy, powerful sound.

state amplifiers that will impose their own often unwanted character. KEF's iQ70s were a cogent example: with many of today's brighter amplifiers they can sound steely and monotonic. The purer midband of a valve amplifier better suits them. So amplifier choice affects perceptions and I tried to avoid this minefield,

carton lists Low Bass Distortion as a feature – and they met this claim, producing a very low 1% at 40Hz – impressive. Those of you convinced all ported loudspeakers waffle will be surprised by the punchy bass of the iQ70s! [I think he means me! Ed.]

Mordaunt Short Mezzo 6s are priced like the iQ70 but stand

taller than B&W 683s. Perhaps, I wondered, they would be an interesting alternative to both, as Mezzos often are. In this case however I was less certain. The Mezzo 6s didn't really gel for me and had no redeeming features within this group I felt, their weaknesses being too apparent. The Karl Heinz Fink designed Q Acoustics 1050i floorstander costing just £350 is waiting to overwhelm any unconvincing design like this.

Finally, I must point out that all three loudspeakers need little power to go loud, 60 Watts should do. This is a great strength of floorstanders, a big sound from little power. You just have to find a good one - and that still isn't so easy.

Solo mini special package now only £999.90

Purchase the Arcam Solo mini, Arcam Muso Loudspeakers and the Arcam rdock at our special price of only £999.90.

Price including free next day delivery





















Check our website for the latest 2009 savings

Linn, Arcam, Marantz, B&O, Bose Chord Electronics, InFocus, JVC, Monitor Audio, Mordaunt Short, Pioneer, REL, Roksan, Sim2, Tannoy, Teac, Tivol., Velodyne, Yamaha. Plus many more.



6 Abbey Street, Carlisle, Cumbria. CA3 8TX Telephone 01228 546756 www.petertyson.co.uk Email sales@petertyson.co.uk Open Monday-Saturday 9am-5.30pm



153 Kenton Road, Gosforth, Newcastle. NE3 4NQ Telephone 0191 2857179. www.newcastlehifi.co.uk Email mark@newcastlehifi.co.uk Open Monday-Saturday 10am-5.30pm

of every drum within the kit. Detail oozed from the performance. Also, while the SACD performance of the Pioneer was very good and an improvement over CD, the difference was never dramatic. In fact, the K2, playing the CD layer of the Carol Kidd album threatened to match the Pioneer's SACD performance.

So what was happening here? I believe that the K2 was responding perfectly to the Icon monoblocks, showing the capacity to run with this power amp's immense drive and dynamism. The K2 upped its resolution, revealing just how far you can push this box allowing it, in my opinion, to compete with CD players nearer twice its price.

CONCLUSION

Both machines tested here are excellent examples of mid-price

CD technology, but excel in different ways. Getting the most from the Pioneer is a bit like performing pre-flight checks on an aircraft:

Pure Audio button on? Check. Legato Link on? Check. But this is a highly transparent unit. It's so clinical, in fact, that it could be used successfully as a reviewer's tool for testing CD mastering quality.

By contrast, the Roksan belies its price point. In fact, it's almost a waste to use it in a budget audiophile system — as it would fit in better with a high end vinyl based system, such is its effortless organic sound. If you're after sweet, natural CD as opposed to hyper analysis from your digital discs, this is the one — and a great purchase at the price.

REFERENCE SYSTEM

Icon Audio passive line preamp Icon MB845 monoblock power amplifiers Spendor S3/5R loudspeakers Amphion Prio 510 loudspeakers Atacama HMS 1 loudspeaker stands

VERDICT OOOE

Ultra detailed and transparent, this is potent player at the price and benefits from SACD functionality too.

PIONEER CD-D9-J £709 Pioneer

C +44 (0)1753 789789 www.pionecr.co.uk

FOR

- incisive, clear sound
- SACD functionality
- styling, build, finish

AGAINST

- brightly lit with some discs
- careful speaker matching
- tacky remote control

VERDICT ••••

Highly organic and smooth presentation puts this machine up with the very best of the rest at the price; an essential audition.

ROMSAN KANDY K2 250 Municy Designs (*) +44 (0) 1235 511166 www.henleydesigns.co.uk

FOR

- smooth, musical nature
- instrumental separation

2Hz - 21.2kHz

- remote control

AGAINST

- looks

PIONEER PD-D9 CD/SACD

Frequency response with CD was flat to 21kHz (-1dB) with Legato Link out, but curtailed to 16kHz with it in due to the slow filtering used by this Pioneer technique. Legato Link produces a pseudo-analogue spectrum of aliasing products above 20kHz and a slow in band roll down of treble, so it will affect the sound. Those with SACDs will get a proper harmonically related spectrum above 20kHz however, because frequency response reaches 50kHz (-1dB) and a slow roll off above this point extends response to 100kHz (-10dB).

Distortion levels were low with CD if not as low as possible nowadays, reflected in an EIAJ Dynamic Range value of 110dB, where 112dB is becoming common. Legato Link and Pure Audio modes did not affect these figures. With SACD distortion dropped to a low 0.04% and a -100dB tone was well resolved, so SACD performance is very good, realising the full linearity and dynamic range of DSD code. Random jitter measured below 20pS and signal related jitter on a -80dB signal was non-existent, an unusually good result.

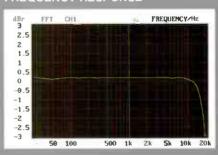
The PD-D9 measures well in all areas. It isn't quite up with the best in terms of CD linearity but it has lower jitter to compensate. NK

Frequency response (-1dB)

CD	21	Hz - 16.2kHz
SACD		2Hz - 50kHz
Distortion	CD	SACD
0dB	0.002	0.002
-6dB	0.002	0.001
-60dB	0.28	0.04
-80dB	2.8	0.34
-100dB		3.2
Separation (1kHz)		112dB
Noise (CD, IEC A)		-115dB
Dynamic range (El	AJ, CD)	110dB
Output		2V

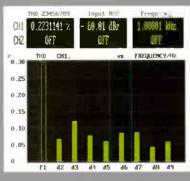
MEASURED PERFORMANCE

FREQUENCY RESPONSE



Green - driver output Red - port output

IMPEDANCE



ROKSAN K2 CD TEST RESULTS

Frequency response was flat, our response analysis shows, with no high frequency peaking, the upper limit measuring a normal 21.2kHz (-1dB). The K2 should sound tonally even and will not have sharp treble.

Distortion levels were reasonably low throughout the entire dynamic range, measuring

Distortion levels were reasonably low throughout the entire dynamic range, measuring 0.001% at -1dB through to 0.24% at -60dB, not quite class leading results. As a result EIAJ Dynamic Range measured a good if not exceptional 110dB.

Random jitter measured a low 10pS across the audio band, with a just a few narrow peaks at high frequencies above this level - insignificant. Programme related jitter measured 100pS on a -60dB signal at 1kHz, a good if not exceptional result.

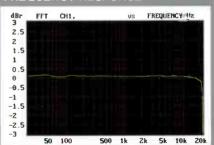
The Roksan K2 measured well all round. It isn't a class leader, but it has no weak spots either. NK

Frequency response (-1dB)

Distortion OdB	0.0014
-6dB	0.001
-60dB	0.24

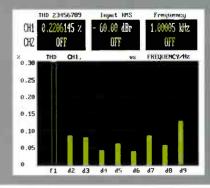
Separation (1kHz) 113dB Noise (IEC A) -97dB Dynamic range 110dB Output 2.2V

FREQUENCY RESPONSE



Green - driver output Red - port output

IMPEDANCE





Rhythm Divine

eet Bob Surgeoner on the street and you'd find him a gentle, quietly spoken and affable guy - a typical musician perhaps? Well, he has indeed played electric and acoustic

guitar, double bass and piano since the late nineteen sixties, and is also an experienced recording engineer), but his day job is designing NEAT loudspeakers such as this...

The £3,295 Ultimatum MFS is about as quirky as a compact standmounter is able to be, being essentially a two-way design running no less than two mid/ bass units and three tweeters of varying descriptions! The front mounted, visible mid/bass unit is one of NEAT's own 168mm designs, and this is partnered on the front baffle with an inverted titanium-dome tweeter: Inside the 380x220x370mm birch-plywood enclosure however, lurks another mid/bass unit isobarically loaded, whilst two upward-firing EMIT super-tweeters are mounted on the top plane of the box.

Interestingly, the front and top driver-mounting baffles are fixed to the main cabinet structure via a polyethylene membrane, making for a 45mm thick sandwich of birch plywood, polyethylene and MDF said to provide a rigid non-resonant platform that's ideal for optimal performance of the drive units. Inside, the crossover is a minimalist three element type (plus damping and attenuating resistors) employing precisely toleranced, low loss air-cored inductors and Neat's newly-developed polypropylene film and foil capacitors. The speaker exploits predominantly first-order crossover slopes and mechanical roll-offs.

Despite the modest physical proportions, each speaker weighs a hefty 15kg. NEAT provide a very swish looking stand for the Ultimatum MFS, but it's expensive at £595. We found that they work best on this, but still come very close with a good strong sturdy piece of metal such as the Partington Dreadnought.

SOUND QUALITY

With a claimed sensitivity of 88dB, these loudspeakers remind me of ye olde 'flat earth' standmounters from the nineteen eighties — very purposefully designed and muscle amps only need apply. With this in mind, I wheeled out my NuForce Ref 9SE monoblock power amplifiers (250W a side), instead of my usual Sugden IM4. I did try the latter, which did make a stab at things, but I could hear the poor Class A integrated wheezing like — as Edmund Blackadder would say — an asthmatic ant. Bob Surgeoner uses Naim power amplifiers in his factory dem room, and I'd say these are just the sort of thing you need — decent power and 'stiff' power supplies.

Properly aspirated, the NEATs are a most interesting listen. Kicking off with Miles Davis's classic 'Kind of Blue', and I was instantly impressed with two things. First, the NEATs filled my medium sized listening room better than just about any other standmounter of this size I've heard. I'll attempt an amateurish explanation here, and put it down to the isobaric loading and top mounted supertweeters, and then invoke my memory of the Linn Sara 9s a good friend of mine still uses. Yes, in this respect, they're not too dissimilar. Second, they showed great rhythmic alacrity, pushing the music's groove along almost forcibly. Whilst this classic LP didn't sound speeded up, it certainly wasn't slowed down as some loudspeakers can seemingly do. The result was about as expansive and propulsive

musical performance I've heard from boxes of this size and price.

The scale of these little NEATs was quite arresting; they presented a Phil Spector-like 'wall of sound' all around me, and one that didn't sound that much smaller than the somewhat bulkier B&W 801s I had in my listening room a couple of years back. Well, almost - because obviously the bass wasn't a match for a pair of £10,000 floorstanders with 15 inch driver units and cabinets big enough to sleep in. But you see my point; pump serious Watts into these and they performance a TARDIS like rescaling operation. How I wished I had the Electrocompaniet AW600 Nemo monoblocks to hand!

The downside is that, whilst it's a capacious wall of sound, image location isn't quite as precise as it might be. This (I would suggest) depends very much on the vagaries of your ceiling (and how it is shaped). Whilst the NEATs showcased the beautifully slick, laid back playing on 'Kind of Blue' brilliantly, it wasn't altogether clear where exactly some strands of the mix were located in space. I found the piece riotously good fun to listen to, but whenever I tried to listen right into the mix, to pick out individual recording details, I found my attention being drawn back to the musicians' playing. I fast began to realise the NEATs are not consummate hi-fi over achievers; instead, they're all about the music.

Scritti Politti's 'The Word Girl (Flesh and Blood)' showcased another key point of the Ultimatums' performance - dynamics. They aren't the sort of loudspeakers that you can just put on as background music whilst you do something else. Rather, they have you pinned to your seat, captivated by the intensity of the music. In 'Cupid and Pysche 85', Composer Green Gartside turned out a very polished pop-soul album that's full of subtlety; in his music he very much enjoyed dynamic light and shade, and the NEATs were able to fully convey this. The result is that this fairly gentle, loping song becomes quite a riveting listen for all the right reasons.

Tonally, these loudspeakers aren't the world's most neutral - but nor I think do they attempt to be. Compared to my reference Quad ESL989 electrostatics, there's a very slight fullness to the upper bass/low midband, giving the Ultimatum a very mild 'bloom' to them for this reason. Across the midband they're smooth, but there's a very slight nasal quality to vocals as Randy Crawford's 'Rainy Night in Georgia' showed. It's nothing unpleasant, simply the sense that

you're not getting every last piece of tonal colour her voice has to offer. Moving up to the treble, and the single tweeter/double supertweeter combination is very effective indeed, issuing forth about as much treble detail as you can hope to get from a speaker at this price.

Not having grilled Bob Surgeoner on his musical tastes too deeply, I cannot say for certain what they are, but I would be very surprised if he didn't own much of Steely Dan's back catalogue, so blissful was it to hear this band via the Ultimatums. 'Babylon Sister' from 'Gaucho' is a crawl around the seamy underside of America in the late nineteen seventies, and these standmounters caught its mood perfectly

- proving brilliantly able to impart the track's slack, laid back and slightly grubby feel. Once again, those great dynamics came to the fore, the **NEATs** serving up the great drum kit work in all its glory, along with the wonderfully fluid walking bassline. In absolute terms, my Yamaha NS 1000Ms proved tauter in the bass, but still somehow the Ultimatums managed to edge ahead in the enjoyability stakes. The delicious hi-hat work was also a treat through those upfiring supert-

CONCLUSION

afforded.

weeters - cymbals

sounded deliciously

crisp and airy, if lacking

the last fraction of the

detail the NS1000Ms

A truly interesting loudspeaker this, I found the NEAT Ultimatum something akin to flawed genius. It plainly is not all things to all men (and women). In strict hi-fi terms, it has a very slightly soft bass that's not terribly well extended, a gently coloured midband with a tendency for cupiness on vocals, and an atmospheric if not exceptionally detailed treble. All of this is most apparent when you listen to great classic

recordings, where 'fidelity' to the original is paramount. However, move to almost any other type of music and these loudspeakers romp ahead with boundless energy. They are so obviously at home with jazz, jazz funk and classic rock that I'd venture to suggest they've been designed with this in mind all along. Indeed, such is their rhythmic alacrity that I found myself 'getting' a number of pieces of music that have previously past me by - everything from Lynyrd Skynyrd's 'Sweet Home Alabama' to Steve Harley's 'Come Up and See Me (Make Me Smile)'!

The essence of this loudspeaker then, is its fusion of space and pace, although (let's run with this) there's also a good degree of grace too. Whilst it's a very musically

enjoyable listen, it doesn't

achieve this through harshness or aggression.

With this in mind, I'd recommend anyone searching out a high end standmounter, and with the aforementioned musical tastes, to give this a serious listen. In the great scheme of higher priced loudspeakers it's a quirky proposition - but an

impressive one at that.

REFERENCE SYSTEM Avid Acutus/SME V/ vdH Frog turntable Icon Audio PS3 phonostage MF Audio Silver Passive Preamplifier NuForce Ref 9SE mono olock power amplifiers

Yamaha NS1000M speakers

VERDICT

Unerringly musical and consummately enjoyable, this is one of the most engaging standmounters we've heard at the price.

£3,295

NEAT ULTIMATUM

Neat Acoustics Ltd. +44(0)1833 631021 www.neat.co.uk

- infectiously musical sound
- expansive soundstaging
- balanced, neutral nature
- dynamic articulation

AGAINST

- tonally samey
- expensive stands

MEASURED PERFORMANCE

The Neat Ultimatum is gloriously flat and even in its frequency response across the ear's most sensitive region, from 100Hz up to 1kHz, however measured, third-octave steady state or by impulse, visible in our analysis. Not unsurprisingly this translated to very low colouration, a decay spectrum showed, better than most loudspeakers. Above 1kHz frequency response conversely becomes uneven, largely due to phase cancellations due to the wide spacing of the treble unit from bass/mid and likely a low crossover attenuation rate. The exact response changed with vertical mic position but the one shown is reasonably representative. The trend is even and the upper treble lift lost by listening off-axis by about 30degrees. This variability will be audible but likely not upsetting.

Bass output was smooth down to 60Hz a pink noise analysis showed and by any standards the Ultimatum looks good at low frequencies, the impedance curve showing good damping, and a distortion sweep low distortion - 1% at 40Hz - from the drive unit as well as the rear port. The port extends output down to 25Hz, its output level at 80Hz measuring the same as forward driver

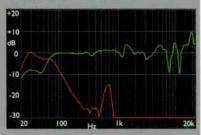
Impedance measured a low 5 Ohms overall and DCR just 3.4 Ohms, so this

is a 4 Ohm loudspeaker. The impedance curve is smooth, with little reactance. Sensitivity was low-ish at 85.5dB, if as

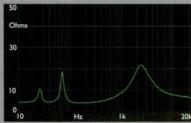
expected for cabinet size.

The Ultimatum HFS looks unusually smooth and colouration free across the audio band. It should give excellent sound quality. NK

FREQUENCY RESPONSE



Green - driver output Red - port output





Yo Smoothie!

Unlike your average AV receiver, Onkyo's new TX-NR906 is blessed with a surprisingly benign and listenable sound - plus every feature bar the kitchen sink, of course. Noel Keywood welcomes it in to his world...

t's unlovely, as big as a cruise ship and aims to satisfy your every need - especially if you are an audiophile, because this monster seemingly has proper SACD convertors onboard. So it should give superb sound from SACD, as well as Blu-ray. Oh, and it even caters for LP. So is Onkyo's new TX-NR906 receiver an audiophile dream?

The TX-NR906 is certainly tilted toward audio, but not for the reasons you might expect. As a fully specified top-of-the-range receiver not only can it do the fandango if you find the right menu, but Onkyo have fitted something that opens up a whole new level of complexity, as well as angst - well, that's how I see it. It has an internet connection! More frightening, it is Microsoft certified as PlaysForSure with Windows (er - can anything do that?). So, being MacIntosh equipped and Vista encumbered I knew I was in for fun with this Onkyo...

To be specific it will play music files from your computer, in MP3, WMA, WAV and AAC form. Onkyo say it is compatible with Windows Media Player; there's no mention of anything else, especially with an 'i' prefix like - dare I mention it - iTunes.

It will also play internet radio through the surround system. All in all then, this is one very capable receiver that can handle audio in all its many forms, seemingly PC based only. I put it on my network with PCs and Macs to see how it fared.

All this ability doesn't come for nothing; AV receivers are hideously complicated boxes tricks, this one more so than usual. Onkyo pack a set of handbooks almost the size of Encyclopedia Britannica.

The TX-NR906 inevitably delivers a mighty wallop through seven amplifying channels. Delivering 220 Watts per channel to 7 channels according to a front panel sticker and we measured 290 Watts. To avoid confusion I must explain that the sticker value of 220 Watts is into 6 Ohms, and as we measured 153 Watts into a 8 Ohms and 290 Watts into 4 Ohms the sticker value is correct. Onkyo's power supply really does perform, the TX-NR906 being able to sink 2kW into seven loudspeakers!

A neat fine of loudspeaker outlets able to accept 4mm plugs runs across the bottom of the rear panel and Onkyo provide colour coding, making hook up as easy as it can get when you are grappling with more cables than they have in

Broadcasting House. If you don't want to use Rear loudspeakers you can use the spare amplifying channels for other rooms, or for bi-amping the front loudspeakers to improve quality, or bridged to double power output. For quality music reproduction in the average lounge the front centre loudspeaker can be eliminated too. The spare rear channels can then be used to bi-amp the front loudspeakers for improved quality. All modern receivers allow this, manufacturers becoming aware that full-on 7.1 is often impractical.

As expected the TX-NR906 decodes all coded music formats from DTS and Dolby, including the most processor intensive DTS HID Master Audio. It also has Pro Logic IIX, DTS Neo 6 and THX Neural Surround to turn stereo into surround-sound.

As you'd expect in a serious audio receiver, 24/192 digital-to-analogue convertors are used on all channels, so you get full bandwidth out to 96kHz in theory from top quality 192kHz (data rate) digital sources on DVD-A and Blu-ray. Our measurements showed you get it in practice too, not some compromise figure. Onkyo are diligent about things like this I'm coming to learn from testing their products, whilst rivals are

not. You also get full bandwidth from 44.1 code on CD and 24/96 on DVD and Blu-ray.

The picture got even better with DSD processing from SACD, but only when in DSD Direct mode which gives full SACD bandwidth; otherwise a low bandwidth limit of 20kHz is applied. I realised there was a transposition error on p106 of the handbook here, 'Yes' meaning DSD signals are not processed by the DSP; Onkyo told me they will correct this.

Distortion levels were low all round so this receiver is able to convey the benefits of 24bit PCM and DSD through proper DSD convertors, even if it cannot rival a dedicated SACD player. The Onkyo is 'serious'; it doesn't offer something then do it badly.

Digital sources can be connected via three HDMI inputs, or through optical and electrical S/PDIF inputs. There are of course normal phono socket analogue inputs, including one for turntables fitted with an MM cartridge and it measured well.

Being a receiver, a VHF/FM and Medium Wave AM tuner are fitted. but not DAB. Thousands of internet radio stations from around the world are available too. These come in as low data rate (i.e. highly compressed) digital streams so you don't get great quality, but it isn't far off DAB. As always VHF/FM offers best sound quality and the tuner fitted is a good one, our measurements showed. To appreciate this an external aerial is required, because like all VHF tuners this one needed a strong signal from the aerial to minimise hiss and you won't get that from an indoor aerial unless you live close to a transmitter. Station frequencies can be entered from the remote, but committed to memory only at the receiver itself.

So audio wise the TX-NR906 looks strong. It works with every source, analogue and digital from LP through to Blu-ray (phew!) and offers great results from all of them. However, whilst it has a 7.1 preamp output, it does not have a multichannel input, so you cannot connect legacy DVD or SACD players using analogue cables!

But I haven't mentioned computer files and the enormous fun (not!) I had sorting through this receiver's NET/USB function, or should I say two of them, which is confusing. The handbook says on p123 press Net/USB in steps 2 and 3, but one is Net/USB Input, the other Remote Control mode, a point I missed which caused me some initial confusion. A lot of switching between the two is needed to get internet radio stations running and it is best to use a TV for visual

guidance. Station name, URL, data rate, digital resolution and compression scheme are all displayed, useful when selecting for quality. Unfortunately, a station isn't retained at switch off, as with VHF/FM; the Onkyo reverts to the first station in a list of twenty at switch on. Because Onkyo load the receiver with vTuner (see www. vtuner.com) in this position around

display before the setup menus can be accessed. This is going to cause new owners grief I am sure; a blank screen at start up is bewildering.

There is an Audyssey MultEQ XT automatic loudspeaker set-up system and linked Dynamic EQ system. You can see and manually trim its results, and there is a 7 band equaliser on each channel. Unfortunately, this isn't

"this Onkyo is 'serious'; it doesn't offer something then do it badly..."

10,000 stations buried in folders and subfolders exist here - a bewildering array sorted by music, geographical location, etc. The other nineteen positions are easily loaded with station URLs gleaned from sites found by computer, like www.radiofeeds. co.uk or Apple's free iTunes player which usefully reveals URLs from an INFO request. If you erase vTuner by

accident as I did, a receiver reset restores it. Radio station names and URLs can be loaded by a web browser and both Mac (Safari) and PC (Explorer) located the

Onkyo on my internal network and did this.

Talking of which, plugging the TX-NR906 into a Netgear router via ethernet brought it up on the client list immediately, without problem using DHCP. The Onkyo would see PCs running both Windows XP and Vista as a server, connecting successfully to them and playing stored music files; it would not see an iTunes player on PC however which, being a closed player, was as expected.

Whilst Macs could see the Onkyo's web page, the Onkyo was unable to identify them as music servers, as expected. Onkyo do specify only a PC running Windows XP as a minimum requirement and Windows Media I I player (free download) as compatible in the handbook. Sharing must be turned on at the computer and both Firewall and Antivirus either turned off or set to allow communication; Kaspersky on my Vista PC completely blocked communication.

Apart from the inevitable foibles of networking the Onkyo was sort of easy to use. I guessed immediately that a blank screen at start up was due to the HDMI output not being sent the video signal, something that must be fixed using the on-receiver

able to trim low frequency room modes. Full THX certification exists with a wide range of functions.

Video wise an HQV-Reon processor provides upscaling of SD video from DVD if you have a DVD that cannot do this internally. Composite, Component and S-Video signals can be transcoded and upconverted to digital, output via



HDMI.

The TX-NR906 worked smoothly enough, only delivering spits and pops on occasion when switching furiously as I am sometimes want to do to, between disc menu and play, and selecting Direct and Pure Direct modes.

SOUND QUALITY

Moving to the big Onkyo from a Marantz SR8002 brought forth the company's house sound, briefly described as fulsome at low frequencies, smooth across the midband and quite mild across the treble regions. Onkyo aim not to offend aurally and voice their products consistently to achieve this. The TX-NR906 was a very easy going listen as a result, with no hint of hardness, harshness, grit or tizz. Images were a little less clearly resolved than the Marantz, but conversely the Marantz sounded a little harder, even glassy in its tonality. I did notice some muddle if Pure Direct wasn't used, but I use this with the Marantz too.

The TX-NR906's big power supply truly does deliver a mighty wallop, plus an extra octave extension downward of low bass it seemed. The Wagnerian drum roll in the

LEEMA Agena

Reference Series



Agena is the reference RIAA phono stage for high-end turntable enthusiasts.

Extended-headroom MC and MM amplifiers, high-resolution analogue equalisation stages and precision filters combine to deliver a sublimely transparent listening experience.

Offering real-time control of resistive and capacitive loading, input gain and filters from the front panel, Agena offers unparalleled flexibility and precise matching for any cartridge.

Agena offers two freely assignable inputs, one option input (ultra-low output / low impedance transformer balanced input for example) plus multiple headshell arm combinations for maximum flexibility.

Connectivity includes unbalanced RCA and balanced XLR outputs, USB port for archiving or restoration and RCA outputs for record monitoring.

Available in black or silver.

Agena specifications

I/P resistance : 20 ohms to 1k MC, 47k & 100k MM

I/P capacitance : 100, 250, 430, 580 1100, 1250, 1430, 1580 pF

I/P sensitivity : 135uV-4mV option 50uV(1 ohm load)
RIAA error :+/- 0.25dB 20Hz-100kHz
Dims in mm : 440 x 110 x 320 (w)x(h)x(d)
Weight : 10kg



To locate your nearest dealer Visit: www.leema-acoustics.com Phone: +44 (0)1938 811900 Email: info@leerra-acoustics.com Overture of Within Temptation's 'Black Symphony' DVD (DTS 24/96) had deep rumbling power; I wondered whether somebody had re-routed the Bakerloo Line beneath Maison Keywood, Following drum rolls all had massive low frequency presence: the big Onkyo is a real ground shaker and spectacular if you like thunderous bass. I never faulted its clear, easy going midband nor clean treble, free from emphasis. Strings were smooth, tubas filled the lower octaves heartily and French horns sounded fruity in this latest spectacular from Within Temptation.

With SACD in 'DSD Direct' mode and the displays off for Pure Audio, strings in Beethoven's 'Eroica' Symphony No3 were surprisingly smooth and mild in nature, as they were in Rachmaninov's Piano Concerto No2, accompanying Lang Lang on piano. The organ in Purcell's 'Rondeau from Abdelazar' shook my room and stood impressively apart from the wonderfully sonorous horns. In a nutshell then SACD reproduction was mild mannered but big hearted,

the Onkyo again being clear but easy going, able to convey the extra smoothness and extended textural range of a DSD recording.

Spinning Santana's 'Put Your Lights On' in 24/96 PCM code from DVD-A again showed how smooth, yet powerful and atmospheric the Onkyo could be. Everlast's voice was gravelly, whilst Santana's guitar hovered easily in front of me, with solid attack behind plucked strings and an especially satisfying follow through of their harmonic content. The Onkyo paints a big picture that's generously textured but always easy on the ear, quite an unusual combination.

VHF/FM radio has been tailored for a similar sonic and it too was plentiful in low frequency content, giving music weight and body, unlike so many VHF tuners that sound neutered. A live recording of a John Lennon cover of 'Jealous Guy' on Absolute FM (aka Virgin) was warmly atmospheric and had a lovely enveloping quality, the strings of a strummed guitar sounding sweet and sonorous. Stepping down through London's stations showed

they all came in sounding clean and easy, with a lovely midband in particular and none of the flat sound staging that is so common; I was reminded of my Leak Troughline, so it's a classy tuner for sure. As I said earlier, Onkyo don't cut corners and hope no one will notice, unlike others.

Spinning LP with an Ortofon 2M Black cartridge in an SME312 on Garrard 401 brought forth a full sound with weighty bass, a smooth midband and no treble sting. With a good turntable and cartridge the Onkyo is no slouch with LP.

The TX-NR906 is diligently engineered and well honed sonically. OK, £1,400 is expensive as AV receivers go, but inexpensive in real hi-fi terms and it satisfies every need. Offering a massive audio visual experience with no blemishes, as well as complete internet connection and 10,000 internet radio stations in the package, the TX-NR906 does it all and well. This is a fantastic AV receiver. and in the AV field at least, something of an audiophile delight.



MEASURED PERFORMANCE

If the headline output of 153 Watts doesn't sound enough, excellent power supply regulation allows power to nearly double into 4 Ohms, hitting a measured 290 Watts per channel. As most loudspeakers nowadays use 4 0hm bass units this accurately represents the power deliverable and, over seven channels, it amounts to 2kW, no

With low distortion even at high frequencies, around 0.02% at 10kHz 1 Watt and the same near to full output of 290 Watts, the Onkyo stays clean. Damping factor was a good 37, suggesting plenty of loudspeaker control. All in all then, the TX-NR906 has got masses of clean power available. If you want to use external sources then 300mV input sensitivity is sufficient for

In DSD Direct mode, via the internal digital convertors SACD frequency response reached up to 100kHz (-6dB), unusually good extension for the medium, better than most SACD players; outside this mode bandwidth stopped hard at 20kHz.

PCM audio at 24/192 managed the same bandwidth and both DSD and PCM at -60dB measured a low 0.15% distortion, very good if not quite up to the best. CD (i.e. 16/44.1) at -60dB returned 0.38% distortion, on the high side, limiting EIAJ dynamic range to 106dE Frequency response was flat to 20.2kHz with the slightest roll down above 10kHz; there was no peaking. So the Onkyo gives fine results, consistent with a smooth sound, if not quite the low linearity of the

best hi-fi separates. The VHF tuner measured flat to 12kHz before upper treble was rolled down by a pilot tone filter at 19kHz. Distortion was low at 0.1% (50% mod.) and hiss well suppressed at -69dB. Sensitivity was fair at 60uV, and minimum hiss (full quieting) was reached at a low 850uV. Expect a smooth, clear

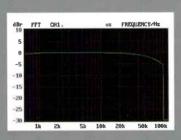
The Phono stage was accurately equalised, but it had a small amount of plateau lift (+0.4dB) above 800Hz, so will be a tad on the brighter side of things. Sensitivity was high at 3.3mV, overload very high at 100mV and hiss low at -77dB, so another fine

set of results.
The TX-NR906 turns in impressive results all round. CD dynamic range should have been greater, but high resolution digital including DSD was processed very well. With a good VHF tuner and Phono stage the big Onkyo has been carefully engineered. NK

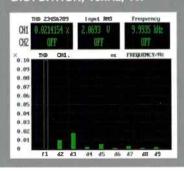
Power CD/tuner/aux.	153 Watts
Frequency response	1Hz-83kHz
Separation	81dB
Noise	-99dB
Distortion	0.02%
Sensitivity	300mV
Damping factor	37

Disc (LP)	
Frequency response	8Hz-25kHz
Separation	68dB
Noise	-77dB
Distortion	0.02%
Sensitivity	3.3mV
Overload	100mV
VHF TUNER	
Frequency response	10Hz-12kHz
Stereo separation	34dB
Distortion (50% mod.)	0.1%
Hiss (CCIR)	-69dB
Signal for minimum his	s 850uV
Sensitivity (stereo)	60μV

FREQUENCY RESPONSE SACD



DISTORTION, 10kHz, 1W



VERDICT Easy going yet powerful sound plus a vast feature count and decent build

make this winning value for money. ONKYO TX-NR906 £1400 Onkyo UK C +44(0) 1494 681515

- good with SACD

www.onkya.co.uk

- decodes all audio formats
- many facilities

AGAINST

- complicated
- unlovely appearance
- fiddly to use

MA-X: Unveiling the technology. Revealing the music.



Magnum MA and Oracle MA

The Absolute Sound

2008 Cables of the Year

"...MA-X interconnect [shown] ... a fullbodied and richly saturated rendering of tone color, extraordinary bottom-end extension, startling dynamics, and tremendous resolution of low-level detail without any analytical sound."

Robert Harley, The Absolute Sound, February, 2009

Distributed by:



P.O. Box 988, Cheltenham, Glos., GL50 9FJ udiobility www.audiobility.co.uk www.mitcables.co.uk Telephone: 0870 777 2991

AWARD WINNING RINGMAT PRODUCTS

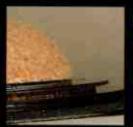
Ringmat is the world's leading supplier of products that are truly designed to improve sound and picture quality in hi-fi and home cinema systems.

All Ringmat products are of unique design and tackle distortion problems in a manner that is quite different from all other attempts. We do not just create products if satisfactory solutions are already available.











RINGMAT and RINGMAT SUPPORT SYSTEM

Use this modular system on every flat turntable platter

PRODUCT YEAR STATMAT CDI BLUE

Use a Statmat for playing all CDs and DVDs, other than with multi-disc players



tatmat CDi Blue Ultimate Guide to Home Cinema 2004

VIVACITY AR ANTI-RESONANCE PLATFORMS

Use VIVACITY AR Platforms under all equipment to free the sound, and pictures, from resonance and vibration based distortion

RINGMAT FEET, DOMES AND SPIKE STOPPERS

Use these Ringmat products for the most effective means of isolating your hi-fi and home cimema equipment RINGMAT MAINS LEADS. INTERCONNECT, TONEARM and SPEAKER CABLES

Use Ringmat cables for the cleanest transfer of signals, from power source to speakers

RINGMAT DEVELOPMENTS PO BOX 200 BRENTWOOD ESSEX CM15 9FB ++44(0) 1277 200 210 WWW.RINGMAT.COM

mail

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.

LETTER OF THE MONTH PRIZE



KEF iQ30 LOUDSPEAKERS

A pair of KEF iQ30 loudspeakers is on their way to JAKE HUGHES, Letter of the Month winner in our February 2009 issue.

Letter of the Month

SUPER FAST BROADBANNED?

I'd like to ask Steven Green if his glass is half empty or half full? I suspect it's more than half full since he appears to be able to listen to internet radio all day, download huge files and watch internet TV and video content. Lucky Steven! Mine unfortunately is less than a quarter full since where I live internet speeds range from about 320kbps (Orange) to about half a Mbps (BT). One household in the village, to achieve this half a meg, has to use Wi-Fi from the front door since the house wiring takes broadband outside its distance limit. Steven's news of BT's intention to roll out 'super fast' broadband (Opinion, October 2008) is clearly good news for some of the population but I'm not sure if I can hold my breath that long, or at all. The village delivery system is six miles or so of copper (or possibly aluminium) wire carried on overhead poles terminated on 1930s designed, occasionally noisy, screw terminals in a plastic box (okay, so it has been upgraded from Bakelite)...

As for speeds of up to 8Mbps? Kindly read the small print (about 2 point, you will need your magnifying glass), as this depends on line test and distance from exchange. Dare I point out that the customer pays the same regardless if the speed is 320k or 8Mbps? Perhaps I should not live in such a remote area? I am all of ten minutes from a minor road called the M25 and about forty minutes by slow commuter train to a small town called London. I would guess the customer base in the immediate locality to be about two thousand people.

Of course, it's down to economics. BT's rivals will only provide modern communications in areas where the customer base is sufficient to justify the investment, usually in the short



The view out of the window in Beaconsfield - possibly!

term. BT will respond to competition to protect its customer base but has no requirement, since the monopoly ended, to provide all of its customers with the same quality of service, only to provide a basic service. Only the accountants can tell where the investment is justified on economic grounds.

Many, including organisations such as the BBC, seem to believe that everyone already has fast broadband, which is frustrating to

those of us who are still waiting, possibly until a pig flies past an upstairs window. Fibre-to-the-home (FTTH) with speeds of 100Mbps or potential of 1,000 in future; fibre-to-the-cabinet (FTTC) speeds of 40Mbps; when that happens I suspect that in my area I shall still be enjoying half a Mbps. Never mind the view, anyone know a new housing estate with FTTH?

Roger West Beaconsfield

Hi Roger, I sympathise with your situation, because I would feel exactly the same way if I were in your position. I think the news about BT planning to roll out superfast broadband was a very important development, though, so I personally think it was worth covering, even though only 40% of the UK population would be able to receive it. Perhaps I didn't make this clear in the article, but I viewed this development as being the first major step along the road towards the whole of the UK eventually getting superfast broadband. BT is really the only company that would rollout superfast broadband to the whole of the UK, so once BT has rolled it out to 40%, I think it would then become politically unacceptable to deny the other 60%, so they would eventually end up getting it as well. If it appeared like I was saying, "I'm all right, Jack, I'll be one of the lucky 40%", then I apologise, because I

On the subject of your broadband speed being so slow, I would place the blame firmly at Ofcom's feet. One of Ofcom's mantra is that it is "biased towards nonintervention", which in your case means that Ofcom doesn't think it's a sufficiently important issue to instruct BT to provide reasonable minimum download speeds in areas that suffer from poor broadband performance. Ofcom bends over backwards if the companies it regulates want legislation changing. but when it comes to consumers it couldn't seem to care less.

didn't mean it to come over that way.

One thing you could try to improve your speed is the new BT i-Plate, which has been specifically designed to increase the speed of slow lines. And one small consolation is that even with a download speed of 320 kbps you will still be able to receive the BBC's live and on-demand Internet radio streams, which should all be at significantly higher quality than on DAB once all the quality improvements have been completed.

REMARKABLE E'S

Chaps, I am prompted to write by reading Jake Hughes' letter in the February 2009 issue. I have a pair of Wharfedale E20s, the babies of the E series range, bought as my first ever loudspeakers (bought from Laskys in Manchester, back in the day when men were men and wedge shaped cassette decks could be found on the shelves of many a hi-fi dealer). At the time, I preferred them to their slightly bigger brother, the E30... As time went by, all the other components in the system

changed - but the '20s stayed, mainly because, as I improved components further down the chain, these 'speakers always let the sonic improvement show through. Fair enough, so I kept using them.

I always had a hankering to try valve amplification, having my 'Road to Damascus' moment when I bought a pair of Audio Innovations Series 1000 Mk3 Monoblocks second-hand from Vickers Hi-Fi in York. Once again, the E-20s let me hear a vast improvement and total change of presentation compared to the Audiolab I was

the Wharfedales off to Wilmslow Audio. They changed out the original paper cone drivers for new units by Peerless, upgraded all the components on the crossovers, then split them to allow biwiringlamping with a new appropriate binding post tray secured in place of the old single terminal version. (This could then bring the second pair of power amps into the frame). The silly treble attenuation control knob was taken out of circuit. Finally, all the internal wiring was replaced with solid silver cable. I kid you not, this is the best £179 I have ever spent. The four Audio



Wharfedale E70 - not the only great E series speaker, according to one reader...

previously using. I knew then I'd never go back to solid state amplification - haven't yet. However, a long lingering doubt kept niggling: surely, the old woolly Wharfedale's were past their best? Surely, loudspeaker design had moved on since I bought them? A new pair of 'speakers would let the 1000s sing even sweeter, wouldn't they? Still, I couldn't bear to part with them. Alright, they are very much of their time, but they do have a few good things going for them. For a start, a sensitivity figure almost unheard of these days. (The 'E' stood for 'Efficiency' and the figure gave a rough guide to the cabinet volume in litres). I reckon you could drive these with an 8W SE valve amp. Also, I liked the horn loaded tweeter and the real wood veneer. Probably the weak point would be the cabinet design and choice of material - chipboard, but one can't have everything!

So. I made a compromise - the best move I have made so far - honest! You see, I had bought a second pair of the aforementioned power amps - but the E series speakers were made in the days when Adam was a lad and bi-wiring/amping hadn't been invented yet [that long ago? Ed.]. After consultation, I sent

Innovations power amps are still on 'speaker driving duty with the E20s punching above their weight. They surprise many people, although all that remains from the originals are the horn loaded tweeter and the carcass. In all honesty, bigger is not necessarily better.

The bigger brothers in the E series were a bit big and daft, especially the E70s and the E90s. I don't think it would be a cost effective or sonic improvement to apply the above treatment to them. I remember reading a short article by DP in HFW some time ago in which he described the larger E series 'speakers as a bit "Ford Capri Cor Blimey!" I think he was right. But the little (well, not that little) E20s may surprise...

Dave

Thanks for that Dave. Actually, I've always liked the Wharfedale E series – firstly for their seventiestastic styling (reminding me of Ford Capris, sideburns, hot pants and Spacehoppers), but also for their high efficiency which is still exceptional now. They're not the world's most smooth or even speakers – and about as conceptually opposite to

the likes of Quad electrostatics or Spendor BCIs, but hey — they are still fun to listen to. It sounds like you've pushed them to the limits of the design, with very positive results, and I particularly like your use of valve amps in this context. Many people don't realise that using the right combination of components is just as important — if not more — than using the right components. With your system, you've got a great match and then tweaked things further to bring out the combination's innate strengths. Full marks! **DP**

CAUGHT IN THE NET

I feel Hi-Fi World is seriously falling down on its educational role as regards computer audio. It just seems to be skirting around the topic. This appears somewhat strange because when I first started to subscribe I think the magazine's title was Hi-Fi World and Computer Audio...

Like a lot of people I suspect, I'm planning to put a part of my large CD collection onto hard disk before I totally lose control. The alternative seems to be some sort of large computer controlled mechanical storage, selection and delivery system! The essentials as I see it are some means of 'ripping' and storing the data on the CD onto hard disk (and a backup system), a means of cataloguing and control and a D/A



Ripfactory's Ripserver – reader Bruce Maclaurin has bought one but still isn't quite sure what it is!

converter. The options appear to be the one box approach as exemplified by the Naim HDX, attractive but at £4.5k - ouch. The alternative is the multi-box approach as exemplified by Linn.

Following Patrick Cleasby's highly favourable report in the Jan 2009 issue I have ordered a Ripserver. But when I eventually receive it, what do I do then? Do I need to buy a network music player (i.e. a streamer?) such as a Linn Sneaky at £Ik upwards. I already have a perfectly acceptable D/A converter in the form of a Russ Andrews DAC-I that I would like to use. What else would I need to catalogue and control? One of



If you want an all-in-one product to store music to a very high standard of sound quality, then that's precisely what the Naim HDX does, says Editor DP.

the new mini laptops would seem ideal.

I have no need to 'stream' music all round the house – I just want something to integrate with my main audio system. The Ripserver user manual says very little about these topics. It does however mention TwonkyMedia, SqueezeCenter and Firefly as if I'm meant to know what these are. I'm sure if I had a thirteen year old grandson readily available he would look at me witheringly and explain all. Come on Hi-Fi World – I'm sure you can do it!

Bruce Maclaurin

Hi Bruce — thanks for your comments. I'm not sure how we're skirting around the subject of computer audio, as we've done more as a magazine to promote it than any other I've ever seen. Indeed, this exact time ten years ago I was even writing a mini magazine bundled with Hi-Fi World ('Computer Audio World'), acting as a cheerleader for this very topic — much to the bemusement and/ or derision of many industry figures, I hasten to add. But much as we'd like to

give more coverage to the topic – and as a large and growing one it needs all the page space it can get – you have to remember that Hi-Fi World is a broad church. For example, if we do too much computer stuff, we get tetchy emails from vinylistas or even CD fans moaning, or complaints from our valve amp aficionados that "digital isn't hi-fi" and so on.

Another problem is that it's something of a complex subject, and just as hi res digital fans might resist us devoting page after page to tonearm/cartridge matching issues, so analogue fiends won't give a cartridge mounting bolt for much of their magazine being devoted to debates around open/closed source network music players. We'd love to get right into the detail of things, but appreciate that not everyone does. For this reason, we try to bring you a little bit of everything — and elucidate and/or contextualise things more in these very letters pages and our opinion columns...

Right then – you've correctly summed up the situation. Basically, computer audiophiles have a choice of buying an all-in-one package like the Naim HDX, or an 'open source' collection of bits that are effectively a computer audio separates system. The

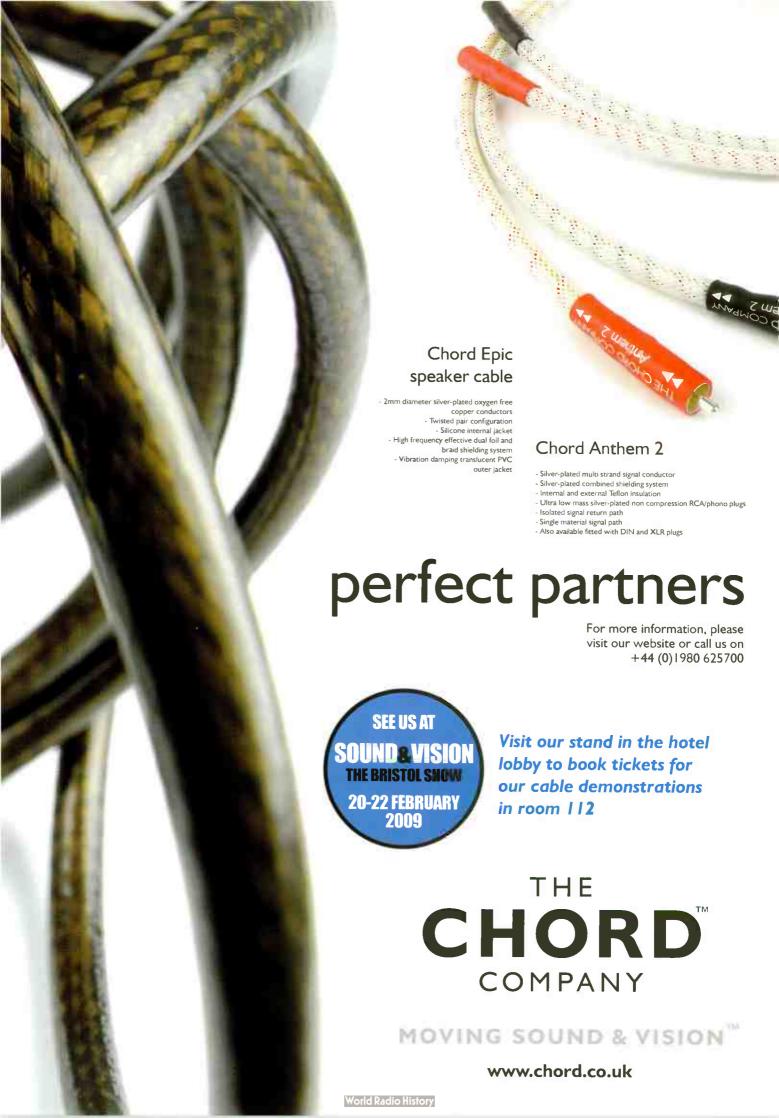
Ripserver you have bought is essentially a transport - it has a slot in the front which lets you feed it CDs, which it then rips to hard drive in high quality uncompressed FLAC (Free Lossless Audio Codec) files. These are then fed out to your network, but you do need a network player such as the Linn Sneaky DS or Logitech Squeezebox, which takes the digits off the network, converts them and lets you access them in a meaningful way via a software front end such as TwonkyMedia.The Sneaky will work in conjunction with an internet media tablet such as a Nokia N810, HP iPaq 214 PDA, or even an Apple iPhone or iPod Touch, which act as fancy, intelligent remote controls, otherwise you'll have to select your songs and playlists via a PC or Mac, using its keyboard. Your DAC can usefully be deployed, taking the signal from the network music player (i.e. Squeezebox/ Sneaky DS) and feeding it as a line level analogue signal to your preamp.

Confused? Well, think of your Ripserver as the water, the network music player as the pipe and the DAC as the tap — and it's easier to

Hopefully, people will get more familiar with network music systems, as I feel they are the future and will one day become ubiquitous — but if you're currently puzzled and just want an all-in-one product to do the job to a very high standard, then that's precisely what the Naim HDX does now. **DP**

CAUGHT IN THE NET — SLIGHT REFRAIN

This is an enquiry that has been inspired by reading the recent reviews of music servers like the Linn and Naim units but noticing that they can be very expensive. Now it may well be that to do this right you need to use expensive units but it still begs the question. I love my music and know something about audio equipment, and reading the magazines for over twenty years does seem to confer a little knowledge of the ins and outs. So what I am thinking about is moving all of my current CDs (5000 plus) over to a hard drive (or two) using the FLAC lossless codec. Now I can convert the files using my current laptop and if I am right could then use one of the current ITB external hard drives you



can buy for about £80 to store those files on

What I need then is a stand alone Media Server/Interface to connect the HD to and to convert them into a digital signal which can be fed to my DAC, and from there into my normal system to listen to. I do not need the unit to have a CD player or ripper as I already have this on my PC, and I also do not really need to stream the music to anywhere else in the house. So what exactly do I need and what is available currently?

Is this a viable and sensible way to do this or am I being wishful, and will this make a severe compromise on the quality of the music signal that will come out of this system? I have tried talking to the staff at places that sell media networks but frankly their priorities are not the same as mine and they keep trying to foist the Sonos system on to me which has too much redundancy in as I have no need of CD drive or amplifiers. So can you advise what is the best way to start and what do you need to spend to get a system like this which will give you the best sound quality to replace a current CD transport and DAC?

Andrew McBride

Hi Andrew - you need a computer (PC or Mac) for control, a big external hard drive (ITB minimum) and a hi-fi DAC (Stello's DA100 Signature is a great £650 choice), plus the network music player that links up the whole lot. You can spend as much as you like on this - from £99 for Revo's Mondo or £130 for Philips NPI 100 Streamium to £9,600 for Linn's Klimax DS. I'd counsel the SlimDevices Squeezebox 3 (£160) as a good starting point to use in conjunction with your DAC, as it has a nice big display and good control software. An interesting webpage to check is http://www.ripcaster.co.uk, which gives you a good idea of what's on the market. DP

BAND ON THE RUN

I am the owner of a Dual CS 505-4 belt driven turntable, whose belt has decided after many years' service, to go AWOL I currently live in Spain and am experiencing problems replacing it. Where should I look?

MH Clark

Mantra Audio have the right item, their catalogue number TB121, price £6.09 – call +44 (0)1757 288652 or click on http://www.mantra-audio.co.uk. **DP**

VINYL DEMAND

Hello David. In your excellent February 2009 group test article, 'Different Strokes', you say in the introduction, "First, there's a vinyl revival in full swing. It's now perfectly possible to run a sustainable vinyl collection - from the countless new audiophile reissues, the massive amount of second-hand stuff surfacing on ebay, and all those lovely high street record libraries (sorry, charity shops)."

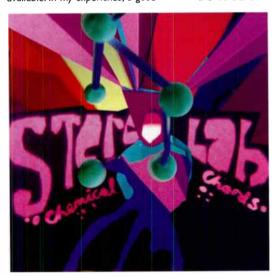
Well, all that's true, as far as it goes. So often though, it is only old vinyl and reissues which are written about in hi-fi magazines. What about all the new releases available on vinyl? Knowing about these could make hifi buyers think long and hard about whether or not to have a vinyl source. In the last few weeks my vinyl collection has been enhanced by, amongst others, Stereolab's, 'Chemical Chords', Alec Empire's 'The Golden Foretaste of Heaven', XX Teens's 'Welcome to Goon Island', Metronomy's 'Nights Out', Sauarebusher's 'Just a Souvenir', Kings of Leon's 'Only by the Night', Lambchop's 'OH (ohio)' and Pivot's 'O Soundtrack of my Heart'. And there's loads more, but you'll have got the point by now! All of these are new releases, and easily available. In my experience, a good

indie/alternative rock, and they're usually out in limited numbers for a certain time only, after which (when they've sold out), they're not available – hence the appeal of magazines like 'Record Collector' and of course eBay. Put it this way – if I wanted to buy a 2003 jazz release (Courtney Pine's 'Devotion', for example), what are the chances I could walk down to my local record shop and buy it on vinyl? Start at zero and work downwards, I'd say...

Of course, the likes of Stereolab,

Of course, the likes of Stereolab, Mouse on Mars, Broadcast, etc. all insist on vinyl releases, but that's part of their indie culture (which is heavily vinyl based), but this is ghetto-ism isn't it? Not all new music, across all genres, is available on vinyl – far from it. Of course, I'd love this to be the case – don't get me wrong! **DP**

I totally agree and it's a valuable point to make. My only slight reservation is that out on the High Street vinyl is still a rarity in my experience and I'm not sure it is much different around the U.K. Even in HMV's flagship



New vinyl
- there's lot
of it around,
but much of
it is indiebased. All
the same
Stereolab's
Chemical
Chords
brings back
LP sleeve
art ...

seventy percent of new releases now come out on vinyl as well as CD.

Vinyl really is making a comeback and it would be good to see this given as an additional reason for going analogue, as well as all the reissues and second hand stuff. Knowing there is current stuff being released on vinyl would surely attract a very different group of people into the hi-fi buying arena from those hooked on older, more familiar music. Imagine the scenario; people going out and buying new vinyl replay kit so they can listen to their new vinyl releases. Like the '70s, only much better sounding!

Guy Pettigrew

Thanks Guy. I strongly applaud your sentiments, but in my defence the new vinyl releases you mention aren't for everyone. Basically, they're

Oxford Street store it is haphazardly stocked and at their smaller outlets like Queensway, London W2, it is non-existent. This makes purchase of new releases a hit and miss affair unless you purchase from the internet from Stamford Audio (www.stamfordaudio.co.uk), from Diverse Vinyl (www.diversevinyl.com), Amazon or HMV.As you say though, now vinyl is becoming more than a trendy marketing tool a large number of new releases are available on it. And that can only be good news. NK

SINGAPORE FLING

I'm in a quandary - what to do? My amplification is valve based, with self built preamp and power amplifiers. The preamp is Aikido (6SN7) cct with a moving magnet circuit based on the Marantz 5, with valve and chokel



Kits for the Audiophile

WDKEL84 Valve Amplifier Kit

"The quality that can be gleaned from this amp is a fine introduction to the joys of the valve sound" The WDKEL84 features a pair of EL84 valves in Push Pull configuration per channel, providing two channels each 18 Watts into an 8 Ohm load. Available as a 5 input integrated amplifier with ALPS volume control.

WDKEL84 kit £449 WDKEL84 built and tested £599



WD88VA Valve Amplifier Kit

"The result is an amplifier that combines majesty, transparency and rhythmic boogie factor with the ability to swing and sing on all types of music" Often described as a 'sweet sounding' valve, our particular implementation of the KT88 makes sure that it is driven to its ultimate performance. Available as a 35W stereo power amplifier with single input volume control, or as a relay switched integrated with five inputs.

WD88VA kit

£899

WD88VA built and tested £1199



WDHD3S Headphone Valve Amplifier Kit

"WDHD3S is a single-ended design with the power pentode wired up in triode configuration for added purity and is as quiet as a mouse"

A beautifully simple stereo headphone amplifier design using Mullard ECL83 valves. It works directly from any source. The circuit uses twin high specification E/I output transformers that can be switched to drive any headphones between 16 to 300 Ohms,

WDHD3S kit

£349

WDHD3S built and tested £479



WD25A Standmount Speaker Kit

"The one aspect that stands out is the easy ability to resolve instruments and voices ... bass quality and definition is a revelation"

Cabinet kit (pair) £299

The aperiodic enclosure offers the bass clarity and definition of a larger closed box, together with the efficiency and easy amplifier load necessary for users of valve amplifiers. Available with SEAS STD soft dome treble unit, or high performance SEAS Excel treble unit.

> WD25A STD kit (pair) £215 WD25A XL kit (pair) £398



WD25T Floorstanding Speaker Kit

"The WD25T always sounds crisp and taut, but can 'rumble' menacingly giving impressive physicality reminiscent of far larger boxes. Imaging is superb, the midband is also special; it's very open with masses of detail about the condition of the recording"

Cabinet kit (pair) £469

Cunningly arranged as an aperiodic enclosure leading to a lower sealed compartment, the WD25T combines the optimum damping of aperiodic loading with the bass extension of a large closed box. Available with STD soft dome or high performance Excel treble units.

Both the WD25 kits are based around a SEAS 26cm (10") paper cone bass unit with an efficiency of 89dB for 1W. The crossover has been developed for an easy drive 6 - 8 Ohm load making the system ideal for all types of amplifiers.

WD25Tv2 STD kit (pair) £299 WD25Tv2 XL kit (pair) £479



All our kits are complete with pictorial easy-to-follow instructions.

All parts are included - all you need is a screwdriver and soldering iron.

www.world-designs.co.uk Tel: 01832 293320 regulated HT supplies. Power amplifiers are either monoblock 6550 PP affairs with transformer phase split/6N7 driver/ GZ37 valves, or a 6V6 single ended UCC85 driver, EZ81 and choke HT with MOSFET Source follower regulator. I have Monitor Audio GR20 loudspeakers, and the whole lot is fed by a Cyrus CD8 SE PSX-R (a real upgrade - there was an instant difference over my old CD8X which I traded in). The Cyrus CD player brings silver disc real close to the vinyl sound, which has more than anything prompted me to change my cartridge, as I find I like to listen to the new CD player more now than the old one. My turntable is a Technics SL1200 Mk5 with Origin Live silver Tonearm and Ortofon 2M Red cartridge.

There's a big choice of cartridges where I live in Singapore. I go to the Adelphi shopping centre here, which is the place for audiophiles, but each shop says what's best based on his stock! So I'd like your independent advice - do l go for a more expensive Ortofon MM or try a high output MC? I am prepared to pay about £300. What would I gain with a high output MC on my system? I read the reviews and listen in shops but most of them turn the nose up when Technics are mentioned - how could it possibly be any good! So all in all what do you recommend based on experience, I suppose really I'm looking for more insight and something to grip me and draw me into the music.

Anon.

So you're thinking about a dalliance with a high output moving coil then? Well, how to proceed depends on what you're wanting to do with your Technics. As Hi-Fi World readers know all too well, it's a brilliant little deck, but in stock form shall we say its genius is a little disguised. With the standard arm, you're not going to get very far with moving coil cartridges, high or low output. If it was the latter you were contemplating, then we've heard reports of very musical results with the Denon DL103, but this lacks refinement. The high output path with your stock arm is limited to the Dynavector DV-10X5 - this is a gem of a cartridge, brilliantly musical in my opinion and a joy to listen to, but again it's not the most finessed sounding. As such, your only real option long term is to upgrade the tonearm, either to a Rega derivative such as the Michell TecnoArm or Origin Live Silver (both excellent), or a Jelco SA-750D which has a looser, less detailed but more beguilingly musical presentation. Meanwhile, upgrade the platter mat to the SoundDeadSteel Isoplatmat, for under £100 - this works a treat

on the Technics. DP



Audio Technica AT-OC9 - a brilliant affordable MC buy.

ERMM, IT'S ME AGAIN!

Hello team. It's almost been two years since I wrote regarding upgrading options to my main Linn/Naim system. That particular correspondence made Letter of the Month and was entitled 'Relics' in the January 2007 edition of HFW - thank you, that was a very pleasant surprise! Whilst I have not totally followed your advice (mainly due to my not being able to justify the expense) I have taken on board some of your suggestions to very good effect indeed. Noel and David maintained my OL modified RB300 and G1042 should comfortably see off the SME III/Shure M97XE pairing, was it a pure coincidence a review of this cartridge appeared in the very same issue as my letter?

I swapped turntables as suggested but was not convinced the sound was to my liking so I set about making myself a new subchassis for the LP12 and duly fitted the prototype, a constrained layer construction, (though still with the relics on board) but what a night and day difference! The LP12 boogie factor remains and bass was instantly improved, so too was imaging and soundstaging - becoming much wider than with the old pressed steel subchassis.

Around the same time I was taken by your enthusiastic review of the little Usher S520 speakers, so I got hold of a pair for a listen - very nice indeed! These were purchased, suitably installed



Ortofon Kontrapunkt b moving coil cartridge – still a favourite after all these years...

and run in. I then thought okay, now's the time to swap arm/cartridge combos - wow! Now I can hear what Noel and David were alluding too, these really are magical budget fare. I have since fitted an Incognito wired and OL counterweight modded RB250 in place of the RB300 for yet another improvement - but still with the G1042 MM. Thanks for opening my ears! Perhaps I should now look to move into MC territory when the time comes to replace the G1042, what would be your thoughts for a starting point - Denon DL160, AT OC9, Ortofon Rondo series?

John Ruggles

Hi John - good to hear we're helping you make your system sound better. With that in mind, I'd suggest the Audio Technica AT-OC9ML (£399 from www.at-oc9ml.co.uk), which is a brilliant budget buy. Remember that the older (and substantially less musical) OC9 was selling in 1989 for £400 in the UK, and you can see this is a lot of cartridge for the money. I know that Noel's not a huge fan of this particular design as it isn't the most romantic sounding performer, but it has massive detail, finesse, dynamics and musical insight compared to its price rivals. By comparision, the cheaper G1042 sounds prosaic, slow and musically uninvolving, as well as less detailed and cruder too. This isn't to criticise the Goldring - it is still my favourite at the price - but the Audio Technica brings a considerable step up in sound. The bright, spry tonal character of the AT is also an excellent complement to the somewhat warm and woody tonality of the LPI2, so there's another synergy there too. DP

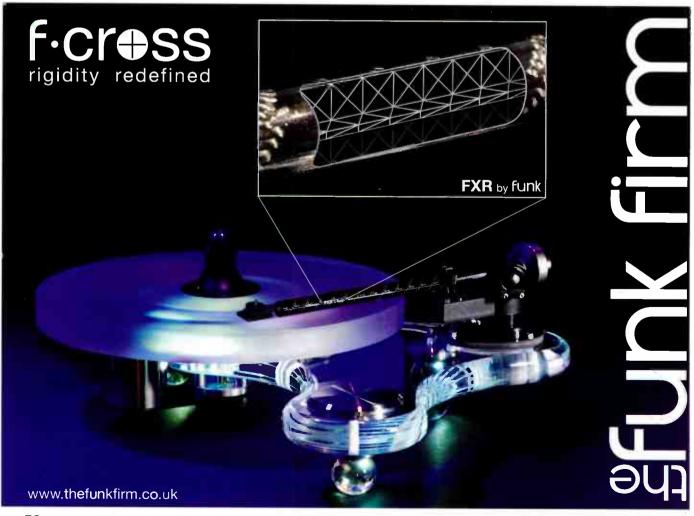
TOP TIP

Regarding the query in the August issue about inspecting a stylus tip, I received a catalogue from Clifford James which includes a digital microscope connecting to a PC via USB-2, on an optional stand, with a magnification range of 20-200 times. Although I haven't tried it, it would seem to be an ideal solution to the reader's problem. Hope this helps!

Gerry

Possibly! I have found from my experiments in the past that with the level of magnification required to see the small working area of a stylus tip, depth of field is minimal, so the area you want to see must be in the plane of view; if it isn't then it will be blurred. Achieving this and holding the cartridge steady demands a manipulater, and it's a fiddly task. You also needs masses of intense light focussed on the tip, from a dedicated source. **NK**





THREE'S COMPANY

Could you advise me on my system, which comprises a Michell GyroDec SE HR/Tecnoarm/Rega Elys 2 turntable, Naim Stageline phono stage, Naim CDX2 CD player, Naim 282 preamp, Naim 150x power amp and Wilson Benesch Arc loudspeakers? I'm interested in the best MM cartridge for my Gyro SE that's not silly money (ideally around £300 - but will spend more if something you recommend). Also, if I upgraded to a Naim Superline to replace my Stageline, could you recommend three MC cartridges for my Gyro - one that's the best value, one that's the best in middle price range and then the very best. I listen to all types of music rock, pop, soul, blues mainly on vinyl (only classical is not my bag... yet). Stuart

I'd go for a Goldring G1042 (£130) to replace your Rega, but ideally you want a good moving coil in a system such as yours. Best value is the Audio Technica AT-OC9ML (£399), best middle range one has to be Ortofon Kontrapunkt b (£750) and best ever? Doh – don't ask me questions like that – it's like asking what's the best restaurant in the world! We all like different flavours, so it's impossible to say. Personally I love the top Lyras and van den Huls, but there are so many more. **DP**

DIGITAL UNDERGROUND

Reference is made in a reply to a letter, as has been the case in several items over recent months, to increasing broadband speeds and Virgin's much-trumpeted 50Mbps - and thus how easy it is/will become to download high res formats. Can I inject a touch of reality here? Some of us still cannot get landline broadband, despite the claims of phone companies and ISPs, because BT refuses to up-date exchanges, even in semi-rural areas like mine, all of twenty miles from Newcastle-upon-Tyne.

The likes of Virgin are a non-starter, as their broadband is cable only and cable companies don't know that areas like mine exist. Thus, we still rely on flaky dial-up or, when the wind is in the right direction, mobile broadband, but, because network coverage is so patchy and inconsistent in Northumberland, this could not reasonably be used for highres music downloads. And as to Virgin's claims of 50Mbps: this will only be available in select areas of London. The rest of us - in our dreams...

Methinks you paint an excessively rosy and positive picture of the situation, whereas the reality is that there is a sizeable digital underclass, who are and have been consistently denied access to what you seem to take for granted.



Modern broadband delivery system - postman delivering Blu-ray and LP.

But you are not alone in painting this rosy picture: all the ISPs and 'phone companies say landline broadband is available here, because their maps say so. Not true: I've tried and it doesn't work, as there is too much interference on the phone lines (I was told this by a BT technician). Everyone seems to take at face value the telecommunications industry's PR flummery, without checking it out: I expect better from Hi-Fi World with your record (excuse the pun) of investigating and measuring all thmgs hi-fi.

And finally - history and geography lessons are required for Master Keywood! Regarding the Robson Greystoke review in February's Hi-Fi World, Robson are based in Penrith, which is in Cumbria, but to the East of the Lake District; this was never part of the old Saxon kingdom of Northumbria, let alone the current county of Northumberland, which is a bit further to the East. See me after school! Anyway, the rest of the mag was as enjoyable as ever – my quick toady point!

Dave Dallard

I admit to being a London bound ignoramus, fearful of latitudes higher than 51° 39' North (Watford!). Watched a Top Gear programme the other day showing Clarkson and May racing North in a Toyota 4x4, negotiating an ice field and deep snow, on their way to Carlisle I guess. Territory like that is definitely beyond me, because my scooter would get bogged down. Thus explaining my poor knowledge of such places, so thanks for your update of life above 52° North!

Good point about fibre cable and copper phone line performance and this is a problem even close to civilisation - London! Even if you have a fibre optic cable and an advertised 25Mbps available as I do, the situation

still isn't so clear. My cable modem is a 5 year old relic, yet Virgin say it is still fast enough and doesn't need replacement, something I doubt. An internet speedometer registers just 8Mbps from my £25/month service, about the same speed as ADSL that I can get for £10 or so, but Virgin say these things read too low and misrepresent their service. Hmm... Why am I sceptical?

Wry regional jest apart though, your letter and Roger West's make a good point; high speed broadband isn't universally available in the UK, in spite of all the hype. That surely means 'old' mechanical delivery systems, such as LP and Blu-ray, delivered by the Postie on a bike perhaps, still have a place in the modern world, a comforting thought.

Hi Dave – my apologies – I shouldn't have let that geohistorical howler past me. My parents live not far away in the Lake District, near Keswick. I can only hope my mother isn't reading this or it's early bed and no treats for me next time I go up and visit! **DP**

COMPLEX CONVERSION

This question is causing much discussion in the office; can you help answer it please? There seem to be two basic types of phono stage: valve and solid state. And for both we use a low output MC cartridge to get the best sound.

If I look at the solid state (e.g. Naim Superline) then there are plugs that fit in the back to match the capacitance and resistance values of the cartridge to the phono-stage. Other solid states seem to come either factory configured or with dip-switches, but the purpose is the same – to match the capacitance and resistance values. But if I look at valve phonostages (e.g. PhoNote) then

the matching is done by a simple stepup transformer which feeds into an ordinary 47K ohm MM stage – there is no mention of matching capacitance or resistance values.

Therefore why don't we have a step-up transformer on the front of a solid-state phono stage, or have capacitance and resistance matching dip-switches on the front of a valve phonostage (avoiding the need for expensive transformers).

Zaphinkas

You've got this a little muddled. Only the input circuit of Moving Magnet (MM) cartridge preamplifiers possess adjustable capacitance, because only the high generator impedance of MMs responds usefully to capacitance change. It matters not whether amplification is subsequently carried out by valves (tubes) or transistors. Input resistance is always 47k too. So, to reiterate, variable capacitance applies only to MM phono stage inputs.

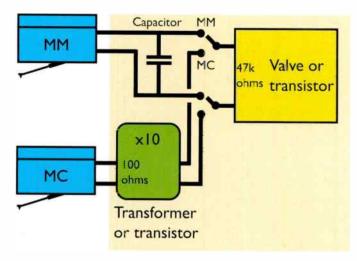
Moving coil cartridges have little output and must feed a very low noise amplifier if hiss is to be inaudible. Modern transistors are extremely quiet and stable when run from a low impedance source like an MC cartridge, so solid-state preamps don't need input transformers and the Naim Stageline doesn't use them. Whilst Moving Magnet cartridges are always matched to a 47k load, Moving Coils can in theory feed any resistance, from 47k down to about 10 Ohms, but 100 Ohms is the usual recommendation. Varying capacitance has no effect, but lowering resistance to 10 Ohms or less will damp the generator.

Valves are noisier than transistors and are a borderline case with MC cartridges. A way around this is to use a step up transformer. In practice it demands a very good transformer made from quality materials, but these days such things exist and in conjunction with a following amplifying valve result in a noise level lower than solid-state. What this means is that you get super low noise, plus the valve sound, a symbiotic combination if ever there was one, my ears tell me. That's why you will find input transformers used in valve phono stages, but not in solid-state stages. Valves both need them, but benefit by them.

I hope this is a reasonably clear and succinct explanation of the peculiarities of MM and MC phono stages. **NK**

DIGITAL ANSWERS

I have just been enjoying reading November's edition - especially the



Moving magnet cartridges feed a 47k load and altering parallel capacitance changes frequency response. Moving coils feed a transformer with valve phono stages, to avoid hiss - expensive and unnecessary with transistors, because they are quieter.

review of the Linn Sneaky DS. I'm actually writing to ask you if you can clarify a couple of things for me? The first was in the review for the Cambridge DAC. Despite it upsampling everything to 192kHz it still seemed to have steep filters at 20kHz. Now I thought that the main (only?) benefit of frequency upsampling was that: [1] a much gentler filter could be used from 20kHz, reducing ringing, echo, general phase anomalies etc., or [2] a steep filter could be used - in this case at 96kHz - but its phase problems etc. would be well away from the audible band, or [3] no filter could be used, but the digital rubbish would, again, be well away from the audible band. Could you please explain how upsampling helps the sound in the Cambridge DAC's case, please?

Also, could you explain how bit upsampling (in this case from 16 to 24) helps? I can see that if the original recording is made at a higher bit level it should reduce low level distortion and improve the SIN ratio - but doesn't upsampling just carry the distortion & noise up with it?

The second thing was in the review of the Chord DAC. You stated that to avoid digital clip on the Chord, the volume on the PC had to be reduced (incidentally, I understand that this will usually muck up the sound, though I have read on the internet that itunes is an exception) - but if a, say, 16/44 capable DAC is being passed an unclipped 16/44 signal, why does it clip?

Incidentally, there were a couple of points I felt you should have mentioned in your reviews. First, the Cambridge DAC will only accept I obit files via USB (source: Cambridge's own website) and so is useless for anyone going to computer music for higher quality than CD (and if you're going for ease of use forget it).

Second, the Benchmark DAC-1 Pre does work at up to 192kHz sampling

rates, but according to various sources on the internet, all Benchmark DACs resample everything to 102kHz, making the higher sampling rates useless.

Nick Pledger

Hi Nick - we asked Cambridge to reply to your questions about their DAC...

Point 1: The DACMagic still seems to cut-off steeply at 20kHz:

This is only true with 44.1kHz inputs. The cut-off of the digital filter actually scales with the incoming sample rate. As I'm sure you know, for 44.1 the audio content during the recording process (and/or decimation process at mastering) is of course band limited to 20kHz (due to the Nyquist limit). Thus even if it is then upsampled to 192kHz at playback, the source content remains limited to about 20kHz and aliasing happens above. It's the incoming sample rate that defines the digital filter you need to remove aliasing due to the incoming audio. Hence with a 44.1k input we implement a filter at about 20kHz.

For 96kHz input the source material has frequency content up to about 40kHz and you would see that the digital filter cut-off of the DACMagic moves to about 40kHz. One benefit of digital domain filters is that by use of FIR filters the phase and frequency domain effects of the filter are not locked together as they are with analogue filters so actually it's possible to generate very fast slope filters without horrendous phase shifts happening.

Point 2: Use/benefit of upsampling:

The main use of upsampling is effectively to reduce the constraints



Cambridge Audio DACMagic – the designer speaks!

on the output (reconstruction) filter. Unlike Point I above you choose the output filter dependant on the sample rate of the outgoing audio. This filter is an analogue filter which is needed to remove all alias images which will occur around multiples of that sampling frequency. For the 44.1 kHz case without upsampling, these images would appear at around 44.1 kHz multiples. By doing upsampling in the digital domain, say to 192kHz, the alias images would only appear around multiples of 192kHz. Thus the analogue filtering can be made more gentle as the aliases around 48, 96 and 144kHz are removed by digital filtering in the upsampling process. Allowing for a more gentle analog reconstruction has the benefit that we were able to use a low order Linear Phase analog filter with constant group delay.

Actually, we chose to use upsampling in the DACMagic for two other reasons. Firstly, we could do all the digital filtering in our own DSP (the Wolfson DACs are run in DSP mode with their internal filters disabled). This allows us to perform a better upsampling FIR than the standard one included in the DAC (we have better out of band attenuation, plus of course the choice of filters).

Secondly, using technology from Anagram Technologies we could do it asynchronously which means that the clock by which the DAC is driven and the DSP uses to choose/generate the samples is actually local and not derived from the input stream (other than being locked by a digital PLL). This provides very strong Jitter

reduction (to almost below the level of measurement at 24bits).

This is quite a complicated area. The new samples are actually calculated and chosen according to a time domain model; see Anagram Technologies website for full details of how the ATF/Q5 upsampling process works.

Point 3: Bit upsampling (16bits to 24bits).

As the operation of upsampling and filtering requires many multiply/ add operations, the result of processing a 16bit input stream would result in rounding errors which would end up as distortion (or have to be dithered away as noise). By upsampling to 24bits, the signal description is extended from 16bits to 24bits which allows a more accurate representation of the in-between states than calculated by the maths of the filters.

Of course, it's only the representation of the interpolated samples that has 24bit digital word resolution. In terms of information theory, this interpolated signal does not contain more information than the original. Thus, in terms of information theory, the up-ampled 24bit/192kHz data stream contains the same amount of information as the original 16bit/44.1kHz stream. It only has more redundancy of the same information.

The USB interface IC we use (by C-Media) only supports 16bit 44.1/48k USB audio. We haven't been able to find a low cost standard USB two-channel audio profile interface IC that can do 24bits (and 96k). The advantage of our IC is that being a standard two-channel USB (i.e. headphones etc. profile) it is natively (and driverlessly) supported in Windows XP/Vista, the Mac OSes and most Linux builds. Most USB enabled hi-fi DACs you'll find only support 16bit 44.1/48k for this reason.

As an aside, the pro audio guys who need to support multi-channels, ADAT etc. tend to use USB enabled microprocessors running their own software to do the USB stack, etc. This can allow 24bit audio and

other features but does add quite a bit of cost and complexity, and generally requires a dedicated driver to be loaded to the PC. This was outside our budget for the DACMagic (as we were targeting a £200 recommended retail price).

Pro audio gear often then uses a nasty CODEC DAC/ADC combination that has resolution of only about 16 bits anyway (but let's not get into that!) but for them the 24/48 or 96k tick-box is very important as it's the native resolution of most DAWs (Digital Audio Workstations).

Of course, for DACMagic users wishing to use 24/96 files on a network, etc., the solution is just to use the 24/96 S/PDIF output of most soundcards or network music clients and connect that to the DACMagic.

I hope I've managed to answer your questions sufficiently. It's not a well known area generally, most people don't ask! As you clearly realise, it's certainly not as simple as increasing the sample rate or the bit depth and 'bobs-your-uncle' you've got more resolution; the benefits are very real but somewhat more subtle than that!

MATTHEW BRAMBLE TECHNICAL DIRECTOR AUDIO PARTNERSHIP PLC

CREATIVE THINKING

Can you help me? My two and a half year old Soundworks Radio CD player will not produce any sound whatsoever from the speakers and I am now only able to listen to it using headphones. The problem developed quite suddenly; I turned it on one day to find it no longer worked. Since then I have looked at several forums online and found that others have had the same problem. This, and the equipment accepting two CDs and then jamming appear to be the main problems people have experienced with this equipment!

Feeling it was not due to misuse or fair wear and tear, I e-mailed Creative Labs in the hope that they would offer some help in solving the problem or a repair, (I realised that as the equipment was six months out of guarantee there may be a charge for this).

Disappointingly, they offered no help



When a Soundworks 740 falls mute, check fuses or connect the headphone output to an amplifier. whatsoever. As the equipment is out of guarantee they didn't want to know and suggested that I go on line to their site and visit their saver centre. Here I found a reconditioned Radio CD Model 745 for sale at £169.99. But, in view of their poor back-up and being retired, I do not think I shall contemplate buying anything from Creative Labs again.

It would appear that I am left with an expensive but useless piece of equipment and will have to write the cost off to experience. Being loathe to just bin it without one last attempt and, in desperation, I wonder if you are able to suggest howlif I may get it repaired. hopefully,

Irlene Kitson

At around £200, it isn't realistic to repair this unit, unless something simple has happened, like a fuse in the power amp section or even the loudspeaker line, has blown.

model) is fine for normal TV viewing, but when I put a DVD on through either player, I have to raise the volume from the usual '18' level for TV viewing, to '24' or higher on the TVs volume scale to approach the same listening level as terrestrial TV sound.

However, although dialogue requires the volume to be at this level to be intelligible, when sound effects or music are played in a film, the volume then seems to be far too high! Sudden bursts of music or sound effects are so loud that they make me jump, so I turn the volume down, but when the film returns to dialogue, the level of this is too low. This is very frustrating and annoying. It occurs on all DVDs. I have tried alternative sound settings on the DVD players, to no avail. As they are connected to the TV and/or my (stereo) hi-fi system, I usually have sound set to 2.1 in the DVD player menus. Setting sound to 'surround' seems to make little

and forgot to tell it that I had no Centre loudspeaker. Dialogue in the Centre channel is then being sent to a nonexistent Centre loudspeaker and is lost. What you end up hearing is bleed into the Left and Right channels. I sat there puzzled for a few minutes wondering why I hadn't noticed before that Sharon den Adel's voice was very back in the mix! Go into the loudspeaker settings panel, select Centre and usually something like None and - presto! - all will be cured. **NK**

NOISE ANNOYS

I have just bought the Arcam MS250 music server and am very pleased with the sound quality through my Naim amps and Quad ESL-63s but find the noise of the cooling fan and/or hard disk quite obtrusive. Since you tested the Naim Hard Disk server recently, are the operational noise from the units comparable?

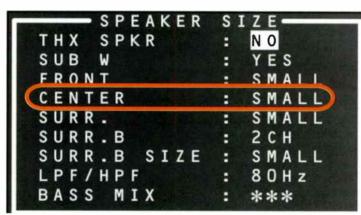
Also if you could give an opinion on the following problem? I have a DAB 300 tuner from Cambridge (secondary tuner, I have a Naim NAT 01 for FM) which feeds into my Naim 32.5 preamp but the output from the tuner is so high that the volume control on my preamp is barely 'on' to achieve a reasonable listening level. Does this limitation of the preamplifier volume control mean that the amp is overwhelmed and I would achieve better sound quality if I could attenuate the input via special cables? Or is the input voltage to a pre-amp immaterial to the sound quality? Richard French.

Hi Richard - I have found both Naim and Arcam units to be fairly quiet, but you mustn't expect complete silence as effectively these are miniature PCs running, albeit with heavily silenced components. The main thing to do is to check another sample of the MS250 at your dealer; if you perceive it to be quieter than yours then ask them to send yours back to Arcam for checking. If it is representative, try to mount it sympathetically, on vibration absorbing Sorbothane feeting, outside of any echo-prone equipment rack and not near a rear wall or corner.

As long as there is no audible distorion (i.e. harshness) there's no problem with your Cambridge Audio DAB300, aside from the annoyance of the level mismatch. Still, you might like to try Russ Andrews inline attenuators — click on www.russandrews.com. **DP**

NEEDLE TIME

I have long had an interest in hi-fi and have recently decided to explore the fascinating world of vinyl. Initially Pro-



If you don't use a Centre loudspeaker, remember to tell the receiver by choosing NO, or you will end up with no dialogue and weak vocals.

A quick check internally would be worthwhile and you may be able to get someone qualified to do this. Otherwise, I suggest you try and pick up a second hand amplifier and 'speakers from eBay, a local charity or electrical shop, or recycling centre. They should cost no more than £50. Connect the headphone output of the Soundworks to the Aux input of the amplifier. You will need a headphone jack to phono plug lead for this, available from Maplin. This will allow you to play CD and radio via the amplifier. It also allows you to add a separate CD player and tuner at a later date, also available for little from eBay nowadays. NK

MISSING 'SPEAKER

I wonder if your experts can shed any light on an irritating problem I experience when viewing DVDs? I have two DVD players, a Sony DVP-NS700 DVD/SACD player and a Denon DVD I 920 universal player. The problem is one of sound volume and quality - the sound from the TV (a Sharp 32" LCD difference. Sound quality is much better through the hi-fi system of course, but the relative levels problem persists. I do not have a home cinema system, nor do I want one (two speakers are enough).

Is this related to the way that sound on DVDs is recorded? Is dialogue intended to be sent to a centre channel that I don't have? Is there some setting that I can change that will improve things? In some ways this isn't a 'hi-fi' problem, but it is a 'reproduction of sound' quality problem. The Sony DVD player is connected to the TV by Scart, the Denon by HDMI. I can also connect the stereo sound outputs of either player to my hi-fi system, but the problem is the same. My system, for what it's worth in this case, is Conrad Johnson PVIOA/ MV55 feeding Mission 752 Freedom speakers, connected by Kimber 4PR cable. But this appears to be a DVD player sound problem unrelated to my hi-fi system.

Rod Theobald.

Hi Rod. I suffered this the other day when I had to reset a receiver

Ject have taken my money: an RPM 4 (Graham Slee Gram Amp 2 SE) and the intro RPM I Genie (Cambridge Audio 540P). Could you recommend suitable cartridge upgrades for these decks - I am presuming that MC would be a nonstarter for the RPM I? How long would one expect a cartridge to last and what would be the symptoms when worn out?

Any plans for a comparative review of record cleaning machines? I own a basic Nitty Gritty (manual record rotation model) which produces excellent results and is invaluable for restoring charity shop bargains to playable condition (the colour of the water when drained is testament to how much crud can build up in a record's grooves!). When researching the question originally I came across machines from Keith Monks, VPI, Oki Noki, Nitty Gritty and of course the Moth RCM. Perhaps a more general article on vinyl care, with comment on manual cleaning methods (LAST, Disc Doctor, Knosti Disco Anti-Stat) would also be of interest?

Thanks for the heads-up about Classic Records new Clarity pressings (just being launched as I write).

One final request: could you include the cabinet resonance decay waterfall measurement graph when reviewing loudspeakers (Hi-Fi News and Stereophile do these measurements)?

Anon

I'd counsel the Goldring G1040 as the top stop for the Genie – anything more is pushing it, and an MC is just silly. If you've got this much money to spend, why not just buy a Rega P3-24? Expect a good cartridge to last 1,000 hours or so, although this totally depends on how you treat the stylus and the cleanliness of the records you play. You'll know it's on the way out when vocals and cymbals start to sound sandpapery, especially on loud passages.

We periodically do record care articles – so it looks like it's time

to do another! Watch this space. Likewise, we have done various reviews of the record cleaners you mention; ultimately the Keith Monks is the best, and if you can't afford one then find a record shop or library that has one and will clean discs at around £1 a pop. This done, keep 'em clean! **DP**

We measure short term 10mS and long term 200mS decay spectra, as well as swept distortion, but do not publish the results due to lack of room. The frequency response and impedance graphs are more useful we feel. NK

TUBULAR BELLE?

I am contemplating the investment of a valve phono stage. My system consists of the following chain: Denon DL304, Michell TecnoArm, Michell Orbe SE (DC), Tom Evans Microgroove, Vincent SA-TI, Vincent SP-T100, QED Silver Anniversary and Vienna Acoustics Beethoven Baby Grand.

The phono stages I have my eye on are the MiniMax, the Icon Audio PS3 and the World Design Phono3. The pickup may at some point be replaced by either a Shelter 7000 or an Ortofon Kontrapunkt b (probably the Ortofon). I am Danish and have never owned a Danish pickup — embarrassing! From your magazine I understand that you have extensive experience with all three mentioned phono stages. Which one would you recommend for my system, and (more importantly) can you describe the sonic differences between them (and the microgroove).

As I am living in Denmark, I can't really test any of them before purchase. Suggestions for interconnects and speaker cables are very welcome. I mainly listen to classical (a lot of Opera) and jazz, so timing, soundstage and vocal representation are important barameters.

Jesper Bevensee Jensen

In a nutshell, the Eastern Electric Minimax phono stage sounds light, quite bright but superbly clear and airy. It is pinsharp and detailed too, nicely built and finished and easy to integrate into a system. The new lcon Audio PS3 is a step up on the Minimax in that it possesses a valve (tube) regulated power supply, making it silkier and superbly atmospheric, putting music into a space with a dark, deep background.

The World Design Phono3 can be tuned up with special components to give a broader palette of tonal colour than you'll get from any commercial item, making it unique. What you get is what you decide you want, which is why DIY is the final option, but of course you need to wield a soldering iron, experiment and use the Forum to talk to like minded souls who have experience.

We generally recommend the Ortofon Kontrapunkt b as the least expensive (can't call it cheap!) moving coil that fully conveys what the breed can do. As a Dane you can be proud of Ortofon's engineering. Hope this helps. **NK**



Icon Audio PS3 – our fave affordable high end tube phono stage



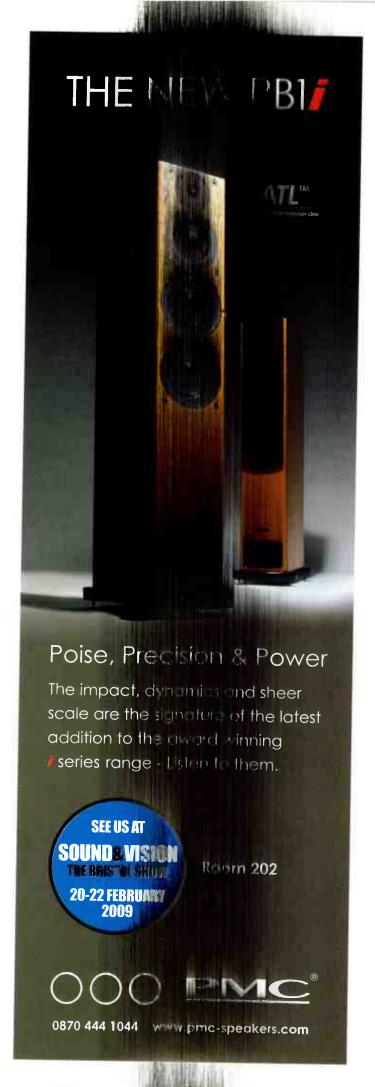
The listening experience at house of linn is so good demonstrations last for hours.... Discover how we make music sound real in your home.

Independently owned and operated by former Linn staff to give you the best Linn experience from **Komri to Classik**.

Call or email for appointment or advice. Visit our website for news and events.

Demonstration, Sales, Installation, Upgrades, Aftercare for all Linn Hi-Fi Components & Systems.

Owned and Run by Former Linn Staff
www.houseoflinn.com
info@houseoflinn.com
+44 (0)161 766 4837





SALE LIST

Huge Reductions on new & used Linn Equipment

Huge Reductions on	new & u	ised Linn	Equipme	nt
Product	Finish	List Price	Condition	Sale Price
Majik 140 (Floor-Standing Speakers)		£1,475.00		£795.00
Unidisc 2.1		£4,730.00		£1,995.00
C6100 6 channel power amp (aktiv boards optio		£2,420.00	D excellent	£1,295.00
Classik Music	Black	£995.00		£547.25
Classik Music (new style) Katan	Silver	£1,250.00		
ratali	Maple	£750.00	cosmetic dar	
Katan	Dlade	(70.00	to tweeter gr	
Trikan	Black	£750.00	new boxed	
Sizmik 120 sub woofer	Maple cherry	£570.00 £1,200.00	dem good	
Komponent 120 sub woofer	Grey	£575.00	good,some ma	
Komponent 104 (pair)	Graphite		D good	£295.00 £235.00
Akurate 242	Rosenut	£6,040.00	D. Good some	
				nets £2,999.00
Complete set of 10 mono 242 Aktiv Cards		£950.00		£570.00
ARCAM				
CD36	Silver	£1,450.00	D v. good	£749.00
A70 amp		ver £530.00	D v. good	£299.00
TST FM tuner	Silver		D v. good	£69.00
T61 FM tuner	Siver		D v. good	£79.00
MS250 400gb music server	Black	£3,000.00	D as new	£1,495.00
ARCAM AV				
AVR300	black	£1,300.00	D.,	(200,00
Arcam FMJ DV139 upscaling dvd/cd	Black		D v. good	£395.00
Arcam AVR 280	Silver	£1,850.00 £1,250.00	D & new boxe	
Arcam FMJ AVP9 Processor	black	£3,750.00	D good D good	£395.00 £1,895.00
Arcam FMJ P7 power amp	black	£2,900.00	D good	£1,795.00
Arcam AVP700 processor	silver	£1,450.00	D v good	£895.00
Arcam P1000 7 channel amp	silver	£1,700.00	D v good	£995.00
Arcam DV135 dvd/cd	silver	£900.00	D v good	£295.00
CYRUS				
CD 8X (silver)	C1	(1,000,00		
CD XT (Sliver)	Silver Silver	£1,000.00	D v.good	£499.00
Discmaster 8.(silver)	Silver	£800.00	D v.good D v.good	£399.00 £399.00
, ,			v.good	L3//.00
AV COMPONENTS & MISCEI				
Audio Research SP16 pre amp	Silver	£2,249.00	D v.good	£1,395.00
Audio Research VS 55 valve power amp	Silver	£2,499.00	D good	
Krell Showcase Processor	CI	(1.105.00	some marks	£1,595.00
Krell Showcase 5 channel power amp	Silver	£4,495.00	D good	£2,495.00
Krell Showcase DVD	Silver ·	£4,999.00	D good	£2,995.00
Krell KAV 400Xi int amp	Silver	£3,698.00	D good	£1,995.00
Martin Logan Summit electrostatic speakers	cherry	£2,498.00 £9,500.00	D good	£1,595.00
Sam Demine Oreciostatic speakers	cherry	17,300.00	D v.good	£5,895.00
Denon AVR2106 Receiver	Silver	£450.00	D. Good	£200.00
Denon AVR2807 Receiver	Silver	£799.00	D. Good	£479.00
Denon AVR 2106 Reciever	Silver	£450.00	D. Good	£259.00
Denon S-301 AV system	Silver	£1,250.00	new boxed	£789.00
Denon S-101 AV system	Silver	£850.00	D. Good	£495.00
Denon DVD 2910 dvd with hdmi/scaling	black	£600.00	D. Good	£249.00
Pioneer LXO1 AV system inc spks, hd recorder	black	£1,699.00	D. vgc	
Pioneer LX 70 Blu-Ray		00 100)	almost unused	£995.00
Pioneer DV868 DV hdmi		£995.00	D. Good	£395.00
Acoustic Energy Aelite 3 speakers	charry	£795.00	new boxed	£295.00
5 speakers	cherry	£749.00	dem good, some marks	£299.00
Acoustic Energy AE120 floor standing speakers	black	£450.00		
Acoustic AE73DS		£350.00	dem good new boxed	£150.00 £229.00
Monitor Audio S5 light oak	light oak	£450.00	dem good	£200.00
Missian 773 ft	light oak		dem good	
N' TO DO W			some marks	£150.00
	blk/Lwood (dem good	£100.00	
D = EX Demo				
HiFi, Multi-Room and Home Cinema	a with fo	II Design	& Planning	Service
161 OLD BROMPTON R				, , , ,

161 OLD BROMPTON ROAD LONDON SW5 OLJ TEL: 020- 7244 7750/59 FAX: 020 - 7370 0192

www.thelisteningrooms.com

E-mail: john@thelisteningrooms.com

Mon-Sat 10-6pm



PHILIPS MCBOON E439

Philips was well ahead of the game when it released its Streamium range of home audio products that can connect to the Internet a few years ago. And with its new MCi500H Streamium system, Philips could also be giving us a glimpse of what features could become commonplace on micro systems over the next few years, because along with the CD and an FM/AM tuner, the system sports a 160GB hard drive, Internet radio, network connectivity via Wi-Fi or Ethernet, audio streaming via UPnP music servers, a USB socket for direct connection to an MP3 player, and up to five additional 'Wi-Fi stations' can be added in different rooms.

The MCi500H has a nice modern look too, with the standout feature being the superb large, high-resolution colour display. The white and blue text was perfectly rendered - big and bright enough to be easily read from a distance. When playing tracks on the hard drive or from CD, the artist, album and title were all shown, along with the album art in full colour and a progress bar at the bottom. It was also easy to read the five lines of text as lists scrolled, although the scrolling itself was a little slow. Navigation through the menus was intuitive via the remote.

Setting the system up was relatively straightforward, and entering setup text was easy due to the remote control's keypad working in the same way as a mobile phone's does when writing a text message. This feature also came in very handy when trying to locate tracks on the hard drive, because entering two or

three letters into the 'search' function via the remote control typically located the track, artist or album I was looking for almost instantaneously.

On the 'Club Philips' website I was able to enter my favourite Internet radio stations so that they appeared straightaway in the Favourites menu on the device itself. Rather than only using one Internet radio database, Philips actually provides the vTuner and Live 365 station databases, plus a couple of small ones as well, although I preferred the vTuner database, which is the one used by many Wi-Fi Internet radios.

The system supported the MP3, WMA and (iTunes-encoded, non-DRM) AAC audio formats, and playlist files could be generated using the supplied software or tracks could be added to playlists via the remote. It's a bit disappointing that there's no support for lossless audio such as FLAC though, especially considering that the 160GB hard drive can hold a huge amount of audio. A more serious drawback was that the WMA Internet radio streams for some of the UK's biggest radio stations wouldn't play at all. The streams were all working okay on other Wi-Fi radios and on my computer, so this must have been a device-specific problem. Other than that, performance when playing Internet radio stations was good. Sadly there was only a relatively narrow range of podcasts available, and BBC iPlayer radio programmes weren't supported

Audio tracks could be loaded onto the system's hard drive from

a computer via Wi-Fl or Ethernsi. by ripping the tracks directly from CD (ripped tracks are automatical tagged using information from Gracenote song database), prib reading audio files from a GP-P/V disc. The Wireless Audio Device Manager PC software (there's no mention of Mac or Linux support that was used to transfer audio from the PC sometimes wasn't able to 'find' the micro system, I o the micro system failed to com Windows Media Player's LF IP us server at all as well, But there we e no problems with playing tracks from an MP3 player via the USB port, har with playing audio via the auxiliary phono connectors. FM reception quality was very good.

When playing CDs and high bit rate MP3 tracks, the Philips delivered a bright and precise but somewhat clinical sound. Even after altering the bass and treble settings - which managed to give some much-needed weight - the mid and top-end til sounded too thin for my liking, and vocals were a little raspy. The system faired much better when playing both FM and Internet radio stations though. The system's bright sound tended to temper the dynamic range compression that's typically in loy d by radio stations to make them sound louder, and the combination was very pleasant to listen to The Philips MCi500H has an impressively modern feature list, but unfortunately its connectivity problems let it down and the sound quality could been better, too.

[Contact. +44(0)207 949 0069, www.consumer.philips.com]



Single File

This year is the 60th anniversary of the launch of the very first 7" single. Paul Rigby traces its history and asks if there's a future for the venerable vinyl format...

he seven inch single is an icon. By its very nature, it has always caught the zeit-geist, reflecting what is happening on the streets (The Sex Pistols' call for anarchy), it has proclaimed cultural revolutions (Bill Haley reaching out to the teenager), it has triggered a modern renaissance (The Beatles' shocking the world with long hair) and it has indulged the public whimsy (Benny Hill and his tales of battling milkmen).

Yet the black stuff originally wasn't - the very first 7" single, via RCA and the country and western singer, Eddy Arnold, actually appeared on green vinyl. Not because RCA wished to be daring in its presentation but because the label had ideas of colour-coding musical genres: yellow vinyl for children's releases, red for classical and so on.

Such restrictions didn't last long however, especially when the chaos that was the rock'n'roll scene broke in the mid-fifties. Sales of the format began to rise as Roy Matthews,

who used to run EMI's vinyl pressing plant at Hayes, in London, explained,"In fact, in the sixties and seventies, one of our staff would listen to Top of the Pops. He would then telephone the factory and tell us if there was a new No.1. We would then turn over

the entire factory to produce that single, ramping up production in anticipation, working twenty-four hours. We had to be quick because, if we didn't get the records in the shops in a couple of days there would be another one coming along soon after!"

Matthews stayed with the plant after EMI

with the plant after EMI sold the business. The factory is still there, still produces vinyl - including 7" singles - but under the name of Portal Space Records (www. portalspacerecords.com), although the outfit is soon to change its name to that of its parent company, Vinyl Factory. Once created, however, the 7" single takes on an almost mythical aura. As boss of the equally legendary indie label, Static Caravan (www. staticcaravan.org), Geoff Dolman, explained, the 7" might be ephemeral but, "with its art, inserts and coloured vinyl, it feels like someone's touched it, loved it and passed it to you and not just posted it onto a website. It's a more personal format. Similarly, compare a 'commercial' EMI label single with a 'limited' Sub Pop label single. You can recognise a Sub Pop single from the other side of the shop. It also says that this Sub Pop single comes from someone who cares a bit more. There's more mystery, it's a voyage of discovery. You're buying into the ethos of the label, a culture. You don't get that with CD and MP3."

Which is all well and good, but sales for the 7" over 2008 have dropped dramatically. After enjoying peaks of over one million since



2005, 7" sales fell to half a million, according to the BPI. These results don't tell all the story, however. Firstly, the figures only reflect sales from the High Street. So independent, gig-only and Internet sales are not included. The principle problem however, is not so much a backlash against the 7" format per se but the horrific number of independent record store closures during the past year. The sad demise of London's Sister Ray during October 2008 being a prime example. The 7" is inextricably linked to this struggling independent sector...

All is not doom and gloom however, because High Street entrepreneurs are finding new ways to promote and sell physical records. London-based Pure Groove (www.puregroove.co.uk) opened in July 2008, featuring a centrallysituated stage to host in-store band gigs, limited edition clothing and a new bar/cafe whilst the records - restricted to 100 titles - are fixed to the walls. Record bins are out. In fact, all of the 7"s sold in the shop are exclusive to the shop itself. Pure Groove invests in new talent and then sells their singles over the counter.

Partner Tarik Nashnash explained





that his company puts a lot of effort into the creation of each 7". "Each single has its own character. Either it will be numbered or as with the band, The Shoes, for example, uniquely designed. For them, we inserted a Polaroid into every clear sleeve. Each Polaroid had a picture of a different pair of shoes - often attached to well known people. The owners of each pair included people like Thierry Henry and Ken Livingston. So we had customers emailing saying they'd like to buy the record but could they have the one with this or that person's shoes? We hope to appeal to people who play the music and for those who, we know, will never open the packet." Hence, we are now also seeing the 7" single rise as a style icon.

The 7" single does present us with a dichotomy, however. Why, when the world has been changed by the download phenomenon, when, if you know where to look, you can grab any piece of music you want off the Internet and when CD sales have fallen through the floor, does the 7" still exist? Because teenagers are more discerning in their choice. They don't see the CD as being of value. Younger people tend to know exactly where they can pick up music for free. So they can download it, put it on a CD or iPod, maybe two months ahead of the official release. "Then they may well have listened to that and be totally fed up with it by the time the actual CD release comes out," said Sean Bidder from the vinyl label, Vinyl Factory (www. vinylfactory.co.uk). "The inclination to then go out and buy the CD doesn't seem to be great. However, the vinyl does offer something different. It's tactile, offers a different sound but it's something they want to keep. It's also a badge, a form of identification. It can also be used to form a collection. They're engaging, not just with the music, but also with the band itself. Something you can't do with a download.

Vinyl Factory is looking to exploit the format very soon. The idea is to choose a new band, provide a 7" EP box set, including a new EP

that hasn't been released yet plus the addition of a ticket to a 500 capacity gig, "...you only get the ticket if you buy the box set. Again, the idea is to engage with the audience giving them value for money plus something which

is special and bespoke," added Bidder.

Despite the middling sales figures, the future of the 7" still looks bright. This venerable physical music format not only created history of its own back in the early fifties but has and is taking part in the ongoing revolutionary changes currently gripping the industry today. New generations are already embracing it, surely extending its life by another fifty years or so. In fact, I'm already looking forward - if I last that long - to the centenary celebrations.

WAX WORKS The process of creating a 7" single is very similar to creating a 12" LP, although the 7" is slightly harder and it's not quite so easy to get a good mould ing. "This is



Space's Roy Matthews. The one unique aspect of creating a 7" single is that the format does use a certain amount of recyclable material. Pressing plants tend to recycle all unused, clean material and the 7" is more likely to see that than an album. "The critical thing about using recyclable material," said Mathews, "is that you should only use a limited percentage because it has a heat life. If you keep on processing the same bits over and over it will degrade." There is a chemical element within the formulation of vinyl that 'mops up' or counters that degradation but it only works for a certain amount of 'reheats'. When the vinyl passes a certain point the sound quality drastically reduces and you hear excess, make that appalling, noise. "We have a policy to not recycle more than a certain percentage of our material."

"the seven inch single is an icon, and has always caught the zeitgeist..."

[1] BILL HALEY AND HIS COMETS, 'ROCK AROUND THE CLOCK'

The cause of more slashed cinema seats and dodgy quiffs than anything else to date. [2] THE BEATLES, 'FROM ME TO YOU'

The first in a record of eleven consecutive number ones from the mop-tops.

[3] QUEEN, 'BOHEMIAN RHAPSODY'

The first single to spend nine weeks at the top of the charts since 1957.

[4] ABBA, 'DANCING QUEEN'

The best 'pop' single ever created.

[5] THE SEX PISTOLS, 'ANARCHY IN THE UK'

The only song in this list never to make No.1 (it originally reached No.38) but it managed to shock one generation whilst inspiring another.

DAVE 'NICE' PRICE'S SMASH HITS:

[1] THE SMITHS, 'THIS CHARMING MAN'

Not the first indie single, but proof of his band's importance – and a now the original 1983 Rough Trade pressings are highly collectable.

[2] BEE GEES, 'NIGHT FEVER'

assive disco smash that broke sales records in 1978 – brilliantly crafted, beautifully produced disposable pop.

[3] BLUR, 'COUNTRY HOUSE'

ounty little mid nineties song that epitomised Britpop, which was the last time the seven inch single truly held sway.

[4] THE JAM, 'GOING UNDERGROUND'

The first single to go straight in at number one for decades, this 1979 new wave gem got Jam fans queuing outside record shops on its day of release.

[5] KATE BUSH, 'WUTHERING HEIGHTS'

Not her best by far, but this classic late seventies smash 'broke' her as an artist, and made her great subsequent albums possible.

Inside Out

Spendor's new SA-6 loudspeaker wins no prizes for looks, says Noel Keywood, but the engineering contained within is impressive all the same...





hen Spencer Hughes worked for BBC Engineering in the 1960s, he learned about their requirements for a loudspeaker suited to broadcast monitoring. I mention this not to give you a corporate history lesson, but because it remains at the heart of what Spendor loudspeakers are today. And, if - let's say - you are tuned into the zippy sound of Monitor Audio loud-

speakers, which I would describe as - er - 'contemporary', then the more svelte Spendor may come as a shock. For some it's what grandad listened to, but that makes me an upcoming candidate for a rocking chair!

More intriguing than this prospect is that what my ears tell me about Spendors can be clearly identified in measurement. Superficially what grandad listened to yesterday, this suggests they are altogether in keeping with today, and well worth consideration. The SA-6 is a modestly equipped two-way costing £1,895 no less, so it has to be pretty good. Especially as Monitor Audio loudspeakers cannot be written off as a current fad any more than Spendor should be dismissed as old fashioned.

Regular readers will know we use Spendor S8e loudspeakers (£2,200) as an in-house benchmark standard at Hi-Fi World. They are basically accurate, and additionally possess an uncoloured and well damped sound that handles speech, vocals, and difficult instruments like violin with relative ease. The reason is that Spendor started out in the 1960s using well damped plastic cones made from Bextrene and today they continue to use plastic, a clear polymer they call ep38. That is what sets them apart and that is what you are paying for with Spendor - a well engineered product based upon variants of this distinctive drive unit. Switch between a lively modern metal cone, or even a glass fibre cone and you will clearly hear that a Spendor sounds very different. Think clean, uncoloured and well damped, with no propensity to exhibit the characteristic 'crack' of glass fibre and Kevlar when pushed hard, or the 'zing' from a metal cone. Spendor's ep38 polymer doesn't 'quack' either, always a criticism of the old plastic cones. The new A6 uses an 180mm ep38 cone sitting in a magnesium frame with roll rubber surround, At its centre is a fixed phase plug, rather than an unruly dust cap that acts as an ad-hoc tweeter. An increasing number of loudspeakers use phase plugs now, which damps down off axis treble, smoothing but also darkening the sound a little.

Above the 6's bass/midrange unit sits a 29mm fabric dome tweeter sitting in an asymmetric face plate. It uses ferrofluid cooling. These drive units sit in a moderately sized cabinet that stands 875mm tall, is 192mm wide and 280mm deep, A rear port exhausts at floor, level. The SA-6 has sturdy single wire inputs; it cannot be bi-wired so the use of good quality cable is important. Weighing 18kgs apiece the A6s aren't so heavy as to be awkward to move. I found the artificial veneer used a bit disappointing at the price. Ours looked a little prosaic quite frankly, especially against the standard of finish achieved nowadays by Monitor Audio, who lead the field in this respect.

SOUND QUALITY

Cabinet height of the A6 puts the tweeter at or below ear level and this gives slightly divorced treble, my initial checks showed. So I ran ours tilted back by screwing the rear spikes right in and the fronts out. This knits in treble and makes for an intense and cohesive delivery, because there are no suckouts to remove information. Much like our S8e, the SA-6 has a superbly clear midband that lacks artifice and this was very apparent with Eleanor McEvoy singing 'Did I Hurt You', from her album 'Yola'. The 6 lacks the edge and zing of other loudspeakers and so Eleanor McEvoy's voice seemingly arose from a darker background, unaccompanied by subliminal addition or added illumination. I know when some hear the S8es they find them dull or warm sounding, but quite frankly they are not, as measurement confirms. With the SA-6 Spendor have lifted lower treble a little, giving a bright-ish edge to cymbals in the Zuton's 'Valerie', for example, and giving percussion in Phil Collins' 'You Can't Hurry Love' a strong, well etched presence from 200gm vinyl.

Placing our Ortofon 2M Black onto a disc produced the usual strong click and it was followed by a small boof from within the Spendor's cabinet. Our long term decay spectrum does show a few overhangs responsible for this, but it also shows the Spendor A6 bass/midrange unit to have less colour than most. I didn't notice box boof in use, but then all box loudspeakers have box return in their sound, something you realise when transferring back to them from an open panel. It's something we get used to and accommodate. The well damped, even warm and enveloping sound of a Spendor loudspeaker is apparent with the SA-6 though and it isn't artifice; this like other

Spendors has a truly pure midband.

This was made evident by the unusually sonorous blare of horns in Tchaikovsky's March Slave, which sounded deliciously brassy. Violins were, by way of contrast, woody and their strings free from glare. Well, this should be the case you might think, but the A6s do make clear that with so many loudspeakers differences are

diminished by a patina of cone colour that washes over everything, especially when we are dealing with metal cones. So the SA-6 eked out and made obvious textural contrasts in a satisfying manner that expanded the tonal palette of classical

instruments. In this sense, and with their absence of edginess, they did suit classical music well. However, the A6s are tuned to sound a little more modern than traditional Spendors and the tweeter was sufficiently obvious in what it did to make this speaker sound quite fast.

Although the SA-6 isn't bass heavy, as measurement suggested, it is seemingly lightly damped and quite enthusiastic at low frequencies, making bass lines lively and obvious. It came over as fulsome, much like our S8es and this could well be attributable to the cabinet being hot around 70Hz. This I suspect adds some extra energy to lows, giving the A6 quite resonant sounding bass. This gives bass lines an energetic presence

and drum strikes in Dadawa's 'Canton Story' resounded around the room, as did kettle drum in Holst's 'The Planets'. The A6 has lively bass held in good proportion, but it is very Spendor-ish. Our S8es work best with well damped amplifiers as a result and so did the SA-6s. Icon Audio MB845s with feedback on were fine, exercising as much control as our Anatek A50R solid-stater, but EAR Yoshino's superb 890 tube power amplifier was even more grippy and very well suited to the A6s I found.

SOUND QUALITY

Spendor's new SA-6 floorstanders are expensive, but conspicuously different from the herd. Theirs is a well considered, well balanced approach born from the need to have a truthful studio monitor able to give an honest picture of what is being broadcast - not a jazzed up version of it for

headbangers. This makes the SA-6 quite exceptional in some respects; don't be fooled by the prosaic looks. Here's a budget monitor loudspeaker in many respects, especially good with classical instruments and wonderful with vocals of all sorts.

SPENDOR A6 £189! Spendor Audio () +44(0)1323 843474 www.spendoraudio.com

FOR

- neutral midband
- broad tonal palette
- rich, intense delivery

AGAINST

- mediocre finish
- no hi-wire
- resonant bass

MEASURED PERFORMANCE

The A6 has an evenly balanced Spendor-style frequency response, lacking the peaks and troughs of so many designs. A slow high end roll down will keep treble free from sharpness, some small midrange lift will provide good vocal intelligibility and slow low frequency roll down should translate to fairly dry, possibly lean bass. The suggestion here is nearwall placement might be best. The A6 response is even, so it should sound smooth and naturally balanced.

Bass unit output reaches down to 70Hz and the rear floor port peaks at 38Hz to extend output downward, so the A6 reaches down well to reproduce low bass, but output is restrained to avoid peaking.

A high impedance of exactly 8
Ohms gives the A6 a lower voltage
sensitivity than most rivals; it provides
a low 85dB sound pressure level for
one nominal watt input (2.8V) so it
won't sound as loud as rivals at any
volume setting. Current draw is low
as a result but there's reactance in the
load characteristic; the A6 needs power
(voltage swing) to go loud, around 60
Watts or more.

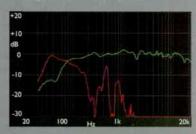
Watts or more.

The long term 200mS decay spectrum was impressively clean, indicating low colouration. Distortion levels were fair, although a 0.4% peak

in the midhand around 500Hz is more than usual, and bass distortion of 3% at 40Hz is fair. The port was unusually linear, producing just 1% distortion down to 32Hz.

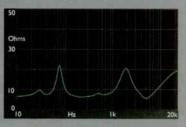
The Spendor A6 should come over as smooth, accurate and clear. It is well engineered. NK

FREQUENCY RESPONSE



Green - driver output Red - port output

IMPEDANCE



It's time to try the Mi – Myryad's brand new all-in-one personal stereo music system. Patrick Cleasby does the honours...



t's impossible to begin a review of an affordable all-in-one music system from a respected British name without mentioning the words 'Linn Classik' and 'Arcam Solo', in that order. Lest we forget, the Linn started it all, offering separates-quality music from one small box, some six years ago. Then came the Solo, adding DAB radio, a fuller if fractionally less grippy sound and altogether swisher ergonomics some years later. Both have been a great success, which explains why you're looking at this - the new Myryad Mi...

Sure enough, a street price of around £1,220 puts it directly up against the Arcam Solo Music for a very similar specification - CD, MP3 CD, FM and DAB radio, plus complete iPod integration and a Class D stereo amplifier giving 100W per channel into 4 ohms. All of this is neatly presented to the user on a pleasing 3.5 inch QVGA display for all control and set-up activities.

The packaging is robust and simple - a single box contains the machine, UK and French mains leads. ribbon and telescopic 'temporary' radio aerials, an attractive remote and the manual. Importantly, it also comes with the all-important 'M-port' cable - a proprietary RS-232 to iPod dock connector lead to facilitate all manner of iPod (post 2002) hookup. And for the real gadget fiends there's also the possibility of an alternative connector for that M-port RS-232 - Myryad's 'Blueplay' adapter permits the Mi to pair with Bluetooth devices such as mobile phones and laptops using the A2DP (Advanced Audio Distribution Profile) protocol.

The manual is a clearly drafted, usable piece of work. The connection diagram reveals that two (S/PDIF only) digital inputs are provided, along with two analogue inputs and a Tape (or CD-R) loop. S/PDIF out is provided for digital recorders. The front panel provides 3.5mm headphone socket and a similar input for those not blessed with iPods. Mystifyingly there are unused front and back USB ports - are firmware upgrades a possibility?

The casework feels impressively hefty and is attractively well made with a deep aluminium faceplate and lit (but dimmable) glass touch buttons. It feels strange to 'press' eject and not really press anything at all, but one could get used to the feeling. Still, it's sometimes frustrating when your button touch fails to be recognised - as iPhone users will know all too well. The CD drawer has a solid, positive action and the overall feel is of a piece of design which looks the lifestyle part and justifies its price tag. The slim, aluminium-faced remote is more rewarding and intuitive than using the front panel buttons.

In keeping with the machine's eschewal of video, the transport of the Mi is not a DVD-ROM type. Given its computer-y nature, this is a bit of a disappointment - while it does play MP3 CDs (importantly - allowing variable bit rate encodings as well as fixed), it misses the useful possibility of many tracks burnt to a DVD-R rather than a CD-R, (and although of interest to only a few archival bores like me, DVD Audio would have been nice.

While I think it is sensible that Myryad have body-swerved WMA or AAC disc playback, I do feel that they have missed an opportunity to move the open-codec playback possibilities

to FLAC. Doing so would have enabled higher than 16/44.1 (16/48 for S/PDIF output) resolution for file playback. The same

applies in connectivity

- to have digital inputs restricted to 16bit in this

day and age seems short-sighted; adequate for the likes of Squeezebox 3 and Duo maybe, but missing out on the higher resolution possibilities of Logitech's Transporter. I suppose Myryad would argue that this isn't a 'specialist' high end audiophile product, but this would have given it an edge all the same.

AUDITIONING

Kicking off with Compact Disc, and the first silver Frisbee that came to hand was the 'Further Listening', disc 2 to the Pet Shop Boys' 'Behaviour'. I was immediately gripped by a musical performance of 'It Must Be Obvious'. but the progression into the remix version of 'So Hard' confirmed my primary impression about the Mi's CD voicing - it has very strong bass. If anything, the overall tonal balance skews too much in this direction. It's certainly warm and fulsome in a way the Linn Classik and Arcam Solo are not - bass is deep and rich, and mids are focused and convincing, but the bottom end has a slight tendency to overpower the whole.

Happily, that predominant bass is not matched by wailing higher registers - this is not an in your face, 'boom tizz' machine. The skittering top-end of 'So Hard' was tracked delicately by the Mi and the overall feel compelling, pleasing to the ear and very musical. It's a clean and smooth performer, with a good projection of stereo and confident sound - helped of course by that big

No match for the Linn in terms of its sinewy, rhythmic midband that's able to follow every last musical twist and turn, the Myryad prefers to go down the Arcam route of big hearted music making with a slightly less finely etched midband. Still, not even the sumptuous character of the Mi was able to assuage some tracks.





One of the most heinous examples of 'great song, shame about the mastering' is 'Tell Me Where It Hurts' by Garbage, and it still jarred even through the sumptuous sounding Mi!

Switching to radio, and even with the 'temporary' telescopic aerial, FM and DAB reception were good enough to give a solid, thumping rock music sound on both analogue Radio I and digital 6 Music Voice programming was given a smooth, naturalistic tone, and operation was straightforward and logical.

I then moved on to hook up a variety of iPods and iPhones, all happily surrendering control to the Mi. Navigating libraries and playlists on the Mi Screen is intuitive enough, and the large scrolling display option of either artist, album or track name reassures that one doesn't have to squint at the small screen to see what is going on. In this respect, it's on another (higher) level to its Linn and Arcam rivals.

Once again, an example of horrible mastering - The Delays' latest album - in Apple Lossless proved a fatiguing listen, but that CD is a test which is almost impossible to pass. Tightly data-compressed material with a little more dynamics left in the recording, including Radiohead's 'Airbag' from an original iPod Touch, sounded reasonable, if limited by the low bit rate (no fault of the Mi), but the real dea! was Ripserver-encoded 320kbps MP3 from an iPod Classic. Using a track with many layers of instrumental complexity and real dynamics such as 'The Silken Whip' by Afro Celt Sound System, even in MP3 form, revealed that the Mi was quite capable of taking the rich tone of the Uilleann pipes against the propulsive, synthesised bass line, and making both swing, all the while retaining the detail of the talking drum rhythms which tie the two together. No mean feat!

Some 24bit lossless material such as DVD-A rips of Porcupine Tree's 'Lightbulb Sun' was piped to the Mi from a 3G iPhone via the M-Port and 'Four Chords That Made a Million' made a very satisfyingly crunchy big rock noise, with great separation and dynamic range preventing the overcompressed mush effect Garbage and The Delays had given. All in all the Mi's handling of iPod music felt

from Abbey Road' and Sky Arts
HD's imitative 'From The Basement'
gave a thoroughly enjoyable musical
experience in stereo via the Mi. Some
BBC material fared less well - the
post-produced 5.1 on the Goldfrapp
Glastonbury '08 show was much
less convincing (to someone who
originally witnessed it from the front
row!), with a flabby and unrealistic
bottom end and an overall plastic
feel. Still, this was no fault of the Mi,
as on the other hand the stereo
broadcast of the Joan Armatrading

"Myryad's new Mi is compelling, pleasing to the ear and very musical..."

tonally very consistent with its CD playback - no bad thing!

Turning to other things, the Mi's manual is quite explicit over the intended uses of its two S/PDIF digital inputs, picturing a Sky+ box feeding one and a Squeezebox 3 for the other in that connection diagram, so I moved onto auditioning music material from my Sky+ HD library (taking care to switch the customary Dolby Digital output to Normal, i.e. 16/48 PCM). I was immediately captivated by the beguiling sound of the Pet Shop Boys-authored 'The Loving Kind' from Channel 4 HD's airing of the latest Girls Aloud video. To these ears the tonal balance was superior to that coming from CD and iPod playback, possibly due to broadcast sound handling and compression, but the result was an eniovable one.

One of the potential downsides of using a stereo device like the Mi to listen to surround-programmed material is how the digital downmix is going to sound. Concerns were allayed as well-engineered HD/DD 5.1 music output like 'Live

set from the same event had a well-balanced and rich tone, with John Giblin's fretless bass being a solid and naturalistic stand-out. Going through this musical TV material had me glued to my seat and I can well imagine using the Mi as a very enjoyable stereo add-on to a Digital TV system.

CONCLUSION

The Myryad Mi now competes in a crowded field but more than holds its own. Its emphasis is obviously at the lifestyle end of the market, but it has an appealing sound which seems to dovetail well with its intended digital-playout role - it's absolutely ideal for digital TV and Squeezeboxtype network music players. It has a powerful and fulsome sound which matches the latest generation bookshelf speakers very well (i.e. it adds some body to their clean, analytical character), and comes with a fine CD spinner and decent digital radio. Those in the market for a small, neat and stylish single box solution should put this one at the top of the 'to audition' list. You won't be disappointed.

VERDICT

Great single box solution for two channel digital audio fans, the Mi is well-engineered and impress vely versatile at the price.

MYRYAD MI £1,220
Armour Home Electronics
① +44 (0)1279 501111

END

- powerful bass
- enjoyably musical

www.myryad.co.uk

- iPod integration
- digital connectivity
- display

AGAINST

- 16bit digital only
- no data DVD capability

making life better

to audition 808.2 contact

01926 334455
consultant@numberoneaudio.co.uk
41-43 regent grove - leamington spa - warwickshire
www.numberoneaudio.co.uk



Designing Loudspeakers

WD25A or Dynaco A25 – a reappraisal By Peter Comeau

hile we are waiting for the design of the Open Baffle bass units to be finalised I'm going to digress a little with a slightly different aspect to our best selling speakers – the WD25.

Some of you may remember that the concept for the WD25 came from a speaker that sold tens of thousands in its original '70s form, namely the Dynaco A25. In fact the WD25A is an unashamed 'copy' of the A25 in its cabinet size and layout.

What we were unable to achieve, however, was the identical drive unit lineup – the original SEAS drivers became 'vintage' and then disappeared into obscurity over a couple of decades ago.

Initially I visited Norway and, together with the SEAS engineering team, found one of the original bass drivers and replicated it using modern materials and motor system. This became the SEAS A26RE4 which we currently use in WD25.

For the treble unit we chose the T29CF001 which, again, had similar characteristics to the original 25mm treble unit. And then the natural extension of the cabinet to a floorstander, with a dual compartment aperiodic design along the lines of the Dynaco A35 but larger, led to the WD25T.

So much for history. To my ears the WD25A captured the essence of the Dynaco A25 as far as my memory permitted. The aperiodic bass is still a revelation to many listeners who have grown up with the lumpy, ill-defined performance of modern, commercial bass reflex speakers. In fact the articulate, tight and defined bass performance that is room 'friendly' is just one of the reasons the Dynacos were so successful.



MEMORY FAILINGS

As I said, though, the design is based on replicating, as closely as possible, the concepts of the original but, as for sound, I only had my memory to rely on. That was until an enthusiastic owner of the original A25 contacted me to arrange a comparative demonstration.

It turned out that his Dynaco A25s were in original, pristine condition and being used on a daily basis as he had not found modern speakers which emulated their qualities. So hearing of my 'new' WD25 design he wanted to check them out.

A comparison ensued which indicated some discrepancies in the way the Dynacos and the WD25s portrayed the music. In the first WD25 design article I pointed out that the A25s were designed in an age where speakers were either placed on the floor or on shelving units. Free standing designs on

dedicated speaker stands were hardly the flavour of the month in the '70s.

As a result I had not expected to match the tonal qualities of the A25 exactly, but rather achieve a similar result with the advantage of using the speakers on dedicated audiophile quality stands (Heybrook HBSI).

Even taking that into account it was clear, from audition, that the characteristics of old and new were different. Whilst I was quite amazed that my memory of the original sound was not a million miles away from the sound of the new WD25, my Dynaco owner was disappointed that the 'original' character wasn't identical (some people are just difficult to please)!

Investigating the performance of the originals in terms of technical performance showed up two aspects of design which were markedly different between the old and new models. The first is in crossover design. The originals kept to a simple,

TechTube"

the high end valve from Blackburn MicroTech Solutions

Following a successful launch in London we have now finalised the last few specification issues to ensure TechTuber delivers the quality and consistency the market is demanding.

The last elements are in place for the launch of the web based shop.

From here you are able to order your valves direct from the factory.

Shipment via courier enables us to deliver anywhere in the world, no hassel.

Shop with us soon at www.techtubevalves.com

Proteus Audio Developments
and their high end Diamond audio amplifier.
www.proteusaudiodevelopment.com

ISOKINETIK





ISOsub kit: Rega sub platter upgrade, Ruby Saphire bearing and ISOlube turntable fluid. MUST HAVE for all Rega 2, 3, 25 owners also other NAD and Moth turntables. Reduces wow and flutter by increasing mass and adding stability running ultra smooth on Ruby Sapphire bearing and ISOlube provided in kit. Longer spindle enables record clamp use three point Brass suspension further improves isolation: £89.99.

ISOfeet: Ultimate Rega feet allowing exact levelling of turntable, providing excellent isolation through spike and damping. Also available for other equipment: £44.99 for 3 feet.

ISOweight: Asymmetrical design lowering centre of gravity and mass. Exceptional sonic improvement due to improved tracking, placement of cartridge in the groove: £49.99. Fits Rega Rb300, 600, 900 also Moth and other Rega derivate arms. Fits Rega250 with additional end stub: £19.99

ISOplatter: 25mm Acrylic platter looks and sounds great. Increases

mass, loses the inherent "ringing" of glass and MDF platters. Fits Rega P2, P3, P25, 2, 3, 25 and P3-24, also NAD 533, Goldring and Moth Alamo Label recess ensures records sit flat, simply replace standard platter for instant improvement.

Dealer and distributor enquiries welcome. For a full range of upgrades and accessories, interconnects or speaker cables please email info@isokinetik.co.uk or call 0208 241 8890 www.isokinetik.co.uk





T: 01727 865488

e: info@symmetry-systems.co.uk

w: www.symmetry-systems.co.uk

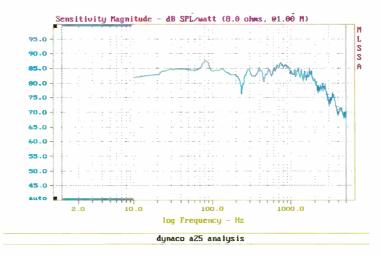
yet effective, method which had no crossover for the bass unit and a gradual roll-in for the treble unit. The bass 'crossover-less' performance was only possible because of the high inductance of the original bass unit which caused a natural roll-off at midrange frequencies.

This high inductance, it turns out, came from the motor design which included an Alnico magnet and the particular arrangement of front plate and yoke, none of which are currently replicable using modern parts. I wasn't too worried about this because the inclusion of an external crossover coil to replicate this inductance yielded similar results.

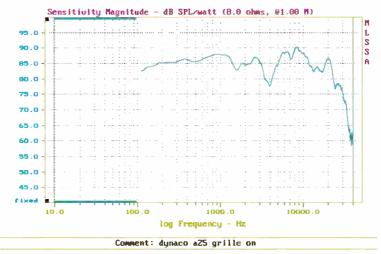
More importantly the original cabinet consisted of unbraced high density chipboard, a factor which added a warmth and bloom to the upper bass that was entirely missing from the WD25.

To make things easier for the home constructor I'd arranged for the original WD25 design to use MDF panels, and then highly braced them to reduce the typical MDF 'honk' in the midrange. However, for the WD25T Sequel speakers I'd gone back to some investigative work I originally undertook with Plymouth University in the '80s to find the 'ultimate' cabinet material.

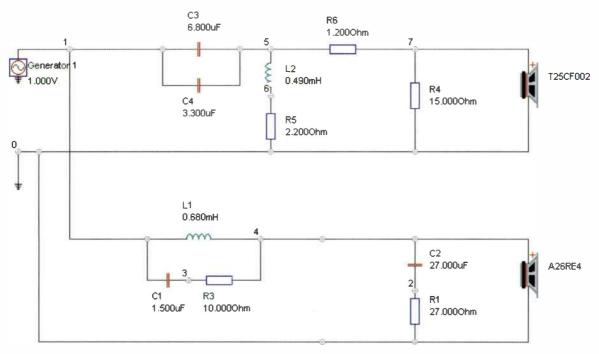
One of the 'products' to come out of that research was a composite material we are now calling 'ARCENA' and using in the WD25T. This composite of chipboard and MDF yields a more natural sounding cabinet without noticeable



Dynaco A25 response on axis without grille – note interference effect from baffle edges at 2.2kHz.



Dynaco A25 response on axis with grille fitted.



WD25A-EX crossover circuit proposal.

SPECIAL INTRODUCTORY OFFER!!!!

HI-FI WORLD ELECTRONIC EDITION

VISIT OUR WESSITE WWW.hi-flworld.co.uk

Queries to - esubs@hi-fiworld.co.uk

Subscribe to our eco-friendly e-edition of Hi-Fi World and receive a 50% discount!!!

- Receive your issue a week before on-sale dates.
- Be the first to grab a bargain in our Free Reader Classified Ads.
- In-house lab. tests to AES and IEC standards
- Run by dedicated hi-fi engineers & enthusiasts.
- No missed issues, or postal delays.
- Access your issues from anywhere in the World.
- PC and Mac friendly.
- Eco-friendly.

Subscribe today and receive 12 issues for £20 - that's an amazing £1.90 per issue!

check out our free trial issue

VISIT OUR WEBSITE:

www.hi-fiworld.co.uk and select
"ELECTRONIC EDITION"

To purchase your e-edition click here

Pay in Sterling, US Dollars or Euros. Non-sterling prices vary according to exchange rate. **Cards accepted:** Visa, Maestro (Switch), Mastercard, Solo and Delta.











WD25A-EX response on axis. Overall response shown in blue, individual driver responses shown in red to show crossover performance.



Original Dynaco A25 drive unit lineup with aperiodic port at hottom.

panel resonance intrusion into the reproduction of music.

The obvious next step was to turn to ARCENA for the WD25A design. But even though this brought the sound closer to the Dynaco A25 it still wasn't close enough to satisfy my Dynaco owner friend.

Clearly I had to look at the drive units and crossover again. I was pretty sure that the bass and midrange performance from the bass unit in the new ARCENA cabinet was now remarkably close to the Dynacos. What was obviously different, then, was the mid-treble tonal balance which was more 'forward' in the WD25A.

The clue came from the way the original drive units integrated. With a shallow roll-in there was a clear 'gap' in the measured frequency response of the Dynacos through the crossover region. As I pointed out in the crossover design of the WD25T a 'dip' through the crossover can

often be beneficial in the on-axis response as it evens out the power response in the room to be far more linear as the ear hears it.

But even this engineered 'dip' was not enough for the WD25A to emulate the Dynaco A25s warmth and musicality. So I needed to try a different approach.

MILLENIUM MARVEL

I've recently been working with the SEAS Millenium treble unit T25CF002 which has very different characteristics to the T29CF001 unit we use in the XL version of the WD25 speakers. In particular it has an extended midrange performance and a smoother off-axis roll-off at high frequencies, both of which I thought might give me the type of crossover performance I was looking for to emulate the in-room power response of the Dynaco A25.

If we look at the response of the Dynaco you'll see a dip around the crossover frequency at 2.2kHz which looks 'wrong' until you put the grille on when it magically disappears. This indicates that the dip could well be an interference effect from the protruding cabinet edge which the addition of the grille smooths. Instead the grille provides its own interference effect at a higher 4kHz plus producing a slightly more ragged response from the treble unit.

The Dynacos were, of course, all listened to with their grilles on – this was before the days of the audiophile tendency to remove grilles when listening. So it's probably best to take the grille on response as indicative of the result expected from the speaker in use.

Now it would be silly to try and match that response exactly

because you would be chasing after clouds. It is the overall characteristic that matters and you can see that, after the midrange, there is a general depression through the crossover region followed by a recovery to the basic level in the extreme treble.

This is exactly the sort of through crossover depression that I advocated in the WD25T The Sequel crossover, with similarities to the famous BBC response dip. It subjectively equalises the power response of the treble unit, with its wide dispersion, to that of the narrowing dispersion of the bass/midrange unit.

With a lot of listening, and the usual help from LspCAD virtual speaker design software, the following crossover circuit was derived to provide the balanced sound typically heard from the Dynacos. Of course, with the benefit of a clean baffle and no grille, the WD25A EX, as we have named it, has a smoother response through the treble region.

Even so there is evidence of the mild depression through the crossover region at 2kHz followed by an extended treble output to beyond 30kHz. To my ears the WD25A-EX fields a huge, out-of-the-box sound which brings performers into the room in a realistic manner.

The next test is to get my friend's Dynaco A25s back into the listening room and do a comparison. No doubt further crossover tweaking will result from this, so watch this space!



WD25A-EX with SEAS Millenium treble unit.

... over 140 brands ... with more being added every week!

SOUND & VISION THE BRISTOL SHOW



20th - 22nd February 2009 10 a.m. - 5 p.m. every day at the Bristol Marriott City Centre Hotel

HI-FI, HOME CINEMA, FLAT SCREENS, PROJECTORS - IT'S ALL AT BRISTOL

and there are lots more surprises in store!

The Show is known as THE place to see and hear all the latest products. Here are just a few things that you can see in Bristol.

ACOUSTIC ENERGY – launching the long awaited Radiance Series of loudspeakers

ARCAM - FMJ AVR600 - making its first major public appearance at the Show. A state of the art 7.1 home cinema receiver with stunning sound and sleek styling.

CYRUS - WORLD EXCLUSIVE see an amazing (currently secret) product from Cyrus to be released March 2009.

FOCAL - see the stunning new Utopia range!

JVC - launch of the HD750-DILA projector, the first THX certified home cinema projector.

KEF - see and hear the new C and Q series

KEITH MONKS - FREE record cleaning! Each visitor will get one record cleaned free.

MERIDIAN – introducing the DSP7200 horizontal centre channel speaker

NAD - launching an amazing 12 new products!

NAIM – see and hear a number of new products, including the new NAIT XS.

PMC - launching a new high performance i series model.

PSB - launch of the Synchrony loudspeaker series.

SENNHEISER - the new IE Series in-ear headphones.

SIM2 – demonstrating the new Domino D60 Full 1080p HD projector.

SPECTRAL - Showcasing some new furniture designs.

WILSON BENESCH - see and hear the A.C.T. C60 loudspeakers.

Easy parking (and great shopping!) at the newly opened Cabot Circus right next to the Show

offers only available at the Show. **WIN** superb prizes in our Show Competition!

GETTING TO THE SHOW

BY TRAIN: Temple Meads Station is a short distance from the Marriott.

BY CAR: From the M4 take J19 (M32 - Bristol). Follow signs for City Centre and RAC signs to the Show. For those using satellite navigation systems the hotel post code is BS1 3AD.

Easy local parking in Cabot Circus car park and Broadmead and Bond Street NCPs.

The new Cabot Circus Car Park is now open and has over 2500 spaces. It is easily accessible from the end of the M32 off Newfoundland Street.

ADMISSION

Adults \$8.00; Students and Senior Citizens \$4.00; Accompanied children under 16 free



Organised by



www.audio-t.co.uk



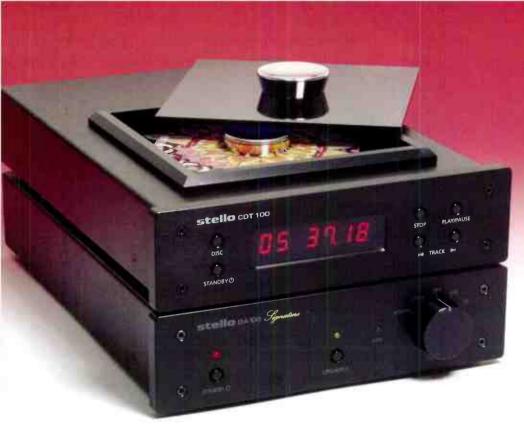
Practical Hi-Fi

In association with



BRANDS ON SHOW INCLUDE: 4 Men With Beards Accustic Arts, Acoustic Energy, Acoustic Solid. Aesthetix. Apollo Hi-Fi Furniture, Arcam, Atacama Audio, Audica, Audica, Audica Technica Headphones, Audicalab, Audical





WIN A FANTASTIC STELLO CDT-100/DA100 SIGNATURE CD PLAYER **WORTH £1,320 IN THIS** MONTH'S COMPETITION!

ere's your chance to win one of our favourite sub-£1,500 CD player packages - Stello's superb CD-T100 CD transport and DA100 Signature DAC. Here's what David Price wrote in the December 2008 edition of Hi-Fi World

"South Korean based Stello offer real enthusiast products with highly professional build and finish. The dynamic duo you see here epitomises their approach; an 'affordable audiophile' CD transport and DAC combination coming in for less than many one box designs. It's very purposeful too, with money spent where it needs to be rather than where it is most conspicuous.

The CD-T100 transport is satisfyingly compact at 212x55x290mm, so when sat next to the DAIOOS it's the same size as a conventional CD player. Its fascia has only the basics - transport controls plus a large red LED display that's very easy to read from a distance. I used the 'Inter IC-Sound' (i2s) connector to link it to the DA100 Signature DAC, but there's a range of other options. The DAC is a true 24bit, 192kHz upsampling design, said to have a jitter-free timing circuit and 6th-order digital filter, plus a fully discrete Class A analogue output stage. The unit features 1% tolerance metal film resistors, WIMA polypropylene capacitors, Cardas RCA connectors, and Neutrik balanced connectors, plus an impressively

RULES AND CONDITIONS OF ENTRY

- ONLY ONE ENTRY PER HOUSEHOLD
- MULTIPLE ENTRIES WILL BE AUTOMATICALLY DISQUALIFIED
- PURCHASE OF THE MAGAZINE IS NOT A PRE-CONDITION OF ENTRY
- NO CORRESPONDENCE WILL BE ENTERED INTO
- THE EDITOR'S DECISION IS FINAL
- NO EMPLOYEES OF AUDIO PUBLISHING LIMITED OR OF ANY COMPANIES ASSOCIATED WITH THE PRODUCTION OR DISTRIBUTION OF THE PRIZES, MAY ENTER

sized (for a DAC) 25VA toroidal transformer

This player has an immediacy that none of the other price rivals possess. There is grip in abundance and brilliant focus with the crosshairs of its lens pointed right at the attack transients of each individual note. It served up vast amounts of detail, from bottom to top, and had a very confident way of communicating it... The Stello is the audio equivalent of a brilliant, crisp autumn morning; it's able to throw clean white sunlight onto everything around it. Musically, it lets you lock into one strand in the mix and stay with it effortlessly. Treble was beautifully open and airy... like a high end machine, it has wonderful space, depth and control. Its highly detailed, powerful and insightful sound will delight many music lovers."

For a chance to win this superb CD player package, just answer the following four easy questions. Send your entries on a postcard only by 28th February 2009 to: March 2009 Competition, Hi-Fi World magazine, Unit G4, Argo House, The Park Business Centre, Kilburn Park Road, London NW6 5LF.

QUESTIONS

- [I] Where is Stello based?
- [a] South Korea
- [b] Southampton
- [c] South Dakota
- [d] South End
- [2] What colour is the LED display?
- [A] red [b] orange
- [c] green [d] blue
- [3] What type of connector is used to link the transport and DAC?
- [a] i2s
- [b] TOSLINK
- [c] balanced
- [d] coaxial
- [4] David concluded that its sound will
- delight many what ...? [a] "music lovers"
- "stamp collectors"
- [c] "bridge engineers"
- [d] "aviation experts"

March Competition Hi-Fi World Magazine Unit G4 Argo House The Park Business Centre Kilburn Park Rd. London NW6 5LF

entries will be accepted on a postcard only

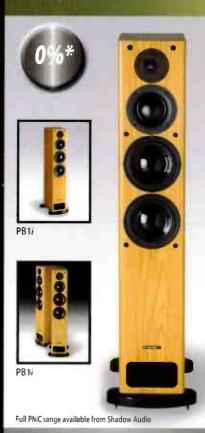
DECEMBER 2008 SHANLING MC3000 MUSIC SYSTEM WINNER: Mr. Adam Guy of Ely, Cardiff

0844 800 0073

www.shadowaudio.co.uk

Because our 0% Finance* and Buy Now Pay Later* Schemes have been so popular, we thought we'd put together a booklet to tell you more! It features the top 75 favourite products bought by customers using our two very affordable purchase schemes... download your copy from our web site today.





THE STUNNING NEW

The impact, dynamics and sheer scale are the signature of the latest addition to the award winning i series range. The PB1i is a direct development of the heavy hitting EB1i and therefore displays the similar traits of ultra low bass extension, delicate razor sharp imaging and gripping presentation from a slimmer

Its ability to resolve every nuance in the mid and high frequencies derives from the combination of a silky smooth PMC/SEAS® developed i series tweeter and a professionally proven three inch (75mm) soft dome mid-range, that also feature in the larger EB1i model.

Though substantially built, the PB1i offers an easy load and is therefore easily matched with a wide range of high quality amplifiers. This ease of drive is readily apparent on audition, the response remaining even and smooth throughout.

The NEW PMC PB1i is simply breathtaking.

0% Deal : Dep: £550 + £137.50 for 36 months



Bryston BCD-1

With toda is C and with and dynamic range in recording wounded quipment that not only equals but with the parameters of the most demander and available. The BCD-1 CD Player is the performance shallong.



(NEW) Bryston BDA-1 Dac

The Bryston BDA-1 is a state-of-the-art external Stereo DAC (digital to analog converter) using fully discrete Class-A proprietary Bryston analog circuits. Featuring an impressive array of inputs for USB, COAX, OPTICAL, AES-EBU and BNC, it is arguably the most flexible high performance DAC on the market.

0% Deal*: Dep: £195 + £146.25 for 12 months

Second-hand & Ex-dem

For the complete list please visit: www.shadowaudio.co.uk

Accustic Arts - DAC-1 MkIV	£2,495.00
Bel Canto - CD-2	£1,795.00
C.E.C 5300 CD	£899.00
Creek - Destiny	£945.00
Denon - DCD-SA1	£2,795.00
Eastern Electric - Minimax CD	£599.00
JungSon - Magic Boat SACD/CD Play	er £395.00
Marantz - DV9600	£795.00
Marantz - SA11-S2	£2,295.00
McIntosh - MCD201	£2,495.00

Acoustic Solid - Small Royale	£1,195.00
Eastern Electric - Minimax Phono	£995.00
McIntosh - MT-10	£6,995.00

Children and the Control of the Cont	
Audio Zone - Amp-2 Monoblocks	£1,350.00
Creek - Destiny	£945.00
Eastern Electric - Minimax Integrated	£749.00
Graaf - GM-50	£3,250.00
Halcro - DM38	£9,995.00
Krell - KAV400xi	£1,495.00
LSA Group - Standard	£1,795.00
Marantz - SM-11S1	£2,195.00
Marantz - SC-11S1	£1.995.00
McIntosh - MX136	£4,995.00

September 1981 April 1	
ART - Emotion Monitor Signature	£4,495.00
ART - Emotion Monitor	£2,895.00
ATC - SCM40	£1,495.00
Dali - Helicon 400	£2,250.00
JAS Audio - ORSA	£695.00
JAS Audio - SuperTweeter (pair)	£425.00
JAS Audio - Orior Grand	£1,495.00
Opera - Callas Diva	£2,095.00
PMC - FB1i	£1,395.00
PMC - OB1i	£2,495.00
PMC - EB1i	£5,495.00
Wilson Benesch - ACT	£6,995.00

Isotek - Titan	£1,295.00
Isotek - Sigmas	£845.00
Isotek - Nova	£1,195.00
Isotek - GII Minisub	£449.00

Have a product you want to Trade-in? Give us a call for the best deals.

FINANCE AVAILABLE ON MOST BRANDS*

WORLD LASSICS

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

DIGITAL

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

CAMBRIDGE AUDIO CD4SE £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-I 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

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 grininducing 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-RI/DAS-RI 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

Sony's first ever bespoke high end audiophile machine used a 16x2 DAC to provide a clinically incisive sound; supreme build quality allied to the pure unadulterated luxury of a paperbook-sized remote control.

TECHNICS SL-P1200 1987 €800

CD version of the Technics SL-1200 turntable. Massively built to withstand the rigours of 'pro' use and laden with facilities - a great eighties icon. Sonically, it's pure fun, with hefty bass that can still show weedy modern players a thing or two!

YAMAHA CD-X I 1983

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-TI 1004 €600

Warm and expansive sound made this a mid price hit. Well built, with a slick mech.



ESOTERIC PO

The best CD drive bar none; TEAC's Tokyo boys pushed the boat out in style. Brilliantly incisive, ridiculously over engineered.

KENWOOD 9010

The first discrete lap transport was beautifully done and responds well to re-clocking even today.

DACs

CAMBRIDGE AUDIO

DACMAGIC 1995 199

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

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 plugin digital filter modules really worked!



OED DIGIT

1991

£90

Budget bitstream performer with tweaks aplenty. Positron PSU upgrade makes it smooth, but now past it.

TURNTABLES

ARISTON RDIIS €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 PLI2D 1973 £36

The beginning of the end for the British turntable industry. When vinyl was the leading source, this bought new standards of noise performance and stability to the class, plus a low friction S-shaped tonearm. Later PL112D was off the pace compared to rivals



PIONEER PLC-590 1976 €600

Sturdy and competent motor unit that performs well with a wide range of tonearms. Check very thoroughly before buying due to electronic complexity and use of some nowobsolete ICs .

DUAL CS505 1982

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 TT 1000 1978 £ N/A Beautiful seventies high end belt drive with

sweet and clean sound. Rare in Europe, but big in Japan.



MICHELL GYRODEC 1981

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 SPIO 1973

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

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

Supposedly the first to 'better' the LPI2. 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

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

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.

TONEARMS

ACOS LUSTRE GST-I 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 HRI00S 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 lapanese 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 £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

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

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

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 CSI/PSI 1976

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

Sweet and musical feature-packed integrated; the Audiolab 8000A used its blueprint to great effect.



CREEK CAS4040 1983

More musical than any budget amp before it; CAS4140 loses tone controls, gains grip.

AUDIOLAB 8000A 1985

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.

1969 £ N/A SUGDEN A21

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 AT 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

£300 1983

Madcap eighties minimalism, but a strong and tight performer all the same.

ROGERS CADET III 1965

Sweet sounding valve integrated, uses ECL86 output valves, even has a half useable phono stage, sweet, warm a good introduction to



ROTEL RA-820BX 1983

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 secondhand.

PREAMPLIFIERS

1991 AUDIOLAB 8000C

Tonally grey but fine phono input and great facilities make it an excellent general purpose

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-L 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 F N/A

Amazing styling courtesy of Allan Boothroyd can't disguise its rather cloudy sound, but a design classic nonetheless.



1958

The partner to the much vaunted Quad II monoblocks - cloudy and vague sound means it's for anacrophiles only.

OUAD 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

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

Leak's biggest valve power amp offers 3S 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.

£N/A

LEAK STEREO 20 1958

Excellent workaday classic valve amplifier with decent power and drive. Surprisingly modern sounding if rebuilt sympathetically. Irrepressibly musical and fluid.



LECSON API

£ 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.

1997 £1989 **MICHELL ALECTO**

Crisp, clean and beautifully controlled with gorgeous styling. Partnered with the £1650 Orca this sounds delicious!

LEAK POINT ONE, TLIO,

TL12.1

Early classics that are getting expensive. Overhauling is de rigeur before use, using original parts if possible. Surprisingly crisp and musical sound, that's far more modern than Quad IIs. Deeply impressive when in fine fettle.



MUSICAL FIDELITY

XA200

1996 £1000PR

200W of sweet smooth transistor stomp in a grooved tube! Under-rated oddity.



OUAD 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



OUAD 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**

£31

1968

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

RADFORD STA25 RENAISSANCE

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 CAS3140

1985 £199

Excellent detail, separation and dynamics brilliantly musical at the price. T40 continued the theme...

NAD 4040 1979

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

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

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

Reputedly the best of the classic Jap analogues, this combines sleek ergonomics, high sensitivity and an explicit, detailed sound.

OUAD 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

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?

Brilliant affordable digital tuner has a smooth, detailed musical sound plus sensible realworld facilities.

1977

Superb mid-price British audiophile design, complete with understated black fascia. Fine sound in the true Rogers mould - smooth and sweet with fine dimensionality.

SANSUITU-9900 1976

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 1 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

YAMAHATC-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 prosused 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

AR18S 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 force... BBC LS3/5A 1972 £88

Extremely low colouration design is amazing in some respects – articulation, stage depth, clarity – and useless in others (both frequency extremes). Came in wide variety of guises from various manufacturers building it under licence. Partner with Rogers ABI subwoofers for an extra two octaves of bass!

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

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 BC 1 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 RIOS

loudspeaker.

77 471

Three way Bextrene-based floorstander (complete with castors!) gave a truly wideband listen and massive (500W) power handling. A very neutral, spacious and polite sounding design, but rhythmically well off the pace. The quintessential nineteen seventies

IMFTLS80 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

995 £49.

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

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

1982

£130

CELESTION SL6 1984 £35

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

961 E/

EACH

Warm sounding infinite baffle that, with a reasonably powerful amplifier can sound quite satisfying.



OUAD 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!



To advertise in this space please call 020 7372 6018 or email: advertising@hi-fiworld.co.uk

Come and meet the Hi-Fi World team in the conservatory for our latest subscription offer at The Bristol Show Sound & Vision Show on 20th-22nd February 2009 at The Marriott City Centre Hotel



THE IDEAL ANTIDOTE

VISIT OUR WEBSITE: www.hi-fiworld.co.uk

UK SUBSCRIPTION SAVE UP TO



SAVE UP TO 12.5% off the cover price when you subscribe to Hi-Fi World. That's an amazing £3.33 per issue, including postage.



01442 879097

OVERSEAS SUBSCRIPTIONS IF YOU LIVE OUTSIDE THE UK, PLEASE CALL FOR OUR LATEST PRICES

+44 (0) 1442 879097

SO WHAT ARE YOU WAITING FOR? CALL NOW!!!
SUBSCRIPTION HOTLINE 01442 879097

Lines open Mon-Fri 9.00-5.00 or (weekend answering service available)

FOR OUR
ON-LINE MAGAZINE
SEE P120

email: hifiworld@webscribe.co.uk Fax No: 01442 872279

TO WINTER BLUES!

WHY SUBSCRIBE TO HI-FI WORLD?	I would like a years subscription to Hi-Fi World and receive a discount off the
12 issues a year delivered straight to your door.	cover price (I have read and accept the terms
Be first to grab a bargain in our "Free Reader Classified Ads" section.	and conditions).
Run by dedicated hi-fi engineers and enthusiasts.	I would like to pay for my 12 issues by:
Subscribers receive a minimum 10% Discount annually.	6 monthly Direct Debit: Pay £19.95 every 6 months saving 12.5% off the yearly subscription
Hi-Fi World has become famous for its informative reviews and radical kit designs.	rate of £45.60
PLUS! Subscribe by Direct Debit and receive a 12.5% discount (UK only).	Annual Direct Debit: Pay £39.90 every 12 months saving 12.5% off the yearly subscription rate of £45.60
Instruction to your Bank or Building Society to pay by Direct Debit	Annual cheque/credit card: Pay £41.04 saving 10% off the yearly subscription rate of £45.60
Please fill in this form and send to: Hi-Fi World, Webscribe Ltd, PO Box 4 2 7 0 4 9	Cheques made payable to Audio Publishing Ltd.
Name and full Postal Address of your Bank/Building Society To: The Manager Bank/Building Society	Your Details
Address	Title Forename
Name(s) of Account Holder(s)	Surname
Branch Sort Code	Address
Bank/Building Society Account Number	
Reference HF	Post Code
Instruction to your Bank or Building Society Please pay Webscribe Ltd Direct Debits from the account in this Instruction subject to	Post Code
the safeguards assured by the Direct Debit Guarantee. I understand that this instruction may remain with Webscribe Ltd and, if so, details will be passed electronically to my Bank/Building Society.	Daytime Tel:
Signature(s)	Email:
Date	
Bank and Building Societies may not accept Direct Debits Instructions for some types of accounts The guarantee should be detached and retained by the Payer The Direct Debit Guarantee This Guarantee is offered by all Banks and Building	Please debit my VISA MASTER MAESTRO AMEX (SWITCH)
Societies that take part in the Direct Debit scheme. The efficiency and security of the Scheme is monitored and protected by your own bank or Building Society	Security No:(last three digits printed on the signature strip)
If the amounts paid or the payments dates change Webscribe Ltd will notify you 10 workings days in advance of your account being debited or as otherwise agreed If an error is made by Webscribe Ltd or your Bank or Building Society, you are guaranteed a full and immediately refund from your branch of the amount paid You can cancel a Direct Debit at any time by writing to your Bank or Building	Valid from Date:/ Expiry Date:/
Society. Please send a copy of your letter to us.	Switch cord issue No.
TERMS & CONDITIONS: You will receive 12 issues per year. Minimum subscription term is 12 months. Prices include P&P and are correct at the	Switch card issue No:
time of going to press. All prices are quoted in sterling. Offer available for UK subscribers, only. For enquiries relating to overseas pricing call	Cardholder Signature:
+ 44 (0) 1442 879 097.	Outside UK:-
	EUROPE Airmail £50.00 U
	OVERSEAS AIRIGIS

Send this form to:

Hi-Fi World, Subscriptions Department PO Box 464, Berkhamsted, Hertfordshire, HP4 2UR.

11 the singularly most addicting piece of gear I have ever heard"

10 AUDIO REVIEW

"A new benchmark for musical communication"

STEREOTIMES

"One of the truly special products I've reviewed in the past 18 years"

STEREOPHILE

Winner of Stereo Times magazine Most wanted component of 2005 award



 Γ he best tonearm I've heard" HI FI WORLD



Your cartridge can deliver vastly improved results if coupled with a high grade arm. Great tonearms of the past were recognised for what they contributed but we would suggest it's time to upgrade. Massive performance improvements are now possible, so why not advance your system to a new level? After all, a significant tonearm upgrade offers many times the improvements of those given by cartridge upgrades, and last a lot longer. Our multi-award winning arms are offered with a no risk, money back guarantee should you be anything other than delighted.

Tonearm Models

Enterprise Conqueror Illustrious Encounter Silver OLI



QQQQQ 2005 World Awards





Closest to the original sound

UNIVERSAL MOTOR UPGRADE

Upgrades & replaces motors & power supplies for ALL belt drive turntables



"The single most important upgrade you can ever make to any record deck concerns the motor

drive...nothing can prepare you for the shock of going DC. In a COMMON GROUND MAGAZINE word, gobsmacking.

"It's value is nothing short of tremendous."

LISTENER MAGAZINE

"The LP12 remains a classic ...but ..upgrade kits by Origin Live can bring a vast improvement to it's performance'

UNIVERSAL TURNTABLE MOTOR KIT - No one would blame you for being sceptical of an easy to fit, inexpensive dc motor upgrade. Especially one that improves on the best of other power supplies costing over 4 times as much or your money back. It is simply impossible to imagine the level of improvement attained by climinating the motor vibration that your stylus amplifies over 8,000 times! Our DC motor kit offers massive improvements to all versions of Linn Lingo / Valhulla, Rega, Systemdeck, Roksan, Rock etc. The kits consist of a drop in replacement high grade DC motor and off-board 2 speed control box. Why not order now? - see web site or phone.

Standard dc Motor Kit - £250 Advanced dc Motor Kit - £339 Ultra dc Motor Kit - £570 Upgrade Transformer - £175

ORIGIN LIVE Tel/Fax: +44 02380 578877 E-mail: originlive@originlive.com

Upgrade DC 200 motor - £129 with kit | www.originlive.com











www.partsconneXion.com

order@parisconnexion.com 905-531-5777

905-681-9602 Info@partsconnexton.com

Visa, Mustercard, Annux, Per Pol, Microy Order & Bank Draft 5109 Harvester Rd, Unit B2, Burlington, Ontario, Canada L7L 5Y4

86 HI-FI WORLD MARCH 2009

SUPRA Cables MADE IN SWEDEN

Introducing the Supra LoRad MD06-BS/SP 6-way surge protected mains distribution block



Our 2008/9 range includes:

- * HF100 HDMI (v1.3) / DVI digital video
- * ZAC & X-ZAC fibre optic cables
- * AnCo & Trico co-ax digital cables
- * FS & AV6 scart cables
- * AnCo TV, FM, DAB aerial cables
- * DUAL & EFF-IX- analogue cables * AV3 & AnCo - component video cables
- * LoRad shielded mains cable
- * LoRad 6 way surge protected UK mains
- * Classic, Rondo and Ply speaker cables
- * Sword analogue and speaker cables ..as well as connectors and accessories

Featured product: LoRad 6 way Surge Protected UK Mains Block and LoRad UK>IEC shielded mains cable (in lengths from: 1m, 1.5m, 2m or 4m)

SAVE £20

(if cable and block purchased together)

Block + 1m cable = £169.99 (normally £189.99) Block + 2m cable = £179.99 (normally £199.99)

For UK customers who require more details or to request a brochure pack containing stockists & price information, please contact:

Brochure line: 01223 441 299 Email: info@supracables.co.uk

Website: www.supracables.co.uk/hfw.html



bearing is, after all, the centre of the turntable's sphere of operation. If it is spinning in a well of thick gooey sludge, then the platter

is likely to be more sensitive to speed fluctuations as the stylus encounters high groove modulation. This results in transient wow effects, particularly in a belt drive deck, and if the motor relies on some sort of feedback control system to maintain a steady speed, it

will have to work harder, increasing mechanical noise. Audio Origami has come to the rescue of vinylphiles once more with their 'Booster Oil Turntable Main Bearing Kits'. These handy little outfits bring you two 1.8ml vials of PTFE loaded synthetic oil, two extra long cleaning pads and two syringes for removing all the old oil and two lint-free cleaning cloths for buffing up the bearing shafts and absorbing the very last drops of old oil from around the bearings. As a bonus they even throw in an Audio Origami cartridge alignment protractor and strobe disc

- handy things to have.

Looking for a suitable candidate for lubrication, my eye settled upon my recently acquired Sonab 65S turntable - in need of a basic service, and with a main platter bearing that seemed a little stodgy. Wielding the cleaning items, I discovered old oil that would not have looked out of place in the sump of a seized London Taxi and took great delight in cleaning all this out, with the help of a little Isopropyl alcohol. Refilling with the new fluid and giving the platter a spin was a revelation - that main bearing was now silky smooth and prior to fitting the belt, just spun and spun when given a push. Playing an LP showed no less of a change. Bass lines seemed more positive, being tighter and better controlled, and the Sonab's upper bass had gained a swiftness and poise that had been missing. Rhythms seemed to have been let loose to really flow with precision and all-in-all I could not help but feel this was one of the most striking upgrades I had made for a good while, and all for £15 and around ten minutes work! AS [Contact: www.audioorigami.co.uk]

AUDIO ORIGAMI TURNTABLE BEARING OIL KIT £15

It's often the simplest of jobs that get overlooked in life, and this can be very true in hi-fi circles as well. After all, when was the last time you checked your turntable's main bearing oil? This seemingly insignificant detail can make a huge difference to its performance not only in terms of longevity and reliability, but most importantly in terms of sound. The

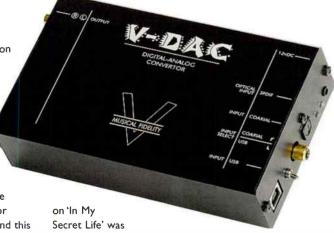
soundbites

MUSICAL FIDELITY V-DAC £159

The selling point of Mobile Fidelity's new 'V Series' range of hi-fi accessories is that the cost of manufacture is predominantly spent on quality components rather than flash casework, and so it proves with this affordable DAC. The simple black box has the whiff of a school electronics project about it, and the V Series logo font is laughably non-serious looking but it is well conceived as a switchable USB versus digital input (S/PDIF optical or coaxial), phono output device. I would predominantly be interested in such a device as a digital output for a USB-only computer like the MacBook Air, and in that regard it performs very well, needing no drivers, just appearing as an output option in system preferences. Once that option is selected all manner of digital music files could be played out flawlessly

from the appropriate application
- basic 128kbps free iTunes
files sounding good enough,
but variable bitrate MP3
and Lossless FLAC files
sounding extremely good
- great bass extension
was to be had from the
Pussycat Dolls 'When I
Grow Up' in FLAC.

Musical Fidelity market the V-DAC as the ideal upgrade for cheap CD and DVD players, and this proves to be its ideal level. It has an appealing, clean and open sound that should improve on old and/or cheap players – adding grip, dynamics and low level resolution aplenty to your average nineties budget CD spinner. Still, its budget status does become apparent if it is used to treat the likes of a £1,000 universal player as a transport. One listen to Leonard Cohen's guttural utterances and its surrounding cooing girly vocals



Secret Life' was enough to the convince that the 24/192 convertors of the V-DAC did not quite have the edge on the similar ones used by Arcam. This is a cracking value for money entry level DAC – not a universal panacea, but an effective upgrade for humble silver disc spinners of the Compact Disc and DVD variety. In this respect, it's hard to beat. PC [Contact: +44(0)20 8900 2866,

[Contact: +44(0)20 8900 2866 www.musicalfidelity.com.]

Valrus 11 New Quebec St, London W1





solidtech radius stand



pure sound A30

black rhodium bocchino brinkmann cartridge man cawsey clearaudio consonance decca london duevel dynavector ear yoshino emt

a2t

acuhorn aesthetix air tight amazon amity amplifon amr

acoustic signature acoustic solid

apollo furniture

aura basis benz micro

funk firm gershman acoustics goldring

graham (tonearms) graham slee



luxman

lyra connoisseur mcintosh

michell engineering mit cables morch musical fidelity nordost

nottingham analogue

origin live ortofon

pro-ject pure sound rcm rega reimyo ringmat

roksan shun mook shanling sme solid tech something solid

> stax stello

stirling broadcast sumiko tannov

tom evans townshend audio

usher

xindak

transfiguration trichord

ivra



michell gyro se



consonance 2.2 linear



nottingham analogue space 294



porsche design p9123



lyra skala



kibri naima

acoustic signature challenger







stax SR-007 omega system 2



solidtech rack of silence stand

* Please ask about our ex-demo stock; many items are virtually as new but with large reductions. van den hul

We deliver by Business Post 24hr service (subject to stock availability), and internationally by DHL, TNT or UPS. Major credit/debit cards accepted, even known to take cash on occasions: Please visit our website for product, technical and ordering info

tel: 020 7724 7224 fax: 020 7724 4347 contact@walrus.co.uk www.walrus.co.uk

"without the sixty year old seven inch single, things would have been so much less fun..."



david price

here would we be without the seven inch single? Now, on the format's sixtieth birthday, as it reaches the twilight of its working life and awaits the audio equivalent of its bus pass (a free lifetime's subscription to iTunes, perhaps?), let's remember the medium that took us from wind-up gramophones with needles tracking bits of dead beetle (well, shellac) to the glory days of triple disc Long Playing progressive rock records, and beyond...

It's important to remember just where hi-fi - and indeed recorded music - was in 1953. The stereo microgroove LP was in its infancy, and still a niche format like FLAC is now, in a way. Shellac 78s were all-powerful, but they had problems which made them less than ideal for the audience the music industry was trying to sell to. Lest we forget, they broke easily and couldn't hold much music because the groove(s) had to be widely spaced. Then there was the issue of wear (both disc and needle), and of course the surface noise and bandwidth. This was fine for the studious aficionado of rock'n'roll or Jazz - I'm sure Bill Haley's 'Rock Around The Clock' was a fine experience at 78rpm providing all those record care issues were carefully acknowledged, but the old seventy eight just wasn't versatile or durable enough for where the music industry wanted to go.

The microgroove LP came in and changed all of that, of course, but it was still a damn expensive pursuit and of course, being able to carry forty four minutes (or thereabouts) per disc, wasn't ideal for nineteen fifties kids who just wanted the one song. Enter the seven inch single. Considerably smaller than LP and running at 45rpm, it was ideal for a

quick music fix. No surprise then that just a few years after its appearance, we entered a 'golden age' of popular music. This wasn't Tin Pan Alley stuff you understand, tunes your mother would know – this was unalloyed, visceral, thrill packed rock'n'roil. Rolling piano cadences, shuffling beats and electric guitars – music would never be the same again...

And music would never be the same without the seven inch single, for this was the medium that got the new music to the masses, and made the concept of the 'teenager' possible. It was a physical product that conferred ownership of not just a piece of music, but a way of life, and one that marked itself in dramatic contrast to the LP record buying parents... We all know the artists - Elvis Presley, Buddy Holly and Cliff Richard even. As the quiffs got higher and the sideburns longer, the 'free world' found itself experiencing something new and strange - youth culture. Jukeboxes, cafes, drive in movies - the whole smash grew up around the seven inch single's ability to supply the new tunes to the new nineteen fifties beat generation.

In the sixties, the format soared higher still. As the rock'n'roll movement passed, the new generation of Merseybeat groups pushed their sound all around the world, with only China and Russia left out in the cold. A 'teen' explosion followed, dominated by the pop charts on both sides of the Atlantic. We had the Beatles occupying the top five positions in the US Top Twenty and selling out every venue they went to - and The Stones, The Who and The Animals locked in mortal chart combat with them upon their return. All this time, millions upon millions of little seven inch slices of recycled black vinyl were exchanging hands, bringing in mega bucks for the music industry. The

single – as it had become known – was all conquering.

There was only one cloud on the seven inch's horizon - that of 'rock' music: when The Beatles released 'Sergeant Pepper's Lonely Hearts Club Band' and the first so-called rock LP was born (although I'm sure some will be screaming at me that this honour should go to The Beach Boys' 'Pet Sounds'), suddenly the little bit of black plastic looked mortal. People didn't stop buying it of course, but suddenly pop music was trying to grow up - and out of the seven inch. Led Zeppelin famously refused to be 'a singles band', while the likes of Pink Floyd and Yes didn't exactly put much effort into their singles output. Instead, the little disc was bringing the likes of Slade and T.Rex to the masses, and great bands they were too...

Still, the format got its 'second wind' with punk. John Peel once famously said, "if you could knock over your local phone box, you could raise enough money to put out 100 singles", and that's how punk started. The likes of the Damned, The Clash and The Sex Pistols all went on to far greater things, but they all started that way - using the uniquely low cost and ubiquitous nature of the medium. Picture sleeves followed with new wave, then coloured vinyl, then picture discs - and the format was still shifting bucketloads nearly a decade later with Duran Duran and Spandau Ballet, Indie music defined itself around seven inch singles - ask the owner of Orange Juice's original 'Falling and Laughing' on Postcard records, or even The Smiths' 'Hand In Glove' on Rough Trade how much they're worth now, and you'll see they're immensely collectable.

So thanks to the sixty year old seven inch single - without you things would have been so much less fun. As Neil Young once said, 'long may you run''.

The all-new

M-series from ROKSAN



High performance hi-fi separates that will make your heart sing







To find out more about the M-Series of high performance hi-fi separates from Roksan, and where you can buy them visit: www.henleydesigns.co.uk



www.henleydesigns.co.uk, 01235 511166

ROKSAN CENTRES OF EXCELLENCE

Midland Hi-Fi Studio, Wolverhampton • Audio Merchants, Glasgow • Sound Cinergy, Aldridge • HG Rapkin, Northampton Home Media, Maidstone • Kronos Hi Fi, Dungannon • Merlin Music, Melrose • Sevenoaks Sound & Vision, Yeovil 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

"the old, reliable, even comforting world of the record label is a thing of the past. All the old certainties are gone..."



paul rigby

've just received new CDs on my desk from the Verve record label. The most significant is Herbie Hancock's new waxing, 'Then And Now'. For a single CD five decade career retrospective album, it's quite a collection. In fact, for an artist of Hancock's stature, it must have taken some paring down. You could have easily have spanned several CDs to address Hancock's oeuvre...

The other CDs, which I will come to in a moment, offer similar skill, talent and a surfeit of new ideas from a variety of other artists. Before they are addressed however. it intrigued me that the label itself which, like Hancock, has a career which also spans five decades, has managed to survive all these years. Yes, it is ultimately owned by the Universal group. However, it has managed to maintain a degree of autonomy which has given the label a strong sense of purpose and direction. This is of course a rare attribute, especially when the label has had to survive in the present climate of limited finance, competition with the Internet and new media outlets.

It is safe to say that nowadays, the old, reliable, even comforting world of the record label is a thing of the past - all the old certainties are gone. The hardcore traditionally structured, executively-driven industry, which traded almost as an effective cartel, controlling artists, distribution and money supply, is now seen as tired and out of step with today's market. Pushed around by iTunes, driven out of the High Street, outflanked by nimble Internet start-ups and band-run websites, the traditional record label is not only struggling to come to terms with today's market (witness the recent

problems at EMI) but is also trying to cope with the public's expectations.

The music world is in the midst of a revolution, yet we all expect our labels to continue to churn out well produced albums, recorded in top studios, filled by exciting and emerging talent and finished in quality packaging. We rub our hands in glee at the current changes, thumbing our noses at the dinosaur-like lurching of the old record labels, yet we act with right-wing conservative outrage if we ever notice a dip in standards...

Classic record labels such as Verve have thus to walk a fine line - they have to both innovate yet retain traditionally high standards. Dahlia Ambach Caplin is the A&R Director for Verve and is situated at the sharp end of the label. She has to not only look out for new talent but keep an eye on costs while ensuring that the sound quality that emanates from your carefully constructed hi-fi is maintained. "A&R is the lifeblood of the company", Caplin told me from the Verve HQ in the USA. "We're not pushing pop singles. If we're not known for our standards, if our artists aren't very good at what they do, then we stand no chance of survival".

When EMI was recently taken over by Guy Hands' Terra Firma, a venture capitalist outfit, he famously junked the A&R department and declared that the 'suits' would do the job instead. Jazz Summers, chairman of the Music Managers Forum and manager of the Verve (the band) and Badly Drawn Boy, responded that such a move was "totally and utterly ludicrous". He said that, "the real essence of a record company, the reason why a record company is successful, is having good A&R". He said that, "if he [Hands] wants to succeed at EMI he needs to have an

army of great A&R people and get rid of the suits... he's learned nothing, in fact he's going backwards."

This is maybe why Robbie Williams went on strike and Radiohead left the label - and also why Verve has managed to retain the likes of Herbie Hancock, whose new album CD retrospective follows his well received Joni Mitchell examination, 'River' and why Verve attract talented artists such as Molly Johnson, the jazz singer with the gravel-inflected voice whose new album of mostly classic and modern standards, 'Rain', is out now. Then there's the new blood such as the jazz singer and composer Lizz Wright, whose third album, 'The Orchard', is currently wowing jazz fans with her beautifully deep, soulful voice.

"It's very important that the artists who are brought here and record with us are very talented," added Caplin. Inferring that there's no space for dead wood, personalityonly, novelty acts with a label like Verve. "Talent is a subjective word, of course. There's no formula in finding that talent. We do try to find artists that people find compelling, they will want to see live. We also want people with a strong work ethic. Melody Gardot, for example. She is a great singer, an incredible songwriter but she also has a magical aura that I have rarely, if ever, seen in a woman of her age - completely engrossing and compelling."

Mix the new with well repackaged classics such as Stan Getz's boxset, the five CD 'Bossa Nova Albums' collection and you have a blended label which, like Hancock's 'Then And Now' album, not only occupies a position of affection for its glorious past but also an edge for the present and hope for the future.

WHEN ONLY THE BEST WILL DO

New Spendor SA1

The most musical and revealing small loudspeaker ever created by Spendor.

This tiny 2-way infinite baffle design presents sound in a remarkably clear and cohesive manner, it is simply captivating.

Finished in a choice of gorgeous; Hi-Gloss Zebrano, Jet Black Piano Lacquer or Satin Wenge, the Spendor SA1s will complement any room.

SPENDOR

HEAR THE SA1 AT THE SEVENOAKS STORES MARKED •

Kingston 020 8547 0717

01522 527397 Loughton 020 8532 0770 Maidstone 01622 686366

Leeds - Wetherby 01937 586886

Dublin New Open 01 495 3062





- New 22m wide-surround extended-range tweeter
- New 15cm long-throw Spendor bass-mid drive unit
- New short signal path gold-plated crossover, meticulously refined using hi-grade electrical components
- Optional, stylish, stable, non-resonant stands
- The world's finest WBT binding posts

Visit www.SSAV.com today!

the experts in home entertainment

"the BBC has taken an important long-term strategic decision that's completely against the interests of the general public..."



steven green

he Digital Radio Working Group (DRWG), which is a government task force made up of representatives from the BBC, commercial radio and the receiver manufacturers, has published its final report containing its recommendations on what route should be taken towards FM switch off. The DRWG's main recommendations are that DAB should become the main digital radio platform; that FM could be switched off at some point between 2017 and 2022; that DAB take-up should increase "dramatically" as quickly as possible; and that this should all be achieved via heavy TV advertising.

As per usual for a report written by the DAB industry, the issue of switching to DAB+ was carefully avoided, but in reality DAB+ will inevitably be used, and it will eventually replace DAB. You can safely ignore the 2017 figure as well. The DRWG admitted that it would take until at least 2014 before all new cars would have DAB fitted as standard, so by my reckoning only around a third of all cars would have DAB by 2017, and FM could only be switched off by 2022 to 2024...

The above two issues will sort themselves out in the wash though anyway, and the really important issue stemming from the DRWG report is that Internet radio has been excluded from the radio industry's long-term plans for digital radio. This means that the DAB industry is quite simply trying to kill-off Internet radio just as it's about to get going. Of course, some people will still choose to listen via the Internet, and radio streams won't actually be switched off. But without any TV advertising or support from the radio industry, Internet radio is destined to be a bit-part radio platform, and the vast

majority will end up listening via

The reason why they've done this can be summed up in one word - protectionism. DAB can only carry a relatively small number of stations. whereas there are thousands of radio stations available on the Internet; so the broadcasters think that DAB's limited choice offers them the best chance of hanging onto their existing listeners. One radio industry analyst summed the situation up as having "all the hallmarks of a content prison", and I agree. The big UK receiver manufacturers also have the DAB market sewn up, so they would very much like the status quo to continue as well...

The scandalous thing about this is that the BBC - which effectively led the DRWG - has taken a very important long-term strategic decision that is completely against the interests of the general public. The phenomenal success of the BBC iPlayer last year showed that the public is very enthusiastic about consuming broadcast content online, and the Internet is the platform that offers by far the greatest potential for digital radio. As well as there being thousands of Internet radio stations to choose from, the Internet is the only way that people can access on-demand content, such as the BBC iPlayer radio streams and podcasts. The Internet offers a huge amount of potential in terms of audio quality as well. For example, it is looking likely that within the next few months the BBC will provide its live and on-demand Internet radio streams at 160 or 192kbps AAC for Radio 3, and 128kbps AAC for the other stereo stations. This is a level of audio quality that is as high as we can ever expect to receive via DAB+, let alone DAB.

Providing such quality has been made possible due to the plummeting cost of Internet bandwidth, which is a trend that is expected to continue because bandwidth costs are linked to Moore's Law. This means that the audio quality on Internet radio is only likely to improve over time, so it wouldn't be unreasonable to expect the BBC to provide its Internet radio. streams at 256kbps AAC within the next couple of years, or for them to deliver true CD-quality using lossless audio formats within another two to three years after that. Ultimately, if one of the high-definition audio formats ever did take off, the only platform that would be able to deliver the very high bit rate levels that would be required for 'HD radio' would be the Internet. DAB+ wouldn't come close.

The Internet can also deliver pictures and video alongside radio streams, whereas DAB is severely limited in this regard. The Internet also inherently supports social networking, feedback from users, personalisation and interactivity, none of which are even possible on DAB.

Given equal TV advertising for DAB and Internet radio, I believe that by the time FM is switched off most people would have chosen to listen via the Internet due to the huge advantages it has to offer. As things stand however, it looks almost certain that the BBC will withhold information about Internet radio's advantages, everyone will be pushed forcefully towards DAB, and many millions of people will end up listening to the wrong platform compared to what they would have chosen given impartial advice from the BBC. You could almost call this a case of mass deception, with the listeners having to pay for the organisation that's deceiving them...

WHEN ONLY THE BEST WILL DO



SERVOEVOLUTION SUPERIOR CD PLAYERS FROM CYRUS

So, after 18 month's development the 'Servo Evolution' (SE) CD players and dedicated CD

transport have finally arrived.

The biggest limitation in hi-fi CD players is the laser and servo that reads the music from the disc because it is not specifically designed for high performance audio. Knowing this is a performance barrier, Cyrus spent 18 months developing its own CD engine specifically designed for the highest sound quality possible.

The SE engine is all the elements before the DAC. Cyrus has carefully chosen the disc loader, laser, motors and most importantly, the software that controls the laser travel, focus and data spiral tracking accuracy. The servo software is the bit that controls these components and allows Cyrus' engineers to tune the elements for ultimate accuracy.

You don't need to be an experienced hi-fi buff to appreciate the differences, the new SE based CD players sound obviously better because it's unique new CD engine is 'made for high-end audio'. To learn more and download the new SE brochure go to www.servo-evolution.co.uk

The new SE based players comprise:

CDXtSE A high-end CD transport using the SE engine and several dedicated power supplies.

CD 8 SE Based on the same platform as the transport but with an advanced DAC section and twin low noise power supplies.

CD 6 SE Benefits from the same high performance SE platform but has simpler DAC and power supply sections.

And in true Cyrus tradition the players are each upgradeable!

Hear them in action at a Sevenoaks store near



Visit www.SSAV.com today!

CYRUS SE CD PLAYERS

AVAILABLE AT THE SEVENOAKS STORES MARKED

Aberdeen 01224 252797		Kingston 020 8547 0717	•	Sevenoaks 01732 459555	•
Bedford 01234 272779	•	Leeds - Wetherby 01937 586886	•	Sheffield 0114 2SS S861	
Brighton - Hove 01273 733338	•	Lincoln 01S22 S27397	•	Southampton 023 8033 7770	•
Bristol 0117 974 3727	•	Loughton 020 8532 0770		Southgate 020 8886 2777	
Bromley 020 8290 1988	•	Maidstone 01622 686366	•	Swindon 01793 610992	
Cambridge 01223 304770	•	Manchester 0161 831 7969	•	Tunbridge V ells 01892 S31S43	•
Chelsea 020 7352 9466	•	Norwich 01603 767605		Watford 01923 213533	•
Cheltenham 01242 241171	•	Nottingham - Sherv 011S 911 2121	boov	Weybridge 01932 828525	•
Epsom 01372 720720		Oxford 01865 241773		Witham - Essex 01376 501733	•
Exeter 01392 218895		Peterborough 01733 897697	•	Yeovil 01935 700078	•
Glasgow 0141 332 9655		Plymouth 017S2 226011			
Guildford 01483 S36666		Poole 01202 671677	•	NOW OPEN	
Holborn 020 7837 7540	•	Reading 0118 959 7768	•	New Dublin Store 01 49S 2020	

SEVENOAKS

the experts in home entertainment

"less is more; the less you have in the signal path, the more you get in terms of quality..."



noel keywood

rarely become spell bound when reviewing hi-fi equipment but the other day I found myself relaxing back and just listening to the music. As six o'clock passed, people shouted "goodnight" and a silence descended on the office building I realised I was listening to something special. Yet I was simply working with items we have reviewed favourably, and that in themselves may not seem earth shaking. Why is this sound so organically natural, with nary a hint of hardness, brittleness, shout, edge or much else, yet also so fast, dynamic, exciting and totally engrossing I mused?

Looking at the line up the answer would seem to be fairly obvious: I was listening to a finely honed, minimalist all-valve system with not a transistor in it. Also, it was pure analogue. And, best of all it was not absurdly expensive, which for me is very important. I believe from my World Audio Design days that with hi-fi, less is more; the less you have in the signal path the more you get in terms of quality. Silver discs, lasers and DACs? Forget it, the amount of processing is so great they are strangled by it.

I was spinning LPs and 12in 45rpm singles using our excellent Ortofon 2M Black cartridge in a modest turntable set-up comprising SME 2-10 arm on a Pioneer PLC-590 direct drive turntable. The Ortofon could equally have been mounted in a Rega RB300 equipped turntable, let's say a P3-24, in which case the whole would come in at £350 for the cartridge and £400 for the turntable. The 2M Black deserves a good mount and the RB301 arm has excellent dynamics and wonderfully wide, focused sound staging at lower frequencies due to superb arm rigidity. Only the headshell could be better I suspect, which would introduce a slightly smoother SME-

like midband, our accelerometer

So much for the signal source. The point is that it is fundamentally simple, yet enormously refined and there isn't a integrated circuit in sight! That's because I had the turntable connected into our Eastern Electric Minimax phono stage. It could just as well have been an Icon Audio, Emille labs or World Design stage, all of which are wonderfully crafted, measure faultlessly and sound superb. But the Minimax just happened to be there, with its all valve line-up, excluding the power supply. Yes, valve rectified and regulated power supplies are better; at World Audio Design we always preferred the sleek sound an all valve supply gave us and became converts, even though valve rectification and regulation is cumbersome, heat producing and expensive. Nevertheless, my first encounter with a valve phono stage equipped with valve power supply, an Audio Innovations P2, opened my eyes to what was possible from LP. It was amazing, as is its successor in kind, the new Icon Audio PS3.

The Minimax fed our heavily employed Creek OBH-22 passive preamp. complete with remote control input switching and volume control. I rather like the Creek; its neutral character doesn't modify the basic essence of the other components. Here we come to the preamp problem and my preference to KISS – Keep It Simple Stupid! Keeping it simple here means paying just £300.

At the end of the chain were Icon Audio MB845 monoblocks, cost £2,250. These are extraordinary. I am forced to use them when loudspeaker reviewing just to be sure that I am not listening to the collective screech of two hundred out-of-tune transistors rather than

the loudspeaker itself. And every loudspeaker sounds better when driven by the Icons. I hesitate to make them my de facto reviewing standard because they are not representative of real life product; few people use 845s in their home. Yet their price isn't - by esoteric hi-fi standards - outrageous.

At the end of this system and enjoying every minute of it were the B&W 843 floorstanders I was reviewing. They had enough ability in themselves to convey the supreme quality of what I was listening to.

Musing on just why this system sounded so good I realised it fulfilled the criterion of elegant simplicity, possible only because it used valves. Just a few valves in the Minimax were sufficient to develop a signal strong enough to drive the Icon Audio monoblocks, which themselves use just a few highly linear 1930s triodes to drive the massive 845s. So that's about five amplifying devices and little corrective feedback, because you don't need to correct something that works properly in the first place.

I had CD feeding the system too - and very nice it sounded. Until, that is, I span Goldfrapp's 'Ride a White Horse' on 12in 45rpm single after spinning the CD version, or Amy Winehouse's 'Tears Dry on Their Own'. In both cases the 12in singles were dynamite, totally shading the CD version. LP turning at 33rpm also sounded wonderful. It is now possible to get many new releases on LP, as well as all the old stuff and reissues, making LP once again a viable source of music, as reader Guy Pettigrew notes in Letters this month. This modern analogue system that had me spellbound cost around £5,000, including the loudspeakers - not a King's ransom for a sound so good and a great illustration of what is possible today when valves are used with a quality record spinner.

by design

SOUND & VISION FROM SEVENOAKS **



TEAC'S GROUNDBREAKING NEW REFERENCE SERIES 380 SYSTEM

TEAC introduces its groundbreaking all-new Reference Series 380 Network Audio minicomponent hi-fi system incorporating Internet Radio. Since the original and highly acclaimed Reference 500 micro system arrived in 1995, TEAC's Reference Series products have been designed to deliver high-quality audio in compact, convenient, and affordable packages. TEAC's experience, ingenuity, and unswerving belief in the value of high-quality sound are what keep its Reference Series micro component systems ahead of the pack.

TEAC REFERENCE SERIES 380 SYSTEM

Now comes the most innovative and technologically advanced TEAC Reference Series ever – the 380 Internet Radio/Network Audio System.

The Reference Series 380 is a leading-edge product with state-of-the-art technology and facilities and, arguably, no other system in its class offers such a strong feature set. DAB/DAB+ and WIFI Internet Radio, MP3 playback from CD or via a front-mounted USB socket, an optional iPod dock, high-quality circuitry, tone and balance controls, CD Direct function are all included in the three-component system. The inclusion of fully featured Internet radio, in addition to DAB and AM/FM, is particularly notable at the price.

The TEAC Reference Series 380 System. With the optional DS-20 iPod dock (which supports both audio and video and full-remote control over any iPod, including the iPhone) the complete package offers the most exceptional value on offer today.

Check it out for yourself and you'll see - and hear - why.

TEAC

Visit www.SSAV.com today!

LISTEN TO THE TEAC 380

AT THE SEVENOAKS STORES MARKED Aberdeen 01224 252797 Kingston 020 8547 0717 Sevenoaks 01732 459555 Leeds - Wetherby 01937 586886 **Sheffield** 0114 255 5861 Bedford 01234 272779 Brighton - Hove 01273 733338 Lincoln 01522 527397 Southampton 023 8033 7770 Southgate 020 8886 2777 Bristol 0117 974 3727 Loughton 020 8532 0770 Maidstone 01622 686366 Swindon 01793 610992 Bromley 020 8290 1988 Tunbridge Wells 01892 531543 Cambridge 01223 304770 Manchester 0161 831 7969 Chelsea 020 7352 9466 Norwich 01603 767605 Watford 01923 213533 Cheltenham 01242 241171 Nottingham 0115 911 2121 Weybridge 01932 828525 Witham - Essex 01376 501733 Oxford 01865 241773 Epsom 01372 720720 Peterborough 01733 897697 Exeter 01392 218895 Yeovil 01935 700078 Plymouth 01752 226011 Glasgow 0141 332 9655 Guildford 01483 536666 Poole 01202 671677 **NOW OPEN** New Dublin Store 01 495 2020 Holborn 020 7837 7540

SEVENOAKS SALE - 13 DECEMBER 2008 - 17 JANUARY 2009: ADVERT VALID UNTIL 17/01/09. E&OE

the experts in home entertainment

SEVENOAKS

"is it really right to allow one five minute wonder after another to look like they are ruling the charts?"



adam smith

t seems to me that the festive season, and the consequent 'January Iull' that follows it, often give rise to some deep and meaningful discussions, and so it was for me at the beginning of 2009. A trip away with some friends, who are not only fellow ex-Goodmans employees and hi-fi fans but also avid music lovers, meant that it was inevitable that the topic of music would crop up before long...

Part of the reason for this seemed to be some very common ground for us all, namely that we were all utterly dejected by the inevitable news that the painful screeching and warbling of the latest 'X Factor' winner, had become the Christmas number one. Now whilst this was not exactly 'hold the front page' news in itself, what we found most depressing was that the song, a cover version of Leonard Cohen's superb 'Hallelujah', prevented the song at number two from reaching the top spot. What was this silver medal winner, I hear you ask? Well, what is generally considered to be the best version of that very same song, by the late and sadly missed Jeff Buckley.

You see, the record companies took the cunning move of not only releasing the new version, but also those by Jeff, and the original by Leonard Cohen as well, covering all bases - Cohen's version making it to number 36. Interestingly enough, this is the first time two versions of the same song have made it to the number one and number two spots since 1957, when Tommy Steele and Guy Mitchell did the same with their versions of 'Singin' in the Rain'. However, my friends and I were unanimous in our verdict that the wrong version of 'Hallelujah' had made it to the top spot.

Unfortunately, such a situation seems inevitable these days and every time the press announce a new

record for the most downloaded song ever', you can guarantee it will be a talent show winner, stealing the record from the last talent show winner! Whatever one thinks of such 'talent' shows, the fact is, they capture the public's imagination and so the winner inevitably rides away from the final on a cloud of publicity, adulation and admiration with promises of fame, fortune and a longstanding career ringing in their ears. The fact that a good number of them disappear into oblivion before long is neither here nor there - their big moment is assured. So, how did it happen that an undoubtedly inferior version of a classic song made it to the coveted Christmas number one. we wondered to ourselves? Luckily no-one was actually drinking when I laid the blame firmly at the door of downloads, as I suspect more than one mouthful of beer would have gone flying, as the hoots of laughter

My companions, all iPod-owners with considerable digital music collections, duly threw accusations of anti-digital bias at me, but let me explain. A little research had turned up the fact that, had the chart been compiled under the rules before downloads were counted, Jeff Buckley would have indeed been number one by a considerable margin. Now, there is a school of thought that these downloads have every right to be counted alongside their hard format counterparts and it would seem that this is entirely reasonable, after all if you're listening to a song at home that you have bought and paid for, the small matter of whether it is on CD, vinyl, cassette or digital download matters not one jot

My problem comes when it comes to the charts themselves, and a representation of current musical taste. Okay so maybe the whole thing is open to question given that

Ultravox's electro-pop epic 'Vienna' was kept from becoming number one in 1981 by no less than Joe Dolce's 'Shaddap Your Face', but today I feel that this has become even more questionable. After all, consider for a moment that you hear a song that you are intrigued by on the radio. A few years ago, you might have gone out and bought the single and thus ended up with maybe a handful of duffers in your collection after a few years, but it is more likely that you might have waited to hear a few more songs from the album and then bought this. Of course, an impulse purchase of the album might have been in order, but I'm sure I am not the only one to have ended up with the occasional album containing nine duff tracks and one decent one - that

Nowadays, hearing a song you might like to hear more of simply involves logging on, shelling out 99p or so and adding it to your computer audio collection, whereupon it counts towards those charts that we all used to sit up and listen to on a Sunday evening. The trouble is, this ease of acquisition makes it all the more likely that, in a few years time, computers all over the world will be stuffed full of tunes that seemed like a good idea at the time, but were only listened to maybe a handful of times. Either that, or the recycle bins will be positively overflowing!

As with so many cases of technological advancement, this ease of buying virtually any song you like at the click of a mouse has made life so much easier, but is it taking away the careful thought processes and options of consideration that allow us all to build up a music collection that we are really proud of? More to the point, is it really right to allow one five minute wonder after another to look like they are ruling the charts? I, for one, hope not.

Philosophy

David Price finds that Avid's Acutus turntable takes first principles to the highest level...

e wonderful thing about urntables is that conceptually they're so simple, yet so complex in practice. Whereas with CD players, so many of the things that influence sound quality are simply removed because the sound is in the digital domain (which itself brings a host of other no less critical, but different, problems), with vinyl it's a long hard slog to address every single element that can affect sonics using ye olde mechanical engineering...

For example, speed stability is not achieved through reclocking a datastream by substituting one silicon chip (i.e. clock IC) for another, but by painstaking attention to detail of every aspect of the drive system - from cleaning the power supply to engineering the best contact system between the motor and platter. Detail resolution is achieved not by substituting one type of DAC chip for another, but by fashioning the very best main bearing, record support and clamping system possible, whilst also maximising the effectiveness of the suspension and minimising the motor noise transfer path. In terms of the finesse and attention to detail required to work in the analogue domain, vinyl's proponents would argue the difference between designing a top turntable and CD player is like cooking the world's

and boiling a Pot Noodle.. Avid is an interesting company. Unlike many other big vinyl beasts,

it has very little 'baggage' simply because it is - relatively speaking - so new. It wasn't there to bring down the old giants like Garrard, usurp Japanese direct drives like Linn, or challenge the ubiquity of the Sondek LP12 like Roksan. All of that is ancient history for Avid, which launched at a time when vinyl was - if you believed most hi-fi magazines and the media in general - as dead as that proverbial parrot called Polly. This was a good thing, because it gave designer Conrad Mas a long list of turntables to analyse and then improve on. It's rather nice to start with a blank sheet of paper. With this in mind, the Acutus represents one of the most modern and (in my view) original expressions of analogue design - and it shows a lot of clever thinking, as we shall see...

most delicious spaghetti bolognese

Going back to basics, Mas notes that you can divide the vinyl replay process into three components. First is the platter, arm and subchassis loop - which has to be rigid enough to transmit all that low level mechanical energy from the stylus to the bearing/subchassis. Second is the suspension system which isolates the aforementioned subchassis loop from the outside world. And third is the drive system which has to spin the record at a constant speed, without interference from the mains or dynamic wow. The effectiveness of all three systems, all notionally operating independently but prone to interact with one another if not properly designed, is what makes or breaks vinyl's sound.

For me, the impressive thing about the Acutus is the way it 'answers' these three key questions. Going back to the first one (the platter/arm/subchassis), Conrad Mas argues that record support is critical, and that existing solutions don't do the job well enough. He says that

acrylic platters, whilst offering impedance matching, have the same frequency characteristics as records, be excited by the resonating LP becoming one

large vibrating mass

- thus colouring the sound. Mats in contrast allow the record to vibrate locally or at selected nodal points, which produce instability leading to loss of information and distortion, he argues. Avid's response uses a bonded polymer surface for the mat (designed to reflect angular energy and decelerate vertical energy) and a unique clamping system where the record is clamped directly to the main bearing around its centre.

In effect, this makes the record more rigid, aiding its energy transmission properties whilst removing spurious vibrations. This is key to the Avid philosophy, and what sets it apart from all other turntables, mats and clamping systems.

The bearing is also a novel design, being inverted and with a high centre of gravity to give stability and reduced noise. The point contact, made from a sapphire cup jewel and tungsten carbide ball rotates concentrically. The supporting shaft is 16mm diameter through hardened stainless steel and tapered to the top. It's designed this way to encourage energy transfer from the stylus outwards to the subchassis, rather than the other way around. The subchassis itself is a complex one piece aluminium casting, designed to give the most rigid transfer of energy between arm and bearing, but to dissipate vibration in other non-critical areas. Whilst some may find the finish on this a little 'industrial' looking, Mas says the irregular grain size and pattern of





the material dissipates energy more effectively than extruded or rolled material and the paint finish applied has been developed to assist energy release by controlling material skin tension.

The second key aspect is the suspension system, which uses three extension springs giving low centres of gravity and stability. Each spring is equally adjusted regardless of load, meaning they all behave uniformly for perfect stable vertical movement at 21Hz. Unlike other decks though, a specially designed spring termination using lateral damping rings prevents the subchassis wobbling from side to side (I've found this a particular problem on Linns and Michells, for example). This - in my view - is vitally important to maintain speed stability on a belt drive, allowing maximum delivery of motor torque.

Regular readers will know that we at Hi-Fi World haven't exactly been uncritical of belt drive systems on higher end turntables over the past ten years, so it's interesting to see what Conrad Mas has done with the Acutus. It is of course belt drive, but the system has been implemented very well using a near-peripheral round section belt driving the platter via a very high torque (130nM, said to be ten times that of the Impex-type motors used on the likes of Linns and Regas) motor, which is completely

rebuilt in the Avid factory to further reduce vibration and noise. This is powered by a powerful split-phase quartz-locked power supply. Thanks to the rubber rings that ensure the Acutus's suspension can only move upward and not sideways, the belt gets a very tight and strong grip on the platter. Evidence of the power of the motor can be seen on initial switch on, when there's an awful groaning noise as the belt strains to reconcile the motor's JCB-like torque with a 10kg platter than doesn't want to move! This isn't exactly as slick as the effortless glide of a silent Japanese direct drive, but certainly underlines the fact that the drive system is sturdy.

Setting up the Avid was straightforward enough, although as with many decks it's best to install the arm (and cartridge) onto the subchassis first, then locate the base just where you want it and drop the subchassis on, then add platter and motor. For the purposes of this review, an SMEV was used with a van den Hul Frog cartridge (with no fluid damping). The Acutus's build is what I would describe as 'industrial' - it looks and feels like a piece of heavy engineering (and indeed it is) rather than a sumptuously finished, delicate luxury product. Indeed, whilst the rough surfacing on the subchassis and the less than immaculately smooth

chroming on the platter edge might cause some raised eyebrows to those used to Japanese esoterica, you could say it reinforces the no-nonsense approach to this brick outhouse of a turntable. Put simply, if it was a car it would be a Swiss Army spec Mercedes G-Wagen with armour plating, and not a Lexus!

SOUND QUALITY

I would like to think that in 2009, we are past the stage in the debate where journalists have to talk in terms of "the best turntable in the world". I think there as many of these as there are people in the world, and never underestimate the power of human subjectivity and individual taste to bring disorder to any type of reasoned debate! So, I am not going to make dramatic pronouncements (as Tony Blair once famously said, "now is not the time for sound-bites, but I can feel the hand of history on my shoulder"), rather I'll try to explain why I think this is one of the great turntables in the world...

The Acutus has a very neutral sound, which is to say that it both takes you very intricately in to the recording itself, and at the same time rather removes you from it. By this I mean it is so incisive that it gets past much of what is wrong with a particular recording/mastering/ pressing, offering a direct route to



The No. 1 choice for Speaker Building & speaker upgrade / refurbishment projects



A fresh approach for those who want to save money designing & building their own high-end Loudspeakers or who want to breath new life into broken or aging Speakers

Ask about

- Crossover design
- Speaker upgrades / rebuilds
- Open Baffle Designs
- Free advice chat about your project







'We think it deserves our Maximum Mojo Award and Serious consideration for our

Loudspeaker of the Year' StereoMojo

'Their big-hearted nature presented music with staggering levels of dynamics and presence'

Hi-Fi World Magazine



Hi-Fi World Award 'Best Loudspeaker'

Phone:+44 (0)87 0047 0047 Email:info@revolveraudio.co.uk

Website: www.revolveraudio.co.uk





the music without concerning you too much with how it gets there. By any criterion, this is an astonishing feat and puts it in the company of the world's very best disc spinners. However, there's still something about it that might leave some people cold. So insightful is its performance, so matter of fact is the way it brings the music to the listener, that some of those who've taken the path of the righteous (sorry, I mean 'chosen vinyl as their preferred music source') might be disappointed by its lack of euphony. It's not a seductive music maker in the Linn Sondek LP12 mode or a blood and guts bruiser like the Garrard 401. Rather, it has relatively little discernible character at all, if any - and some might not like this.

I think my 'news reader' test is the easiest way to predict whether you'd like the Avid. Are you a fan of the warm, Caribbean folksiness of ITV's Trevor McDonald, the prim and proper tones of the BBC's Fiona Bruce, or do you like that Sky guy who just reads the news without any fuss — what's his name again? See what I mean? The Acutus is the turntable with no name, the characterless, charmless and faultless one that no one wants to talk about because it just gets on with the job.

For example, when I first spun Steely Dan's 'Deacon Blue' from that jewel-like 'Aja' LP, I sat there rather transfixed with Donald Fagen's voice. There were moments when I would marvel at the warmth of that superb bass guitar sound, and the brilliantly dextrous way it was played, or delight at the sublime hi-hat sound (thanks also to SME and vdH here!) which was about as realistic as I've ever heard outside a concert hall with its shimmering harmonics and supernatural air. But actually what locked me into this song was the nasal, New York, Jewish whine that intoned, "I'll learn to work the saxophone/ I'll play just what I feel/ Drink Scotch whisky all night long/ And die behind the wheel"... It's the juxtaposition of Fagen's bitterly acerbic, almost poisonous lyrics with Walter Becker's soft, inoffensive minor melodies that makes this song so powerful, and Fagen's plaintive vocal delivery tops it off brilliantly - and never have I heard it so direct as with this turntable.

Moving to '1000 Knives' from Yellow Magic Orchestra's dark 1981 ambient electronic 'BGM', and once again you could sit there and gasp in awe at the clarity of one of the earliest digital recordings, the sumptuous warmth of those arpeggiating Korg analogue synthesisers and crashing Roland drum

machines. You could marvel at superlative bass grip the Acutus displayed and its vast, widescreen projection of the soundstage (or should that be soundscape?). And you could smile at the thunderous dynamics, hitherto unheard, as the brooding songs builds to a crescendo. But again I found myself transfixed by what the song was doing, the emotions it was evoking and where it was pushing itself. At the end I was left with an even deeper respect for its composer Ryuichi Sakamoto — and an insatiable appetite for more.

I also found myself completely mesmerised by my small but growing collection of classical music - and better able to appreciate it both on a sensual and an intellectual level. The Acutus, acting as an impartial 'broker' of the music rather than editorialising, became the perfect tool for this type of music, which in my opinion needs replay equipment of the very highest quality if it is to 'work' properly. My Deutsche Grammophon pressing of Beethoven's Pastorale Symphony (Karajan/Dresdner Philharmonic) was raised to a new level in terms of musical enjoyment - this turntable bringing me closer to that live recording moment than I've ever been, and also reminding me (as if I needed it) just how disarmingly high resolution the vinyl medium can be.

For the past month I've been running the gamut of my record collection, finding this deck 'unlock' so many previously inaccessible pieces of music. This is all the more pertinent to me, as I'm the sort who buys LPs because he "must have them" - then often doesn't play them for years after. But it hasn't been all good news, because I find myself having to be in a particular mood to listen to the Acutus. Unlike the LP12, for example, it is not a turntable you can put on as a source of background music. The big Avid is not something to make you enjoy music, it is something to let you experience it. This means that I find myself having to be in the right

mood – receptive, so to speak – to the music in all its powerful glory, rather than just wanting it on to ease me or please me. It's a deck that makes you sit up and listen, and my point is that when I'm tired, stressed or otherwise occupied, I often don't want to...

So you have to buy the Avid Acutus knowing what you're letting yourself in for. It's a big, powerful and



bracing performer that blows out all the cobwebs, and lets the music break on through to you. At this point, I can realise how all the other turntables I've lived with mediate it in some way, sweeten the pill or put syrup in the porridge, so to speak. This turntable doesn't do that – so it's not for everyone.

Aside from noting that this won't satisfy the 'single ended valves and vinyl' brigade who like sumptuousness above all else, the only other remark has to be about its bass. It is the tightest sounding belt drive turntable I've ever heard, but still sounds a little soft compared to my direct driven Sony TTS-8000. Bass guitar notes switch on an off like LEDs through the latter, but via the Avid there's still the slightest, merest delay. I think it's only when you get up to the likes of the Continuum Caliburn that you truly get past this - and that means spending many tens of thousands of pounds more.

CONCLUSION

It's hard to review a turntable such as this, which is so clearly brilliant in so many areas. Instead, the debate becomes not about its relative merits but whether its particular nature suits you, sir! I'd venture to suggest that if you've got £7,300 to spend on this slice of audio esoterica, then you should take a few days off work (if indeed you're not already 'posteconomic' as they used to say in the days of the dot-com boom) and listen to it, and its rivals from Linn, Thorens, Roksan, SME et al., to see which sound you prefer. As for me personally, I think this about as close to the sound I am looking for.

REFERENCE SYSTEM Sony TTS-8000/SME Series V/ vdH Frog turntable Icon Audio PS3 phono stage Sugden IA-4 amplifier Yamaha NS1000M speakers

VERDICT ••••

One of the great superdecks, this offers dizzying musical insight with all the drama and majesty that ensues.

AVID ACUTUS £7,300
Avid Hi-Fi
(+44(0)1480 457300
www.avidhifi.co.uk

FOR

- superb stability
- glassy transparency
- breathtaking dynamics
- unerring musicality
- design, packaging, set-up

AGAINST

- matter of fact nature not for everyone

MEASURED PERFORMANCE

The Acutus keeps a tight grip on speed, our analysis shows. The basic unweighted wow and flutter figure (IEC Lin) comes out at 0.076% but this figure includes slight disc eccentricity at 0.55Hz, seen as the peak at far left. The IEC weighting filter eliminates this inevitable component (test discs cannot be perfectly centred), giving a low 0.054% figure — a very good result. Components are visible at 2.8Hz and from 8Hz-10Hz but at -80dB (0.01%) and lower these are minimal. Speed measured a negligible -0.2% slow the frequency figure

of 3145.80Hz shows. So the Acutus turntable is speed accurate and very stable too, making it well engineered. NK

SPEED STABILITY



Your upgrades are being DOWN-graded by acoustic energy literally BANGING round your system. Fanciful? NO.

Up to 90% damage!

We find 80-90% of system problems stem from damaging vibration *inside* components. The villains are the mains, transformers and the loudspeakers. Surprised?

It may seem outrageous but it's based on helping scores of delighted customers to kill this vibration and build firm foundations before upgrading major components.

Dissatisfied with your sound? Flat? Lightweight? Or boomy? Hard?

Perhaps bigger amps or speakers? More bass? Think twice — because that's MORE DAMAGING VIBRATION.

ISOLATION is not the answer because that traps the energy, leaving it to **BANG** around the system.

Vertex AQ components DRAIN this vibration into supports and BLOCK transmission in the cables that conduct this energy round the system, shaking components and creating spurious electric currents.

VertexAQ kit kills vibrations so that CLEAN DETAIL now defines: the start of notes, deeper and tighter bass, a truly 3-D soundstage and magically improved musical FLOW.

"Indeed, translated into equipment terms, you'd be well pleased to achieve these levels of improvement from a change of electronics costing many times as much." hifi+ magazine

Check www.vertexaq.com for reviews and comments. Ring us to TRY BEFORE YOU BUY.

Customers say we make some of the BEST SOUNDS in our studio they have ever heard, so you know we can do the same in your home. Our advice takes account of your best components and guides you where change is needed, in stages you can afford.

You **AVOID EXPENSIVE MISTAKES**, enjoy music and save money in the long run.

JUST LISTEN AND YOU'LL KNOW

Right Note BATH 01225 874728 or lo-call

0845 230 7570

The

CD: Accustic Arts, Bel Canto, Gamut, Resolution Audio, Stello, Wadia.
VINYL: Aesthetics, Clearaudio. DNM. Graham, The Groove, Lehmann, Michell.
Sumiko Blue Point Special, Transfiguration. TUNERS: Magnum Dynalab.
Amplifiers: Bel Canto. CAT, DNM, Gamut, Halcro, Hovland, Sonneteer,
Stello. Loudspeakers: Audio Physic. Dali, Ethos, Gamut, NEAT. Totem.
Cables: Argento, Chord Co., DNM, Kubala Sosna, Nordost, Siltech, Vertex
AO Mains Vertex AO. Supports: Arcici, Stands Unique, Vertex AO.

Cymbiosis

Linn Products

Sondek LP12 specialist setup, upgrades, rebuilds 25+ years experience with international reputation

Naim Audio

500 series stockist always available for demonstration including DBL Loudspeakers

Arcam • Atacama
Chord Company • Denon
Dynavector • KEF
Kudos • Neat Acoustics
Quadraspire • Rega Research
Spendor & more...

We are hi-fi specialists, so please call us for advice, recommendations and demonstrations

We always carry a selection of quality used hi-fi check our website for more details

6 Hotel Street, Leicester, LE1 5AW Tel: 0116 262 3754 e-mail: shop@cymbiosis.com

www.cymbiosis.com

MUSONIC STYLI

REPLACEMENT STYLUS REQUIRED?



CONTACT THE PEOPLE WITH OVER 50 YEARS EXPERIENCE



MANUFACTURERS AND SUPPLIERS OF MORE THAN 1,000 MODELS



PICKUP CARTRIDGES

AUDIO ACCESSORIES











MUSONIC (UK) LIMITED 271B WENTA BUSINESS CENTRE

COLNE WAY

COLNE WAY

WATFORD

HERTFORDSHIRE WD24 7ND

Tel: 020 8950 5151 Fax: 020 8950 5391 e-mail; sales@musonic.co.uk

For info and to buy online visit: www.musonic.co.uk

Blak Magic

Andrew Harrison thinks many will conjure up the cash for Funk Firm's F•X upgrade package for the classic Linn Ittok tonearm...

egend tells of a race of people from Mondas who challenged the mortality of their weak flesh with technology. As organs and limbs degenerated or wore out, they replaced them with artificial parts made of metal and plastic - until little was left of the original organic tissue. Not only did these new cybernetic parts give the Mondasians longer life, they also made them superior in performance, giving them the strength and resilience of supermen. They also bleached away all humanity and emotion from themselves, leaving a race of cold, unfeeling automatons with a large silicon chip on their collective cyber shoulders...

So maybe the extraction-of-feeling aspect is where the analogy breaks down. In my experience to date, the Funk Firm's relentless driving out of original flesh from the Linn Sondek has if anything allowed *more* of the emotion of the music to rise through, not less.

It's unlikely that the Funk Firm has been taking notes from the mythology of Doctor Who, but when I look at my once-original Linn Sondek, with almost every part replaced by new technology, I do wonder when the CyberSondek will take on the aspect of grandfather's spade; a totally original example with 'only' the handle, blade and shaft replaced. And 'Cyberdek' would certainly roll off the tongue more easily than The Funk Firm Vector

As detailed in the January 2009 issue, there are various levels of modification available to the classic Linn Sondek from the Funk Firm. And by the time you reach the full smash of all available Funk mods – that is, to replace subchassis, top

Link-modified Sondek LP12 turntable!

plate, armboard,
motor, power
supply and platter
mat – there's little of
the Scottish deck left that
can claim north of the border
ancestry! Or to spell it out, we're
left only with Linn's wooden plinth, a
two-part metal platter, its bearing and
the suspension springs.

ARMS ON DECK

A standard fitment for the LP12
Sondek throughout the eighties was
Linn's own pickup arm, the Ittok
LVII. Given its ubiquity, it seemed the
ideal candidate for another piece of
Funk alchemy. The burly Ittok used
high-quality bearings, has a useful
amount of adjustment of the key
parameters of arm geometry, and is
a good supporter of heavier movingcoil cartridges, making a fine starting
point for revision. But it does have
some coloration of its own, in part
contributed by peaky arm resonances
set off by energy from the cartridge.

The Funk Firm has tried to address this by rebuilding the Ittok using a wholly new armtube. This is a carbon-fibre affair of the same diameter as the original, braced internally by a full-length insert that makes a cross shape when viewed end-on. The resulting mod is termed F•X, pronounced "F dot cross". At the same time the internal wiring is replaced, so that you're presented with cartridge tag-terminated wires instead of four pins that require short tag links to be fitted. It's not a cheap upgrade, mind. Funk is charging £700 to rebuild your original Ittok using space-age carbon-fibre.

SOUND QUALITY

Time for a recap on the Funky sound so far: lean and very clean, with

lightning speed on transients when the music calls for them. It's not all sprint to the finish though. A Funk'd Sondek will be slow and measured

when elsewhere required.

Multitracked recordings show
their multilayered compositional
ingredients, with a mastertape-like
revelation of what's in the recording.

A cooking analogy may help illustrate the effect. Take one 'Heart of the Sunrise' from Yes's 1971 album 'Fragile'. Add in one fully modded Funk LP12 Sondek. Use a stock late-eighties vintage Linn Ittok LVII, and garnish said tonearm with an over-achieving Ortofon Windfeld moving-coil cartridge. Sit back and enjoy the course: an impossibly fast guitar/bass riff opening, punctuated by Bruford's technician drumming, flies into the room with insane speed and head-scratching precision. Just how did guitarist Howe and bassist Squire lock their instruments' fretboards so synchronously?

Then as the group get the opening gambit off their chest, they slide into a slow, languid wander while Wakeman's Mellotron chord shapes rise and reverberate from the distance. Anderson gets lost on a wave, counting the broken ties and then decides to step back from vocal duties as the band go hell for leather into the next riffing verse. The rich colour and atomic clock timing of a rock group playing at their peak is

by design

SOUND & VISION FROM SEVENOAKS *



New KEF iQ

Innovation in the pursuit of reproducing recordings, so perfectly they are indistinguishable from live performance, has been the KEF philosophy since Raymond Cooke founded the company in 1961 and remains at the heart of every KEF product today. Not least with the Q Series, each generation of which has received accolades and awards from the International Press.

The latest iteration of the award-winning series raises the bar even higher, both subjectively and objectively. The unrivalled detailing and off-axis performance of the new Uni-Q point source array, featuring the 'tangerine' waveguide, enhances the frequency response throughout the room and helps to deliver spine-tingling realism.

EKKEF®

01483 536666

Holborn 020 7837 7540

Visit www.SSAV.com today!

AT THE SEVENOAKS STORES MARKED

Aberdeen 01224 252797	Kingston 020 8547 0717		Sevenoaks 01732 459555	
Bedford 012 34 272779	Leeds - Wetherby 01937 586886		Sheffield 0114 255 5861	
Brighton - Hove 01273 733338	Lincoln 01522 527397		Southampton 023 8033 7770	0
Bristol 0117 974 3727	Loughton 020 8532 0770		Southgate 020 8886 2777	
Bromley 020 8290 1988	Maidstone 01622 686366		Swindon 01793 610992	
Cambridge 01223 304770	Manchester 0161 831 7969		Tunbridge Wells 01892 \$31543	
Chelsea 020 7352 9466	 Norwich 01603 76760\$		Watford 01923 213533	
Cheltenham 01242 241171	Nottingham 0115 911 2121	=	Weybridge 01932 828525	
Epsom 01372 720720	Oxford 0186S 241773		Witham - Essex 01376 S01733	
Exeter 01392 218895	Paterborough 01733 897697		Yeovil 01935 700078	
Glasgow 0141 332 9655	Plymouth 01752 226011			
Guildford	Poole			

SEVENOAKS

the experts in home entertainment

01202 671677

Reading 0118 959 7768 **NOW OPEN**

brought to life from the Funk'd deck. A regular-tune Sondek sits in the sidelines, unable to reveal the pitch of inventive Rickenbacker basslines that underline the track, at least not without getting a bit soggy and boisterous in the bass. And the AC motor-powered LP12 also somehow gets in a tizz over high-speed hi-hats, mixing them into the overlapping snare strikes.

So what happens when the Funk-fit Ittok is let loose on the Cyberdek? The first impression hits before the music even starts, as there's more record surface noise evident from the lead-in groove. This is not necessarily a black mark, more a sign that the groove is being read more profoundly, perhaps more impartially. And thankfully, once the notes start, so does the tell-tale evidence of your record collection's seedier past fade away below the music.

What may be more difficult to ignore is the presence of pre-echo on certain recordings, now somewhat more noticeable. Which suggests that you sometimes have to be careful what you wish for — namely more detail retrieval from the vinyl grooves. Sometimes you might just get it.

There's an easier quality to the lower midband, making a standard Ittok now sound a little forceful in comparison. With that slightly reduced emphasis on the midrange comes a tangibly superior separation of instruments, and more natural tonal colouring. Unamplified instruments benefit well in particular. Acoustic guitars are the biggest giveaway here, as the Funk Ittok made a better job of describing the differences between a steel-strung acoustic and a classical guitar with nylon strings. Where a stock Ittok makes them both sound a little, well, steely, the classical instrument was that much more convincing once a carbon-fibre tubed Ittok was put in place. Singing voices also exhibited improved segregation. Where a solo singer has multi-tracked their voice, or a low-level harmony part is present, these tricks are now more obvious to the ear.

Before we get all excited that the new arm is the panacea for every sonic vice your ears can imagine, I should point out a couple of reservations about its new slant on sound. This may not necessarily be an issue with the upgrade engineering though.

Bass swing was not always so compelling, so that the meter of the music took more effort to follow. Music still flowed nicely, but the instinct to snap your fingers was calmed a little. And at the top treble

end, I felt hi-hats lost a modicum of their focus and were not so clean, nor a ride cymbal so bell-like in its extended harmonics. With reference to the 'Heart of the Sunrise' test piece, for example, Chris Squire's bass lines were deprived of some of their slam and punch, and with that the depth and definition I'm used to from the metal-tubed Linn arm. The pinpoint imaging of a hi-hat was subdued so that there was more a cloud of shimmering bronze.

My question mark about the top-end trade-off in particular is due to the age of the upgraded tonearm supplied for review. Where the standard Ittok LVII B I'm used to is a well-preserved 1988 example that I've owned from new, the Funksupplied sample started life as a 1982 model, and one that's seen somewhat more use, to judge by its outward finish. And that reduced focus in certain areas is not untypical for an Ittok with less than pristine bearings. But returning to the benefits of the upgrade, there was a universal tendency - or at least option - to play louder, as the sometime shouty quality of the Ittok had been impressively reined in. Midrange again was the major recipient of play without

In total, Funk's mechanical revision of the Linn Ittok showed great promise, even if I had some minor reservations about what I heard at the very top and bottom. The more open midband and improved revelation throughout make this an appealing option to wring even more performance from the classic Sondek-plus-Ittok combo. And even if you don't have an Ittok to offer for rebuild, look out for Funk's rethink in its own new arms, or for the Rega tonearm.

TIK-TOK: AN ITTOK TIMELINE

Linn Products' first breakthrough in the 1970s was convincing an initially sceptical audience that turntables made a difference. This was in an age where the loud-speaker was king, and was seen as the highest distortion component of a system (which it still is). Those same days would often see the Sondek fitted with a Supex cartridge on a Grace tonearm.

tion component of a system (which it still is). Those same days would often see the Sondek fitted with a Supex cartridge on a Grace tonearm.

Then in 1979, Linn challenged the status quo with its heavier Ittok LVII arm, a straight-arm design when the characteristic S-shape was the norm. Compared to standards like the SME 3009, the Ittok was a battleship with its thick, unwavering armtube and chunky bearings. Design was by Linn Products in Glasgow, but the arm was built in Japan. The following year in 1980, the vertical arm pillar was thickened, from 20mm to 25mm, and the latter version (serial number 3000 onward) is sometimes — but not by Linn — referred to as a Mk 2.

In 1983, the bearing shafts saw a material change (s/n 12,000), and the armtube material was revised in 1986 (s/n 20,000). With the introduction of the Linn Troika cartridge in Sept 1986, Linn enlarged one of the lightening holes in the headshell to allow for the unusual third fixing screw. This mod occurred at serial number 23,000. The lttok remained unchanged through most of the rest of the 1980s, save an occasional appearance of sought-after black examples, denoted lttok LVII B. An important revision was made in January 1989 with the replacement of the three headshell clamping screws by special glue, an aircraft adhesive. It was also at this time that the arm was renamed the lttok LVIII.

In 1991, the LVIII/2 was introduced, using the same integral armrest as the flagship Linn Ekos tonearm, and the headshell was strengthened. Linn then reset the Ittok's serial number sequence to 0001. The Ittok remained in production until September 1993. In its latter years it approached the performance of Linn's top Ekos arm, an all-black affair launched in 1988. The gap in price between the Ittok and Ekos models had also closed up, leading Linn to consolidate its line-up by keeping just two models – the Ekos and budget Akito – in its portfolio from 1993 until the present day. Today, a cared-for Linn Ittok remains a desirable item. Condition varies widely, but expect to find a good clean example for anywhere between £200 and £400 second-hand.

"Funk's mechanical revision of the Ittok shows great promise..."



VERDICT ••••

Effective upgrade to Linn's classic pickup arm, bringing significant extra insight.

£700

FUNK F+X ITTOK
UPGRADE
The Funk Firm
(*) +44(0)1273 585042
www.thefunkfirm.co.uk

FOR

- increased transparency
- superior pace
- improved clarity

AGAINST

- expensive
- most effective with mint condition donor arms

RETRO

QUALITY HIGH FIDELITY & VINTAGE

AMPLIFIERS	2000
Arcam A80 integrated amp	£295
Art Audio vinyl one with volumn control MM MC £1700 new	£795
Albarry pre amp with phono Audio Analogue Puccini special addition	£95
Audio Innovation 400 Int amp valve phono Audio Research M300 MKII monoblocs	£345 £395 £2695
Audio Research M300 MKII monoblocs	£2695
Audio Research reference 3 pre amplifier as new boxed	£4995
Audiolab 8000S new style AMR 77 Titanium finish flightcased x dem	£295
AMR 77 Titanium finish flightcased x dem Avondale output PSU	£POA £195
Bel Canto valve pre amp remote control SEP	2 193
Bel Canto valve pre amp remote control SEP: upgraded to SEP3	£895
Cairn 4808 integrated amp 100 watts Concordant exultant valve pre amp	£645
with phono stage	£495
with phono stage Carry CAD 301 SE power amp with western electric 300b	£1195
DNM Plastic case power amp	£450 £2250 £795
E.A.R. 890 power amp	£2250
DNM Plastic case power amp E.A.R. 890 power amp E.A.R. valve pre amp 802 with phonostage Edison 12 valve power amp Gammet D200 MKIII as new boxed	£795
Gammet D200 MKIII as new boxed	£345 £2395 £1195
Graaf GM70 phonostage	£1195
Hoveland valve pre with phono	£POA £POA
Gamet D200 MKIII as new boxed Graaf GM70 phonostage Hoveland EL34 power amp Hoveland valve pre with phono Korato renaissance mono blocs 30W class A Krell KSP7B pre amp Leema Tucana	£995
Krell KSP7B pre amp Leema Tucana	£2195
Leak 12+ mono blocs restored Leak TL60 Leak TL12+ rare hammered paint finish 1961 Linn Classik silver 1 yr wamanty	£995 £595 £2195 £495
Leak TL60	£POA
Linn Classik silver 1 yr warranty	£595
Linn LK100	£595 £225
LINN AKTIVE amp module	£95
Linn LKTUU Linn Aktive amp module LFD Power amp silver wired x dem Melody Astro Black 40 MicroMega Integrated amp Musical Fidelity MA100 power amps (x2) £19 Musical Fidelity Mar amp 2 with Meridan 551 integrated amp Meridan 551 integrated amp boxed Naim NAC92 serial 165888 Naim 475 p. per amp	£1195
MicroMega Integrated amp	£195
Musical Fidelity Pre Amp 2 with	o eacri
Meridian 551 integrated amp boxed	£295
Naim NAC92 Serial 165888	£1/5
Naim 42.5 pre amp Naim 90.3 power amp boxed Narm 250 olive case Nam HiCap Nakamichi PA 7E power amp Nelson Pass 200w	£295 £175 £95 £225
Nam 250 olive case	£895
Nakamichi PA 7E power amp Nelson Pass 200w	£995 £195 £795
PS Audio IV pre amp with separate PSU	£195
Quad 2 mono blocs mint original valves Ouad 303 power amp	£/95 £195
Quad 405 power amp boxed	£195 £195
PS AUdio IV pre amp wim separate PSU Quad 2 mono blocs mint original valves Quad 405 power amp Quad 405 power amp boxed Quad 909 power amp boxed mint fyr old Rega Mira integrated amp remote boxed mint Rofel RA-01 integrated amp Rofel RA-01 ower amn	£625
Rotel RA-01 integrated amp	£350 £245
Rotel RA-01 integrated amp Rotel RB-03 power amp Rotel RB970 BX power amp SYNTHESIS Nimis valve int. amp Sugden A21 SE 1 yr old as new Sugden Headmaster Class A pre amp Sudden Headmaster Class A pre amp	£245 £145
SYNTHESIS Nimis valve int. amp	
Sugden A21 SE 1 yr old as new	£1595
Sugden Headmaster Class A pre amp	£395
Sudgen P51 power amp with control unit	2200
SYN I HESIS Nimis valve int. amb Sugden A21 SE 1 yr old as new Sugden Headmaster Class A pre amp Sugden Amo Master Transimpediance power amp Sudgen P51 power amp with control unit serviced excellent condition Theta Dreadmaught amp	£195
	LFUM
SPEAKERS	CADE
Acoustic Energy AE Lo months old Acoustic Energy AE1 stands	£195
Acoustic Energy AE1 6 months old Acoustic Energy AE1 stands AVI Active Pro 9 speakers Rosewood finish x dem Castle Howard 2 Oak finish	£495 £195 £795 £495
Celestion DL4	£495
Beauhorn Virtuoso reference lowther	£3295
B&W DM4	£95
Dynaudio Audiance 40	£245
EPOS classic speaker with open frame stands	£295
Gamma floor standing speaker new \$5000	£550 £695
JBL TI-6K floor standing speakers as new	£795
JBL century 100s	£195
Castle Howard 2 Oak finish Celestion DL4 Beauhorn Virtuoso reference lowther B&W DM4 Gyrus CLS50 Dynaudio Audiance 40 EPOS classic speaker with open frame stande Gale 40 forhome ends drivers replaced boxed Galman floor standing speaker new £5000 Jbt. Ti-6K floor standing speakers as new Jbt. century 100s KEF Reference 1s black finish KEF Celest 3	£95
Leema floorstanding speakers rosewood finish £2000 new	
TIRIST 2,2000 new	£895 £495
Leema sub ex-dem Leema Zen speakers ex-dem Linn Kan with stands MK1	£795 £225
Linn Kan with stands MK1	£225
Linn IsoBarik crossover in base model a super example with custom Mana stands	£695

Linn Kellidh Rosewood KU stone bases Martin Logan Aerius i Mission 751 rosewood Mission 750 limited edition anniversary Mission 755 boxed Mono Pulse 32A 8 months old ex dem. Nagoka Swan high efficiency speaker cult fle Neat Motive 1 oak finish ex dem Neat Ullimatum MFS 1 red velvet finish with stands new £5000 not ever the finish with stands new £5000 not ever the finish with stands new £5000 not 9 for ever the finish with stands new £5000 not 9 for ever the finish rocke future point 5 special yew finish ProAc studied 50s cherry finish Security finish fin	£995 £2495 £3295 £1745 £1995 £345 £995 £2495 £1195 £5495 £375 £2495

Technics SB-F1 MKII honey comb disc speakers	£95
TURNTABLES	
Audio Technica OC9 re-issue cartridge	£195
Garrard 401 mint condition	£395
LFD Minstral phono stage Linn Axis Tumtable with Linn Arm	£295 £295
Linn Basic Turntable with basic tone arm	£225
Michell Gyrodec SE with Rega arm 4 mths old:	
Michell TechnoArm wiring loom	£95
	£495
Michell Focus 1 with Michell arm Naim Aro tonearm boxed just serviced	£345 £POA
Nottingham analogue honzon SE with rega arm	
Rega P5 with P700 tone arm	£495
Rega RB300 with Incognito re-wire	£175
Roksan Xerses Rega Arm boxed mint cond.	£395
Roksan Radius acrylic finish with Nima arm SME 10 with tonarm	£595 2495
Tannoy Eclipse	£75
Technics SL150 direct drive SME cut-out	£225
Technics SL1200 MKII	£195
Technics SL D3 direct drive turntable	£95
Theta Miles balanced option Thorens TD166 MKII	£595 £95
Thorens TD124 MKII mint condition with	LJJ
superb plinth	AOG
Thorens Turntable TD160 with tonearm	£195
	£295
THISOT DETESOT FULL CITCLE WILL U.S ACT TO REALTH. I	.1290
CD PLAYEDS DACE	

MISCELLANEOUS PS Audio statement biwire speaker cable boxed as new PS Audio statement 3 mtr XLR interconnect Teac X3 open reel Naim Nait 01 serviced

DUE IN. DUE M.... Leak Vanslope/point 1 stereo pre amp various Reference 3A DiCapo Royal Virtuoso Russ Andrew Quad 33 303 upgrade Quad 2 pre valve & radio various Naim Headline 2 Naim CD player with PSU Naim NAPSC.

GENEROUS PART-EX. ON ALL EQUIPMENT, NEW OR USED. WILL BUY GOOD QUALITY EQUIPMENT AS ABOVE. NEXT DAY MAIL ORDER & UPLIFT FACILITIES



BEAT THE CRUNCH



HAS THERE EVER BEEN A BETTER TIME TO SAVE MONEY BY BUILDING YOUR OWN LOUDSPEAKERS?



WE HAVE A RANGE OF DESIGNS AND PRICES TO SUIT ALL TASTES AND POCKETS, OR YOU COULD DESIGN YOUR OWN WITH OUR HELP.

SO WHY NOT LET US HELP YOU TO **BUILD POSSIBLY THE BEST** LOUDSPEAKERS YOU WILL EVER OWN AND SAVE HUNDREDS OF POUNDS AT THE SAME TIME.





Order our FREE full colour catalogue (available to UK customers only) today and see our extensive range of loudspeaker kits, drive units, components and accessories.

Call or visit or website to order yours today.

WILMSLOW AUDIO

50 Main Street **Broughton Astley** Leicester, LE9 6RD Open Mon-Fri: 9.00am-5.00pm Telephone - 01455 286603

Fax - 01455 286605

email-sales@wilmslowaudio.co.uk www.wilmslowaudio.co.uk

visit www.highendcable.co.uk For the best prices telephone Dave Jackson on 01775 761880

Argento Audio | Analysis Plus | Audience | Chord Company | Ecosse | Furutech Hovland | IsoTek | Nordost | MIT | Oehlbach | Purist Audio Design | Quantum | STAX Stereovox | Synergistic Research | Townshend | van den Hul | Vovox | Wyrewizard



To many the Worlds finest and which other cable makers aspire to with the ODIN being the master of them all. We offer excellent trade in facilities to up-grade you through the full Nordost range.



Highest quality, superbly made cables from or supercity made cables from Chris Sommovigo the much acclaimed cable designer. Stereovox offer two distinct ranges the Reference and Studio. Visit this website for links to reviews, which rate this brand one of the best anywhere. Currently in Stereophile's top 500 products. Prices for interconnects start at less than £200.00



Probably biggest your Hi upgrade Hi-Fi offer system Qx2 | Qx4 | Power Cords



Another leader in expert cable design with the AU24e a performance upgrade on the renowmed AU24. Two models in the adeptResponce conditioners are now available in the UK

FURUTECH

High performance cables and power accessories



The best in the World













Website: www.retroreproduction.co.uk

Timber Land

Wooden bodied pick-up cartridges from Japan are a rare and noble breed, often with names often as exotic as the hardwoods they're crafted from. Andrew Harrison tries one such specimen, the Yamamoto YC-03S moving-coil...

apan, as a country, is in love with wood. From bamboo houses to banyan trees, the material is appreciated for its many great engineering and aesthetic properties. And so it is with the country's hi-fi products too - from headphone bodies to loudspeaker cone materials, there's a plethora of high end applications. Pickup cartridges are one of the most illustrious areas, with Koetsu traditionally being the prime exemplar - and now comes the Yamamoto YC-03S you see here, with a body hewn from African Blackwood, a dense material once classified in the same class as ebony.

Nowadays, African Blackwood sometimes goes by name that may be more familiar in tweaky audio circles — Mpingo. This is the dense and lustrous stuff that has shaved credibility points from audiophila's inner sanctum after it was exploited, perhaps literally, by Shun Mook for its Resonance Control Discs. These slivers of Mpingo wood, we're told, will 'resonate throughout the entire audible spectrum, thus overriding unwanted harmonic distortions and at the same enriching the musical reproduction'.

Nevertheless, a dense hardwood that's used in making clarinets and oboes sounds like a good start for the body of a moving-coil cartridge. The YC-03S is a relatively low output cartridge, specified at 0.25mV, and uses a solid boron cantilever tipped with a line-contact stylus. Weighing 8g, it's neither especially light nor grossly heavy so should suit any tonearm that's prepared to take on a relatively low compliance moving-coil pickup...

To test the cartridge, I fitted it to the familiar combination of Linn Ittok LVIIB on a Funk-modified LP12 Sondek. Slotted into a headshell recently vacated by my reference Ortofon MC Windfeld, the Yamamoto didn't seem out of its depth.

First impressions quickly told me this would never yield the confident gravitas and silken upper treble of the Windfeld; but the Japanese pretender is less than half the price, even after a recent thirty percent hike brought on by the pound's slide against - well, practically every world currency — but in this particular case, the Japanese Yen.

Given a moving-coil costing closer to £1,000 than £500, we should still expect some magic. And the Yamamoto does possess it, albeit not in the way you might expect of a rare transducer from the East, Japanese wood-bodied cartridges have in the past built their reputations on a flowing musicality, not necessarily the most accurate sounding of devices, but highly addictive nonetheless. We're talking trose-tinted picture painting and euphonic reinterpretations that will still have you trawling the record collection. But the Yamamoto YC-03S treads a slightly different path - what our cousins the other side of the pond would call a British invasion, with the accent on the groove factor and a fast, rhythmic drive.

In dimensionality, the YC-03S was a little closed in, making AI Stewart and his backing band somewhat two dimensional rather than fully fleshed out in space. With Sandy Denny singing along with the Strawbs, a bright and strident sound was the effect. Steel-strung guitars on 'Who Knows Where The Time Goes' had their plectrums lifted forward of the mix, with much zing to the fore.

In Yamamoto's specs, a tracking force of 1.2g to 2.0g is suggested - an unusually and indecisively wide range. I started trials at 1.5g, and found that on some tracks with heavy groove modulation there was a hint of bass break-up. Moving closer to 2.0 helped, at the expense of



The fast and punchy sound of the YC-0S was complemented well by jazzier music. I tried Camel's eponymous first, and the track 'Slow Yourself Down'. Here the Yamamoto excelled at showing off drummer Andy Ward's slick style, his timing placed firmly on the beat rather than too early or a little late. It was a boisterous sound for sure, but one that kept the interest as you inched to the edge of the seat.

There's something of a classic moving-magnet sound to be heard here, forthright and beguiling at times, at others perhaps a little too gritty and down-to-earth. 'The Fish' is Yes bass player Chris Squire's solo stretch on 'Fragile', and here we lost out on the chiming harmonics and all their harmonic partials — the noodling audiophile's highlights — and were drawn in to the rhythmic elements of tapping sticks, triangles and, are those xylophones? It was loud and chaotic but percussively entrancing.

CONCLUSION

Yamamoto's little wooden moving coil brings a freshness to records, taking even more years off Gilmour's youthful sounding solo on 'Fat Old Sun' from the recent 'Gda sk' live album. In bright and forward systems the effect could be a step too far, but elsewhere the balance may be just the tonic for audio indolence. An interesting and quirky performer, even at the newly inflated price.



Characterful and engaging performer that adds life to whatever it plays.

YAMAMOTO YC-03S £790 Angelsound Audio (C) +44(0)1923 352479 www.angelsoundaudio.co..uk

FOR

- propulsive, engaging sound
- beguiling nature
- explicit dynamics

AGAINST

- lacks finesse
- competition

,					
	₩ He	atherdale Vol. Tel. 01903-8 e-mail: 1	2 Findon R 872288 or heatherd	oad, Worthing, WEST Sussex, BN14 0EJ (after hours) 07860 660001 Fax, 01903-872234 ale@hifi-stereo.com//www.hifi-stereo.com	
	'0% FINANCE AVAILABLE FOR UP TO 3 YEARS ON SELECTED ITEMS. SUBJECT TO STATUS. CONDITIONS APPLY. SPEAKERS Theil 2.3 speakers in cherry wood £149! Tannoy ST-200 Super tweeters, ex display £79! B&W DM 1800 speakers with stands £150	Meridian 551 integrated amp, immaculate Goldmund SRM-250 monoblocks, ex demo. (£6590) only Wavac MD-805 SET monoblocks As new. (£16500) our price Kora Trinde 100 SB Monoblocs	£695 £4995 £7950 £3500	Accuphase DP 65 CD player Tri CD player New Marantz CD 873 Goldmund Eidos CD/SACD player ex demo, mint/boxed/full warranty (£3195) only	£995 £1895 £65 £2495
	Acoustic Zen Adagio Junior speakers with stands (new) £250(Acoustic Zen Adagio Centre speaker with stand (new) £162(New Acoustic Zen Adagio speakers "SPECIAL OFFER" £269(New Almarro speakers Hales Trancendence 5 speakers Dynaudio Audience 7 speakers with stands £39(PRE-AMPS; Mark Levinson ML-40 processor/pre amp cost new over £30,000 offer for Audio Note Zero monoblocks with pre-amp (ex demo	CAOE	MISCELLANEOUS Selection of NEW Madrigal CZ Gel balanced interconnect @ 30% discount. Selection OYAIDE plugs and power strips Sony AM/FM ST-SE370 Tuner Technics ST-610L Tuner (FM/MW/LW) Winds ALM-01 Stylus Gage (New) Sony ST-SE570 Tuner	POA £75 £65 £425 £60
	TURNTABLES, CARTRIDGES & TONEARM Dynavector 507 MK2 arm (£2995) only My Sonic Eminent cartridge (new) £2750	Naim CD X CD player with power supply	£1500 £695	Main dealer for Esoteric	P.

USHER

Sound Hi Fi

marantz



because music matters





ALL USED CARTRIDGES ARE CHECKED UNDER A MICROSCOPE BEFORE BEING OFFERED FOR SALE.







Usher Class A

520 Loudspeakers

Avid, SME & other turntable

Avid, SME, Shelter cartridges, AT-OC9 MLII, Clearaudio, Acoustic Solid, SL-1200 mods Usher, Marantz, Focal, Whest Audio, Vacuum State, Transfiguration, 78rpm

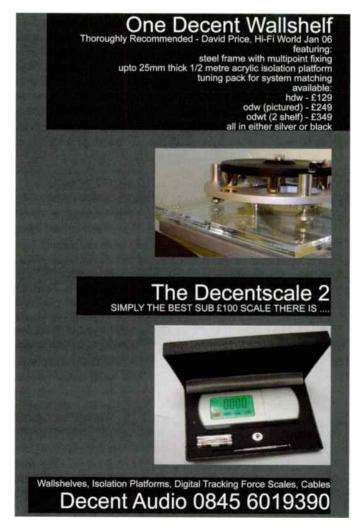
All demonstrated in a relaxing setting with river views! Very high part exchanges & mail order.

Sound Hi Fi Dartmouth Devon 01803 833366 web www.SoundHiFi.com

plug 'n' play 'n' smile







HEATHCOTE AUDIO

TEL: 07860 511111 WEB SITE www.heathcoteaudio.co.uk E-MAIL heathcoteaudio@aol.com AGENTS FOR LAVARDIN. MUSIC FIRST. AURUM CANTUS.

BLACK RHODIUM AND MUCH MORE. EQUIPMENT URGENTLY REQUIRED FOR IMMEDIATE **PURCHASE!! PLEASE PHONE GEORGE NOW!!**

ALL MAJOR CREDIT DEBIT CARDS ACCEPTED

VALVE AMPS ROGUE AUDIO 99 REMOTE PRE SPECIAL ORDER XLR/RCA DUT (£2700) ROGUE AUDIO 69 MAGNUM REMOTE PREAMP ROGUE AUDIO 68 POWER AMP MUSIC FIRST SILVEN PRE AMP (£3K?) AUDION REF SATTERY POWERED PRE AMP & PHDNO (£2500) BALANCED AUDIO TECH. BAT VK-60 POWER AMP (£6K?) ANTIQUE SOUNDLABS A01001 KT88 INTEGRATED (EXCLT) ANTIQUE SOUNDLABS A01001 TWIN 845 MONDBLOCS (£5000) ANTIQUE SOUNDLABS LIDJO TPRE AMP/HEADPHONE AMP ANTIQUE SOUNDLABS MINI PHONO STAGE 2-BDX COUNTERPOINT SA-5000A LEGENDARY PRE/PHOND STAGE (2 BOX) UNISON RESEARCH SEATHER PRE/35 POWER TUBE TECHNOLOGY SYNERGY INT.AMP AUDIO RESEARCH SEP-9 C/W PHONO STAGE (RARE BLACK) ANTIQUE SOUNDLABS THE WAVE MONOBLOCS	MINT/BOXED £1275 MINT/BOXED £855 EXCIT £795 EX.DEM £2250 NOS £835 EXCIT/BOXED £2450. EXCIT £775 MINT/BOXED £250 MINT/BOXED £255 EX.DEM £249	ARCAM CD 82 DENDN 2800 MKII GOLD (HDCD) PRIMARE V-25 CD/DVD PLAYER (£1000 NEW) MERDIDAN 602/660 TRANS/DAC (5TILL EXCELLENT) PROCEED (PDT-1 TRANS & DAC BALANCED/SE 20 BIT RESOLLITION AUDIO CESCIUM TRANS/PORT(RARE) THETA CARMEN CD/DVD TRANS/PORT THETA DATA II TRANS/PORT (SILVER) AES/RCA ETC THETA DATA II TRANS/PORT (BLACK NO REM.) LOUDSPEAKERS	SALE! £245 SALE! £275 SALE! £275 SALE! £399 SALE! £399 SALE! £895 EXCLT/BOXED £755 MINT/BOXED £755 WGC £395
COUNTERPOINT SA-5000A LEGENDARY PRE/PHOND STAGE (2 BOX) UNISON RESEARCH FEATHER PRE/35 POWER TUBE TECHNOLOGY SYNERGY INT.AMP AUDIO RESEARCH SP-9 CAV PHONO STAGE (RARE BLACK) ANTIQUE SOUND LABS 'THE WAVE MONOBLOCS	SERVICED/BOXED £1995 EXCLT/BOXED £1295 EXCLT £2999 MINT/BOXED £895 EX.DEM £300	IOUAU 989 ELECTROSTATUS BAW 804 MATRIX EXCELLENT LOUDSPEAKERS THEIL CS 2.2 LOUDSPEAKERS CELESTION A-2 SANTOS RWOOD (£15/1600?) A.L.R. JORDAN NOTE 5 FLOORSTANDERS (£2500) MONITOR AUDIO GS 10 & STANDS (£1000)	MIN 1/BOXED £2590 VGC £695 BOXED £695 BRAND NEW £995 EX.DEM £1195 MINT £595
ANTIQUE SOUND LABS 'THE WAVE MONOBLOCS SOLID STATE ECS ECA-T 200 WATT STEALTH MONOBLOCS (RARE) MCCORMACK RLD-1 REMOTE PRE & DNA-125 POWER AMPS (4.5K) LAVARDIN 6/2 PPE AMP & 2 MAP MONOBLOCS (12000+ NOW) CLASSE 6 TWO BOX PRE & 25 POWER (250 WATTS X2) XTC PRE-1 (REMOTE) POWN-1 POWER AMP (23000+) MUSIC FIRST SILVER PRE AMP (E3K?) ALCHEMIST FORSETTI 2 BOX PRE RCAXLR DK 0ESIGN VS.1 SIGNATURE MKIII NTEGRATED H-CAT 12-2 BPRE WITH WTC CONTROL (£2800) H-CAT 12-12 PRE AMP (£2500?) KRELL KMA-100 MONOBLOCS (ABSOLUTE CLASSICS 3 YEARS USE) PASS LABS ALEPH P PRE AMP PASS LAB ALEPH O MONOBLOCS PLINIUS SA-201 (RETAIL 44K?) PLINIUS SA-201 (RETAIL 44K?) PLINIUS SB-300 (£SK+ NOW) ROTEL RB-870BX STEREO/MONO AMP ADVANTAGE 1200 INTEGRATED (MLTRA RARE) MARANTZ MA-700 MONOBLOCS PUXMAN 1-100 INTEGRATED (MLTRA RARE) MARANTZ MA-700 MONOBLOCS PUNNY	TBA	THETA DATA II TRANSPORT (BLACK NO REM.) LOUDSPEAKERS UNAD 389 ELECTROSTATICS B&W 804 MARTIK EXCELLENT LOUDSPEAKERS THEIL CS 2.2 LOUDSPEAKERS CELESTION A-2 SANTOS RWOOD (£15/1600?) ALR. JORDAN NOTE 5 FLOORSTANDERS (£2500) MONITOR AUDIO GS 10 & STANDS (£1000) CURA CA-30 FLOORSTANDERS (MAPLE) PROAC STUDIO 150 CASTLE HOWARD S2 ROSEWOOD ATC 20SL & TARGET R2 STANDS REFERENCE 3A VEENA (SUPERB 8:3000) MARTEN MILES II CHERRY (8K-NEW) HARPER QUARTETO (£4000) MIRAGE MIS BIPOLAR GIANTS (£6500) BKS 128 RIBBON HYBRID (STAR GRANITE £2800) FAB AUDIO MODEL-ONE (RETAIL £7500) EGGLESTONWORKS ROSA REGA XEL (ROSEWOOD 01250) AURIUM CANTUS VIM GLOSS BLACK (£1700) AURIUM CANTUS WIM GLOSS BLACK (£1700) AURIUM CANTUS WIM GLOSS BLACK (£1700) AURIUM CANTUS WIM (RETAIL £7500)	MINT 1995 EXCLT 2695 EXCLT/6095 EXCLT/6095 EXCLT/6095 EX.DEM 21850 EX.DEM 21850 EX.DEM 21850 EX.DEM 21850 EX.DEM 2250 MINT/80XED 21395 EX.DEM 24700 EX.CLT 23950 NEW/DIS 24400 EX.CLT 2395 EX.DEX 21350 EX.DEM 2795 BRAND NEW 2695 EX.DIS 21350 EX.DEM 2795 EX.DEM
ROTEL RB-870BX STEREO/MONO AMP ADVANTAGE 1200 INTEGRATED AMP LUXMAN L-100 INTEGRATED (ILUTRA RARE) MARANTZ MA-700 MONOBLOCS ROKSAN S-1 PRE AMP NO PSU VINYL MICHEL TECHNODEC/RB250/TECHNOWEIGHT/ORIGIN REWIRE QUASAR SKELETON /SEPARATE MOTOR & PSU/HELIUS ARM LEHMAN SILVER CUBE (25200-14	EXCLT EXCLE 175 EXCLT/BOXED 2895 EXCLT/BOXED 2475 NOS 2495 EXCLT 2295 EXCLT 2595 MINT/BOXED 1250 MINT/BOXED 1250 MINT/BOXED 2495	AURUM LANILIS MUSIL GUDUESS \$2500 INTERCONNECT CABLE ACOUSTIC ZEN SILVER SIG.2 METRE BALANCED MUSIC FIRST SILVER CABLE 1 METRE RCA(£600?) TRANSPARENT MUSICLINK SUPER 1 METRE RCA ATLAS ELECTRA 2 METRE XLR XLO SIGNATURE TYPE 1.1 RCA AUDIOQUEST DIAMOND 0.8 METRE BLACK RHODIUM CONCERTO 1 METRE RCA(£180) XLO PRO 1 METRE R.O. C. S. METRE RCA (SIX OFF) BLACK RHODIUM SYMPHONY 1 METRE RCA DUIANTITY OF TRAILAN ARTA MIDIO CABLE 3 INTERCONNECTS 1 M/1 5 M/2 M.	REW £1795 BRAND NEW £1795 BOXED/AS NEW £250 ORIGINAL PACK £249 NEWISH £95 EACH 95/88 NEW £50
HOUSAN S-1 PHE AMP NO PSU VINYI. WINYI. MICHELL TECHNODEC/RB250/TECHNOWEIGHT/ORIGIN REWIRE QUASAR SKELETON /SEPARATE MOTOR & PSU/HELIUS ARM LEHMAN SILVER CUBE (E2500+) VPI JIMW MEMORIAL ARM (FEW HOURS USE ONLY) ORACLE DELPHI CLEARAUDIO EVOLUTION & TANGENT PARALLEL ARM VPI ABIESS BLACK KINGENT (E5000?) FEW HOURS USE VOYO VAL D/SEPARATE PSU ROKSAN XERXES/PSU IIII /PLINTH/LD ROGUE AUDIO STEALTH PHONO STAGE NAT TWO BOX PHONO STAGE NAT TWO BOX PHONO STAGE ANTIQUE SOUNDLABS MINI PHONO STAGE 2-BOX BILL BEARD MM/MC PHONO STAGE MCCORMACK MINI PHONO DRIVE (MM/MC £600?) BILL BEARD MM/MC PHONO STAGE MCCORMACK MINI PHONO DRIVE (MM/MC £600?) BILL BEARD BATTERY STEP UP (E3000?) GRAHAM SLEE ELEVATOR EXP MK 111 STEPUP	EXCLT £650 EXCLT £1595 MINT/BOXED £1250 MINT/BOXED £1250 MINT/BOXED £1750 DEW/BOXED £1750 DEW/BOXED £1750 LOVELY £475 LOVELY £475 EXCLT £235 EX.DEM £396 EXCLT £235 EX.DEM £299 EXCLT £375 EX.DEM £299 EXCLT £375 EX.DEM £299 DEM £1750 SALE £295	AND 4 LENGTHS OF 3 METRE LÖUDSPEAKER CABLE LOUDSPEAKER CABLE NORDOST SPI 3 METRE BI-WIRE (©3000?) BLACK RHODIUM POLAR NINJA DCT +++ XLO REF2.5 METRE PAIR AUDIOQUEST MIDNIGHT-3. APPROX 5 METRE PAIR BI-WIRE TARA LABS RSC AIR ZMETRE PAIR PAR BLACK SLINK (©100 PER M.) 4.5 METRE PAIR WBT LOCKING PLUGS SONORAM PLATEAU 4 METRE- PAIR (HI END USA HEAVY COPPER CABLE) MIT MH-750 BI WIRE S METRE PAIR TRANSPARENT SUPER BI CABLE 10 FT PAIR TRANSPARENT SUPER BI G. 3 METRE PAIR (©1300) PS AUDIO X-STREAM 3 METRE PAIR (PER PAIR (©1300) PS AUDIO X-STREAM 3 METRE PAIR WERT HEAVY!) DIAMONO HI SILVER 3 METRE PAIR WERT HEAVY! DIAMONO HI SILVER 3 METRE PAIR (E1300) BLACK RHODIUM S-300 BI WIRE 5 METRE BI WIRE PAIR (©240) BLACK RHODIUM S-300 BI WIRE 5 METRE BI WIRE PAIR (©240) BLACK RHODIUM S-300 BI WIRE 5 METRE BI WIRE PAIR (©240)	DEM 1995 EXCLT 1225 EXCLT 2175 NEW 2550 EXCLT 1395 EXCLT 2500 EXCLT 2500
DIGITAL MUSICAL FIDELITY TRI-VISTA SACD/CD PLAYER FORBIDDEN CITY ORFEO (3 MONTHS OLD) MCKINTOSH MCD-201 SACD/CD/VOLUME (£3500) ORACLE 5-2000 TRANSPORT (£5800)	MINT/BOXED £1750 MINT/BOXEO £750 NEW/SALE! £2500 NEW £3795	PS AUUU X-51HEAM 3 METHE PAIR (VERT HEAVT) DIAMOND HI SILVER 3 METRE PAIR BLACK RHODIUM S-300 BI WIRE 7 METRE BI WIRE PAIR(£560) BLACK RHODIUM S-300 BI WIRE 5 METRE BI WIRE PAIR(£400) BLACK RHODIUM S-300 BI WIRE 4 METRE PAIR (£240)	EXCLT £500 EXCLT £595 EXCLT £795 EXCLT £795 EXCLT £700 EX.DEM £500 NEW £300 NEW £170 NEW £170
THETA DATA UNIVERSAL COALD PLAYER (RABEI) THETA PRO GEN HI DAC GLASS & BALANCEO OPTIONS PIONEER 505 PRECISION 2500 TOM EVANS UPGRADE TRICHORD DIGITAL TURNTABLE PIONEER CLD 2950 COLD PLAYER EINSTEIN "THE CD PLAYER' MERIDIAN 200T TRANSPORT PERPETUAL TECH .P1A/P3A/MODULAR PSU MODRIGHT SIG.2	EXCLT/BOXED 2395 EXCLT/BOXED 2795 SUPERB 2475 EXCLT 2395 EXCLT/BOXED 2249 EXCLT £1275 EXCLT £1275 EXCLT £350 LAST SETBNIR £1895	ASH DESIGN COSMIC CLASSLS ASH DESIGN COSMIC CLASSLS FINITE ELEMENT PAGODE 55ES55 2 TIER TABLE SOUNDSTYLE ST-105 SOUNDSTYLE ST-100 SOUNDSTYLE LOUDSPEAKER STANDS TARGET R-2 LEAD FILLED ELEMENTAL AUDIO LOUDSPEAKER STANDS (£2K?)	EXCLT £195 TBA TBA DEM £195 DEM £195 NOS £505 £175 BOXED £695
GRAHAM SLEE ELEVATOR EXP MK 111 STEPUP DIGITAL MUSICAL FIDELITY TRI-VISTA SACD/CD PLAYER FORBIDDEN CITY ORFEO (3 MONTHS OLD) MCKINTOSH MCD-201 SACD/CD/OALUME (25500) ORACLE S-2000 TRANSPORT (E5800?) THETA PAG GEN III DAC GLASS & BALANCED OPTIONS PIONEER 505 PRECISION 2500 TOM EVANS UPGRADE THICHORD DIGITAL TURNTABLE PHONEER CLD 2950 CD/LD PLAYER EINSTEN THE CO PLAYER? MERIDIAN 200T TRANSPORT ERPSTUAL TECH. P1A/P3A/MODULAR PSU MODRIGHT SIG.2 PERPETUAL TECH. P3A 24/96 UPSAMPLING DAC MODWHIGHT SIGNATURE? C SUPERBI AUDIO ALCHEMY DOE VI. 1 HOCD DAC AUDIO ALCHEMY DOE VI. 1 HOCD DAC AUDIO ALCHEMY DOE VI. 1 HOCD DAC MSB LINK DAC-III 24/96 MODULE AUDIO ALCHEMY DOE VI. 1 HOCD DAC MSB LINK DAC-III 24/96 MODULE AUDIO ALCHEMY DOE VI. 1 HOCD DAC MSB LINK DAC-III 24/96 MODULE AUDIO ALCHEMY DOE VI. 1 HOCD DAC MSB LINK DAC-III 24/96 MODULE AUDIO ALCHEMY DOE VI. 1 HOCD DAC MSB LINK DAC-III 24/96 MODULE AUDIO ALCHEMY DOE VI. 1 HOCD DAC MSB LINK DAC-III 24/96 MODULE AUDIO ALCHEMY DOE VI. 1 HOCD DAC MSB LINK DAC-III 24/96 MODULE AUDIO ALCHEMY DOE VI. 1 HOCD DAC MSB LINK DAC-III 24/96 MODULE AUDIO ALCHEMY DOE VI. 1 HOCD DAC MSB LINK DAC-III 24/96 MODULE AUDIO ALCHEMY DOE VI. 1 HOCD DAC MSB LINK DAC-III 24/96 MODULE AUDIO ALCHEMY DOE VI. 1 HOCD DAC MSB LINK DAC-III 24/96 MODULE MIDIO ALCHEMY DOE VI. 1 HOCD DAC MSB LINK DAC-III 24/96 MODULE MIDIO ALCHEMY DOE VI. 1 HOCD DAC MSB LINK DAC-III 24/96 MODULE MIDIO ALCHEMY DOE VI. 1 HOCD DAC MSB LINK DAC-III 24/96 MODULE MIDIO ALCHEMY DOE VI. 1 HOCD DAC MSB LINK DAC-III 24/96 MODULE MIDIO ALCHEMY DOE VI. 1 HOCD DAC	BRAND NEW £795 N.O.S. £350 N.O.S. £275 N.O.S. £275 N.O.S. £256 MINT/BXED £275 EXCLT £149 SALE! £2500 SALE! £750 SALE! £695	MAINS CABLES/BLOCKS/CONDITIONERS ETC TICE MAINS POWER BLOCK XLO REFERENCE SERIES POWER CORD 1 METRE X 2 XLO REFERENCE SERIES POWER CORD 2 METRE TARA LABS RSC MR-2 6FT POWER CORDS (SHUKO) TARA LABS ROWER CORD (GREEN) 2 METRE BLACK RHODIUM SUPER MAINS POWER CORDS BLACK RHODIUM POWER CORD RHODIUM PLATED EASYGRIP PLUG ISOTEK POWER CORD	BOXED 2349 EACH £120 EXCLT £149 BRAND NEW £225 EXCLT £66 BRAND NEW £656 BRAND NEW £656



Specialist Audio Retail and Installation

We are a small evolving company offering a uniquely high level of personal service by helping you choose a system performance that best meets your needs. From initial consultation and demonstration through to installation and finally sales aftercare, we are committed to your long term musical satisfaction. Comfortable audition rooms, part exchange, low cost finance options.

Linn Elite, NaimNet, B&W 800 series dealer. - Stand alone or expandable multi-room solutions.

248 Lee High Road, Lewisham, London, SE13 5PL 🕿 (020) 8318 5755 - 8852 1321 10am - 6:30pm. Mon - Sat (Closed Thurs) → billyvee.co.uk 🖃 sales@billyvee.co.uk

- · The very best audio systems
- · Installed in your home
- · For your lasting enjoyment



ELITE

Parallel Lines

Adam Smith warps back to the late nineteen seventies to remember Aiwa's long lost vinyl flagship, the LP3000...

he late nineteen seventies
was a vibrant time for vinyl
- and turntable technology
in general. In Japan, the US
and Europe record players
were getting ever more
complex, becoming technological
tours de force with huge reserves of
development funds pushed their way
- just before the major consumer
electronics names realised what was
round the corner, namely Compact
Disc Digital Audio...

In Japan, direct drive was all-powerful. At the high end, this meant fearsomely torquey motors driving large and heavy platters, giving rocksolid stability that no 'rubber band' driven deck could match. But still such technological wizardry wasn't quite enough. A nation obsessed with robotics and automation wasn't going to settle for basic manual turntables with conventionally tracking tonearms for long...

The idea of playing a record as it was cut was not a new one, but it was around this time that the technology was developed as the search for the ultimate record player continued apace. Intriguingly, it seemed to have ended up at each end of the market and less in the middle, being very common on midi systems at the bottom, but also finding its way onto some impressive flagships. Now, confront a vinylista with this and he or she will undoubtedly throw out a few names like the Revox B-790, Pioneer PL-L1000, Sony's Biotracer PS-X800 and maybe even the rarer Technics SL-M3. But I'll bet there's one they'll forget...

The reason for this is simple,

namely that the company who made it are now a name from the past. From their formation in 1951. Aiwa produced some of the most impressive examples of high-end Japanese hi-fi, before gradually fading away to be swallowed up by Sony in 2002, ending their days as one of their offshoots and a name on massproduced far Eastern boxes, before disappearing altogether in 2006. In their heyday however, Aiwa made lapan's first tape recorder, stereo cassette deck and DAT machine as well as a Hi-Fi World favourite in the form of the stunning AT-9700 quartz digital synthesiser tuner. So what, one might ask, what was their vinyl statement? Simple - the LP3000.

Introduced in 1978, this was a heavyweight linear tracker in the mould of the Pioneer PL-L1000, boasting a total weight of 15kg and a hefty direct drive motor spinning a surprisingly slim 3.2kg platter. The linear tracking arm runs silently on smooth rails and is motor driven

cost £600 in 1978 (over twice the price of a Linn Sondek LP12 in the UK), the Aiwa is an exquisite piece of machinery to operate - everything works with a smoothness, poise and precision that could only have come from Japan in the late seventies. Cartridge fitment is easy thanks to the large headshell, although I have read of issues with larger bodied designs not being able to be mounted far enough forward for correct alignment due to the sensor block - best not to go for anything too big.

GOING LIVE

I fitted a Goldring 2500 cartridge to the deck for auditioning purposes and this aligned easily, proving a good sonic partner for the Aiwa. Starting out in conventional automatic mode,

"a big, solid Japanese linear tracker, and that's exactly how it sounds..."

to follow the groove of the record. Naturally, operation is fully automatic with settings for seven, ten and twelve inch records at 33 and 45 rpm, with ±3% adjustment of each. However, the LP3000 does have an extra party trick up its sleeve, namely individual track selection in the manner of the ADC Accutrac 4000. However, unlike the Accutrac, the LP3000 does not rely on a dedicated cartridge, as you can fit anything you like behind that sensor block at the front of the dedicated headshell. In program mode, the arm detects the record size automatically and can skip forward and backwards across the LP as you desire. There was even the option of that wonderful seventies curio - a wired remote control with a chunky metal handset covering all main operations, and around twenty feet of cable that plug into the front of the deck.

As befitting a turntable that

selecting record size and speed as required, the LP3000 never put a foot (or stylus) wrong and proved a capable tracker. The remote control worked faultlessly and if I hadn't grown bored with the three tracks on the side of the LP I chose, I could quite happily have put my feet up and played for hours.

Switching to program mode was less successful initially however, as the tonearm merrily ignored the record on the platter! However, bitter experience with more than one ADC Accutrac meant that I had a few ideas. Firstly, I lowered the arm cue height, in order to position the sensor as close to the record surface as possible - easily achieved through a sturdy finger-adjustable screw on top of the arm bearing housing. This led the arm to spotting the record this time, however the track selection was still rather more miss than hit. Fortunately I soon realised that the



Goldring 2500 I had chosen is quite a tall cartridge and meant that the sensor block was still quite a way away from the record – not so good when it relies on monitoring the light reflected back by blank sections of the record for track selection. Fortunately, a shorter-bodied cartridge saved the day and only the very tightest of groove gaps wrong-footed the deck.

This is a big, solid and well designed Japanese linear tracker, and in use that's exactly how it sounds. The sturdy drive system means good healthy bass and plenty of rhythmic alacrity, underpinned with a fine dose of drive and pace. The linear tracking arm means no tracking distortion and hence a beautifully clear and precise top end. The whole presentation is wonderfully light and spry, picking up bass lines with alacrity, and yet allowing fine details to whisper across when required. Also highly encouraging is the lack of both surface and mechanical noise from the deck when in operation; it is slick, smooth and quiet.

Across the midband, the LP3000 is typical of many similar decks of the period. Here everything is stunningly detailed and perfectly ordered, with not a thing missing or out of place. Where it does fall a little short, however, is in terms of atmospherics

and sheer scale. You won't find SME IOA style walk-around soundstaging here, or Michell GyroDec image width but that said, within its own rather smaller world, everything is well rounded, crisply etched and highly enjoyable, and the Aiwa remained musical and beautifully composed and controlled no matter what I fed it.

BUYING

A short section here I'm afraid, as in ten years of looking, this is only the second deck I have ever seen in the UK. The first was on eBay in Germany a few months ago, fully working but with no remote, and sold for 470 Euros, and the deck pictured here changed hands for £350, complete with remote, so you are extremely unlikely to come across one for ten pounds at your local car boot sale! The Aiwa was very expensive when new, so few made it to these shores and the likes of German and Japanese dealers are your best bet if you want one (and it's called the LP-20X in Japan, apparently). Fortunately, those that do crop up appear to have been treated with the respect and reverence that their flagship status deserved, so seem to be in good shape and fine working order ...

In running terms, equally little is documented about the unit. Naturally the arm drive belts will stretch and require replacement to keep everything running smoothly, but it is highly likely that the electronics should remain reliable for a long time to come. If you find one that works, there is no reason to suspect that it will not continue to do so for years, but various internet shops will sell you the service manual should the worst happen.

CONCLUSION

The Aiwa LP3000 is a magnificent rarity which showcases the Japanese turntable industry at its absolute peak, in the way in which it combines both direct drive technology and a beautifully constructed linear tracking arm. Expensive and unjustifiably ignored in the UK when new, and little-known and rare today, the LP3000 may appear outwardly to be something of a futuristic toy, but it is also a very fine record player all the same. Keep your eyes peeled!



Analogue Seduction



Analogue Seduction are dedicated towards two channel Hi-Fi, specialising in vinyl replay.

As well as our on-line shop we have ded cated demonstration retail facilities based in Peterborough, Cambridgshire and we can offer our customers home demonstrations.

We stock the finest in amplification, analogue, digital replay and speakers. We also specialise in a cable termination and cable burn in service.

Please visit our website **www.analogueseduction.net** to browse or purchase products that are not easily available elsewhere.

New vinyl records now stocked

Tel: +44 (0)1733 344768

audioXpress... It Just Sounds Better

Your Favorite Audio – One New Magazine!

- PROJECTS
- -- REVIEWS
- THE NEWEST TECHNOLOGIES
- → AUDIO CLASSROOM
- and Much More!

Constituting August Manufacture August De Speaker Duction

A 30'0' Remaining August Manufacture Constitution De Speaker Duction

A 30'0' Remaining August Manufacture Constitution De Speaker Duction

August Duction De Speaker Duction

Burgers

Filling System

Response

Respons

Subscribe To This Great Monthly Publication Today! Only \$59.95 us for 12 Issues!

audioXpress • PO Box 876 • Peterborough, NH 03458-0876 USA • Phone: 603-924-9464

Fax: 603-924-9467 • E-mail: custserv@audioXpress.com

ONLINE AT: www.audioXpress.com

MANTRA AUDIO

Specialist Suppliers of Audio Accessories www.mantra-audio.co.uk

ORDER SECURELY @ https://shop.mantra-audio.co.uk
SEE WEBSITE FOR MONTHLY OFFERS & FULL PRODUCT RANGE
ITEMS EX STOCK DELIVERY BY RETURN OTHERWISE 3 -10 DAYS

	HE	M2 FX	2100	K DELIA	EKT BA H	ETURN GTH	ERWISE 3 -10	DAYS
CARTRIDGE S	ELECT	ION	ST	YLUS	HEADI	PHONE SE	LECTION	
Goldring					Grado	Pres	tige SR-60	£75
Elektra	£37			£26			tige SR-80	£90
1012 GX	£139			£78			tige SR-325i	£260
1042	£171			£120	Goldrin	g	DR 50	£35
2100	£67			£46			DR 100	£45
2200	883			£56	Active I	Noise Reduct	DR 150 tion NS 1000	£70 £140
2400	£152			£119	ACTIVE I	voise neuoc	1011 NS 1000	£140
2500	£180			£133	HI FI	ACCESSOR	HES	
Eroica LX/H	£185	£157	EX	N/A	ARTres	enries LICR P	hono Plus PreAi	mo £85
Elite	£300	£230	EX	N/A			nputer interfac	
Audio Technica						Super Exst		£14
AT 95 E	£25			£18	Shure S	FG2 Stylus I	orce Gauge	€24
AT 440 MLa	£96			£70	REPLA	CEMENT	STYLI	
AT OC9 ML II	£270	£255	EX					
Denon					ADC	uality Diama XLM Mk III		£17
DL 103	£105	£95	EX	N/A	Akai	AN 5. AN 6		£17
DL 103R	£190	£170	EX	N/A	AKai	AN2, AN 70	-	£15
DL 110	£79	£69	EX	N/A	Aiwa	AN11	,	£13
DL 160	£95	£83	EX	N/A	Dual	DN 145 E.	DN 165 E	£17
DL 304	£249	£225	EX	N/A	JAC	DT 55, DT		£13
Grado						-,	P 30 D, P 33 D	100000000000000000000000000000000000000
Prestige Black	£46			£32			0 Ell. OM5/10/1	
Prestige Gold	£119			£83		PN 210/22		£13
Lyra					Shure	N75C.N75-		£13
Dorian	£495	£395	EX	N/A			2 N75-3, N95E	
Argo	£795	£635	EX	N/A		N 97 HE, V		€27
Shure					Sony		5 G, CN234	£13
M 97 XE	£98			£58		ND 143/15	0/200 G	£15
Sumiko					Stanton	D 681 EEE		£21
Blue Point Special	£229	£195	EX		***	Over 500 Sty	li Types Stocke	d***
EX - Ex	chan	ge pr	ice	same	make r	noving c	oil cartridg	е
		The state of the s	and the latest the lat		annie market de la company	nemments at the	3	

A new lease of life for your Musical Fidelity amp, CD or DAC.

To upgrade your hi-fi without losing a penny in part exchanges, book in for a factory tune up from Musical Fidelity. We carry out an exhaustive list of upgrades that gives well-used gear a new lease of life and means your favourite gear can perform as never before.

We can tune up everything we have made since 1985, except the SACD player, and our upgrades come with a one-year Musical Fidelity warranty. Please note: *nobody else* is authorised to tweak our amps.

With a tune up, you pay only for the upgrade in performance, instead of losing on a part exchange.

To find out more, phone us on 020 8900 2866 or visit musicalfidelity.com, where you can download a Booking Form today.

MUSICAL FIDELITY

MANTRA AUDIO (HFW), Town End House, Skipwith, Selby, North Yorkshire Y08 5SQ

HARRISON HI-FI TEL: 01283 702875 SCOUNT PRICES. FREE NATIONWIDE DELIVERY

TRADE IN YOUR OLD MOVING COIL CARTRIDGE & SAVE UP TO 60% OFF THE RRP. POA SUMIKO BPS EVO III €195 MICHELL ORBE STAX 3050 MKII £750

MICHEL ORBE SE **£POA** MICHELL GYRO SE **£POA** WHEST AUDIO PS30R MICHELL TECNOARM A **FPOA** WHEST AUDIO 2 **DENON DL304 £POA** TRICHORD DIABLO DENON DL103R £169 TRICHORD DINO MK2 **DENON DL103** 685 TRICHORD D300 **DENON DL160** 680 GRADO GS1000 **DENON DL110** £60 GRADO RS1 **DENON DL103SA** £385 CLEARAUDIO CARTRIDGES £215 **DENON AHD2000 CLEARAUDIO TURNTABLES** DENON AHD5000 £425 BEYER HEADPHONES DENON AHD7000 £675 EAR/YOSHINO AUDIO TECHNICA AT-OC9ML2 **£POA**

AUDIO TECHNICA AD700 AUDIO TECHNICA AD900 AUDIO TECHNICA AD1000 AUDIO TECHNICA ATHW1000 AUDIO TECHNICA ATHW5000 **GOLDRING G1042**

£POA £POA CLEARAUDIO CONCERTO £800 £85 **£POA** BENZ MICRO **£POA** TOM EVANS GROOVE X £1700 **£POA £POA** EPOS M12i £320 CREEK DESTINY AMPLIFIER **SPOA** £599 **£POA** CREEK DESTINY CD PLAYER **EPOA**

£POA

FPOA

£599

£279

£POA

2800

€605

FPOA

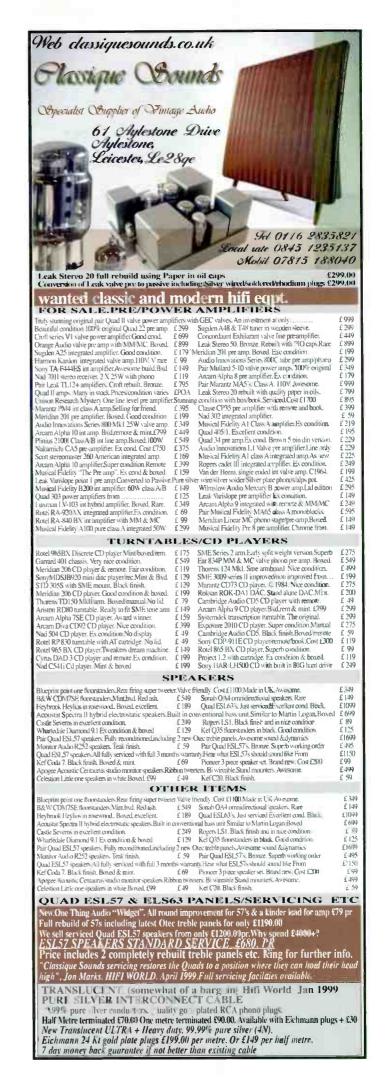
£POA

I ALSO SUPPLY I ALSO SUPPLY VAN DEN HUL, ZYX, CARTRIDGE MAN, SUMIKO, ORTOFON, RESON, SME, GRAHAM, MOTH, HADCOCK, THORENS, EARNYOSHINO, ACOUSTIC SOLID, HEED, GRAHAM SLEE, PURE SOUND, AESTHETIX, ACCUSTIC ARTS, NAD, SONY, NU FORCE, SUGDEN, HALCRO, C.A.T. GAMUT, GRAAF, MONRIO, AUDIO ANALOGUE, PATHOS ACOUSTICS, UNISON RESEARCH, OPERA, TRIANGLE, FINAL, HARBETH, USHER AUDIO, DIAPASON, TANNOY, AUROUSAL, ERGO, STAX, AKG, BLACK RHODIUM, TRANSPARENT, QED, IXOS, HI DIAMOND, SUPRA, WIREWORLD, KEMP ELEKTRONICS, JUAL, B.C.D, CUSTOM DESIGN, OPTIMUM, ASH DESIGN, APOLLO, ALPHASON, B.D.I.

PLEASE PHONE TO CONFIRM PRICE & AVAILABILITY PRIOR TO ORDERING. ALL GOODS ARE BRAND NEW & BOXED WITH FULL U.K. GUARANTEES.NO EX. DEM OR EX DISPLAY GOODS. NO GREY IMPORTS. GOODS ARE NOT SUPPLIED ON APPROVAL. SORRY, NO GENERAL CATALOGUES. PLEASE PHONE OR WRITE FOR SPECIFIC REVIEWS, BROCHURES OR PRICES. SUPPLIER OF HIFI PRODUCTS & ACCESSORIES SINCE 1986 MAIL ORDER ONLY FROM; IAN HARRISON, 7 MILL HILL, REPTON, DERBY, DE65 6GQ.

TEL: 01283 702875. 9am - 9pm INCLUDING SUNDAYS







BIGEARSAUDIO website: www.bigearsaudio.org.uk updated daily DISTRIBUTORS OF TANNOY PRESTIGE LOUDSPEAKERS TRADE-IN WELCOME!! VALVE AMPS CD PLAYERS AMMARO AS188 INTEGRATED AMPLIER [CD250] LISON COMBONANCE (DD2 EX-DEHO 20 HRS [£1495] £1500 CONSONANCE CD2.2 EX-DEMO 20 HRS [£1495] CONRAD JOHNSON PYTOAL VACUUM TUBE PREAMPLIFIERS £450 CALIFORNIA AUDIO LABS TEMPEST II CD PLAYER TEMPEST 2 £1250 ROGERS HG88 1275 INCA DESIGN KATANA (ID HDCD PLAYER BOXED AS NEW [1950] 6575 OTL 6ASTG OUTPUT TRANSFORMER-LESS INTEGRATED AMPLIFIER 6575 SHEARNE PHASE 7 ANNIVERSARY CD PLAYER [61500] ₹950 LECTOR VF1-70L 6675 CYRUS OD7 OD PLAYER -SILVER £425 SUMO VALVE LINE PRE-AMP £525 NAD CS414, RUSS ANDREWS DAMPER + POWER UPGRADE, TYPE 45 VALVE POWER AMPLIFIER ESSO REGA PLANET OD PLAYER £795 £1550 LECTOR CDPO-ST €625 HEART RHYTHM 3008 SET WALVE AMPLIFIER £775 AUDIO NOTE CD2.1 £1950 Croft vita pre-amp, as new Croft SC, elb4 parallel se, [£1250] E750 MICROMEGA (D132 (D PLAYER [£950?] 6525 MERIDIAN 563 DAC, MINT £425 GAMMA RHYTHM 211 VALVE AMP CR DEVELOPMENTS RONULUS 5881 £1250 SONY PLAYSTATION I CD CONVERSIONS AMAZING Q75 MICROMEGA STAGES (D), £350 LECTOR COP-7T, TOP LOADER £2400 **SPEAKERS** £4500 ROKSAN KANDY CD AS NEW, BOKED £525 TANNOT RECT GRFS, 15" GOLDS. TANNOT CHATSWORTHS 12" GOLDS £1450 LECTOR DCP-06T WALVE CD PLAYER £1000 £1600 NAIM CDS USHER BE718 £850 (330 MARANTZ (D17 MICE [£850] USHER 5-520'S WEF 107 REFERENCE SPEAVERS €495 €1250 TURNTABLES/ACCESSORIES SPENDOR BCIA LOUDSPEAKERS WITH BUILT-IN AMPLIFIERS, MINT B & W SPEAKERS PS, ROSEWOOD 1395 ORACLE DELPHI, FITTED WITH AN OND, POWER SUPPLY, AN SME 309 AND AURUM CANTATAS LEISURE 25E'S [£899] 6525 A SURE VINSXMR CARTRIDGE, JUST SERWICED, IN PERFECT CONDITION, 61250 Q-ACOUSTICS 1020 SPEAKERS+STANDS B25 USHER X-719'S BOKED AS NEW. 6625 TRICHORD DINO £425 OPERA MINIS £625 TRICHORD DELPHINI SONUS FABER GRAND PIANO LOUDSPEAKERS £950 MUSICAL SURROUNDS PHO OLIENA PHONO-STAGE £850 LINN LP12 AFFORMOSA PLINTIH, OL DC, BASICZ, £650 YANDERSTEEN AUDIO MODEL TWO [£4000] B&W 602.5 33 SPEAKERS, 6575 (275 ISOBLUE 4 TER STAND, ASH, WITH EXTS, AS NEW 6375 IAIM CREDO'S IN CHERRY BEAUTIFUL BOXED 6575 LYRA CARTRIDGES ACOUSTIC ENERGY ELITE 25, BOKED, AS NEW, [4449] 225 PROJECT DEBUT H. [210] £125 (225) QUADRASPIRE 3 TIER STAND (475) THE ISOLATOR-UNBELIEVABLE RESULTS!! REVOLVER R33'S BOKED, AS NEW BIS Ordaunt short system 442 flagship speakers €85 EPOS MIZZS AS NEW 1325 ALL GRAHAM SLEE PHONO STAGES Mharefdale Diamonds New Duad esl63's serviced Panels, Guaranteed, £150 OKKI MOKKI RECORD CLEANING MACHINE £1250 chrisbirchley@btinternet.com HUAD ESL 57'S BRONZE, FULLY SERVICED, CLAMPS FITTED, BOXED, 01736 740421 YEW RECTIFIER BLOOKS £850



07947 678256

hear why Terry Bateman

arcam

sim2

siltech

stax

sumiko

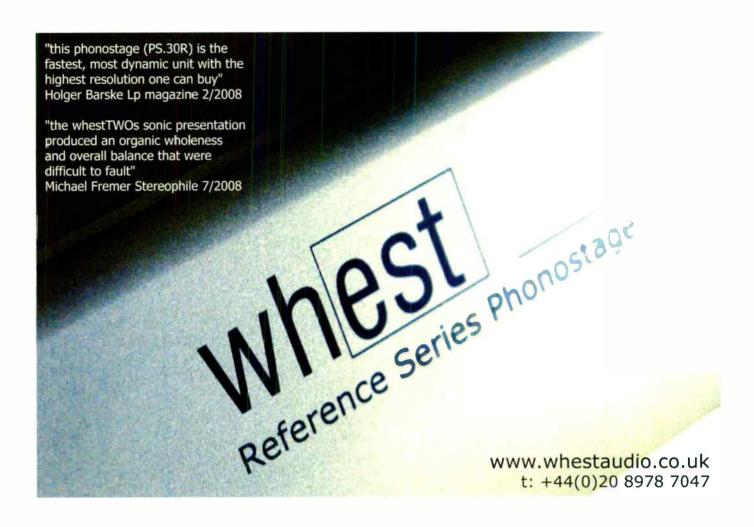
trichord

well-tempered



hi-fi for grown-ups

ipswich (01473)655171 . signals. uk.com



Precision engineering

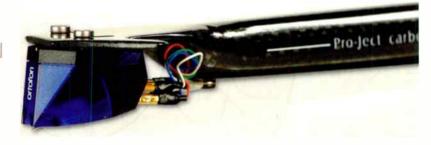
A passion for the music

Ortofon Cartridges

at last you will find all the music in your vinyl









To find out more about the full range of hi-fi cartridges from Ortofon, and where you can buy them visit: www.henleydesigns.co.uk

www.henleydesigns co.uk

Exceptional Value from icon Audio of Leicester Real Hi End Hi Fi to suit all pockets!





Our New Speaker "Made For Valves"



Release the full quality of vour valve amplifier!

Virtually all modern speakers are designed for transistor amplifiers. This means that they often don't "hit the mark" when using valves. Our MFV 3 was designed and tested exclusively using valves, using our experience of making a wide range of Push-Pull and Single Ended valve amplifiers. An ideal partner to tubes, you will hear rich deep bass, wonderful lucid mid-range and smooth transparent treble. We use custom designed doped woven fibre bass/midrange cones with long life neoprene roll surrounds, superb silk dome tweeter, and simple high quality crossover, and long fibre MDF cabinets. Matched veneers, with a choice of dark walnut or light cherry finishes. Fully Biwireable, complete with plinth, spikes (and cover) we are confident that the MFV 3 will delight your ears on a wide range of music. Full leaflet on iconaudio.com or ask for a leaflet by post.

Only £979.00 per pair

100w Mono-Blocks



"A FINE INTRODUCTION TO THE WORLD OF SERIOUS TUBE POWER" Hi Fi World **April 2008**

Powerful, Beautiful, and Versatile! KT88/6550 or KT90

Smooth, precise and powerful. Without any harshness. Massive 100w headroom means you can comfortably drive speakers normally out of reach of most valve amps. Hand wired "Point to Point". Hand wound transformers. Will exceed the performance of many other brands Check our specification: Incredible 100 watts (28.3v @ 8Ω). New all valve design by David Shaw. Low & high sensitivity means Can be passive or pre-amp driven. Triode driver stage using excellent 6SN7/6SL7 valves. Silver audio cable. Switchable to 50w Triode output. Choke PSU.. Beautiful stainless steel and Plexiglas cover included. Vital warm-up/Standby facility.

From £1,799 pair complete (Various upgrades available)

Passive Pre-amp (Featured in Hi Fi World) 4 inputs, tape loop. Alps Blue Pot, silver Teflon cable Gold plated terminals. Ideal for Leak, QUAD Only £244.00

NEW REMOTE CONTROL VERSION £329.95



Fabulous New MB 845s!

"Amongst the best amplifiers I have ever heard...Awesome dynamics and power! High Drama. Superb Value" N Keywood H F W



These extraordinary blocks are not for girls! They big, brutal and uncompromising. At 90+90 watts of pure triode magic they were designed to go into sonic territory inaccessible by 300Bs or KT88s. The 1931 RCA huge power triode is still without equal, partnered with the superb 1941 6SN7/6SL7s using only 3 stages. Inspired by the QUAD IIs! They are the answer to anyone jaded by their present system. Audition them!

From £2499.00 per pair

A Serious 30w Yalve Amplifier for Only £499.95!

Based on our award winning £900 Stereo 40. "Entry level" does not have



to mean low power or quality! Inspired by "Leak". Hand crafted "Point to Point" wiring. Versatile: can use 6L6, EL34, KT66 or KT88s. Beautiful stainless steel and Plexiglas cover included. Limited offer of free EL34 upgrade worth £100

> Mini Hi Fi & Headphone Amplifier

A true ALL VALVE hi fi amplifier only 12"x 4" Designed and finished in Leicester UK. 5+5w with separate transformer winding for best headphone performance. 8-600 Ω All Class "A" Single Ended design uses EL84 &ECC83 valves. Study or bedroom



Only £399.95 complete

PS I All Valve Phono Stage

"Nicely engineered with not a weakness anywhere" N.K. Hi Fi World. Awarded 5 "Globes"

Only a pure valve design can get the best from vinyl. All triode. No feedback. Passive RIAA. Custom British MC TX option. Choke regulated PSU. High output. Volume control. Will drive power amps! 9kg. Upgrades available

From only £499.95 complete (MC £699.95)





LA4 Line pre-amp

__big beautifully controlled sound...imaging very detailed ...distortion an all time low of 0.0009%... excellent reliability in Fi News Inty 2006

Valve rectification 2x EZ81 Twin choke smoothing. All triode design 3x 6SN7 Remote control included Four inputs plus tape loop High & low level outputs Will match any power amp £699.95 complete



We Only lake 100% Pure Valve **Amplification**

Common Features: Oesigns by Oavid Shaw. Hand built 'Point to Point' wiring. Designed and finished in Leicester UK. No printed circuit board. ALPS Volume control. Gold plated terminals. Audiophile components. Silver Teflon audio cable. Steel & alloy plate construction. Soft start. Unique HT delay. Comprehensive manual Inc OIY valve change info.

Prices correct with 15% VAT at time of going to press but subject to change. E & O E

Find out more: website at www.iconaudio.com or ask for an illustrated Leaflet. Available through good dealers or direct from us

Phone 0116 2440593 email sales@iconaudio.com icon Audio 351 Aylestone Road Leicester LE2 8TA (U.K.)

*Conditions apply

Visa, MasterCard and debit cards accepted



THE UKs PREMIER VINYL RELATED RESOURCE WILL BE AVAILABLE SOON ONLINE! If you need us sooner than that, please call 0845 6019390 for assistance

This is a comprehensive directory of Hi-Fi Dealers throughout the UK and Ireland.

BERKSHIRE

LORICRAFT AUDIO

Loricraft Audio is now open for visitors but please call to arrange for a visit. You can buy all our products directly from us or through your local dealer. Our internet shop site can take direct orders for our turntables and accessories! Loricraft Audio, The Piggery, Mile End Farm, Wantage Road Lambourn, Berkshire, RG17 8UE Office Phone/Fax: +44(0) 1488-72267 EMAIL:terry@garrard501.com website:http://garrard501.com

BRISTOL & BATH

THE RIGHT NOTE

Tel: 01225 874728. Happy with your system? Wonder why there's so much for sale secondhand? Avoid the frustration and expense of "upgrade-itis", never quite "there". With infinite patience we'll help you plan longer-term. Brands selection: Accustic Arts, Audio Physic, Aesthetix, Bel Canto, CAT, Chord Co, Clearaudio, dCS, Gamut, Graham, Halcro, Sumiko, VertexAQ, Wadia

V'AUDIO HI FI CONSULTANTS

36 Druid Hill, Stoke Bishop, Bristol.
BS9 1EJ. Tel: 0117 968 6005. ATC, AVI
,Nola,ALR Jordan, Audio Analogue,Avid,
Black Rhodium, Electrocompaniet, Edge
amps/cd,Harman Kardon, Infinity,Jamo,Lyra,
Origin live,Opera,ortofon,PS Audio,
Michelle,REL,SME,Sugden,Townshend.
Specialist in Video Projects by SIM2,
Infocus,Sanyo,Power Plan. Screens by
Stewart, smx and da-lite. Demos by
appointment only. Home trial facilities.

CHESHIRE

ACOUSTICA

17 Hoole Rd, Chester CH2 3NH. www.acoustica.co.uk.

Tel 01244 344227. HiFi & Home Cinema from Amphion, Arcam, ART, Ayre, B&W Nautilus, Classe, Focal.JM Lab, Monitor Audio, Naim Audio, Primare, Rega, REL, Rotel, Spendor, Sugden, Thiel, Wadia. We offer full demonstration facilities, interest free credit, delivery & install systems throughout Cheshire, Merseyside & North Wales. Tuesday to Saturday 10.00 to 5.30.

ACTON GATE AUDIO

www.acton-gate-audio.co.uk 4 Ruabon Road, Wrexham, LL13 7PB, (01978) 364500

Arcam, Atlas, Audiolab, Croft, Denon, Grado, JM Labs, KEF, Michell, Monitor Audio, Musical Fidelity, NAD,Ortofon, Opera, Onkyo, Pro-ject, QED, Quad, Rel, Roksan, Sugden, Sennheiser, Unison, van-den-Hul, Wharfedale, Yamaha.

Tuesday - Saturday 9.00 - 17.00 email: info@acton-gate.com

ORPHEUS AUDIO

Demonstrating: acoustic signature,Basis,Benz,Rcm,Whest,Consonance,Shanling,Luxman,Acoustic Masterpiece,Ear,Sumiko,Acoustic zen, Monopulse,Wlm, Dueve,Sound Mechanics racks and accessories,Brilliance,Albedo, Almarro. Demonstations by appointment,home trials,no problem. Check website for winter bargains. Tel:0161 4281539 www orpheusaudio.co.uk.

DOUG BRADY HI FI KINGSWAY

Studios, Kingsway North, Warrington, WA1 3 NU Tel 01925828009 Fax 01925 825773. Visa Mastercard, 2 dem rooms, home trial, Agencies include: Arcam, AV1, Chord, Copland, Exposure, Krell, Lyra, Michell, Meridian, Musical Fidelity, Monitor Audio, Naim, ProAc, Roksan, SME, Stax, Isotek, Kudos, Sonus Faber, Spendor, Ortofon, Prima Luna, Quad, Avid, Moon, Nordost, Wilson Benesch, and many more.

CORNWALL

BIGEARS AUDIO

To find a system that will allow you to hear the music instead of the equipment phone Bigears Audio, here you will find an interesting array of new and good quality used equipment! my intention is to have satisfied customers whatever their audio preferences. Naim dealer for the South West. chrisbirchley@btinternet.com. Tel: 01736-740421

GLOUCESTERSHIRE

CERITECH AUDIO

Coleford, Gloucestershire. Tel: 0844 736 5719. Email: info@ceritech.co.uk. www-ceritech-audio.com.
We provide bespoke Hi-Fi and AV services

to customers throughout Gloucestershire, Monmouthshire, Herefordshire and surrounding areas. We offer honest and expert advice, and professional demonstrations of an enviable range of top brand products. Authorised Agents for Abbey Road, DALI, Leema Acoustics, Moon, Naim Audio, Neat Acoustics, ProAc, Roksan and others.

LANCASHIRE

HOUSE OF LINN MANCHESTER

Telephone: 0161 766 4837
Email: Info@houseoflinn.com
www.houseoflinn.com
The Linn specialists. Independently owned
by former Linn staff. Straightforward,
professional expertise with demonstration,
sales, installation and support for the
Linn range of components and systems.
The listening experience is so good that
demonstrations can last for hours. Discover
how we make music sound real in your
home! Appointments only.

LEICESTERSHIRE

ZOUCH AUDIO

The Old Coach House, Off South St, Ashby de la Zouch, Leicestershire, LE65 1BQ. Tel: 01530 414128 Email: mike@zouchaudio. co.uk Specialist Audio Equipment from Audia, Audica, Apollo, Ayon, Black Rhodium, Boulder, Chord Electronics, DALI, Edgar, Fatman, Graham Slee, Isotek, LSA, Marantz, Mission, Monopulse, Musical Fidelity, NAD, Nordost, Ortofon, Project, Q Acoustics, QED, Quad, Roksan, Spectral, System Fidelity, Tom Evans, Usher, Vitus. Over 30 years experience and 4 demonstration rooms.

LONDON

THE CARTRIDGE MAN LTD

88 Southbridge road, Croydon
CR0 1AF Telephone: 020 8688 6565
Website: www.thecartridgeman.com
email address:thecartridgeman@talktalk.net.
UK Distributor: Hiaudio Distribution
Makers of the prize-winning range of
MusicMaker cartridges and other desirable
audio accessories. We also have a cartridge
refurbishing service and rebuild classic
valve equipment to the highest standards. "It
doesn't have to cost an arm and a leg - but
there is no such thing a free lunch, either."

This is a comprehensive directory of Hi-Fi Dealers throughout the UK and Ireland.

MY AUDIO DESIGN

35 Whitehall, London, SW1A 2BX
Tel: 020 7839 8880 / 07782 137 868 Email: sales@madengland.com
Website: www.madengland.com E-Shop:
www.shop.madengland.com
We offer MAD, Benchmark Media, SONOS,
WBT, Trichord Research, ATC, FatmanTube,
Project, Lehmann, Ortofon, Vandenhul,
QED, NAD, Goldring, Grado, Focal, Musical
Fidelity, Ex-demo & second hand gears.
Custom Installation, Servicing, Custom
Design. Appointment Only. Short walk from
Embankment, Charing-X & Westminster
Tube.

MANCHESTER

AUDIOCOUNSEL

26 High St Cheadle SK8 1AL
www.audio-counsel.co.uk
Tel 0161-491-6090
Hi Fi and Home Cinema from Arcam,
Anatek, B&W, Densen, Emm Labs, Hutter,
Isoblue,In Focus,Naim,Pioneer,Piega,Quadra
spire,Rega,Revolver,Rotel,Shahinian,Totem,
Well Tempered Turntables,Zu Loudspeakers.
Quality Hi FI is not plug and play.We
deliver and install all systems.0% Finance
available.Tuesday to Saturday 1000 to 5.30
Thursday till 8pm.

MIDLANDS (WEST)

SOUND CINERGY

37 high street, aldridge, WS9 8NL
01922 457926
www.soundcinergy.co.uk
clive@soundcinergy.co.uk
Quality hifi and home cinema from black
rhodium, chord co, creek, epos, exposure,
linn, marantz, monitor audio, mordaunt
short, nad, okki nokki, ortofon, project, rel,
roksan, themescene, trichord, vdh. Check
our website for ex dem and secondhand
bargains. free car parking, tues - sat 10 -5.30

NORFOLK

BASICALLY SOUND & VISION
Calveley Court, Southburgh Road,
Reymerston, Norfolk NR9 4QD
Tel: 01362 820800
Email: enquiries@basicallysound.co.uk
Web: www.basicallysound.co.uk

We offer Naim, Rega, PMC, Bryston, PS Audio, Arcam, Wilson Benesch, Isoblue,

Dynavector and others. Turntable Workshop & Multi-Room Solutions.Relaxing out of town location, 2 demonstration rooms & free parking. Home demos welcome.

Opening Hours Mon – Sat 9:30 – 7:30 but please call in advance on Mon, Tues & Weds

SOMERSET

ALTERNATIVE AUDIO.

Taunton, Somerset, Tel: 01984 624242 www.alternativeaudio.co.uk.
Email: peter@altermativeaudio.co.uk
We specialise in valve amplification and vinyl replay with the accent on high quality musical enjoyment. Ex-Dem and used equipment for sale. Art Audio, Border Patrol, Clearaudio, Diapason, EAR/Yoshino, Experience Filtration, Lector, LFD Audio, Lyra, Music First Audio, Nottingham Analøgue, Opera, Quadraspire, Shun Mook, SME, Transfiguration, Unison Research, Vandersteen Audio.

YORKSHIRE

THE AUDIO ROOM

2 George Street, Hedon, Hull, HU12 8JH.
01482 891375. www.theaudioroom.co.uk
Authorised agents for Ayre, Arcam, Bowers
and Wilkins inc 800series, Classe, Cyrus,
Densen, Dynaudio, Dynavector, Grado,
Mutter, Isoblue, Isotek, Linn, Lyra, Mark
Levinson, Meridian, Naim, Nordost, Proac,
Quadraspire, Rega, Rotel, Stax, Stereovox
and others. 0% finance available, free
parking, 3 demonsration suites, friendly and
quality staff and advice, mail order service.

AUDIO REPUBLIC

78 Otley Road, Leeds 01132177294 www.audio-republic.co.uk For the best in quality hifi in West Yorkshire, representing Naim Audio, Rega, Sugden, Audio Research,VPI, Krell, Copland, Sonus Faber,Arcam, Nottingham Analogue, Roksan, Hutter,Martin Logan, Proac, PMC, M&K, Finite Elements, SME, Cardas, Kudos Loudspeakers and others. Open Tuesday-Saturday 9.30am to 5.30pm

IRELAND

TONE-PEARLS RECORDS "REVOLUTIONARY OLD"

Tel: 353-87-942-7618
Email: info@tonepearls.com
www.tonepearls.com
New audiophile LP/vinyl records using
the revolutionary new Tone-Pearls and
pure analogue techniques. Live recording,
unedited, unprocessed, pure analogue
recording and cutting, 180g virgin vinyl
pressing. New LP released: Piano Music
in a Church of West Ireland, Classicals of
Chopin and Debussy and more...

NORTHERN IRELAND

KRONOS AUDIO VISUAL

Dungannon. N.Ireland. Tel 02887753606
E mail david@kronosav.co.uk
Web www.kronosav.co.uk
Brands include Ayon, Atlas, BAT, Bel
Canto, Boulder, Carat, Clearaudio,
Consonance,Dali, Electrocompaniet, Kef,
Leema, Lyra, Marantz, MF, Michell, Moon,
Music First, Oracle, Pathos, Project, Pure
Sound, Roksan, Ref 3A, Shanling, SA,
Triangle, Unison, Yamaha and much more.
Demos by Appointment. Home Demos
welcome.

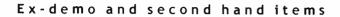
To advertise in this space
please call
020 7372 6018
or email:
advertising@hi-fiworld.co.uk

MIDLAND AUDIO XCHANGE

The Old Chapel Forge Lane Belbroughton Worcestershire DY9 9TD

t. 01562 731100 f. 01562 730228

e-mail. sales@midlandaudiox-change.co.uk web . www.midlandaudiox-change.co.uk





Digital	Was	Now			
Digital 47 Jahs Dumphy S/H	1405	700	ProAc Response D80 Youry doma	10000	7000
47 labs Dumpty S/H 47 Labs Flatfish MKII Transport S/H	1425	799 1550	ProAc Response D80 Yew x-demo	10265	7999 606
47 Labs Progression DAC x-demo	3020 2270	1550 1299	ProAc Tablette Ref 8 Signature Ebony x-demo Quad 988 Electrostatics BNIB Special offer	925 3500	695 2199
47 Labs PiTracer Transport x-demo	18000	9999	Sonus Faber Cremona Maple S/H	5000	2999
Denon A1 XVA Universal Player S/H	2500	1199	Sonus faber Cremona Elipsa Maple x-demo	10980	8500
dCS Verdi SACD/CD Transport S/H	9500	1999	Sonus faber Minima Vintage with stands x-demo	2670	2136
dCS Elgar non fire wire DAC S/H	8000	1199	Sonus Faber Concerto Grand Piano S/H	1850	749
dCS Purcell non fire wire Upsampler S/H	4000	599	Vienna Acoustics Bach Grand x-demo	1295	799
dCS Delius DAC IEE1394 x-demo	6499	2499	Vienna Acoustics Beethoven Baby Grand x-demo	2195	1499
Krell evolution 505 cd/sacd xdemo	8598	6875	Vienna Acoustics Mozart Grand x-demo	1695	1099
Krell KPS28c CD Player S/H	9000	2999	Wilson Audio Sophia II ex-demo	11998	9599
Krell Showcase DVD x-demo	3698	1999	Wilson Audio System 8 x-demo, SUPERB!!	23998	18399
Naim Audio nVi Home Theatre in box x-demo	3500	2099	Wilson Audio System 8 S/H	23998	13999
Mimetism 20.1 CD Player S/H	4000	1995	Cables and Assessaries		
Orelle CD100EVO S/H	1500	695	Cables and Accessories Cardas Cables Colden power cord 1 5m LIK IEC	276	400
Sugden CD21 MK2 x-demo Sugden CD21SE x-demo	1299 1599	899 1099	Cardas Cables Golden power cord 1.5m UK-IEC Cardas Cables Golden Reference Power 1.5m	375 450	189 225
Theta Pro Basic II DAC with Oscom/Balanced S/H	2990	599	Cardas Cables Golden Reference 8m balanced interconnect	4020	225 1999
Tube Technology Fulcrum DAC64 S/H	2400	999	Cardas Cables Golden power cord 1.5m UK-IEC	375	189
Tube Technology Fulcrum Transport S/H	1850	779	Cardas Cables Golden power cord 1.5m UK-IEC	375	189
Section 27 · Marian Campantant	. 300	,,,	Cardas Cables Golden power cord 1.5m UK-IEC	375	189
Analogue			Cardas Cables Golden cross 1m RCA interconnect	730	365
Anatek Audio MC1 Phono stage BINB Black	850	599	Cardas Cables Golden power cord 1.5m UK-IEC	375	189
Benz Micro Ref II Silver MC Cartridge S/H	1500	499	Cardas Cables Golden power cord 1.5m UK-IEC	375	189
Clearaudio Smart Phono mm/MC S/H	265	195	Cardas Cables Golden Cross 3m Bi wire speaker cables	1999	999
Koetsu jade platinmum V Low use S/H	4998	2250	Cardas Cables Golden Power Cord 33inch UK-IEC mains	325	162
Koetsu MCR-1 Transformer S/H	2666	1399	Cardas Cables Golden Cross 6m set of RCA interconnects	2830	1415
Mc Cormack Micro Drive Phono Stage S/H	650	229	Clearaudio Strobe/Disc BINB	112	65
Phonomena BPS Battery supply for phono BINB	650	249	Clearlight Audio Aspekt Rack 4 tier xdemo	599	299
Phonomena Phono stage MM/MC BINB Plinius Koru MM/MC Phono stage S/H	650 1750	249 999	Clearlight RDC SPP Platform BNIB Densen De-magic	149 10	79 5
RS LABS RS1 uni pivot tonearm x-demo	825	599 599	Cogan Hall Intermezzo EMD 0.75m RCA S/H	N/A	99
Roksan Xerxes SE Power Supply	1100	879	EAT Cool Dampers BNIB	15	10
Roksan Xerxes Standard Power Supply	800	640	EAT Cool Valve 1pr ECC 803s Diamond BNIB	170	99
Roksan Xerxes XPS2 Rosewood /RB300/chorus blk S/H	N/A	499	EAT Cool valve 1 pr ECC 88 Diamond BNIB	170	99
Vdh Grasshopper GLAIII MC Cartridge x-demo	2500	1249	Eichmann Express 4 interconnects BNIB	80	49
			Lexicon T700 learning Remote x-demo	1500	299
Preamplifiers			Madrigal MDC1 1m AES/EBU 110 ohm Digital Cable S/H	420	199
Audio Research SP16 with Phono Stage x-demo	2249	1499	Quadraspire Q4 5 shelves Glass S/H	525	249
Audio Research SP17 stereo preamplifier x-demo	2749	2199	Ringmat 330 MKII XLR Support system BNIB	135	79
DartZeel NBH-18s World class preamplifier with phono x-demo	16000	11500	Ringmat Feet set 3 BNIB	68	30
ECS Preamplifier S/H	5000	3299	Shakti Stone BNIB Sittach HEQAES/EBU 1 m Digital S/H	199	119
Krell KAV250P Preamplifier S/H Krell KRC3 Series II Remote Controlled Preamplifier S/H	N/A	745	Siltech HF9 AES/EBU 1m Digital S/H	420	199
Mark Levinson NO28 with High Phono S/H	2998 N/A	1295 1295	Spectral MH-750 8ft Speaker cable S/H Spectral MI-330 15ft interconnect S/H	900 1275	399 599
Roksan L1 Preamp (requires PSU) S/H	2299	795	Shun Mook Mpingo disc x-demo	45	25
Spectral DMC 12s Preamplifier Phono version S/H	4250	1695	Shun Mook Mpingo Pads x2 xdemo	25	15
Spectral DMC 15s Preamplifier Shaa GenII S/H	4700	2499	Shun Mook Spacial Control Kit x-demo	400	200
			Transparent Music Wave 8ft speaker cables S/H	375	229
Amplifiers			XLO Reference 2 0.5m Digital RCA 75ohm BNIB	199	65
47 laboratory 25 Gain Card x-demo	1260	799	XLO Reference 2 0.5m RČA-RCA BNIB	395	119
47 Laboratory Power Humpty x-demo	1425	799	XLO Reference 2 1.0m Digital RCA 75ohm BNIB	275	85
47 Laboratory Shigaraki Integrated x-demo	1500	1199			
Audio Research VM220 Valve mono Amplifiers x-demo	9000	6999	Tuners & Tape decks, power supplies	4000	
Audio Research VS115 stereo power amplifier x-demo	4988	3995	Cymbol C-DAB1 Digital Tuner S/H	1200	399
Bel Canto Evo 2 Gen II Amplifier S/H	2350	1099	Magnum Dynalab FTR remote/Tuner for Etude S/H	395	199
Bel Canto Evo 200.2 S/H Copland CSA 29 Integrated x-demo	2399	599 1200	Magnum Dynalab MD106T Valve Tuner x-demo	3600	2499
DartZeel NHB-108 Stereo Power amplifier X-demo	2398 12000	1200 8750	We have a large record collection mainly Jazz and Classical from £3	3 00 112 42 0	20 for
Jadis CA30 valve mono x-demo	2250	1399	some boxed sets	5.00 up 10 £	20 101
Krell Evo402 Black x-demo	12900	8999	Please call for more details.		
Krell evolution 302 300w stereo power amplifier x-demo	8950	7160	vani vi ingi v avidilo,		
Krell KAV400xi Black S/H	2498	1199	Midland Audio X-change are looking for All high end audio separate	s best price	s paid for
Musical Fidelity A300CR Stereo Power Amplifier S/H	2200	799	good examples.	- soot prioc	- paid iti
McCormack DNA125 Power Amplifiers BNIB	2195	1499	•		
Mystere Concert iA21 KT88 valve Integrated x-demo	1850	1299	Suppliers and installers of High Quality Audio		
Pathos Inpol 2 x-demo	5650	4499	Systems		
Sugden A21a series2 x-demo	1499	1025	47 Laboratory Living Voice		
Laurence and an artist and a second a second and a second a second and			Audio Research Magnum Dynlab		
Loudspeakers			Cardas Mark Levinson		
Avalon Opus Cherry S/H	16000	7999	Conrad Johnson Mimetism		
47Lab Lens Cherry x-demo	1000	600	Crystal Cables Primaluna		
Konus Essence Floor stander zebrano x-demo	2800	1350	Dartzeel Primare		
Living Voice Avatar OBXR2 Cherry x-demo	4400	2999	Densen Rega		
Martin Logan Fresco centre x-demo	850 1706	399	DNM/Reson Siltech Electrocompaniet Sonus Faher		
Martin Logan Mosaic x-demo Pen Audio Charm Active Subwoofer x-demo	1795	949	Finite Elemente Sugden		
ProAc Response D15 Ebony x-demo	1995 2215	899 1665	Koetsu VPI		
ProAc Response D28 Maple x-demo	3250	2450	Kuzma Wegg 3		
			Cavardin		
Midland Audio Y-change are looking fo	سائلسيية سا	D	and the state of t		

Midland Audio X-change are looking for Audio Research, Krell, Mark Levinson, Naim Audio, SME, Wadia.

FREE READER GLASSIFIEDS

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.

MUSICAL FIDELITY A5 dual mono integrated amplifier £950. Musical Fidelity X-LPS v3 stereo phono pre-amp £180. Both mint, boxed. Buyer to collect. (Built World Design pre & power amps) Tel: 0115 975 4070 (Nottingham)

MARANTZ CD63IIK.I.
Signature, PM66SE KI Signature amp+ Kef cherry floorstanders C3's (£1300) £500 excellent.
Quad 99 pre amp boxed £499.
Classe 151, 125 watt amp. FMJ £995. (£2000) Meridian 596
CD/DVD. Upgraded £795.
(£2500). Denon 2800 progressive scan DVD black excellent bargain. £195 (£750). Tel:
Jim 01206 510392 or 07765
264381

NAIM 32.5 pre amplifier, as new £150. Naim 72 pre amplifier, olive green, £280. Linn Adikt cartridge, brand new, £100. Cabboise 100 watt mono power amplifiers £400 ono. Naim 102 pre amp £450 olive green, full size case. Tel: 020 8524 2181

TANNOY DUAL Concentric 3LZ 10" Monitor Golds, mint condition, demonstration, offers over £600. Also Sansui 3 way speakers, tone controls, triple amp, £150. Both plus carraige. Phone Derreck 01455 220214 (Coventry)

NAIM NAT 02 FM tuner, immaculate, boxed, manual. £425 ono. Tel: 01639 641 043

CYRUS PRE X £350, Marantz PM66SE KI amp £175. Pontefract area. Tel: 01977 609839

NAIM SUPERNAIT integrated amplifier. Boxed. 200 hours of use. Immaculate condition. Cost £2350. Selling £1250. Naim Power Chord 2m, £180 (£390). Tel: 01491 614325 (Oxon)

PAIR HACKER speakers, walnut, 20" × 13" on stands. Gause fronts, as new, £100 pair, ono, buyer collects. Tel: Terry 07939394380 (Barnsley, South Yorks)

QUAD CDP-2 CD player. 3 years old. Boxed. Manuals. £350. plus £15 postage. Tel: 02380 274494

QUAD FM4 tuner. Not working at present. Any offers? Tel: 0121 476 8507 (Birmingham)

WANTED: PERHAPS you are upgrading your system! Wanted good quality record deck/turntable, Garrard or Thorens, tone arm and cartridge, valve amplifier and speakers from 1960's onwards. Tel: 01726 812966

UNISON RESEARCH Hybrid valve equipment: Unico Secondo 120w/ch integrated amplifier £780. Unico FM/RDS/AM tuner £475. Opera Seconda speakers, stunning design, cherry finish, £825. All 1/2 price. Excellent reviews and mint. Tel: 023 8073 8935

LINN LK280 power amplifier, more musical that 85/100/140. Excellent condition. Linn box. Bargain £240. Nottingham Analogue Spacedeck with Incognito Rega arm/ Tecnoweight plus AT110E cartridge. Excellent. Original boxes. £765. Tel: 01243 863 371

FOR SALE: Gale 401 (chrome ends) loudspeakers refurbished with new terminals, X/over components, internal wiring, drive unit surrounds and cloth wrap. Good as new. Can dem. £550. Tel: 0151 677 3521 (Wirral)

MUSICAL FIDELITY A5 CD and amp. Excellent condition, boxed with manuals. £650 each. Also Kef XQ5 floorstanders, piano black, £500. Will do deal for all together.

Tel: 07793 725 356 (Croydon)

CABBASSE 100 watt mono transistor power amplifier (black). Any sensible offer. (Black) Lector (Zoe) valve input preamplifier. Croft (special) (lots of upgrades) valve preamplifier (black) Please phone for sensible prices.
Tel: 020 8524 2181

FOR SALE: Sugden Masterclass pre-amplifier £950. Tannoy ST50 Super Tweeters £275. Isotex Orion mains filter £225. B&W DM605.2 speakers with integral I30 watt sub-woofers £250. Tel: Peter 01642 559078

WORLD DESIGNS 88VAXL integrated. Professionally built. Tape loop, upgraded components. I now use a pre/power combination. £700 ono. East Lothian. Contact Mike on 07710 737 232 or 01620 826950 evenings

WANTED: ELNA Cerefine or/ and Blackgate capacitors, 500 volt 100 microfarad or W.H.Y. similar. Tel: Len 01492 516875 or Email: lensand@care4free.net FOCAL PROFILE 908 standmount speakers, as new. Superb sound (£1400) £750.Tel: 01285 644 418 (Glos)

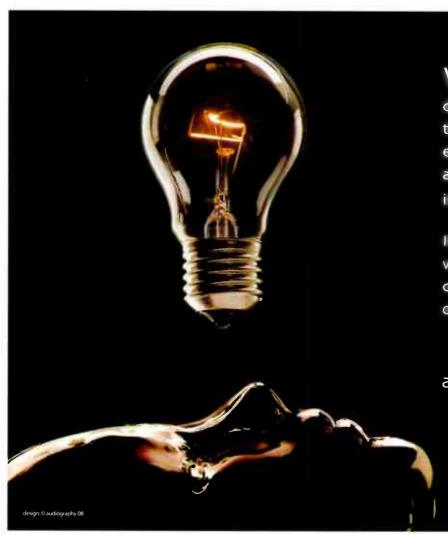
BANG AND Olufsen Beogram 5500 turntable £210 ono. U70 headphones £30. Pioneer A88X amplifier £270. Sony ST88 upright tuner £25. Mission 700LE speakers £40. All immaculate. Tel: 01708 457691

GOLDRING LENCO '88' turntable. Upgraded by precision engineer and mounted in a heavy compact plinth with a unique pick-up arm. Matches a Garrard 401. A bargain at £400. Tel: 01277 219 639 (Essex)

WANTED: B&O Beogram 1800 turntable/plinth. Acos Lustre arm. SME 3009/S2 Series II pickup arm/detachable headshell. SME Series II mounting kit (TD160/3009). Audio Technica AT21(E) efliptical stylus. B&O SP12(E) elliptical stylus or equivelent replacement make. Shure stylus force gauge SFG2. Plug-in (holed) head shell (black). Please contact quoting price and postage/carriage. Tel: 02380 772895 & messsaging.

WALKER TURNTABLE, SME 3009, Shure VST 'V' cartridge, £150. Fons turntable, Audio Technica arm, ATF3 cartridge, Ortofon MC step-up transformer, £130. Kef 30B active subwoofer, black, £125. Tel: Ray 0161 643 2871 (Manchester)

TURNTABLE PROJECT RPM5, good condition, one year old, hardly used, £250. Tel: George 07946465191 (North London)



We make advert design affordable, so that our clients can easily change their adverts every month in the magazine.

Its just one of the ways we can attract the customer to your product or service...



design / pr specialist for the audio industry

+44 (0)1273 394 184 +44 (0)7766 65 44 11 design@audiography.co.uk www.audiography.co.uk



Multi-Media Furniture: Where beauty and balance converge





You've found it!

Looking for (probably!) the best addition to your Home Entertainment system that also offers real value for money?

Then the Atacama Equinox range of English handmade Hi-Fi & AV Equipment supports are for you!













Prices start from as little as £169.99!

For more information or to find your nearest retailer, please visit: www.atacama-audio.co.uk or call 01455 283 251



angelsound audio

- Specialist UK Dealer
- www.angelsoundaudio.co.uk
- tel: +44 (0)1923 352 479

**Please call for special introductory offers on Dr Feickert Analogue Products.

DR. FEICKERT ANALOGUE



DFA-Twin Turntable**

" - this deck ticked all the boxes: silent running, neutral sound, wide dynamics, superb, build and finish, deliriously ': straightforward set-up and handsome looks. There's an air of 'rightness' about this one, so buy with confidence."

Ken Kessler Hi-Fi News Oct '08

Br nd

Acoustic Revive Advanced Acoustics Audio Desk Cain & Cain CI Audio Di Feickert Analogue **Eminent My Sonic** HiFi Tuning Fuses ModWright Pure Power Red Wine Audio Stillpoints VMPS Vyger Yamamoto and more...

■ Used/Ex-demo

Visit our web site for up-to-date list.

QUAD 34 Control Unit 306 current dumping power amp 50 watts per channel. Excellent condition apart from small scratch to top of control unit. Both in working order. £280 ovno. Tel: 01303 265 194

PAIR LEAK STEREO 20's, bridged triode mono amps. £1450 ovno. Croft Vitale preamp, heavily modded, £300 ovno. Townsend Isolda speaker cable, little used, £250. Further information telephone 01530 272801

BRILLIANCE HI-FI interconnects. Unwanted prize. Im balanced XLR Neutrik3 plugs (£340) £90. Im pure silver WBT plugs (£480) £150. Both require burning in. Tel: 07854 266 620 (Cornwall)

PRIMARE 130 amplifier, four months old, balance of guarantee twenty months transferred (£1500) £1200. Audiolab 8000C, 8000P, good condition, will not split, £450, buyer collects. Tel: 01989 767690 (Herefordshire)

SONY SCDXB790 SACD player, mint, boxed, £60. Acoustic Energy Linear One standmount speakers. Piano black finish. Mint, boxed, £75. Buyer collects. 07941 174804 evenings only (Berkshire)

EASTERN ELECTRIC Minimax valve power amp. Mint. £450 ono. Quad QC24 valve pre. Brand new, unused, still in box, £700 ono. Or buy both for £1000. Tel: Mike 07710 737232 (East Lothian)

NOTTINGHAM ANALOGUE Acesspace arm (9"), Excellent condition £375
Supex SD900Super2 Cart, retipped by expert stylus, excellent condition £250
Please email ropeboy88@hotmail.com for photos and details.

ARCAM ALPHA System: 8R amplifier (phono) £210 ono. 8 tuner £100 ono. 7SE CD player £160 ono. All boxed. Excellent condition. One owner. Phone Shaun 01226 244 341 evenings (Barnsley)

WANTED: LINN Ittok LVII or Linn Ittok LVIII Mk2. Must be excellent condition, especially the gimball bearings. I have Linn Index speaker stands for sale. Good condition. £35. Tel: 01925 470 619

WHARFEDALE SFB/3 open baffle loudspeakers in walnut veneer. Very rare in near mint condition with fully working Alnico drivers. I.W.A. No3 review items. £500 GBP. Tel: 07725 029954

CONRAD JOHNSON valve preamp PVI2AL, immaculate, boxed. Audio Physik Spark One's quality floorstanders. Excellent Quicksilver valve monoblocks. KT88 integrated, just burned in, boxed. Each item £550 ono. Tel: 07951 553 091 (London)

PHILIPS CD950, Sugden modified, superb sound, boxed and complete with remote, manual, Sugden test readout sheet. Unmarked condition. Offers. Tel: 01942 213 155 or 07875 278050 mobile

WANTED: STEREO tuner for Technics ST-HD51 separates hi-fi or radio wizard to repair existing which will only tune mono. Technics don't have replacements. Tel: 01653 693028 (Malton)

VARIOUS CLASSIC valve amps for sale. Private collector selling up. Ring for details: 07946 522 644

WANTED: CONNOISSEUR HQ20 amplifier and pre-amplifier in good condition. Contact Peter 01283 532 616 after 8 rings Fax NAIM 150X power amp, 6 months old, instructions, original box, £525. Cambridge 640E CD, instructions, remote, original box, less than 30 hours use, £160. Both items mint. Tel: 0772 962 0621

CONRAD JOHNSON preamp PV12AL, immaculate, boxed, manual, £550. KT88 all valve integrated, superb performance, £500. Some valve amplifier mains transformers, heavy, £30 each. Acoustic Zen interconnects, Reference II's. Tel: Stanley 07951 553 091

IMF TLS 50 Mk2 speakers. New transmission line, wide range, left and right hand, bargain, £300. Tel: John 01753 586 660 (Windsor)

TWO PAIRS Audioquest Quartz x3 RCA 0.5 metre interconnectors. £100/pair new. Nice. Bargain £45 both pairs. One pair QED Qunex 3 RCA I metre interconnectors. £17. (Includes P&P) klugheit. 123@gmail.com.

LINN KATAN speaker stands I year old perfect £100 quad III speakers piano black I year old perfect cond £150 will post. jeff stanley 07523852123 jeffrock@hotmail.co.uk n.ireland

FOR SALE, Technics SL-150 turntable, Audio Technica 1010 arm, Goldring Electra cartridge (unused). Almost as new, lid slightly scuffed ,excelent working order and decent sound. £120 ono. evenings 01925251107 (Liverpool).

AUDIO INNOVATIONS S1000 Silver edition mono black valve amplifiers. In an excellent condition, all original boxes etc, spare valves included. £800 ono, Please email ropeboy88@hotmail.com for photos and details.

MARK LEVINSON 38.S pre/ amp, new (£6500) £1400. Mint condition. XLO Signature 1.8 metre, new (£1800), £500. Very good condition. Tel: Tony 07868 714 812 or 020 8311 7182

ORACLE CD 1500 CD player, stunning looks and sound, see review at 6 moons.com, excellent condition, original wooden and cardboard boxes, cash on collection only, because of weight, can demo, (£4800)sell for £2150. tele-northampton 01604 584630 or 07591

PMC OBI Speakers 4 Months Old Brand New Still in Boxes, Light Oak With 3 year Warranty inc Cost £2,850.00 Sell £1,500.00 o.n.o Quick Sale Bargain 07920124888 or 0208 529 6764

LEAK AMPS TL25 plus, Mullard valves, new caps etc 20-75 speakers, Unique Black surrounds, £75 ono each pair. Pristine condition, can be auditioned. Loads more, send for List. 01548 560913. mikeh7@tiscali.co.uk

ALOIA PST 11.01-psu 11.i Reference Preamp/power supply, perfect working order with manuals and remote, no box. Stunning piece of kit Euro 1000. Southern Ireland. Will ship to UK. ray.deasy@gmail.com

I HAVE a floor standing windup model bought new in 1936. It has three speeds and is in working order. Wishing to sell. Please ring 01512844454

SUGDEN A21aL pure class A Amplifier, excellent condition, factory serviced, in original packing, £395, tel: (01403) 255153 (West Sussex)

QED QUDOS silver loudspeaker lead. 8m. Unused. Cost £40. Only £20. (+£2 for post). Weymouth, Dorset. Tel 01305 766427. (pm, eves)

A New DNM Product! DNM STEREO SOLID CORE INTERCONNECT CABLE

A new interconnect cable with a designed magnetic performance, for incredible clarity and tonal accuracy. Its L,C and R balance is precisely set to improve the sound quality of any amplifier connected to it. The semi-transparent ribbon contains four conductors, enabling connection of a stereo source using only one cable.

http://www.dnm.co.uk/acatalog/ :phone/fax DNM Design on 01480 457989

Raysonic



The fusion of Sound & Style



On permanent demonstration at Mayflower Sounds Tel. 01302 711 528 www.mayflowersounds.co.uk (M) 07931 524 266 mayflowersounds@fsmail.net





REGA R5 speakers, matt black (not piano), little used, excellent condition comes from a no kids, pets, smoking household. Complete with spikes, grills and box's. £350 01823401422, zarndo@googlemail.com

WHARFEDALE VALDUS 500 speakers, black, sound great. £75.00. ono. spare Quad 22 transformers. 2 complete sets, offers. Rogers Master pre-amp wanted, either version. Graham, 07800 512889. north lincs.

NORDOST SHIVA Mains Cable (£130), Nordost Pulsar Points (4No Aluminium) (£35), Totem Beaks Anti Resonance Device (1No Pair) (£50). All items boxed and mint. Darren (0752 7797512) email damalow1@ntlworld.com

NAKAMICHI ZX-7 cassette deck 3 head, full manual calibration, superb condition-(b&w nakamichi serviced), manual, boxed. (very rare) next best to a CR-7. £595. I simon 07759205820 (daytime) 01483 271669 (evenings/weekends). Surrey.

LINN LP12, Trampolin, Lingo power supply, Ittok LVII tonearm, Asak MC cartridge, all Excellent condition £1300, Trichord Dino Phono Stage £250. All boxes but prefer not to post, can meet within reason or demonstrate. Telephone Graham 07590 054620 (Weybridge, Surrey)

WANTED RCA 'New Orthophonic' valve type mono power amplifier. Single units or a pair required. Will also consider incomplete or non-working units, depending on condition and price. Hughes. Tel: 020 8866 7098.

WANTED FAULTY or non working Quad 34 or 44 preamps, Quad 405-2 power amps. decoder panel for Quad fm2 tuner, scrap fm4 tuner for parts. Contact Mike on 01758 613790.

VAN DEN Hul D501 silver hybrid tonearm cable (2008). As supplied with SME V tonearm. I.2m RCA to SME 90 din plug. As new. £50 inc postage. London. (07818) 42147

PROAC RESPONSE 2.5 full range speakers in Cherrywood, £950 ono. Musical Fidelity A308CR preamp and poweramp, 250w, boxed, £1,450. A308CR CD Player, boxed, £975. All excellent condition. Tel. Luton 01582 758049.

MIT PROLINE CVT Reference Interconnects. Balanced termination. 2 metres long. Excellent condition. In wooden shipping crate. Was top of range. Cost £3000, will accept £695. Tel Bob - 01386 446134

WANTED, TRIO L-08C preamp, price dependent on condition. Tel Steve on 07905012997.

FOR SALE: Pair of Magnepan MMG panel speakers virtually unused. £550. Cash or pre cleared cheque only.
Buyer collects North Yorkshire.
Email cannon@ntlworld.com

WANTED: All High end Hi Fi seperates and complete systems from Naim, Linn, Cyrus, Meridian, Musical Fidelity etc, fast, friendly response and willing to travel/pay cash Please call me on 0781 5892458

ARCAM ALPHA 7R Amplifier and 7SE CD player, excellent condition, remotes, audioquest interconnect, £200 ono. Tel (0115)8549677. e-mail anthony.price5@ntlworld.com

ACURUS (MONDIAL) RLI I Preamplifier. Black with aluminium dials. Superb sound. Excellent condition. With remote. £265 (£700). Tel Jason 07725 072878 (Leicester).

TRANSPARENT REFERENCE XL Interconnects. Balanced termination XLR. 1.5M Long. Top of the range. Cost £7000. Will accept £2000.As New. Telephone Bob - 01386 446134 (Evesham, Worcestershire)

PAIR OF tweeters wanted, new or used. No ribbons or drivers from commerical boxes with no ID. Also wanted NPN TO3 ie MJ 1500 1/3, 2N3716, MJ L4281, 2N3055! Tel 07779 199 392

MUSICAL FIDELITY KW250S new condition boxed cost £5000 new sell for £1500 ten months old vpi scout turntable as new boxed £750 ortofon rondo red mc 10 hours £200 02476448344

SUGDEN A21 Class A amplifier as new £ 900. Arcam CD82T cd player £399. Musical Fidelity X can v3 headphone amp £199, x can v3 phono stage £199. Wharfedale Pacific Evo 30 £399. Tel 01493 665761

SUGDEN CD21 great analogue sounding CD player, excellent condition £495. Arcam AVR300 surround sound receiver in silver, as new £475. 01403 711778 or 07813 367409 (West Sussex).

MUSICAL FIDELITY A5 CD Player as new mint condition low usage upgrading to SACD (£1,500) £800 no offers 01268 415 01 Fssex

MOREL MDT32 tweeters, flange cut/modified hence £30 Scanspeak flow resist vents £10 L-Pad controls £10 Hart TC1 test tape £5 Hart Tape head £10 Speaker spikes £7 Tel 07779199392

A & R CAMBRIDGE Arcam Alpha Tuner, Mint Condition, Still in original box with full instructions, £20 Telephone 01745 833183

CLASSIC CONTACTS

When a classic goes 'pooof' 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 retipping 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 45800 | I 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.

EXPERT STYLUS COMPANY

(Wyndham Hodgson, Surrey) Stylus replacement service for all types of cartridge, Including precise profiling for 78s Tei: 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 Ils. 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.

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

(Shropshire) Garrard 301/401 restoration, renovation and service. Special plinths; rumble cures, etc. Tel: 01584 823446

D.K. LOUDSPEAKER SERVICE

(Dave Smith, Hornchurch, Essex) Re-coneing of hi-fi loudspeakers, high quality loudspeaker systems, P.A., power loudspeakers. Tel/Fax: 01708 447 344

LOCKWOOD AUDIO

(London)
Tannoy loudspeaker
parts, restoration and
repair. Also Epos and TDL
loudspeakers.
Tel: 020 8 864 8008
www.lockwoodaudio.co.uk

LORICRAFT AUDIO (Terry O'Sullivan, Bucks) Garrard 301/401 and their own 501 repair, spares and service.:Tel: 01488 72267

www.garrard501.com

REVOX

(Brian Reeves, Cheshire) Revox tape recorder spares, service and repair. Accessories also available. Tel: 0161 499 2349 Email: brian@ revoxservice.co.uk

CLASSIQUE SOUNDS

(Paul Greenfield, Leicester) ESL-57s restored, rebuilt, fully renovated or improved. Leak, Quad valves amps etc. Tel: 0845 123 5137/ Mob: 0116 2835821 Email: classique_sounds @yahoo.co.uk www.flashbacksales.co.uk/ classique

OCTAVE AUDIO WOODWORKING

(Bristol)
Unit 2, 16 Midland Street,
St Phillips. Bristol.
Tel: 0117 925 6015
www.octave-aw.co.uk



NEXT MONTH

The ravages of winter may be slowly receding, and the days growing gradually longer, but you've still got a good excuse for not being outside getting chilled to the bone — your very own copy of April's Hi-Fi World magazine! As usual, it's our customary mix of the weird and the wonderful (and occasionally both) — featuring the latest and greatest new products, plus a good deal of classics too. Here's just some of what we hope to bring you:

AV RECEIVER SUPERTEST: ONKYO TXSR876, DENON AVR-2809, MARANTZ SR-6003, PIONEER VSX-LX51, YAMAHA RXV1900

YAMAHA CD-S700/A-S700 CD PLAYER/INTEGRATED AMPLIFIER **OLDE WORLDE: DUNLOP SYSTEMDEK TURNTABLE ASTIN TREW AT2000 INTEGRATED AMPLIFIER** KINGSOUND PRINCE II LOUDSPEAKERS [pictured] VDH FROG MOVING COIL CARTRIDGE ORIGIN LIVE CONQUEROR TONEARM **CAMBRIDGE AUDIO SONATA SYSTEM** SENNHEISER IE8 PRO IN-EAR PHONES **MOON i3.3 INTEGRATED AMPLIFIER TOWNSHEND ROCK 7 TURNTABLE** BENT AUDIO TAP-X PREAMPLIFIER **JOHNBLUE JB-4 LOUDSPEAKERS CYRUS CD-XT SE TRANSPORT EPOS ELS8 LOUDSPEAKERS** PMC GB1i LOUDSPEAKERS YBA YC-201 CD PLAYER **ARCAM FMJ T32 TUNER**

PICK UP THE APRIL 2009 ISSUE OF *HI-FI WORLD* ON SALE FEBRUARY 27TH, OR SUBSCRIBE AND GET IT DELIVERED TO YOUR DOOR: p82

ADVERTISERS INDEX

Ond Hand Hi Fi	110
2nd Hand Hi-Fi	119
Analogue Seduction	114
Anatek Research	115
5.0	
April Music	46
Audio Components	102
Audio Reference	102
AudioXpress	114
Big Ears	116
Billy Vee	111
Blackburn Microtech	68
Chord Electronics	30
7.57	115
Classique Sounds	
Cymbiosis	104
Dali	12
Decent Hi-Fi	110
Electrocompaniet	OBC
Emille Labs	32
Exposure	IFC
Heathcote Audio	111
Heatherdale Audio	110
Henley Designs 90,117	
Hi-Fi Sound	119
High End Cable	108
House of Linn	57
lan Harrison	115
Icon Audio	118
Iso Kinetik	68
KEF	14
Kudos	110
Leema Acoustics	42
Mantra Audio	114
Melody	6
Michell Engineering	116
Midland Audio Exchange	122
MIT Cables	44
Musical Fidelity	114
Musonic	104
Newcastle Hi-Fi	36
Origin Live	86
Parts Connexion	86
PMC	58
Retro Reproduction	108
Revolver	102
Ringmat Developments	
Rochester Hi-Fi	44
Cohou Analon	126
Scheu Analog	126 52
Scheu Analog SCV	126
SCV	126 52 24
SCV Sevenoaks 92,94,96	126 52 24 106
SCV Sevenoaks 92,94,96 Shadow Audio Cons.	126 52 24 106 74
SCV Sevenoaks 92,94,96 Shadow Audio Cons.	126 52 24 106 74
SCV Sevenoaks 92,94,96 Shadow Audio Cons. Signals	126 52 24 106 74 116
SCV Sevenoaks 92,94,96 Shadow Audio Cons. Signals Sound Hi-Fi	126 52 24 ,106 74 116 110
SCV Sevenoaks 92,94,96 Shadow Audio Cons. Signals Sound Hi-Fi Symmetry	126 52 24 ,106 74 116 110 68
SCV Sevenoaks 92,94,96 Shadow Audio Cons. Signals Sound Hi-Fi	126 52 24 ,106 74 116 110
SCV Sevenoaks 92,94,96 Shadow Audio Cons. Signals Sound Hi-Fi Symmetry Teufel	126 52 24 ,106 74 116 110 68 26
SCV Sevenoaks 92,94,96 Shadow Audio Cons. Signals Sound Hi-Fi Symmetry Teufel The Chord Company	126 52 24 ,106 74 116 110 68 26 48
SCV Sevenoaks 92,94,96 Shadow Audio Cons. Signals Sound Hi-Fi Symmetry Teufel The Chord Company The Funk Firm	126 52 24 ,106 74 116 110 68 26 48 52
SCV Sevenoaks 92,94,96 Shadow Audio Cons. Signals Sound Hi-Fi Symmetry Teufel The Chord Company	126 52 24 ,106 74 116 110 68 26 48
SCV Sevenoaks 92,94,96 Shadow Audio Cons. Signals Sound Hi-Fi Symmetry Teufel The Chord Company The Funk Firm The Listening Rooms	126 52 24 ,106 74 116 110 68 26 48 52 58
SCV Sevenoaks 92,94,96 Shadow Audio Cons. Signals Sound Hi-Fi Symmetry Teufel The Chord Company The Funk Firm The Listening Rooms The Right Note	126 52 24 ,106 74 116 110 68 26 48 52 58 104
SCV Sevenoaks 92,94,96 Shadow Audio Cons. Signals Sound Hi-Fi Symmetry Teufel The Chord Company The Funk Firm The Listening Rooms The Right Note Turntable World	126 52 24 ,106 74 116 110 68 26 48 52 58 104 119
SCV Sevenoaks 92,94,96 Shadow Audio Cons. Signals Sound Hi-Fi Symmetry Teufel The Chord Company The Funk Firm The Listening Rooms The Right Note	126 52 24 ,106 74 116 110 68 26 48 52 58 104
SCV Sevenoaks 92,94,96 Shadow Audio Cons. Signals Sound Hi-Fi Symmetry Teufel The Chord Company The Funk Firm The Listening Rooms The Right Note Turntable World Usher	126 52 24 106 74 116 110 68 26 48 52 58 104 119 IBC
SCV Sevenoaks 92,94,96 Shadow Audio Cons. Signals Sound Hi-Fi Symmetry Teufel The Chord Company The Funk Firm The Listening Rooms The Right Note Turntable World Usher Walrus Systems	126 52 24 ,106 74 116 110 68 26 48 52 58 104 119 IBC 88
SCV Sevenoaks 92,94,96 Shadow Audio Cons. Signals Sound Hi-Fi Symmetry Teufel The Chord Company The Funk Firm The Listening Rooms The Right Note Turntable World Usher Walrus Systems Wavelength	126 52 24 ,106 74 116 110 68 26 48 52 58 104 119 IBC 88 86
SCV Sevenoaks 92,94,96 Shadow Audio Cons. Signals Sound Hi-Fi Symmetry Teufel The Chord Company The Funk Firm The Listening Rooms The Right Note Turntable World Usher Walrus Systems	126 52 24 1106 74 116 110 68 26 48 52 58 104 119 IBC 88 86 117
SCV Sevenoaks 92,94,96 Shadow Audio Cons. Signals Sound Hi-Fi Symmetry Teufel The Chord Company The Funk Firm The Listening Rooms The Right Note Turntable World Usher Walrus Systems Wavelength	126 52 24 1106 74 116 110 68 26 48 52 58 104 119 IBC 88 86 117
SCV Sevenoaks 92,94,96 Shadow Audio Cons. Signals Sound Hi-Fi Symmetry Teufel The Chord Company The Funk Firm The Listening Rooms The Right Note Turntable World Usher Walrus Systems Wavelength Whest Audio	126 52 24 ,106 74 116 110 68 26 48 52 58 104 119 IBC 88 86

FREE READER CLASSIFIED ADS ORDER FORM STOP PRESS

TERMS AND CONDITIONS: Only one advert per reader. Maximum length per advert is 30 words, Adverts over 30 words will not be accepted. No Trade Adverts. This section is strictly for readers selling secondhand hi-fi equipment only. Telephone numbers and E-mail addresses are treated as one word. Model numbers are treated as one word i.e. Quad 303 = two words. Sorry, we cannot accept adverts over the telephone. The Publisher reserves the right to judge submissions.

You can email your advert to us at: classifieds@hi-fiworld.co.uk or write or type your advertisement copy in block capitals with one word per box and post it to us at:

Hi-Fi World Free Readers Ads,

Unit G4, Argo House, Kilburn Park Road, London, NW6 5LF.

WE WILL ACCEPT PHOTOCOPIES OF THIS FORM

l .	2	
3	4	
5	6	
7	8	
9	10	
11	12	
13	14	
15	16	
17	18	
19	20	
21	22	
23	24	
25	26	
27	28	
29	30	
Name:		
Address:		
Post Code:		
Daytime Tel:		

FREE READER CLASSIFIED ADVERTS COPY DEADLINES

APRIL 2009 - 3RD FEBRUARY



ollowing on from my review of the excellent southern soul, three CD compilation from Ace Records in this issue [see p84], 'Take Me To The River', I thought that I'd take a closer look at one of the stalwart artists who plied his soul-trade over three decades (the sixties, seventies and eighties), Luther Ingram.

He may not have been an Otis Redding, a chart-topping, festival starring superstar, but Luther Ingram's level of performance was consistently high and he was a classic soul artist. Ingram's work never suffered from disappointing drop-outs. That is, you never got to the point in any of his albums, where you would be tempted to flick the button to the next track. He is also responsible for a classic soul performance as the first recorded entry for the seminal, '(If Loving You Is Wrong) I Don't Want To Be Right.'

Ingram's career and life was wrapped up with the notorious Johnny Baylor. Baylor was reportedly heavily involved in organised crime and, for that matter, being part of what was then known as the 'Black Mafia' which involved itself in various nefarious activities. Baylor, in fact, would ultimately be accused by many of causing the downfall of the entire Stax soul label. Pre-Stax however, Ingram was controlled by Baylor on his record label – Ko Ko.

Ingram was always known as not only a singer of quality southern soul but also a very decent

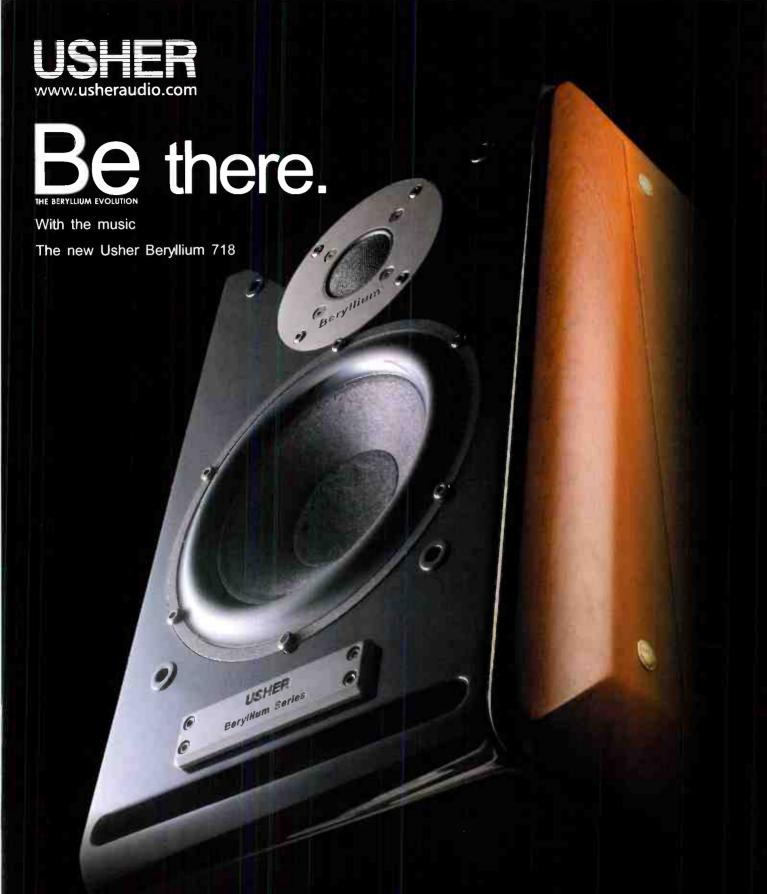
"if you have a hankering for southern soul, give this a play - songwriter in his own you won't be disappointed..."

right."He often wrote hits for other people," said Ace's consultant and compiler of both compilations, Tony Rounce. "'Respect Yourself', which was a hit for The Staple Singers, is probably his best known song. He was consistently in the charts - how much of that was down to the quality of his records, which what I'd like to think is the case, and how much of that was down to the quality of Baylor's promotion, for want of a better word, is questionable. Baylor could call in favours at radio stations and, even if he couldn't - he did."

Ko Ko Records ran from 1966 to 1972. The company was then placed 'on ice' for a while whilst Baylor was being investigated, then the company was back in business from 1975 to 1977. For all of that time, the only two artists on the label were a singer called Tommy Tate plus Ingram."This was a dualedged sword for Luther," said Rounce."The downside was his connections with Baylor. The upside of being one of only two artists on a label is that you're not vying with anyone else for promotion. Baylor made sure that Ingram recorded at the best studios, the Muscle Shoals, with the best musicians. His recording of '(If Loving You Is Wrong) I Don't Want To Be Right' is seen by many as the definitive version of that song." Soul fans will be interested to hear that he was backed, on the recording, by much of the Isaac Hayes band.

Ingram's creative height can be pinned to around 1972-1973. When Ko Ko closed down, that hit Ingram's career."Two years out of the market is a long time for any artist," confirmed Rounce. After Ko Ko's resurgence, Ingram had a range of R'n'B hits until Ko Ko disappeared in 1977."He dropped off the map then until about 1986 when he made a comeback, free of Baylor, on the Profile label - better known for hip hop and dance. He made a nice album there." Ingram paid for his hard life on the road. He was a diabetic and ultimately suffered by having both of his legs amoutated. Ingram only died in March of last

Both of these albums pack A and B-sides of Ingram's singles work and, remarkably, around 80% of the entries derive directly from original master tapes. An amazing piece of good luck in an industry that traditionally, once the vinyl pressing had been finalised, held little value for the master tape. The sound quality is superb and the mastering is studied and sympathetic. Having listened to the 'Take Me To The River' compilation (which acts as a perfect primer for anyone looking to dip their toes into the rich waters of that impressive musical genre), if you have a hankering for more southern soul, give Luther Ingram a play - you won't be disappointed. PR



USHER AUDIO TECHNOLOGY

67 Kai-fong Street Sec. 1 Taipei 100 Taiwan Tel:886-2-2381 6299 Fax:886-2-2371 1053 E-mail: usher@ms11.hinet.net

UK SALES:

HIAudio, 3 St Fort Place, Wormit, Newport on Tay, Fife, DD6 8NT, Tel/Fax: 08450 525259 E-mail: sales@hiaudio.co.uk

Approved Usher Audio "Dancer Dealers"

Audio Affair, Birmingham, 0845 869 3237 Audio Elevation, Doncaster, 0800 035 1620 Big Ears Audio, 01736 740 421 Classic Hi Fi, North London, 0208 374 3958 Hazelmere Audio, High Wycombe, 01494 562610 HiFi Corner, Edinburgh, 0131 5567901 Hi Fi Sound, Darlington, 0845 6019390 Mike Manning, Yeovil, 01935 479361 Sound Hi Fi, Devon, 01803 833366 Senso Systems, Cornwall, 01872 273215 The Emporium, Suffolk, 01502 719704

For a full list of dealers offering other Usher Audio loudspeakers visit www.hiaudio.co.uk



ELECTROCOMPANIET



EMC 1 UP Reference CD player

"That sound can simply be classified as right, with an integrity and musicality that makes almost every disc equally enjoyable."

Gramophone

Audio Destination - Tiverton - 018 84 24 35 84
The Audio Works - Cheshire - 016 14 28 78 87
Lintone Audio - Gateshead - 019 14 77 41 67
Sounds of Music - East Sussex - 014 35 86 52 12
Kronos Audio Visual - Northern Ireland - 028 87 75 36 06
Kevin Galloway Audio - Ayrshire, Scotland - 015 63 57 41 85

Midland Audio X-Change - Belbroughton - 015 62 73 11 00 Rowles Music Limited - Sussex - 019 03 53 00 05 Unilet Sound & Vision - Surrey - 020 89 42 95 67 Home Media Limited - Kent - 016 22 67 67 03 V Audio - Bristol - 011 79 68 60 05

Service Centre NSS Ltd, London - Tel: 020 88 93 58 35

Made in Norway www.electrocompaniet.no