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AVID DIVA II SP turntable



NAIM CD5XS CD player



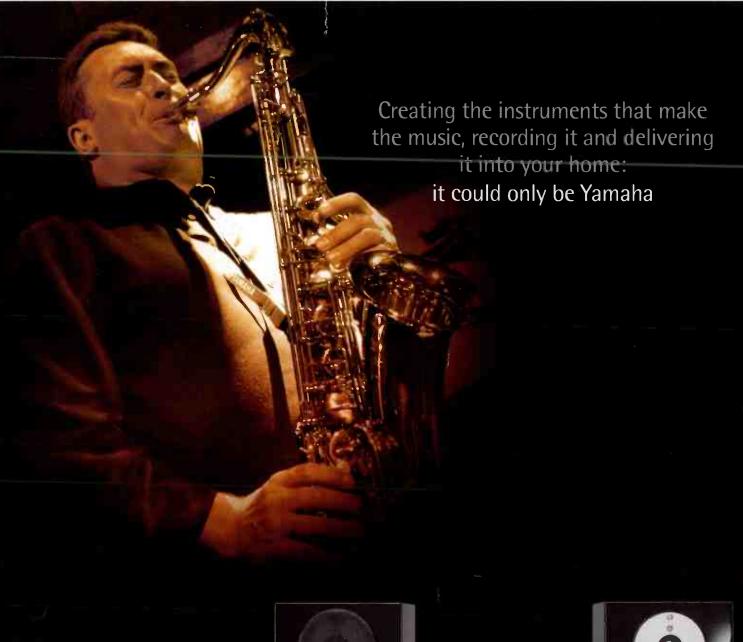
DCS PAGANINI digital-analogue converter





- **DESCRIPTION** DESCRIPTION NO. 100 SERVICE SER
- > TRIANGLE QUARTET FLOORSTANDING LOUDSPEAKERS
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10 PAGES OF LETTERS - THE BEST WINS A PAGE 1030 LOUDSPEAKERS! (UK ON)







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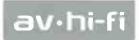


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verdicts



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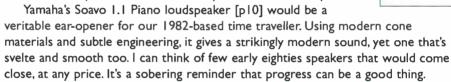


Nostalgia isn't what it used to be. Once upon a time, we'd hanker after the thwack of leather on willow, and the smell of freshly mown summer lawns. But nowadays we're watching 'how we used to live' TV programmes about the nineteen eighties, smiling affectionately at Sinclair C5s, BBC Micros, women in shoulder pads and men in red braces. Not to mention that famous episode of

Tomorrow's World when they spread jam over the then new-fangled CD, and amazingly it still played!

It's shocking to think that Compact Disc will soon be thirty years old, and all the more curious that it's still, in the absence of anything else, the *de facto* music carrier of our time. Still, when a product like the dCS Paganini DAC [see p26] comes along, suddenly I am more comfortable with digital audio. The dCS shows that, given fiendishly clever design, very decent performance can be coaxed from the creaky old 16/44 format.

Still, the Paganini is not inexpensive, and if it's the best sound per pound you're looking for, those *Tomorrow's World* presenters would have been amused to learn that at the end of the first decade of the twenty first century, the value choice is vinyl. Avid's Diva II SP [pIII] is a potent weapons-grade musical extraction tool, for around one fifth of the dCS's heady price. They'd also be amazed to learn that one of the best turntables you could buy in 1982 is alive and kicking in 2009. Linn's classic Sondek LPI2 has just got another revision, and a profound one too; DC power, no less! See p100.



Indeed this issue's packed with interesting new takes on classic ideas; we tell the Tubetech valve story, made at the old Mullard site [p63], try the latest in a long line of budget loudspeakers in the shape of Wharfedale's Diamond 10.1 [p80] and pit the direct descendent of another early eighties evergreen, the Naim Nait XS, against its premium integrated amplifier rivals in this month's supertest [p15]. We've tried hard to make this an issue to remember, so enjoy!

David Price, editor

testing

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.

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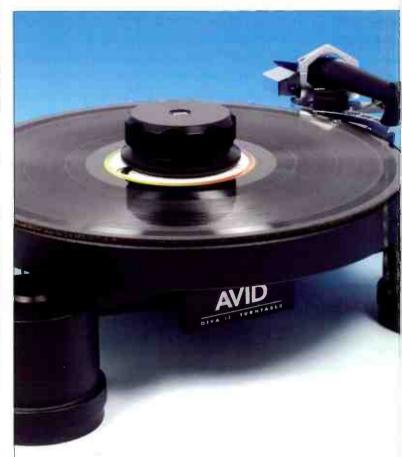






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hi-fi world

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ON AIR

Onkyo has two new entry level components, the A-5VL amplifier and C-S5VL CD/SACD player, both costing £350 each. The former claims 60W per channel and boasts entirely separate, heavyweight transformers for the left/right channels, explaining its hefty 13kg weight. Bi-amping capability is offered, as are wide pitch, gold-plated speaker posts, a headphone jack, motor-driven remote control and defeatable tone controls, along with a 'Direct' facility. The A-5VL is fully compatible with Onkyo's range of iPod/iPhone docks, and it sports optical and coaxial digital inputs which feed a low-jitter, 192kHz/24bit onboard digital to analogue converter (using Burr-Brown's top PCM1796 DAC chips), ideal for those looking to upgrade the performance of an older CD player. There's also a discrete, switchable MM/MC phono stage, allowing a wide variety of cartridges to be partnered.



Onkyo C-S5VL



Onkyo A-5VL

The new matching C-SSVL CD/SACD player is identically proportioned, and described as "supremely well-equipped". Built to the same standards as the partnering A-SVL amplifier, it incorporates VLSC (Vector Linear Shaping Circuitry) along with a high end Wolfson 192kHz/24bit WM8742 Digital-to-analogue converter, with DSD Bistream support for Super Audio CD playback. The DAC has a multibit sigma-delta architecture to optimise the signal to noise ratio, and has been configured to allow owners to pick from five different digital filter settings (for CD) plus four settings for SACD (plus DSD Direct). To keep timing errors to a minimum Onkyo has paid particular attention to the clocking mechanism. The crystal oscillators normally employed in such players, for instance, can often be prone to deviation with changes in temperature. The C-SSVL is thermally regulated to prevent such variances. For more information on these products, click on www.onkyo.com.

MORE METALLICA

Artisan Silver Cables have launched two new speaker wires, called Silver Dream and Ultimate Silver Dream, designed to complement their range of pure silver interconnects. Pure solid 16AWG (0.6mm) silver conductors are used, with each



conductor individually insulated with Teflon. The Silver Dream version uses 8 conductors per speaker, while the Ultimate variant doubles this. They can be specified terminated with silver-plated spades, or banana plugs, or unterminated. Introductory prices range from just £160 for a one metre unterminated 8-way Silver Dream pair, to £850 for a 3.5 metre terminated 16-way Ultimate Silver Dream pair. For more information,

see <u>www.artisansilvercables.c</u>om

SLINKY

The £140 InSlink comes from the newly formed Deltec Precision Audio. who describe themselves as "taking the design philosophy from the original Deltec and producing a range of high quality audiophile products". It's a cable with connector and plug in combination said to reduce unwanted RF noise. It achieves this using a special high quality ferrite powder mixed with a polymer compound to produce a dielectric coating that converts RF interference energy into heat. This special dielectric coating is extruded over the copper cores to produce a continuous layer along the entire cable length and then the cores are insulated with a PVC jacket. Additionally, the 3 cores are wrapped and covered by a shield to provide further immunity to induced RF noise from the outside environment that pollutes the cleaned mains signal. Power InSlink is manufactured from 1.5 metres of Power Slink cable with a BS1363 non-rewireable UK mains plug, with each conductor crimped to ensure a perfect connection. The cable is terminated with a moulded female IEC connector using similar crimped terminations. It's said to give, "smoother and sweeter sound with better instrument separation and focus with a more natural and balanced presentation". For additional information please contact Deltec Precision Audio Limited on +44(0) 01793 238 085 or click on www.deltecprecisionaudio.com.

PLATINUM

The latest addition to Monitor Audio's flagship Platinum range, the PL200, is a compact version of the PL300 loudspeaker. It uses a rescaled 6.5" version of the Platinum 8" bass driver and by reconfiguring the Platinum midrange Tapered Line Enclosure to align coaxially with the PL200's bass reflex port, they have endowed the smaller PL200 with the spiritual essence of its universally admired range-mate.

The new, smaller PL200 is said to surrender a little bass extension to the PL300 and cannot quite match SPL and power handling, but in other performance parameters the PL200 and PL300 are comparable proving the calibre of the new PL200 design. Vital statistics are 998x255x285mm, and as with other Platinum speakers, the PL200's shaped and braced cabinet is finished in a choice of exotic lacquered Santos Rosewood and Ebony natural wood veneers, and in a rich piano black lacquer. The front baffle is upholstered in leather. Price is £4,750 per pair and the new PL200 is available now. For more information on the complete range of Monitor Audio loudspeakers, call +44 (0) 1268 740580



or click on

www.monitoraudio.co.uk.

BLU FUNDAY

With the £169 BDP3000 Blu-ray player, Philips is making full HD movies available to more people than ever before. It is said to deliver



Blu-ray movies as stunning 1080p 24fps Full HD images, and all with exceptional detail, sharpness and colour saturation, as well as upscale existing DVDs to near 1080p HD quality. The BDP3000 features Dolby TrueHD 7.1 surround sound decoding, so movies get the highest quality uncompressed audio sound track allowing for the total cinema experience at home. There's also BD Live (Profile 2.0) support to ensure consumers can get the most from their Blu-ray discs including access to the latest content directly over the internet. By simply connecting external storage to the USB socket the player can access all of the additional content via the internet through its network connection. It has a super slim, minimalist design measuring just 435x58x308mm and features smooth curves and a high gloss black fascia. For more information, click on www.philips.com or call 0906 1010 016.



PURE AND SIMPLE

Puresound's new £599.95 A10 was developed to meet a need for a compact, affordable Class A amplifier compatible with high quality, high sensitivity loudspeakers, the company says. The A10 is a line level integrated design that allows the selection of two different source components and control of the volume via a high quality film potentiometer. Class A operation was chosen because it gives lower distortion and a more relaxing, natural sound. The amplifier uses the 6P14 output valves (an equivalent of the EL84/6BQ5) in an Ultra Linear push pull

configuration. The amplifier uses an Auto Bias system, which means that replacement output valves should be fitted as matched pairs. There will be no need to reset or monitor bias conditions. Very high quality components are used throughout, including selected carbon film resistors and polypropylene signal coupling capacitors. All input sockets and speaker terminals are gold plated to ensure good quality electrical contact long term. The output can be configured for use with 4 or 8 Ohm loudspeakers. For more details, call +44(0)1822 612449 or click on www.puresound.info.

NORWEGIAN GOOD

Electrocompaniet's new ECR I tuner has been developed to extend the Electrocompaniet product range with a FM/RDS/DAB/Internet radio. The full featured RDS design is interesting because it includes a "fully fledged" I92kHz/24bit upsampling DAC section which sports inputs for other digital sources. Optional plug-in modules are available to include DAB and/or internet radio plus USB interface will also be made available. The ECR I features a fully balanced and symmetrical analogue output section, terminated in a balanced and single-ended output connection. For more information, click on www.electrocompaniet.no.

SPOTTED!

By the ninth day of his summer holiday, Avid's Conrad Mas has completed his ascent to the top of his enormous turntable factory complex in Cambridgeshire. Looks a bit nippy up there Conrad - maybe Ben Nevis next year?



EMOTIONAL RESCUE

Said to be, "far more than a mere upgrade to the award-winning Emotion", the new Clearaudio Emotion SE turntable features a new 20mm thick acrylic chassis, high quality height adjustable feet, a 28mm thick precision CNC-machined GS-PMMA acrylic platter, a high mass motor damping base and a new aluminium arm base to produce a high-end analogue turntable in a fit-and-forget package of "extremely elegant appearance and design philosophy".

The Emotion SE also incorporates the latest patented Clearaudio technology: the Ceramic Magnetic Bearing.
The main bearing shaft is machined from an exclusive new

ceramic alloy, allowing a much finer

polished surface than that previously obtainable in turntable bearings. As the bearing does not use a ball bearing nor a thrust pad of any kind, the Clearaudio Ceramic Magnetic Bearing avoids any point of load and so eliminates bearing friction, wear and noise, it is claimed. The separate motor is entirely isolated from the chassis, driving the precision-machined 28mm thick GS-PMMA acrylic platter via a Clearaudio 'silent belt'. This joint-less silicon based drive belt transfers significantly less noise into the platter than traditional rubber types.

The Emotion SE turntable is fitted with Clearaudio's Satisfy Carbon Directwire tonearm which is said to combine extremely high structural rigidity with ultra-low friction movement. The woven carbon fibre arm tube is both extremely rigid yet light. The vertical bearing uses a shaft made out of wolfram, the polished ends of which run in sapphire watch bearings. The twin horizontal bearings use precise long life ceramic bearings. The high precision headshell and full adjustability allows the accurate alignment of any cartridge type. The arm has an unbroken run of Clearaudio's Direct Wire from the cartridge to phono plugs. Completing the package is Clearaudio's Aurum Beta-S Wood cartridge, said to be "extremely accurate and musically engaging", yet boasting compatibility with the widest range of amplifiers and phono stages. Price for the whole package (Clearaudio Emotion SE turntable, Satisfy CA DW arm and Beta-S MM cartridge) is £1,790. For more details, contact Audio Reference UK Ltd. on +44(0) 1252 702705 or click on www.gudioreference.co.uk

NEW ENTRIES

Marantz's £299.90 CD6003 compact disc player sports the Marantz 'reference standard' chassis design and 'MI' front panel, a precisely installed internal mechanism that plays CDs, CD-R/RW discs, and also MP3 and WMA files. There's also an advanced USB connection, derived from the SA8003, featuring Apple iPod digital connection, and CD-Text functionality. A good quality power transformer is used, along with a Crystal CS4398 DAC and Marantz HDAM-SA2 op-amps in the output stage. Matching it is the new PM6003 amplifier. A new, lower impedance, case-shielded toroidal transformer was matched to new main capacitors which have been matched to a new type of power transistor capable of handling higher current and keeping

better control over the speaker. These are mounted on a new extruded aluminium heatsink, reducing resonances. The result is 2x45W RMS for £350. For more information, click on www.marantz.com.



HIGH LEEMAS

Leema's new £3,425 Tucana II integrated amplifier is said to borrow heavily from developments pioneered in the Leema Reference Series Altair IV mono power amplifier, and the Pyxis preamplifier. Described as "an even more accomplished stereo amplifier than its predecessor", it features three heavy-duty toroidal power transformers, one for each channel and one for the control circuitry, delivering over fifty amps per side. In addition to the flexible set of LIPS® configurable inputs, record output, full remote control and sophisticated volume display, new features on the Tucana II include a front-panel mounted MP3 input, balanced input, a headphone amplifier, balance control, individually adjustable input gain and direct input selection. The company claims 148W RMS per side in 8 Ohms, and 285W into half that.



Leema Antila

The matching Antila CD player gets an upgrade too; recent new developments have led to a significant tweak to the output filter; a key area of the player. Several surface mount parts have been replaced with hand-matched high-grade audiophile components. To accommodate these, a new circuit board has been developed, with improved layout and critically spaced components. Whilst this has led to a modest price

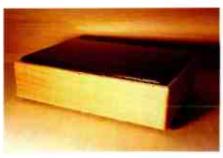
Leema Tucana

increase, "the Antila II produces a performance far beyond that of its illustrious predecessor", the company says. The unique MD2 Active Differential Multi-DAC technology employs twenty 24bit /192KHz multibit Delta-Sigma converters, to improve linearity, reduce noise and minimise jitter, a common source of errors within CD players. Numeric inversion generates a fully balanced signal entirely within the digital domain ensuring significantly reduced levels of noise and distortion, thereby producing a real and tactile musical performance, it's claimed. Price for the Antila II is £2,735. For more details, call +44 (0)1938 811900, or click on www.leema-acoustics.com.



AIR SPACE

Monitor Audio has an interesting new network audio player out, in the distinctive shape of the £225 Airstream 10. Playing over 15,000 Internet radio stations, global music services and every music file on a home network, it even sports RDS FM and DAB (with DAB+ compatibility) radios, plus MP3 player connectivity. The unique shape gives users two different rotational options, improving versatility around the home. "From its strong, low-resonance aluminium shell to the touch-sensitive menu buttons and ergonomic central control dial, AirStream 10 redefines the compact radio through high quality materials and its superior fit and finish", the company says. For more information, call +44 (0)1268 740580 or click on www.monitoraudio.co.uk.



MY TIME

My Audio Design's new Balanced Power Isolation Platform uses a box fashioned from handcrafted English Oak and granite, inside which is a specially designed balanced transformer which is accurately wound on a German made silicon alloy core with the

finest laminated high purity copper wire, and internally wired with 99.9997% Super Purity copper (also available as a Special Edition with 99.997% silver) onto two Clipsal sockets. The Balanced Transformer has two specially designed noise screens, which take off the unwanted high frequency interference in your mains power supply. The result is said to be "a much quieter background, more robust and dynamic bass and clearer treble without excessive brightness and harshness". Price is £895, with a thirty-day money-back guarantee. For more information, click on www.madengland.com or call 07782137868.

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New Music



How do you improve on a classic? That was the conundrum that Yamaha faced when the time came to advance their premium priced floorstanding Soavo 1 loudspeaker. David Price tunes into the new 1.1 Piano edition...

t was in April 2007 that I first set ears on Yamaha's Soavo I loudspeakers, and to be frank as I unpacked them I hadn't really expected anything special. After all, I'm not a fully paid up member of the 'small footprint' floorstander fanclub. This is because like many seasoned observes of the speaker species, I feel you really need a single, seriously large bass driver ("woofer" as they used to be called in the old days) to get a party started, as opposed to a collection of small diameter drive units working together supposedly as one. Anyway, the Soavo turned out to be a very nice surprise. It was obvious Yamaha hadn't just chucked some drive units in a box and hoped for the best; here was a very exciting, vibrantly musical design but with real couthness too. For its £2,000 selling price, I could think of few serious rivals, at least as far as someone with my own personal listening tastes go...

Now then, some two and a half years later, the new Soavo has apparently grown up by ten percent (or so it logically follows from its new 'one point one' designation!) and gained an exquisite piano lacquer black finished cabinet. Given that Yamaha also makes pianos (of every description, including concert grands), then this is piano black par excellence. The finish is flawless, as you'd expect from a Japanese company of this calibre; it most assuredly did not come from one man In a shed with a can of Duplicolour! The downside is that the price has gone up considerably however, to a heady £3,000. Of course, the perilous plight of the

Pound Sterling has played a big part in this, but it's still an inopportune moment for a price rise, and takes the Soavo 1.1 into an altogether more hotly contested field...

Just to recap, like the 2007 original, this loudspeaker was designed by Toshiyuki Kita, an industrial designer of the highest credentials, his work can be found in the permanent collections of museums all over the world, including the Museum of Modern Art in New York and the Centre Georges Pompidou in Paris.

Pompidou in Paris. Happily though, these medium-to-large sized (349×1051×487mm) floorstanders themselves don't look 'designed' at all; it's a case of form following function with non parallel sides to the cabinets to reduce standing waves, while internally the woofer and sections are divided by a

internally the woofer and midrange sections are divided by a slanted partition, and strengthened with large, vertical ladder-type bracing. The three-way mitred construction of the cabinet joints is said to ensure extremely tight joints so the entire cabinet behaves as a single unit. and diecast aluminium stands are fitted that provide the necessary solid floor contact. The new cabinet construction, with its harder and thicker piano finish is said to reduce resonances, as is new damping material fitted inside the cabs. There's also a new top board inside the cabinet, immediately underneath the top surface of the speaker, again said to reduce high frequency resonances. The result is 2.5kg extra weight per cabinet; the new Soavo 1.1s tip the scales at 29.5kg apiece.

The three way, four drive unit array comprises a 30mm aluminium dome tweeter (now equipped with a neodymium magnet, as per the midrange driver), a 130mm 'Advanced Polymer injected Mica Diaphragm' cone midrange driver and twin 160mm bass drivers of the same APMD material, albeit thicker. Previously, the midrange driver had used the same thickness cones as the bass drivers. The bass drivers now sport solid rubber surrounds manufactured by Kurt Mueller, instead of foamed rubber. All magnetic shielding has been removed, as ye olde cathode ray tube TVs become ever rarer, and the crossover network has been revised with higher quality components including Solen metallised polypropylene capacitors and large iron-core coils with selected wire. No printed circuit boards are used, instead each

connection is individually soldered on a thick wooden board, providing larger, shorter signal paths. Crossover frequencies are listed at 450 Hz and 4.5kHz, keeping things usefully away from where the human ear is most sensitive, around 1-2kHz. Finally, the reflex loaded cabinet sports a carved wooden port with thick walls and a flared shape, for smooth sound flow and low port noise. Diecast aluminium stands are fitted, which look good and provide a rigid coupling to the floor.

room's wall with an almost ethereal air. Meanwhile the drums pounded emphatically, the Soavos showing their genes in a company rooted in professional musical instruments, and cymbals sparkled like lights atop skyscrapers. I found myself beguiled by these loudspeakers once again, yet beginning to notice that they weren't quite the same as before.

Big hearted and commanding as the Soavos are, Sniff and the Tears' 'Driver's Seat' showed there to be real finesse too. My dog-eared vinyl

"so capable right across the board, and yet so devoid of any nasties, the new Soavos are bristling with enthusiasm for the job in hand..."

SOUND QUALITY

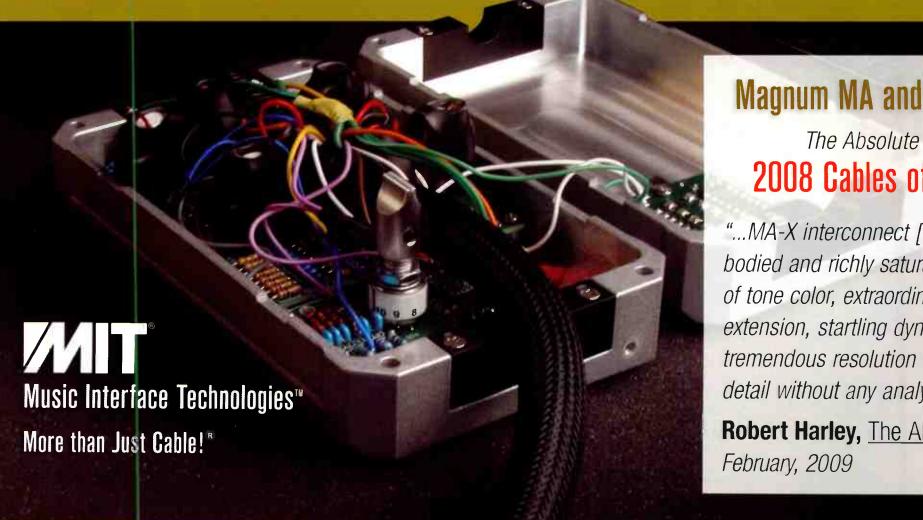
Having spent a happy few weeks with the original Soavos some two years ago, it was a case of "déjà vu all over again" (as a certain American head of state once reputedly said) with the new 1.1s. They're very close to the originals, which is absolutely no bad thing, as you'd know if you saw my original purple-prose laden review. They have the same clean, open, expansive sound which seems effortlessly dynamic yet musical in a relaxed way. They have the same even tonality, giving the sense that all the drivers are working as one harmonious whole rather than faction fighting like a bunch of soonto-be extinct politicians. There's the same light touch coming from the cabinet; it's hard to discern any particular tonality from their tall, slim profile. All good then, but there's more...

Elton John's 'Benny and the Jets' reminded me why I loved the original Soavos; it's not a case of days spent placing them to get them to come 'on song', or hours spent warming them up so they'll suddenly smooth out and open up. Nope, the big Yamahas work out-of-the-box with that trademark powerful sound, lack of colouration, lack of bass thrum, cabinet boomph or port huff and puff. Tonally they're light and bright by nature (no recessed treble or cloudy midband here), yet never once grating or hard. They're bouncy, naturally - and able to convey the song's languid piano cadence-driven gait, and brilliantly dynamic when called upon so to be. They threw Elton's vocals out into the room with wonderful ease, separating him up and out of the mix, hanging at the top of the

copy hardly flatters what's already quite a lightweight recording, full of ear-lashing steel string guitar sounds and singer Paul Roberts' astringent vocal strains, but the new Yamahas chose not to dwell on the less than perfect recording quality,



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"...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,

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Natural Selection

It's not easy choosing an integrated amplifier, as there's such a diverse choice of designs available. With this in mind, Tony Bolton was tasked to guide you though the decision making process with six of our favourite sub-£2,000 designs...

nce upon a time, if you wanted an amplifier then it came with glowing glass bottles, put out a couple of Watts at best and invariably sounded as cosy as a log fire on a winter's eve. Then came solid-state and by the eighties, there was a choice of umpteen bright and fuzzy sounding Class AB transistor designs, offering higher power but lower musicality. Now, in the last year of the noughties, we're into altogether more sophisticated territory. There's a wide range of amplifiers on sale, all of which follow particular design paths for their own reasons. Whether it's Class A, AB or D, valve or solid-state, there's something for everyone — but what to choose?

We rounded up six of the best sub-£2,000 designs, representing all manner of different design philosophies, and tried them with a wide variety of music over a period of several weeks. They range in price from the Leema Acoustics Pulse at £1,170 to Icon Audio's Stereo 300B costing £1,700. Solid-state predominates with Cyrus's 8XP d, Naim's Nait XS and the M-series Caspian from Roksan, whereas digital technology is represented by the NuForce IA-7. Each amp was fed with a range of sources and music, as the object of the exercise was to find out which product works best with which type of music (and indeed listener).

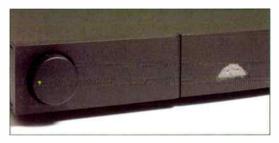
I needn't have worried about the task in hand, as the respective differences between all of these fine integrateds were profound, as you'll find when you turn the page...

REFERENCE SYSTEM
Clearaudio Master Solution/
Ortofon Kontrapunkt a turntable
Holfi Batt2riaa phono stage
Leema Acoustics Antilla CD player
Chario Ursa Major loudspeakers

THE CONTENDERS	1-25	ASS.	
LEEMA ACOUSTICS PULSE	£1,170	p16	
NUFORCE IA-7 V2	£1,300	p17	
NAIM NAIT XS	£1,350	p18	
ROKSAN CASPIAN M SERIES -1	£1,450	p19	
CYRUS 8 XP d	£1,500	p20	
ICON AUDIO STEREO 300R II	£1 700	n21	















LEEMA PULSE £1,170

he Pulse's alloy front panel is equipped with 3.5mm headphone and MP3 sockets, and a volume control knob surrounded by blue LEDs to indicate the level setting. The back panel contains power and loudspeaker sockets, four line level inputs and a tape loop. There are pre-out sockets and an onboard phono stage which accommodates both moving coil and moving magnet cartridges; a toggle switch selects the appropriate type. There are two little sockets labelled LIPS, Leema's Intelligent Protocol System, which allows communication between the components of a Leema system, stereo or multi-room.

The amp has a differential input stage, Class A voltage amplifier and Class B output stage, with high performance output transistors. Weighing in at 12kg and measuring $435 \times 90 \times 375 \text{mm} (W \times H \times D),$ the compact Pulse will fit into any standard hi-fi rack. The case is well built and finished, but not outstanding in this respect.

SOUND QUALITY

I am used to the Leema sound, but didn't expect the scale and power of this affordable amp to be as close to that of the Tucana as it was. My attention was immediately caught by the bass performance, whose tuneful suppleness got the subwoofers in the Charios merrily bouncing along to Benny Goodman, live on tour in 1937! Although not up to the standard of studio recordings they are quite detailed, and portray a vivid picture of the Goodman

orchestra, trio and quartet at the height of their prowess. The kick drum and bass drove the music along in an irresistibly foot-tapping manner, and the tonal balance achieved from a fairly difficult recording was exemplary. Staying in the dance music genre

but moving forward seventy years to Shpongle, showed the abilities of the onboard phono stage. It produced a satisfyingly wide and deep soundstage, with well defined placement of the performers. This amplifier proved equally comfortable with pensive

classical music in the form of Faure's 'Impromptu for Harp Op36'. The complex harmonic structure of the instruments glowed in an enticing manner and encouraged contemplative listening to a mellow and restful piece. The Pulse seemed to revel in the reproduction of any type of sound I cared to put through it. In absolute terms, it was a little lacking in low level detail and vague in its sound staging, but at the price such foibles are forgiven; the headline point is its expansive musicality and deep, rich tone.

MEASURED PERFORMANCE

The Pulse produces 84 Watts into 8 Ohms, rising to 132 Watts into 4 Ohms, so in spite of its compact size and low weight plenty of power is available. Distortion remained low at all powers and frequencies, third harmonic being dominant and contributing most to a 0.012% figure recorded at 10kHz, 1 Watt output into 4 Ohms. This is a

relatively low amount.

A high damping factor of 50 means the amplifier will sound well controlled at low frequencies, being able to tame loudspeakers with light acoustic damping. Input sensitivity is low at 400mV which will make low gain phono stages a bad match, but then the Pulse has its own phono stages. Noise was a little high at -88dB

There are separate MM and MC input sockets. Both inputs are accurately equalised right across the audio band, with no warp filter to reduce low frequencies. MC sensitivity was high at 0.18mV so the Pulse has enough gain for very low output Moving Coils. Noise levels were about average as good designs go, low enough for hiss

areas. It should give fine results from a

small package, from CD or LP. NK 84 Watts CD/tuner/aux. Frequency response 5Hz-40kHz Separation 78dB Noise Distortion 0.01% Sensitivity 400mV

Disc (MM/MC)

Frequency response (MM&MC) 9Hz-70kHz Separation 78dB 0.4uV / 0.07uV Noise (e.i.n.)

0.0029 3.3/0.18mV Overload 170/9.6mV

DISTORTION



VERDICT Excellent all rounder at the price, with

a big-hearted, full-bodied sound.

LEEMA ACOUSTICS PULSE £1,170 Leema Acoustics (C) +44 (0)1635 291 357

www.leema-acoustics.com

FOR

- fast, descriptive sound
- fine MM/MC phonostage
- connectivity

AGAINST

- can sound hoisterous!



NUFORCE IA-7 £1,300

n interestingly styled and very compact Class D design weighing a mere 3.6kg and measuring 42x204x384mm, the NuForce's handsome alloy casing sports two knobs on the front for source selection and volume. The back panel comes with either four sets of RCA phono-sockets or two pairs of phonos, and two 3.5mm minijacks. This is a no-cost option, chosen when ordering. There is the usual option of black or silver finish.

NuForce refer to their amps as Analogue Switching Amplifiers because of the use of an analogue modulation technique, and what is described as a closed loop control system.

SOUND QUALITY

Fresh out of the box, the NuForce sounded hard, but a week's use turned it into a far smoother and more open sounding little thing that actually produced serious bass for its size. Flowjob's album 'Zentertainment' is progressive trance, middle paced and quite melodic with the usual deep rolling bass associated with electronic dance music. The IA-7 lapped it up, displaying a very energetic approach to the timing. Especially coming after the denser sound of the Pulse, the airier sound of the IA-7 took a moment to adjust to. Where the Pulse presented sounds, especially bass, as though hewn from solid granite, the IA-7 delivered them from a lighter and more delicate and nuanced perspective. Such agile pacing made the Goodman pieces flow

beautifully, but the aged recordings did not fare so well under the analytical spotlight of the midrange and treble, sounding slightly thin.

I tried several types of classical music through the NuForce but found the results mixed. The detail of the shape and texture of the sounds was very interesting to peruse, but the music seemed to lack flow and cohesiveness sometimes. Trying out some Ray Charles and The Kinks brought life back to the sound, so this amplifier majors on presenting things

in a very open and matter-of-fact manner, that suited well recorded and explicitly rhythmic music but didn't work so well with less driven material. Classical music fans will appreciate the detailed description of the shape and texture of sound, but some might find its presentation analytical. I came to really like the NuForce; it's all about telling it like it is, as opposed to embellishing or flattering the source material. Matched with a warm source and/or speakers and it works very successfully.

MEASURED PERFORMANCE

Class D analogue switching amplifiers have in the past produced dreadful distortion, of a level and type that is audible as 'breaking glass'. Recent designs from Lyngdorf and Nuforce are more sophisticated, as the IA-7 demonstrates. It still produces distortion with an extended harmonic structure - see our analysis - measuring a high-ish 0.24% when delivering just 1 Watt at 10kHz into a 4 0hm load. Conventional amps typically produce up to 0.1% in these circumstances, so it isn't far off the norm. Distortion was lower in the midband at 0.024% into a 4 0hm load, a very respectable result.

The IA-7's great advantage is high efficiency and measurement showed it produces no less than 144 Watts into an 8 Ohm load and 220 Watts into a 4 Ohm load over a short period without getting hot.

The IA-7 also has a fully

The IA-7 also has a fully balanced output with 26V d.c. on both loudspeaker terminals so the negative terminal must not be grounded, but again this is common with Class D and protection against shorts is provided.

The IA-7 is not sharply band limited at 20kHz, output reaching up to 80kHz (-1dB). At the low frequency end it extended down to 7Hz, making the IA-7

much like any amplifier is this area.

Input sensitivity was extremely high at 70mV, so the amp will go loud at low volume settings and low gain external phono stages can be well accommodated.

The IA-7 is a neatly designed Class D amplifier that measures well. It will likely have its own interesting sound. NK

Power	144 Watts
Frequency response	7Hz-80kHz
Separation	78dB
Noise	-80dB
Distortion	0.24%
Sensitivity	70mV
Damping factor	38

DISTORTION

World Radio History w.hi-fiwarld.co.uk



VERDICT OOO £

Gripping, incisive Class D amplifier with a speedy, exciting sound.

NUFORCE IA-7 V2 £1,300 HiAudio C +44 (0)8450 525259

www.hiaudio.co.uk

FOR

- lightning speed
- loves rhythm driven music
- flexible input configuration
- size, style, finish

AGAINST

- leanness won't suit all



NAIM NAIT XS £,1350

aunched in December 2008, the XS is the latest incarnation of the well respected Nait (Naim Amplifier InTegrated) series. The bodywork, shared with the Nait 5i, features an aluminium chassis and sleeve with a diecast zinc front panel. This sports a 3.5mm mini-jack socket for iPods, an Alps Blue volume control (the same as in the high end NAC 252), mute switch and selector buttons for the six inputs.

This is the first unit to use a newly developed bayonet PCB mounting technique that allows the board to float to reduce the effects of microphony. For the price, the quality of finish on this amplifier was superlative, and a credit to British manufacturing. Vital statistics are 432x301x70 and

SOUND QUALITY

8.6kg

When listening to a stereo source I like to have precise imaging, preferably as holographic as possible. Previous Naim amplifiers I've reviewed have produced what I have referred to as 'widescreen mono'. With the Nait XS I discovered that this was no longer the case. It was still somewhat vague in imaging, but there was a very cohesive centre and a genuine advance in the size and detail of the soundstage. Classical music, whether a full orchestra, or just a solo instrument such as the Faure mentioned earlier was played with gusto and grace. The complex tonal colours of the harp were displayed effortlessly, and the gentle, thoughtful nature

of the music was allowed the space to open up and draw the listener in. By way of complete contrast, it also handled the rock excesses of Jimi Hendrix with great aplomb, reveling in the bass, and describing the agonised pyrotechnics of the lead guitar in all their glory.

This amplifier's synergy with guitars was confirmed by its handling of the Kinks material, while the Ray Charles was awash with the sound of lush production values and massed backing strings. However, when faced with more rhythm-driven sounds from the old and modern genres of dance music I felt that there was more

focus on the rich tonal qualities of the instruments rather than the beat of the music. There was less urgency to the music than the previous two contenders, which encouraged a seated appreciation of the music rather than a desire to bop around the room. This came as a real surprise; 2009 Naim amps are deep and velvety with real finesse and delicacy, something you could not have said ten years earlier! In both its tonality and soundstaging, this amplifier worked superbly, making it ideal for those who love classical or rock music, whereas dance and electronica fans may find themselves better served elsewhere.

MEASURED PERFORMANCE

Like a few amplifiers we have tested recently 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 a distortion sweep revealed. The XS 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) the XS will sound smooth and should be an easy listen, lacking the uncorrelated distortion 'tune' many

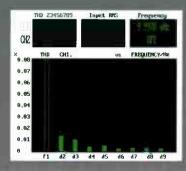
Damping factor was typical of a Naim amplifier - at 15 low, if not very low, so bass will likely be 'obvious'.

Power output measured 60 Watts into 8 Ohms and 90W into 4 Ohms, the latter being close to what will be delivered as most loudspeakers have 4 Ohm bass units. It's plenty enough for most situations.

The XS measured very well. It will likely have a smooth sound, with obvious bass in the Naim style, and ameliorate today's bright sounding loudspeakers. NK

Power	60 Watts
Frequency response	5Hz-20kHz
Separation	82dB
Noise	-92dB
Distortion	0.018%
Sensitivity	120mV
Damping factor	15

DISTORTION



performer. A great package at the price.

NAIM NAIT XS £1 350

Naim Audio Ltd.

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

FOR

- majestic on classical music
- beguiling smooth sound
- accurate tonality
- upgrade options

AGAINST

- lack of low level focus



ROKSAN CASPIAN M SERIES-I £1.450

ince I reviewed the original Caspian there have been external detail changes, such as the shape and material of the volume and source selector knobs, now in brushed alloy to match the casework. The display, set across the centre of the facia was lit in red to show which source had been selected. The mute light on the left of this showed green in standby mode, yellow in -20dB muting mode and a matching red when normal operation was selected. All of this operates via the mute button. The back panel contains seven sets of RCA phono sockets for the five line level inputs and the

tape loop. Further along were a pair of speaker binding posts and the mains socket, with a master power switch beside it. All this is housed in a case measuring 432x330x80 and weighing 12kg; finish is good, but not up to the standards of Naim.

SOUND QUALITY

There was nearly as much contrast between the sound of the Roksan and the Naim as there was between the Naim and the NuForce. The Roksan finding a mid-ground between the fullness of the Naim and the lighter, more athletic touch of the NuForce. Timing-wise, it had much of the boppiness of both the latter and the Leema Pulse, making it a natural for any sort of beat-driven music. The elderly Goodman tracks were pumped out with energy and detail, onto a seemingly well lit soundstage of good proportion, It had the width of that from the Pulse,

but not quite as much depth, although the actual focus on, and placement of, musicians was as good. 5phongle flew out of the speakers with an energy and drive that I felt was a major characteristic of this amp's method of presentation.

Ranging through my records I was pleased to find no particularly favoured genre, rather an evenhanded approach that encompassed every type of music that I played in an accommodating and enjoyable manner. This lack of preference meant that it did not excel in any obvious way with rhythm or tonal texture, rather rolling its sleeves up and getting on with the

job in a pleasant and efficient manner.

Classical music was handled well, although the lighter tonal balance of this unit did not quite reveal the full majesty of an orchestra. Here I felt the Naim had the edge, with scale and power. The Roksan took the opposite tack, placing musicians accurately in space and revealing more subtle detail about the colour and shape of the sound, Overall I found the Caspian M series -1 to be a very pleasant and easy to live with sound, that, for my taste, only lacked a little of the solidity and impact that some other amps can create. It had good timing and a nicely detailed soundstage.

MEASURED PERFORMANCE

The Caspian produced 66 Watts into an 8 Ohm load and 110 Watts into 4 Ohms under test. It's a little below the common 100 Watt/ 8 Ohm figure achieved nowadays but is still plenty enough for high volume levels in most domestic situations. With a very high damping factor of 78 the Caspian M Series-1 amplifier will likely sound tight and clean in its bass and it will suit boomy, underdamped floorstanders

Distortion levels were very low in the midband, hovering around 0.002% at all power levels up to full output. As is common distortion rose toward higher frequencies but although a small amount of crossover distortion was visible - see our analysis - at 10kHz, 1 Watt output even into a 4 0hm load it measured a very low 0.02%. The M Series-1 should have clean treble, free from obvious coarseness.

Input sensitivity was fairly high at

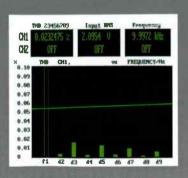
240mV, an aid to external phono stage matching. Noise was very low and d.c. offset low at 10mV or less. Frequency

response measured a wide 3Hz-65kHz within 1dB limits.

The M Series-1 measured well in every area and should give good results in use. NK

Power	66 Watts
Frequency response	3Hz-60kHz
Separation	-82dB
Noise	102dB
Distortion	0.016%
Sensitivity	240mV

DISTORTION



VERDICT OOO

Very well mannered fine all rounder.

ROKSAN CASPIAN M SERIES -1 £1,450 **Henley Designs** (+44(0)1253 511166 www.henleydesigns.co.uk

- consistency across genres
- powerful and clean sound
- accurate imaging

AGAINST

- slightly light tonal balance



CYRUS 8 XP d £1,500

his amp has the smallest casework of any in this group at 215x75x365mm yet sports the largest number of sockets, and variants thereof. There are no less than 11 inputs, 6 analogue via RCA phono sockets, 2 electrical SPDIF, 2 optical SPDIF and an onboard digital to analogue Convertor with a USB socket! Lurking round the back is a 3.5mm stereo headphone jack.

Setup accesses a plethora of configuration options of which this machine is capable. Colour options are quartz silver or brushed black. The toroidal transformer can be supplemented by an optional £500 PSX-R power supply [pictured], which takes over supplying power to the preamplifier. This was a superbly finished product, showcasing British industrial design at its best.

SOUND QUALITY

The Cyrus had the full bodied in a more subtle, less exuberant tonal palette than either the Naim or the Leema, Its neutral, than being washed along by the showing off the driving force of defined soundstage set neatly

between the speakers. The word

'neat' sums up the sound beautifully; performers were precisely placed, not too close or too far, stage lighting was not too bright or too murky. I spent a lot of time sitting, admiring different aspects of the sound, and the tidy presentation of it.

Plugging in the PSX-R added a different personality. One that was more open, possibly a little fuller bodied in its lower regions, but most importantly, with more of a spring in its step, without losing the impeccable manners that it liked to display. Thus equipped, it

was a superb integrated amplifier, albeit an expensive one. I tried my MacBook through the USB socket and found the results most pleasing. The Cyrus DAC is upgradable to use the Qx DAC module (£400) which upsamples to 192kHz, which should be interesting. The standard fitment is still worthwhile though. So in standard form I found the Cyrus 8 XP d full bodied but calm in its presentation, while the PSX-R added extra zest. The host of onboard facilities and potential upgrades make for a very flexible machine.

nature of the Leema Pulse, but form. Bass lines were deep and well shaped but with a cooler no-nonsense nature extended across the frequency range leaving me thoroughly involved in the listening process, rather charm of the Naim or led a merry dance by the boisterous Leema. Pacing was tight, music in an engaging manner. imaging was strong, with a well

MEASURED PERFORMANCE

For such a small case the Cyrus produces a surprisingly large amount of power, no less than 84 Watts into 8 Ohms and 132 Watts into 4 Ohms. However, with 5 Watts continuous draw the case gets quite hot, although this amounts to a lot more music Watts (20-30) because of the fluctuating amplitude of music. The amp runs quite warm even with no signal, likely due to quiescent current biasing it into Class A at low levels to minimise crossover distortion. Cyrus amplifiers have traditionally returned low distortion figures and the 8 XP d is no exception, producing a worst case result of 0.0136% at 1 Watt, 10kHz, seen in our analysis, and this is a very good result indicating clean treble and lack of edginess or grain. Bandwidth was wide and the amplifier appears to be direct coupled, so there should be no low frequency phase shifts. At 240mV sensitivity is high enough to work with low gain external phono stages.

The digital convertor has an absolutely flat response across the audio band but distortion at -60dB was on the high side at 0.45%, against a norm of 0.22% nowadays. It identified a 24bit/96kHz input and downconverted it to 48kHz, giving an upper bandwidth limit of 23kHz (-1dB). Distortion dropped to 0.18%, not a low value for 24bit

The Cyrus 8 measured well, but it will run warm or hot in use and digital conversion could usefully have been more linear. All the same, it is powerful and clean, especially for its small size. NK

84 Watts
1Hz-52kHz
-90dB
101dB
0.01%
240mV

DISTORTION



PSX-R power supply.

VERDICT

Immensely versatile, easily upgradeable and highly listenable, the 8XP d really flies with the optional

CYRUS 8 XP d £1.500 Cyrus Audio Ltd. +44(0)1480 410900 www.cyrusaudio.com

FOR

- clean, sophisticated sound
- powerful, articulate bass
- great packaging
- myriad facilities
- modular upgrade path

AGAINST

- needs optional PSX-R



into the

eighing in at 35kg, the Icon Audio 300 topped both the price and size scales in this test. The casework (460x400x250mm) looked somewhat industrial in its gloss black with the milled alloy leg posts at each corner. A row of 300B valves stand in front of the three transformer covers. In front of these, like pawns on a chess board, stand pairs of 6SL7 first stage valves and 12AT7 second stage valves. The facia contains an on/off knob, blue power LED, a red LED that indicates that the optional HT delay is operative, a toggle switch for tape/source, volume control (Alps Blue potentiometer) and input selector knobs.

The remote control is weighty and controls only volume and muting.

SOUND QUALITY

If you like your sound full bodied and rich like a good claret, then this is the amp for you. 300B amps are sometimes criticised for lacking drive and power, but Icon Audio seem to have designed around this to produce an amp that got my speakers singing their hearts out. Faure's 'Impromptu for Harp' sounded elegant and poised, the transient decay wafting gently around the room. Here I felt there was weight and majesty in the sound, along with colour and texture aplenty. A sound that you want to wallow in, like a good hot bath!

Changing to more energised music, the 300Bs dug deep

Goodman
recording, describing a
snappy jitterbug in the
centre of the space between
the speakers. I wasn't too aware of
soundstage boundaries when playing
either mono or stereo records, the
edges seeming to fade out into an
inky blackness, rather than have
sharply defined perimeters that the
solid state and digital contenders
displayed. The extreme depths of
bass were not executed quite as tidily
as either the Cyrus or the Leema

managed. Both plumbed the same subterranean levels but seemed to have better braking.

With the rock of Hendrix I felt there was a lack of the bite this music really demands. Staying guitar driven, but returning to the less aggressive sounds of the Kinks, and the amp relaxed again. In the context of the group test the Icon almost writes its own set of rules. The complete opposite of the ultra clean NuForce, it imposes its lovely warm bluff nature on everything it touches, for better or for worse.

MEASURED PERFORMANCE

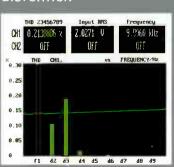
The Stereo 300 has 8 Ohm outputs only. Into this load it delivers 32 Watts, roughly as expected from 300Bs in push-pull with fixed bias. They are not over-run as my own 300B amplifier manages 28 Watts with auto-bias. However, even '8 Ohm' loudspeakers commonly dip to 4 Ohms or so and in this circumstance distortion rose from 0.02% to 0.11% at 1Watt/1kHz, and from 0.5% to 1% near (-1dB) full output Maximum power into 4 Ohms was 25 Watts so the 300.1 will drive 4 0hm loudspeakers and give good results, but it is better (power matched) with higher impedance. A 4 or 6 Ohm power matched winding would have given better results into both low loads and high loads, but the Stereo 300 is very just second and third harmonics. Also, bass distortion was very low, which together with a good damping factor of 8 suggests this amplifier will have clean and well controlled bass.

Input sensitivity was low at 500mV, so matching to external phono stayes may be difficult. Output noise was extremely low, so low as to suggest d.c. heaters; there was no hum.

The Icon Audio 300B measured very well. Obviously, it has very good transformers with wide bandwidth and low distortion, and it uses a small but useful amount of feedback for effective electrical damping. By running 300Bs well, measurement shows, it all but guarantees a lovely sound. NK

Power	32 Watts
Frequency response	3Hz-34kHz
Separation	-76dB
Noise	-100dB
Distortion	0.08%
Sensitivity	500mV
Damping factor	8

DISTORTION



VERDICT

Massive, sumptuously musical performer that gives a dark chocolate tone to everything it touches. Flawed but fantastic all the same.

ICON AUDIO STEREO
300B II £1,799
Icon Audio
(**C) +44(0)116 244 0593
www.iconaudio.com

FOR

- beautiful texturing
- flowing, organic rhythms
- charming character
- decently powerful
- value

AGAINST

- too rich a tone for some
- loose low bass
- music-dependent
- middling build



AND THERE WAS CHA'AM



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his test was not about picking six amplifiers of varying quality, trashing some and celebrating others; we knew that all these designs tested were premium products from fine brands that we regularly recommend in the magazine. As such, you're not going to find any dramatic highs and lows in the conclusion that make eye-catching copy. Instead, this test was about matching amplifier type to music choice and listener type, and as such proved a most illuminating process...

The dramatic differences between the respective characters of these integrateds (in some cases at least) produced a host of different options. For instance, if you don't play rock, and like the 'full fat' version of your music then the Icon Audio 300B is the obvious choice. If you prefer a lighter, bit more agile sound, and don't play classical then the NuForce will be right up your street. To imagine the scale difference, I'd like to use a BBC 'Top Gear' analogy if I may? Think of the difference in physical presence of Jeremy Clarkson verses Richard Hammond, Both equally impressive people, but with radically different styles!

If such extremes are too much, then more moderate options of both sounds would be perhaps the Naim (a quieter Clarkson) and the Roksan (think Hammond but two stone heavier!). By the same sonic criteria, the Cyrus could be the James May of the group: quieter mannered, steadier, but with a devil lurking quietly within, that can be released by the addition of a PSX-R! So where does this leave the Leema? Perhaps as a combination of some of the other's characteristics, with the exuberance of Hammond linked to the presence of Clarkson. This is an unusual metaphor, but makes the point that these amplifiers have personalities; not necessarily better or worse, just endearing in different ways.

Judging by other criteria, the Cyrus has the most comprehensive specification, and the built-in DAC will surely be an attraction for those that use a computer as a major source for music reproduction. By contrast vinyl heads will appreciate the excellent phono stage fitted as standard to the Pulse. Headphone listeners will be drawn to the Leema and the Cyrus, while users of iPods and MP3 players will find the built in mini-jacks of the Leema, Naim and Cyrus very convenient.

The NuForce can flash its green credentials in the matter of power consumption, but the lean and fast sound may not be to everyone's taste.



Leema Pulse: big hearted musicality and top value for money.

And that is what it comes down to, in the end, your personal taste, dictated by the unique response of your own ears. I prefer a fairly full-bodied but agile sound, with tight timing and pinpoint imaging, so with that perspective in mind, my personal choice in descending order, would be as follows...

I enjoyed the Naim, but found the timing too stately for my taste, particularly when faced with dance music. Also the imaging, although improved, was still a little vague for me. It's still a gorgeous performer in its way though, with great tonality and resolve.

In equal position I put the NuForce, on the grounds that although the speed and definition were excellent, the sound was too lean for my own palette, and I felt that classical was not really its forte.

Next would be the Roksan, again on the grounds that I prefer a bit more weight to the sound. Otherwise, a very good performer, with detailed presentation and a precise, possibly slightly analytical

Second place goes to Icon Audio's 300B valve amplifier. I thoroughly enjoyed the way it presented music, and I so rarely play rock that I could live with this machine. In extremis, the bass got a little untidy on super deep notes when playing electronica, which is why it lost first place to the Pulse. In other ways, the performance is so comprehensive that, as long as the presentation is not too lavish for you, then it is difficult to criticise other than to nitpick. Obvious speaker matching caveats apply though, as it is a valve amplifier and was never designed for driving minute standmounters with less sensitivity than a drunk at a wedding party!

So, up on the podium goes the Leema Acoustics Pulse. This amp has stunned me, being fast, vivid but controlled, and seemingly unfazed by any type of music that I cared to throw at it. The fact that it is the cheapest unit here is the icing on the cake. As someone used to its bigger sibling I can assure you that this amplifier comes remarkably close in performance, and offers excellent

"there is so much strength in this group, both in subjective sound and measured performance..."

sound, and no particular dislikes musically.

Surprisingly perhaps, given my own well known thermionic tendencies, the clean sounding Cyrus comes in at third place, the greater depth to the sound and the onboard DAC making it a flexible proposition. The only drawback would be cost, because I would want to have the PSX-R as well to actually release the performance that lurks inside. This would then make it a £2,000 combination, which is a big chunk of change. In fairness though, I suppose you could deselect the 'd' digital input board option, taking the price down a notch or two.

value for money. It had the power to drive big speakers loudly, being exuberant while retaining control, yet be quiet and contemplative when the occasion demanded.

Of course this is my own selection, but may be useful even if you have diametrically opposed tastes to mine. Other listeners with differently attuned ears would doubtless reshuffle the line up, as there is so much strength here in both subjective sound and measured performance. They're all credits to their respective designers. So I'd counsel that you hear them for yourself; I've made my choice, now it's your turn!

Corne and join us at the Whitelebury Audio Sho



by TRIANGLE



A search of all-inclusive, unique perfection. Every minute detail has been meticulously thought out using the finest materials, selected with greatest care to blend beauty and technology. A fundamental and passionate process devised by a team of men and women who strive to achieve their sole ambition, that of providing the future owner of such rare equipment the enjoyment of a perfect instant, so fugitive yet so everlasting.



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DBPOWER AMP £15

As the world moves ever closer to hard disk-based music playback, so more people are digitising their CDs, ripping them to their computers in high resolution compacted form, using codecs such as FLAC (Free Lossless Audio Codec). For this task, a number of applications have appeared, and none seem to have garnered more acclaim by those in the know (computer geeks with too much time on their hands, mostly) than dBpoweramp.

This piece of software, supplied by Illustrate, is the very same as used in the RipNAS hard disk network music server tested recently in these pages. For those not wanting to shell out for this pricey device the next step is to use RipNAS essentials; the name given to the software and Illustrate-approved TEAC DVD drive; with your own Windows Home Server system. Then again, if you simply want to encode FLAC files on your home PC (most flavours of Windows from 98 onwards), you can just download dBpoweramp for \$24 for the more basic Power Pack version, or \$36 for dBpoweramp reference. The difference resides mainly in the ability to use multiple processors for encoding. Of course, most of this functionality is available from the freely available and much respected Exact Audio Copy (or sundry other bits of freeware). So why pay up for Illustrate's wares?

The installation process ran very smoothly. I used a Sony VAIO running Vista, and once downloaded, the 'Spoon installer' simply did the job, finishing by launching a web page confirming registration, with links to 'help' for the various components (ripping, converting, configuration).

Once the program has installed you will also need to download the year-at-a-time 'PerfectMeta' support, the means by which dBpoweramp aggregates AMG, GD3, MusicBrainz and freedb.org data to enable accurate metadata lookup and ID3



tagging. In plain English, this updates dBpoweramp's library of artists and songs. It has to be said that even with all those databases, with shorter CDs (i.e. more recent two track CD singles) the system can still let you down occasionally, but on the whole it's one of the more accurate identifiers of your discs.

Once installed it is all too tempting to go straight to the CD Ripper and start ripping away. I picked the HDCD Roxy Music 'Manifesto' remaster. The dBpoweramp interface is much more attractive to use than the clunky foobar 2000 or even EAC. But to do so with the default 'Burst' mode would be a mistake. The RipNAS ships in 'Secure mode' by default, and switching it on immediately (after re-ripping) solved the problem of the two tracks which failed the Accuraterip check (which is an internet-shared rip accuracy database).

All the kerfuffle of having to re-rip my very first disc would have been avoided if I had been using the reputedly more accurate (if you believe the RipNAS internet forum) TEAC DVD drive supplied with RipNAS, or in the RipNAS Essentials package. Some have questioned the company's belief in this drive, suggesting not all batches will necessarily be of the same quality, but we have found TEAC optical drives to be of excellent quality.

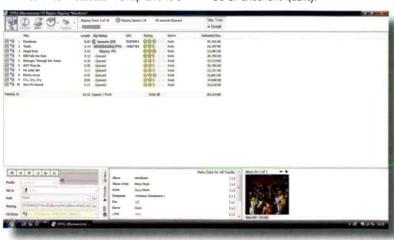
SOUND QUALITY

While dBpoweramp rips done on a bog standard computer sound very fine indeed, making it one of the very best software rippers around, there is still just that little something extra in the versions actually ripped on Illustrate's RipNAS media server. It's the same disc and the same replay chain, but I could still hear just a little more veracity, groove and 'snap' in the snare on 'Cry, Cry, Cry'. This obviously shows the degree of careful setting up, alignment and general fettling that the RipNAS enjoys (explaining its high price, perchance?), and/or the presence of the TEAC optical drive.

Getting behind dBPoweramp is a bit like joining a club. The overall vibe of the www.dbpoweramp.com forum is of a bunch of like-minded individuals helping each other to a better understanding of the deeper intricacies of Digital Audio Extraction in a Windows-centric context. Unlike the wilder slopes of freeware and open source applications, issues of version control, troubleshooting and enhancement are dealt with by a visible, nameable, responsible individual who knows his subject inside out. This is the main reason it is worth paying for this capable technology, rather than using the cheaper (i.e. free) alternatives.

If you're not of the tweaky disposition but want to invest in a decent computer audio system, the answer is easy; buy a RipNAS box. If you're altogether more hands on, enjoy experimenting and frequenting forums full of men with nothing better to talk about than extracting their CD datastreams in the finest way known, then dBpoweramp is your Holy Grail. The price of a few pints buys you one of the best ways to transcribe your Compact Discs to hard disk, with far superior fidelity than a certain Apple designed music management system. PC

[Contact: www.dbpoweramp.com]



Ring Tone

David Price attunes his ears to the latest incarnation of dCS's glorious Paganini DAC, sporting the company's legendary Ring DAC electronics...

n these days of fiscal instability, credit crunches and general industrial woe, surely there can't be that much of a market for £10,000 digital to analogue convertors? Aside perhaps from certain impossibly priced turntables, if ever there was a luxury object that you wouldn't think people would want right now, then this would surely be it. Yet the £9,599 dCS Paganini DAC has made a real name for itself, despite the prevailing economic squalls, managing to justify its place in life as one of the most desirable digital products around - at least to those who can afford it.

Having spent a couple of weeks with this distinctively styled, uniquely designed and (for yours truly at least) prohibitively priced bit of kit. I can see why it hasn't fallen victim to the slings and arrows of outrageous economic fortune. Whilst your average merchant banker may have cancelled his Koenigsegg and foreclosed on that Bermudan beach bolt-hole, if his ears are still in working order then I'd suspect he'd be telling his accountant to file the dCS under 'capital investment' rather than 'expenses' and duly going ahead with the purchase. You see, it delivers digital sound the like of which I simply haven't come across before.

The reason for this is not because it has a particularly well engineered power supply, a trick tube analogue output stage populated by an unusual strain of ultra-rare new old stock mid-fifties Mullards, or the world's best implemented aftermarket oversampling chip. Instead, the dCS Paganini DAC is, like all other dCS products, the proud custodian of the company's patented Ring DAC. As its name suggests, Data Conversion Systems started in the late nineteen eighties selling digital systems for military applications.

The company soon followed the passion of its creators however, and moved into the specialist hi-fi realm. The Ring DAC of the early nineties proved the jewel in its crown so to speak, offering a completely fresh approach to the job of changing ones and noughts to different voltages.

Whereas almost all DACs and/ or CD players on sale throughout the world use bought-in, off-theshelf digital-to-analogue conversion integrated circuits (and associated digital filtering ICs), dCS do not. With off-the-shelf electronics, hi-fi manufacturers become little more than box-stuffers, implementing someone else's ideas as best they can. But dCS developed technology that doesn't exist on a single chip, and can't be bought from your local electronics components supplier. The patented dCS Ring DAC circuit uses around forty integrated circuits, none of which are DAC chips. Instead, the circuitry uses Field Programmable Gate Array (FPGA) chips, Digital Signal Processing (DSP) chips and a microcontroller system, all of which run code developed and maintained by dCS. This means that the Ring DAC is essentially custom software 'stamped' into programmable memory chips, rather than a mass produced integrated circuit such as Philips' original TDA I 540 DAC chip.

The Paganini DAC naturally uses the latest version of the Ring DAC package. Essentially it's a clever working compromise between multibit and Bitstream DACs, being the 5bit, 64 times-oversampling system first seen in the early nineteen nineties dCS Elgar (albeit in considerably evolved form), and is claimed to produce exceptional linearity across the dynamic range. All data presented to the Ring DAC is oversampled to the DAC's native 5bit format (at about 3MS/s), and this

is decoded to drive 32 balanced current sources, each of which makes the same contribution to the output. The drive to the current sources is rotated randomly (hence the 'Ring' appellation), meaning that any mismatch in the DAC circuitry appears as noise rather than distortion of the original data word, thus improving linearity. As well as this, a sophisticated multi-mode phase locked loop (PLL) is used to significantly reduce clock jitter.

The Paganini DAC has standard AES3 and S/PDIF digital inputs, as well as IEEE1394 interfaces designed to be used primarily with DSD from the matching £8,999 Paganini transport. It can either work with its own master clock (and indeed clock the transport if needed), or it can be locked into an external word clock such as the £4,499 dCS Master Clock. For the purposes of this review, I had one of these to hand for comparison, but did the bulk of my listening without it. Most of the listening was done with a high end Sony CDP-R1 transport, but I tried a number of sources, even a lowly Cambridge Audio DV30 DVD player!

The front panel of the dCS Paganini DAC is, needless to say, a striking apparition. The fascia is an elaborately machined, and very thick, chunk of machined aluminium, and it sports a backlit dot-matrix LC display showing the input selected, clocking status and sampling frequency amongst other things. I wouldn't say it's the most beautiful thing I've seen, but it is purposeful and switch-offable. The DAC is also notable for its large volume control knob, so it can be used both as a DAC and a line level digital preamplifier; an excellent feature. Maximum output can be either two



or six volts to suit different amp/ speaker combinations. Four filters are provided in DSD mode to allow listeners to tailor system response. The 460x400x110mm, 11kg casework is of excellent quality but still, I would gently point out, not up to the exquisite standards of rival Japanese high end designs.

SOUND QUALITY

You don't have to be Hi-Fi World's most eagle-eyed reader to know that I'm a fully paid up member of the analogue appreciation society. In fact I worry that I've almost become a caricature of myself, turning up as I do on press trips with a Sony cassette Walkman hanging out of my breast pocket, when all my fellow hi-fi scribes tout the latest iPod weaponry. With this in mind, I remained sceptical of the dCS's aural abilities right through the set-up and warm up process, until the moment I pressed 'play' on my CD transport...

The most profound, defining characteristic of the Paganini DAC is its sheer lack of grain. It is defiantly smooth and open sounding, in a way that I've not heard from any other digital to analogue convertor. But this isn't smooth in the sense of a Bitstream DAC that's been further tweaked with an ever-so-slight topend roll-off. Where the latter gives you a dull and slightly dusky sound with workmanlike but unexpressive dynamics, the dCS gives an intricate, almost personal rendition of the music it is fed, with oodles of light

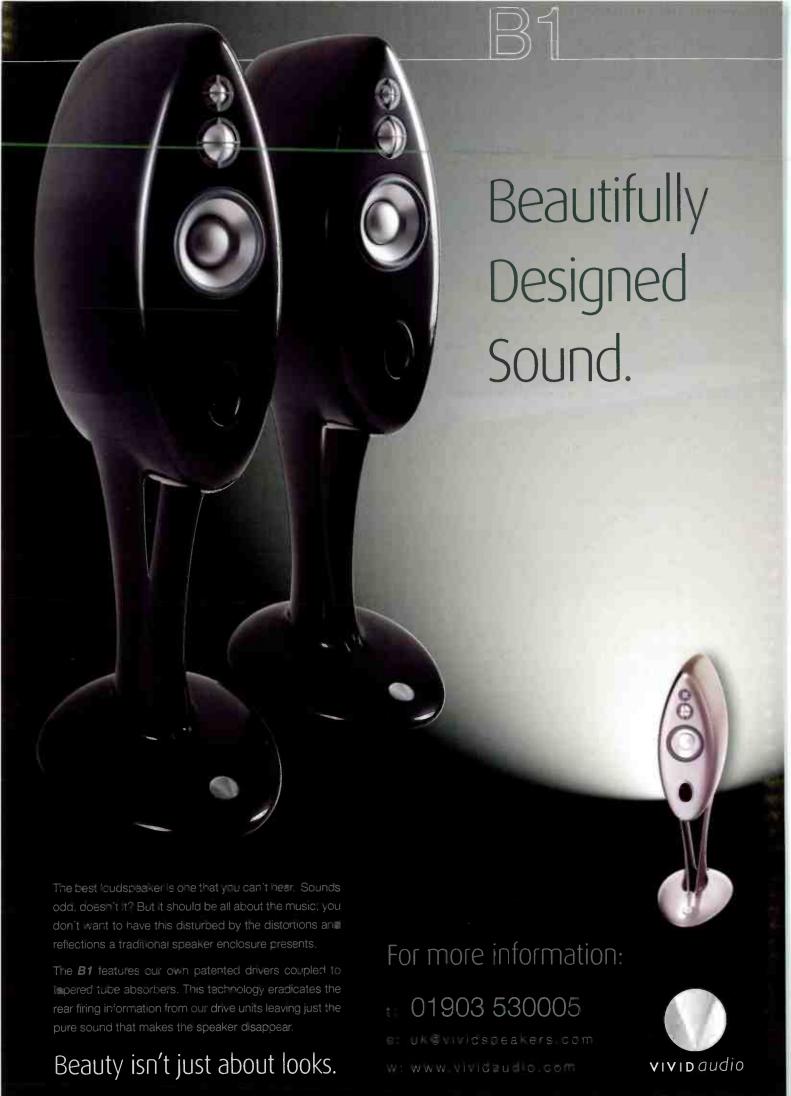
shone on the mix.

The result is CD sound with a surprising evenness and finesse to it, devoid of almost all of its upper midband glare. Even compared to seminal CD players like Oracle's CD1500/II reviewed a couple of months ago (at roughly the same price) and Naim's considerably more expensive CD555/PS555, there's a satin smoothness to the sound where others would finish it with a coat of gloss. This lets you hear 'into' the mix, whereas other high end digital products, brilliant as they may be, seem to throw the mix at you instead. Simply Red's 'Fairground' bristled with detail, where normally this curious mid-nineties mix sounds either opaque and impenetrable or glassy and nerve-jangling. Suddenly, I could see that it wasn't an impossibly poor recording, just one that simply didn't sound good outside the studio. The complex percussion suddenly slotted into place, rather than hovering around the beat, giving things a real sense of direction where normally there is none. Vocals snapped into focus through the dCS, flattering singer Mick Hucknall rather than hindering him.

The Paganini DAC doesn't have a naturally propulsive nature. It's not like you could ascribe any particular character to it like you would, say, a machine with classic Philips TDA1541 DAC chips inside. It doesn't want to rock you, take the role of 'an impact player', coming on to steal the show. This means that just as it can unpick

the knotty mix that is 'Fairground', it can render the strains of Al Jarreau's 'Summertime' with remarkable ease. One minute it's doing heavily sequençed mid nineties electronic pop without so much as a bead of sweat on its brow, and the next it's lilting through some slick 'dinner jazz' (if you'll pardon that dreadful phrase) like it was born to be. Were it not such an unerringly neutral machine, it would have given a masterful rendition of one and a hash of the other; as LIK Setright used to say, it is for the musician to have character and not the hi-fi equipment.

'Summertime' issued from my loudspeakers as it had been sugarcoated and then vacuum-packed in candyfloss for good measure. The album from which it comes, 'Tenderness', a mid-nineties recording produced by Marcus Miller, is a high watermark production-wise, and the dCS Paganini DAC showed why. It has such a tidy, orderly sound yet never sounded in the slightest bit dry or mechanical; think the very best vinyl, likely through a broadcast direct drive sporting SME Series V tonearm and Lyra Titan moving coil. I was struck by the sheer expanse of the soundstage, and the pinpoint precision of the instruments and musicians without the recorded acoustic. There was a massive, almost disconcerting, sense of space to the recording, the like of which I've not heard from 16/44 Red Book digital before. Tonally the dCS was a joy too; saxophone sounded reedy and



World Radio History



CONNECTIONS

- 1x stereo pair XLR analogue, (2V or 6V switchable)
- 1x stereo pair RCA phono analogue
- 2x IEEE 1394 digital inputs (for dCS-encrypted DSD; 1 bit data at 2.822MHz)
- 2x AES/EBU female XLR digital inputs (24 bit PCM at 32, 44.1, 48, 88.2 & 96kHz or as a Dual AES pair at 88.2, 96, 176.4 & 192kHz)
- 2x S/PDIF digital inputs (24 bit PCM at 32, 44.1, 48, 88.2 & 96kHz)
- 1x BNC (word clock input at 32, 44.1, 48, 88.2 & 96kHz)
- 1x BNC (word clock output; 44.1kHz In Master mode)

breathy but never harsh or searing as the soloist went up and down the scale. Piano sounded eerily realistic too, with a tangible solidity normally only heard from digital running at higher resolutions; harmonics gleamed like sunlight on the morning sea.

Nick Drake's 'Hazy Jane II' was another ear-opener for me. On CD, I always tend to migrate to electronic music, feeling it does this the least badly, so an early seventies analogue recording of folk (brilliant as it may be) wouldn't have seemed a happy partner for the little silver Frisbee. Nonetheless, the dCS was able to showcase the delicacy of the original recording from this remastered Island disc, and the subtle beauty of Drake's vocals shone through. The DAC's combination of smoothness and forensic low level detail once again made this an unexpected treat; lesser CD playback systems simply fail to get as far inside the recording as the dCS. Strings had a magical, romantic quality, cymbals a soft yet deliciously delicate demeanour; not screeching violins and crashing hi-hats here. And interestingly, the sound of plectrums against steel strings on a guitar was carried with beguiling subtlety whereas it's normally little more than noise on lesser systems.

Interestingly, it was here that the dCS Master Clock pushed the DAC up still higher in my estimation; even though it's designed primarily for driving the Paganini transport in conjunction with the DAC, switching it in added a fraction more focus even when the DAC was flying solo.

Slotting Bach's fifth 'Brandenburg Concerto' (Diego Fasolis, I Barocchisti) into the disc tray and sitting back, I again found myself beguiled by the dCS's gentle but hypnotic rhythmicality. Whereas a Naim CD555/PS555 almost adds a rock drummer and a backing band to this recording in its desire to push

the movement along to a resounding climax, the dCS sits back, pulls in the slack and lets the music move along in its own way, unhurried yet utterly entrancing. It also affords a massive sense of space to the proceedings; I've never heard Red Book sound as expansive as this. Then there's the tonality to the instruments; the Paganini never delivers the warmth of a top turntable playing an all-analogue recording, yet it still sounds oddly

vinyl-like in the delicacy with which it brings individual instruments to life by rendering them so realistically. By comparison, almost every other DAC I've heard sounds like it's a digital scanner with the colour balance ramped right down.

CONCLUSION

This is a very 'matter of fact' sounding device, which is to say it lets the music's essence out, rather than trying to impose another one on it. In a way, the dCS sounds curiously unimpressive. Given its stratospheric price and arresting visual presentation, the first few bars of any given song can sometimes elicit an "is that it?" type response; you find yourself expecting to be commanded by its presence, summarily shoved back in your seat or cowering behind the sofa. But this isn't the Paganini's style, Instead, its main aim in life is self effacement; it's the DAC that doesn't want

to be there.

This is the main difference between it and rival high end DACs and CD players I've heard; all have impressive, obvious and (usually) very enjoyable characters, whereas the dCS seems to regard

discretion as the better part of valour. It's just there, getting on with the job, sounding supremely open and organic, with an amazing lack of grit, brightness or any other perceptible character trait of the positive or negative variety. This, I would suggest, is its great achievement; just like good vinyl you can sit yourself down and listen for hour after hour, transfixed with the music not the medium. It's a massively high price to pay for such a privilege, but I'm sorry to say that it's worth it.

REFERENCE SYSTEM

Sony CDP-R1 CD transport Esoteric P30 CD transport Sugden IA-4 amplifier Audio Research VSi60 amplifier Yamaha NS1000M loudspeakers Quad 989 loudspeakers

VERDICT ••••

Superlative, state-of-the-art modem DAC with a uniquely 'undigital' sound.

DCS PAGANINI DAC £9,599 DCS Ltd. (C) +44 (0)1799 531999 www.dcsltd.co.uk

FOR

- organically musical
- expansive soundstaging
- profound focus
- lack of distortion
- engineering depth

AGAINST

- nothing

Frequency response (-1dB)

MEASURED PERFORMANCE

With a 44.1kHz sample rate signal the Paganini was super flat out to 21kHz our analysis shows; there was an almost uncanny absence of anti-alias filter influence. With 48kHz sample rate signal the Paganini gave a very similar result, being flat out to 21kHz again. The small shortfall from the expected 24kHz bandwidth limit (less than 1kHz or so for the filter) is not due to the DAC but the upper limit of our Rohde & Schwarz stepping digital generator. Performance was identical from the balanced XLR output and unbalanced phono socket output, and also between all four filters. However, above 21kHz only Filter 1 gave a 'brick wall' response with no throw up. Filter 2, 3 and 4 gave progressively more out of band information, mimicking an analogue roll-off, but unlike analogue roll off such a digital roll off is usually an image that doesn't correlate well and results have to be judged subjectively.

Distortion levels were very low right down the DAC's dynamic range, from 0.0003% at 0dB to a low 0.21% at -60dB, down to 4.5% at -80dB. These figures compare with the best DACs available although they do not improve on them, a 111dB EIAJ Dynamic Range value being one dB or so below what is possible. Results were identical from the balanced and unbalanced outputs.

The Paganini measures well in all areas. It accepts up to 24bit code at 48kHz and gives low distortion. Filtering can be changed to affect the out-of-band roll-off, making it 'tunable'. NK

CD 2Hz - 21kHz

Distortion %

 0dB
 0.0003

 -6dB
 0.00026

 -60dB
 0.21

 -80dB
 4.5

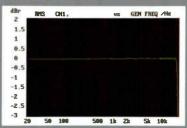
 Separation (1kHz)
 121dB

 Noise (IEC A)
 -113dB

 Dynamic range
 112dB

 Output
 2V

FREQUENCY RESPONSE



DISTORTION





TriStar

Noel Keywood soars skyward with Triangle's towering Quartet floorstanding loudspeaker...

> e all want to hear an exciting' loudspeaker and this is one I bumped into some time ago at a Manchester Show. Standing well back in a largish room, I found it projected well, sounding lively and dynamic whilst also clean from top to bottom. There wasn't too much treble, the upper midrange didn't glare in a desperate attempt to emphasise detail and its bass in particular struck me as well integrated and tight. There were none in the UK so I asked Triangle in France to ship a pair to us direct. So here for your delectation is the Triangle Quartet loudspeaker, price £1,900. As you can see it's a big floorstander, good looking, well finished and thoroughly enjoyable I found. It's also competitively priced.

Regular readers will know I admire the big Tannoys for their ability to project and sound exciting whilst also remaining accurate under measurement. But my favoured Yorkminster costs £9,000. The Zu Essence was another take on this theme, less accurate but very engaging all the same, but again we are talking big bucks, nine thousand of them to be precisely, or £5,000 in old money! In spirit at least, the Quartets stand somewhere between these two loudspeakers, but at a more affordable price. So for all our readers that beg for something that's "exciting and engaging", here is one to consider...

What we have in the Quartet is a very large cabinet standing 117cms high (almost 4ft), and anything over a metre is high. It has a large upper bass/midrange unit near the top, sitting just below a purposeful looking horn loaded tweeter. Below sit no less than two bass units, each reflex loaded by a front-firing port sited between them. The cabinet has a glossy rosewood finish and the front, with grille off, has plenty of adornment set against a gloss black front panel, making the Quartet less bland than many

loudspeakers. If it's all too much then with the grille on the loudspeaker looks tall, slim and elegant.

Working from 250Hz upward, much of the sound comes from the upper two units so the stereo sound stage is high. Singers have an almost celestial presence and this always helps add a little drama to

consistently emphasised but although the tweeter adds a hiss to them it is obvious rather than unpleasant. On the less aggressively mixed 'Warwick Avenue' cymbals shimmer nicely, Duffy's vocals are clear and concise, delivered with a nice, insightful dryness, and underpinned by an equally dry bass line that holds the

"from a few Watts you get a big sound that's challengingly insightful and super clean; it's nothing less than impressive..."

the delivery. Because the bass units carry lower midrange information there's a high vertical spread of lower frequencies and subjectively this gives a generously large presentation, quite different to the tight focus of KEF's Uni-Q loudspeakers for example. As a result the Quartets don't just look large, they sound large too, and I found this aspect appealing. This is part of what caught my attention at the Manchester Show: they have great sonic presence.

What so many manufacturers love to do nowadays with big loudspeakers is ensure they have steamroller bass, the sort of stuff that makes all listeners exclaim "my, what powerful bass!". There's no doubt it gives weight to the sound but over a period conspicuous bass can become ponderous and headache-inducing. Achieved by using an under-damped acoustic response it also brings a soft and wallowy sound to bass lines and can set off room boom. All-in-all, not nice.

The Quartets, for all their size, don't have especially prominent bass. However, it is in good balance and of great quality, nice and dry and controlled, so when the drummer hits a drum, it's then and only then that you hear it. Otherwise, the Quartet doesn't waffle or boom.

SOUND QUALITY

The difficult 'Rockferry' by Duffy was handled ably. This is a coarse and brightly balanced track that always sounds a little muddled, and if what I read the other day is true, that the mastering engineer includes analogue to digital conversion and back again in the signal loop to deliberately achieve the "sound", the reason why is clear. The Quartet does little to hide this, but its tweeter is concise rather than splashy so cymbals are lifted adeptly from the background muddle. In 'Serious' sibilants are

whole performance steady.

Cymbals again stab out hard from Steve Earle's 'Esmeralda's Hollywood', but strings are superbly clear and tambourine intricately described, every little shimmer and vibration thrown out at me. Rim shots hit me hard and Earle's gravelly tones were strongly projected from centre stage. Again, the Quartet's were as dry as gin with lime added for a hint of astringency, but that gives their sound a rigorous sense of cleanliness. 'This Highway's Mine' opens with a sudden and fast drum sequence, then kick drum holds the track down to a steady rhythm that the Quartet's capture with impressive grip and power, underlining their punchy bass. You do need a clean DAC though, because they are very revealing and as this track ends their tremendously projective nature comes across, hand drums kicking our hard from left, kick drum pounding away cleanly centre stage, from the Stello DA100 Signature I used, in conjunction with Icon Audio MB845 amplifiers as usual.

With Steve Earle I was aware that the Quartets get out a lot of low level information around vocals and instruments, placing them into a nicely atmospheric background. The same quality was apparent with Henry Mancini's 'Pink Panther Theme' that had the rasp of saxophone impressively propelled outward from centre stage, the lower notes sounding particularly fruity. The sudden blare of the orchestra's horns came over with a powerful blast.

Bodrans at the start of
'The Foggy Dew' showed
me, however, what the
Quartets could do when
needed. Thundering out at the
start with dry, fast impact the
Quartets are possessed of both the

power and control that so many of us strive for. With Sinéad O'Connor's tremulous tones loud and clear centre stage declaring "tis better to die under an Irish sky", the Quartet's had me locked in rapt attention. Strong dynamics and a conspicuous absence of low end waffle made for a gripping experience from The Chieftains.

Nigel Kennedy was handled a treat, but if you are looking for a laidback, romantically hazy rendition of his extraordinary bow work then look elsewhere. The Quartets capture the strength and pace of Kennedy's playing; they deliver every last minute detail, all in perfectly ordered form in the time domain to show just what temporal grip Kennedy exerts on his nuancing. It all comes across with a breathtaking candour that suits Kennedy's





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beautifully vigorous but expressive playing. This is Kennedy thrown at you though, playing in your lap!

With 'Mars Bringer of War' the Quartets placed horns and trumpet clearly on the sound stage. Kettle drum was well identified and played cleanly in what is a dry recording in which less sensitive loudspeakers seem curiously unable to resolve the lower frequency end of the Scottish Royal National Orchestra in our Naxos recording, which isn't the best even though mastered in 24bit. Some loudspeakers can make sense of it though, the Quartets being better than most, only Tannoys and Zus managing better.

I found LP was handled in much the same way as CD. Mark Knopfler was as dryly but clearly outlined centre stage as Sinéad O'Connor, singing 'Punish The Monkey' from his LP 'Kill To Get Crimson'. Laconic guitar work cut out cleanly, the resonance of the metal strings echoing around the room. Plucked bass grumbled away slowly in 'Kill to Get Crimson', each note perfectly formed with not the slightest sign of overhang or pluminess. The Quartets remained extremely insightful and tightly controlled throughout, with little sign of any extra warmth from vinyl in contrast to CD. This suggested I could play 'Sympathy For The Devil', remastered into DSD code no less (quite right too!), on newly cut 200gm virgin vinyl. And as the label says this is how The Rolling Stones were meant to be heard. Okay, perhaps the original LPs are more authentic, but through the Quartets I heard every "whoo, whooo" in



the left channel whilst Jagger sings "hope you get my name" with ringing clarity in 'Sympathy For the Devil'. It was a great performance beautifully restored for posterity and beautifully captured by the Quartets, which remained clean, concise yet vibrant. Listening right into every small detail of Keith Richards' pedal slide guitar on the following track again had me entranced. At times Jagger's inflections were over accentuated by the Quartets, but this did not especially upset me.

The way these loudspeakers can lift gentle but important information was brought home as a softly sung female counterpoint to Jackie Leven in 'Young Male Suicide Blessed by Invisible Woman' (yes, really!) floated with an ethereal clarity between the cabinets, intelligible and pure.

CONCLUSION

The Triangle Quartets sounded as good as they did at the Manchester Show; they are true attention grabbers. Dry but very revealing, they're an audiophile delight in that they also tease out dynamic contrasts to make music lively and exciting. With superbly tight bass that's tuneful, plus an ability to not over-drive rooms, the Quartets are a sparklingly good choice of loudspeaker at £1,900. Needing little power they'll work with any amplifier, but it needs to be a good one, and low power valve amps would be my first choice because they'll not flatter transistor amplifiers that screech. From a few Watts you get a big sound that's challengingly insightful and super clean; it's nothing less than impressive.

MEASURED PERFORMANCE

The Quartet has some midrange prominence when measured close (0.8m) but this lessens at 1.5m, the change being due to integration of multiple spaced drivers. An upper midrange dip from 2kHz-4kHz is consistent near or far and will result in some softening in the midband detailing and delivery. The tweeter is a smooth operator but there is some treble peaking at 12kHz. The Quartet will sound just on the polite side of balanced, but with good treble detailing attributable to the small amount of peaking around 12kHz.

The lower midband isn't especially smooth even with the microphone closer to the loudspeaker, so the Quartet may well have a little more character than usual and some plateau lift will emphasise vocals somewhat, helping make the sound projective in this region.

The bass end is interesting.

The bass end is interesting.
Ignoring the dip at 150Hz, a room effect, it is fairly even down to 60Hz a third-octave, pink noise analysis (not shown) reveals. The windowing of our gated sine wave analysis smooths lows a bit in the published graph, but is accurate. The port (red) takes over below 80Hz and has unusually broad, flat output, so it is acoustically well damped, more so than most. This suggests the Quartet's bass will sound nicely controlled and non-resonant as reflexes go. It extends output down to a low 25Hz. At 80Hz the port was +3dB up on forward output so again bass looks to be in good balance.

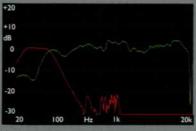
The impedance curve reflects acoustic conditions, showing that the broad port response reflects back to result in an almost flat impedance curve at low frequencies, free from tho usual high twin peaks. This again underlines the Quartet is a good low frequency load, broad acoustic damping folding back to broad

electrical damping. However, as a load the Quartet had a measured impedance (with pink noise) of just 4.5 Ohms, the low level of its impedance curve showing this, so it draws amplifier current and may stress some a little, although technically they can all supply sufficient current. Sensitivity was high at 90dB, and the Quartet is an obvious choice for valve amplifiers with a 4 Ohms output. Triangle acknowledge it suits low power Single-Ended designs.

The 200mS decay spectrum is clean and even, with consistent decay across the frequency band. Bass distortion levels were also low, both bass drivers and the port measuring 3% at 40Hz, decreasing to less than 1% above 50Hz.

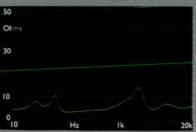
and the port measuring 3% at 40Hz, decreasing to less than 1% above 50Hz. The Quartet is an unusual design in many respects and has especially interesting low frequency properties under measurement. It is a sensitive floorstander with fine bass. NK

FREQUENCY RESPONSE



Green - driver output Red - port output

IMPEDANCE



VERDICT @@@@@

Dry, clean and highly revealing, the powerful sounding Quartets are fast and fun at a great price.

TRIANGLE QUARTET £1,900 UKD Distribution (C) +44 (0)1753 652669 www.ukd.co.uk

FOR

- highly detailed
- no waffle or overhang
- need little power

AGAINST

- spiky treble
- little low bass
- no warmth

Pre Position

Topping Electrocompaniet's Classic Line preamplifier range is the new EC4.8, claimed to do great things. David Price sizes it up...



he lot of a preamplifier is not a happy one. A good example is largely ignored, its sonic prowess invariably being attributed to something else along the system chain, usually the loudspeakers. But a bad one takes the blame for its own failings plus those of all the other components in the system.

Then there are the aesthetics to consider; a small box with knobs on can never really be a thing of beauty, and preamps can't make up for this by virtue of their physical bulk. When you think of a Krell, it's those vast boxy power amps that spring to mind, not the matching preamps. Let's be honest here, a weedy box with some unlovely buttons stuck on the front is not an object of desire, whereas a vast sprawling heatsinked behemoth is!

Another unfathomable thing about the breed is the fact that the companies that generally do highly promising power amplifiers often fall at the first hurdle with preamps. Brands like Naim, that do both sides of the amplifier equation rather well, seem the exception and not the rule.

The final cross that the preamplifier has to bear is this. As hi-fi changes, and migrates ever more into the digital domain, we're now seeing the spectre of digital to analogue convertors such as the Benchmark DACI Pre growing up into preamplifiers. The days of a DAC-less preamp, or preamp-less DAC, are surely numbered? What role in life then has this plain old unreconstructed Electrocompaniet preamplifier got to look forward to now, I ask myself? Surely the future is moving against it?

Well, in the EC4.8, Electrocompaniet have gone back to basics to make a preamp the company wants to make for its own purposes. So there's a USB input, but it's not for digital audio, but for software upgrades. There are no front panel digital inputs, external power supply inputs or any other such contrivance; instead you get nothing but balanced XLR ins and outs on the rear panel (two pairs of the former, one pair of the latter) plus a concession to convention in the shape of three pairs of RCA phono ins and twin tape outs (steady on guys, don't knock yourselves out)!

Described as "a fully balanced electronic solution from input to output", it's effectively two separate mono preamplifiers, each with its own power supply. The EC4.8 has a new SPAC network for control of Electrocompaniet's matching power amplifiers, and comes with a cheap looking but effective wireless remote control. It's the typical, slightly quirky but high quality fare you get from this company, with a thick Perspex front panel and a well finished pressed steel wrap casing (vital statistics are 483x386x76mm, 9 kg). The unit looks neat, but lacks the lavish, beautifully hewn feel you get from Japanese products of this price. The fascia works well enough via a combination of the backlit fluorescent display and up, down, left and right navigation buttons, although some of us fortysomethings would prefer ye olde volume and source selector knobs. My only real gripe is the display handling; I don't like seeing the company's 'If music really matters' strapline peering out at me whenever I switch the EC4.8 on, and I think the choice of font is clumsy too.

SOUND QUALITY

This was never going to be an easy review for the Electrocompaniet, because it's a trifling £200 cheaper

than one of the best preamplifiers I've heard, namely the MF Audio Silver Passive. I've put this against most in the market over the past few years, and it may not beat everything absolutely, but it comes amazingly close in many ways, and at a relatively bargain price. "Oh dear, hope it's not a rout", I thought to myself...

First impressions were mixed, because the EC4.8 is not a preamplifier that serves up high amounts of gain. Don't expect to use it with your low power valve amp. I duly enlisted the help of my recently updated NuForce Ref 9SE v2s power amps, and a Stello DA100 Signature DAC via, running everything in balanced mode, although I still got decent levels via my A.N.T. Audio phono stage too.

The Electrocompaniet. unsurprisingly perhaps, displays the company's 'house sound', which as I've said before is as clear as a Norwegian lake on a summer's morning, and just as fresh. Not for this preamp the languid warmth of a good valve preamplifier, nor the foggy, mushy hash of a poor op-amp based transistor one. Tonally it's on the spry, crisp and dry side, but very open and almost icy in tonality. This isn't to say it's cold or in any way unpleasant, but it's certainly not going to add a dash of spice to any cool sounding ancillaries. Listening to the Electrocompaniet, I kept thinking of glaciers, epic wide open landscapes and snowcapped mountains; a bit like Cumbria in August!

Be Bop Deluxe's 'Terminal Street' was a perfect case in point. The complex, multilayered guitar stylings of Bill Nelson make your average mid-seventies Rush epic look like a three-chord pub band cover. You should hear the 'Modern Music' LP with its sophisticated, meticulously crafted guitar rock with an art-school flourish. The EC4.8 positively relished its complexity, cutting through the mix to separate out all the strands with ease. It was fun to listen alright, flowing along at a heady pace, but still took the time to eke out as





much detail as it could on the way. Compared to the MF Audio, I was impressed by the Electrocompaniet's more spacious treble; it felt better extended and more atmospheric. There was also a slightly lighter, brighter tonality to the midband, as if more light was beaming on to that morass of electric guitars. Nelson's voice sounded a little better resolved too, with more of a feel to his plaintive strains, and those of the backing vocalists. Moving to the MF Audio though, and despite an apparent lessening of atmosphere to the recording, I felt I'd been pulled closer into the mix. Curiously it wasn't throwing quite as much detail out apparently, but was bringing me nearer to the music all the same. Bass was stronger via the passive preamp, with a firmer underpinning to the proceedings, but still the EC4.8 wasn't exactly bass-light.

Moving to Michael Jackson's 'Don't Stop Till You Get Enough' from the Quincy Jones epic that is 'The Wall', and the Electrocompaniet understandably took the opportunity to unpick this superbly recorded multilayered classic analogue recording. I was struck by the clarity of the percussion, sparkling out of what's quite a 'dark' backdrop. Cymbals had a delicious sheen, brass showed a wonderful rasp and Jackson's vocals were carried with delicacy and detail, but passion too. It's an interesting performer, this preamp, managing as it does to do all the 'hi-fi' things really well, yet still sound very musical into the bargain. Moving to the MF, and once again the soundstage moved forward, sounding more intricate, with fractionally greater bass power and grlp, but I was less happy about the lack of atmosphere to the treble; it was almost as if a thin veil had been drawn over the percussion. There was also less of an accurate texture to instruments; brass sounded more generic (like it had been sampled)

and even Jackson's voice was less tactile, despite being pushed closer towards me.

John Coltrane and Jonny Hartman's 'Lush Life', a classic fifties Impulse jazz pressing, showed the Electrocompaniet to best effect. It's not quite as confident in its image projection as the MF Audio, which virtually 'laser etches' the instruments in their rightful places inbetween (or beyond) the loudspeakers, but it makes up for this with a more

expansive sound. It feels like the music's suddenly snapped into 'panoramic' mode, with the EC4.8 able to convey the true physical scale of a great stereo recording. It also excelled itself with instrumental timbre, lending the

piano a wondrous tone, shimmering

with harmonics whereas the MF almost seemed to be filtering them out somewhat.

CONCLUSION

I hadn't expected the Electrocompaniet to match the MF Audio Passive Preamplifier, a giant killer that has slain a good many £6,000 plus preamplifiers in front of my very ears, but it came very close in many respects and bettered it in some. Like Norway's dramatic landscape, it has a scale, clarity and freshness that I simply hadn't expected. Its naturalness of tone goes beyond many other price rivals, such as NuForce's P9 for example, yet it sports a relaxed but confident musicality that wouldn't shame a

Naim. Perhaps I would ask for a little more bass with better bottom end grip, but it's almost churlish at the price. I'm impressed; here's a solidstate preamplifier that has few of the breed's failings, and almost all its strengths. If the some 'rudimentary' user interface of the MF Audio doesn't appeal, or if you're searching for a more expansive and airy sound, then this is the one to go for at, or anywhere near, the price.

REFERENCE SYSTEM:

Sony TT-S8000/OL Silver/Ortofon Winfield t/t A,N.T. Audio Kora 3T Ltd. phono stage Cyrus CD-XT Se/Stello DA100S CD player MF Audio Silver Passive Preamplifier NuForce Ref 9SE v2 power amplifiers Yamaha NS1000M loudspeakers Yamaha Soavo 1.1 loudspeakers

VERDICT (



Spacious, expansive sounding preamp with natural, flowing musicality. Superb sonics but limited gain won't suit all needs

ELECTROCOMPANIET EC4.8 £2,590 NSS Ltd. (C) +44 (0)20 8893 5835 www.electrocompaniet.com

- great transparency
- superb soundstaging
- relaxed but musical sound
- prodigious detail

AGAINST

- middling build and finish
- fiddly control system
- mediocre display
- low gain

MEASURED PERFORMANCE

It is common for preamps to have a gain of x3 (9.5dB) but the EC4.8 offers a lower x1.75 value, or 5dB through both balanced XLR socket CD and SACD inputs and unbalanced phono socket Tuner (etc) input. With power amplifiers like Electrocompaniet's Nemo having an input sensitivity of 2.8V for full output this equates to an input sensitivity of 1.6V — very high and only suitable for CD and SACD players, as most tuners and phono stages produce 300mV or so, up to 1V maximum. Paired with a power amplifier of 1V input sensitivity - common - sensitivity is then 600mV but again this is low for any source other than a CD player. So the EC4.8 is not a preamp for all situations; quite the opposite it will have limited applicability, but as most balanced sources are CD players (ignoring the lovely Aqvux phono stage) then perhaps the EC4.8 will match well enough in roal life. Bandwidth was wide at 3Hz -

114kHz within 1dB limits at all volume settings and noise low too at -95dBV. Distortion was a very low 0.00016% and output overload huge at 12V in /

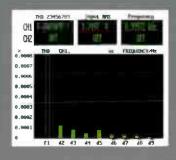
21V out, decreasing to 3V out / 2V in via the line inputs.

The EC4.8 is a high quality balanced preamplifier for CD and SACD players possessing 2V balanced output, where it works very well. Although it has unbalanced line inputs their sensitivity is very low, making utility limited. NK

Frequency response Separation Noise Distortion Overload

3Hz-114kHz 91dB -95dbV 0.00016% x1.75 (dB) s out

DISTORTION







IN XS

Adam Smith puts in some overtime with Naim Audio's new CD5XS CD player and FlatCap XS PSU...

ur friends in the South are on a bit of a roll at the moment, Not content with expanding the Nait amplifier range to encompass the high end Supernait and the middle ground Nait XS, nor with the arrival of the seriously impressive one-box Uniti audio system, nor even launching a brand new, and rather revolutionary loudspeaker, the Ovator \$600, at Munich, Naim Audio have now launched a complete new XS range, no less! So whatever you think of Naim, and of course opinions are always divided with this company, all this is surely a heartening example of British design and manufacturing know-how triumphing in times of economic adversity.

Naim seems to engender strongly polarised opinions, probably more so than any other manufacturer I can think of. A great many audiophiles adore them and would never even consider buying anything else, but there also seems to be a select band who offer nothing but venom whenever the name of the company crops up. This is something

I find hard to understand as I cannot think of any company that has had a flawless, universally adored product track record. But even the company's greatest critics must surely admit how well structured their model range is, expanding into every niche in an intelligent and logical way.

Now, the recently launched Nait XS amplifier has, ermm, had babies. Like Tribbles on the Starship Enterprise, it's multiplied itself into the CD5XS CD player, NAT05XS tuner, NAC152XS preamplifier and NAP155XS power amplifier. All of the above can be used as standalone items, but Naim naturally offer an upgrade power supply for the range, the FlatCap XS, and a sample of this was also provided for this test.

The CD5XS is an evolution of the CD5x player but, although visually similar, is quite new under the bonnet. Outwardly notable is the new casework common to the entire XS series, consisting of a slim, low resonance chassis and a brushed and anodised front panel, machined from one piece of aluminium. Internally, new analogue output circuitry mounted on a four layer PCB with

improved grounding for better noise resistance interfaces the player with the outside world through both RCA and DIN sockets. Also for the first time on a Naim player, there is a switchable digital output which is transformer-coupled and isolated from the main circuit, and sends its output through a 75 Ohm BNC socket. Naim have strongly resisted the inclusion of such digital outputs on their players in the past but with the likes of the Supernait featuring such high quality internal DACs, plus the upcoming launch of Naim's own standalone DAC, the move was an obvious one.

Other than that, the CD5XS shares its mains transformer and the swing-tray loading mechanism with its predecessor. This is the first time I have ever spent any time with one of these mechanisms and I have to say I came away impressed. The assembly feels very smooth and solid, and the manual opening and closing, plus the necessity of fitting the magnetic puck to the top of the CD before closing the tray offers an almost vinyl-like sense of ritual to proceedings. It's sad I know, but I



enjoyed it! The CD5XS comes with Naim's NARCOM 4 remote handset, which is a bit plastic-tastic but does its job well enough. The small display on the player normally shows track number but can be switched to show time, or turned off completely, and it automatically switches to time when searching, which is a nice touch.

The FlatCap XS generates two independent 24V supplies from a 215VA transformer and can power two XS series components, or both of its outputs can be used on the NAC152XS preamplifier. Past experiences have told me that Naim PSU upgrades certainly alter the sound of the products on which they are used but, on the odd occasion, I have felt not necessarily for the better. As a result I was keen to get to know the CD5XS as a standalone player first, and then see what changes the FlatCap XS wrought.

SOUND QUALITY

With the CD5XS warmed through and operating on its own, I quickly realised that this was a CD player I was going to like. The CD5XS has what some consider to be the "it has the traditional Naim virtues of 'pace, rhythm and timing' by the bucketload, but is far more of a complete musical performer than this epithet suggests..."

traditional Naim virtues of 'pace, rhythm and timing' by the bucketload, but it is much more than that, and far more of a complete musical performer than this simple, and often inappropriately quoted, epithet suggests. It was the scale of the performance on offer that impressed me the most, and the way in which it fills the space at the front of the listening area, but without resorting to any trickery. If I was listening to a solo guitarist sat atop a stool then that was simply what I heard located in front of me, whereas a large orchestra belting out 'The Arrival of the Queen of Sheba' were reproduced on an impressively grand

The CD5XS keeps a grip on

music like few other players at the price. Bass lines are not so much rock solid, but more set in concrete and mounted on a marble plinth, such was their precision and impact. The title track from Emiliana Torrini's 'Me and Armini' CD is underpinned by a heavy and deep bass line and the CD5XS stormed this through my Ferrograph loudspeakers, but keeping their big KEF B139 bass drivers under perfectly tight control. Even through my reference Marantz CD94, this track has an ever so slightly bloated feel to the low end, but this simply vanished through the CD5XS. Even more impressive was the bass detail that the Naim dug from discs: a regular test track favourite of mine is Steely Dan's 'Jack of Speed'





Tucana II

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

Tucana II

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

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

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













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and I honestly cannot recall a time when I have heard the bass line from this track so taut focused and lithe; impressive stuff.

Across the midband, the Naim builds on that fine sense of atmosphere to really lay out instruments before you. Nils Lofgren's acoustic guitar on the solo acoustic version of 'Keith don't go' was an absolute masterclass in leading edge precision and shimmering decay, but at the same time the CD5XS captured the nature of every string pluck, and the subtle movements of

paying attention. So that would be a yes, then... Ultimately, the FlatCap is almost a little irritating as, not only did it resolve the depth issue, but also tidied up a few loose ends that I had not previously noted!

Bass seemed more lithe across its upper reaches, the dimensionality of recordings increased and the confidence with which the player approached all music almost turned into a nonchalant swagger. The only area in which I was not completely convinced by the change was in the treble; as standard the CD5XS is a

the FlatCap XS allowed more space around cymbals and hi-hats but at the expense of a little of that leading edge impact that I had so enjoyed.

CONCLUSION

The Naim CD5XS is a fitting source component for Naim's new XS series, offering a tantalising glimpse into the abilities of the mighty CD555 player at real-world price. Grand in scale, effortless in rhythmical terms and impressive in the detail sense, I would say it pretty much leads the field at its price. Adding the FlatCap XS is like adding a sixth gear to your car's five speed gearbox, in that it does not change the basic character of the player, but just makes everything more effortless. All in all then, a thrilling and somewhat addictive combination.

REFERENCE SYSTEM Marantz CD94 CD player Naim Supernait amplifier Ferrograph S1 loudspeakers



the hands up and down the fretboard. Equally, more challenging electronic material such as 'Jumbo' from dancemeisters Underworld was hard-hitting and impactful, but

without the Naim ever drawing attention to the fact that the recording was processed and electronic in nature; it has an uncanny ability to look past this and pull forth the music within.

Moving on, I always feel a listening session isn't complete without some Diana Krall, and it was here I did detect a slight chink in the CD5XS's armour. Once again, piano was stunningly vivid and the double bass perfectly rendered, and even Miss Krall's vocals were deliciously husky and soulful, just as they should be. However, I realised as I listened that they were rather further back in the soundstage than I was used to, and spinning discs from a couple more artists of the same ilk revealed the same thing. The CD5XS is not two dimensional in any sense, but it doesn't quite have the depth perspective of some players at the price. Still, a third glowing Naim logo on my rack reminded me I had one more box to try...

With the FlatCap XS plugged in, I cued up Diana Krall again and shut my eyes, wondering If the upgrade could improve that depth perspective, and nearly fell off my chair as 'Popsicle Toes' took off and I had to open my eyes again to check the lady hadn't sneaked into the room when I wasn't

crisp, detailed and stimulating delight
- always revealing and soaringly
insightful but never harsh. Adding

MEASURED PERFORMANCE

Our convolved impulse response shows the CD5 XS is flat up to 10kHz and above that the anti-aliasing filter imposes just a slight roll down. Although small this is still enough to avoid the slight hardness and sharpness common to more extreme filter transitions. At the low end output extended down to 2Hz, like many players. So the CD5 XS will sound well balanced tonally but lack any sharpness

Distortion levels were low, but not as low as is possible nowadays, the benchmark -60dB figure being 0.28% against a common value of 0.2%. Our analysis clearly shows some contributory harmonics and they existed on both channels. EIAJ Dynamic Range measured 109dB, good but not up with the best at 112dB, largely as a result of this small amount of convertor nonlinearity. The subjective impact isn't likely to be great in practice however. Although Naim say the DIN output is 'preferred' it gave identical results at -60dB, if being a little more linear at 0dB than the phono sockets. Output voltage from both was to Philips standard, measuring 2.1V.

Jitter from the digital output was very well suppressed, measuring around 10pS. Even with a 1kHz, -60dB signal, signal-related jitter remained minimal when normally it rises to 100-200pS or so. So the CD5 XS is offectively re-clocked and this gives a clean, temporally defined sound.

The CD5 XS measured well all round. Its DAC does not offer the lowest distortion figures, but this may

well indicate other factors contributory to its sound. NK

Frequency response (-1dB)

CD 2Hz-21kHz

 Distortion

 0dB
 0.0015%

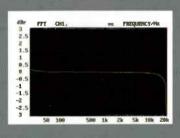
 -6dB
 0.003%

 -60dB
 0.28%

 -80dB
 4.6%

Separation (1kHz) 125dB Noise (IEC A) -108dB Dynamic range 109dB Output 2.1V

FREQUENCY RESPONSE



DISTORTION



VERDICT **OOO**

A focused and forthright CD spinner that times, rocks and reveals like few others. HatCap XS upgrade rounds off a few rough edges, including ones that weren't previously apparent!

NAIM CD5XS £1,75
NAIM FLATCAP XS £675
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FOR

- super bass
- dynamic precision
- excellent atmospherics
- vivid treble

AGAINST

needs FlatCap to really add perspective to vocals



n the old days, we had cassette. A gloriously simple idea, they'd slot into your car, your kitchen music portable and even your high end hi-fi if you'd invested

in a decent three head record-

er. Cassette was the epitome of music on the move; handy, cute and amazingly convenient.

Now of course, the iPod has moved in to fulfill the same function, and by and large it does it very well. But there's one area where Apple's polycarbonate peril doesn't sit so easily, namely a hi-fi system. You can plug it in to your amp's auxiliary input of course, via a mini-jack to RCA phono lead from the iPod's headphone socket, but it's hardly an elegant solution. To wit, there came a demand for a neater solution. The answer came in the shape of the universal iPod dock.

These plumb the audio out of the iPod's universal dock connector (that funny thing at the bottom that you plug your computer link cable into), which has audio out. It's of better quality than the headphone output, so immediately improves the iPod's sound. But that's where the similarities end. Different models have different functions, active amplification stages, remote connectivity, fancy construction materials and so on. So we thought we'd try four of the best sellers under £100, plus a cheaper audiophile interconnect as a reference point, in a bid to find which gives the best sound per pound.

RUSS ANDREWS GO-24 £60

Our starting point is a high quality, premium priced interconnect with an iPod dock plug on one end with two Kimber UltraPlate phono connectors on the other. It is compatible with all iPods with a dock connector, even older generation models. Playing The Sugababes' 'Stronger' from the 'Angels With Dirty Faces' (Island) album the output was nicely warm and smooth with rounded yet strong bass output, and no vocal screeching that is often heard from this overly peak-limited album. This 'warmth', on Carol Kidd's 'Dreamsville' (Linn) and 'A Nightingale Sang In Berkeley Square', did provide a problem however, as the mellow upper-mids and treble managed to mask the majority of the upper frequency detail leading to a lack of excitement. However, the stereo image was good. Can's 'Yoo Doo Right' from 'Monster Movie' (Mute), was the most

successful album played here, merely confirming that the GQ-24 appeared most compatible with rock and its bass-heavy tones.

docks...

Paul Rigby looks at five sub-£100

DENON ASD-1R £80

Compatible with all 4th generation and over iPod models, the ASD-IR is well built and available in black or white. It allows iPod control via a remote, and sports integrated S-Video connectors in addition to decent gold plated phono connectors. Immediately noticeable upon spinning the Sugababes track was the lack of control over the bass frequencies, while the vocals tried valiantly to cope like a storm-tossed ship floating on angry waves. Associated to this was a veiled midrange and treble, although at least there was no harshness. Despite the slight lack of focus on Carol Kidd's vocals, the Denon performed measurably better on 'Nightingale', while the acoustic guitar solo was tracked with aplomb. The news got even better when Can was played, as the dock found a well mastered rock track more to its taste, and fun was had by all here. 'Yoo Doo Right' was busy sounding and engaging, despite its lack of bass grip.

VERDICT ••• £ A stripped-down minimalist cable that

does the job effectively, this turned in a creditable sound

RUSS ANDREWS GQ-24 £60 **Russ Andrews** () + 44 (0)845 345 1550

www.russandrews.com

FOR

- simplicity

AGAINST

- over polite sound

VERDICT 🔵 🗨 🕻

Curate's Egg of a dock that loves to rock, but whose feet appears rather unsteady elsewhere.

DENON ASD-1R 683 Denon **(**) +44 (0)2890 279830 www.denon.co.uk

FOR

- musical midband

AGAINST

vague bass



ONKYO DS-A3 £90

Compatible with 4th generation iPods upwards and available in piano gloss black, this dock is the best built here. There's the usual component video output plus an onscreen display for navigation and content selection. You also receive a useful, dedicated remote control and a sleep/timer option. Playing the Sugababes track, I was hit by a gloriously wide soundstage, sweeping synths and rich, deep bass, with the vocals sitting just in front of the soundstage and providing an effective three dimensional image. That gutsy bass continued to the Carol Kidd track but the jazz tones revealed a lack of definition. Despite the fullness of the guitar strumming that presented plenty of character, there was also a certain amount of deadening in the upper registers; the midband proved a little opaque and lacking in low level detail. Still, a fine sounding product, really pushing ahead of the reference Russ Andrews cable connector.

NAD IPD 2 £95

Supported on a large rubber foot, the simple yet nicely designed base has a heavy, ceramic feel to it. Supplied with a remote control, connections include analogue audio and S-Video connectors, The dock is compatible with iPods of 4th generation upwards. After the rollercoaster rides of the previous docks, the NAD's gently balanced nature was a relief. With less gain than the other docks

reviewed so far, the smooth sounding NAD didn't exacerbate the harshness of the peak-limited Sugababes track, but didn't have the bass punch of the Onkyo either or, for that matter, the upper mid/treble detail of the Denon. What it did offer was superior midband and treble clarity compared to the Onkyo and superior overall control when compared to the Denon. In fact, after listening to both Carol Kidd and Can, the NAD sounded like a direct upgrade to the GQ-24. Although not showy, it was smooth, even and organically musical, making it a fine product at the price.

CAMBRIDGE ID50 £100

Despite the rather tacky chassis material, the internal components of the dock are up to scratch including buffered audio outputs and quasi-differential noise cancelling. Connections include composite and S-Video whilst you also receive a remote control. The dock is compatible with 4th generation iPods onwards. Gain was the highest of the group, and this informed the iD50's overall nature. It was incredibly transparent; in fact you could call it stark. This wasn't fun with poor recordings such as the Sugababes track, as the nasty drum sound and those strained vocals were all present with no Onkyo-like velvet coating here! However, this meant that Carol Kidd's vocals, for the first time, exhibited great presence while cymbals showed a unique, metallic character that lent the whole drum

kit a sense of reality. Similarly, Can provided far more immediacy and urgency than had previously been heard. A transparent and engagingly musical performer, but before poor recordings and low bitrates!

CONCLUSION

Despite the relatively small difference in price from the cheapest to the most expensive dock tested here, just £40, it was startling to hear just how different each dock sounded and how each manufacturer prioritised build and sound quality with price. The Russ Andrews GQ-24 has been designed with flexibility in mind to allow iPod users to connect to any flavour of hi-fi, no matter how restricted the space, whilst offering decent sound quality. Both the Denon ASD-IR and Onkyo DS-A3 took the opposite viewpoint of dazzling the user with quality construction and features and then closing in on one particular aspect of the sound spectrum whilst largely neglecting the rest. The NAD IPD 2, on the other hand, attempted to become all things to all men. It failed to totally succeed but did manage to provide a more balanced sound with a wider degree of acceptability. The Cambridge iD50 succeeded where the NAD just missed out, providing a broad, balanced appeal in all musical genres but excelling in those same areas in terms of sound. The iD50 is a top quality dock offering great sound at a reasonable price, and a worthy

winner of this group test.

Not quite the most transparent dock here, but an extremely musical device all the same, and particularly distinguished in the lower registers.

£90

£95

ONKYO DS≔A3 Onkyo

C +44 (0)1628 473350 www.eu.onkyo.com

FOR

- overall musicality
 rich, deep bass
- fiell, deep bas.

AGAINST

- midband detail

VERDICT ••••

Subtle sounding dock that proved a fine if undistinguished all rounder.

NAD IPD 2 NAD

(+44 (0) 01279 501111 www.armourhe.co.uk

FOR

- balanced sound

AGAINST

- too balanced for some

VERDICT OOOO

Supremely effective iPod dock providing true high fidelity sound.

CAMBRIDGE ID50 £100 Cambridge Audio (*) +44 (0) 845 900 1230 www.cambridgeaudio.com

FOR

- transparency
- musicality

AGAINST

- nothing at the price



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 ALLEN EDELSTEIM, Letter of the Month winner in our SEPTEMBER 2009 issue.

Letter of the Month

DOWNLOADER

You say, in a reply to a reader's letter (August issue p60) that you would like to hear from readers how we would like to listen to and buy music in a non-CD world, so here goes.

If CDs were no longer available the only viable alternative would be downloads. Yes, I know there will be those who scream "vinyl", but going back to vinyl as a mainstream format just ain't going to happen. At present there are few truly high quality downloads available, even true CD quality is quite rare, no matter what the peddlers of data-reduced downloads may say. Of what is available the majority seems to be that "audiophile" stuff that pays more mind to sound quality than musical content and is of interest only to special interest groups.

If it has to be downloads I would like the widest possible range of music including all new releases to be available in high definition. Current internet speeds are quite adequate to carry it, download speeds are acceptable and high capacity storage devices are abundant and cheap. Surely it is possible to offer us master quality downloads, a quality we have never had before. I feel sure that many of us would be willing to pay a premium so long as it is reasonable and represents good value for money.

I do not have much idea as to the best way of dealing with high def downloads. At present I can only download to a computer but this does not seem to be a good way of doing it. Most domestic computers are cheaply made and poorly constructed when compared to even middle range hi-fi and look positively shoddy beside high end stuff. Is this any way to process what should be the epitome of sound quality I ask myself? My ears tell me it



iTunes music. Now 100% iTunes Plus.

Now, every song available in iTunes is an iTunes Plus song. That means you get high-quality music with 256-Kbps AAC encoding, making every song you download virtually indistinguishable from the original recording.

Will we be downloading high resolution itunes in the future? At 256kbps using AAC data reduction they are already good quality.

is not.

As yet there seems to be no general consensus as to the best way to go, the products on the market show no real consistency of approach. It would appear that I am not alone in finding a screen something of a distraction when all I want to do is listen to music.

A single item of equipment which can download these high quality files sympathetically and with the minimum of incidental processing, verify and store them in an easily accessible manner then pass the signals on for decoding as the owner sees fit, a piece of equipment designed solely to do only that, dedicated to extracting best possible sound quality and bullt to a typical quality hi-fi standard ought to be a winner. Such an item could easily be made versatile with plug-in extras such as for example a network device

for those so inclined. That would be my ideal. Well, you did ask...

Dave Dick

Fascinating. It's a great topic, isn't it? You make some fine points, Dave. Vinyl will never of course become the world's music carrier again. That's not to say it's dead or moribund of course; I liken it to the sports car market; it's pure indulgence, a luxury item for those craving to own it. Certainly, my recent visit to Rise Records in Bristol's Whiteladies Road underlined this point, with few new CDs above £6 and many of the new vinyl albums priced between £20 and £29!

What then takes over from CD is, as you rightly point out, digital downloads, and I think your

reasoning about how these will be managed is sound. The intriguing thing is though, it's not always logic that shapes the market. As Adam Smith points out in his column this month, Betamax should have blown VHS into the weeds but the reverse happened. I suspect if the future of music buying and listening unravelled in a logical manner, there would be a lot of people ordering their Bentleys now!

THE EMPIRE WRITES BACK

After seeing the snippet in the June issue about the Empire 598 turntable, I must confess to being like the kid at the back of the class that knows the answer to the really obscure (audio) question that the teacher has set. I find myself sitting on the edge of my seat, waving my arm saying "Sir, sir, I used to own an Empire 598 turntable"!

Empire Scientific were mostly a cartridge company and their range attempted to out-spec the spec-meisters Shure (more detail in the 1974 Hi-Fi Yearbook) but the Troubadour turntable was an AR-style turntable on steroids (while going to the gym daily and being waxed and adorned with gold chains). The Empire replaced a non-classic Garrard turntable in my early 1980s engineering-student system and I was startled to realise that the opening bars of Schubert's 'Unfinished' symphony were not "rumble, rumble rumble".

This turntable had a V8 sized synchronous motor, with a platter and bearing to match. My only real arguments with the design were, what could be politely called a "1970s-style" turntable mat. Adam refers to the wonderfully quirky light/arm lift. But if I may untangle this slightly. These were two separate features. The brass arm rest contained a shielded light bulb which cast a golden glow across the playing area of the LP. This worked well and was even more cunning in that it operated as a strobe for the markings on the platter.

The arm lift was rather more Black Adder style cunning... This was a magnet that grabbed a lump of iron sticking out of the arm as it got near the record label. The theory was that this lifted the stylus off the record. It did this but only after dragging it sideways across a few grooves first. Not nice. Unsurprisingly, I replaced the arm. I'm startled to realise that I added oddness to eccentricity by using a Syrinx PU2 and a Decca cartridge! Actually, while the arm had 'issues' (flimsy plastic 'carrier' for the cartridge) the complete system looked coherent untouched, especially with the gold and walnut bathed in a golden light.

Being a proud Empire owner, I took an interest in their products in the way that owners of obscure rusty cars



Empire's weird hexagonal loudspeakers.

tend to wave to each other, so I do remember that they also produced some endearingly weird hexagonally shaped loudspeakers.

Sadly, I don't seem to have kept a copy of the manual but I do have the attached review from a U.S. magazine (Audio?). I hope this is of some interest, at least to Adam.

Simon Brown

Ah yes – Empire. As you say they tried to outdo Shure and I tried to take one of their top cartridges seriously - a 999ZEX I think – and use it at their quoted 0.75gm tracking force. A gnat flew past and the experiment was over! Silly me.

NK

EAT MY SONY!

My father and I have been really enjoying your magazine lately, though a few things have led us to cry "off the pace!"

Firstly, David's review of the Rubato copper mat, and his assertion that his Sony TTS-8000s inability to drive it was due to interference with its magnetic speed sensor and his further extrapolation that Denon direct drives would thus be unable to turn it. Though I'm not certain of the difference in specifications, Larry Denham has a video on YouTube in which he demonstrates his copper mat, brass clamp and copper periphery ring simultaneously on a Denon direct

drive
turntable with
no trouble.
Interestingly
the Vintage
Knob website
states that
the Sony
TTS-8000
is capable
of turning
the copper
mat and
the weighty

Audio Technica ceramic mat, so we are curious to know exactly what is going on with David's turntable. Has this vintage deck's power supply been fully rebuilt and is it running to spec?

Despite David's obvious disappointment at the mat not working with his first choice, the review was clearly positive, and led to both my father and I lusting after copper mats for our Technics SP10 Mk11s (yes, we both have SP10s with matching Nagaoka GL-601 Crystal mats!)

Secondly, David's use of his Sony as a reviewing tool. My father simply finds references to it annoying and its choice odd, as it is a middle-of-the-road deck and not a deck a lot of people have heard and can therefore reference. I found it unbelievable that David could make ambivalent comparisons between his Sony and the EAT. Surely the EAT destroyed the Sony! Descriptions of the Sony like quick and clever have left my father and me with raised eyebrows.

The most on the pace award would have to go to Noel Keywood with his enthusiastic yet sober review of the Icon parallel 845 monoblocks. These amps are most drool worthy and definitely on my radar. Even my Class A solid-state loving father gave them the nod!

Overall you guys are still top of the hi-fi magazine food chain and your misadventures always make for good reading. And David, a custom 0.01 mm copper foil mat for your Sony is in the mail!

Ben North

Hi Ben - my Sony TT-S8000 has been expertly and comprehensively rebuilt by Vantage Audio. It will easily turn the platter with that copper mat fitted, but just because it will do this doesn't mean it automatically sounds better doing it! I've come to find that there's an optimum mass for a turntable mat; a modestly heavy one can add a degree of welcome 'flywheel effect'. I've found the SDS Isoplatmat does this to both the Technics SL1200 and the Michell GyroDec (amazing, considering their radically different designs). But the Rubato mat I tried simply made the sound strained. According



Sony TTS-8000 - a broadcast turntable and not MOR!

to the Sony's strobe it was still bang-on speed-wise, but it sounded more laboured and less musically convincing.

I suspect (and this is just a theory) that something as heavy as this has got the servo pumping loads of juice into the motor, which is straining the power supply. It did this with both the Sony and the Technics, and was especially uncomfortable with the Technics which has a demonstrably less torquey motor than the Sony. I really can't account for what anyone else says on whatever other website about this; I merely report my own findings. Would you like me to skew my own observations because someone else thinks different?

Given that the Sony TT-S8000 was a high end broadcast turntable, more expensive than an SPIO/II in its native Japan and rarely found outside studios, I'm not sure why your father thinks it to be 'middle of the road'. In terms of price, it wasn't that far off that of the EAT in real terms, back in 1977, and is more technically sophisticated, and almost as heavy even in the smaller domestic (i.e. nonbroadcast) plinth option. Sonically the EAT displayed slightly superior depth and detail (methinks it has a better main bearing) but was noticeably inferior in speed stability terms (to my ears and those of several senior hi-fi industry figures who happened to visit when I had both decks running back to back). Bass was obviously tighter through the Sony, with the classic high-end direct drive 'LED-like' on-off switching of the notes. Lovely as the EAT was, it wasn't quite as tight.

I agree that few people have heard of the Sony, but it's a top class analogue source. I am always amazed how other reviewers can only ever review amplifiers and loudspeakers via CD; it's like road testing a sports car in a 30mph limit! How can you really assess the ability of something if you feed it a middling signal and never let it off the leash, so to speak? The Sony provides me with a very clean, three dimensional and tight 'hi res' source that has none of the harsh colourations of CD or the euphonic colourations of a belt drive turntable. It's not the world's most romantic sounding device, but I've found it an unfailingly neutral performer and brilliant at showcasing differences between other bits of kit. My main object is that it's gloss black and picks up dirt like Adam Smith does old hi-fi separates; namely at great speed and with considerable relish!

Hi Ben - thanks for saying I'm "on the pace". I did make your letter No I as a direct result of this flattery but David bumped it back down, the rotter. Never insult a man's turntable! **NK**

LIVING VOICE

I find myself in the wonderful position of being able to substantially upgrade my current system but I want to ensure that what I buy will not need further change for a good few years, will be serviceable for that duration and is of 'local' heritage.

My current setup consists of a Michell Gyro SE (with Orbe platter and HR power supply), Hadcock 242SE Silver arm, Audio Note IQ3 cartridge, Graham Slee Era V phono stage, Sonic Euphoria PLC (autoformer based passive pre http://www.soniceuphoria.com/) and Linn 5125 power with active cards feeding Linn Ninkas. I also have an old Arcam Alpha Plus CD but I don't use

system. Therefore, I feel I should focus on changing the power amp, speakers and speaker cable, as I feel these components share a relationship that possibly gets overlooked, hopefully provide what I'm looking for now and provide a platform for future upgrades. I could also change the pre-amp (and phono amp if part of it) but only if there was a clear imperative. I know this approach would leave my system 'a little light' at the front end, but am prepared to accept this for the moment.

The speakers need to visually appeal to my wife and not dominate the room (the Ninkas do get a tick in the box here). Having heard Martin Logans and Quad electrostatics briefly, I loved their clarity but they're too big and unsightly. Something simple with quality wood veneer. Having done some research, I hit upon Living Voice Avatar IBX-R2 or OBX-R2, which use relatively standard components (tick serviceable),



it much. Cabling is Chord Chorus 2 interconnects and DIY speaker cables (TNT Ubyte 2). My Edwardian room has a suspended wooden floor plus heavy rugs, is 15x20 feet and 10.5 feet high feet plus two bay windows and the speakers are placed on granite slabs 2.5 feet from the rear wall, either side of the chimney breast facing down the length. Finally, I use a Clearlight Audio RDC Aspekt rack.

I find this system plays lighter material very well, with great treble clarity and bass extension (especially since I upgraded to the Chord Chorus'). However, put something heaver on and it seems to get a little congested, less so in the treble. In essence, I'd like to improve clarity and dynamics across all material without losing on the bass extension and without increasing treble brightness. Also, I do find my foot tapping away, but feel a little more musicality would be nice. I listen to most genres of music.

My budget is around 10k including trade-in and I want to focus on fewer quality items rather than the whole are not too large and seem to fit the bill sonically. I still have the review by Simon Pope (April 2003) and he was very complementary. Of course, there must be others to look at.

The Living Voices are highly efficient and so don't require a lot of juice. For this, I'm thinking of one of the valve amps that you've reviewed over the last few years; Quad II Forty, Icon Audio MB 845, EAR 890, or maybe even the World Designs WD88VA. Again, I would hope a valve power amp to be serviceable for quite some time. However, I do have a question over the time it takes a valve amp to reach optimum performance after power on as I tend to snack at my music rather than have extended listening sessions. An alternative could be the Sugden Masterclass SPA-4 (or maybe even the IA-4 integrated if you feel it was a good match), but this I presume is a more complicated beast to service in the long term and maybe takes a while to warm up as well?

In terms of speaker cables, I was looking for something visually unobtrusive against wooden floors,

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Plinius P8 Power amplifier. Boxed in excellent condition. One very minor mark to front plate. One owner from new, great reviews. (£3600) £1395

MBL 7008 Integrated amplifier. One owner, boxed, manuals. As new. Brilliant reviews. (£6500) £4878

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

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

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

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

Naim CD5i-2 CD player. This is the newest version (itallic i) version. Only months old, absolutely mint on. One sold on e-bay a couple of weeks ago for £700. our price including a 5-year warranty is £695

Wadia 301 CD player. One owner from new in silver, boxed, packing, excellent condition. Comes with the upgrade metal remote (these normally have a plastic one). Can be run directly into a power amplifier using the digital volume control (£4000) £1695

DCS Verona Master Clock. One very careful owner from new. Original box, packing and manual. The reviews and reputation speak for themselves Price includes a 5-year warranty (£6000) £2295

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

Acoustic Arts DAC1 mk4. Fully balanced or single ended operation, current model with latest spec. 66 bit, 1536khz upsampling. 4x digital inputs. One owner from new, unmarked condition. Boxed, manual. 5-year warranty for the new owner. A bargain. (£3950) £2295

McIntosh MCD201 SACD player. One owner from new in outstanding condition with original box/packing. Great reviews. Built in pre-amp, so can be used directly into a power amplifier. (£3495) £1795

LOUDSPEAKERS

Jas Audio Orsa Loudspeakers. One Owner from new, finished in Hi-Gloss Cherry, wonderful condition These are exceptional loudspeakers in every regard Hi-Fi+ Product of the Year Award, £795

Martin Logan Aeon Electrostatic Loudspeakers. One owner from new. Exceptional condition. Finished in Light Oak and complete with immaculate original boxes, packing, accessories and paperwork, £1895

ATC SCM19 in Cherry, one owner, as new (£1524) £1095

Focal Electra 1037 Be. One owner from new, finished in Classic. Approx 18 months old. Boxed, manual. Absolutely MINT condition. (£7000) £4495

ATC EL 150 SLP. A rare opportunity indeed. Only 30 pairs of these will ever be manufactured (These are no 11 of 30). Our ex-demo pair, unmarked, complete with the original wooden crates. These also come with a lifetime warranty for the first owner. (£26393) £POA

ATC SCM40 Loudspeakers. One owner from new, finished in cherry. Boxed, manuals and balance of 6-year warranty. (£2044) £1395

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

Klipsch P-39F Flagship Palladium Speakers. These are simply breathtaking and have recently had a stunning review by Stereophile magazine. Ex-demo with a few minor marks. Finished in the Merlot veneer. (£14798) £POA

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

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

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

Tannoy ST200 supertweeters. Top of the range, only 4 months old. One owner from new, Boxed, unmarked, Béiñg sold only as a package with the Superlinks below. (£1200 - £1500 including the links) £749. (price is for the supertweeters and the superlinks)

Tannoy Superlinks - for use with any Tannoy supertweeter. One owner only 4 months old. As new (£300) £priced as a package above

ATC SCM 50 ASL active speakers in Yew, one owner, unmarked. Current spec (£8500) £5695

ANALOGUE

Acoustic Solid. Solid Machine with Music Maker Conductor Paralel tracking air bearing tonearm. There have been some fantastic reviews on this combination. This is our ex-dem unit and it is in unmarked condition with light use. (£5100) £2995

* *

×

Eastern Electric Minimax Phono Stage. This probably holds a record (no pun intended) for the most outstanding reviews of any product currently available. Boxed in unmarked condition. One owner from new, only months old. Simply sensational (£1495) £949

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

MAINS CONDITIONING

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

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

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

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

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

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

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

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such as Chord Epic Twin and am also looking for unequal lengths (is this bad?) as my rack is sited at one side of the room. Some of the above amps would be too large for the Aspekt rack, so an alternative would be to place monoblocks near the speakers and run lengths of interconnect from the preamp.

Your recommendations would be very much appreciated and help me to focus on what equipment to audition.

Chris

Newcastle upon Tyne

You already have a very decent system, so it's lucky you've got a few quid to spend because improving on this little lot won't be cheap. First, I would change your GyroDec to an Orbe SE. You'll get a good price for your Gyro, so it won't too expensive to do, and you'll notice a considerably cleaner and more stable sound, with all that's good about the Gyro (tonality, expansive soundstaging) plus an obviously more solid, precise and defined sound. I still think the Orbe isn't far off some decks at three times its price, so it remains a bargain. To this, I'd suggest you fit an Origin Live Encounter; this arm is better than ever and as always a particularly nice synergistic combination on Michell decks. It will give a step change up over your Hadcock, which will sound vague and ponderous by comparison, charming as this classic arm is. For the phono stage, I would suggest an Icon Audio PS-3; a brilliant valve design, with a volume control which you can use to drive power amps directly...

For my money, the class of the field in your price bracket are the Icon Audio MB845s; both Noel and Paul Rigby are using them and methinks they're not going to change soon! These have a beautifully sound but massive visceral impact too, like only a high end valve amp can give. Truly special, if I were you I'd write the cheque now! However, if you 'snack' at your music, then switching expensive valves on an off all the time is not good. In this case, the Sugden (solid-state Class A) IA-4 integrated is a much better bet. Believe me, this amp doesn't take long to warm up (about one millisecond) and is singing happily after ten minutes or so, it has a more brightly lit presentation than the Icon Audio valve amps, but it detailed and truly musical. I also know it to work brilliantly with what I'm just about to suggest...

As for speakers, your wife puts some tough constraints on you. I am afraid I'm not familiar with Living Voices, but if you want a 'known quantity' and if your better half will

accept gorgeous lacquered piano gloss black (the very same as used on real concert grands), then the Yamaha Soavo 1.1 Pianos would be my choice. They really are self effacing and open loudspeakers which are unfailingly musical at all times and sound great via valves. I can't think of a more suitable big box. Put this little lot together with some Black Rhodium Tango loudspeaker cables (nice and smooth, with a dark tonality) and you'll have a special high end music system that I suspect you'll simply never want to upgrade again! Oh well, maybe the cartridge. Try an Ortofon Cadenza Bronze when the time comes! DP

CHEAP MCs

I think an interesting article in your magazine would be a comparison of the cheaper end of the MC cartridge range, versus the more expensive MM cartridges. I know a while back you tested some MMs and threw in the Denon DL I 03, but I wasn't thinking that cheap! Specifically I was wondering how cartridges like the Ortofon Rondo Red and Audio Technica AT-OC9 MLII stack up against your prize MMs The Ortofon 2M Black and the Goldring 1042.

This is because I am in a bit of a quandary as to where to upgrade my vinyl playing set up. Being a dyed-inthe-wool olde school type, I believe the source is the most important component in a system - 'garbage in, garbage out' as they used to say. I have an all-Rega system consisting of P5/Ortofon 2M Blue (P5 doesn't have the power supply optional extra), Rega Mira 3 amplifier and R3 speakers. I use the phono stage built into the Mira 3.1 also have an Apollo CD player. I have been a bit of a Roy Gandy aficionado for about eleven years now, and although I have auditioned other stuff over the years I keep coming back to that relaxed and superbly musical sound. I know it's a tad bass light, but what bass there is, is solid and makes you move. What it lacks is the ability to draw the listener in, and keep the attention over long periods. I

put this down to the cartridge choice, which was the best I could afford at the time. I believe that MC cartridges "do involvement in spades", although I don't want extra treble edge masquerading as involvement

I am hoping to be able to raise about £600-£700 in the next few weeks and am mulling over the following options:

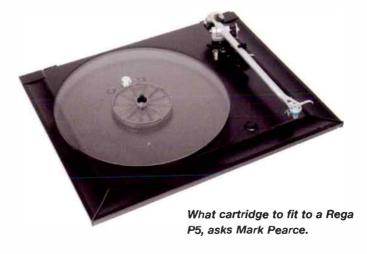
I. Would the Mira 3's built in phono stage show off the capabilities of the 2M Black? I could save some money (or stretch a bit and add the Rega optional power supply) this way.

2. Would either the AT cartridge I mention or the Rondo Red, plus something like the Clearaudio Smartphono bring about more involvement? I would imagine giving the lion's share of the budget to the cartridge would produce better sonics so are there cheaper decent phono stages that would allow me to allocate more to the cartridge?

As an aside, can I thank your magazine and readers for raising awareness of the "loudness war" issue. One day, record companies may listen to their punters and stop this silly practice. It's ruining music!

Mark Pearce Hastings,

I think your idea of comparing budget MCs against expensive MMs is a good one and I hope we can follow it up. We certainly need to cover budget MCs because a lot of people are interested in them, for quite obvious reasons. They promise the benefits of an MC; mainly superb clarity and sound staging; at MM prices. However, I have yet to be persuaded, because every one I have heard over the years had nothing to offer over a good MM except extra cost and hassle. But perhaps there are some goodies out there, and the market has been rearranged by currency fluctuations that have in most cases made budget types like the Denons



-Stereonew

Hello, and thank you for taking a look today.

Here's the Somervell XTC-4c active loudspeaker, designed and built in the UK. Uniquely for an active speaker and to avoid microphony, the four powerful mono power amps and sophisticated crossovers are built into the separate (not shown here) XTC-4c controller. There are no mains leads attached to these speakers. The cabinets use material not previous seen in the audiophile world.

The XTC-4c controller has fully remote switching, five RCA line inputs and some rather clever other bits and pieces which I don't understand. There's some very advanced thinking here.

It's no exaggeration to admit that during 33 years in this industry I have never,

and I do mean never heard a more agile, more articulate and more detailed speaker system. The ability to convey musical detail and subtleties (even at whisper-quiet levels) and yet when required, to produce room-filling dynamics, literally leaves me. speechless

The imaging is deep, wide, tall and stable. The pace, the rhythm and the timing are to me, state-of-the-art at ANY price. These have to be heard to be believed.

Imagine if you will please, Harbeth Super HL5s driven by an LFD NCSE super-integrated amp. That's what you get here but at a fraction of the price. Here's what you get:

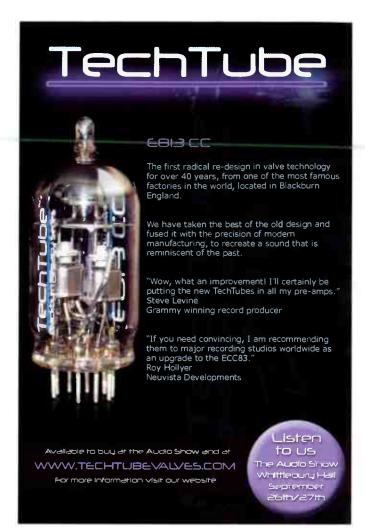
- Two active speaker cabinets with three very high quality drivers each.
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far more expensive.

Unfortunately, Rega amps and loudspeakers do have a polite sound exactly as you describe and changing from an Ortofon Blue to a Black will affect this little. It is a far better cartridge than the Blue, which I wasn't moved by, so you will like the improvement, and you will hear it through your Mira, but I don't believe this will bring about the changes you are looking for, nor will a moving coil cartridge. My suggestion is you consider changing the loudspeakers at least. **NK**

A good question. The trouble is that it's not as simple as whether a top MM is 'better' than a similarly priced entry-level MC. What you've also got to factor in is the cost of hearing the MC. By this, I mean that most integrated amplifier phono stages are poor to middling at best. So even a Koetsu through these would be little better than a Goldring G I 042. You've then got to budget for a decent phono stage, and as you observe, this then skews your 'like for like' comparison.

The answer to guestions [1] and [2] simply depends on where you want to go eventually. If you're going to continue along the upgrade path, my instinct would be to buy the very best phono stage you can right now; for example, an Icon Audio PSI mark II MM/MC (£635). This would [a] make your existing cartridge sound far better than via the Rega Mira's phono stage, and [b] then give you the freedom to get a really good MC for your next upgrade (I'd counsel the Lyra Dorian (£595) which I adore and believe to be by far the best sub-£600 cartridge, although I know Noel is not a fan).

Still, if you don't want to migrate towards a higher end vinyl system in the middle term future, then I'd say stick with an MM and be happy; they are very good these days (well, some at least) and the likes of an Ortofon 2M Bronze (£249) would be ideal (the Black might be overkill through your Rega's phono stage). This done, make sure you've got the deck set-up properly; I find Audiophile Furniture Base isolation platforms works brilliantly under Regas, for example.

DP

SYMMETRY

I thought you and perhaps your readers might find my recent experience interesting if not enlightening. I've been into hi-fi for over forty years and have acquired over this time an eclectic mix of budget equipment. This has resulted in my swapping round items when I get a new piece of kit to see what's

compatible with what (synergy rules okay).

My most recent acquisition is a pair of large floorstanding three way speakers approx 85 litres each (if my maths is up to scratch) which consist of a 12 inch woofer and dome squawker and tweeter in an IB enclosure made of 2 thicknesses of chipboard. They weigh about 35kg each with no covering on the enclosures so the WAF on a scale of 1-10 is about 0 which is why he had to get rid of them. Fortunately, I've got a dedicated listening room, otherwise referred to as 'the Sass Pit', which is about 16x8x8 so you can probably guess what it used to be. I know the dimensions are far from ideal but it does mean I can crank the volume up without upsetting The Mistress of the Universe.

I noticed that the balance wasn't quite right as the imaging seemed to be slightly shifted to left which I hadn't noticed before the fiddling. The speakers previously in use were Mission 752 Freedoms so I assumed there was a problem with the speakers. They were duly swapped over, left with right, but the imbalance to the left was still there.

I then started my quest for symmetry in earnest. Amps were swapped, NAD 3020 and C370, Marantz PM66SE, Sonic Impact T-Amp and the one I favour most, Pioneer A300R, but all to no avail. My attention then turned to the turntable as it seemed to be worse with vinyl. Also I'd recently acquired a Technics SL1210, with a view to arm upgrade, to replace my Planar 2. I'd swapped the Denon DLI 10 (love the sound) so I started checking all the tracking weight, cartridge alignment, turntable levelling and all the other fascinating, time consuming adjustments vinyl junkies have to do.

Again this was all to no avail. I was beginning to get paranoid and couldn't enjoy the music as all I could hear was this vary slight imbalance and I was beginning to notice a slight vagueness to the stereo image. I now thought the polarity was wrong somewhere in the cable run so I decided to check the internal speaker wiring (getting desperate or what) as I knew the external was okay.

As you've probably guessed everything was alright so my attention, or perhaps more accurately blame, now turned to the room dimensions and its acoustic properties. The left hand speaker, which appeared the loudest, was firing towards a radiator so I assumed, probably more in desperation than logical thought, that this was the problem. And guess what? It wasn't! Moving 35kg boxes with spikes in the bottom had all been pointless.

I was now resigned to the problem

and decided to, horror of horrors, use the balance control as I wanted to keep the speakers owing to their sound and tight deep bass (can't beat a big 12 incher in an IB enclosure).

As I now had nothing else to do these balmy summer evenings (I must get a life) I decided to clean up my interconnects, phono sockets and mains plugs with combinations of brasso and ethyl alcohol.

I've always been suspicious of claims about the difference interconnects and speaker cables make but I noticed something not quite right with my Qnnect leads from the phono amp. I'd previously noticed a few years ago that one pair of interconnects had arrows pointing in one direction but the other pair didn't, even though they were the same type bought at the same time. I'd always ensured the ones with the arrows pointed in the direction the signal was going but didn't with the other pair.

My curiosity was aroused by the fact that the writing on the leads without the arrows that I was using on the phono amp weren't reading in the same direction, if you get my drift, so I decided to swap one round so that the wording read the way the signal was going on both leads.

My quest was finally over. Everything was now symmetrical. The sound stage had been opened up, PRAT was as it should be and finally the balance control was moved to its central position with a flourish

I hope this story may be of some use to another troubled hi-fi enthusiast and perhaps save them hours of fiddling, but then again that's what hi-fi's all about.

Dave Arnold Bromley

Thanks Dave - nice tale. The first thing I do if I get a channel imbalance is get the Kontak out and start 'rodding' my phono sockets, plugs and speaker terminals. It's amazing how a little bit of scunge on a plug somewhere can take the volume level down. It's also amazing how much 'black' stuff comes off seemingly gleaming plugs; just goes to show you! **DP**

SMOOTH CABLES

I'd appreciate your advice, please, on a speaker cable upgrade. My somewhat venerable system comprises an Arcam Delta 500 DAC/250 Transport into a Delta 290/290P combo, bi-amped into Spendor SP2/2s. Overall, I'm pleased with the sound and have improved things over the past year by upgrading the interconnects — replacing £40-£50 cables with £100+ ones and installing Isotek power cables. I'm currently using Ortofon Spk300 speaker cable. This



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CS-122, a Van den Hul Carbon Sheathed loudspeaker cable at a reasonable price.

cost something over £100 about 15 years ago (for about 12m worth) and I suspect it can be improved on. Basically, I need something that will perform well at modest volume levels (can't upset the neighbours) and I can't stand anything remotely harsh-sounding, so would prefer to err on the side of warmth. I need runs of 3m and have a budget of £500, although I could stretch to a bit more if you think it would be worthwhile.

Philip Reeves

Sounds to me you need to use one of the Van den Hul carbon sheathed cables, known for sounding very smooth yet uncoloured and insightful. I still use Royal Jade hybrid cables (just £14/metre) but Van den Hul now list this as obsolete, replaced with various other hybrids like the CS-122 at £15.75/metre or The Wind MkII at £22/single wire metre (prices from www.divinecables.co.uk). **NK**

TURNTABLE UPGRADE

I'm looking to make a good pound for pound, value for money upgrade to my vinyl setup. With over 3000 records from DJing and collecting, it's the vinyl that still gives me easily the most listening pleasure and it's only here I'm prepared to invest to increase the enjoyment. I have Michelle GyroDec SE with the HR power upgrade, a TecnoArm and MM Rega Elys cartridge. My system is Naim amp 250 Naim pre-amp 282 Hi-cap

Dynavector XX2 cartridge (my local dealer's advice).

- C) Keep my Gyro only upgrade the MM cartridge. Example stay MM but buy the Ortofon 2M Black £400
- D) Keep My Gyro just upgrade the cartridge to an MC thinking of maybe the new Ortofon MC you reviewed last issue.
- E) Or replace my Naim MM Stageline phono stage with the new Superline MC phono stage.

Stuart Simpson

Personally, I'd go for a Michell Orbe with Origin Live Encounter tonearm; the SMEV is a thing of loveliness, but having had one on my own Orbe, I found it a less synergistic combination than the OL, which for some reason seems to be a 'greater than the sum of the parts' combination with the big Michell. This would free you up for a decent MC, in the shape of the Ortofon Cadenza Bronze. The above combo will sound gorgeous; stable, deep, dark, powerful, dynamic yet rhythmically fleet of foot and very musical. It's way above what you can get from the GyroDec with any arm fitted; much as I love this iconic turntable. DP

NOT SO GOOD

Usually, I agree with your assessment when the opportunity arises to listen to reviewed equipment. Imagine my surprise when, armed with my test CDs (chosen to reveal colourations and transients, harmonics, reproduction), I went to a seasoned Naim dealer and listened to the Uniti (awarded 5 Globes in June). The Uniti was installed on a sturdy support next to a Nait and a



Origin Live Encounter is best for a Michell Orbe says David.

Wilson Benesch Arc Speakers Naim CDX2.The Gyro's the leading light.This is what's in my head below;

- A) Upgrade to a Michell Orbe SE with an SMEV arm. Keep a budget cartridge on this for 2-3 months until funds arrive go for something better (I'm thinking here, buy one the best — but I'm worried about value for money)
- B) Keep My Gyro, but upgrade my arm to a SME IV and upgrade to an MC

CD5i, and had been on for several hours. The speakers were typical of what was likely to be used at the price point. The first CD (a limpid choir in a known acoustic) produced a sound which would have been just acceptable from a £400/500 mini system: voices were badly coloured, the acoustic was muffled and soundstaging vague. Lest we forget, I was listening to an outfit costing around £3,000 in all! I got up and checked connections and phase — they were

The second CD (an excellent Naim guitar recording) was supposed to reveal transients and harmonics. The Uniti did nothing of the sort: transients were loose, harmonics muffled, with no air around the instrument.

The third CD (a piano shimmering with harmonics) was in the same vein.

In sum, this was not remotely the "detailed, tuneful, subtle sound, if short on scale" noted in the review. The dealer assured me that a previous sample was similar. At my request, the same speakers via the same cables were connected to the nearby Nait+CD5i, after all the Uniti was said to be "a Nait with a CD5 in one box". The change produced a very substantial overall improvement. This would now indeed (to my ears) deserve DP's comments... "musical, dynamic, tactile... if lacking in scale". Needless to say, I did not buy the Uniti (intended as a present)!

I am puzzled to say the least.

Could it be, perish the thought, that the reviewed sample had been souped up for HFW?

Allen Edelstein NJ, USA

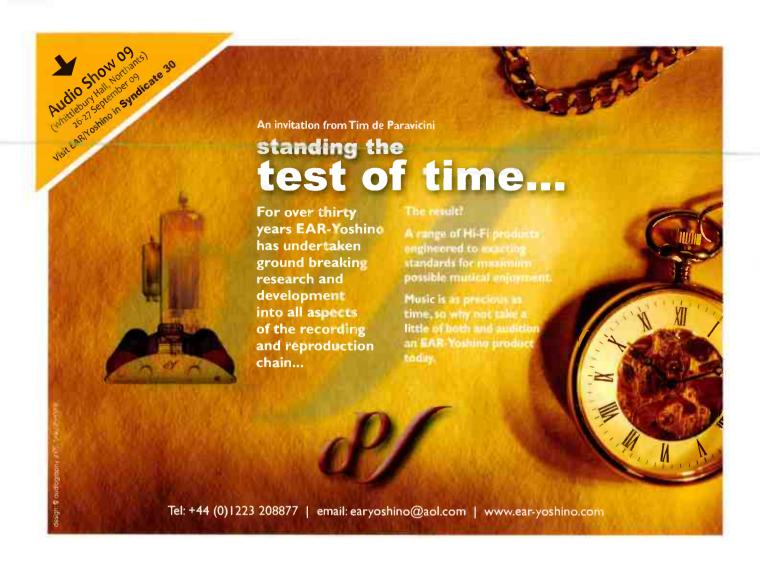
Hmm... Very unlikely Alan. If it's between cock-up and conspiracy I always go for the former. My suspicion has to be that the U.S. samples you heard had a problem. I suggest the dealer sorts this out with Naim, because Naim are surely going to take U.S. complaints seriously. **NK**

Obviously your dealer had a duff batch, or you had a duff dealer. I auditioned the Uniti in my usual reference room with the same speakers, cables, etc. as ever, and it made a very nice noise considering its price point. I subsequently heard one again at a nearby Naim dealer, and had no reason to change my mind.

My experience teaches me that whenever human beings are involved, things go wrong more often than they should. Bitter experience grappling with faulty or non-delivered review samples on a monthly basis for this magazine has taught me this!

RIP TIDE

I last wrote for advice in 2003, asking about a mid-priced CD player. The second-hand Marantz CD I7 KI that I bought for £500 that year is still doing me proud (indeed has seen off, on sonic grounds, a top-rated Accuphase CDP which I trialled in 2006 as a possible replacement). Even so, times have moved on and I've known for some time that the next upgrade would not feature a CDP replacement. Like many, I suspect, I've been waiting until





the utterly confusing mess that is the arena of digital recording, storage, and playback became somewhat clearer and a good domestic solution offering good sonics at a reasonable price emerged. That would still be my strategy, but my wife and I have been lucky enough to be offered jobs in Australia and we will be emigrating next June. However, we don't want to take around 800 CDs with us, so we need a solution now.

My first thought was to use my current (six year old) Dell Precision M60 laptop as a dedicated music server and simply connect it, networked to a decent storage device, to a good DAC. This would be cheap enough, but I suspect I would be compromising audio quality and having to put up with the vagaries of Windows XP, fans, etc. If I am right and you do not recommend such a step, what would be the best way to

Cube SE phono stage, Chord Odyssey. 2 speaker cable and self-built Decware HDT speakers (http://www.decware.com/newsite/HDT.htm) plus a Vertex laya mains filter.

I should start by saying the system sounds wonderful in almost every aspect and I am quite nervous about changing something and upsetting the apple cart.

Anyway, here's the problem - the speakers use single driver Fostex full range paper cones, so while they are wonderfully fast and coherent I believe the frequency response is a bit uneven. The end result can be quite a thin sound (with the wrong music) and a feeling that the sound is not quite full enough in the mid to low frequencies.

So, I'm looking to try new speakers which might possibly retain the coherence and speed, at least to a degree, whilst delivering a more even



The RipNas Statement comes with optional solid-state drives, for silence and reliability.

go? I have up to £1,500 to spend on a lossless disc ripper/server/storer and anything else (the confusing bit) that goes between such a device and a high quality DAC. My criteria are that I don't want to compromise on sound quality, so disc ripping/storage must be lossless, it must be capable of handling hi-res audio (I'm thinking in terms of better-than-CDquality downloads at some future point), and preferably it should have wireless capability and be capable of networking with both PC and Mac. Is this currently possible? Is the RipNAS device, which I've just seen in the September issue the way to go?

Dr T F Keenan

Yes - the RipNAS is ideal. After this you're looking at a Logitech Squeezebox 3 and a Stello DA100 Signature DAC (hooked up by optical TOSLINK cable), or if you want an easier one-box answer and can stretch your budget a little, Linn's Sneaky DS. **DP**

SPEEDY GONZALEZ

I have constructed a hi-fi system on a budget; a very low powered Decware SE valve amp, an Origin Live Ultra turntable and Silver MkII tonearm with Goldring Eroica LX cartridge, a Lehmann Black sound. The obvious choice is the Revolver RW45, it being very friendly with low powered valve amps but I wondered if there are any other speakers you'd recommend?

It is possible that my current speakers are too large for the room, it being a small loft room with the speakers firing across the room.

The other thing I'd appreciate some advice with is my phono stage which I recently bought. While I'm very happy with it, I'd like to try a valve phono stage and wondered how the World Audio WDPhono3 compares to retail valve phono stages such as the Icon Audio, Eastern Electric etc? There seem to be so few valve phono stages at the £500 mark I am seriously considering the World Audio kit as it would be superb value for money if it is good.

John Bloor

A problem here John is that Fostex cones, like Lowthers, are strictly their own type of sound and we can't really recommend anything that will sound even similar. My nearest choice on a budget would be KEF iQ30 or 50s. These are coaxials, although the tweeter isn't parasitic. You'll find them concise at high frequencies, focused and with more low end

weight. There's little else that comes with cheap paper cones and gives the typically 'fast' sound you are alluding to. It's all gone out of fashion, unless you want to pay £5,000 for a Zu Essence, or £1,800 for the Triangle Quartets in this issue, both of which seek to mimic, to a degree, what you are after.

The World Audio kit is a truly high end product that gives great results. Better, you can tweak it to your own satisfaction. **NK**

OUALITY ISSUES

Over the last five years I have returned to vinyl. I have very wide and eclectic tastes and I enjoy trawling the charity shops as the wide availability of records at around I a go has enabled me to satisfy a lot of curiosity about obscure artists. If the music proves interesting but the record proves to be very crackly or show mistracking damage, I search out another I copy, and at that price I keep trying until I get a good one. And the charities gain too!

But this strategy has given me an insight into the quality issues that previously plagued vinyl. Having purchased multiple copies of a number of titles looking for a crackle free version, I began to notice that the pops and crackles happened in exactly the same place. At first I assumed this was coincidence, but in some cases I have found three or four copies of the same record that have exactly the same background noises. Presumably dust has crept in at some stage in the production, so this is not a problem of poor handing or storage, but the noises have been pressed into the record!

This may partially explain why last time around, some record dealers were driven to distraction by collectors returning records time and time again and the medium earned such a poor reputation for quality. And it is little wonder that the promise of perfect sound forever from CD promoted such a rapid switch away from vinyl.

But we now have a resurgence of vinyl with a wide range of new music available which is too good an opportunity to miss. So I am supplementing the second hand collecting by buying most of my new music on vinyl, having concluded that a few crackles are irrelevant as the musical experience is so much better. But sadly, over the last six months I have found the quality issues are emerging again. There have been a number of recent pressings that have problems despite the use of heavyweight virgin vinyl.

Three copies of Stevie Wonder's 'Talking Book' have shown severe distortion in places on one side and when returning these copies, I have been told by two dealers that all the reissued pressings have this problem. One puts it down to the cutting head being overloaded in an attempt to achieve a very wide dynamic range. Two copies of the reissue of 'Autobahn' by Kraftwerk have gone back with one track unplayable; the assistant in HMV said that he had seen several of these being returned. Lily Allen's latest album (told you the taste was eclectic) has several jumping grooves on side I and again, the dealer has confirmed that they have a lot of these coming back.

I have to say that there has been no quibble from any of the record shops about exchanges, but at a time when we are being told that vinyl is the only physical medium for music sales that is showing growth I fear that with these quality control problems, there is a great danger of people losing patience once again. So my plea to the manufactures is to tighten up on the quality control and take more care in the production of vinyl records or we are in danger of throwing away the best medium again.

Andy Crossey

Very true, but you do need to ensure your arm and cartridge are okay as well Andy. I buy quite a lot of vinyl and have no such problems. If a cartridge is mistracking it will do so at the same point over and over again, eventually causing groove damage that is an implant of the mistracking. Goldring cartridges track very well and a 1006 is the minimum you need. **NK**

DIGITAL BRITAIN - THE FIGHTBACK

You may recall that I wrote to the BBC Trust recently regarding analogue radio turn off. I've today received the attached reply. I will contact the government department mentioned, but don't you think that the BBC Trust is shirking its duty?

"Dear BBC. As a licence payer, I strongly object to the proposed switch off of analogue radio in 2015. There are millions of analogue radios in the UK, many used by the elderly and those people to whom technology is of no importance. For them to change over to digital radio would mean spending a fortune, collectively. Besides all that, the present system of digital radio is a dated technology and I believe that the rest of the world just is not investing in it, some countries preferring to adopt the superior DAB+ system.

As the BBC Trust, you have a duty to carry out a public consultation on the matter and not allow the government to dictate policy, merely for the sake of saving money. I and many others would welcome such a consultation without any interference from the pro-digital lobby, which seems to consist of non-

technical people telling us what they think we should do. The various technical aspects of FM vs. DAB are well known to myself and other people who listen to the radio for enjoyment.

FM is a superior system possessed of better sonic qualities and can reach greater distances with a single transmitter than the DAB system, which when it is finished nationwide will cost a vast amount of tax payer's money. To force DAB upon the public will mean cars, homes, schools and other places where radio is listened to spending money merely for the sake of it. Please arrange a public consultation.

Cliff Millward"

...and the answer was:

"Thank you for your e-mail to the BBC Trust regarding digital radio upgrading.

I have noted your request that the Trust instigate a public consultation on the proposed switch to digital radio. I should explain however that the measures outlined in the Digital Britain report, including Digital Radio Upgrade by 2015, form part of the Government's plans for the UK's digital transition. As such any complaints or concerns that you have about these measures should be directed to the Department for Culture, Media and Sport (DCMS) in the first instance. Further details of the report, and of how to contact DCMS, can be found on their website at: http://www.culture.gov.uk/index. aspx.

You can also find details of the Trust's response to the Digital Britain report on our website at: http://www.bbc.co.uk/bbctrust/news/press_releases/2009/digital britain resp. I hope this is helpful.

Lucy Tristram Correspondence Adviser, BBC Trust Unit

...and my letter to the Department of Culture, Media and Sport:

"I recently wrote to the BBC Trust asking them to do a public consultation regarding the analogue switch off. They have replied today and suggest I contact you, since you are the department forcing this issue along. Perhaps you should ask the public what it wants before forcing digital radio onto it. I do hope you will reconsider and let the tax payer have our say for a change.

Cliff Millward"

Hi Cliff. Thanks for taking the time to write to the BBC Trust and the DCMS about this. I completely

agree that the BBC Trust is trying to shirk its responsibility to hold a consultation. However, a document titled "How the BBC Trust will consult" http://tinyurl.com/bbctrustconsult says that the BBC Trust will "always consult as part of a "Public Value Test", when there has been a proposal for a new service, or a significant change to an existing service." So, as you rightly pointed out in your letter, it is the BBC Trust's duty to carry out a public consultation about this, because the proposal to switch off the BBC's national FM stations clearly constitutes "a significant change to an existing service". So I would suggest that you complain to the BBC Trust itself about the BBC Trust's decision not to hold a public consultation. The address to send complaints about the BBC Trust to is Correspondence Manager, BBC Trust, Room 211, 35 Marylebone High St, London WIU 4AA. More information about the complaints procedure can be found here: http://tinyurl.com/bbctrustcomplaint.

Regarding the BBC Trust's reply suggesting that you should address your complaints about this to the DCMS, the BBC Trust seems to be forgetting that it was the Digital Radio Working Group (DRWG) that recommended to Government that an early FM switch-off date be set, and the Government merely rubber-stamped the DRWG's recommendations. The main player within the DRWG was the BBC itself, and whether the DRWG made this recommendation or not was pretty much solely the BBC's decision, because the BBC had to agree to extend its national DAB multiplex to provide the same population coverage as FM does now, otherwise FM couldn't be switched off. The BBC obviously did agree to this, so the BBC and the BBC Trust cannot now conveniently hide behind the Government after they've just sold the public down the river.

The BBC Trust is also being incredibly hypocritical by passing the buck onto the Government anyway, because it repeatedly claims on its website that one of its main duties is to protect the BBC's independence from Government!

The BBC Trust should have held a public consultation about this prior to the BBC deciding that an FM switch-off date should be set. And if the BBC Trust refuses to hold a public consultation now, then it would be guilty of acting against the interests of licence fee payers — the exact opposite of what the BBC Trust is specifically required to do. The only

way that the BBC Trust could avoid — such an allegation would be if it could produce some evidence to show that the majority of the population is in favour of FM being switched off, but I think it's clear from the reaction so far that the public is strongly opposed to this happening.

So I definitely wouldn't be put off by the BBC Trust's disingenuous response to your letter, and I would urge yourself and others to complain to the BBC Trust about its decision not to hold a consultation. If the Trust never held a consultation, then to my mind the BBC would have no right to switch off its FM stations, because it wouldn't have received the consent of the public to do so. **SG**

IN DEFENCE OF DAB

I bought the September issue of Hi-Fi World after missing it for a few years and was glad to see that there has been no drop in editorial standards in the meantime. As a consequence I have missed most of the debate about DAB and FM radio, but would nevertheless like to express my opinion at this time. While I agree that the decision to scrap FM in only five years time is appalling and so environmentally wasteful, what with millions of usable radios having to be scrapped overnight, my own experiences with DAB have been positive. As I live within an uninterrupted mile of Alexandra Palace, perhaps I enjoy ideal conditions, (the signal strength readout is always 100%), but on the basis of my personal experience in the last three years I can suggest the following advantages of DAB:

[1] I Lo-Fi listening. I have a little Philips AJS 100 DAB/FM transistor type radio. When listening to the news, sport, etc. via DAB there is always crystal clear reception with no interference at all wherever I listen. Switch to FM and you are back to stations drifting, background noise and having to move the radio around to get the best reception. To me it seems to be a complete no-brainer that DAB is superior for this type of use.

[2] Hi-Fi listening. I use a Pure The Bug DAB radio in my main system. Although this was an inexpensive model, it does have an optical digital outlet, which I hook up to an Alchemist TSD-1 DAC. In comparison with my FM tuner, an old Musical Fidelity T1, (which I have connected to a roof aerial), with a relatively high-quality broadcast such as Radio 3 live music, I consider the basic sound quality to be only slightly below FM in my system. However, I now find the slightest noise on FM intolerable and so now always listen to DAB for preference (although it has to be with the external DAC).

I am always surprised when I read it suggested that FM is so much better for hi-fi listening, as in my experience the difference is marginal at most. Have you tried DAB via a combination of the best DAB tuner and a first-rate PCM DAC? I think this would give a good FM tuner a run for its money.

[3] Recording. My "The Bug" DAB tuner was designed as a bedside clock radio primarily and so it has alarm functions that I can make use of for recording late-night shows such as Jazz on 3 and Hear and Now, (a weekend Radio 3 programme devoted to avant-garde classical music). The combination of DAB and MiniDisc is I think a perfect match for the home recordist. I can conveniently put the MD player on standby and then set the DAB to come on at the appropriate time via its alarm function. With a little (very user-friendly,) editing, excellent recordings can be produced. I have a good Sony JA3ES MiniDisc player, and using the same DAC, the sound quality is very decent, nearly as good as CD. This system is way better than the classic home-recordist's setup of FM radio and cassette tape in my view.

As I was an LP Luddite who did not accept CD until around the turn of the century, I am surprised to find myself defending a digital medium. However I feel that, unlike vinyl, FM does not have sufficient compensatory advantages to be worth preferring over DAB. However that is just a personal opinion. The government should allow the public to choose (they are always talking about "choice" after all), and therefore guarantee the long-term survival of both formats. I do think that DAB has more to offer than your contributors seem to.

Jim Taylor, Wood Green,

London.

As you say lim, you are in Wood Green right next to the Alexandra Palace DAB transmitter. At Hi-Fi World towers in Kilburn and my home in Maida Vale, both a few miles away, DAB is impossible to obtain reliably, the signal being obstructed

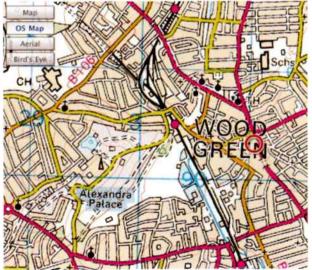
by Hampstead Heath, which is all—but 20ft higher than Alexandra Palace, the Ordnance Survey map at Multimap shows. DAB is susceptible to obstruction because it operates at higher frequency than VHF/FM, around 170MHz. For most people in the UK they will hear nothing at all, or 'burbling mud'.

DAB sound quality is fine for portables, but Radio 3 concerts sound 'crude' in their depiction of strings, to say the least, and this is down to MP2 data reduction, not something that can be ameliorated by using a quality DAC. It's difficult to accept that we should be happy to pay for an outdated radio system that will cost hundreds of millions to install, is difficult to obtain outside Wood Green (!) and provides no quality benefit. **NK**

Hi Jim. Your description of FM reception strongly suggests that the FM signal strength where you live is quite low, which would explain why you don't have as high an opinion of FM's sound quality as many other people do, because to get the best out of FM you really need to have a strong signal. For example, I may be lucky, but there's no audible hiss at all when I listen to any of the BBC's national FM stations either on a portable radio or via my tuner - and for the record, my DAB reception quality is very good on the BBC's national multiplex as well.

To perform a fair comparison of the sound quality of DAB and FM you need to have good reception quality on both systems, because otherwise the reception quality would affect the results. And I find FM sounds a lot better than DAB.

I think you also need to take



DAB reception is great in Wood Green, North London, next to the Alexandra Palace transmitter, but its rubbish a few miles away in Maida Vale says Noel..

into consideration the fact that you listen to Radio 3, which is the only UK DAB station to use 192 kbps, whereas 98% of stereo stations on DAB in the UK only use a bit rate of 128 or 112 kbps, and a fair number of music stations even use mono these days. Most of these low bit rate stations on DAB sound absolutely diabolical, and they shouldn't be ignored when making overall comparisons between DAB and FM.

However, as you're clearly a convert to digital, I'd suggest that you try out the new AAC live Internet radio streams on the BBC iPlayer, or the WMA BBC Internet streams available on Wi-Fi Internet radio devices, because they're both significantly higher quality than DAB – the AAC streams especially. **SG**

FAB FM

As someone who has been a life-long listener to BBC Radio broadcasts, on all four current channels and to the previous incarnations (Light Programme; Third Programme; Droitwich, etc, on Medium Wave and Long Wave), I am appalled to hear that the BBC is planning on turning off the current FM (and AM?) transmissions, in favour of the decidedly inferior DAB broadcasts.

Over the past thirty years (or more), I have built up a collection of very expensive hi-fi components, so that I might enjoy all manner of music, plays, opera, etc., at the highest possible quality; therefore to be informed that the BBC is planning on abandoning FM transmissions (to supposedly allow 'more choice' to its listeners), is unacceptable to me, given that it is well known and well proven that current DAB transmissions are of inferior quality (a fact known to the BBC for many years) and more importantly, will not be available to me on my current equipment.

I see no reason at all why I and millions of others like me, should be obliged to throw away perfectly serviceable radios and tuners (some of them expensive) solely for the benefit of the Commercial Radio Stations.

If I wish to listen to any of those commercial stations (which I do not), then I will gladly buy a DAB radio, but as I have no interest whatsoever in the rubbish they broadcast, nor the grossly inferior standards of their broadcasts, then I will save my money and continue to listen to those stations which serve my needs and play the sort of music I like, namely BBC Radios 2, 3 and 4 (I no longer listen to Radio I).

If the BBC were going to be saving any appreciable money by broadcasting their programmes in DAB, that would at least be understandable, but along with grossly inferior broadcast standards, at least one company has withdrawn any further investment in DAB because transmission and maintenance would be far more expensive and therefore, uneconomical, than maintaining the current FM stations. Sales of DAB equipment have been extremely poor, because of the dire lack of appropriate quality and the short distances the signals will reach, without installing thousands of extra transmitter masts.

There are still large tracts of Scotland and Wales where radio and TV broadcasts are difficult to receive and where mobile phone coverage is still non-existent. As DAB is going to require thousands more transmitters, to be able to cover the country and given the BBC's (and other service providers) blatant refusal to connect large parts of the country to such services and the Internet, then I can see even less justification for abandoning FM/AM in favour of DAB, as even fewer people will be able to listen to the radio programmes of their choice and millions more will be cut off entirely from any such services.

As the BBC Trust exists for the regulation of the BBC and in the Trust's own words, "works on behalf of Licence Fee Payers", then I think it appropriate that the Trust should call for a Public Consultation, to establish the needs and wishes of the Licence Fee Paying Public, as to whether or not they want to retain AM and FM broadcasts, on perfectly serviceable equipment, or whether they want the BBC to end FM transmission and replace them with the clearly inferior DAB transmissions, which will benefit nobody but the Commercial Radio Stations and the odd 'Minority Interest' listeners.

Finally, I shall also be writing to my Member of Parliament on this subject and also any other forum, which might be interested in hastening the demise of DAB.

R A Betts. Havant, Hants.

Couldn't agree more with what you say. I think the best thing to do at the moment would be to complain to the BBC Trust about its decision not to hold a public consultation about FM switch-off. The BBC Trust sums up its remit as follows http://tinyurl. com/bbctrust-complaint: "The BBC Trust is responsible for setting the overall strategic direction of the BBC, including its priorities. It is a requirement that the Trust performs this role in the public interest". The reaction to the proposals so far has clearly shown that the public is opposed to FM being switched off, so if the BBC Trust didn't hold a public consultation about this it would be acting against the interests of the public, which means it would be

disobeying its remit. The BBC Trust is also supposed to hold the BBC to account on behalf of the public, and it's about time it started doing that with regards to DAB, because the BBC has shown a blatant disregard for what the public wants on this subject over the course of the last decade. **SG**

I believe this is the only mechanism by which you are likely to get anyone to give your views any consideration at all. The BBC Trust is unlikely to consider the public view, only what it thinks is the public interest, which they decide, not us. No Government would be prepared to hold a referendum on this, given their dislike for referenda generally. That leaves only your local MP. You might like to send him/her a print out from www.savefm.org, which states the arguments succinctly. **NK**

PUBLICITY PLEASE

You may wish to give publicity (please!) to a group on Facebook campaigning to save FM radio. It needs more members! The group is called 'DAB Digital Radio is terrible - Save FM'. Thank you ever so much for championing FM and highlighting the serious shortcomings of DAB over the years in the pages of your excellent magazine (the only UK hi-fi mag I trust!).

Gordon Hamilton Facebook: http://www. facebook.com/noe.schitt

...AND AGAIN!

Would be possible to mention the Save FM campaign in the News section of the mag. I'd really appreciate it:

Steve Green http://www.savefm.org

RISING TIDE

I see a growing uprising against the planned FM radio switch off in various forums, see the Naim forum for example, it seems the masses are beginning to stir. A new petition is started and I encourage HFW to sign up @ http://petitions.number/10.gov.uk/AM-FM-Radio/

Unfortunately this petition is simply protesting against the switch off. I do not believe that we should be focused only against national high power FM broadcasting switching off as I think that will probably be inevitable considering the problems of overloaded radio band management. We all, including HFW and Steven Green, should be working towards and pressuring all concerned into replacing it with a digital system that is better in quality terms than FM, especially so on the channels with quality music and speech where it matters. I think we all agree that DAB

is not able to do this and that the government, Ofcom, BBC and associated working groups are in denial or at best procrastinating.

The key to the whole issue has to be the automotive industry. This has the largest volume of receiver sales by far and collectively has the clout to move political directions of all E.U. governments. Given that BBC DAB has significant problems even with domestic coverage in London, let alone mobile and country wide, to satisfy the auto market, we have to have 100% country wide terrestrial transmissions. Get that right and we might be halfway there.

So assuming Steven Green et al. are right and that Europe almost universally will not use DAB and that digital broadcasting of any sort will not be universally acceptable until it works properly in both car and home, the challenge has to be for all of us, but especially the car industry and the tuner manufacturers, to pressurise Number 10. This includes the new tenant moving in next year, plus Ofcom, the BBC and all associated groups into replacing it with the best possible digital system, and that is probably DAB+ or T-DMB using AAC.

Hi-Fi World readers should use this as a doorstep discussion point next spring when the politicians come around with the begging bowl?

Mike Oxford

My strictly personal view, which Steve Green does not share I believe, is that we do not need DAB at all, that enough public money (BBC license fee) has been wasted on it and we should call a halt. I am heartened that Germany has reached the same conclusion. Not one penny more should be spent on DAB, except for basic maintenance over say the next 10 years. By that time the technologies that overwhelm it will be obvious to all concerned. Digital radio to the home is already available from the internet, satellite and TV transmitters. Digital radio to portables, including car radios, will come from the mobile phone network. The VHF/FM network will continue to reach distant corners of Britain and provide both adequate variety and great quality. No one has to throw anything away and we are all spared great expense and wastage.

NK

Hi Mike, I completely agree that we should campaign for higher quality to be delivered via digital radio, although I personally don't think it's inevitable that the BBC will switch off its national FM stations, so I still think it's worthwhile campaigning about that.

I actually do agree with Noel that we don't need to use DAB, and I would personally be very happy to see DAB switched off tomorrow so that we could start afresh using a modern digital radio system that's combined with the Internet.

Personally, I would suggest that people who want to receive good audio quality on digital radio would be far better off listening via the Internet. The new AAC Internet radio streams on the BBC iPlayer are already higher quality than the BBC will ever be able to deliver via DAB+, and the same can be said for a large number of commercial radio's Internet streams as well. **SG**

I don't really care about better DAB, I just want analogue to stay alive. And if we must have DAB, then let it be a far more advanced system than the one we're being offered now, and more importantly let it not threaten FM; DAB should sit alongside FM/AM and not kill it. I'm sorry to say that this government is of the mindset that it knows what's good for us, and that's that. This is why I'm not optimistic that the 'Save FM' will get any kind of an airing from this government. The good thing is that, as you state, there's another lot trying to take their place and it's a great opportunity to bend their ears about it - whether you vote for them or not come next spring! So it's a case of pens poised, petitions at the ready, and let rip when the aspiring MPs come knocking on your door! DP

THE GREAT SWITCHOVER

Now we learn the Great DAB Switchover is due for 2015. Steven Green's comments about it in the August issue are spot on and once again I find myself in full agreement with him. Recently, long-experienced radio broadcaster Libby Purves wrote an article on this in The Times. It makes compulsive reading. And I truly recommend reading it. If you missed it, try Googling Libby Purves DAB article' or see http://www.timesonline. co.uk/tol/comment/columnists/libby_ purves/article6549533.ece Her article is headed 'Radio revolution will leave listeners in silence' and comes with the byline - 'Take-up of the costly and energy-guzzling DAB technology is so pathetic that we must fight for our beloved analogue sets'.

So well does this article cover the DAB owning experience, the green issues, and the stupidity of it all, that if you click to see all the comments you may, like me, be astonished. For there are no less that 195 of them! The very number is an indication of how emotive this subject is. They come not only from all over England, but Scotland, Wales and

Ireland; also from France, Belgium, Italy and the U.S. And guess what? Only a couble of them have anything positive to say about DAB. A copy of that article and those comments ought to be sent to every one of our M.P.s. and to Ofcom. It's what DAB owners have found out the hard way. Lack of station choice and lack of signal quality are the main issues. Sadly I've found out the hard way too. The only station (I want to hear) on DAB that I can't get on FM is Radio 7, but with its broadcasting in mono at 80kps, I'd prefer it on Long Wave or Medium, where I'd have no trouble picking it up.

But so much so for the hardware technology. But what about the software? Yes, the actual station content. Not much has been said about that. Despite promises of more listening choice do we really have that? My preferred listening is to the spoken word. If you happen to like sport and listening to 24-hour phone calls, you're well catered for. Interactive radio is not for me. I like drama and witty game shows. Despite the addition, even encouragement, of commercial digital stations, the BBC still has a monopoly on drama. Why is this still allowed? Where are the stations offering me a choice of drama? At the moment it means Radio 4 or Radio 7. Radio 4 is still discovering stereo. Its forty five minute afternoon plays consist of the left speaker talking to the right. What's more, the BBC are into 'relationship' plays. I like my plays to have plots. Twisted convoluted and clever thrillers. Comedies where I can follow what's happening. On top of that a Radio 4 controller made an announcement that plays had to be based on the news. Sure enough, we now find many plays set in Iraq. We're supposed to learn about the human condition. Sorry matey, that's the wrong way round. My decades of listening to plays have allowed me to escape from reality into worlds best imagined. Escapism is the thing for me, not reality. Comedy shows are mostly based on the news now too. Hard luck if you don't keep up with it.

Plays on Radio 7? Yes I'll listen to them, but I note that they're repeating many of the plays they broadcast last year, and other shows too. The chances are I heard the shows when they were broadcast in the 60s or 70s anyway. Here we are again...

So come on commercial radio, let's have some drama, some of this choice we're hearing about. Let's have some of that escapism, something to thrill, something to surprise, something to keep me riveted to my seat. Oh, one thing. I don't want to be asked to phone in afterwards to give feedback on what I thought of the play!



Price Points

Are all budget CD players much of a muchness? And even if not, is there any logic to their respective market positioning? Paul Rigby set out to answer the question, with reference to two brand new affordable silver disc spinners, in the shape of Cambridge Audio's Azur 650C and Rotel's RCD-1520...

hips are fattening, footballers are all greedy good-for-nothings and the seventies was a terrible decade. I'm generalising, you understand, as deep down I know that these assertions aren't strictly true. If you hand fry your chips, cut them thick enough to avoid fat absorption and cook 'em hot enough then they're fine. There are plenty of footballers playing in the UK whose only desire is to support their friends and family. And as for the seventies? Any decade that can give me Yes in their pomp, full size Curly Wurlys, Morecombe & Wise and deathly quiet roads on a Sunday can't be all bad...

Budget hi-fi is no different. This area of the market is often viewed somewhat condescendingly as 'cheap and cheerful' by hi-fi scribes who have the onerous task of listening to the latest dCS delectation [it's a tough job, but someone's got to do it, Paul. Ed.], but what with the prevailing economic climate, now more than ever, it's an important one. It's diverse

too, and the market for budget separates gets ever more crowded.

To get some perspective on this, we decided to put two new affordable CD spinners together. They both have fine pedigrees, and their manufacturers have excellent reputations amongst cash-strapped yet passionate audiophiles. Cue fanfare then for Cambridge Audio's new 650C (£350), and Rotel's new RCD-1520 (£695). At twice the price (nearly), the Rotel has a lot to prove; if it's not convincingly better than the Cambridge then it's not going to win many friends. But what of the Cambridge? If it's so obviously inferior, then many will add a couple of hundred quid to their flexible friends and go straight for the real deal! Suddenly there's quite a lot at stake for both companies, from this seemingly innocuous back-to-back review...

BACK TO BACK

It may be less than half the price of the Rotel but that doesn't mean that the Cambridge lacks quality.

Measuring 430x85x305mm and weighing 4.8kg, the 650C features a number of details which will find approval from any audiophile. For example, in the past, the company has used carbon film volume pots at an affordable price. Now, the 650C utilises ALPS black box plastic film pots which boast much better channel balance Another improvement over the 640C it replaces is the buffered input circuits that lower possible crosstalk problems and which should, all things being equal, improve the stereo imaging. Plus, alongside the improved capacitors and transistors, improved CAP5 protection circuitry is included that prevents your CD player blowing sky high if it comes across a peak in electricity it doesn't agree with.

There's another useful but little talked about feature that illustrates just how carefully this CD player has been designed. Like other products, the 650C provides a standby option, in this case known as Energy Star. However, as this machine requires less than IW whilst on standby,

there's a separate transformer in the 650C handling this, with a change-over relay. This means that when the 650C is in standby, the main transformer is completely isolated and disconnected from the amplifier and vice versa, so the standby feature doesn't affect the sound quality when on a proper.

The philosophy behind the construction of the Rotel RCD-1520 is intriguing. The company makes a point to say that it rejects the idea of employing surface mounting on its circuit boards because it prefers to have the freedom of swapping new

of swapping new and improved components in and out of its kit when the need arises. This is interesting because I have talked to competing

talked to competing hi-fi companies who much prefer surface mounted components because it results in shorter electrical pathways between components. All this just goes to show that everyone is right and the world is full of grey scales! Measuring 431x99x320mm and weighing in at a relatively heavy 6.5kg, the Rotel features a large toroidal transformer to give the CD player the power to relax and perform without any constraints as well as to minimise noise, plus the latest Wolfsen DACs for fine sound quality.

The main visual difference between the two CD players here is the transport. For while the 650C features a traditional loading tray, the RCD-1520 provides the user with a slot loading facility, which is a far nicer thing to use in practice. Although it's clunkier, the drawer loading mech of the Cambridge is the company's own design; they've put real work into getting the best, most stable platform possible at the price. Rotel on the other have bought in a mech, and then spent time fettling to give of its best, like Cyrus with the CD 8SE.

The other visual differences relate to the front and rear layouts. The front of the Cambridge keeps the controls down to those essential buttons required to get the CD up and running. The Rotel, on the other hand, adds many additional controls such as Time, Scan and Search. I did wonder why they were not relegated to the remote and if their inclusion affected the sound quality in a negative manner at all. The rear of the Rotel features just the essential outputs, with

Cambridge adding a variety of extras dedicated to multi-room control. Personally speaking, I'm baffled by such needless features.

In aesthetic terms, the Rotel looks considerably pricier than the Cambridge with a better finish and a greater sense of finesse - thanks in no small part to that lovely disc handling via the slot loader. But it's important to point out that the Cambridge is no longer the poor relation; its lavish brushed aluminium looks a lot more expensive than

registers struggled to cope with the information onslaught provided by the rest of the band.

In comparison, the twice-asexpensive Rotel added some focus, largely losing the lower mid bloom on the guitar solo which helped to track that complex recital and, while the Cambridge responded well in the upper registers, the Rotel added meat to the bones adding body and form. There was also a distinctly cleaner sound of the upper frequencies via the Rotel. The RCD-1520 provided

"here are two great CD spinners at their respective price points, showing that the more you spend the better it gets, and markedly so in this case..."

it really is, and certainly a whole step up from the previous 640C. Of course, neither approach the stratospheric build and finish of, say, a classic Japanese battleship machine, but it's no longer true to say that machines of this ilk look and feel cheap anymore.

SOUND QUALITY

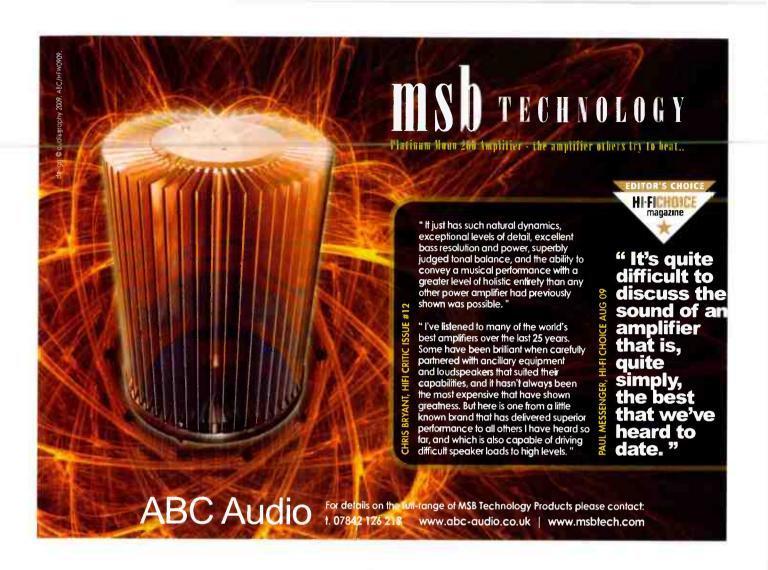
Kicking off with the Cambridge, it simply did not sound like I was listening to a £350 CD spinner. It's a good deal more svelte sounding than the 640C it replaces, which itself was the class of the budget field. Listening to Carol Kidd's jazz piece 'A Nightingale Sang In Berkeley Square', and the 650C hit the ground running with a weighty solo bass that was really substantial. Vocals were unforced, natural and wholly organic whilst the percussive cymbal delay sounded impressively realistic. A great start then, as the Cambridge simply didn't sound like a cheapo silver disc spinner. It was only when the song got more complex that it rather lost some of its focus. For example, during the acoustic guitar solo, the lower midband showed some bass bloom, as the lower

essential yet subtle details previously hidden such as impressive piano transients and the bending of guitar chords.

The 650C showed itself to have a smooth, gentle sheen and a full tone which flattered the Sugababes' 'Stronger' album, and it served up a gloriously sweeping array of synths and a punchy bass line. But it did struggle to nail the harmonic vocal performance, whereas the Rotel provided tremendous midrange insight and clarity in this region. Those same synth lines were carried better still, and its rendition of the bass proved both powerful and subtle; the RCD-1520 offered both punch and weight. I have to say that both CD players performed well in coping with the poorly compressed mastering of this track. Although I could hear it was a nasty production, neither provided an offensive noise that triggered hands over the ears. Each made the master at least palatable. That's good to know, and impressive from the budget Cambridge machine which is practically in a gang of one at its price in this respect.

Can's 'Yoo Doo Right' is a







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complex piece that highlighted the weaknesses of the Cambridge. The 650C found this excellently mastered track difficult to completely interpret. The delicately recorded and organic nature of the drums was partially lost in a confused muddle. And yet the vocal performance of the 650C was impressive, offering both emotion and refinement, reinforcing the perception that this is a CD player that takes upper registers in its stride. It was no surprise when both synths and guitars glided over the broad soundstage.

Via the Rotel, Can drummer, Jaki Liebezeit, suddenly found himself with a full and varied drum kit that all displayed differing tones, each with their own traits. In addition, the extra musical focus provided enough new space to allow a lower register synth line to appear, as if from nowhere. Now, even guitar feedback had a greater mass and a larger bulk that made the noise more interesting. For the first time, I was aware that something seemingly as formless as feedback was, in fact, constructed of multiple parts. The broadening of the instrument response also gave an extra dimension to the soundstage, adding depth and width.

CONCLUSION

The Cambridge is about as good as £350 Compact Disc gets, which is not as bad as you'd think. In absolute terms, it's a slightly coloured sounding device that's a bit opaque across the midband and treble, but it hides its problems very well. The result is that you could slot this into any system and enjoy its naturally musical gait, and overlook its sins (which are mostly those of omission). You can't say this about any other similarly priced CD spinner we've heard here at Hi-Fi World, so for

Cambridge Audio that is a result.

The Rotel, at nearly

twice the price, is not nearly twice better. But it is still substantially superior, and enough to start mixing it with sub-£1,000 machines. It's not in the league as our fave mid price machine. the Cyrus CD8 SE, but again you can listen to the Rotel and enjoy it, having lived with the Cyrus, and not feel you're in some way punishing yourself. It's a very open, detailed performer with a spry tonality and a nicely, naturally musical gait. It lilts along yet grips you too. The RCD-1520 showed a level of maturity that belied its price point. It had a tough fight, however. Overall then, two great CD spinners at their respective price points, showing that the more you spend the better it gets, and markedly so in this case.

VERDICT Excellent mid-price machine with a spry, crisp and detailed sound, allied to gripping rhythms and dynamics plus a peach of a slot-loading CD

ROTEL RCD-1520		£695
Rotel UK		
C+44 (0)1903 221	500	
www.rotel.com		

FOR

- insight
- clarity
- dimensionality

AGAINST

- nothing at the price

VERDICT

Super entry-level CD spinner with a warm, spacious and musical character allied to fine build and finish.

CAMBRIDGE AL	IDIO
650C	£32!
Cambridge Audi	0
C +44 (0)845 9	00 1230
www.cambridg	

- spacious treble
- musically lucid

- bass bloom
- muddy lower registers

REFERENCE SYSTEM

Aesthetix Calypso preamplifier Icon Audio MB845 monoblock power amps Quad ESL-57 (One Thing modified) speakers Chord Anthem 2 interconnects Chord Epic Twin loudspeaker cables Atacama Equinox XLPro SE Hifi Rack

MANA MARKE

MEASURED PERFORMANCE

The Cambridge has a smooth frequency response characteristic with just a slight lessening of output above 10kHz, not enough to make it sound soft or warm but it should be sufficient to avoid obvious sharpness in the sound. With low

frequency output extending down to 2Hz, the Azur 650C has plenty of bandwidth. Linearity was good through the player's range, distortion being as low as possible from 16bit code right down to -80dB, including a dithered signal that returned just 1.8%. EIAJ Dynamic range was wide as a result of good linearity, measuring 112dB.

Jitter measured a very low 10pS across the audioband with just a small increase above this low random level for signal related components. The digital

stream is effectively clocked and will have well defined sound domain definition. The Azur 650C turns in a tidy measured performance all round and will likely sound clean and easy on the ear. NK

Frequency response (-1dB) 2Hz-21.1kHz

Distortion	
0dB	0.0005%
-6dB	0.0005%
-60dB	0.2%
-80dB	4.3%

Separation (TKHZ)	HZUB
Noise (IEC A)	-115dB
Dynamic range	112dB
Output	2.3V

WE FREQUENCY/HE

500 1k Zk 5k 10k 20k

FREQUENCY RESPONSE

FFT CH1,

DISTORTION

8.20

roll off in low frequency output which measured -0.5dB at 30Hz and -5dB at 8Hz. It isn't quite enough to give the RCD1520 obviously light bass, but it may give it a slightly fleeter-of-foot quality. As this is an unusual characteristic how it will affect the player subjectively is difficult to predict, only listening tests can decide if there is a subjective impact. At high frequencies there is no peaking so the

An unusual feature of the Rotel is a slow

Rotel player will not sound bright or sharp.
Distortion levels were very low right
through the player's dynamic range, so
the EIAJ Dynamic range value is a high

The digital output possessed random jitter measuring 300pS and this suggests the digital signal could be better clocked for cleaner results.

The RCD1520 measures well but its unusual low frequency roll off may impact the sound. It will likely sound clean. NK

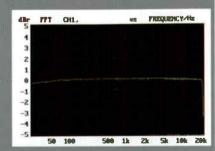
Frequency response (-1dB) 22Hz-21.2kHz

Distortion	
0dB	0.001%
-6dB	0.0005%
COUR	0.100/

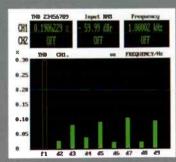
-80dB	4.5%
Separation (1kHz)	123dB
Noise (IEC A)	-112dB
Dynamic ranno	112dR

2.3V

FREQUENCY RESPONSE



DISTORTION



AGAINST

- lack of focus



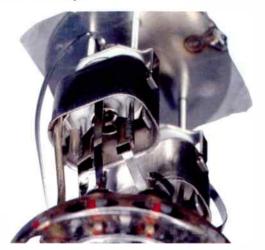
The double triode electrode assembly...

to facilitate
the release of
electrons when
heated by the
filament. Around
the cathode is
the grid, which is
a larger diameter
tube made of
fine mesh or a
spiral of wire that
the electrons
pass through to
reach the anode.
The anode is

an outer tube of metal that is the final destination of the thermionic electrons as they pass through the valve elements. This traditional electrode assembly is supported by two insulating mica washers; one at the top and one at the bottom of the cylinders. By making the anode positive with respect to the cathode, the electrons are attracted to it and their flow is controlled by a small potential applied to the grid. Simple!

However, Blackburn MicroTech Solutions has gone back to the drawing board and developed their own structure for triode assemblies. It is a completely new way of making triodes based on micro assembly techniques previously used in the CRT industry. The result, they claim, is more accuracy and most importantly more consistency. It is easy to see how different it looks from a conventional valve. The filament and cathode assembly, together with the grid, are located inside a metal can. Instead of being emitted radially as in a conventional valve, the electrons are directed through an aperture at the top of the can that has the grid laser welded to it. The anode that collects the electrons is situated on the other side of the grid just above the can and is in the form of a little metal 'top hat'. So the elements of the valve are of a planar construction, instead of the conventional radial design, which is strikingly similar to

the cathode assembly...



the design of electron guns used in CRTs. This is perhaps not surprising when you consider that the factory has been specialising in electron gun components for the past forty years...

This planar valve design results in a valve with very low capacitance and minimal structural restraint. The low capacitance bodes well for a valve with excellent high frequency characteristics. The fact that there is only one mica support at the top of the valve, instead of the more usual two, should reduce the mechanical



A close-up of one of the 'cans' showing the grid.

coupling of the electrode assembly with the outer glass envelope and, therefore, reduce colouration through acoustic feedback to the valve. However, this has to be balanced against the risk of microphony caused by a reliance on the internal structures for support of the electrodes. The term 'microphony' is used to describe the injection of a metallic ringing into the audio signal and is caused by mechanically-induced vibrations being transmitted from outside the valve to the electrode assembly inside.

Although the E813CC has the same electrical characteristics as the ECC83 and also the identical B9A pin base and 6.3V heater for each triode, it is constructed to much tighter tolerances for extended life and lower sample variation, Blackburn MicroTech Solutions claims. Due to the small surface area of the valve and the micron cathode and anode to grid distances, the internal capacitance is very low indeed, with a quoted grid to cathode capacitance of 0.4pF (25% of that of a traditional valve) and a grid to anode value of 0.9pF (50% of that of a standard valve). Finally, the filament of each triode consumes a mere 112mA This is about 75% of the heater current of a standard valve, so the valves should generate a bit less heat, which is a good feature.

SOUNDING OUT

Of course, 'different' doesn't necessarily mean 'better', so how exactly do the TechTubes stand up against the competition? After some extensive listening with my top-ofthe-range conventional audiophile valves (with a price tag to match!), it was time to swap the three ECC83s in my World Designs Phono3 phono stage with the new E813CC valves. Straight out of the box, they certainly sounded impressive in the lower registers. Bass performance was crisp, tight, punchy and well extended. The bass drum in Stravinsky's 'The Firebird Suite' (The Atlanta Symphony Orchestra - Telarc digital recording DG-10039) was quite breathtaking. Initially, the top end was slightly muffled and the midrange was not as clear as I had been used to; vocals were recessed in the sound stage and there was a general feeling of restraint. I was expecting quite the reverse, given the low capacitance construction, but after a few hours of running-in, the situation changed dramatically. Bass performance was unchanged, but the top-end reappeared from nowhere.

Following a full twenty four hours of running, the TechTubes had clearly bedded in well. All the muffling had gone and the valves produced a sound of effortless clarity and openness. Vocal soloists took up their rightful place in front of the orchestras again and electric guitars demonstrated fantastic speed and detail in all the harmonics. This is not to say that they are at all harsh. In fact, Blackburn MicroTech Solutions



The getter and mica upper support assembly.

seem to have achieved the wonderful valve smoothness without sacrificing clarity and detail. On jazz recordings, 'hi-hats' sound crisp, fast and sparkling. The bass notes in rhythm sections are clearly defined and well proportioned with the rest of the music.

A direct-to-disc live recording from the 1970s of 'Lincoln Mayorga and Distinguished Colleagues Volume III' (Sheffield Labs LAB-1 SL5/SL6)



A naked valve!

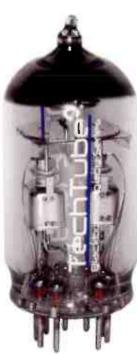
was scarily realistic and the TechTubes gave one of the finest reproductions of this LP I have ever heard. Similarly, with the vocals of Thelma Houston 'I've Got the Music in Me' on Sheffield Labs LAB-2 SL7/SL8, the overall balance, presentation and realism of the sound was superb. Again, the performances were thoroughly enjoyable providing a musical and tuneful presentation that is very easy on the ears. It was also interesting to note that these valves definitely run

cooler than their conventional counterparts. Even after constant running overnight, the case of my Phono3 was barely warm and you could easily grasp a valve with your fingers to remove it.

Now, a word or two about microphony. Blackburn MicroTech Solutions do put a 'Don't flick the tube' warning in their literature! This is all about flicking the valve with the fingers and the ringing that this will inevitably cause. They go on to say that this effect is perfectly normal and is a characteristic of the design. I was using the valves in a phono stage to amplify the very tiny signals from a moving coil cartridge, so any microphonic effects would be very apparent. It was noticeable that the valves, when new, were somewhat microphonic. However, this effect diminished substantially during the running in period, and when fully run in they exhibited less microphony than my existing audiophile valves.

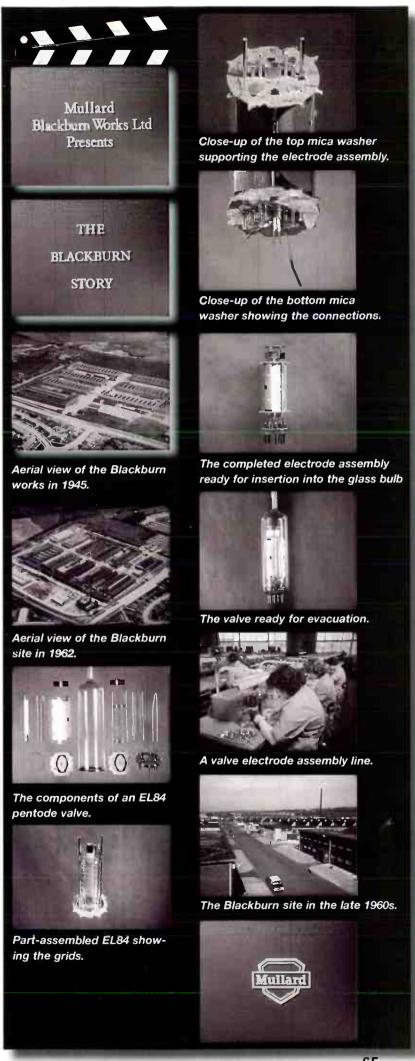
CONCLUSION

Retailing for around £30 per valve, the TechTube E813CC is certainly a winner. In the near future, the company is also planning to introduce the E812CC and E811CC valves as replacements for the ECC82 and ECC81 respectively. Further downstream, Blackburn MicroTech Solutions intend to produce replacements for the EL34, EL84, KT66 and KT88 power valves and investigate other valves of various types to assess their suitability for the new technology. We await all this with interest, and welcome this iconic company back into the thermionic fold,



The finished article - a TechTube E813CC!

Blackburn MicroTech Solutions (()+44 (0) 1254 507 317 www.tochtubevalves.com



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Pure and Simple

Noel Keywood loves Onkyo's budget wonder, the £500 TX-SR607 AV receiver...

s AV receivers go, the new budget TX-SR607 is dinky; I could almost lift it from its carton with one hand. Shelf space required is ittle more than that of a stereo amplifier, so small and cheap it may be, but lacking in ability it is not. Onkyo flaunt their skill yet again in the AV receiver field, where they are UK market leaders, by dropping out a lot of AV tat and giving us what matters, much of it concerned with audio performance. So if AV on a shoestring, with no big compromise to sound quality, takes your fancy, this receiver is for you.

In spite of the low price it is a full 7.1 receiver, and our tests showed more than 100 Watts from each channel so there's no lack of power. Two channels can be used for stereo in another room, making it 5.1. It can be run in 5.1 and the front loudspeakers bi-amped for better sound quality, so audiophiles haven't been ignored. Centre channel refuseniks like me can de-select it for room-friendly, better quality frontal stereo supported by quadraphonic surround sound. I notice that Onkyo even place the Centre terminal out of the main grouping, effectively ostracised! There is no phono stage and no Ethernet connection for internet radio, nor DAB, but there

is a VHF/FM tuner and an AM tuner. It will handle digital signals from CD, DVD and Blu-ray because 24/192 convertors are used. It will also play SACD in conjunction with the Oppo DV-980H player that plays SACDs and outputs DSD code,

Simplicity suits audio and, shorn of much AV clutter, the little TX-SR607 is well suited to those who want decent sound without the paraphernalia of AV, especially from THX because there are no THX cinema enhancement modes. There's a swathe of DTS modes however, plus the usual and expected synthesised effects such as Unplugged, Orchestra, Studio Mix and various Games modes. Onkyo also include Theater Dimensional to give surround-sound effect from stereo loudspeakers, as well as the DTS version called Surround-Sensation.

Gone also are multichannel inputs, so you cannot connect up any multichannel player using analogue cables, which obsoletes a lot of decent old DVD and SACD players. But the brutal truth is a good modern BD (Blu-ray Disc) player like the Samsung BD-P1600 now costs £150, plays everything except SACD and DVD-A and connects up using HDMI. The Oppo BDP-83 player can handle every disc format and also uses HDMI, so old analogue

connected players are getting to the end of their useful existence in this digitally connected world. The absence of multichannel analogue outputs simply means external power amps cannot be used.

Onkyo have also thrown out decent loudspeaker terminals, fitting shaky 1970s style screw posts that accept only bare wires and not 4mm banana plugs. The handbook says it has banana plug compatible 4mm posts, then appends a note saying they are 'prohibited' in Europe. I found the blanking plug inserts were not removable, even though I tried hard with various sharp implements. In contrast to these crude old connectors Onkyo have at last included a front panel HDMI input for HD camcorders. There are lines of HDMI inputs on the rear panel, all Version 1.3a, but gone are the lines of antiquated Composite and S-Video inputs and outputs that festoon every receiver - thank the Lord! Component video still gets a look in though: inputs and an output for a monitor are fitted.

In spite of the price the TX-SR607 has full processing from HDMI (i.e. it is not pass through) and it will decode losslessly compressed Dolby TrueHD and DTS-HD Master Audio from Blu-ray discs. It also has Dolby Digital Plus, an updated version



of standard Dolby Digital (AC3) surround-sound common on DVD.

Surprisingly, Onkyo have also fitted new Dolby ProLogic IIz, in addition to IIx. The Dolby Pro Logic system turns stereo into surround-sound by vector addition and subtraction of Left and Right channels. It works well with many CDs, if not all, and gives interesting results with matrix encoded TV sound I have found in the past. With 'z' Pro Logic synthesises frontal height information, bringing height to the forward soundstage, but to appreciate it you must fix loudspeakers to the walls and lead wires up to them! Somehow I don't think this will find many takers. Whilst this potentially gives 9.1 channels, the receiver has only 7 amplifiers onboard so Back loudspeakers must be forfeited if frontal 'heights' are used (see p16 of handbook). Since few Blu-rays have discrete 7.1 soundtracks, Back information is usually synthesised from the Surround channels in any case, so owners can choose between synthesised Back or Height channels.

DTS have a similar system to Pro Logic IIx called Neo 6 and it is included on the Onkyo. A full list of DTS processing schemes for those interested can be found on p67 of the handbook available at the Onkyo website too loud for effect, so they dominate, and it also boosts the upper midband to enhance detail and presence. I could hear this when switching from Direct to Stereo, but I also confirmed what was going on with a spectrum analyser, as I have done before. Audyssey can be switched out permanently and I prefer to do this, or it gets knocked out automatically by selecting Direct or Pure Direct, both of which bypass the internal DSPs that apply Audyssey correction.

Onkyo include tone controls and a five-band equaliser for those who would prefer to make their own adjustments and, as always, I set by ear and tape measure, and listening was in Pure Direct.

Connecting up the TX-SR607 was a fiddle as initially I had to abandon my usual Van den Hul Royal Jade front cables with their fixed 4mm plugs and make up heavy duty OFC Shark cable from Maplin but it was audibly a bit vague and incohesive, so I had to abandon it. Looking at the problem again I found I could squeeze 4mm plugs into the lower row of speaker terminals from below, and from the upper ones from above, as the entry holes are just big enough, so the Van den Huls were back in. Connecting up wasn't confidence inspiring because the terminals shook like a turkey at the approach of Christmas and the

Onkyo's usual fare; quite why I don't know. Cheapy receivers usually come out of China and Taiwan (the factory producing U.S. brand Sherwood told me they make most of them) and the menus looked like a tarted up form of some basic proprietary menu layout. However, the TX-SR607 is made in Malaysia and has the stamp of Onkyo's design standards on it, including a very good VHF tuner and analogue output stages that run hot, suggesting they are strongly biassed into Class A in a Class A/B system. This reduces crossover distortion and makes for a smoother sound at low levels. I was surprised at the heat streaming out under ordinary usage, but this is a feature of Onkyo receivers; the '607 was almost a match for my 300B valve amplifier!

Set up was easy enough, if not quite as easy as that of their more expensive receivers. Happily, the European version has a Pure Direct button on front which turns off the displays. There is also a Direct mode that similarly routes signals straight through without turning off the front display, bypassing the input ADC for analogue inputs, such as an external phono stage for example. The remote cycles through Pure Direct and Direct, amongst other selections and this was irritating. I like a Pure Direct panic button! But favourably, the remote also recognises cinema, audio and games buff requirements and separates them out, which is an excellent feature.

As always Onkyo make tuning the VHF/FM receiver easy, from the front panel and the remote. The tuner has a mono mode which lifts noise muting so weak, distant stations can be received and there are 40 presets that can be allocated between FM and AM. The VHF/FM section has Radio Data System (Europe only) and will display radio text to identify stations - a useful feature I find, I had twelve London stations entered by frequency (to avoid weak relay transmitters) within a few minutes, Onkyo's tuning system was so easy to use - unlike many.

The receiver will also work with Onkyo's UP-AI iPod dock and then the remote control can control the iPod.

Onkyo fit a video upscaling unit to turn low res. DVD pics into hires for 1080 TV screens, but since most modern Blu-ray players already have internal upscaling I am not sure it is especially important. A decent Samsung BD-P1600 costs just £150 from HMV and other outlets and will play CD, and upscale DVD. If you want to play SACDs and DVD-As as well then an Oppo BDP-83 (£520) is

"A modern receiver devoid of superfluous tat, it is remarkable value and something of an eye popper quality-wise. I don't know how Onkyo do it..."

Audyssey room tuning is fitted, with automatic equalisation in addition to the usual loudspeaker identification, level and distance settings. Unfortunately, the equalisation applied is not shown, although all other parameters are and were, as usual, spot on correct. It judged my speaker distances correctly and that I was not using a subwoofer, but that I was using full range Surrounds and Backs. As I have found before though, Audyssey sets the Surrounds

VHF aerial lead fell off immediately I plugged it in, because the panel plug was slightly undersize; I had to dress my stiff, twin screen coaxial aerial cable to force it on. At least the HDMIs were a decent fit, so the cables didn't fall out even though they are high quality, stiff Monster cables. With just one HDMI TV output owners won't be faced with a blank screen at switch on, something that can happen with twin outputs.

The set up menus are unlike



the weapon of choice. There are both optical and coaxial digital inputs of course, for connecting CD players.

SOUND QUALITY

Spinning Carlos Santana's Supernatural DVD-A in 24/96 PCM from an Oppo DV-980H player showed the TX-SR607 to be talented. It isn't as smooth. cohesive and svelte as

Onkyo's more expensive models, nor the Marantz SR-8002 I use, but it isn't far off. And in essence it is clear. dynamic and entertaining in the usual Onkyo style, Santana's guitar having most of its stark and sharply outlined presence, maracas coming from right rear from this 24/96 recording. Deep bass oozed out from the B&W 683s and '5s, showing the receiver has as much low end grunt as its more expensive brethren.

With the Trondheim Soloists Divertimenti SACD the Onkvo constructed a beautifully smooth

sound field all around me. With this recording you sit in the ensemble and I really couldn't fault the TX-SR607 at the price. It revealed the characteristic smoothness of DSD code and I was impressed to see DVD DSD appear on the display when I polled it with the remote. Few receivers at any price resolve DSD so well and I enjoyed a wide range of classical SACDs through the Onkyo, always appreciative of its smoothness.

With Blu-ray from a Samsung BD-P1600, 24/96 recordings from Chris Botti, John Meyer and Elton John all sounded wonderfully clear and yet full bodied in typical Onkyo fashion. The 24/192 Divertimenti recordings in PCM and DTS-HD Master Audio played perfectly too, with lovely bite to the strings yet deep resonance from the violin bodies, especially evident with PCM. Unfortunately, Dolby TrueHD played at an obviously lower level than PCM or DTS-HD Master Audio and it seemed a bit lacking in body. However, Nine Inch Nails and John Meyer concerts in Dolby TrueHD played fine, both having plenty of low end punch so this may have been a disc related problem.

The VHF/FM tuner was superb in every respect. In particular it resolves low end information well.

giving the bass good body and resolving the atmosphere of studios with live speech. Listening to Radio 4 I was made very aware of all the differing backgrounds to recordings of Russian and Georgian views on South Ossetia, as well as hiss free silences when the studio switched back to the presenter. Magic and Absolute came in in superb quality, as did Classic FM. The remote will step up and down the presets, or station numbers can be selected directly from the keypad. For those appreciative of VHF/FM quality this tuner is a very good one, better than most 'hi-fi' separates I have heard. Only Creek do it better. I can't help feeling someone at Onkyo listens to VHF/FM, and enjoys it.

CONCLUSION

For the price, the TX-SR607 is remarkable. It offers more than receivers costing twice as much. Sound quality is extremely good from every section and excellent from SACD. This is a modern receiver devoid of superfluous tat, yet able to cope with legacy formats: in conjunction with an Oppo BDP-83 it can play everything, and very well. It is remarkable value and something of an eye popper quality wise. I don't know how Onkyo do it.

VERDICT



A budget AV receiver that offers fine results all round, amazing at this

ONKYO TX-SR607 Onkvo UK C +44(0) 1494 681515 www.onkyo.co.uk

FOR

- handles all digital formats
- good VHF/FM tuner
- SACD

AGAINST

- shaky speaker terminals
- unlovely appearance

MEASURED PERFORMANCE

Small and cheap it may be, but the TX-SR607 produced no less than 120 Watts into 8 Ohms under test, and even more into 4 Ohms - 180 Watts. It soon ran hot when pushed this hard; the heatsinking inside is limited and relays tripped after a short period of 15 secs or so to limit output, but it survived heavy testing all the same. So this receiver has the power to drive almost any loudspeaker.

Distortion levels were low, reaching a maximum of 0.03% at 10kHz. The harmonic structure was extended and crossover dominated all the way up the power scale, so treble may lack real sweetness.

An analogue input signal through the A/D could not exceed 2.2V, a limit avoided by selecting Direct or Pure Direct. Whilst noise was low in these modes, it rose to 84dB through the input ADC. Input sensitivity was very high at 200mV so the Onkyo will accommodate external low gain phono stages;

Frequency response of the VHF/FM tuner measured flat to 10kHz and is very accurate. There is an mpx filter to remove pilot tone at 19kHz, introducing -58dB rejection. Hiss was low at -70dB (IEC weighted) at full quieting but the TX-SR607 needed a high 1.8mV (p.d.) from the aerial to achieve this - double the usual 0.8mV or so, so it is insensitive and needs a decent aerial for minimum hiss. Measured IHF 50dB stereo sensitivity was poor at 120uV,

Frequency response for CD through the D/ A convertors via the optical S/PDIF digital input

was absolutely flat, reaching 21kHz (-1dB). Distortion was low too, measuring 0.21% at -60dB. With high resolution digital (24bit PCM) just 0.05% distortion was measured at -60dB, showing the SR607 is able to resolve high resolution digital audio. Bandwidth with 96kHz sample rate extended to 48kHz (-1dB) and 192kHz to 90kHz our analysis shows - exceller results. Sadly, with DSD code from SACD bandwidth reached just 22kHz (-1dB), a poor result. SACD almost matched PCM linearity at -60dB returning a 0.08% distortion figure - some consolation. It should sound smooth as a result. The TX-SR607 measured very well in

nearly all areas. The VHF tuner is insensitive but will sound good with a decent aerial. SACD wasn't reference quality, bit it was decent all the same and high definition digital from BD will sound very good. NK

120 Watts Frequency response 0Hz-122kHz Separation 80dB Noise (A/D, Direct) Distortion -84/-102dB Damping factor CD/DVD/SACD

Frequency response (-1dB) Separation Distortion (-60dB)

2Hz-21, 48, 90kHz 88dB -105/107/108dB 0.21, 0.05, 0.08%

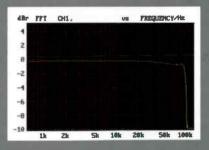
Frequency response Stereo separation Distortion (50% mod.) Hiss (CCIR)

Signal for minimum hiss Sensitivity (stereo)

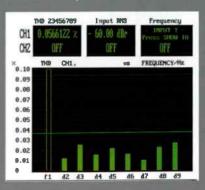
VHF TUNER

10Hz-10kHz 40dB 0.15% -70dB 1.8mV

FREQUENCY RESPONSE 192k



DISTORTION, 24bit





Jordan Acoustics

presents

MANIEV marantz

freephone: 0800 121 4771 or 72

e-mail: ask@jordanacoustics.co.uk









The Stingray is legendary throughout the world...

Stingray iTube:

The Manley Stingray iTube

retains the same basic tube circuitry and marvellous output transformers as the original with some important improvements, such as an iPod dock and full featured RF / IR remote control.

With the Stingray, the MANLEY team has struck a remarkably

harmonious balance in design, which satisfies the sonic desires of the audiophile and the rocker. the artist and the musician, the student and the master, the yin and the yang.

"Even if you don't own an iPod. the Stingray must feature on any list of integrated amp contenders in the £2k-£3k region. The triode vs. ultralinear option,

the magical sound, the superb construction - it's a delight.

But the way it exploits the iPod so perfectly, addressing every function, multiplies its appeal logarithmically. Neater than any external dock, the Stingray is the valve lover's ideal entrée into the 'new world."

Ken Kessler, Hi-Fi News Sept 09







Ken Ishiwata's 30th Anniversary Masterpieces are here...

When you first encounter the new KI Pearls, the first thing you notice are their unique 'Silk Pearl' finishing. The first of its kind in fact for Marantz. But it's the magic that Ken Ishiwata has created inside the box that really gets the pulse racing. He has built-in everything possible to ensure that the music is reproduced exactly as the original artist and recording engineer intended.

SA-KI:

"Fed all manner of SACDs from Mobile Fidelity, Linn, Telarc and other admirable die-hards, the SA-KI showed itself to be a thoroughbred player reminiscent of the far costlier Esoteric devices, though the voicing differs. Marantz itself used the adjective 'silky' to describe the Pearls' black finish."

Ken Kessler, Hi-Fi News Sept 09

PM-KI:

"The phono stage was open, quiet and precise, especially the MM setting, and in every sense - from vinyl to CD to SACD - the bass was consistently quick. Decay or transient stops down below were as progressive or abrupt as required, nigh on perfect, while well-recorded bass drum kicks were reproduced with a vividly detailed sensation of pedal, hammer and skin in motion."

Ken Kessler, Hi Fi News Sept 09



SERIES: All Manley and Marantz models available. Large range on permanent demonstration.

Visit www.jordanacoustics.co.uk to view all products and finance deals available. World Radio History



WIN A SUPERB CYRUS 8 XP D INTEGRATED AMPLIFIER WORTH £1.500 IN THIS MONTH'S GREAT **GIVEAWAY!**

ere's your chance to win one of the best modern integrated amplifiers, the Cyrus 8XP d, complete with digital input card option, which received a rave review in the August 2009 edition of Hi-Fi World magazine! Here's what David Price said...

"After the success of its Servo Evolution platform CD players, Cyrus's next move is to the new frontier of modular amplifiers. The company is now offering its amplifier range in XP guise, using a preamplifier based on the same circuit topology as its £2,275 DAC XP. Cyrus's Peter Bartlett notes that, "although the XP preamps are not fully dual mono like the DAC XP, the components and layout are based on the same concept the more expensive model. This has allowed us to expand the tuning of the sound to be more open than the vs2 models". This means that the component budget's much higher than the previous vs2 version of the Cyrus integrated amplifiers. There's also the option of a digital

board, indicated by a 'd' suffix which provides two S/PDIF and two optical digital inputs, plus a newly developed USB input designed to work with a computer, making nine inputs in total. All these are easily selectable on the front panel of the Cyrus 8 XP d, or via the remote. The new model also has a new power supply section that now has many levels of regulation for the amplifier plus a separate toroidal transformer for the control sections. There's also the option of a PSX-R power supply.

The basic analogue section of the amplifier is a step change over the previous 'vs' incarnation. ELO's 'Last Train to London' showed real clarity, a vanishingly low noise floor and a conspicuous lack of muddle. The new XP version continues to be dry, but is augmented by extra detail, air to the treble, and superior dynamics. In crude terms, it feels like a veil has been lifted; the amplifier takes you a little closer to the band, giving more strongly defined soundstaging and a far more positive centre image to vocals. The new integrated gave a

very powerful rendition of 10cc's 'l'm Mandy, Fly Me', with a taut driving bass line, a wide open midband and very crisp, spry treble. It showed absolutely no sign of forwardness even through my ever-so-slightly bright Yamaha NSI 000M loudspeakers, proving that this is a very svelte integrated amplifier indeed. There was also a great sense of space via the Cyrus; maybe it's a little more laid back rhythmically, but there's no sensation of having the music forced at you. This makes it a very amenable long time listening companion. As a standalone amplifier, the Cyrus 8 XP is noticeably improved from its previous incarnation, gaining a wider dynamic range, greater speed and more natural musical flow. The d module adds a very useful digital to analogue converter that makes every digital source I tried (including computer audio via USB) sound crisp and rhythmically engaging, and feed it a serious source like Cyrus's matching CD XT SE transport and it really flies. Overall then, this is a great new modular amplifier that's completely in tune with the exigencies of modern life."

For a chance to win this great new product, just answer the following four easy questions. Send your entries on a postcard only by 30th September 2009 to: October 2009 Competition, Hi-Fi World magazine, Unit G4, Argo House, The Park Business Centre, Kilburn Park Road, London NW6 5LF.

QUESTIONS

[I] What is the preamplifier topology based on?

[a] Cyrus DAC XP [b] Linn Sondek LP12

[c] Roksan Darius [d] Audiolab 8000a

[2] Is the new component budget...

[a] much higher?

[b] lower?

[c] about the same?

[d] none of your business?

[3] What's the digital input board called?

[a] 'd' [b] 'i'

[c] 'SE'

[4] Match the 8XP d to what Cyrus prod-uct for best results?

[a] CD XT SE

[b] Mission Cyrus 2

[c] Cyrus DacMaster [d] Cyrus CD3

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

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

entries will be accepted on a postcard only

JULY 2009 YAMAHA CD-S700 CD PLAYER & A-S700 AMPLIFIER WINNER: Ms. V. Zeitoun of Lancashire

Visit Hi-Fi World at the National Audio Show, on September 26th & 27th 2009

Held at Whittlebury Hall, near Silverstone, UK.

Come to our demonstrations of LP versus CD and much else.

Hi-Fi World will have a stand at the National Audio Show and will be:-

- Holding demonstrations of LP versus CD and hopefully other topics too.
- Come and hear publisher Noel Keywood of Hi-Fi World talk about and demonstrate the latest and best hi-fi to you.
- Also there to talk will be Martin Colloms from The Audio Critic.
- Peter Comeau, Senior Engineer of the International Audio Group.

As in the past we expect to have some interesting products running and a full room of eager listeners. It will be simple

and enjoyable so do join us if you can. We'd love to see you.

A popular Hi-Fi World demonstration at Manchester with Tannoy Westminsters and B&W 801Ds.

The National Audio Show



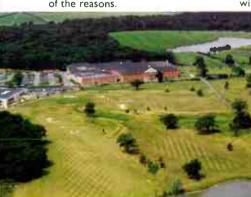
2009

WHITTLEBURY HALL – NORTHANTS 26th – 27th SEPTEMBER 2009 UNITED SUPPORT FOR THE NEW VENUE

Written by Chester Group.

he National Audio Show 2009 is now well on its way to being a great success. Having uprooted itself from its traditional location at Heathrow in September and moved to a brand new location just north of the M25 this was a major decision jointly taken by the UK trade, and the organizers who've been consulting with them since day one. Whittlebury Hall Conference and Exhibitions Centre has been inspirational for all those who have visited it on the many open days organized by the Chester Group; virtually every company who's attended has booked their suites or space on the day. The exhibition will be based on two giant floors, the ground floor of which is now full, as is much of the trade space which fronts the show.

The first floor is now 75% occupied and the organizers confirm that they have ample leads to accomplish a sellout. They also report that despite the state of the economy sales at this point are well ahead of last years show. Here are just some of the reasons.



FREE PARKING FOR UP TO 500 CARS.

Twice as many demonstration Suites. Over 500 square metres of trade space. 1,500 square metres of event space. Shuttle bus service from Milton Keynes and Luton Airport plus Stagecoach service from Oxford and Northampton. Great arterial access from the M40 or M1. Huge range of offsite attractions, towns, events

and sports activities going on in this beautiful part of Northants including a magnificent on site Golf Course. Accommodation packages start from £89, which means our visitors really can make this a complete weekend's indulgent entertainment.

Renamed the National Audio Show the organizers were adamant the show be designed to appeal to all age groups, hence the name update and the fact that the show will cover all aspects of both static

> and portable audio. Clinics, Media Demonstrations, book signings, world product launches, huge record fair will complete the picture and to cap it all a great exclusive concert on the Saturday evening; for the star attraction see our website.

A NATIONAL EVENT

One message that has been played again and again throughout the trade for some



time is "why can't we have a single National Audio Show in a central location that can unite the trade" Well, the organizers think they have now achieved that now.

Opening times are confirmed as 10.00am - 5.00pm on the Saturday and 10.30am - 4.00pm on the Sunday. Advance tickets will be available 'only' from Chester Group's website from the 19th August and uniquely this year will cover four interest groups. Those that prefer to pay on the day, Concession for our regular visitors, Bring a Friend and of course the Family ticket. The organizers stress that because of rising postal costs it's simply no longer possible to send tickets out in the post. A complete show guide and update. www.chestergroup.org. will be downloadable from the middle of September (as usual free) For further information call Justin on 05601 126407

or email; justin@chestergroup.org

WORLD NDARDS

These are the best products we've heard that are currently on sale in the UK, complete with the date they were originally launched and their current retail prices.

TURNTABLES

Great sound per pound.

PRO-JECT GENIE 2 2008 £175 A masterpiece of minimalism, this is well made for the money and includes a decent Ortofon OM3 moving magnet cartridge.

REGA P2 2008 £220

Some say the cheapest real hi-fi turntable money can buy - excellent value for money engineering, easy set up and fine sound.

TECHNICS SLI200/II 1973 £395 Slick build makes it a respectable performer, although the cheapo arm limits it - fit a Rega RB250 and it's suddenly a brilliant mid-price machine.

2008 **REGA P3-24** £400 Seminal affordable audiophile deck with fine bundled tonearm. Tweakable, and really sings with optional £150 outboard power supply.

MICHELL TECNODEC 2003 £579

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



ROKSAN RADIUS 5 2003 €750 Fantastic value allied to intelligent, interesting and 'out of the box' design makes for a wonderful entry-level superdeck. Open and musical sound is more inviting that Michell TecnoDec rival, and the bundled Nima Unipivot arm is a superstar.

FUNK FIRM VECTOR II 2009 £860 Innovative engineering gives a nimble, pacey and musical sound that's one of the best at the price.



MARANTZ TT-15SI 2005 €999 Cracking deck/arm/cartridge combination, this must surely be the best sounding 'plug and play package at this price point.

MICHELL GYRODEC SE2005 £1005 Design icon with superlative build and finish. Sound is beautifully smooth, effortless and exceptionally expansive. No longer peerless at the price, but still a brilliant platform.

AVID DIVA II

2008 £1,200 Commanding performer with great speed, dynamics and detail allied to an expansive

ACOUSTIC SOLID CLASSIC WOOD

soundstage; surely the one to beat.

Majoring on impact, punch and drive, this is an impactful mid-price turntable in sonic terms as well as physical size.

PROJECT RPM 10 2006 £1,500

Brilliant 'fit and forget' deck that gives everything it plays a clean, warm, enjoyable sound - but not quite as effective in absolute terms as some price rivals.

REVOLVER REPLAY 2007 £1,500 Revolver spring back into the vinyl market

like they've never been away, with a stylish and solidly built LP spinner. Welcome back!

SCHEU ANALOG BLACK 2007 €1.500 DIAMOND

Stylish and highly capable turntable with seriously impressive bass. Comes with tweaked RB2S0 and high output Benz Micro MC cartridge as a package - superb value for money.

THORENS TD2030 2006 £1,895 Excellent design and a supplied Rega RB300 make this a highly capable vinyl spinner. Blue tint to the Perspex base is rather pretty, too!

MICHELL ORBE 1995 £2,500

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



LINN LP12SE 1973 £3,510

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

SME MODEL 10A 1995 £4,556 Exquisitely engineered deck and SMEV tonearm combo that's an extremely accomplished performer with classical music.

CLEARAUDIO REFERENCE 2003 £4,000

The company's best value vinyl spinner; good enough to get the best from almost any tonearm and cartridge combination. Brilliantly open and neutral sound; superlative pitch stability; stunning build and styling - Michell Orbe does most of this at half the price, however.

ACOUSTIC SOLID ONE 2007 £4.000

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

AVID VOLVERE SEQUEL2007£4,600

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

McINTOSH MT10 2008 £8,995

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

EAT FORTE 2009 £12,500

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

TONEARMS

REGA RB251

1984 Capable way past its price point, the new 3-point mount version of the classic RB2S0 serves up a taut and detailed sound. A little lean for some tastes, but responds very well to rewiring and counterweight modification.

MICHELL TECNOARM A2003 £442

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



ORIGIN LIVE SILVER 2006 £599

This expertly fettled Rega boasts a superbly even, transparent and tuneful sound. Gives away only a small degree of finesse and dimensionality to top arms.

HADCOCK 242 SE 2000 £649

Latest of a long line of unipivots, with added mass, revised geometry and better finish. Musical like no others at the price.

1989 **SME 309** £767

Mid-range SME comes complete with costcut aluminium armtube and detachable headshell. Tight, neutral sound with good tonality, but lacks the IV's pace and precision.

SME SERIES IV 1988 £1,127

Offers nine tenths of the SMEV's magic at just over half price. Exquisitely built and finished, and a design classic. Faces stiff competition these days, but lovely nevertheless.

AUDIO ORIGAMI PU7 2007 £1,300

HFW's best tonearm of 2007 is a derivative of the classic Syrinx PU3 updated to spectacular effect. Hand made to order, with any mass, length and colour you care for. Fit, finish and sound truly impressive.

NAIM ARO 1987 £1,425

Charismatic unipivot is poor at frequency extremes but sublime in the midband; truly emotive and insightful.

HELIUS OMEGA 2008 £1,595 Stylish and solid lump of arm with fabulous

Stylish and solid lump of arm with fabulou build quality, that turns in a dynamic and weighty performance.

SME SERIES V 1987 £1,614

The so-called Best Pickup Arm in the World isn't quite, but comes pretty close. Vice-like bass with incredible weight, ultra clear midband and treble. Does everything except beguile the listener.

LINN EKOS 1987 £1,700

Subtle mods over the years, including revised bearings and the recent new wiring has kept it a serious contender in the superarm stakes. Lacks the SME's slam, the OL's clarity or the ARO's emotion, but has a feisty musicality all of its own.

GRAHAM PHANTOM 2006 £2,495

Sonically stunning arm with magnificent bass dexterity and soudstaging. Build quality almost up to SME standards, which is saying something...

ORIGIN LIVE CONQUEROR 3C 2002 £2,650

Latest carbon tubed version of OL's penultimate arm is a breathtakingly capable device with a dizzyingly fast and neutral sound.



TRI-PLANAR PRECISION2006 £3,600

Stunning build, exquisite design and surely the most naturally musical and lucid sound around makes this a remarkable pickup arm.

CARTRIDGES

AUDIO TECHNICA AT-110E

1984 £29

Great starter cartridge that's refined, detailed and musical beyond its price.

ORTOFON 2M RED/BLUE

2007 £60/£120

The first new budget MM designs for many years, Ortofons 2M Red and Blue are high resolution designs that are an engaging listen





GOLDRING G1042 1994 £135

One of the best MMs going, with sweet and extended treble and punchy, muscular bass.

ORTOFON SAMBA/SALSA 2006 £150/£200

Fine cartridges that offer that MC magic at an affordable price. Samba is more dynamic and forward, Salsa rather smoother but both are great performers and track well.

DENON DL103R 2006 £200

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

DYNAVECTOR DVIOX52003 £250

A distant descendent of the classic Ultimo 10X, this has warmth and sweetness in spades, allied to a punchy bass. Beats G1042 comfortably.

AUDIO TECHNICA AT-OC9MLII 2007 £399

New and improved stylus and cantilever plus serious price reduction equals stunning dynamics and clarity. A real bargain

ORTOFON 2M BLACK 2007 £350

Staggeringly good high-end MM that uses a stylus from the MC Jubilee and easily rivals similarly-priced MCs

DYNAVECTOR DV20X-H2003 £395

The best modern budget MC combines deliciously sweet sound with fantastic getup-and-go. High output version works a treat with valve phono stages too.



LYRA DORIAN 2007

Incisive and musical, the Dorian is one of themost revealing cartridges at the price.

ORTOFON KONTRA' B1999 £720

Surprisingly articulate performer by Ortofon standards. All the brand's usual polish and detail allied to real vim. Loves making music!



ORTOFON RONDO BRONZE

2005 £500

£495

Excellent mid-price moving coil with real rhythmic alacrity and a decent deal of finesse.

ZYX R-100H 2005

Exceptionally tight sounding and detailed cartridge with the musical skills to match, this is up with the very best at the price, with a presentation all of its own.

BENZ MICRO GLIDER L2 2008 £650

Crisp, clean and detailed MC; particualrly impressive at both ends of the frequency spectrum

TRANSFIGURATION AXIA 2007 £89

Musically adept and highly resolute cartridge with impressive tracking abilities. Top end lift means careful matching required, however..

ORTOFON KONTRA" C2004 £1,000

The most secure tracking MC we've heard; its super clean, fast, detailed and neutral sonics make it a brilliant partner to warmer sounding turntables.

ORTOFON MC WINDFELD2008 £1,799

Ortofon's new flagship MC is a sophisticated and alluring performer that takes the vinyl experience to a new level.

KOETSU RED K SIGNATURE 2007 £2,399

The new K Signature adds a hefty dose of insight and finesse to the already impressive Red and the results are fabulous

DIGITAL DISC PLAYERS

CAMBRIDGE AUDIO

640C V2 2006 £25

Superb entry level CD player; crisp, composed, musical sound plus fine build and ergonomics.

REGA APOLLO 2006 £498

Highly rhythmic and beguiling performer, although lacks some warmth of tone. Superb ergonomics and design

RUSS ANDREWS

DAC-I USB 2007 £599

Not just a USB gadget, but a truly accomplished upgrade DAC that makes the best of CDs, MP3s and digital radio

CAMBRIDGE AUDIO

640H 2005 £\$99.95

Fine sonics and decent build make this our favourite affordable HD music server.

MARANTZ SA7001KI SIG2006 £600

Brilliant CD/2ch SACD spinner with a big, sweet, analogue-like sound - CD is totally competitive at the price with the best dedicated machines..

AUDIOLAB 8000CD 2006 £450

Ultra clean and transparent sound with great detail retrieval; just a tad bright and analytical for some, though.

SHANLING CDT-80 2005 £650

Very impressive mid-price machine with a big, sumptuous, expansive sound – better still when tubes are changed.



CAMBRIDGE AZUR 840C 2006 £800

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

NAIM CD5/ 2008 £895

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

EASTERN ELECTRIC

MINIMAX CD 2005 £925

Highly accomplished tube-equipped all rounder with a clean, open and musically lucid sound; superb value.



CYRUS CD8 SE 2008 £1,200

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

BENCHMARK DAC-1 USB2007£999

Pro-blased DAC with useful range of inputs and impressive headphone outputs, too. Save £250 if you don't need the USB-equipped version.

ELECTROCOMPANIET

PC-1 2008 £1,034

Tidy and polished-sounding CD spinner with strong bass and an assured sense of confidence

EXPOSURE 3010 2003 £1,200

One of the most 'analogue' CD players, second only to the Shanling. Wonderfully beguiling balance leaves you looking for the tube output stage.

STELLO CD-T100/DA100 SIG 2008 €1,270

Fine top loading transport linked via i2s to an excellent upsampling DAC. Confident, detailed, explicit and architectural sound but smooth too.

REGA SATURN 2007 £1,298

Wacky looks surround a highly accomplished CD spinner that marries a smooth midband to excellent bass grip.

EDGAR CD-1 2007 £1,350

Quirky Slovakian CD spinner with all-valve output and a truly spine-tingling performance.

RAYSONIC CD128 2007 £1,599

Spaceship styling and fine build around a highly competent mid-priced CD spinner means a feast for the senses.

CHORD QBD64 2008 £3,000

Bespoke architecture gives a truly uniquely musical sound that's beguilingly musical in nature, with dizzying incision and grip.

SHANLING SCD-T2000 2007 £2,250

Updated version of original SCD-T200C standardises upgrades optional on the older model and adds a few more tweaks for good measure. The result is a stylish player that works superbly with both CD and SACD

TUBE TECHNOLOGY FUSION 64 2006 £2,200

Unique digital and analogue audio engineering makes for an exceptional CD player that, on some programme material, is peerless.



NORTH STAR MODEL 192 TRANSPORT/ EXTREMO DAC 2006 £2,918

Superbly finessed and loguacious sound allied to excellent build and finish make for a brilliant value high end buy.

ELECTROCOMPANIET EMC-IUP 2003 £3,450

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

ACCUSTIC ARTS CDPIMK2 2007 €3.985

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

NAIM CDX2-XPS2 2003 £4,950

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

NAIM CDS3 2003 £7,050

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

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

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

ESOTERIC X-01 2005 £8,995

Breathtaking feat of digital audio engineering, and surely the best sounding combination CD/SACD spinner money can buy.

LINN KLIMAX DS 2007 £9,600

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

NAIM CD555/555PS 2006 £14,000

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



DIGITAL RECORDERS

SONY RCD-W3 2002 €250

Usual superb Sony ergonomics make for nononsense budget buy. Fine direct digital copies, but analogue input poor. Middling sonics, but there's a digital output!

NAIM HDX 2009 £4,405

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

PHONO STAGES

CAMBRIDGE AUDIO 640P

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

PROJECT PHONOBOX LE2004 £99

Great little box that improves on most bundled phono stages found in budget integrated amplifiers, adding detail and definition and a measure of smoothness too.

TRICHORD DINO 2002 £299

Great all rounder with switchable MM/MC. Fast, fluid and smooth like no others at the price.

JOLIDA JD9 2006 £400

Hybrid tube/solid state phono stage with a good range of adjustability. Excellent value for money and a fine, dynamic sound.

GRAHAM SLEE ERA GOLD V 2004 £460

Wonderfully warm, open and musical nature makes this an essential audition for those wanting a top value mid-price phono stage.

PURESOUND PIO 2007 €400

Guy Sargeant's new MM phono stage is an absolute belter. Simple but very effective.

AOVOX PHONO 2 CI 2006

Brilliantly versatile yet affordable phonostage with a beguiling sound, but careful matching essential. Balanced operation of real benefit,

ICON AUDIO PS1.2 2007

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

A.N.T. AUDIO KORA 3T LTD 2008 £775

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

ANATEK MCI

2007 €850 Spectacularly good MC phono stage that offers serious insight underpinned by power-



LINN LINTO

2000 £900

A musical and incisive performer, with more speed than the Delphini at the expense of detail and tonal colour.

OUAD OC24P

£995 2007

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

EASTERN ELECTRIC MINIMAX PHONO 2006 £1,099

Highly capable valve phono stage with a relaxed yet involving demeanour. More beguiling than rival transistor designs, but sacrifices little in detail terms.

TRICHORD 2006 £1,198 DIABLO + NCPSU

Highly musical performer, this is one of the best phonostages at or near the price, but lacks the polish of the rival Whest.

2008 **ICON AUDIO PS3** £995

One of the very best valve phono preamplifier's we've heard, with an expansive, engaging and organic sound that makes vinyl a joy to listen to.

AMPLIFIERS

AUDIOLAB 8000S 2006 £400

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

ICON AUDIO STEREO 25 2008 £500

Cracking entry-level valve integrated, with a warm and engaging sound. Limited power so needs careful partnering, though.

ROTEL RA-06 2008 £550

Vivacious sounding device that, whilst lacking the finer musical points, wears its heart on its sleeve and has plenty of power to match.

NAIM NAIT 5 2007 £725

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

CAMBRIDGE 840A V2 2007 €750

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

JUNGSON JA-88D 2006

Stunning value for money Class A monster integrated; extreme power and clarity at a puzzlingly low price.



SUGDEN A21A S2 2007 £1,299

More power and greater transparency improve even further on the already impressive A21a to give truly impressive results

NAIM NAIT XS 2009 €1,250

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

SHANLING STP-80 2007 £1,199 Well built and surprisingly muscular valve

integrated. Engagingly musical. CREEK DESTINY

AMPLIFIER 2006 €1,200

Superb build, useful power plus a deep full bodied sound make this an excellent midprice buy.

ELECTROCOMPANIET

2008 £1,430

Powerful Integrated with seriously solid bass and impressive dynamic abilities. Superbly musical.

SUGDEN A21A S2 2008 €1.469

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

ANATEK ASOR 2007 €1,600 Simple integrated amplifier with spectacular bass grip and effortless dynamics.



UNISON RESEARCH \$62002 £1,625

Tremendously musical and lithe sound with real finesse and subtlety too. Very slightly upper mid forward encourages careful partnering with ancillaries (Revolver R45s are ideal), but overall fantastic value for money.



MOON 1-3RS

2008 £1,890

Grippy and clean performer with fine soundstaging and build quality.

COPLAND CSA29 2006 £1,998

Unfailingly svelte, sophisticated and smooth both to listen to and look at - this is a truly desirable high end integrated.

NAIM SUPERNAIT 2007 £2,475

Technological and sonic tour de force from Naim that combines impressive functionality and connectivity with superb sound quality.

VINCENT SA-TI/SP-T100 2006 £2,300

Impressively built and stylish pre/power combo that take any kind of music and make the best of it

2007 €2,800 LUXMAN L-550A

Monster Class A integrated with powerful and revealing sound and a whole host of useful features, including a highly competent MM/MC phono stage

AUDIO RESEARCH VSI55

2003 £2,895

The Naim NAP250's tubular alter ego; oodles of power allied to a strong bass and smooth open midband makes this a brilliant all round amplifier. Lacks the subtlety and finesse of the low powered single-ended brigade but makes up for it with sheer brio.

2007 €2.995 **LEEMA TUCANA**

Leema's success story continues with this integrated amp that combines power, detail and great musicality in a solidly built package



SUGDEN IA4

2007 €3,650

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

AV AMPLIFIERS

YAMAHA DSP-AX8615E2007 £700

Highly capable A/V amplifier with mind-boggling array of surround sound options. Even has a decent MM phono stage!

ARCAM AVR350 2006 £1.500

Superbly accomplished do-it-all AV receiver package, with an uncommonly, warm, natural and musical sound. A winner goes from strength to strength.

DENON AVR-4308 2007 €2,000

Huge behemoth festooned with facilities and sockets, plus two remotes! Fortunately it's a brilliantly flexible and powerful performer.

NAIM AV2/NAP 150/NAPV 175

2002 €4.190

Brilliant audiophile multichannel pre-power amplifier combo; not as good with music as a two-channel Naim set-up at the same price, obviously, but surprisingly close. Elegant control layout plus a strong, clean and brilliantly engaging sound make this a serious crossover product. Ultimately lacks power compared to similarly priced Arcam gear, but is more musically involving.

HEADPHONE AMPLIFIERS

CHANNEL ISLANDS VHP-

A truly exceptional headphone output stage; the best at the price and an essential audi-

MUSICAL FIDELITY X-CAN V8 2008

£350

€390

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

SUGDEN HEADMASTER 2003

Unusual combined preamplifier and headphone amplifier, this boasts a surprisingly smooth and open sound.

PREAMPLIFIERS

CREEK OBH-12 2000 £220

Brilliant value budget passive, giving little away in sonics to far more expensive designs. Connectivity and build aren't great, but what do you expect at this price?



MF AUDIO PASSIVE PRE2003 £1,500

Effective pre with switchable gain via a trans former, and balanced operation. Open and incisive sound, yet makes most active rivals sound edgy by comparison. Silver version at the twice the price adds transparency.



MODWRIGHT SWL9.0SE

Captivating sound quality that will transform your system. Build quality is equally impressive and value top-notch. Highly recommended

2007 €2,200 **NUFORCE P-9**

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

MELODY PURE BLACK 101D

2007 €3,295

One of the best preamplifiers we have ever heard. Takes the clarity and openness we expect from valves and adds a staggering level of grip and detail. Stunning,

MUŞICAL FIDELITY PRIMO

2009 £7,900

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

POWER AMPLIFIERS

ROKSAN KANDY LIII 2008

Fine budget power amp that punches well above its weight.

QUAD 909 2001

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

NAIM NAPISO 2002

Driven by a decent source and a NAC112, this gives highly enjoyable results - providing you like the Naim sound! Taut, fast and feisty despite its relative lack of power.

SUGDEN MUSIC MASTER 2003 €1,300

Quintessential Class A Sugden sound is not warm as many expect, but extremely neutral and open with real tonal colour. Superb when partnered with efficient loudspeakers like Revolver R45s, but many will find it underpowere



NUFORCE REFERENCE 9SE V2 2006 €1,750

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



ROTEL RB1092 2007 £1,595

Hugely powerful digital amp with neutral midrange and a wonderfully spacious treble

CHANNEL ISLANDS AUDIO DI 00

2005 £1,595

Clean and musical Class D monoblock power amplifiers in a neat, small package.

SILK GLOWMASTER KT88

2007 £1,699

KT88 based power amplifier offers dramatic clarity and excellent bass heft.



ICON AUDIO MB845 2009 £2,499

Creamy and seductive yet blisteringly fast and musically lucid, this pair of 845 tube monoblocks is staggering value for money.

QUAD 11-40 2005 £3,230

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

GRAAF GM20 OTL 2003 £3,300

Awesome output transformer-less valve power amp gives dazzling speed and incision, with an ethereal soundstaging and delicious filigree detail. Tremendous punch belies its humble 20W power rating. Factor in one of the most exquisite finishes this side of an Aston Martin and it's very hard to say no...

ELECTROCOMPANIET NEMO 2009 £4,450 (EACH)

Monoblock power amplifier with breathtakingly open and fast sound, and apparently infinite reserves of power. Match with a smooth source for big audio dynamite!

QUAD 11-80 2005 £6,000

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

LOUDSPEAKERS

ACOUSTIC ENERGY NEO I

2007 £199

Tidy and well balanced standmounters with pleasing clarity and detail.

B&W 686 2007 £279

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

USHER S-520 2006 £326

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

MORDAUNT SHORT

AVANT 914i 2007 £300

Another pair of storming budget floorstanders from Mordaunt Short. Detailed, punchy and crisp.

REVOLVER RW16 2004 £400

Outstanding standmounter with tonal accuracy and speed that totally belies its price; good sensitivity for a small box makes it great with valve amps too. A budget audiophile classic.

LEEMA XERO 2007 £650

Superb mini-monitors that belie their modest price tag with a bold and finessed performance

ACOUSTIC ENERGY AET CLASSIC £845

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

SPENDOR S3/5E 2004 £950

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

WHARFEDALE OPUS 2-MI 2007£999

Large standmounters with impressive midrange dome and fine integration across the frequency range,

RRR FS100 2007 £1,055

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

YAMAHA SOAVO 2 2007 £1,200

Just as capable as their floorstanding brethren, the Soavo 2s have an assured sense of sophistication and poise.

REVOLVER RW451 2006 £1,199

Very musical floorstander that's clear, concise and truthful, whilst being exceptionally amplifier friendly - a dreamboat for valves.

ONE THING AUDIO ESL57

2007 £1,450

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

KIBRI NAIMA 2007 £1,550

Unusual-looking omnidirectional loudspeakers with an absolutely captivating performance. Huge soundstage and bags of clarity - brilliant!

GURU QM-10P 2007 £1,595

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

MARTIN LOGAN SOURCE

2008 £1,599

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

USHER BE-718 2007 £1,600

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

SPENDOR S8E

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



MONITOR AUDIO GS60 £2,000

Brilliant modern rock loudspeaker with a fantastically lithe and engaging sound, but partner carefully with a warm front end.

YAMAHA SOAVO I 2006 £2,000

Musical and transparent floorstanders with impressive dynamics and cohesion. Fine build and finish.



ISOPHON GALILEO 2007 £2,100

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

MONITOR AUDIO PL100 2008£2,300

The MA boys pull out all the stops for their flagship 'Platinum' series standmounter with stunning results.

PMC OB11 2008 £2,950

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

KEF iQ30 2009 £33

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

MOWGAN AUDIO MABON

2007 £3,995

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

B&O BEOLAB 9 2007 £5000

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

ARS AURES MI 2006 £5,995

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

QUAD ESL-2905 2006 £5,995

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

REVOLVER CYGNIS 2006 £5,999

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

B&W 801D 2006 £10,500

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



ISOPHON CASSIANO 2007 £12,900

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

ACCESSORIES

MONITOR AUDIO IDECK2006 £200

Fine design, impressive flexibility and a lucidly musical sound make the iDeck the current iPod dock champion.

ISOTEK GII VISION 2006 €550

A genuinely effective and surprisingly cost effective upgrade, but results could vary so a home dem of the power conditioner is recommended.



TOWNSHEND MAXIMUM €800 2003

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

HEADPHONES

SENNHEISER MX-550 2005

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

SENNHEISER PX-100 2002

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



€70 GOLDRING DRISO 2006 Excellent build and fine sound makes these

budget cans superlative value for money.

SENNHEISER HD-590 1998 £199

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

SENNHEISER HD-650 2004

Not the best headphone in the world, but a superb all round reference all the same. Very crisp, detailed and even sound allied to superlative build and fine comfort makes all most people will ever want. Cable upgrade yields great results.

STAX SR-007T OMEGA

II/SRM-007T 2006 £2,890 Simply the best headphones we've ever heard

at any price, these sweetly translucent electrostatic earspeakers are like no other headphone, or loudspeaker for that matter...

INTERCONNECTS £20

TECHLINK WIRES XS 2007

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

WIREWORLD OASIS 5 2003 £99/M

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

CHORD COMPANY CHAMELEON 2 £90/M

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



2002 £40/M DNM RESON

Neutral and transparent - a steal!

VDH ULTIMATE THE FIRST 2004 £260/0.6M

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



TCI CONSTRICTOR 13A-6 BLOCK 2003 £120

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

MISSING LINK CRYO REFERENCE 2008

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

DENON TU-1500AE 2006 £120

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



CAMBRIDGE AUDIO 640T2005 £250 Sweet sounding digital/analogue hybrid with

fine build and finish at the price.

MARANTZ ST-7001 2006 £299

Super performance on FM coupled with its ability to get the most from DAB broadcasts makes this the best affordable tuner.

YAMAHA TX-761 2007

Sets the standard for FM performance at the price and is no slouch on DAB either.

ARCAM FMJ T32 2009

The world's first DAB+ hi-fi tuner, and it also happens to be the best DAB/FM hybrid we've heard to date. A brilliant product that deserves to succeed.

CREEK CLASSIC TUNER2006 £550

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

MYRYAD MXT-2000 2005 Truly sumptuous sound and excellent build is all most will ever need in a tuner; superb.

MAGNUM DYNALAB MD-100T 2006 £1,895

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



SYSTEMS

YAMAHA CRX-MI70 2007 €200

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

TEAC DR-H300DAB 2008 £329

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

NAD C-715DAB 2008

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

ARCAM SOLO MINI 2008

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

ARCAM SOLO 2005 €1,249

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

LINN CLASSIK MUSIC 2008 £1,250

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

MERIDIAN F80 2007 €1,500

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



AURA NOTE MUSIC CENTRE 2007 £1,500

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

SHANLING MC-30 2007

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



NAIM UNITI 2009 £1,995

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

LINN CLASSIK MOVIE 2007 £2,250

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

MARANTZ 'LEGEND' 2007 £22,000

The combination of SA-7S1 disc player, SC-7S2 preamp and MA-9S2 monoblocks delivers a truly jaw-dropping performance. Start saving now...



Gem Stones

t was way back in 1985 that Wharfedale released the first Diamond, resplendent in a thin chipboard cabinet with tasteful and oh-so-eighties black ash vinyl wrap. Driver lineup at that time was a 19mm soft dome tweeter and a 120mm polypropylene bass/mid driver mated via a simple crossover. Maybe this doesn't sound so exciting nowadays, but the overall result was one of those classic examples of the whole being far more than the sum of the parts. Those original Diamonds, as I found out last year when I acquired a pair for my budget-busting vinyl system challenge, were almost shockingly capable in the way in which they communicated on a musically emotive level.

Subsequent versions may have become better built and more technically 'correct' in their sonic presentation, but somehow I always felt that the little spark of brilliance that marked out the originals from their peers had been quietly snuffed out somewhere along the way. Consequently, as I sit in front of

these new Diamond 10.1s, I cannot help but wonder just where along that line that joins enjoyment to accuracy they are going to sit...

As you may have gathered, the 'Diamond' name now actually belongs to a range of loudspeakers rather than just one particular model, and stretches across no less than sixteen different models, made up of three standmounters, five floorstanders, three centre channels, two surround models and three subwoofers. If you can't find a combo to satisfy you from this little lot, there's probably no satisfying you. The 10.1s are the centre standmounter model, sporting a 125mm Kevlar bass driver with a new rubber surround that incorporates a diamond pattern embossed into it - very cute, but Wharfedale state that this is not just for show, as it helps to damp out standing waves in the surround. The driver is mounted into the 'vibrationreducing' composite front baffle using a wider chassis flange than before, to improve coupling and stability and bass loading is provided by two rearfacing ports, so a decent gap betwixt loudspeaker and rear wall will be a wise move, but a certain amount of tuning will result from varying this.

Above this, treble duties are taken care of by a 25mm soft dome tweeter that is tucked beneath a metal diffusion grid that Wharfedale state "helps to iron out high frequency perturbations up to 30kHz", as well as affording protection from marauding child fingers or assorted poking devices when the loudspeakers are used without their grilles. Talking of grilles, the Diamond 10.1s are supplied with a set and these affix using small pegs into the driver securing bolts; a simple and neat solution that seems to be taking a strangely long time to be adopted by many designers.

The cabinets into which these drivers are bolted are very neatly made and well finished, being offered in no less than seven finishes, including the stylish Rosewood of the review samples. The cabinet walls themselves are curved to minimise internal reflections, and consist of

a sandwich of four materials, each coated with a special adhesive that Wharfedale state is cured using high intensity RF energy. Whether this adhesive is likely to return to its liquid state if your house happens to be located near an electricity pylon is not something that the manual covers, however! Finally, vital statistics for the 10.1s are 296x194x278mm (HxWxD) and signal connections are through two pairs of gold plated binding posts that can accept bare wire, spades and banana plugs, the latter after the inevitable plastic inserts are prised out (and invariably lost) using a sharp knife or small screwdriver.

SOUND QUALITY

A budget loudspeaker can cause even the hardened hi-fi reviewer a moment of trepidation when approached, as there is always the fear of what might have been added into the design's overall melting pot. History is littered with examples of such beasts featuring hard and shrill tweeters, or bass drivers working overtime in order to convince that there is more bass then there really is. Such tricks are soon seen through however, and often leave little else of note behind once they are unveiled. The Wharfedale Diamond 10.1s are most definitely not such a design however, and straightaway I'm going to let the cat out of the bag and say that the spirit of those original Diamonds is well and truly back - about time too!

What Wharfedale have come up with for the 10.1 is a loudspeaker that loves to get down and have a party. Give them a rhythm and they're off, snapping into the groove with precision and a deftness that is all too often missing at this humble price point. Bass lines are confident and pleasingly impactful through the Diamond 10.1s, not seeking to push the small drive unit past its limits, but nevertheless making the most of what it has to offer. As a result, when the loudspeakers were perched on top of my Atabite-loaded Atacama Nexus 6 stands and pulled about a foot clear of the rear wall, I was more than impressed by the confident way in which they punched out bass lines, and simultaneously picked out individual low notes very deftly.

As a result of this fine sense of timing, I found myself heading towards music with pep and verve to it. The Diamonds proved no slouches when it came to holding the beat of dance music such as the vocal remix of 'I Remember', the recent twelve inch single from Deadmau5, and a

complete change of style to spin some trad jazz courtesy of Kenny Ball showed that they enjoy nothing more than a rollicking good time!

At the top end, Measured Performance shows a slight tail off towards 20kHz but this most certainly does not make the Diamonds sound dull. In fact, given that it is all too common to stick a lift in for 'showroom appeal' in order to make the loudspeaker sound crisp and detailed, when it actually soon becomes overblown and harsh, Wharfedale have balanced the Diamond 10.1's top end very nicely. As a result, cymbals rang forth with impact and there was a good sense of atmosphere to proceedings. This fine top end blended with the bass across a very smooth and considered midrange that sets up an aural picture between the cabinets and gives performers good space to work in. Orchestras sounded rich and fulsome, and the Diamonds never gave any sense of strain or compression when crescendos came along - they really are very civilised in this respect.

So, strong contenders for some serious budget bargains then? Well, yes and no. You see, whilst they may be civilised and yet fun performers, most £200-ish loudspeakers have a chink in their armour somewhere,

and I found that of the Diamonds when I played something a little more slow, considered and atmospheric though them. In simple terms, their midrange, whilst well balanced and nicely integrated, is rather characterless. Notes from guitar strings, pianos and the like. which should have a firm leading edge, a characterful main note and a gentle decay seemed to have their front and back chopped off by the Diamonds, leaving a note that was vivid, but rather opaque. Obviously I do not expect a £200 loudspeaker to pinpoint a Steinway compared to a Yamaha Concert Grand, but I would hope it could tell me the difference between said Steinway and a Korg! Similarly priced rivals from the likes of **B&W**, Mordaunt Short

and Acoustic Energy

can do so, and so the Diamonds were definitely a little behind the best in this respect. Equally, vocals were well placed in

the centre of the soundstage, but seemed to be pushed back to be rather crowded into the general performance.

CONCLUSION

So the new Wharfedale Diamond 10.1s may not be the most revealing or forensically insightful loudspeakers around, but I still maintain they are some of the most fun. As always, an audition is mandatory and if you have a shelf full of acoustic music, I suspect the Diamonds may not be quite your cup of English Breakfast. On the other hand, however, if you're more into rocking, dancing or jazzing it up, then they deserve to be auditioned. As I do, you too might find them to be something of a little gem.



VERDICT **OOO**£ The spirit of the original Diamond rises from the ashes in the 10.1s, as they are rhythmically adept and musically

persuasive. WHARFEDALE DIAMOND £200 10 1 IAG Ltd. C +44(0)1480 447700

- well balanced performers

www.wharfedale.co.uk

- addictive musicality
- fine low end impact
- build and finish

AGAINST

- low level detailing

MEASURED PERFORMANCE

The Diamond 10.1 has a very civil response balance, lacking anything that will offend, unless that is you like a bright sound. There is a slight but distinct plateau lowering of output across the upper midband from 1.8kHz up to 4.5kHz that will ensure there's no glare, but the tweeter works well above these frequencies, having smooth output to 12kHz, so detailing should be good but 'sting' will be absent.

Upper bass frequencies lift a little below 300Hz which will usefully add a little body to the sound. Bass output extends down to 65Hz (-6dB), good for a small cabinet. Having a gentle roll down in output below 120Hz the Diamond 10.1 is balanced for near wal use. The twin rear ports work at 40Hz to add a little extra low end heft.

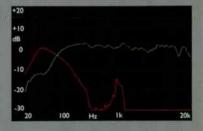
Sensitivity was mediocre at 85dB, especially as impedance measured a low 5.5 Ohms and a bass unit with a 3.8 Ohm DCR is used. The impedance curve is free of large peaks, and fairly unreactive as a result of the low slopes seen in our published impedance curve. Amplifiers can drive loads like this but with low impedance and low sensitivity the Diamond 10.1 will need 40 Watts or more to go loud

The 200mS decay spectrum is clean, displaying no overhangs or undue colourations. Bass distortion, even from

the small ports, was fairly low at 2% from the bass unit and 5% from the port, so there is little 'bass doubling'.

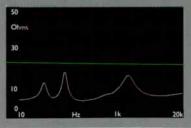
The Diamond 10.1 has been well engineered to give a very accurate and even sound, free of emphases. Like the many models before it, it is a high quality miniature. NK

FREQUENCY RESPONSE



Green - driver output Red - port output

IMPEDANCE



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DUANE EDDY Twenty Terrific "Twangies"/ Water Skiing BGO

Duane Eddy? You betcha! Eddy was a highly influential artist in the fifties and had a stream of hits to boot; fifteen in just five years from 1958 to 1963. His instrumental tracks served as an ideal vehicle for the electric guitar, bestowing an aura of power on the instrument that triggered the creation of many a guitar band, especially as Eddy took the bassy riff as his signature; stand up The Shadows! In fact, Eddy was the first rock star to lend his signature name to an electric guitar, made by Guild Guitars. Much later, Gretsch did the same. Eddy utilised his low and slow style to devastating effect. Some may remember his relatively recent hit, in 1986, with the Art Of Noise, covering the stirring 'Peter Gunn' theme.

This CD release, which has been thoughtfully and carefully mastered by Andrew Thompson at Sound Performance studios in London, features two intriguing albums. 'Twenty' was originally released in 1980 and featured five previously unreleased tracks. This is the first time it has ever been released on CD. It's an ideal entry point to the man as it features some of his biggest hits such as '(Dance With

The) Guitar Man' and his monster hit, 'Rebel Rouser': anyone familiar with the films, 'Forest Gump' or 'Natural Born Killers' will know this track.

Alongside 'Twenty...' is 'Water Skiing' one of Eddy's best ever albums. That's Eddy on the cover; pity it was taken in the middle of winter while the photographer donned a fur coat! A superb surf LP, this record was similarly influential for later surf rockers. Also look out for the two accompanying CD releases under the same label; 'Dance With The Guitar Man/Twangin' Up A Storm' from 1963 and 'Guitar Man' from 1969.

THE KENNY CLARKE-FRANK BOLAND BIG BAND

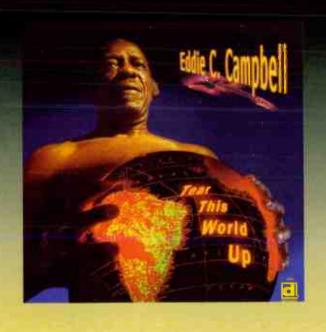
Now Hear Our Meanin': The Complete 1963 Recordings Jazz Lips

Another artist of influence. However, instead of the guitar, American-born Kenny Clarke was an important drummer from the bebop era. His understated drumming style shouldn't be ignored. In fact, his important innovation was more of a transformation moving the beat from the bass drum to the ride cymbal. This isn't the cymbal that you normally see drummers splatter in a crescendolike manner at the end of a song, Keith Moon-style, This is normally the

smaller cymbal that you see sitting right next to the drummer's strong hand. Hundreds, nay thousands, of drummers copied Clarke's style afterwards.

This CD mixes a wide variety of ex-pat Americans with a bunch of excellent European players, including the Belgian pianist Francy Boland no less, who recorded often in Germany. Clarke and Boland's band was, and still is, seen as the best band collaboration outside of the USA. In fact, the outfit would last until 1972, completing fifteen albums...

The CD represents all the band's recording dates during the year (January 25th and 26th), offering great value for money as they were originally available on two, separate albums. All the tracks highlight one of Boland's talents, his arrangement skills (something he'd already accomplished with some aplomb for the likes of Count Basie and Duke Ellington) while a selection of soloists feature strongly such as Sahib Shihab (flute and baritone sax), Ake Persson (trombone) and Clarke himself. Four tracks from a later 1966 session and one from an earlier 1961 recording, have been added as bonus tracks. This is an excellent suite of jazz tracks that will have any bebop fans tapping with a frenzy.





EDDIE C. CAMPBELL Tear This World Up Delmark

Taking Kenny Clarke's cymbal beat style as a trigger, the interesting thing about Eddie Campbell's blues guitar, which adopts the Westside Chicago-style from the sixties period, is how he, and other electric guitar blues players of the genre, actually play the thing, It's not that easy. In fact, Campbell refers to this problem himself, stating that, too often, wannabe blues guitarists attempt to the play the blues, struggle with it a bit and then get frustrated and revert back to an easier, more common Hendrix, psychedelic form. Keeping the true Westside form is tough. In fact, it's a delicate balance because, if you ease back on the power and associated effects such as feedback then you've lost it again and you suddenly find yourself playing fiftiesstyle blues guitar.

Campbell grew up playing electric guitar and appeared on stage from an early age. For example, he managed to jam with his blues hero, Muddy Waters when he was just twelve years old. From that time onwards he soaked in the influences. He was a sideman to the likes of Little Walter, Jimmy Reed and Howlin' Wolf — and, if you can't learn a little from that lot...

You have to be in the zone to play this stuff and Campbell certainly is with this new CD which leads you to make instant comparisons to Magic Sam (especially when he plays Sam's own 'Easy Baby', complete with a fond introduction) and Buddy Guy. This CD, which is well recorded, wallows in reflection for a style of blues from the past but it's no worse for that. A classic blues style guitar player. In fact, the recording is almost celebratory.

COLOSSEUM *Morituri Te Salutant* Sanctuary/Universal

Colosseum, a jazz/rock group, was founded in 1968, and featured Jon Hiseman, Dick Heckstall-Smith and Tony Reeves, all of whom were ex-John Mayall's Bluesbreakers. Dave Greenslade (who would later form his own prog outfit called Greenslade) was also a member along with Jim Roche. Others would come and go including the legendary Chris Farlowe on vocals for the group's fourth album, 'Daughter Of Time'.

This 4-CD boxed set brings together studio recordings, live material and BBC radio sessions, including many previously unreleased versions. Some of the tracks have been taken from old Sanctuary catalogue – this was originally

a Sanctuary project before the independent label went bust and was bought by Universal. Many other tracks have been supplied by leader, Jon Hiseman, along with the demos, rough mixes and other rarities.

"Most of the sources were CD-Rs, both audio and data," said Peter Reynolds, the mastering engineer.
"Some derived from rare multi-tracks that have been floating around for years. The job was relatively painless, however. There was a fair bit of EQing to be done to equate the levels; you don't want to be changing the volume between each track; plus tweaking studio-weighted output. For example, if a studio recorded with bass-heavy speakers, the final master would be bass-light."

The jigsaw manner of the collection is highlighted by tracks that appear on disc four which are, frankly, acquired bootlegs. When sending the sources to Reynolds, Hiseman noted that the sound quality was nothing more than archival benefit. "They were pretty poor," confirmed Reynolds. However, he has certainly made them listenable, doing a fine job. In fact, Reynolds has produced a box set that both the band and himself should be proud of. It's an excellent mix of favourites and rarities that will keep any fan busy for some time.





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david price

ight now, hi-fi is in a curious transitional phase, not just from one type of digital disc format to another, but from the old paradigm to the new. Everything about the way we buy, store, organise, listen to and use music is now moving, irreversibly, to a new model that we haven't quite found yet...

Like someone rummaging around in the dark for the light-switch they can't quite find, we're currently groping for the solution in a haphazard and clumsy way. All manner of short-term compromises are being pursued right now that will go on to look as irrelevant as MiniDisc or Digital Compact Cassette. Rest assured, Blu-ray, DAB, iPods and Squeezeboxes will all go by the wayside, as we migrate to integrated multimedia computers.

Permanently and wirelessly attached to what we once quaintly called the 'information superhighway', there will be no need to store media data such as music files, let alone physical media like CDs or DVDs. Data will arrive anywhere there's a mobile phone signal, via a vast network of satellites, dramatically more powerful than now, orbiting the earth to provide the planet with all its data needs. More of an information 'suprahighway', huge amounts of traffic (comprised simply of ones and noughts) will fly around the Earth like the asteroid belt.

All our music, video, movies, audio, radio, photographs and art will reside in the digital domain, piped up above the clouds and then beamed down to your media computer as and when you require. It will then go out to any particular 'client-device' that suits. So if you're in the bath, you might want something resembling a Roberts radio of yesteryear to accompany your ablutions. For style and convenience's sake, it would look,

feel and work like radios of yore, but is simply a streaming client in disguise.

In your den, you'll have your real hi-fi, switched to its 'media' input, with all your digital music coming straight from the clouds via your home media centre. You'll be able to choose resolution, format and so on if you really want to, otherwise the system will simply select the best sounding available option, or the one it's learned that you prefer. As every piece of music ever recorded will be available in the best possible digital resolution, streamed off that 'suprahighway', that's quite a lot of listening available to you. And instead of buying music in the shops (or online, and downloading it to your machine), you'll simply buy 'credits'; the ability to listen to any music for a certain amount of time, just as you pay for your phone now. What's the point of physically duplicating the data on a local hard drive under your stairs, if everything ever recorded is waiting up in the heavens anyway?

So record collecting in 2050 will become a sort of 'ultra browsing' experience. Guides point music fans to 'schools of music', so if you like REM then try The Byrds, Mercury Rev, The Long Ryders, Talking Heads, etc. Instead of searching out physical media, people spend countless hours searching reviews, documentaries, forums and the like, following a trail of music along like a twenty first century, three-dimensional rock family tree. All this will be done on the same wireless tablet-style interface that controls your entire media needs. hooked up to computer 'wirelessed' to the suprahighway.

In the lounge, all your TV needs will be catered for by the same system; you'll be able to watch any telly programme ever made on demand, in whatever quality, resolution or format best suits you or your display screen. Some of it

you'll pay for, others you won't. Ditto movies; the notion of physically buying a Blu-ray disc to take home with you will be laughable; just key in what you want to watch, sit back and go. Once again, you'll be able to follow cultural themes, search by directors, stars, leading ladies, set designers of whatever; for Stanley Kubrick see Leonard Rossiter, Peter Sellers, Tom Cruise...

The entertainment system of the future will sense all your mobile devices, all your media needs, all your online purchases, all your favourites (of small screen and large, radio and music) and have them all there for you just as you like it. When true portability is needed on a device that can't grab the data from out of the sky, it will squirt everything it thinks you'll ever want into a yottabyte memory card (the size of postage stamp, playable on anything but uncopyable) that slots into your car system or digital portable. The idea will be to have no physical media anywhere if possible, minimal replication of the same data on multiple storage devices and no need on the user's part to copy or backup anything. It will be pure, objectoriented music and media replay with no fuss - and why not?

In this brave new world, I predict that hi-fi will still be very much alive; media centres, DACs, amplifiers and loudspeakers will flourish while CD players, DVD players, radios and network attached storage boxes will all fade away. Vinyl, I am sure, will continue. As electronics reach a new level of complexity and power, there will be a resurgence in interest in mechanical machines, from typewriters to turntables, Digital will take all the pain, fuss and faffing out of our lives, which will leave us wanting something tangible, tactile, formed and fiddly to replace it. The future for analogue, then, looks assured!

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"the major record labels haven't got the foggiest idea what music they own..."



paul rigby

re thrusting young twentysomething record executives inadvertently preventing rare and quality music from reaching the ears of the public?

The accusation I have towards the major record labels is that this breed.

major record labels is that this breed of employee has flooded the staff lists and that many experienced, knowledgeable, staffers (who knew where all the bodies were buried) have disappeared, often due to redundancies thanks to the present economic climate and the ongoing record company shrinkages. The upshot is that the major record labels haven't got the foggiest idea what music they own. This means that, not only do the major labels not have a complete and organised database of their musical library but that there is some debate over the full contents of each and every master in the library.

This situation does not look like it will improve anytime soon. However, there is one chink of light on this dark tableau – independent record labels. One of which I have never mentioned in this magazine, called Shout!, is an excellent example of a carefully nurtured, well crafted label that has grown, for no other reason, than it produces good CD releases and people like them.

"Shout! was my idea when looking at areas of music that I enjoyed but wanted to explore further as part of the RPM label," said Shout! Director, Mark Stratford. "About eight years ago, I thought that the time was right because no other label was exploring classic R&B — especially as another label with a similar genre focus, Charly, had folded. I thought now was the time to acquire the rights that it had secured

through the eighties."

To get Shout! going, Stratford brought in A&R man Clive Richardson, who used to run a soul magazine called Shout!, in the sixties. He was one of a small band of people back then, who helped popularise black American music and soul music. "Clive has a fantastic treasure trove of original vinyl releases from the sixties, that he was buying, and from the seventies via releases that he was sent for his magazine."

In terms of sourcing A&R ideas and, on occasion, master sources, Richardson's library has proved to be incredibly useful. Stratford released the first few CDs from Charly licenses, initially as a series under the RPM umbrella. "These were not records which Charly had already released, but Charly held the rights to the music (the label is now owned by Snapper Records). After twenty releases, I decided that Shout! could stand up on its own."

Insider knowledge counts for everything when seeking rare recordings, and this is where the major labels can flounder, "We looked at a Lou Christie and the Tammys from 1962 and 1964 with one track called 'Egyptian Shumba' which has since become pretty well known because it has such an extraordinary vocal performance. We grabbed a license for the track in EMI in the UK then we went to the States where the tapes are. We ended up in a storage facility of Capitol's in New York and eventually found twenty different takes of 'Egyptian Shumba'." Remarkably, these masters hadn't even been mixed down and were of excellent quality!

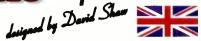
A lot of music has been bought up by major labels over the years

and it's helpful to keep track, if you've been in the game long enough, to know who buys what and where. It's often the case that such 'students' will know more than the eventual owners – the major record labels, who are not aware of everything that they've bought. "Universal for example, has been one of the most acquisitive of operations," explained Stratford...

"If you're talking about releases from the fifties and sixties on obscure American labels which, through a succession of buyouts, have ended up at Universal, unless any of those tracks have become active, they're left off all subsequent databases. The company doesn't know it has it. And a twenty year old kid who's a whizz at IT, which are the sort of people that these corporations employ nowadays (they don't employ music people) isn't going to know or be interested to go looking for these things. So a lot of how (fellow independent label) Ace operate and how we operate is to acquire that knowledge and spoonfeed the majors. Then they know where to look and then, hopefully, you can get your license. But that can sometimes take two years to fulfill."

In many respects, the independent labels have taken over the role of the major labels as a driving force in music; the majors are quickly becoming mere libraries. It is the independents which offer dynamism. It is they who are on the front line, they who search out masters and they who employ music experts with essential knowledge. Who else will save us from the hair-gelled oiks who strut around the City, in suits two sizes too big for them, slavering over Audi TTs while talking too loud into their smartphones?

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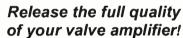
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"If Germany ends up using Internet radio, what would that say about the UK's decision to soldier on with 20-year-old DAB?"



steven green

fter years of very low DAB sales, Germany had been planning towards a "big bang" relaunch of digital radio using the DAB+ standard later this year. In July however, the VPRT, which is the organisation that represents the German commercial radio broadcasters, threw a rather large spanner into the works by issuing a press release saying that they were opposed to the plans to relaunch digital radio. The press release said that relaunching digital radio using the DAB/DAB+ standard wouldn't be a market-driven approach, and that even if a large amount of public money were spent on promoting digital radio, the commercial broadcasters didn't think they'd see a return on their investment for many years to come. Given the very poor DAB sales in the UK over the last few years and the near total collapse of DAB last year, I think their concerns are very well founded. The broadcasters said that they were still in favour of a move to digital radio though, but they wanted transmission networks and receivers to be able to connect to the Internet as well as supporting a (unspecified) broadcast

A couple of weeks after this, the 'KEF', which distributes licence fee money to the German public service broadcasters, announced that it had "unanimously" decided not to release funds for the relaunch of digital radio using DAB+, citing that it would be "inconceivable" to go ahead without the support of the commercial broadcasters, along with expressing a number of other concerns with the public broadcasters' plans. The KEF went on to say that the money that had been earmarked for the relaunch would still be available for other digital radio projects over the next few years, but that it wouldn't be made available in future to relaunch DAB/

DAB+.

Following the KEF's decision, Thomas Jarzombek, the media spokesman for the Christian Democratic Union (CDU) political party, whose leader is the German Chancellor Angela Merkel, laid into DAB by saying that Germany had already spent €200m on rolling it out, yet DAB still only accounted for 0.1% of all radio listening, and he concluded: "There must be no more time wasted with this project now... Instead, all the resources are now directed to the Internet... After the exit of [commercial] radio stations and the rejection by the KEF, digital radio on DAB+ died."

I think Germany's decision to ditch DAB+ is excellent for a number of reasons. First and foremost, I think digital radio supporting the Internet well as a broadcast standard is absolutely the right thing to do, especially when viewed over the medium to long-term. The Internet offers some huge benefits to listeners that traditional broadcasting systems simply cannot replicate, so it makes perfect sense to take advantage of these features in order to make digital radio a far more attractive proposition to consumers than could be delivered via a broadcasting system alone. For example, there is a strong and growing trend towards listening on-demand and away from listening live, yet traditional broadcasting systems like DAB/DAB+ cannot deliver on-demand streams to listeners at all.

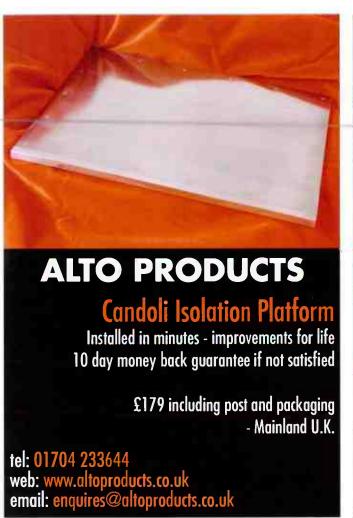
Internet radio obviously delivers wider choice and higher audio quality than DAB+ is ever likely to, along with it being feasible to deliver 'HD' radio via the Internet in future, whereas it would always be too expensive to deliver it via traditional broadcasting systems. The Internet also allows listeners to interact, and it allows broadcasters to deliver content that's personalised to a listener's tastes,

which is impossible on a broadcasting system where everybody receives the same signals and therefore the same content as everybody else.

On the broadcasting systems front, Germany could adopt the new DVB-T2 system (the system that's going to deliver HDTV on Freeview, but it's well-suited to mobile use as well), which is three times as efficient as DAB+ - and it is ten times as efficient as DAB! The cost of transmitting a radio station on DVB-T2 should be about a tenth of the cost of transmitting on DAB, and there would be room for a very large number of stations, so if Germany did adopt DVB-T2 as their national digital radio standard you would definitely expect radio stations to be delivered at high audio quality.

Germany could alternatively use 'eMBMS' (Evolved Multimedia Broadcast Multicast Service), which is the broadcast standard linked to the LTE (Long Term Evolution) 4G mobile phone system that most network operators are expected to adopt. eMBMS allows the stations being broadcast to change dynamically depending on which stations people are listening to in a given location, so all live Internet radio streams would potentially be available via eMBMS. Given that the German broadcasters want digital radios to support the Internet, it would make sense to use an Internet-based standard like eMBMS for the broadcast side too.

Combining Internet connectivity with a state-of-the-art broadcasting standard would clearly enable the broadcasters to make digital radio into a far more compelling proposition to consumers than using DAB+ alone, so I think Germany's decision is spot on. If Germany does end up using something like this though, what would that say about the UK's decision to soldier on with the twenty-year-old DAB system?





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"I'd always assumed digital would mature into something better than analogue, but now I am not so certain..."



noel keywood

ome time in the future, but certainly not now, the word 'digital' will fall into disuse as an archaic adjective. Much like the word 'atomic' sums up the fifties and sixties when 'the atom' apparently held the key to the future, or at least our mastery of it did, so digital at present means all things modern, up to date and just plain clever. What came before digital we all know was 'steam' by way of contrast, and by its very nature inferior and to be done away with if we are to enjoy a bright, shiny tomorrow. But it isn't turning out like that.

I believe in digital too, or I want to and have always wanted to, but these days I am becoming increasingly uncertain about where it is going to lead us, if anywhere at all. Audio went digital a long time ago of course, in 1982 when Compact Disc was launched, and at that time even if you took the view, as I did, that CD was 'challenged', it still didn't mean that tomorrow would not bring something better. Nor did it mean that something better would certainly be better digital. It didn't take a genius to see that 16bit resolution wasn't adequate for audio and that, looking past Philips famous "perfect sound forever" slogan, 24bit resolution was required and would do nicely. A higher sampling rate of 96kHz would eliminate filtering problems and doubling that again to 192kHz would bring a smile to the faces of the hardest audiophiles. Somewhere close to this point audio would become as close to perfect as could be reasonably expected, I once thought.

Worryingly, better digital of this specification arrived recently in the form of 24/96 and 24/192 high resolution digital recordings now appearing on Blu-ray, and they are not really going to blow anyone away. Since hearing early digital I had

always assumed that, given time and development it would mature into something that had to be better than analogue, but nowadays I am not so certain. It's different to analogue and very good, but better? No. That's like trying to say a very good picture could be good enough to replace what we see. Today's high resolution digital recordings are very good, but the organisers of the Munich High-End Show cleverly remind visitors what real instruments sound like by having a small gaggle of musicians roam the show playing wind and string instruments unamplified, and high resolution PCM doesn't get close.

I am not trying to put you off buying Blu-ray or enjoying high resolution digital. It is absolutely the case that 24/96 recordings are better than CD, although you need good playback equipment to resolve the differences. But depressingly, high resolution digital still sounds 'digital'! By that I mean 'hard' and 'sterile'. It is not a sound that I find convincing; it remains a simulacrum, an elaborate but still artificially constructed soundscape. Something somewhere is wrong I feel and this is looming as a limitation of digital I would not have dared to predict.

Does it matter? Possibly not. Listening to 2L's 24/192 PCM recordings against their SACD equivalents I always end up preferring the SACD versions but the DSD code Sony packaged onto SACD isn't going to make any sudden reappearance to keep me and the small, hardcore SACD fraternity happy. Simple, bog-standard digital in the form of PCM code will be with us for a long time yet because it is convenient to work with and I don't see the world ever again bothering with an alternative. But that does leave us to a little bit of a quandary.

With CD slowly dying and

high resolution 24/96 PCM digital sounding little better than CD or say, the 24/48 PCM specification that the recording industry loves, this means the age of digital has reached its limits, at least in offering us improved quality. I cannot see consumers rushing to buy high resolution digital audio of much higher specification than we have today in 24/96 or 24/192 because even though it can offer a frightening experience when used in a soundtrack (listen to the battle sequences in 'Master and Commander', 'The Far Side of the World' on Blu-ray) you need a good system to reproduce this and it isn't/ couldn't get any more dynamic.

Gunfire and general mayhem on Blu-ray are one thing, and perhaps an end achieved. Massed violins are another and here PCM digital is far less convincing than either SACD or analogue. But we are not going to get anything better for a long, long time to come; 24/192 PCM code is here now and that's it!

'Great', I can hear some say. Now we will not have to upgrade our equipment any more and can buy Blu-rays until the cows come home, knowing that they will never be replaced by anything 'better'.

Not so fast! Unlike analogue, digital systems come with a fixed specification and can be improved only little within this rigid defining framework. At some time in the future, Blu-ray or any other 'product' will come to the end of its life in the way LP, CD, VHS and DVD have done. Then what? Then, the promise of a better tomorrow courtesy of 'digital' will have ground to a halt and we will all be left wondering what next It is 'then', I have to say, that 'digital' will join 'atomic' in the lexicon of great ideas that somehow never quite fulfilled their promise and faded away to become a token of past aspirations.

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"respect is due to the format that started us on the road to the televisual choice and freedom we have today..."



adam smith

uch as I am a fan of technology, I do have a tendency for scepticism when confronted with things allegedly "new and improved".

And I have to announce the sad departure of one example of good old classic analogue technology from the Smith household recently. As regular readers will know, I have often moaned about the whole DAB fiasco in my little corner of the Hampshire countryside – namely that there isn't any and the www.getdigitalradio. com website still smugly tells me that, "We're sorry, there are no digital radio stations available in your area at the moment".

Well, unfortunately(?) this situation also extends to Freeview digital television, as there is also a postcode search on www.freeview. co.uk and guess what this one says? Yes, that's right, "Unfortunately you can't receive the Freeview channels in your area now". Clearly, those twenty miles to our transmitter, which is one of the largest in the south of England, are just a few too many for that feeble digital signal. In actual fact. I can permit myself a bit of smugness here as, thanks to the combined sterling efforts of Thomson and Bang & Olufsen, we actually do watch Freeview on a regular basis...

Sadly, that doesn't last too long as we suffer regularly from interference from passing motorcycles, poorly suppressed van engines and general high pressure weather conditions. In fact, things became so bad recently that for over a week the signal on all channels was unwatchable. Yes, my wife and I enjoyed more conversation, evening country walks and bookreading, but it meant that I missed the last in the series of Top Gear! Intriguingly, our analogue TV signal was actually no worse than usual – snowy but watchable, but only on BBCI and

ITVI

Consequently, I decided the time had come to stop pontificating over the satellite dish on the side of our house that the previous occupants kindly left behind and so I took the plunge and invested in one with a hard disc recorder inside. As a result, as mentioned earlier, this has meant that the Smith household has finally kissed goodbye to that staple of televisual convenience for nearly thirty years, good old VHS.

I have actually said for several years that I would invest in some sort of digital recording device when my video recorder finally died. Unfortunately the item in question is a top of the range Sony model which has never put a foot wrong in the twelve or so years I have owned it, and still has remarkably good picture quality. The problem is that my small collection of pre-recorded videos changed to DVDs years ago and the old Sony was only ever brought into service for recording the odd television programme whilst we were out. I think the clue that it might be time to think about a change came on two occasions recently when the aforementioned programmes failed to record, as the tapes on which I was recording were so old that the results were unwatchable!

Now obviously I can look forward to the delights of 'Series Link' and recording from two channels simultaneously should I so choose, but part of me is a little sad that VHS is no more in my lounge. I can remember only too well the excitement of my parents acquiring that first machine and the novelty of being able to record something whilst watching something else. An aged relative, when shown my sister's wedding video over twenty years ago, was completely unable to comprehend how the pictures came out of the little black box with two wheels and

some 'ribbon' in that we put into the mysterious machine!

Even more intriguing to me, given the endless conversations amongst enthusiasts these days that encompass DAB versus FM, vinyl versus CD, belt drive versus direct drive and the like, the big one that many people have forgotten about is the one that really started it all; Betamax versus VHS. Although admittedly this was rather predated by the crucial "stereo; is it just a passing fad?"...

The general consensus is that Betamax was the superior format but VHS eventually won the day, although no-one is totally sure what the definitive factor in deciding this was. Some say it was better marketing from the VHS camp, some that it was the initially more limited recording time of early Betamax tapes (60 minutes, against 3 hours for VHS) and some even that it was simply down to porn; little was available on Betamax because owners Sony would allegedly not allow it!

Whatever the reason, Betamax faded away to become a little backwater in the video technology pool and I think it is true to say that nearly everyone reading this article will have owned a VHS machine at one time or another. Maybe, like me you will have had occasion to curse when you inadvertently recorded the wrong channel, undoubtedly most of us have had something precious recorded over by another member of the family, and I'm sure I am not the only person who has had to take a machine apart to unravel a snapped tape from the innards! Either way, VHS has been an important part of my life and as my recorder gets carefully tucked away in the loft, where it will very probably not see the light of day again for a long time, I think a moment of respect is due to the format that started us on the road to the televisual choice and freedom we have today.

vinyl section

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OCTOBER 2009

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LINN SONDEK LP12 RADIKAL 100

David Price tries the latest, DC-powered version of this classic transcription turntable.

SME 312S 104

Noel Keywood finds that size matters with SME's new twelve inch top of the range tonearm.

AVID DIVA II SP 110

Adam Smith takes this super new £2,000 turntable for a spin.

news









BACK ON BLACK

A label of love from Plastic Head distribution director Steve Bests; Back On Black was seen as his chance to get his favourities back onto viryl, his formet of choice. Two releases from Super are distinct highlights one of the best thruth metal outfits of the eightles. Show No Morry (1983), the band) debut, shows fors of influences from Vincent and was released before the band found their own voice. Live Undead Statutes the band's EPs, the self-utfed viryl and Hasting The Chape?

Next is Motorbead's self-titled debut along with the single biside, City Kids' and the four EP tracks from the 'Beer Drinkers and Hell Raisers' EP Finally, Holland's operatic metal band Epica provide a live cuting. The Classical Complicacy' shows an amazing mixture of metal and classical munic. All releases are featured in gazefolds.

FOUR FROM SUNDAZED

We featured them in the August 2009 issue, within the CD column. Now you can pick up the Holy Modal Rounders on vinyl via 'Good Taste Is Timeless' (1971). Not one of their best but, on the other hand, one of the band's more accessible releases. The label has also released Spirit's 'Twelve Dreams Of Dr Sardonicus' (1970), one of the rock band's best ever albums: it's both tight and well written. Also look out for two Mike Bloomfield/ Al Kooper albums: 'Super Session' (1968) and 'The Live Adventures of...' (1969). The former also features Stephen Stills in a superb blues rock outing while the later, featuring Bloomfield's singing debut, is a decent release but with possibly a touch too much jamming for most ears.



ROCK AND KRAUTROCK

A splendid mixture of rock and the more leftfield Krautrock from the German outfit SPV, greet us this month. The Krautrock stems from Amon Duul II, the evolution of the original, commune-based Amon Duul. SPV has released both the debut, 'Phallas Dei' (1969), an ambitious and imaginative rock creation, and the follow-up 'Yeti', which is a combination of structured rock songs and excellent improv pieces. Of a more straightforward nature is Magnum's hard rock new release which is packed with hooks and very accessible, along with UFO's new album 'The Visitor', an excellent fortieth anniversary release, mixing hard rock and blues rock. Also look out for Moonspell's 'Night Eternal' (2008) and ex-Tangerine Dream man, Klaus Schulze's 'X' (1978)

and 'Mirage' (1977).







THE LOVES OF VINYL LOVERS

New out on the Vinyl Lovers label are a range of intriguing rarities including Giles, Giles & Fripp's 'The Brondesburg Road Tapes' from 1968. This pre-King Crimson album features ex-Fairport Convention singer, Judy Dyble. From the sublime to Marilyn Monroe's '...who else?' a collection of favourites and rarities that also features Jane Russell. Next, two Soft Machine connections and ex-Soft Machine drummer Robert Wyatt's 'A Short Break', a 10", green vinyl release of 1996 recordings. The Wilde Flowers' self-titled collection collates tracks from 1965-1969 and includes personnel from both Soft Machine and prog-outfit Caravan (i.e.: Kevin Ayers, Robert Wyatt, David Sinclair and Hugh Hopper). Also watch out for rare and unreleased tracks from pre-T-Rex outfit, John's Children and 'Jagged Time Lapse'.









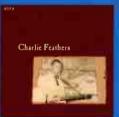


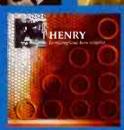
A VINTAGE COLLECTION

Doxy thows no sign of reducing the pace of its release schedule including the only LP released during Buddy Holly's lifetime. The Chirping Crickets' featuring a bag of hits including Oh, Boy, and That II Be The Day. From a similar time period is country line and Johnsty Cash. First Supply that covers his works from 1955 to 1956 over two discs. Also country and country line features "Lasson Field" that features a host of his King Records chirales from 1955-1957. Also which out for musique concrete pions at Pierro Helity's To Microphone Bein Tuniques, a compilation from 1950-1952 and blue man. Champion Jack Dupress excentent dobut. Blues From The Gutter (1958)







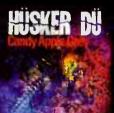




MORE FROM WARNERS

Further releases from Warners Back To Vinyl imprint now include Stephen Stills' 'Just Roll Tape', a session from 1968 that was lost for forty years and features his work prior to him joining Crosby, Stills & Nash. Anyone remember 'Chuck E.'s In Love'? The single from Rickie Lee Jones' perfect debut? For anyone who's not familiar, think Joni Mitchell. Also check out two from Talking Heads. 'Remain In Light' (1980) included the wonderful 'Once In A Lifetime' and the superb debut, 'Talking Heads: 77', featuring the landmark single, 'Psycho Killer'. And watch out for The Eagles' 'Hotel California' (1976), Warren Zevon's self-titled album (1976) and, Husker Du's 'Candy Apple Grey' (1986) and ZZ Top's 'Fandango' (1975).

















...AND FINALLY

From The Last Record Company in Norway is a range of 'out there' new records combining raw guitar madness of Stian Westerhus on 'Galore' to the the dark drone sonic experiments of Ultrlyd on 'Renditions'. Krautrock fans should keep a look out for Grobschnitt's 'Live' album on Sireena Records, a two disc affair from 2008, presented in a gatefold. Aldo look out for the reissue of Mike Oldfield's 'Tubular Bells' via Mercury, which should please audiophiles as it has been lovingly remastered.











New Radikal

Thirty six years after its inception, the Linn Sondek is back to scare its rivals, armed with a brand new DC motor no less.

David Price listens to the new LP12 SE Radikal...

here I was, sitting in this very chair some two years ago, wondering if I'd written my last ever Linn Sondek LP12 review. The Keel subchassis was a vast improvement as it turned out albeit for a not inconsiderable chunk of change, I reasoned that, now Linn had changed the deck's backbone, and given that they'd tweaked just about everything else in its long production run, what else was there to upgrade? The answer was "nothing", as we all knew what Ivor Tiefenbrun had said about DC motors in the past, and everything else had been revamped. So I presumed that I was looking at the last ever Linn, and I'd never be reviewing another. Doh!

The LP12 is back with a new DC motor, claimed to offer "a new level of speed accuracy, as well as radically reduced electrical and mechanical noise". It has an interesting new onboard speed management system which automatically calibrates the turntable for accurate motor speed control, via a new brushed DC motor which is said to have a very low magnetic field as well as very low electrical noise. This is fitted inside its own machined casing designed to reduce vibration and resonance. Like the Lingo of yore, the Radikal motor control unit and power supply comes in a standard Linn chassis, available in black or silver, but can also be specified in one of the company's lovely velvet-touch 'machined-fromsolid' aluminium chassis that I first remember seeing on the CD12 CD player, and then latterly on the Klimax DS network music player. The price of the new DC motor and associated control box is a heady £2,500 (obviously on top of the LPI2 chassis itself which now comes in at £1,750), but if you want the swanky aluminium box too, then the Radical upgrade costs a whopping £4,500.

THE STORY SO FAR...

The tale is an oft-told one. The original Linn Sondek LP12 emerged from the Castlemilk factory, blinking into the Glasgow sunlight as it were, in 1973. In recent years the

Linn has been lambasted for being "old hat", lacking as it does acres of shiny Perspex, quartz-locked direct drive motors, dramatic gold plated suspension balance weights and so on and so forth, but in truth it was "old hat" back when it was launched too - and unapologetically so, Instead of eve-catching new design flourishes. it was all about getting the very best out of a conventional three point sprung subchassis design, as seen in the original Acoustic Research white paper. Belt drive was chosen because it was quieter than idler (considerably so) and direct drive, well that hadn't even been invented then! Rather than the blunt appliance of science, the LP12 was all about precisely engineered component parts, meticulously assembled to work perfectly in practice.

And work it did. The LP12, in its original guise, was a beautiful sounding device. If you've never heard an early deck, then you'll be amazed how sumptuous it sounds. It was a thousand miles away from being neutral, but the stock Sondek was mightily enjoyable to listen to. Bass was voluptuous and overblown, the midband smooth as Tefllon-coated silk on ice, and treble was sweet as bricklayer's tea. Much as I loved the deck's tonality however, it was the way it pieced the musical picture together that set it apart from rival turntables such as the Heybrook TT2 and Ariston RDII. The LPI2 simply had a groove to it that its rivals lacked, making music immensely good fun to listen; almost artificially so, some might say.

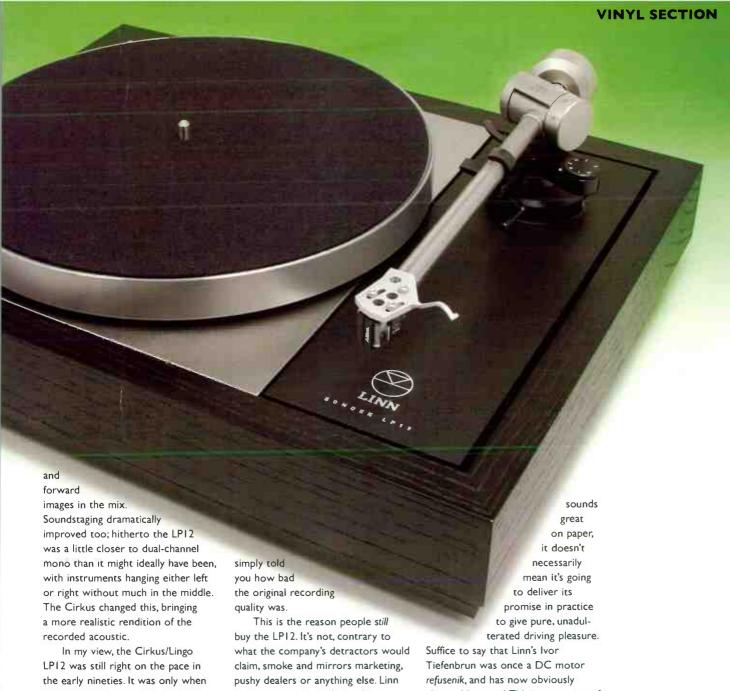
By 1981, the Sondek had changed its sound somewhat. The modified main bearing in 1974 (serial number 2000) and Nirvana spring and motor mod kit (from 32,826) made for an altogether more grippy sound, with the LP12 losing some of its bass bloom and midband warmth. Then came the first major mod, the Valhalla crystal-driven power supply board (38,794), which really tightened up the sound. Indeed, I'd say this was the transition point from the romance of the original LP12 to an altogether more incisive design; its 'second age'

if you see what I mean?

Suddenly the LPI2 seemed critical of pressings, beginning to really tell you what was in the groove, rather than providing a larger-than-life thumbnail of it. The deck was still great to listen to, but certainly different. Strictly speaking it was far more correct; you could hear the spaces between notes better, instruments stopping and starting with far greater alacrity. Dynamics were better too, the deck becoming a more intense experience.

The nineteen eighties saw more mods to the LP12 which took it ever further away from that sumptuous original. For example, the plinth was braced more stiffly (53,000), the subchassis strengthened (54,101) and the suspension springs stiffened. A better bearing arrived in 1987 (70,000), along with a superior armboard (79,160), but it wasn't until 1990 that the third age of the LP12 was entered, with the arrival of the Lingo power supply and soon after in 1992, the Cirkus package (90,582).

The deck moved yet further away from euphony to accuracy. The Lingo was a dramatic improvement to the LP12 in my view, once again giving a more explicit sense of the spaces between the notes. But not everyone thought it was positive; the old Valhalla Linn (and even more so in the case of the pre-Valhalla) slurred them somewhat, giving a more mellifluous quality. The Lingo seemed to go in there with a scalpel and cut out all the fat, making the Sondek a drier sounding device altogether, and quite a distance now from the first generation of the seventies Sondek. If the Lingo worked on the timing of the deck, then the Cirkus worked on its detail retrieval, adding a whole new extra layer of information. Suddenly, you could hear through to the back of the recorded acoustic, rather than focusing on the centre



In my view, the Cirkus/Lingo LP12 was still right on the pace in the early nineties. It was only when Michell's Orbe arrived in 1995 that it could have been said to have been lacking; the latter had a more expansive soundstage, stronger and more solid bass, and superior treble detail too. But still, the LP12 'had the funk' and the Orbe did not, the Michell providing a more matter-offact rendition of a musical event.

Back in the early eighties this was a deck that many reviewers would confidently recommend as being 'the best', but twenty years later it was found wanting in speed stability against the Roksan, soundstaging against the Michell and bass grip against the Pink. We'd now reached a point where you bought the Linn for its musicality, rather than its overall across-the-board competence. Still, what it did, it did brilliantly; cue up Crosby, Stills, Nash and Young's 'Wooden Ships' and the Linn was the only deck in town. It had a lovely, lilting musicality that somehow seemed to perfectly capture the essence of the song, whereas others

buyers are not stupid, they know what they like and why. The deck sings with jazz; to my ears it's still one of the finest hi-fi moments with a good classic BlueNote pressing; and really makes sense of rock. Everything from the densely textured washes of sound from The Pixies to some smooth Rickie Lee Jones comes over unfathomably well via the Sondek. But cue up some classic electronica like Kraftwerk's 'Tour de France Soundtracks' for example, and the likes of Avid's Acutus gets so much further into it. So this is where we're left in 2009, a deck that's brilliant in parts, but not quite the all round slayer of superdecks it once was.

The new Radikal DC motor upgrade of course professes to change all this. Now, I am not going to get drawn into the 'DC is better than AC' debate (or vice versa), because I'm no longer young and stupid enough to believe that theories are more important than practice. Just as a 500BHP sports car

Suffice to say that Linn's Ivor
Tiefenbrun was once a DC motor
refusenik, and has now obviously
changed his mind. This is not a sign of
hypocrisy or cynicism on his part, but
expedience. In his view, if they can
make a DC motor work better, then
Linn should offer one. Fortunately
for the purposes of the review, I
was able to do a direct comparison
with a stock LP12SE (with AC motor
and Lingo) against the new LP12SE
Radikal, both expertly set up by Brian
Morris of House of Linn. It was a
fascinating comparison to make, to
hear the difference the two motor
systems made.

SOUND QUALITY

Just to recap. The basic (if you can call it that) Linn LP12SE Lingo is a very impressive sounding device. Whilst it's not quite up with Avid's Acutus in its ability to retrieve vast amounts of detail off the disc, there's no denying that it's no less enjoyable a listen - especially with jazz or rock music. The Linn is a Linn, and sounds like a Linn, so Avid, SME and even middle-of-the-road Michell buyers

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Monitor Audio R58, as new boxed Monitor Audio R59, nr mint boxed Quad R112, excellent boxed Quad R112, excellent boxed Quad R112, excellent boxed Quad R112, excellent boxed Quad R12, excellent boxed Guad R12, excellent boxed Guad R12, excellent boxed Sonus Fober Domus, vg boxed Sonus Fober Domus, vg boxed Sonus Fober Chert R10, and Rays Lisha Audio R8571, nr mint croted Lisha Audio R8571, Arcam (D17, excellent boxed Arcam (D37, nr mint boxed Arcam (D37, nr mint boxed Audin Analogue Meestro 192/24, ex boxed serviced Audin Analogue Meestro 192/24, ex boxed serviced Audin Research (D7, mint boxed in silver Cainn Fog v2, in silver (*v upsompling board, BARGAIN! 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it. But if you like that Linn thing, then the LPI2SE Lingo represented the best of a pure and noble breed. As that Chic song once so eloquently put it, "it don't mean a thing if it ain't got that swing", and this might as well be the theme tune to the Linn Sondek LP12...

The ability of the Sondek (Lingo) to chew through even the most woefully recorded LP and turn it into sweet, easy listening is unmatched. Recordings that would have me hiding behind the sofa on the Avid Acutus barely caused me to raise an eyebrow, Roger Moore-style. Eyelids remained unbatted and jaws hung resolutely at the correct angle. The stock LPI2 just seems to be able to magically filter out all the recording's nasties, as a dog-eared copy of The Box Tops' 'The Letter' proved. A low-fi sixties song delivered via an LP record that had gone to one too many of my teenage parties, and which was then left to fend for itself in the vinyl teenage torture chamber that was my younger brother's record collection, this wouldn't be my first choice to test any turntable with. But lo and behold, out came the music, soaring with passion, brimming with emotion via the LP12 Lingo...

Moving to the LP12 Radikal (with identical Ekos arm and Akiva cartridge), and I was struck by the drop in surface noise, and the wider space between the notes. Suddenly, the song seemed less euphonic but more purposeful. Where it had been hazy, lazy and laconic, I was now hearing those nineteen sixties fops really belting out a great pop/folk song. The production effects came over with greater precision, the snare drum pierced into the middle distance, those vocals sounded curiously closer miked. The song went from sounding 'lovely' to sounding real. And therein lies the change from Lingo to Radikal, as far as the LP12 is

Congo's 'Days Chasing Days', a wonderful slice of late nineteen seventies reggae, sounded blissful on the standard LP12 Lingo. I was struck by the scale of warmth of this simple but superb old analogue recording. Bass was full and fluid in a way that only an LP12 can be, seemingly wired in directly to the song's gentle melody. Midband was wide and warm, with a great deal of space between the instrumentalists in the mix, and vocals had a tactile quality that the LPI2 manages particularly well. Treble was smooth and silky, with a lovely cymbal sound resolved in a completely relaxed way. Switching to the Radikal, and it was as if the Sondek had taken a pep pill, with the music at once sounding more urgent, more emotive and impactful. The difference wasn't dramatic, in the way that you'd instantly feel if you'd switched from CD to vinyl for example, but it was there alright, and the more the song progressed the more I could hear how much better the Radikal was at the job in hand...

For example, bass notes started and stopped in a more tangible way, the Radikal LP12 conveying the dynamic articulation of the playing more explicitly. Here was a note the bassist was forcing on the fret, and here was a note he wasn't. Guitars sounded slightly thinner and more wiry via the DC driven Sondek, but their percussive nature was far more apparent. Whereas the standard Linn timed very nicely, the DC deck showed how vague it actually was, bringing metronomic precision to the party. Switching back to the AC deck and that rhythm guitar track now sounded ponderous and almost semi-detached from the rest of the song. Vocals moved forward in the mix slightly with the Radikal, attaining a more earthy and direct quality and also timing better; there was more of a sense of the voice itself being used as a percussive instrument. Drums had greater impact, and the Radikal was able to let the listener really focus in on what the drummer was doing, almost as if he was a soloist. Cymbals sounded fractionally sharper but thinner too, as if some of the gloss had been cut out to reveal what was really there underneath.

So the pattern continued, as I ran the gamut of my record collection. It proved fascinating to compare the two decks, and in almost every case I preferred the Radikal LP12. It strips a small but critical layer of 'mush' out of the recording, almost as if it was tracking with a more finely profiled stylus tip able to get deeper into the groove. Generally, it yields very positive results, as the deck is able to get closer to the original recording, giving a more architectural soundstage with instruments more firmly affixed within, plus a tighter, tauter rendition of the music's rhythm, and more pronounced dynamics, so you can better hear when the band have hit the loud pedal and when they're backing off a bit. Yes, you could say the Radikal makes the LP12 sound more 'hi-fi', but it almost makes it more musical too. An interesting point, as in my experience it's one or the other.

CONCLUSION

Having attended several Linn dealer musical evenings since the launch of the Radikal, I've heard many people's thoughts on this new DC power supply. It's strangely redolent of what was said when the Lingo was launched, which is that it strips away some of the romance of the famed Sondek sound. Obviously, a great many people bought the deck for that sound, and so regard it as a retrograde step, as if some of its innate character has been surgically removed, but others who may be on a different journey, that of getting closer to the original music, regard the Radikal in altogether different ways. I'd put myself in the latter category, as I think being brought closer to what's on the record is surely no bad thing. But then again, I'd love to own one of those early seventies LP12s, complete with its full complement of soft suspension grommets and wobbly springs to enjoy the classic Sondek sound too!

In 2009, as the world moves to hard disk-based digital music playback en masse, turntables become an ever more specialist pursuit. I've likened them to sports cars; they're not going to endure the rigours of your daily commute so you

can 'knock yourself out' and treat yourself to the one you've always dreamed of. This, I think, sums up the

LP12's position perfectly. At £1,750 for the deck and £2,350 for the Keel subchassis, it is already a premium priced product, and on top of this, Linn are now asking an extra £2,500 for the Radikal DC motor package. By any yardstick this is very expensive indeed, but I can still see why many people will buy one. As the ultimate expression of a turntable that a great many people desire, it's a very nice thing to have in your listening room indeed, and people will be happy to pay this for the privilege. Similarly exalted levels of performance are available elsewhere for less money however, but these rivals have their own essential sounds which are all distinctly un-Linn-like. So, to brave Sondek aficionados wondering whether to make the change, I'd say go forth and listen to the Radikal, as I doubt you'll be disappointed.

LINN SONDEK LP12 £1,750 LINN KEEL £2,350 LINN RADIKAL £2,500 **LINN EKOS SE** £3,540 LINN AKIVA £2,270

£12,410

TOTAL AS TESTED:



The legend goes from strength to strength; another landmark LP12 upgrade bringing superior timing, detail and dynamics, but it will cost

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Twelve Bore

Noel Keywood brings home some serious firepower from SME, in the shape of its 312S new twelve inch tonearm...

hilst nine inch arms occupy the functional end of the market, twelve inchers look altogether more intriguing and purposeful. Perhaps that's why they seem to be making something of a comeback in today's vinyl revival, where appearance matters. Not to be caught napping, SME have launched an upgraded version of their long 312 arm, the magnesium alloy 312S, reviewed here. The SME312 I have lived with happily for the last twenty years or so, and finally I had to do what I have always least wanted to do, change my arm!

Why buy a twelve inch arm, especially when it costs £1,750? The rational answer is because it looks good! Like a Ferrari or a Triumph 675, an SME312 is an object of beauty that is finely honed to do its job immaculately well, and years away into the future you'll still enjoy owning and using it - as I do. Twelve inch arms not only look superb they are gorgeous to use and sound wonderful I can assure you. You've possibly read all about reduced tracking error and lower distortion, Baerwald's equations, increased mass and all that, but in practice it is mostly hot air, more of which later...

As well as looking good, with their beautiful design and gorgeous finish, SMEs feel good in the hand and the 312, as well as the 312S are second only to the remarkable SMEV (and IV) in this respect (although I must say Regas feel good too, to be absolutely fair). I never quite took to the original 3012 because the lightweight tube rang, a tap on its tube with a screwdriver revealed. So the 3012, although visually appealing, never qualified in my mind as a likely inhabitant of Keywood towers. But SME's 312 arm is an altogether different animal I realised long ago,

one I couldn't do without. The 312 has a rolled, tapered, stiff aluminium arm, unlike the 3012.

I am not going to start droning on about lower tracking distortion but I did find originally that using the SME312 arm when measuring pickup cartridge distortion gave me obviously better figures. A distortion figure of 0.8% or so, mainly second harmonic I should add, would fall to 0.5% or so from a CBS test disc, in line with what is to be expected from looking at Stephenson's modified Baerwald equations, a subject I worked through for Hi-Fi Answers in 1975 no less! So the SME312 and the geometrically similar 312S do give lower distortion than shorter nine inch arms - and that has to be good.



The damping bath with adjustable paddle. It damps laterally, to cope with bouncy floors.

But I've never quite been certain that that fact alone accounted for the smooth sound that I've so appreciated over the years from my SME312. Now I suspect it is a contributory factor, a useful benefit but not the only benefit to be had from making an arm longer. If you've

nine
inch Regas and
SMEs like the legendary V
you will know they are hardly
short of ability: think fast, clean and
concise. A twelve inch tonearm is an
altogether smoother and more svelte
experience.

GNESIU M TONE ARI

used

If you've never seen an SME in the flesh, then think finest Japanese camera quality, plus about ten percent. They're objects of engineering perfection. Like all SME products the 312S comes beautifully packed. It has more tiddly bits than the 312: you get screws, three special adjusting tools, two templates, two instruction books (one for the arm, the other for the damping trough) a small spanner, counterweight shims and now even a simple tracking force balance. Vinylistas will love it all, but others may balk and want their dealer to handle fitting and set-up. The arm itself is all black: the screws are black, the arm tube is black and so is the finger lift (which I choose to use). Gold lines declare this is a 312S and a magnesium arm.

To be absolutely clear, the 312S like the 312 has a detachable headshell, to ease cartridge changing, but if you are looking for the ultimate and don't need to change cartridges regularly, the 512 is a better choice, assuming cost is of no consequence of course!

Our pictures show the arm tube is tapered for strength and to suppress arm tube resonances. Tap it lightly with a small screwdriver and it responds with a dead 'clunk'. The arm tube needs to be non resonant if it is not to impose its own sound on the cartridge. The 312S is less resonant than its less expensive stablemate, the 312, our accelerometer tests revealed [see MEASURED PERFORMANCE] but still has a main

arm tube resonant mode, albeit at a lower frequency than shorter arms, pushing it downward in frequency to the lower midrange - the other reason a 12in arm sounds different to others.

The lightweight magnesium headshell

comes with
an optional finger lift and
clamps to the arm with a screw
tightened collar. The screw passes
through a depression in the arm
tube to hold the collar in place and
this means the headshell cannot
be slid on or off the arm until the
screw has been lifted out completely
and this I find is a fiddly and often

difficult process. The headshell must be pushed back against pressure from the spring loaded arm contacts before the screw will easily lift out and I usually use tiny jewellers pliers to extract it. Then the small washer beneath the screw's head falls off, rolls across the floor and...

The arm is balanced by a large, rigidly clamped counterweight that is adjusted along the axis of the arm tube to set tracking force. When set, the weight is locked into place using a special screwdriver supplied. SME provide a set heavy shims that

hold the arm
in place whilst
working on it forced me to twist
a piece of single core wire around
tube and rest to bind them together
securely to prevent the arm flying
out of the rest. The review process
is different and more demanding
than ordinary usage I must admit, but
owners who buy this arm are likely
to change headshells and cartridges
and need a way to lock the arm
whilst doing so, to avoid stylus
demolition.

arm rest with no lock.

Absence of a lock

The 312S slides on SME's locking base system, to adjust tracking and arm height. It's a neat system but demands an elongated cutout in the plinth that's more difficult to cut than the simple, circular hole required by other arms, another reason it can be a good idea to get the arm fitted by a

"A tonearm that is aurally and visually a delight to own..."

fit into the counterweight carrier to accommodate cartridges weighing from 7gms to 19gms they state, but our Goldring 1012GX weighs just 6.2gms and balances, as well as accepting 1.8gms VTF by moving the counterweight forward. Grado, Goldring and Nagaoka cartridges all have lightweight bodies and the 312S will accommodate them. Quality moving coils usually weigh more; the Ortofon Cadenza Blue I used weighs 10.4gms for example. Whilst the counterweight would balance this as supplied, it was some distance from the hub so I added weights to bring it closer, reducing the arm's moment of inertia and also structural vibration by a small but useful amount. This improves sound quality by lessening midband resonance effects.

Carrying out numerous adjustments highlighted another long standing weakness in SMEs, a simple

dealer. The sense of this will become even more apparent when you see the size of plinth a twelve inch arm needs; my Martin Bastin plinth is a monster weighing 42lbs, and needs its own table.

The SME312S comes with a damping trough attached, which was a surprise as I haven't fiddled with paddles and damping fluid for a long, long time. The trough has a cover and a paddle that screws up or down, to adjust the amount of damping applied. The trough system only damps lateral arm motion; it does not affect behaviour over warps; SME told me it was to cope with bouncy floors. Our measurements show even with full damping and a slightly over filled trough the degree of damping applied is quite light, but it is there [see MEASURED PERFORMANCE].

SME now supply a silver litz wired signal cable terminated with

gold plated phono plugs. They can supply a fully balanced cable with XLR connectors as

an alternative, for those with an Aqvox phono stage.

SOUND QUALITY

The 312S keeps
the broad, open
soundstage and
deliciously sleek
sound free from the
zest of shorter arms,
that I have become
so used to from
my 312. I suppose
you could poke fun and
call it an "armchair and

slippers" presentation against the more boisterous results from some arms, but this is going a bit far. I call it simple, clean and very refined, a sound so free of artifice it doesn't draw attention to itself, instead letting the music flow through unaltered.

unaltered.
The 3!2S impr

The 3!2S improves on the 312 in many subtle ways. From the off I noticed it was even quieter to use than my old 312, and that both electrically and mechanically it was deadly silent. Let me explain; not only has my 312 had a hard working life as a review tool for pickup cartridges, it had fully balanced cables attached that I had to make up some time ago for an Aqvox phono stage review. These were terminated by XLR to phono adaptors so I could use everyday phono stages including my one of choice used within this review, an Icon Audio PS3. The 312S comes with new, better cabling than before and it was deathly silent against my 312, as was the arm structure. With my usual World Audio Design 300B amplifier I was greeted by total silence from the loudspeakers, until the arm hit the playing surface - and then I realised that I had set volume too high to compensate for the silence.

Not unexpectedly the 312S sounded altogether tidier in its image construction, adding body and weight to singers and instruments, as well as greater dynamic thrust. Spoken verse

The 312S in use with Ortofon Cadenza Blue cartridge, and Garrard 401 on a Martin Bastin plinth.



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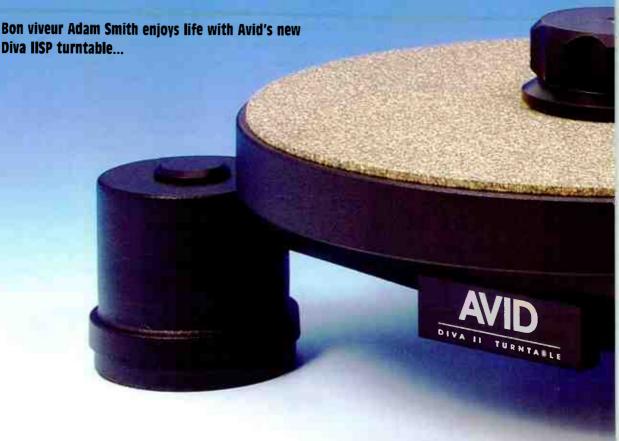
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Viva La Diva



purred on by the resurgence of vinyl, it would appear that Avid is a company going places. I had a long and interesting chat with owner Conrad Mas at the Munich Hi-Fi Show and he was telling me of the company's plans for the future, and what they are planning to introduce over the next couple of years. Naturally I am sworn to secrecy but suffice it to say that I nearly fell off my stool when he announced that the number of new products in this period will be in double figures! Interestingly, a teaser has now been posted on Avid's website, and it turns out that the launch for several of these new products will be the September Hi-Fi Show at Whittlebury Hall over the weekend of the 26th and 27th of September. As the full Hi-Fi World team will be

in attendance, it remains only to see who ends up banging on the door of the Avid room to grab first glance at the new £18,000 flagship!

I think this is indicative that Avid has become something of a success story since it opened its doors in 1995. Yes, the company also doubles as a source of high quality mechanical engineering, but making perfect 'oily bits' for a turntable is all very well if you don't know how to put them together or how to make them interact successfully. Fortunately, judging by the Diva II, Volvere and Acutus models that we are such fans of, it appears this isn't an issue. Consequently, it was with a great sense of anticipation that I set to unpacking the first newbie from Avid; the Diva II SP turntable...

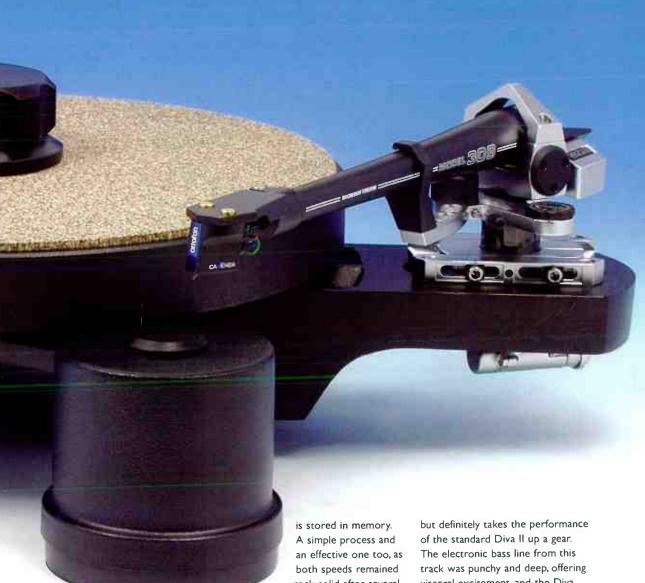
As its name suggests, this deck is an evolution of the base model Diva II, which incorporates some features found on bigger brother Volvere, but also launches one or two new ideas for Avid onto the market. Obviously visually similar to the Diva II, the first thing you notice when assembling the deck is that the platter is a metal item, rather than the MDF of the standard Diva II, and this spins on a high quality Tungsten carbide/sapphire

bearing assembly taken from the dearer decks. As per all Avid designs, the Diva II SP is belt driven, but it is here that the new item I mentioned earlier shows its face, in the form of a synchronous AC motor, driving the platter through twin belts and offering variable speed through a brand new frequency-adjustable power supply.

This configuration came about as Conrad prefers to stick with a synchronous AC motor. As he explained, he sees the use of a DC type as something of an easy option, requiring a simple voltage alteration for speed adjustment but his concerns at how the changing load on such a motor can ever make it hope to remain stable meant that he stuck with the AC, and chose to develop a circuit that regenerates a clean AC signal to power the motor, making it frequency-adjustable for the possibility of speed alteration. The result is the DSP Vari-SPeed supply, so called because it uses Digital Signal Processing for signal generation and

Physically the supply is a small and neat metal box with an on/off knob and two buttons. One starts and stops the platter, and the other





rock-solid after several days of continuous running.

In physical terms, the Diva II SP is very well built as I would have expected, but the fitting of the twin belts is fiddly. As there is no separate subplatter, Avid provide a pin which is located in a hole under the platter, the belts are fitted around the drive surface and hooked over this, then it is put into position, the belts guided onto the pulley and the pin removed. All very well but clearance under the platter isn't great and when I tried to remove the pin, the belt tension caused it to ping off, ricochet around the back of my rack and vanish into thin air!

SOUND QUALITY

With my Audio Technica AT-OC9MLII fitted, and warming up the Diva II SP and supplied SME 309 arm with something a little frivolous in the form of Kleerup's recent twelve inch single 'Longing for Lullabies', I realised that the Diva II SP does indeed have the Avid family sound,

visceral excitement, and the Diva II SP proved a more than willing accomplice to some dance-related shenanigans. Moving to something a little more sophisticated, it continued to show that it is right at the top of the tree when it comes to bass lines, imbuing Tift Merrit's 'Still Pretending' with a delightfully well formed underpinning. I was aware that some notes were not quite as well separated as I am used to (but that's a Garrard 301 for you...) but generally the Diva II SP carried the underlying tune beautifully and remained solid and confident throughout the track.

Equally delightful was its sense of expressiveness and feeling across the midband. Tift's vocals were vivid and finely etched onto the performance, the Avid making it easy to spot when she pulled back from the microphone when delivering something of a vocal crescendo; some lesser decks simply leave you wondering why



and holding both moves the unit into speed adjustment mode, where one button speeds up in fine increments and the other slows down. Once the desired speed is reached, both buttons are pressed together once more and the setting





Instrumental detail was another trick up the Diva II SP's sleeve that it unveiled fairly early on in the game. As I replaced the aforementioned Kleerup twelve inch single in my box of 45rpm vinyl delights, I came across another disc that hasn't seen the light of day for a few years. 'Birdman' by Ride is an indie classic that starts with some softly tapped bongos and a delicately strummed bass guitar, which the Avid absolutely lapped up. In fact, the bongo strikes were quite uncannily lifelike in the

"it's easy to discern the extra sophistication and musical insight that the superior engineering has brought about..."

she's gone a bit quiet suddenly, but the Avid didn't miss a trick here. Instruments also held no fear for the deck, and the Ulilean pipes from Brian Kennedy's track 'Captured' were magnificent in both timbre and sonic texture. Once again, a less than capable deck can make these sound rather strained and uncomfortable, but through the Avid they sounded as clear and as lifelike as I could have hoped.

Shifting the musical genre again to Jean Michel Jarre showed that the Diva II SP is also something of a wizard when it comes to timing. Those delicious analogue synthesisers stopped and started perfectly, and the Avid made sure that each and every note sat in its own space and could be easily picked out if one chose to do so, and yet melded with its companions to form a beautifully cohesive and flowing whole. In fact, in imagery terms, I felt that the Diva II SP is one of the best at its price in the way in which it layers performances. That is to say, some decks pull everything out into the room, some push all the action off into the distance, but the Diva II SP has perfected the trick that usually identifies something much more expensive. Which is to say that it positions everything perfectly, lining the main action up at the front, and tucking the backing performances in behind this just where they need to be. Frankly, it's further grist to my theory that, if you want surround sound but don't want a roomful of loudspeakers, try a decent turntable instead [hear, hear! Ed.]

corner of my room. The rest of the track is predictably noisier, and the Avid had fun with this, but I did detect a hint of compression starting to creep in on occasion.

A further wander through my records seemed to suggest that, yes, the Diva II SP could sometimes get a little uncomfortable with harder, louder and more congested material, seemingly cowering away from it a little. As this was the first time I had used an SME 309, I did fit my own rewired Alphason HR I 00S to the deck at a later stage to see if this was causing the issue, but it remained in place, and so is something to look out for when

auditioning. Still, it's worth pointing out that all the best of the rest of its price rivals are similarly afflicted by this to an extent. It's not for nothing that folk spend twice as much money on the likes of the Volvere Sequel...

CONCLUSION

The Avid Diva II SP is a fine turntable and, the doubling of price it commands over the standard Diva Il is well worth the extra outlay. The Diva II is certainly an absolute bargain at its £1,000 price point and punches well above its weight sonically, but listening to the Diva II SP, it's easy to pick out the extra sophistication and musical insight that the superior engineering has brought about. Add in a versatile new power supply that will undoubtedly be making its influence felt elsewhere, and you have a very fine vinyl spinner indeed that promises a high standard for the other forthcoming models.



REFERENCE SYSTEM
Garrard 301 turntable
Alphason HR-100S arm (Cardas wired)
Audio Technica AT-0C9MLII cartridge
Anatek MC1 phono stage
Naim Supernait amplifier
Ferrograph S1 loudspeakers

MEASURED PERFORMANCE

The SME309 tonearm supplied uses a tapered, cat magnesium tube with detachable magnesium headshell. It is internally damped to suppress vibration, SME say. Our vibration analysis, made with a Bruel & Kjaer accelerometer, shows two well suppressed modal peaks, at 400Hz and 650Hz from the arm in its basic bending mode, something all arms suffer to a greater or lesser extent; usually a greater extent because the 309 puts up a good performance here, with accelerations of 0.1g, although it does not better the Rega RB1000 or one-piece SME V. The detachable headshell may well have some impact, but the 309 is still reasonably clean. There is a large 0.35g peak at 1200Hz but narrow peak containing little energy. There is a cluster of high frequency peaks ahove 5kHz, a common pattern, but these are also slightly lower than is common. So the 309 puts up a good performance in

terms of arm vibration.

The Avid Diva II SP itself ran at exactly the right speed. An unweighted wow value of around 0.2% (0.22% in our analysis) is a little below the best and this was likely affecting the weighted value which at 0.076% was satisfactorily low, if not quite as low as is possible (0.06%).

So the Avid Diva SP with SME309 tonearm package measured well all round. There are no weaknesses, and both items are very well built. NK

WOW & FLUTTER



VERDICT

A detailed and punchy musical performer, the Diva II SP fills the logical gap between the Diva II and Volvere perfectly.

AVID DIVA II SP £2,000 Avid Hi-Fi Ltd. (C) +44(U)1480 457300 www.avidhifi.co.uk

EOD

- superb midrange detail
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- taut, tuneful bass
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AGAINST

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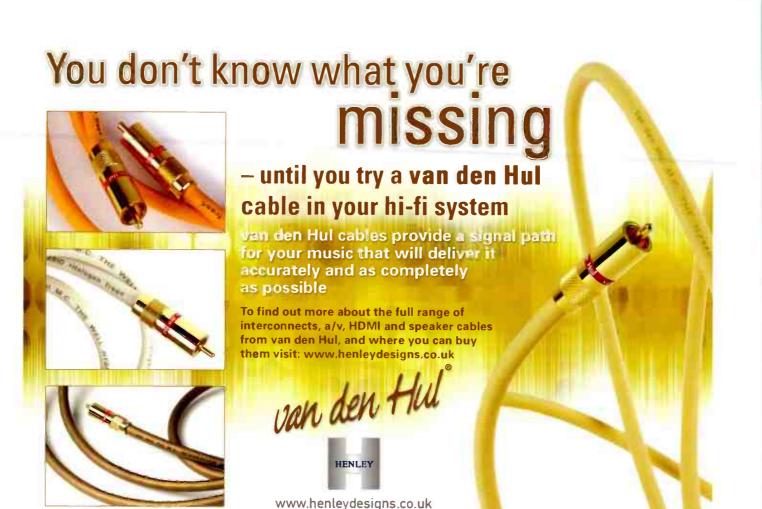
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Paul Messenger Hi-Fi Choice September 2008



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WANTED: SPENDOR SP2 Mk1 or Mk2. Don't have to be in working order. (spare parts) or just Spendor Bass/Mid 200mm polypropylene units. Tel: Toni 0797 I 953 628

CHORD COMPANY Indigo analogue interconnect. One metre RCA £425 (£925) Tel: 0208 473 9890

LORICRAFT AUDIO Oak plinth for Garrard 301 turntable, £100. Quad FM4 tuner £125. Cambridge Audio DAC2 £40. Buyer to collect. Tel: 01279 443 485 (Harlow)

KEF 104-2 (rosewood) floorstanders (£1800) £350. Shahinian
Obelisk omni-directional (cherrywood) stunning sound (£4000)
£1450. Kef Coda8 (rosewood)
bookshelf (£100) £50. Celestion
Centre2, grey, A/V speaker (£150)
£70. Tel: 07872 955 698 or email:
pavz_01@msn.com

FOR SALE: Sugden Masterclass pre-amplifier (Serial No. 0235) £875, B&W DM605.2 speakers with integral 130 watt sub-woofer. £100. Buyer to collect speakers. Tel: Peter 01642 559 078

TEAC SYSTEM, Reference 300. Amplifier, CD player, DAB tuner. £320. Sony Scala system. Receiver, CD player, tape deck. £175. Both in excellent condition. Boxed. Tel: 07900 866 232

ARCAM A65+ integrated amplifier. Excellent condition, one owner, silver, 40w, pre-out, 2x speaker terminals, CR224 remote, superb phonostage (MM), user manual. £150 inc P&P.Tel: 07768081615

NAIM 150x, under two years old, mint, instructions, boxed. £500. Conrad Johnson PV10A, superb phonostage, boxed, instructions. £450. Taul Electronics Tornado 2 power amp, boxed. £195. Tel: 0772 962 0621

WANTED: Hi-Fl World magazine issue October 1999 or copy of CD Recorders review. Please help. Contact 01631 562 486. Thanks

QUAD QC24 valve linestage. Rather fine performer, boxed, serviced with manuals. 40% off new price at £400. Tel: 01424 203 192

WANTED: MUSICAL Fidelity 3.2 or XRay CD player. Other makes also considered. Tel: 01277 219 639 (Essex)

TUBE TECHNOLOGY Mac phonostage, immaculate condition, own from new, with manual. £400 ono, Details. Tel: 07952 336 766

SOLTI RING Decca D100 D19 nineteen LP set. Offers. Also Goodall Ring in English. Four box set. Offers. Tel: 01341 422 111 (Gwynedd)

WANTED: SONY 777ES DAB/FM/ AM, remote control tuner boxed perfect condition little used Tel: 0794 184 2605

DALI ROYAL Minuet II speakers £275. NAD 3020i amp £75. Technics SL-PG490 CD player £50. Denon DRM600 tapedeck. Tel; 01766 771 266 (North Wales)

NAIM CD5i, mint, boxed, £375. No offfers. Tel: 0794 117 4804 after 6pm. Berkshire area.

BEN DUNCAN Research power amp, high quality build and great sound. Offers or exchange for quality speakers suitable for valve amps. Famco Nuance pre-amp with offboard power supply, MC. £200. Tel: 01476 407452

LOVINGTON SHI horn speaker, Fostex FX120 full range unit. dynamic, detailed (£3250) £1500. Sugden A21a £425. E.A.R. 834P MM £200. Hi-Fi Magazines, approximately 350. All details phone 020 76095030 anytime

QUAD ELECTROSTATIC professional 63's loudspeakers, fully refurbished with One Thing audio panels. New spark detector and zener clamps fitted. Mint condition. £1495 ovno. Tel: Andy 0116 239 2373

GOLDRING LENCO 88 upgraded by precision engineer and mounted in a compact solid plinth. Comes with a top quality arm and MC cartridge. £350. Or part exchange for CD Player. Tel: 01277 219639 (Essex)

LINN AV5120 centre speaker. Technics SL1500 DD turntable. Project Debut II turntable. Marantz 50SE CD player. Marantz PM66SE amplifier. Mission 700LE speakers. Heco interior 80s speakers. Offers please. Tel: 01708 457 691

COMPACT KT88 integrated, very good condition, boxed, £650. Come and hear this amazing valve amplifier. Vinyls, 70 albums, little played plus belt turntable £50. Technics Direct Drive turntable £99. Tel: Stanley 07951 553 091 (London NW)

ROGERS CADET 3 amplifier, serviced and modified with original valves. £250. Russ Andrews Im Power Cord £45. Chord Solid £45. Marantz CD63SE, slightly faulty. £45. Tel: 07810 103908

LINN CLASSIK tuner/amp/CD player. White. As new. £550 ono. Tel: 01341 422 111 (Gwynedd)

NAIM HYDRA (custom made 4 in 1 mains leads) £160) £80. LAT International 1/2 metre IC-100 (silver interconnect custom made for Naim CD players) (£170) £75. QED Profile 4x4 (2x5metre terminated speaker cable) £35. Tel: 07785 926 578

MICHELL ARGO pre-amp, boxed, £200. M&K V-125 12" active sub, £200. Pro-Ject Debut III, black, £85. Cambridge Audio 640P MM/MC phono amp, £65. M\$ Pageant Series II, boxed, £60. All immaculate. Tel: 01722 334 694 (Salisbury)

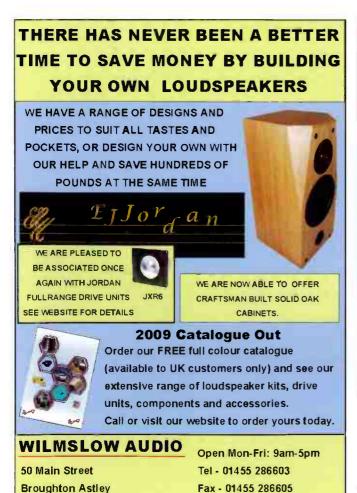
LOWTHER LOWTHER Acousta Twin cabinets wanted. Made late 1960's. Working drawings. Twin feet. Drive unit mounting screws. Tel: Jeff 020 8220 0380

UNISON RESEARCH Unico 'R' FM/RDS/AM valve tuner, £575 (current new price £1275) Mint and boxed. Superb sound. Spare remote controls for Quad 99 and Primare CD110 systems. Offers? Tel: 023 8073 8935

DENON DL304 moving coil pick up, 10 hours use only. As new, all packing and instructions. £165. Michell Iso HR and Hera Supply, mint, instructions, indistinguishable from new. £160. Tel: 0116 288 2338

NAIM AUDIO CDS2 CD Player and power supply. Brand new Laser mech fitted in June 09. Naim 102 pre amplifier. Naim CD1 CD player. Croft Epoch (special) valve preamplifier. Lector Zoe valve pre amplifier. Two Russ Andrews Power Cords. Cabbasse translstor mono power amplifers. Russ Andews Kimber silver Streak interconnect attenuated. Great for Naim CD to pre amp. Please telephone for sensible prices. Tel: 020 8534 2181







For more information: www.ecsamplifiers.co.uk

For our exclulsive offer to Hifi World readers: 0208 958 1004

Leicester, LE9 6RD

www.wilmslowaudio.co.uk

FREE READER CLASSIFIEDS

FOR SALE: Pair of Quicksilver Valve Mono-amps £650, Musical Fidelity A5 Pre £600, Musical Fidelity X-PSU £150; X-PRE £150; X-24 £200; X-10D £150; X-LPS £150, Perpetual Technologies P-1A Upsampler and Enhancer £400, Marantz KI Signature CD Player £180, USB Digital Bypass and DAC (Russ Andrews modified) £150. Offers accepted! Anton 07956236455

SAMSON AUDIO samson resolv2.1 system active studio monitors very good condtion little used boxed as new buyer collects 300.00 contact davidson 07984328777se london

WANTED FAULTY or non working Quad 34 or 44 preamps, 405-2 boards, Quad fm2 tuners. Also required Leak sandwich speakers (not later Rank models). Contact Mike 01758 61 3790.

GARRARD 401, perfect example in beautiful Loricraft Audio plinth and GH242 Tonearm. Also has Loricraft Audio p.s.u and musical fidelity phono stage. Also have an SME 309 tonearm and various accessories. Serious offers, may sell seperately. Tel:07890946736, Fife.

ACCUPHASE E-550, 30w Class A super amp. Genuine high end statement product from the legendary Accuphase. Perfect condition.

Comes with or without DAC20 board(at cost) £4100ono david.crosbie2@googlemail.com

PAIR DUEVEL Planets Speakers 6 months old, as new, fantastic open sound. Mint condition. Cost £800 new, accept £450.
Tel: 02380 224003

SUGDEN MASTERCLASS PDT - 4 cd player, silver, 4 months old, mint condition, box, receipt, remote control, instructions.

Bargain at £1,950 (£3,149 new). John 0208 530 1219 evenings or decor888@mac.com (E. London)

WANTED:TOP quality Hi Fi seperates and complete systems, Naim,Linn,Cyrus,Meridian,Arcam etc,fast,friendly response and willing to travel/pay cash Please call me on 0781 5892458

TRANSPARENT AUDIO Super Balanced XLR interconnects Imeter pair in mint condition. Hardly used and in original packaging. RRP £1200 sell for £300 Terry Bishop 07517246809

NAIM CD3.5 CD Player with Flatcap PSU £450, Naim Nat03 FM Tuner £300. All in excellent condition complete with leads, manuals & packaging. Contact Derek 01798 817106 (Daytime)

TEAC ZD880 with Clock 4, NC power supply, better caps and 75Ohm BNC output. Mods cost over £600 with bill to prove. Started skipping occasionally, upgraded to CDXTSE. £125 Sheffield 0114 2344200

PRIMARE D30.2 High-end CD Player (Black) balanced/phono/co-axial outputs remote, heavyweight machine, boxed, excellent condition, fabulous reviews, (cost £1200) £495 ono. Call Simon on 07759205820 (daytime) or 01483271669 (evenings/weekends) Surrey.

SPEAKERS: CASTLE Richmond3i stand mount speakers with original boxes complete with Mark II Linn Kan stands. Excellent condition. £295 Will split. 01159176416 jennyrees@ntlworld.com for further info.

QUAD QC24 valve-based linestage. Boxed, manuals, excellent. £420 (£1000). Professionally rebuilt Quad 11 valve amps, £650 worth of parts (bills). New mains transformers, Very special. £650. 01424 203192

HI-FI WORLD Annuals 1961-1979. Wanted. Serviceman in S.E. England for Revox and NAD Tuners. Ron Paxton 01243 54828 Ron-Pax@tiscali.co.uk

FREE TO good home, buyer collects. Black tube steel, spiked with extra glass shelf. Good Condition. 20"Hx20"Wx16"D.0114 234 4200

FOR SALE Quad 988's black vgc serviced by Quad (£3,500). £900 ono. Tel Rob 07976621529 Leeds.

JOHN LINSLEY Hood design Class A amplifier. Includes two pcbs (populated), heatsinks, output transistors. Just needs PSU for a fully functional stereo amp. £65 Tel 07779 199 392

POWER SUPPLY for John Linsley Hood Class A. Custom built, cased, featuring 300VA toridial, and capacitance multiplier filtering resulting in no hum at loudspeakers. £100 Tel 07779 199 392

CYRUS 8xpd-Qs Integrated Amplifier and Q-DAC New. Full Cyrus Warranty. Sale due to change in circumstances. List Price £1800. £1300 posted and insured Tel 01560 483503 Glasgow

FOR SALE: LUXMAN MQ-50 valve stereo power amp 50w/8ohm.
Valves 4(6550) 2(12au7/ECC82) & 2 (6AQ8/ECC85). Champagne colour, Mint condition, Weight 1 Bkg. Asking price for this gem 1600 pounds. Tel Sweden: +46 477 10734, Kent E-mail: k-nilsson@telia.com

MISSION 732 loudspeakers in black ash (VGC) + target metal stands: £75. Excellent sound! E-mail Marco: m.cinnirella@rhul.ac.uk

KEF XQ50 Centre Stage Speaker most important speaker in a surround system as brand new mint condition £575 Tel: 020 8951 3178

BARGAIN OFFER! Jelco SA-50 High-end tone arm. As new; in original box and unused. Only £225.00. Contact 01922 644775

NAIM CREDO speakers in american cherry colour with black grills, used in nain system from new & in exellent condition with only light fadeing under grills, £350 07980570645

FOR SALE Wharfedale Pacific Evo 30 Floorstanders. Boxed, great condition with intructions.Buyer collects. £400 Norfolk 01493 665761

MARK LEVINSON 335 £3200, 380 preamp £2950 . Revel Studios speakers. Boxed (£8500) £3200. CD transport & DAC, Audiomeca Mephisto ii.x & Enkianthus (new £7500) £3000. Tel:07721890036 or email drmeng@btinternet.com

MERIDIAN 504 tuner nice condition sorry no box £300.00 a phone 0191-4171669 after 6pm or 07956236764

NORDOST SUPER flatline bi wireable speaker cable 4m lenghts £195 (£400).Custom design icon signature range hi fi rack oak and glass £200 (£425) 0208 658 2490

CAMBRIDGE AUDIO R50W loudspeakers in teak. 3 way system using KEF speakers. £75. Tel: 020 8688 6397

SHAHINIAN COMPASS
Omnidirectional floorstanding
loudspeakers, finished in light oak.
Totally unmarked and mint. £895
(Leicester). Buyer collects. Tel
01530 833347

REGA P3 (no cartridge), Rega Brio, Rega RL spkrs., Partington spkr. stands, QED spkr. cables & wall-shelf. For quick sale as whole system: £450.00. Tel: Des 0207498-8902

GARRARD 301 (strobe platter, oil bearing) £550, Quad 33 / 405 £170. Telephone 01189 413708.

SIM AUDIO MOON i3-rs integrated black.remote, box + instructions.bought ex display march 09. 18 months remaining warranty. pristine cond £1075 can post jinga-.6_@tiscali.co.uk or 01698358696 central Scotland

CAMBRIDGE AUDIO R50W loudspeakers in teak. 3 way system using KEF speakers. £75. Tel: 020 8688 6397

WAD 300B PSE monoblocks. Component upgrades: PiO, Black Gates. NOS input valves, JJ 300Bs. Checked / tested by Valve expert. Less than 50 hours use. £750. 01962 880424 (Winchester)".

For Sale: Quad 33, 303, FM3 in wooden sleeve. Sugden AU41 preamp. Mission 772 power amp. Pioneer A400 integrated amp. Marantz CD67SE CD player. Mordant Short MS202 speakers. Jvh2009@googlemail.com (Derby)

NAKAMICHI 550 portable w/ all accessories £285 Nakamichi 700 zxe(ABLE calibration) w/extensive acessories inc nak infrared remote£485 Nakamichi410 slim preamp (120db s/n m.coil 1.2/3mv input £200, new pilot light needed Nakamichi 420 slim power amp £200m new pilot light needed.(gaming machine type bulb) Nakamichi 430 slim fm tuner £250 - see fm tuner center site for detail, technics 150 dd turntable w/ h.cover & sme plate) £190 all in cared- for condition and working A1. serious people call 01249-730575 collection preferred nr J17 M4

MUSICAL FIDELITY A308 integrated amplifier. Box, manual, remote and ISOkinetik mains lead. £750 plus carriage. Heavy so prefer buyer collects or can deliver reasonable distance. Pete, N.Wales 01492 596496.

AUDIO ANALOGUE Bellini and Donizetti, boxed, £500. Jamo Concert 8s, cherry, boxed, £600. Partington Dreadnought stands, shot loaded, £80. Michell QC power supply £150.078 8649 2690 or gordon.robinson4@ntlworld.com"

FOR SALE, World Audio Design HD83S valve headphone amp, 18 months old, immaculate; RRP £430, sell for £220 ono .
Tel.01782 333928, or e-mail ktennispixie@aol.com (Staffs.)

ARCAM ALPHA 8 CD player (upgraded to CD82); 8R amplifier; 8P power amp; Bi-wire Sonic Link speaker/interconnect cables; remote; instruction manuals. All in very good condition. Price: £550.00 tony_davis72@hotmail.com

LIBERTY AUDIO Suite speaker builder design programme, with user manual, cables ,preamp,microphone, tripod,Boxmod,tlboxmodel,netca lc, runs on widows 98 etc,£250 ring mike 01189693377



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

£499

WDKEL84 built and tested £649



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

£989

WD88VA built and tested £1289



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

£398

WDHD3S built and tested £528



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) £349

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 Millenium treble unit.

> WD25A STD kit (pair) £269 WD25A EX kit (pair) £699



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) £549

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) £329 WD25Tv2 XL kit (pair) £499



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

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

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CROFT PRECESSION I
Micronault Pre-Amp and
Polestar 25wpc power amplifier for sale only eight months
old, need the cash will except
£800.00 or nearest offer ring
Geoff on 07766236492 or email
perpics@yahoo.co.uk.

EXCELLENT SECONDHAND HiFi for Sale Sony St70 Tuner, Leak A-K11 Amp, JVC Amp, Poineer PL-X430 Turntable, Tannoy Mercury Speakers No sensible offer refused. Tel: Hill, 01256 419334 or email: Linda_Hill@fsmail.net '

LEAK 2075 speakers immaculate teak £595 JBE Slate Mk3 direct-drive turntable £495.EAR 834P mm/mc valve phonostage £395. B&W 1800 speakers £195. 01798 813133

reconcile@bdlrs.freeserve.co.uk

Chord Chameleon silver plus interconnect Im £60 (£125) 2 available Chord Cobra 3 interconnect Im £30 (£60) All boxed as new. Lee West Midlands 01384 412234

leet2009@hotmail.co.uk

SUGDEN BIJOU CDMaster CD Player finished in Titanium, bought September 06. In excellent condition and comes complete with all original packaging and manual. £650 (£1200). Contact Jeff on 01305 263069 (Dorset).

AWARD WINNING acoustic energy aegis evo 5.1 surround sound speakers in red cherry. excellent unmarked in orginal boxes wih manuals £190.TEL 01493 700385 (Norwich) (buyer collects).

NAIM ARMAGEDDON LP12 PSU as new complete with all leads packaging etc. £450 ONO Contact Derek 01798 817106 (daytime weekday) or 01903 726842 (evening).

ELAC FS207.2 speakers.cherry finish,mint cond.(rrp £995) £425 ono,boxes & manuals,could deliver within reason.tel frank 02920 419226 (South Glamorgan)or email: frank8ush@ntlworld.com

WANTED FOR projects faulty or non working Quad 34 or 44 preamps, 405-2 boards. Also Quad fm 2 tuner decoder board or complete tuner. Contact Mike 01758 613790.

LINN MAJIK 140 speakers finished in maple. Brand new still in boxes. RRP £1570, sell for £975 + courier or delivery charge. Contact James, braceposition@ hotmail.co.uk

PROJECT XPERIENCE 11 turntable with Dynavector DVX10 cartridge. Very good condition.
Complete with box, instructions.
Can include some quality interconnects too. 3 Years old and about 200 vinyl play wear on cartridge Reason for sale, i have upgraded.
Cost £850 with cartridge, sell £400 or v.n.o. Call 01903 244538

CONSONANCE CD 2.2
Reference CD player 3 years
old Not much use, mint condition. Black, with silver knobs.
Comes complete with box and
Instructions. Can include lat mains
cable too Worth over £100. Lack
of money forces sale. Cost £1400
new, sell £825 or v.n.o. call 01903
244538

PLINIUS KORU phono preamplifier Silver six months old mint condition RCA/XLR balanced outputs Fully adjustable loading via external dip switches £1100.00p 020 88983383 (\$ London)

MICHELL Transcriptor Hydraulic Reference Turntable with SME 3009/2 arm, SHURE V15/3 cartridge. Excellent condition. £795 ovno. Tel: 01372 452160. Buyer collects.

ONKYO 706 best value receiver mint 8 months old high end sound retail £599 accept £395. Tel: 020 8951 3178 email: sgb!!!@talktalk.net

PAIRS GOODMANS Midax, Axent 100 and crossover XO-950/5000. Offers? Phone 0208 806 2451 or gollan@blueyonder.co.uk

ORIGIN LIVE Resolution classic Mk2 turntable With L.L. Silver Mk2 arm Mint condition / as new Cost £2900 Sell £1500 + p&p. E-mail alan395shona@btinternet.com

JOHN LINSLEY Hood Mosfet power amp PCB boards. Have been used, but in good condition. £30 each board. Tel 07779 199 392

WANTED:TRANSPARENT Audio Musicwave Ultra (XL) speaker or interconnect Cables, & Transparent Audio Mains Cable Stuart - 07870 912 963

e: stuartdarshan67@googlemail

HARBETH HL7ES-3 in cherry (anniversary edition) with atacama stands as new £850. collection only phone 01773856828 (Derbyshire).will demo.

MICHELL HERA power supply for Iso Agro amplifiers Gyrodec platter upgrades Rare Gyro Blue base, LFD Spirolink 2 interconnects & LFD power cable Stuart - 07870 912 963 e: stuartdarshan67@googlemail.com

MARANTZ CD65II Special Edition CD player, renowned 1989 Ken Ishiwata uprated machine, mint condition, expensive when new, £75, Cambridge Azur 640P phono stage, black, brand new in box, £60 020-8366-2647

DENON CX3 miniture high end system for sale,pristine cond.£1200 ono. phone dave 07900081472 soton area

AUDIO MOSFETs Hitachi 2SK 135 and 2SJ50. Five pairs available at £16 a pair. Note all are re exequipment. Tel 07779 199 392

KENWOOD DM9090 MiniDisc recorder. World Classic, excellent. £175. Target sand filled stands, 20", £40. C.A.D. speaker cable bi-wire, £35. Mobile Fidelity GeoDisc, £20. Hi-Fi News Test Record, £10. Tel: 07852 386 988

NAIM CDX2, very good condition, remote, boxed, can demonstrate. £1499. Tel: 01949 831 063 after 6pm (South Notts)

WANTED: SPENDOR SP2 Mk1 or Mk2. Don't have to be in working order. (spare parts) or just Spendor Bass/Mid 200mm polypropylene units. Tel: Toni 0797 I 953 628

GARRARD 301 (strobe platter, oil bearing) £550, Quad 33 / 405 £170. Telephone 01189 413708.

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.graudio.com

TECHNICAL AND

(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 6S65 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.
Tei: 0845 45800 I 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 Tel: 01372 276604 Email: w.hodgson @btclick.com

ONE THING

(Coventry) Specialist in electrostatic panel manufacture and repair. Can refurbish ESL 57s and 63s as well as Leak Troughlines and Quad Ils. Email: one.thing @ntlworld.com www.onethingaudio.com

CLASSIC NAKAMICHI (Paul Wilkins, Worthing.

(Paul Wilkins, Worthing. West Sussex), Restore, Repair & Service Nakamichi Cassette Decks. Tel: 01903 695695 Email: paul @bowersandwilkins.co.uk www.bowersandwilkins.co.uk

HADEN BOARDMAN

Repair, service & modifications; classic & modern. Collection available. Redundant / faulty equipment purchased, selected new equipment available. Tel 01942 790600 www.audioclassics.co.uk

Dr MARTIN BASTIN

(Shropshire) Garrard 301/401 restoration, renovation and service. Special plinths; rumble cures, etc. Tel: 01584 823446

D.K. LOUDSPEAKER SERVICE

(Dave 5mith, 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 www.revox.freeuk.com

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,
5t Phillips, Bristol,
Tel: 0117 925 6015
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NEXT MONTH

As the long nights draw in, the hi-fi season kicks off a proper in the run-up to the Whittlebury Show, we'll be putting a wide range of kit through its paces, from the superb new Leema Tucana 2 high end integrated amplifier [pictured] to Rotel's affordable Class D RB-1562 power amp. We'll have a range of speakers too, including the curiously named Brooklyn-made Devore Gibbon 9 floorstanders and the far more conventional but no less interesting, Acoustic Energy Radiance 3. Turntablists will love the reappearance of the classic Transcriptors Hydraulic Reference, while digital devotees get the low down on Marantz's superb SACD-based Pearl system. Factor in features on the forthcoming Beatles reissues and our unique and exclusive special on Digital Radio, and it's another bumper issue! Here's just some of what we hope to bring you:



TRANSCRIPTORS HYDRAULIC REFERENCE TURNTABLE **ACOUSTIC ENERGY RADIANCE 3 LOUDSPEAKER** MY AUDIO DESIGN BALANCED POWER BOX **LEEMA TUCANA 2 INTEGRATED AMPLIFIER** SUGDEN MYSTRO INTEGRATED AMPLIFIER **COLLOSEUM CARRILON LOUDSPEAKER** STELLO Ai500 INTEGRATED AMPLIFIER **ORIGIN LIVE ENTERPRISE II TONEARM** LYRA TITAN MOVING COIL CARTRIDGE **ROTEL RB-1562 POWER AMPLIFIER DEVORE GIBBON 9 LOUDSPEAKERS** AIR WARS: DAB VS. FM FEATURE **AURA NOTE PREMIER SYSTEM CONSONANCE T988 TONEARM BEATLES REISSUES FEATURE** MARANTZ PEARL SYSTEM **SEEDEECLICK SOFTWARE NAIM NAT-05 TUNER**

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NOVEMBER 2009 - 7TH SEPTEMBER DECEMBER 2009 - 8TH OCTOBER



THE SMITHS
THE QUEEN IS DEAD
1986

"The Smiths had always fought a rear-guard action against the establishment, but here they became fully paid up members, and reshaped British guitar pop in so doing..."

After pausing for breath with the compilation, 'Hatful of Hollow', featuring the haunting 'How Soon Is Now?', the boys tripped up with the opaque 'Meat Is Murder' then found their feet with this classic cut a year later. A blend of high-energy rock (the title track), crumblingly sad ballads ('There Is A Light That Never Goes Out' and 'I Know It's Over') plus witty lyrics on contemporary social mores, 'The Queen Is Dead' proved to be The Smiths' career high point.

of their magnificent self-titled debut in 1984.

Now, you can revisit the album, along with the other three principal releases: 'The Smiths', 'Meat Is Murder' and 'Strangeways Here We Come', via a new set of reissues via Warners. Cut on 180gm vinyl, each album is issued in its original sleeve and artwork with the 'Queen Is Dead' presented in a gatefold sleeve. Each vinyl reissue also arrives with a code to download the MP3 version of the album.

Frank Arkwright, mastering engineer at the respected outfit Metropolis, was responsible for mastering the album (in addition to the other three LPs), which he did from half-inch tapes. "A lot of the analogue tapes from the seventies and eighties are subject to a degree of deterioration. The oxide coating on the tape loses its bond and flakes. It is fixable, though," he told me.

Regular readers will be familiar with this problem and how mastering engineers attempt to solve it.

However, as you're expecting an audiophile-like master of 'The Queen Is Dead', it must come as a shock

to hear that such a relatively recent production can deteriorate so quickly. After all, 1986 seems like yesterday doesn't it? Well, it does for me. Also, it may be a shock to hear that more wasn't done at the time to prevent the deterioration of the masters in the first place. I can easily remember my thoughts back then, and how modern everything seemed. So it's disturbing to hear of the blatant neglect of what's a significant popular cultural artifact.

The solution of course was that Arkwright had to bake the tape to make it usable. "We had to heat the tapes to 55 degrees centigrade at a constant temperature to make the oxide coating rebond. The temperature remains the same even with different types of tape. The one variable is the amount of time you need for each type of tape. Also, if it's quarter inch, the process takes half as long as half inch", he added. "We use specialised laboratory ovens, made in Germany, I think, Possibly also used in chemistry labs, they look like a cube box with shelves in it sized at around one metre square. Each looks like a safe, with a thick door and a big handle."

Oddly enough, when you put the tapes in the oven, the tapes themselves don't look in any great distress and, when removed from the oven, there's no visible difference. The proof of the pudding is in the playing. Awkwright revealed that playing the Smiths' tape on his reel-

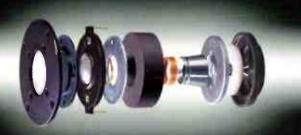
to-reel immediately signaled that oxide was being shed. That's the only way you can tell that you've got, as the engineers say, 'Sticky Tape'. Well, there are other, more florid, descriptions but I won't go into them here. Once baked, you leave the tape for twenty-four hours before playing. The process should be fine for half a dozen plays or a month in time. Reportedly, there is no information loss after the process, which is a relief.

This superb reissue of 'The Queen is Dead' reminds us of what heady musical times the eighties were. It was an immensely diverse era for pop, from the sinewy reggae of Grace Jones to the syrupy synthetic trains of Swing Out Sister. The Smiths had always fought a rear-guard action against the establishment, but here they became fully paid up members, and reshaped British guitar pop in so doing.

Although there are some subtle mid-period Rolling Stones references buried within, this late-period Smiths album is still Morrissey and Marr to the core. There's real punch in the drum work on the title track with great dynamism throughout, plus an airy, spacious-feel to Morrissey's vocals which were as sharp and bitingly satirical as they were ever to get. It's an important album, this; arguably the bridge from thrashy late seventies/early eighties post punk to slick, knowing nineties Britpop. An essential purchase. PR

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DANCER mini two

2-way system

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dimensions (w x d x h): 34 cm x 48 cm x 123 cm

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