FREE READER CLASSIFIED ADS IN THIS ISSUE!

WIN A FANTASTIC ROTEL RB-1092 WORTH £1,595!

MERIDIAN F80 compact system

SIMON YORKE S9 turntable

CD PLAYER SUPERTEST:
- Cambridge Audio 740C
- Creek Classic CD
- Roksan Caspian CD
- Vincent CD-S6 MK

ISOPHON CASSIANO loudspeaker

8 PAGES OF YOUR HI-FI QUESTIONS ANSWERED
Meet the new breed of 2-channel amplifiers and Super Audio CD player

Based on the acclaimed A-400 amplifier, these new models have been redesigned for the 21st Century. Uncomplicated features and simple linear circuit design are encased in a stylish but rigid construction, giving pure unadulterated sound for your enjoyment.

www.pioneer.co.uk/evolution
welcome

Packed as this issue is with superb sounding separates, the most interesting product I’ve come across in a long time is the new Meridian F80 reviewed on p52. And strangely, it being a humble portable music system, it isn’t even ‘real hi-fi’ at all, nor does it pretend to be. But I happen to believe it’s an extremely significant product - not just for what it is, but for what it represents...

My formative hi-fi years were the nineteen seventies. This was when ‘high fidelity’ music reproduction grew from being a hobby pursued by those with soldering irons and circuit diagrams, to a mass market consumer phenomenon that became - for a time – the third most expensive purchase a family would make after a house and a car.

Back then, separates hi-fi was the only place to go for music fans such as myself who’d grown up with a humble Philips cassette portable. And ten years after I bought my first BSR record player, I had upgraded all the way to a Linn Sondek.

Now though, any music-obsessed fifteen year old with a passion to hear his favourites outside his portable (which is invariably an iPod) has a vast range of docks and PC speakers to choose from, not to mention Apple’s own iPod Hi-Fi. So how is he (or she) supposed to come across real hi-fi equipment from the likes of Linn, Naim, Arcam, Cyrus or Meridian?

Thanks to the F80, he now has an aspirational entry point. He’ll never have heard of Meridian before (or seen any of the stunning designs Allan Boothroyd and Bob Stuart have come up with since the mid-seventies), but you can bet your big end he knows Ferrari. He’ll see this new Meridian in magazines and say to himself, “I want one”...

Avidly scanning every review in his local newsagent, our embryonic audiophile will begin to realise it was designed by Meridian together with Ferrari. He’ll want to read more about the British hi-fi specialist, and will start looking at their serious hi-fi systems. Suddenly, he will find a way to hear music beautifully reproduced.

That’s why I welcome the Meridian F80 with open arms. Cynics on internet forums will say it’s a ‘sell out’, but I pray for them in their darkness. What the hi-fi industry needs is products like this, that appeal to a broad audience. Not everyone will approve of Meridian’s Ferrari tie-up, but I’m all for taking the racing line.

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

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

verdicts

Outstanding

Excellent

Good

Mediocre

Poor

Value

Electronic magazine

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

Distributed by Seymour Distribution Ltd 86 Newman Street London, W1T 3EX Tel: +44 (0) 20 7396 8000 Printed by SLives, Plymouth Tel: +44 (0) 1752 345 411

Our Agents in Malaysia Millennium Hi-Fi & AV Simon Chang Showroom Office, 500-13 First Floor Wisma Indah (Shen Court), Jalan Tun Razak 50400 Kuala Lumpur, Malaysia
Tel: 603 9233 8111 Fax: 603 9281 3762 e-mail: info@millennium-audio.com

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

No material may be reproduced from this magazine without the publisher’s written permission. © Audio Publishing Ltd
Simon Yorke's beautiful S9 joins the ranks of our favourite high end designs.

Lasma Acoustics Lucina - a superb high end integrated.

Cambridge Audio's brand new 740CC distinguishes itself in our CD super test.

Origin Live's Enterprise tonearm is a great place to park your pickup cartridge.

Shanling's statuesque SCD-T2000 is a great way to play SACD.

Isophon's Cressida loudspeakers are serious high end equipment.
SHANLING SCD-T2000 14
Few digital disc players offer as much insight as this, says Martin Wolszczak.

CD PLAYER SUPERTEST 32
Noel Keywood auditions new mid-price machines from Cambridge Audio, Creek, Roksan and Vincent.

MARANTZ DV-9600 43
Patrick Cleasby takes a mid-price DVD universal player for a spin.

RUSS ANDREWS DAC-I USB 47
A superb £600 digital-to-analogue convertor is reviewed by David Price.

SIMON YORKE S9 10
Adam Smith tries a striking new transcription turntable.

BLUE ANGEL MANTIS 19
This handmade high end MC cartridge gets the treatment from David Allcock.

AESTHETIX RHEA 40
A monster US high end tube phono stage is reviewed by Noel Keywood.

ORIGINE LIVE ENTERPRISE 50
David Price auditions Mark Baker's latest and greatest flagship pickup arm.

ORTOFON 2M RED AND BLUE 62
Noel Keywood auditions Ortofon's first new moving magnet cartridges for decades, and compares them to Nagaoaka's classic MP11.

LEEMA TUCANA 20
This swish new high end British integrated is reviewed by David Allcock.

ECS PRE 58
David Price tries a massive high end preamplifier from European Circuit Solutions.

HARBETH HL COMPACT 7ES-3 22
Channa Vithana reviews the latest incarnation of this classic monitor loudspeaker.

ISOPHON CASSIANO 66
A German high end loudspeaker gets its first UK review from Adam Smith.

EGGLESTON WORKS ISABEL 70
Adam Smith auditions these impressive American rockers.

MAGICBOX IMP 85
Steve Green tunes in to a fiendishly clever Wi-Fi Internet Radio.

MERIDIAN F80 52
David Price auditions Meridian's new Ferrari-badged DVD portable.

EVOLUTION RUSH 55
Channa Vithana assembles a £3,000 system from Creek, Design e and B&W.

OLDE WORLDDE 88
Dominic Todd remembers his favourite classic loudspeaker, Celestion's SL-600.

BRISTOL SHOW REPORT 90
David Price and Adam Smith pick their favourites from February's Bristol Sound and Vision show.

DIY SECTION
DIY FEATURE PART 6 93
Peter Comeau explores the complex world of loudspeaker crossover design.

WORLD DESIGNS PREAMPLIFIER PART 5 97
Peter Comeau looks at the MC stage of the new WDPhono3.
What's remarkable about the new series of LP12 SE upgrades is not that it's taken 35 years to develop them, or that they can be retro-fitted to any Sondek LP12 turntable, but the fact that they retrieve even more music from your vinyl collection than ever before.

Experience a revelation in turntable performance.

For more information and details of demonstration events in your area visit www.linn.co.uk, or call 08000 277 181.
Super, Man!

Launched at the Sound & Vision Show, Bristol, the £2,350 Naim SUPERNAiR is the latest addition to Naim’s reference series, and is claimed to deliver, “a stunningly realistic performance from its compact case”. With 80W per channel and 400VA output transient capability, it can drive difficult loads, but also brings flexibility and convenience, says Naim. In addition to six analogue inputs, it includes five digital inputs with an onboard DAC accepting sampling rates between 32kHz and 96kHz. Six analogue inputs are fitted, and any input can be assigned to one of the six input buttons. The digital board is powered off when using an analogue input, and there’s a combination mini-jack/ mini-Toslink input on the front panel that is auto-switching. There’s also a full remote control and a front panel headphone socket. For more details, call Naim Audio on +44 (0)1722 332266 or click on www.naim-audio.com.

Kick out the Jams!

Roth Audio’s Music Cocoon MC4 is a new £399 valve amplifier and iPod dock, pushing out a claimed 13W per channel. When an iPod is installed, it offers full remote control and iPod charging, or it will also accept any portable device through its 3.5mm mini-jack input, or any line level hi-fi source via the standard stereo RCA phono inputs. Overheating protection, speaker protection and fuse protection in the adaptor is provided. Vital statistics are 187x174x108mm and 1.8kg. For more information, click on www.rothaudio.co.uk.

Interstellar

This is the new Leema Acoustics Antila, a new £2,495 CD player featuring the company’s ‘unique MD2 Active Differential Multi-DAC technology’, employing twenty 24bit/192kHz multibit Delta-Sigma converters, and data pipelining to eliminate jitter. The Leema-designed FPGA (Field Programmable Gate Array) generates a fully balanced signal entirely within the digital domain. The machine is fully LIPS (Leema Intelligent Protocol System) compliant, allowing a press of the play button to power up a Leema amplifier from standby and select the CD input. For more details, contact Activ Distribution on +44(0)1635 291357 or click on www.leema-acoustics.com.
**BLUE FOR YOU**

Marantz’s £699 ST-15SI hybrid DAB/FM tuner is described as “beautifully built and finished”. A high-performance 24bit/192kHz multibit, Delta-Sigma Analog Devices DAC is fitted and circuit architecture includes mirror imaged, short signal paths for minimum sound degradation. A display dimmer is fitted and there’s a proprietary filter circuit that removes interference that often plagues analogue broadcasts. The dual band design uses the neat Gyro Touch dial, allied to an easy-to-read display which shows station, artist and track names, as well as additional information such as lyrics. The model exploits Marantz’s low resonance, acoustically damped all-metal IS series chassis - no screws are visible, a thick anodised aluminium front panel is fitted and also double-layer bottom plate and substantial shock-absorbing feet. Even the subtle “Marantz blue” backlighting operates on its own independent power supply to ensure no electrical noise interference. Both optical and coaxial digital outputs are fitted, plus a Radio Data Interface optical digital output which, it is claimed, effectively future-proofs the ST7001, allowing reception and decoding of future text, graphics and video data when connected to a suitable PC or set-top box. For more information, click on www.marantz.co.uk.

**UNIVERSAL PICTURES**

NAD’s new T585 Universal DVD player offers both DVD-Audio and SACD decoding, plus processing of Dolby Digital and Dolby ProLogic and support for MP3, HDPCD and Windows Media Audio formats. It also supports most popular blank media such as DVD+R, DVD-R, CD, CD-R and CD-RW. Audiophile-quality 24bit, 192kHz audio D/A converters are used with high-speed FET output devices. Digital audio outputs are available in both coaxial, and optical (TOSlink) SPDIF formats, as well as I/2 S digital format via the HDMI output. The NAD T585 is also equipped with SR5’s True Surround circuit, a high-grade surround virtualiser, and features a Dual Discrete Video Circuit for “the highest possible picture quality via the Component Video output” and a high-speed dual 12bit, 216-MHz video D/A converter. Price is £800, and it’s available now in either grey or titanium finish. For more information, click on http://nadelectronics.com.

**TEAC TIDBITS**

Teac’s new £229 MC-DX220iDAB is a slimline ‘hi-fi’ system which combines DAB and an iPod dock, includes a CD player and plays through ultra thin NXT loudspeakers. A powered sub woofer delivers an extra 15 watts of extended bass. It sports a vertical CD load system with motorised door, and the remote has an LC display. The new RX-I is the first radio from TEAC to employ NXT loudspeaker technology, bringing the product a futuristic appearance and fine sound to match. The side-mounted Aux input permits connection of any device with a standard 3.5mm output including iPods, MP3 players and other portable digital players. Power is 15W RMS and the RX-I comes equipped with both DAB and AM/FM tuners. Available from leading electronics retailers now, the TEAC RX-I is available in a choice of matt black and matt white finishes, priced around £149. For more information, click on www.teac.co.uk.

**NEM RACKS**

Looking very impressive at January’s Manchester Sound and Vision show were new equipment racks from NEM Hi-Fi. These make use of solid cherry wood for the frames, which are mortice and tenon jointed and glued. Each isolation shelf is made of 30mm thick polished and profiled granite 30mm thick which is supported by spiked dampers mounted in compliant rubber inserted in gold-plated bases. The three basic models consist of a four shelf rack with four legs, and three shelf units with either three or four legs. Prices range from £1,500 to £2,000 - we hope to bring you a review soon. For further details lease contact Steve Nemeth on 01623 740521 or visit http://nem-hi-fi.mysite.orange.co.uk.

CD, CD-R and CD-RW. Audiophile-quality 24bit, 192kHz audio D/A converters are used with high-speed FET output devices. Digital audio outputs are available in both coaxial, and optical (TOSlink) SPDIF formats, as well as I/2 S digital format via the HDMI output. The NAD T585 is also equipped with SR5’s True Surround circuit, a high-grade surround virtualiser, and features a Dual Discrete Video Circuit for “the highest possible picture quality via the Component Video output” and a high-speed dual 12bit, 216-MHz video D/A converter. Price is £800, and it’s available now in either grey or titanium finish. For more information, click on http://nadelectronics.com.
ESOTERIC STUFF

Fans of the brand that many believe make the best optical disc devices around right now will be interested to hear of the new P-03/D-03 transport/DAC combination. Taking the design concepts from the flagship P-01/D-01 system, Esoteric have applied new DSD signal processing to create the more "affordable" P-03/D-03 CD/SACD player combo. Said to be extremely versatile, it features multiple user selectable playback modes including CD audio (Red Book) playback, native DSD decoding, PCM upconversion and Esoteric's advanced PCM to DSD signal conversion. Digital signal transfer of DSD signals is now offered with an i.LINK interface, in addition to Esoteric's proprietary ES-LINK format. The heart of the P-03 is the "state-of-the-art" VRDS-NEO mechanism, a new version of which was developed exclusively for the P-03. A new Disc Tray Shutter mechanism was designed to shield the internal mechanism, reducing any mechanical vibration.

TIP TOP

Designed by Jonathon Carr and handcrafted by Yoshinori Mishima in Japan, the new Lyra Skala moving coil cartridge is the company's fifth generation product, and includes a new patent (pending). The MC has a brand new non-conductive and non-magnetic front magnet carrier, a new cantilever system, output pin design and output-pin carrier. The stylus guard is the same grooved easy slide-on affair seen on the Helikon and Titan, which allows the Skala to run permanently nude. While tracking ability has been improved over the Helikon, both output voltage and internal impedance should be the same. For more information, call +44(0)1727 865 488 or click on www.symmetry-systems.co.uk.

RUSSIAN REVOLUTION!

After a considerable absence, AAP-Tech has announced the return of the Russian firm RRR and their range of loudspeakers to the UK. Founded in Latvia in 1927, RRR started out making radios, but were later responsible for the first Soviet record player, first stereo record player and made their first transistor radio in 1961. Their loudspeaker line up comprises both surround sound setups and dedicated two-channel items. All components are built in-house, including speaker cones that are made using a special, time-consuming process that has been in use since 1940! The range culminates in the range-topping FS100, at the reasonable price of £1,055 and we hope to be reviewing these soon. For further information, please contact Arnis or Henry at AAP-Tech on www.aap-tech.co.uk or on +44(0)1252 702705.

SPOTTED!

After three days of spinning discs in the Henley Designs room at the Bristol hi-fi show, superstar DJ Laurence Armstrong gets a little 'tired and emotional'... Nurse!

BEARING UP

Clearaudio's brand new Ceramic Magnetic Bearing design is claimed to avoid any point of load within a turntable, and so "eliminates bearing friction, wear and noise". All existing and previous Clearaudio turntables, except the Clearaudio Emotion, can be upgraded with a Clearaudio Ceramic Magnetic Bearing. New Clearaudio turntables may be ordered ready fitted with Ceramic Magnetic Bearings, replacement bearings can be purchased separately or the exchange scheme can be used to receive a refund upon return of the old bearing. Prices range from £215 for the Revolution to £725 for the Master Reference, and a refund of £100 is available upon return of the old bearing. For more information, call Audio Reference on +44(0)1252 702705.
New Yorke

The S9 turntable package is the latest creation from the Simon Yorke Designs stable. Handmade by a passionate and committed designer, it promises a unique musical experience says Adam Smith...

Before I begin, I have a confession to make, and it is a rather shocking one for a vinyl addict such as me. When speaking to Jack Lawson of the Audio Salon a couple of months back and hearing of a new Simon Yorke turntable, I made a comment along the lines that I was pleased to hear that he was returning to the production of hi-fi turntables, only to be told that he had never stopped - oops!

The reason for this is that Simon Yorke Designs (SYD) have possibly become best known over recent years for their serious transcription turntables. These are used in professional institutions for transcribing and archiving huge collections of irreplaceable analogue material from vinyl and shellac records of all sizes and speeds, and are quite different from the domestic units, which have been quietly racking up sales in the background.

To give an idea of their complexity, the models that are used exclusively by the Library of Congress in Washington are the S7 professional transcription model and incorporate such features as platters up to twenty inches in diameter; variable speed, bi-directional drive systems that are variable from 10 to 120rpm, adjustable via an external computer and are housed in a separate enclosure on which the main turntable sits; a detachable record spindle to permit different items to be fitted to suit specific records; an Italian slate baseboard that acts as a high mass energy sink and the option of fitting up to two S7 tonearms, which are available in lengths of nine and twelve inches.

Clearly these are serious units, so much so that Simon Yorke himself is shortly embarking on a trip to Washington to supervise the move of his S7 units to a new location. To me, it seems something of a shame that these units are not available to the general public, but I dread to think how much they would cost if they were...

My first encounter with a Simon Yorke design was on the pages of a high end audio supplement around fifteen years ago and was the S4 model. According to the SYD website, this was in production from 1988 to 1994 and 110 units were produced. The lineage can be clearly seen in the simple but stunning styling of the S9 but it has been comprehensively updated to bring it to the exacting standards required for an all-new model.

The turntable and arm are supplied as a single unit and are not currently available separately. The weighty platter is driven around its periphery by a polyurethane elastomer drive belt from a freestanding motor assembly that can be positioned as required around the deck. This takes its power from a supplied DC adaptor but the S9 is also provided with a 9 Volt battery fitted with a suitable connector so that it can be driven from a completely isolated power supply if required. Switchable speeds of 33 and 45rpm are provided, together with screwdriver-adjustable pots for fine speed setting.

A particularly nice touch is that these are of the multi-turn variety, allowing very fine control and eliminating that 'bit slower... whoops, too far, back a bit' element of fiddling that I have experienced on far too many occasions. The unit is supplied with a graphite mat for record support, and a weighty and beautifully machined record clamp that simply sits over the spindle to locate the
...the S9 picked out every last nuance and minute detail...

The S9 tonearm is a unipivot device that has an elegantly simple design. The arm tube is straight and the 'headshell' consists of two circular plates - the cartridge is fitted to the lower part and secured around the arm tube to the upper item. This is free to move up and down the arm tube and also permits a small degree of horizontal rotation before tightening to set the required tracking angle. Tracking weight is easily set using the rear weight and a tracking force gauge, and both arm and cue lever heights are easily adjustable.

Bias is applied via the good old (and best, in my opinion) thread and weight method, but the length of purple cotton thread and crimpable weights provided for this are the only less-than-high-tech aspect of the design, and I felt looked a little out of place on the unit. Whilst being picky, the lack of an arm rest is rather unnerving at times and means a stylus guard is an absolute necessity when the unit is not in use. It should also be kept well away from any inquisitive young fingers!

Needless to say, fit and finish of the whole deck is breathtaking (bias weight excepted) and it is clear that this is an item that has been designed and made with true passion. I sincerely hoped this would be reflected in the sound and so connected it up to our system consisting of Eastern Electric Minimax phono stage, Quad QC24 and IL Forty amplifiers, and Spendor 5Be loudspeakers. The S9 was auditioned with both the supplied van den Hul Frog cartridge as well as our Ortofon Rondo Bronze, and the Slatedeck Garrard 401/3ME/12 combo was also on hand for comparison purposes.

**SOUND QUALITY**

The S9 is not a cheap turntable, both in terms of price and construction quality, and this is immediately obvious as soon as the stylus hits the groove. The sound that immediately leaps forth from the loudspeakers is very polished and 'grown-up' for want of a better expression. The first main thing that struck me was the superb sense of space and atmosphere around everything in the mid and upper registers. This was exactly the same effect that I noticed in April 2007's edition of Hi-Fi World when testing the Roksan Nima arm and it would seem to be that this is a common feature of unipivot arms. This is most definitely a good thing as it imparts the S9 with a grand sense of scale and depth to the soundstage.

Orchestral material such as 'Mars - The Bringer of War' from Holst's 'Planets' Suite offered a spaciousness to instruments that is seldom heard outside a concert hall. As the main shift of the music moved between instruments, the basis of the piece could be heard swapping between them with excellent precision. Detail retrieval from the groove was highly impressive and swift changes from soft to loud in either direction were impeccably handled. With many a modern television channel, it seems necessary to increase the volume during programmes in order to be able to hear dialogue, only to have to turn things down again very promptly when the advertisements come blaring out in between - listening to classical music on a lesser turntable can have the same effect, but the S9 coped with everything admirably, moving from a shout to a whisper with ease.

Next onto the turntable was Diana Krall’s 'Christmas Songs' album and, yes I know it is spring, but this was a recent purchase and I refuse to wait another nine months in order to enjoy it! Spinning 'Have Yourself a Merry Little Christmas' had me sliding down the rear of the Hi-Fi World sofa in a haze of utter bliss, as Miss Krall's sublime vocals caressed...
The Future Sounds Fantastic

transporter
The first audiophile network music player

Distributed by:
PROGRESSIVE
CONSUMER ELECTRONICS LTD.
www.progressiveAV.com

SLIM DEVICES
www.slimdevices.com

Experience at:
audio T
www.audio-t.co.uk

0871 871 9747
World Radio History
my ears in a superb aural massage [oooh Ed]. Her backing band sounded soft and subtle, yet the S9 picked out absolutely every nuance and minute detail offered by the album, and wrapped them around her, and me, like a big fluffy blanket.

Realising I was highly likely to lose most of the afternoon if I continued this way, I reluctantly removed Miss Krall from the platter, assuring her that I would return later, and cued up another new purchase, namely the 180 gram, 45rpm reissue of Dire Straits' 'Brothers in Arms'.

The opening drums of 'Money for Nothing' were exactly what was required to bring me out of my reverie and they struck home with effortless impact. Once the main part of the track started, the S9 showed effortless impact. Once the main part of the track started, the S9 showed

The S9 is a very capable rhythm machine on faster paced material and has a detailed and tuneful bass that digs pleasingly deep. Spinning Primal Scream's 'Screamadelica', I played 'Loaded', well aware that, when the bass guitar commences, the low frequency elements of the track can tend to become something of a blur on a less than capable turntable. Fortunately the S9 romped through, offering up depth, pace and detail, and swept along with great gusto.

The S9 is a very capable rhythm machine on faster paced material and has a detailed and tuneful bass that digs pleasingly deep. Spinning Primal Scream's 'Screamadelica', I played 'Loaded', well aware that, when the bass guitar commences, the low frequency elements of the track can tend to become something of a blur on a less than capable turntable. Fortunately the S9 romped through, offering up depth, pace and detail, and swept along with great gusto.

The S9 is a very capable rhythm machine on faster paced material and has a detailed and tuneful bass that digs pleasingly deep. Spinning Primal Scream's 'Screamadelica', I played 'Loaded', well aware that, when the bass guitar commences, the low frequency elements of the track can tend to become something of a blur on a less than capable turntable. Fortunately the S9 romped through, offering up depth, pace and detail, and swept along with great gusto.

The opening drums of 'Money for Nothing' were exactly what was required to bring me out of my reverie and they struck home with effortless impact. Once the main part of the track started, the S9 showed effortless impact. Once the main part of the track started, the S9 showed
debut and the level of insight that the S9

The opening drums of 'Money for Nothing' were exactly what was required to bring me out of my reverie and they struck home with effortless impact. Once the main part of the track started, the S9 showed effortless impact. Once the main part of the track started, the S9 showed
debut and the level of insight that the S9

The opening drums of 'Money for Nothing' were exactly what was required to bring me out of my reverie and they struck home with effortless impact. Once the main part of the track started, the S9 showed effortless impact. Once the main part of the track started, the S9 showed

debut and the level of insight that the S9

The opening drums of 'Money for Nothing' were exactly what was required to bring me out of my reverie and they struck home with effortless impact. Once the main part of the track started, the S9 showed
debut and the level of insight that the S9

The opening drums of 'Money for Nothing' were exactly what was required to bring me out of my reverie and they struck home with effortless impact. Once the main part of the track started, the S9 showed
debut and the level of insight that the S9

The opening drums of 'Money for Nothing' were exactly what was required to bring me out of my reverie and they struck home with effortless impact. Once the main part of the track started, the S9 showed
debut and the level of insight that the S9

The opening drums of 'Money for Nothing' were exactly what was required to bring me out of my reverie and they struck home with effortless impact. Once the main part of the track started, the S9 showed
debut and the level of insight that the S9

The opening drums of 'Money for Nothing' were exactly what was required to bring me out of my reverie and they struck home with effortless impact. Once the main part of the track started, the S9 showed
debut and the level of insight that the S9

The opening drums of 'Money for Nothing' were exactly what was required to bring me out of my reverie and they struck home with effortless impact. Once the main part of the track started, the S9 showed
debut and the level of insight that the S9

The opening drums of 'Money for Nothing' were exactly what was required to bring me out of my reverie and they struck home with effortless impact. Once the main part of the track started, the S9 showed
debut and the level of insight that the S9

The opening drums of 'Money for Nothing' were exactly what was required to bring me out of my reverie and they struck home with effortless impact. Once the main part of the track started, the S9 showed
debut and the level of insight that the S9

The opening drums of 'Money for Nothing' were exactly what was required to bring me out of my reverie and they struck home with effortless impact. Once the main part of the track started, the S9 showed
debut and the level of insight that the S9

The opening drums of 'Money for Nothing' were exactly what was required to bring me out of my reverie and they struck home with effortless impact. Once the main part of the track started, the S9 showed
debut and the level of insight that the S9

The opening drums of 'Money for Nothing' were exactly what was required to bring me out of my reverie and they struck home with effortless impact. Once the main part of the track started, the S9 showed
debut and the level of insight that the S9

The opening drums of 'Money for Nothing' were exactly what was required to bring me out of my reverie and they struck home with effortless impact. Once the main part of the track started, the S9 showed
debut and the level of insight that the S9

The opening drums of 'Money for Nothing' were exactly what was required to bring me out of my reverie and they struck home with effortless impact. Once the main part of the track started, the S9 showed
debut and the level of insight that the S9

The opening drums of 'Money for Nothing' were exactly what was required to bring me out of my reverie and they struck home with effortless impact. Once the main part of the track started, the S9 showed
debut and the level of insight that the S9

The opening drums of 'Money for Nothing' were exactly what was required to bring me out of my reverie and they struck home with effortless impact. Once the main part of the track started, the S9 showed
debut and the level of insight that the S9

The opening drums of 'Money for Nothing' were exactly what was required to bring me out of my reverie and they struck home with effortless impact. Once the main part of the track started, the S9 showed
debut and the level of insight that the S9

The opening drums of 'Money for Nothing' were exactly what was required to bring me out of my reverie and they struck home with effortless impact. Once the main part of the track started, the S9 showed
debut and the level of insight that the S9

The opening drums of 'Money for Nothing' were exactly what was required to bring me out of my reverie and they struck home with effortless impact. Once the main part of the track started, the S9 showed
debut and the level of insight that the S9

The opening drums of 'Money for Nothing' were exactly what was required to bring me out of my reverie and they struck home with effortless impact. Once the main part of the track started, the S9 showed
debut and the level of insight that the S9

The opening drums of 'Money for Nothing' were exactly what was required to bring me out of my reverie and they struck home with effortless impact. Once the main part of the track started, the S9 showed
debut and the level of insight that the S9

The opening drums of 'Money for Nothing' were exactly what was required to bring me out of my reverie and they struck home with effortless impact. Once the main part of the track started, the S9 showed
debut and the level of insight that the S9

The opening drums of 'Money for Nothing' were exactly what was required to bring me out of my reverie and they struck home with effortless impact. Once the main part of the track started, the S9 showed
debut and the level of insight that the S9

The opening drums of 'Money for Nothing' were exactly what was required to bring me out of my reverie and they struck home with effortless impact. Once the main part of the track started, the S9 showed
debut and the level of insight that the S9

The opening drums of 'Money for Nothing' were exactly what was required to bring me out of my reverie and they struck home with effortless impact. Once the main part of the track started, the S9 showed
debut and the level of insight that the S9

The opening drums of 'Money for Nothing' were exactly what was required to bring me out of my reverie and they struck home with effortless impact. Once the main part of the track started, the S9 showed
debut and the level of insight that the S9

The opening drums of 'Money for Nothing' were exactly what was required to bring me out of my reverie and they struck home with effortless impact. Once the main part of the track started, the S9 showed
debut and the level of insight that the S9

The opening drums of 'Money for Nothing' were exactly what was required to bring me out of my reverie and they struck home with effortless impact. Once the main part of the track started, the S9 showed
debut and the level of insight that the S9

The opening drums of 'Money for Nothing' were exactly what was required to bring me out of my reverie and they struck home with effortless impact. Once the main part of the track started, the S9 showed
debut and the level of insight that the S9

The opening drums of 'Money for Nothing' were exactly what was required to bring me out of my reverie and they struck home with effortless impact. Once the main part of the track started, the S9 showed
debut and the level of insight that the S9

The opening drums of 'Money for Nothing' were exactly what was required to bring me out of my reverie and they struck home with effortless impact. Once the main part of the track started, the S9 showed
debut and the level of insight that the S9

The opening drums of 'Money for Nothing' were exactly what was required to bring me out of my reverie and they struck home with effortless impact. Once the main part of the track started, the S9 showed
debut and the level of insight that the S9
ACD has the ability to reproduce music with a high degree of realism, resolution and detail. I don’t own a turntable, but I have racks of SACDs – they’re wonderful. So needless to say, when I was asked to evaluate the latest incarnation of the 3D Shanling SCD-T2000 Vacuum Tube two-channel Super Audio CD Player, I greeted it with enthusiasm.

The first generation of Shanling’s Vacuum Tube Two-Channel SACD/CD, the model SCD-T200C was reviewed thoroughly back in November 2004 by Editor David Price. The new 3D SCD-T2000 model is similar to the old one as far as looks, build quality, standard of finish and components are concerned. Nevertheless, there are several differences between them. The Shanling SCD-T2000 still relies on Sony key parts, like the latest edition KHM-280AAA laser, as well as Sony CXD2753R decoding chip. The new player SCD-T2000 sports one hundred and twenty ventilation holes on the top of the chassis which, according to Shanling, improves cooling and aids long-term reliability.

The previous model used a dual-layer servo-board, where one layer was made by Sony, the other by Shanling. The new model uses a single 100% Shanling servo-board that allegedly improves reliability, readability and sonics. However, during my audition I came across a minor problem regarding this player’s readability. I found out the Shanling...
would not play a couple of tracks from various SACD albums at all and on a few other occasions was skipping them, while with the same tracks my Sony SACD/DVD Swoboda Mod DVP-NS 9100ES did not have any problems at all, nor the other players I have had at my disposal.

As far as looks are concerned SCD-T2000 reminds me of products of the prestige audio marque from Germany called T+A. Shanling’s build quality and aesthetics are superb. For a full description, see David Price’s original review of the SCD-T200C in the November 2004 issue of Hi-Fi World.

The original SCD-T200C and the new SCD-T2000 look almost identical. The new version is still finished in brushed aluminium, but Shanling gave up on the gold touches of some parts. At the front, there is an overly small display, this time in green, instead of blue. The rear panel remains unchanged. There are two RCA unbalanced outputs for the vacuum tube output stage, and two RCA unbalanced outputs for the solid-state stage, plus one coaxial digital output terminal. Both sets of unbalanced outputs, along with the headphone jack are situated on the right side of unit; they are attenuated by high-precision, digitally controlled analogue volume control. In the box I found - apart from nicely metal-crafted remote and impressive power cord - an interesting compilation SACD sampler disc.

The sole UK distributor of the hybrid Shanling SCD-T2000 is Matthew Jameson of Real Hi-Fi. Using a stock SCD-T2000 player manufactured by Shenzhen Shanling Electronic Co. Ltd of China, the 3D Acoustics modification incorporates a few vital key improvements, including 240V power transformers, Schottky fast-recovery diodes, Os-Con capacitors and tantalum resistors applied in crucial parts of the circuit. Above all the spinner comes with full factory one year UK warranty.

Straight out the box this player proved easy to use and great to look at. It gives you feeling of money well spent. So what about the sound then?

**SOUND QUALITY**

Since I began my journey with SACD I have collected about 170 discs. During my audition of this player, I spent a significant amount of time going back and forth between the vacuum tube and solid-state outputs listening mainly to Super Audio discs. As I did not audition the old Shanling SCD-T200C, I am relying on DP’s view here. So although I cannot determine whether the new spinner is a step forward or not, I can say the new Shanling SCD-T2000 is excellent.

Listening to a wide variety of SACDs, I found that with my amplifier and speaker combination, I consistently preferred the solid-state stage to vacuum tube output. There was a greater degree of articulation when listening through the solid-state output, with no loss of midrange magical presence or purity. The sound remained coherent and liquid throughout a whole audible range. The vacuum tube section seemed to soften both extremes, which did not complement my current set-up.

The bottom end of the frequency spectrum was too relaxed and laid-back, if you like, via the tube output. I would only suggest that anyone interested in the Shanling audition both outputs to see what suits their system and tastes best. The great thing about this player is that you can select your preference with every disc as both outputs can be run to an amplifier or power amp at the same time. As DP said in his original review, you get two players in one.

On SACDs, the Shanling revealed its outstanding sound quality. In fact, this was one of the best SACD players I have ever heard. The SCD-T2000 delivered a deep and well-defined soundstage, with wonderful dimensionality, bloom and sense of air between instruments. Listening to Warren Bernhardt accompanied by Jay Anderson and Peter Erskine from the album ‘So Real’ (DMP SACD-15) I was impressed by the Shanling’s ability to resolve individual instrumental lines during complex passages. Whether you concentrate on piano, bass or drums you hear a totally natural spatial presentation.

One of my favourite SACD recordings of all time, BluesQuest by Audioquest Music (SACD-1052), demonstrated the Shanling’s musicality. Joe Beard was soulful beyond words and Sam McClean performing ‘Too Proud’ was just perfect - the powerful and fulsome about openness, clarity and detail - this is top drawer in every way.

Relaxing to the SACD version of Norah Jones’s ‘Come Away With Me’ (BlueNote 724354174728) proved to a blissful and tranquil experience through the Shanling SCD-T2000. Its ability to convey her distinctive sultry voice was captured with a liquidity that was transparent and pure. Norah’s impassioned ‘Turn Me

"the Shanling gives effortless insight into the capabilities of the SACD format..."
ISOPHON SPEAKERS

Distributed exclusively in the UK by

SOUNDS 4 ENJOYMENT

Tel: 07894853533 | Email: dave@sounds4enjoyment.com | Website: www.sounds4enjoyment.com

Any of these products can be demonstrated by appointment at:

Guildford Audio | Tel: 01483 537 577 | www.guildfordaudio.co.uk

English Valve Amp (Hastings) | Tel: 0142 444 5107 | www.valve-amps.co.uk
"With its high-tech appearance and exquisite attention to fit and finish, this is a stunning piece of work..."

Stepping away from SACD to conventional CDs, I was pleasantly surprised at how well the Shanling reproduced 16bit/44.1kHz format. Red Book discs were rendered with an extremely smooth, extended high-frequency response, maintaining that palpable midrange I enjoyed during my sessions with various Super Audio discs. These attributes were apparent while listening to Dire Straits 'On Every Street' (Vertigo 3426788). Mark Knopfler's vocals are the focus here and the Shanling reproduced the depth and subtlety of his performances magnificently; it was possibly the best I have ever heard from this recording. One predominant attribute of the Shanling is its ability to accurately replicate the attack and decay of various strings and percussive instruments. 'Heavy Fuel' was reincarnated with impressive power, dynamics, punch and speed. This is a common trait of the Shanling when playing back both CDs and SACDs formats.

CONCLUSION
To say the 3D Acoustic Shanling SCD-T2000 player is attractive would be an understatement. With its high-tech appearance, utilisation of superior parts and materials, and exquisite attention to fit and finish, this Shanling is simply a stunning piece of work. With both SACDs and CDs, the SCD-T2000 is a reference quality performer. SACDs sound superb, lending the music a sense of realism and palpability that is enthralling. On conventional CDs, performance is equally impressive considering the confines of the format. Moreover the SCD-T2000 gives the user welcome flexibility with two output stages, vacuum tube and solid-state each with its own strengths and characteristics. Connecting this player to a natural sounding amplifier will give you world-class performance at the price, and is thus an essential audition.

REFERENCE SYSTEM:
YBA Passion 300 amplifier
JM LAB Focal Micro Utopia Be loudspeakers
LFD Spirolink IV interconnects
Isotek Super Supreme power cables
Townshend Isolda DCT speaker cables

MEASURED PERFORMANCE
With CD the SCD-T2000's frequency response reaches smoothly up to 21.125kHz and you can see the smoothness of the characteristic in our high resolution convolved impulse analysis. With SACD the upper limit extended out to 36kHz (-1dB), whilst the lower limit stayed at a low 2Hz. The valve output made little difference to these figures and as CD and SACD technology goes they are a good result.

Distortion levels were low on CD and - as expected - very low on SACD. The SCD-T2000 resolves signals down to -100dB with SACD, a level below that possible from CD. You can see from our figures that SACD is very linear. Our analysis shows a -30dB signal on CD, as usual, where a low 0.00073% was measured. The valve output stage inevitably introduces degradation, with 0.3% distortion at peak level (0dB) comprising mainly second harmonic, and a little more distortion lower down too, 0.24% at -60dB for example, but this comprised low order harmonics that should be aurally innocuous.

In terms of noise, channel separation, output and dynamic range this player was up with the best. The SCD-T2000 measures well in all areas, on CD and SACD. Measurement suggests it will have a largely neutral tonal balance and SACD in particular should come across as smooth and pure.

A stylish and very well made player that offer superlative performance on both CDs and SACDs.

FOR
- soundstaging and dynamics
- build quality
- CD performance

AGAINST
- some SACD readability issues

SHANLING SCD-T2000 £2,250
Distributed by Real Hi-Fi
C: +44 (0)870 909 6777
www.realhi-fi.com

World Radio History
www.hi-fiworld.co.uk
MAY 2007 HI-FI WORLD
17


**QUESTIONS**

[1] Which class of operation does the Rotel use?
- [a] CLASS A
- [b] CLASS B
- [c] CLASS AB
- [d] CLASS D

[2] What is the name of the power technology used by the RB-1092?
- [a] Cold Running
- [b] Chill Thrill
- [c] Draft Performance
- [d] ICE power

[3] What is the claimed output power of the RB-1092?
- [a] 5mW
- [b] 5W
- [c] 50W
- [d] 500W

[4] DP says it's a genuinely what sounding bit of kit?
- [a] cool
- [b] hot
- [c] rough
- [d] svelte

**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.

FEBRUARY 2007 MARANTZ PM700K1 SIGNATURE CD, SA7001 KI SIGNATURE INTEGRATED AMPLIFIER WINNER: Alan Roberts of Newcastle

WIN A FANTASTIC ROTEL RB-1092 STEREO POWER AMPLIFIER WORTH £1,595 IN THIS MONTH'S GREAT COMPETITION!
Heavenly

David Allcock finds the Blue Angel Mantis moving coil cartridge makes music in an other worldly way...

ew entrants in the world of high end cartridges are rare. The new Blue Angel Mantis moving coil has caused quite a stir due to the obsessive attention to detail paid to each and every cartridge by designer Andre Hanekom. Virtually everything, bar the cantilever/stylus assembly and the wooden packing box, is manufactured from scratch by its designer, who also builds and tests every cartridge. To do this, Andre had to install his own lathe and milling facilities, then build his own tooling to facilitate manufacture.

The Mantis uses a wooden body into which is installed a plastic carrier, and it is within this carrier that the cartridge generator mechanism is located. This carrier is highly specialised, as the plastic has been carefully selected for both environmental stability and resonant behaviour. The coils are very high purity copper, whilst high power neodymium magnets are used to ensure a healthy 0.35mV output.

SOUND QUALITY

Handling the Mantis requires delicacy, as you might imagine, but installation was aided by the square body shape. Tracking weight is quoted between 1.8 and 2.0gms, and on my Graham tonearm I found 1.85gms offered the best sound balance. The Mantis sounds very good at 47k Ohm input loading, but I found the midrange was a little richer and vocals had more body at 2.5k or 1k Ohm.

Once optimised, this cartridge quickly established itself as being an outstanding musical performer. The high frequencies were notable for their astonishingly smooth, detailed presentation. Whilst obviously capable of very high resolution, the Mantis MC is an excellent cartridge, its performance justifying its £2,495 price tag.

CONCLUSION

The Blue Angel has a smoothly rising frequency response on outer grooves, as the red trace in our analysis shows. Output peaks at +2.5dB around 12kHz, and this will ensure a bright balance. On inner grooves, where tracing loss takes effect, the Gyger II stylus shape introduces -1dB loss, reducing the peak somewhat, as the white trace shows.

Like all moving coils, there is no upper range, as the Lyra Titan, this cartridge is more than capable of shocking the listener on rim shots. Imaging was superbly focused, with a fine rendition of stage depth, images precisely placed on a stage which laterally filled the listening room, whilst the rear of the stage extended far beyond the physical wall.

MEASURED PERFORMANCE

The Blue Angel has a smoothly rising frequency response on outer grooves, as the red trace in our analysis shows. Output peaks at +2.5dB around 12kHz, and this will ensure a bright balance. On inner grooves, where tracing loss takes effect, the Gyger II stylus shape introduces -1dB loss, reducing the peak somewhat, as the white trace shows.

Like all moving coils, there is no upper range, as the Lyra Titan, this cartridge is more than capable of shocking the listener on rim shots. Imaging was superbly focused, with a fine rendition of stage depth, images precisely placed on a stage which laterally filled the listening room, whilst the rear of the stage extended far beyond the physical wall.

The Blue Angel has a smoothly rising frequency response on outer grooves, as the red trace in our analysis shows. Output peaks at +2.5dB around 12kHz, and this will ensure a bright balance. On inner grooves, where tracing loss takes effect, the Gyger II stylus shape introduces -1dB loss, reducing the peak somewhat, as the white trace shows.

Like all moving coils, there is no upper range, as the Lyra Titan, this cartridge is more than capable of shocking the listener on rim shots. Imaging was superbly focused, with a fine rendition of stage depth, images precisely placed on a stage which laterally filled the listening room, whilst the rear of the stage extended far beyond the physical wall.

The Blue Angel has a smoothly rising frequency response on outer grooves, as the red trace in our analysis shows. Output peaks at +2.5dB around 12kHz, and this will ensure a bright balance. On inner grooves, where tracing loss takes effect, the Gyger II stylus shape introduces -1dB loss, reducing the peak somewhat, as the white trace shows.

Like all moving coils, there is no upper range, as the Lyra Titan, this cartridge is more than capable of shocking the listener on rim shots. Imaging was superbly focused, with a fine rendition of stage depth, images precisely placed on a stage which laterally filled the listening room, whilst the rear of the stage extended far beyond the physical wall.

The Blue Angel has a smoothly rising frequency response on outer grooves, as the red trace in our analysis shows. Output peaks at +2.5dB around 12kHz, and this will ensure a bright balance. On inner grooves, where tracing loss takes effect, the Gyger II stylus shape introduces -1dB loss, reducing the peak somewhat, as the white trace shows.

Like all moving coils, there is no upper range, as the Lyra Titan, this cartridge is more than capable of shocking the listener on rim shots. Imaging was superbly focused, with a fine rendition of stage depth, images precisely placed on a stage which laterally filled the listening room, whilst the rear of the stage extended far beyond the physical wall.

The Blue Angel has a smoothly rising frequency response on outer grooves, as the red trace in our analysis shows. Output peaks at +2.5dB around 12kHz, and this will ensure a bright balance. On inner grooves, where tracing loss takes effect, the Gyger II stylus shape introduces -1dB loss, reducing the peak somewhat, as the white trace shows.

Like all moving coils, there is no upper range, as the Lyra Titan, this cartridge is more than capable of shocking the listener on rim shots. Imaging was superbly focused, with a fine rendition of stage depth, images precisely placed on a stage which laterally filled the listening room, whilst the rear of the stage extended far beyond the physical wall.

The Blue Angel has a smoothly rising frequency response on outer grooves, as the red trace in our analysis shows. Output peaks at +2.5dB around 12kHz, and this will ensure a bright balance. On inner grooves, where tracing loss takes effect, the Gyger II stylus shape introduces -1dB loss, reducing the peak somewhat, as the white trace shows.

Like all moving coils, there is no upper range, as the Lyra Titan, this cartridge is more than capable of shocking the listener on rim shots. Imaging was superbly focused, with a fine rendition of stage depth, images precisely placed on a stage which laterally filled the listening room, whilst the rear of the stage extended far beyond the physical wall.

The Blue Angel has a smoothly rising frequency response on outer grooves, as the red trace in our analysis shows. Output peaks at +2.5dB around 12kHz, and this will ensure a bright balance. On inner grooves, where tracing loss takes effect, the Gyger II stylus shape introduces -1dB loss, reducing the peak somewhat, as the white trace shows.

Like all moving coils, there is no upper range, as the Lyra Titan, this cartridge is more than capable of shocking the listener on rim shots. Imaging was superbly focused, with a fine rendition of stage depth, images precisely placed on a stage which laterally filled the listening room, whilst the rear of the stage extended far beyond the physical wall.

The Blue Angel has a smoothly rising frequency response on outer grooves, as the red trace in our analysis shows. Output peaks at +2.5dB around 12kHz, and this will ensure a bright balance. On inner grooves, where tracing loss takes effect, the Gyger II stylus shape introduces -1dB loss, reducing the peak somewhat, as the white trace shows.

Like all moving coils, there is no upper range, as the Lyra Titan, this cartridge is more than capable of shocking the listener on rim shots. Imaging was superbly focused, with a fine rendition of stage depth, images precisely placed on a stage which laterally filled the listening room, whilst the rear of the stage extended far beyond the physical wall.

The Blue Angel has a smoothly rising frequency response on outer grooves, as the red trace in our analysis shows. Output peaks at +2.5dB around 12kHz, and this will ensure a bright balance. On inner grooves, where tracing loss takes effect, the Gyger II stylus shape introduces -1dB loss, reducing the peak somewhat, as the white trace shows.

Like all moving coils, there is no upper range, as the Lyra Titan, this cartridge is more than capable of shocking the listener on rim shots. Imaging was superbly focused, with a fine rendition of stage depth, images precisely placed on a stage which laterally filled the listening room, whilst the rear of the stage extended far beyond the physical wall.

The Blue Angel has a smoothly rising frequency response on outer grooves, as the red trace in our analysis shows. Output peaks at +2.5dB around 12kHz, and this will ensure a bright balance. On inner grooves, where tracing loss takes effect, the Gyger II stylus shape introduces -1dB loss, reducing the peak somewhat, as the white trace shows.

Like all moving coils, there is no upper range, as the Lyra Titan, this cartridge is more than capable of shocking the listener on rim shots. Imaging was superbly focused, with a fine rendition of stage depth, images precisely placed on a stage which laterally filled the listening room, whilst the rear of the stage extended far beyond the physical wall.

The Blue Angel has a smoothly rising frequency response on outer grooves, as the red trace in our analysis shows. Output peaks at +2.5dB around 12kHz, and this will ensure a bright balance. On inner grooves, where tracing loss takes effect, the Gyger II stylus shape introduces -1dB loss, reducing the peak somewhat, as the white trace shows.

Like all moving coils, there is no upper range, as the Lyra Titan, this cartridge is more than capable of shocking the listener on rim shots. Imaging was superbly focused, with a fine rendition of stage depth, images precisely placed on a stage which laterally filled the listening room, whilst the rear of the stage extended far beyond the physical wall.

The Blue Angel has a smoothly rising frequency response on outer grooves, as the red trace in our analysis shows. Output peaks at +2.5dB around 12kHz, and this will ensure a bright balance. On inner grooves, where tracing loss takes effect, the Gyger II stylus shape introduces -1dB loss, reducing the peak somewhat, as the white trace shows.

Like all moving coils, there is no upper range, as the Lyra Titan, this cartridge is more than capable of shocking the listener on rim shots. Imaging was superbly focused, with a fine rendition of stage depth, images precisely placed on a stage which laterally filled the listening room, whilst the rear of the stage extended far beyond the physical wall.

The Blue Angel has a smoothly rising frequency response on outer grooves, as the red trace in our analysis shows. Output peaks at +2.5dB around 12kHz, and this will ensure a bright balance. On inner grooves, where tracing loss takes effect, the Gyger II sty...
Leema Acoustics is very much in the ascendant, with a range of impressive looking electronics to match their established loudspeaker line. The new Tucana integrated amplifier shines brightly, says David Allcock...

Leema Acoustics has, over the past five years, gone from a small loudspeaker company to a significant manufacturer in the British hi-fi constellation. The Tucana is their first electronics product, and makes an excellent first impression. Out of the box it is clear this is an exceptionally well built product; the chassis is very solid and even the heatsinks down each side are sufficiently substantial as to ensure they don't ring.

The front panel has only two large controls, a volume control on the left and an input selection on the right which allows three line inputs, a pair of multichannel inputs, a tape loop and an A/V direct input, which acts as a unity gain input for integration with a surround sound processor. Around the back are two pairs of heavy duty five way binding posts on the outer edge of the panel, a single, centrally mounted IEC, nine pairs of inputs and outputs on high quality, gold plated RCA phono connectors, and a pair of connectors for Leema's LIPS system - an intelligent control protocol conceived and written in-house to make their systems very user friendly.

The Tucana is a full dual mono design utilising three transformers, one each for the left and right channels and a third which powers the control circuits, only sharing the power inlet to prevent any interference between channels and the digital data from the microprocessor control system. The output stage is said to be capable of massive current swings, up to 45 amps. By no means compact, the Tucana measures 106x440x305mm and weighs a hefty 19.4kg.

SOUND QUALITY

"I can confidently recommend this amplifier to anyone who wants a sonically superb, fit and forget integrated..."
whilst I could hear a little more stage depth with additional air and focus with my established reference combination, the Tucana had a rare ability to convince the listener they were listening to a real performance, even using a digital source. The Diana Krall recording is outstanding, but the Tucana was able to lift it to another level above any other integrated. Spatial relationships between the performers on ‘Devil May Care’ were precise and completely natural. The Tucana was also sensitive to the scale of the acoustic, and did not try to impose itself on every recording.

Able to drive most loudspeakers to very high levels without a hint of compression, this integrated proved crushingly powerful. And whilst the Audiolab 8000S I reviewed a few months ago was capable of very fast transient response, the Tucana surpassed this with ease, requiring the likes of the NuForce Reference 95E and Bryston 1B-SST to substantially better it. It was the perfect partner for the unique vocal ability of Kate Bush, whose performance on ‘Man with the Child in his Eyes’ not only moves around in the frequency domain, but also dynamically, leaving most amplifiers at best merely hinting at her true ability. The Tucana proved itself more than capable of keeping up with the shifts in Kate’s voice with remarkable ease and with the kind of easy, effortless style heard from very few standalone power amplifiers, it tracked the shifts like a bloodhound following even the smallest variations in dynamics with ease.

The bass registers of this amplifier, even with a demanding load, are excellent. Whilst the ML Vantage uses an active bass driver, both the Leema Xavier and Hyperion HPS-938 loudspeakers demand a firm hand to get the best out of their respective bass drivers. The Tucana succeeded in extracting greater levels of performance out of these speakers than almost any other amplifier I’ve heard, grabbing their bass drivers with absolute control. The HPS-938’s reproduction of kick drums on Marillion’s ‘Uninvited Guest’ was outstanding, you could not only hear the beater hitting the drum skin, but you could feel the bass note through the seat and floor, however the bass control was outstanding.

With all this sledgehammer wallop, the Leema was more subtle than you might imagine, allowing the delicacy of Diana Krall’s vocals to come through unabridged. Kate Bush’s voice on ‘Running up That Hill’ had stunning immediacy and speed, and her astonishing upper range dominated, but this was low enough to maintain control and focus.

CONCLUSION
An outstanding design from a connectivity, versatility and performance perspective, the Leema Tucana should integrate easily into any system. This amplifier has outstanding drive capability for even the most challenging speaker loads, and avoids imparting its own personality on the music, allowing the source to speak for itself. A powerful bass performance is mated to a superbly balanced, transparent midrange, whilst high frequencies are smooth and highly resolving. As such, I can confidently recommend this amplifier to anyone who wants a sonically superb, fit and forget integrated.

MEASURED PERFORMANCE
The Tucana produces 162 Watts into 8 Ohms and 272 Watts into 4 Ohms, good amounts of power and plenty enough for most loudspeakers and rooms. Distortion levels were low at all power outputs and frequencies, a little third harmonic appearing as the amp was pushed to produce high power at 10kHz. However, measuring just 0.05% worst case, delivering full power into 4ohms, the Tucana behaves well in this area. At low outputs, output stage noise dominated, but this was low enough to be inaudible.

Frequency response was wide, measuring 5Hz to 50kHz at -1dB limits, wide enough to do justice to SACD and DVD-A sources. Sensitivity was very low at 600mV and here the Tucana may not be the best choice with phono stages having limited gain, or old sources such as cassette decks. It has been modelled for CD players and such like.

The Tucana measures well. Leema says it has no protection circuits and the output must not be shorted, which is slightly worrying, but assure that internal fuses prevent output stage damage and a trip circuit protects loudspeakers. NK

Power
162watts
CD/tuner/aux. Frequency response 9Hz-50kHz
Separation 71dB
Noise -90dB
Distortion 0.005%
Sensitivity 600mV

DISTORTION

REVIEW

Powerful, detailed and engrossingly musical sound allied to superlative build makes this is a great British integrated amplifier.

LEEMA TUCANA £2,995
Activ Distribution
(+44(0)1635 291357)
www.leema-acoustics.com

FOR
- dynamic range
- smooth yet resolved sound
- current drive
- build and finish

AGAINST
- no balanced inputs

MUSIC
The Cardigans, ‘Gran Turismo’
Diana Krall, ‘When I Look in Your Eyes’
Marillion, ‘Six of One’
Kate Bush, ‘Hounds of Love’

REFERENCE SYSTEM:
Basle Gold Debut Standard/Graham 2.0/Benz Glider L2 turntable
Klyne System 7 PX 3.5 phono stage
Shanling CD-T300 Omega Drive CD player
Krell KRC-3 preamplifier
Bryston 3B-SST and 14B-SST power amplifiers
Martin Logan Vantage loudspeakers
Hyperion Sound Design HPS-938 loudspeakers
Leema Acoustics Xavier speakers
Isotek Titan and Nova mains filters

World Radio History
WORLD HI-FI WORLD MAGAZINE
MAY 2007
WWW.HI-FIWORLD.CO.UK

VERDICT

• Build and finish
• Current drive
• Dynamic range
• Smooth yet resolved sound

Leema Acoustics Xavier loudspeakers
Bryston 3B-SST and 14B-SST power amplifiers
Shanling CD-T300 Omega Drive CD player
Krell KRC-3 preamplifier
Martin Logan Vantage loudspeakers
Hyperion Sound Design HPS-938 loudspeakers
Isotek Titan and Nova mains filters
Channa Vithana reviews the latest iteration of the Harbeth HL-Compact loudspeaker, now in 7ES-3 form...

Harbeth are not a conventional, mainstream British loudspeaker company. Thanks in no small part to its founder Dudley Harwood's BBC engineering background, their biggest British customer is good old auntie Beeb. Otherwise, they sell well in Japan and China. Based in Haywards Heath, West Sussex, they can trace their roots back into the nineteen sixties, and have produced a range of quintessentially British sounding products, a little conservative in presentation perhaps, but still extremely able and often far better than their more popular rivals.

Now in 2007, Harbeth have just released a new version of their single-wired HL-Compact loudspeaker, called the 7ES-3, priced at £1,799. It has excellent build and is finished in a beautifully crafted light Cherry veneer as standard. There are other veneers available, including Eucalyptus, for about £1,899 to special order. Though called 'Compact', measuring 520x273x315mm and weighing 13.2kg apiece, the 7ES-3 by modern standards is a large two-way front-ported standmount loudspeaker, and with its black cloth grill in place can be easily mistaken for a new-old-stock classic monitor from the sixties or seventies!

I quite like its chunky proportions, but it would be nice to see more of the front baffle - the grill looked difficult to remove, so it was left in place (which Harbeth recommend). Indeed, more attractive silver hex-head fixings could have been used instead of the ordinary cross-head ones across the rear panel, and those at the front baffle, for the nail-free, glueless "lossy joint which suppresses resonances". Additionally, it would have been more attractive if they used a circular opening for the mid/bass driver. As such, some will be put off by this 'traditional' styling.

The 7ES-3 cabinet, says Harbeth, "quite literally breathes at the very lowest frequencies, as do the finest wooden instruments." A 25mm aluminium dome tweeter, which Harbeth have used for twenty years, is utilised because of its manufacturing consistency, and "needs no added damping (unlike fabric)." The classically BBC proportioned 200mm (8inch) Radial cone mid/bass driver is located into a glass-reinforced nylon chassis with a new rubber surround utilising "a softer smoother profile for improved damping". The front-mounted port has been tuned for better bass, while the cabinet has better internal wall-damping and the new crossover has "improved the on-axis integration of the drive units and enhanced the vertical integration", so the speaker is less critical of stand height.

**SOUND QUALITY**

In the Harbeth User Guide it is recommended that the loudspeakers are placed about 75cm away from the...
REVIEW

Rear wall, 2.5m apart and with a little toe-in (about five to ten degrees) - and I concur, as this sounds the best. After a relatively short listening period, it was obvious to me that the Harbeths have marked strengths — what they do well, they do very well. The key is their delicately balanced sound, with wonderful timbral acuity and the ability to convey the emotional impact of a recording. With the music from the Vivaldi, ‘L’Amore per Elvira’ recording by La Serenissima, the violin and harpsichord had very good phrasing, definition and clarity. The music was nicely expressed, in a very clear yet timbrally convincing manner, and there was excellent body to each instrument. On ‘What’s The World Coming To’ from ‘Say You Will’ by Fleetwood Mac, the Harbeths sounded bold and expressive, proving convincing and enjoyable. The groove-led bass lines were excellent in their composure, feel and extension while Mick Fleetwood’s signature drum-track was a delight with crisp, clear and deep timbres. The pulsating opening bass line to Depeche Mode’s ‘Behind The Wheel’ from ‘The Singles 86>98’ compilation was engagingly tuneful in extension, control and feel. The music as a whole was also superb with a powerful yet articulated sound that was very communicative.

The eerie mix of beautiful opening guitar melodies and menacing, growing bass lines to ‘Enter Sandman’ by Metallica was sheer delight. And just like Depeche Mode previously, the Harbeths showed a superbly tuneful bass delivery. However, when the composition got busier, with more complex drum patterns and guitar melodies vying for space with crunching rhythm parts, I noticed that the Harbeths could sound too restrained. There was a slightly ‘controlled’ quality that took some of the beautifully revealed timbral enjoyment away. Contrast this to a simpler composition like the mid-paced thrash-metal of the next track, ‘Sad But True’ and there were no such difficulties. Likewise, on Fleetwood Mac’s ‘Morrow Turning Over In His Grave’, the music became a little more constrained, as the complex guitar parts sounded a little shut-in and less natural in their phrasing.

Compared to my reference floor standing Waterfall Victoria loudspeakers, which cost approximately £2,000, the £1,799 Harbeths had superior instrumental timbre, which was very convincing indeed. They also appeared to go deeper in the bass than the similarly specified Victorias. However, the Waterfalls sounded slightly less congested in comparison, especially during wayward or complex song structures, as on the Fleetwood Mac and Metallica recordings, and thus, the interplay of instrumental and vocal phrasing and timing of the music was preferable with them. For this reason, I think the Harbeths are ideal for delicate, subtle acoustic music, but less successful on highly modulated complex rock music — lovers of heavy metal should look elsewhere!

"they are BBC-style monitors in the classic and best sense of the word..."
High Fidelity, redefined.

www.thef80.com
SHAW SPEAKS
Chenna Vithana talks to Harbeth supremo Alan Shaw.
CV: HOW DID YOU START OUT IN THE SPEAKER INDUSTRY?
AS: "I have been fascinated by loudspeakers (not really any other part of the hi-fi chain, I must admit) since I was about six or seven. In my teens, I became involved with what were the early days of BBC local radio, when it had a real community involvement. That experience showed me at a stroke, how a monitor speaker was a tool, not a consumer durable. That led to me reading every scrap of information on 'the BBC's way of speaker design'.

Despite my enthusiasm at being an amateur speaker fan, it was clear that I needed to get a real career - but after some seven years at NEC, by fluke I was in London, had some free time and went to see Dudley Harwood – someone I considered famous from my BBC readings (he had been head of the department involved in BBC speaker development) – and I walked away from his tiny lock-up and said 'I have to continue this pioneering work'. That was twenty years ago..."

WHY IS HARBETH SO POPULAR WITH THE BBC, AND IN JAPAN AND CHINA?
"The Japanese and Chinese customers (our best two markets) took us thirty years ago. We are exceedingly well-known in those markets - right up there with the biggest loudspeaker brands in the world. It is no coincidence that [1] oriental homes are generally small, rather similar in size to a BBC control room, and [2] the listener is listening quite close to the speakers which greatly amplifies speaker artefacts, so they have to be of a low order or they are irritating and [3] oriental music, rather like speech and rather unlike electronic music is complex with exceedingly subtle micro-tones which most speakers just can't resolve. As for the BBC, the reason they like us is that our speakers 'tell it like it is' and are based on the BBC's idea of monitor speakers. This means that while they can't play super loud (like public address equipment), and they don't have earth-shattering bass, in the all-critical middle frequencies working with them is not like listening to speakers at all. It is the original 'source' material that is listened to, not the equipment. Most speakers would be extremely fatiguing if used as 'monitors', whereas at the end of an eight-hour shift the sound engineer has to be completely fresh: with Harbeth monitors, he is."

HARBETH HISTORY

As well as this involvement with the renowned LS3/5a, Harwood was also responsible for popularising and patenting the use of Polypropylene drive units in loudspeakers. According to Harwood, Harwood, then a senior engineer, directed research work by the BBC into a coated plastic called Bextrene for better drivers to outperform the inconsistent manufacturing quality of paper units at the time. The need for superior drive units, say Harbeth, was to adapt to the more demanding new stereo broadcasts.

In the mid-1960s, Spencer Hughes, who later formed loudspeaker company Spendor, also worked on the BBC Bextrene project. According to Hughes' journal excerpts (see www.spendoraudio.com) his, 'part as a laboratory technician in the operation, was to do most of the actual work both on the plastic investigation, and the development of the LS3/5 (monitor loudspeaker)'. Also, according to Hughes, after this the 200mm (8inch) mid/bass driver using Bextrene (plus a Celestion HF 1300 LS5/5 (monitor loudspeaker)."

"There are no unpleasant peaks or dips anywhere in the frequency range and the overall trend of the response is downward with increasing frequency. This will endow the Harbeths with a warm sound and they will not be bright or sharp.

Bass response is good for a relatively compact cabinet with the bass driver rolling off around 50Hz and handling over to the port which is tuned to 40Hz. This is a front panel-mounted item and thus the Compact 7ES-3s will be relatively uncritical of close placement to a wall.

The impedance curve is smooth, with a measured average of 8.6 Ohms, dipping to a minimum of around 6 Ohms. The Harbeths are not a difficult load and will work on an 8 Ohm amplifier tap. Their measured sensitivity of 85.6dB means that an amplifier of around 50W is advisable for good sound levels. AS.

REVIEW
No loudspeaker is a master of all trades, and the Harbeth HL-Compact 7ES-3 is no exception, but I found them exceptional in respect of their bass control, tunefulness and general timbral accuracy - they are BBC-style monitors in the classic and best sense of the word. The downside is that they are not rhythmically as free flowing as some, and don't flatter big, complex, over produced stadium rock music. If 'a good tone' in the archetypal BBC sense of the word is paramount for you, then few - if any - at the price can touch these loudspeakers."

MEASURED PERFORMANCE
The HL Compact 7-ES 3s have a very flat and well controlled frequency response, as would be expected from a traditional monitor type loudspeaker. There are no unpleasant peaks or dips anywhere in the frequency range and the overall trend of the response is downward with increasing frequency.

The impedance curve is smooth, with a measured average of 8.6 Ohms, dipping to a minimum of around 6 Ohms. The Harbeths are not a difficult load and will work on an 8 Ohm amplifier tap. Their measured sensitivity
Duevel Planets

£800 (pair) : Silver, red, green, blue, charcoal grey and black
£900 (pair) : Maple (real wood veneer)
£1000 (pair) : Piano Black

Other colour options available, please call for details.

"Unlike traditional speakers, which create an image that tends to recede between and behind the speakers, the Planets provide a soundstage that filled every inch of the listening room’s width. Images outside the speaker cabinets were the norm, providing a truly exhilarating sonic panorama.

In short, the Planets offer a spatial performance nothing less than revelatory at the price, and its dispersion provides a surprisingly coherent sound. It is an excellent ambassador for the (omni-directional) genre."

Ian Harris, Hi-Fi News, April 2007

"I was intrigued to hear really vivid soundstaging - the Planets painted a superb aural picture and it was possible to shut my eyes and hear my favourite band laid out before me.

I found the Planets eminently enjoyable to audition and, returning back to "normal" loudspeakers afterwards was a bit of a comedown. They have superb abilities in terms of imaging and lifelike presentation, cast a much bigger soundscape than their size suggests and offer a unique and enjoyable perspective on all types of music..."

Adam Smith, Hi-Fi World, April 2007
Oehlbach have been manufacturing cables for over 30 years now and in that time have gained considerable expertise in the art of high end cable materials and design, under the tutelage of founder Manfred Oehlbach. Whatever your cable requirements, be they audio, video, computer network, firewire or USB, there is an excellent chance that Oehlbach will have an item to suit your needs, and your pocket.

All of Oehlbach's products come under their star rating system, which runs from three to five stars - the three star items mark their more entry level designs, although this is relative as they still incorporate high quality components including silver plated OFC wires and 24 carat gold plated contacts. At the top of the tree, the five star items use the highest possible technologies, such as pure silver or mono-crystalline HPOCC copper, along with diecast connectors.

The three items we have for review here come from the middle ground, four star category and all three are phono to phono interconnects with reasonable price tags, considering their level of construction quality. The leads in question are the NF 214, NF 14 and NF 12, and cost £63, £84 and £96 for 1m lengths items respectively.

The NF 214 uses 384 silver plated inner conductors with silver plated braid shielding, nicely terminated into good quality gold plated phono plugs. Moving up to the NF 14 interconnects brings better quality phono plugs and a symmetrical design cable that features twin inner conductors plus braiding, rather than the single run of the NF 214.

Finally, the top step on the ladder, the NF 12, uses the same phono plugs as the NF 14 but uses silver-free HPOCC single crystal copper conductors. In fact, I found it quite interesting that the most expensive cables use no silver and are the thinnest of the three samples - clearly bigger is not always better!

Ever ready to suffer in the cause of audio research, I calibrated my ears using a pair of bog standard interconnects of the kind supplied with equipment as a 'get-you-going' step and then substituted each cable in turn between CD player and preamplifier.

For the first step, moving from the standard cables to the NF 214 proved how essential good interconnects are. Out went the slow and wallowing bass, to be replaced by a much tighter and more tuneful low end which made everything much more lively. Vocalists had better definition and instruments sounded more realistic, and less like a poor imitation of themselves. Oehlbach also promise "wonderful staging" for the NF 214 and this was indeed the case, as the whole sound field opened up considerably.

Changing to the NF 14 brought even more air and realism around vocals. Singers such as Norah Jones appeared to have moved closer to the microphone and sibilants were less spiny. Slightly less enthusiastic and dynamic than the NF 214, the NF 14 is nevertheless a very smooth character and adds a nice degree of polish and sophistication to the sound.

The final change introduced the NF 12 and, for a mere £12 premium over the NF 14, moved things onto a different level. This time, bass became deeper and much pacier and allied itself to an exquisitely smooth midrange. The finest details in recordings were brought out superbly by the NF 12 and performances came across with real emotion and impact.

In summary, the NF 14 has a rather smoother overall nature than the NF 214, which is more inclined to 'get down and boogie', albeit with a slightly coarser character, but either of their differing dispositions can be used to effectively fine-tune your system. The real star, however, is the NF 12 which is magnificently neutral and detailed and combines the pace and rhythm of the NF 214 with the sophistication and detail of the NF 14. Overall, then, all three of these cables offer excellent performance at reasonable prices.

Contact:
www.hi-fiworld.co.uk  MAY 2007 HI-FI WORLD
Call your local SEVENOAKS store for a free demonstration

Experience the best hi-fi at SEVENOAKS

IMPROVE YOUR HI-FI SYSTEM WITH THESE FABULOUS FIVE STAR SPEAKERS
VISIT YOUR LOCAL SEVENOAKS STORE FOR A DEMONSTRATION

**MONITOR AUDIO RS1 SPEAKERS**
- Compact design
- Metal cone technology
- Available in a choice of finishes
- "They're well made and look good, they're laid-back about room position, and they sound just as good as the amplifier that drives them... You need to audition these"

**SPENDOR S5e SPEAKERS**
- Hand-made 'e' generation bass-midrange drive units reward with a uniquely clear and musical sound
- Natural wood cabinets available in a choice of finishes

**MONITOR AUDIO BRONZE BR5 SPEAKERS**
- The new BR5 is an astonishing mix of clarity, exuberance and power from a deceptively slender loudspeaker
- 2.5-way design
- Finish options available
- "Unmatchable musical sound from a floorstander under £500 coupled with Monitor Audio's excellent build quality"

**KEF iQ5 SPEAKERS**
- Uni-Q design
- Finish options
- Floorstanding
- Award-winning
- "The iQ5s are little stars, providing stunning scale and authority from discreetly sized towers"
Getting the most from your hi-fi system

Sevenoaks has 34 years' experience in the hi-fi market - and nobody knows more about getting the most from music. With the major brands in stock, Sevenoaks can help you choose individual components or design a complete system from scratch. Just tell our in-store experts what you listen to, when and where.

For your local store click www.ssav.com

The Experts in Home Entertainment

Any song. Any room. Anywhere. SONOS Wireless Music System

Sonos is the first wireless, multi-room digital music system that lets you play your favourite tunes all over the house - and control them from the palm of your hand. With a wireless Sonos Controller in hand, you’ll have instant access to all your digital music, plus Internet radio, subscriptions to online audio services and even music from your favourite CD or MP3 player. With Sonos ZonePlayers in the rooms of your choice, you can play the same song in different rooms, or different songs in different rooms. To start listening, just grab the colour controller, pick a room, pick a song and simply hit play.

- Built-in wireless system
- Multi-room synchronous playback
- Expandable design, up to 32 rooms
- Familiar, simple user interface

“Simple to set-up, great to use... Sound quality is first-rate”

Don’t Forget! Accessories make the difference

The quality of sound and vision a system produces is determined as much by its accessories as its main components. At Sevenoaks, accessories are not an afterthought - our staff can demonstrate the difference the right accessories can make to your home entertainment experience.

Revive your record collection

PROJECT DEBUT III
- Two-speed, belt drive turntable complete with cartridge
- What Hi-Fi award-winner

ARCAM
SOLO MUSIC SYSTEM
- Amazing sound from an integrated system
- Exceptional quality CD, FM and DAB radio
- Integrated iPod connection
- From Arcam, a great British company

DIVA SERIES
Arcam believes that superb sound quality is vital to the real enjoyment of music. The DIVA range reproduces music at a level that is remarkably true to life.

CYPRESS
If you’ve enjoyed listening to music before, try listening to it through a Cyrus system. With every product tuned by ear, Cyrus represents a quality of sound, which is rare at any price. NEW DAB & SD TUNER
A vision for every home

Create your dreams with the latest home entertainment technology. Whether it be home cinema, quality hi-fi or multi-room, Sevenoaks will transform your home and increase your viewing and listening pleasure.

Sevenoaks Design and Custom Install provides a solution that meets your exact needs and budget.

At Sevenoaks, we create bespoke home entertainment systems of the highest quality that complement your home and lifestyle.

With 49 stores and over 30 years of experience, Sevenoaks creates systems that will transform your life.

Multi-room systems

A multi-room system puts all your home cinema and/or hi-fi equipment in one place and gives you control at the touch of a button. Put screens and speakers in as many rooms as you want and control what you listen to or watch from one central hub. With hard-disk technology, you can store your entire DVD and CD collections in one place and play different films or music tracks in different rooms at the same time.

Sevenoaks staff are experienced at installing both simple and complex multi-room systems, and ensuring they integrate with the look and feel of your home as well as being fully functional and easy to operate.

How it works

The Sevenoaks custom install service takes in everything from initial site visits to designing and planning your system, through to project management and installation to ensure you get the most from your home entertainment system.

Sevenoaks consults with you at every stage and, if required, will liaise with builders and architects.

Call your local Sevenoaks store to book a site survey or a free in-store demonstration.
Choose the best in the business

Sevenoaks Sound & Vision is the UK’s largest specialist retailer of high-quality home entertainment solutions. With 49 stores nationwide and a proud history of satisfying customers, Sevenoaks has a hard-earned reputation as the most comprehensive provider of home cinema, hi-fi and multi-room audio systems, offering excellence in customer service and a unique design and custom install option.

Ahead of the field

● LEADER for quality brands. Sevenoaks 100 per cent independent status means it can bring together the finest components and systems under one roof.

● LEADER for quality staff. Sevenoaks employees are home cinema and hi-fi enthusiasts with a passion for the products and satisfying customers.

● LEADER for quality service. At Sevenoaks, customers are treated as individuals and solutions are designed for individual needs.

● LEADER for custom install. Few retailers have more experience of designing, installing and optimising bespoke systems in homes.

All SEVENOAKS stores:

● are staffed by experts in home cinema and hi-fi

● stock leading brands to offer a range of quality products

● offer impartial and personal service

● have home cinema and hi-fi demonstration rooms

Come and visit us

FOR OPENING HOURS CALL YOUR

NEWS & INFORMATION

SEVENOAKS

GUIDE

Pick-up our 2007 Hi-Fi & Home Cinema Guide at your local store. Alternatively, it can be ordered via our website and posted to you (UK mainland addresses only) FREE OF CHARGE.

SEVENOAKS

SOUND & VISION

The Experts in Home Entertainment

● OUTSTANDING VALUE

● TOP QUALITY BRANDS

● LATEST TECHNOLOGY

● EXPERT IMPARTIAL ADVICE

www.ssv.com

CROYDON

361 ST LONSDALE ROAD
020 8665 1203

EALING

OPEN SUNDAY

24 THE GREEN
020 8527 8777

EDINBURGH

5 THE GRASSMARKET
0131 229 7267

EPsom

OPEN SUNDAY

17 UPTON HIGH STREET
01372 720720

EXETER*

26 CONIC STREET
01392 218895

GLASGOW

OPEN SUNDAY

86 GREAT WESTER STREET
0141 332 9655

GUILDFORD

272 NORTH STREET
01483 536666

HOBURN

141-143 GROSVENOR ROAD
020 7837 7540

HULL

5 SMITH STREET
01482 587171

KINGSTON

OPEN SUNDAY

43 FIFE STREET
020 8547 0717

LEEDS*

62 NORTH STREET
0113 245 2775

LEICESTER

19 LOGBURY LANE
0116 253 6567

LINCOLN

36-32 CORPORATION STREET (OFF HIGH S)
01522 527397

LOUGHTON

7-8 CONINGSBURY AV
020 8532 0770

MAIDSTONE*

OPEN SUNDAY

96 WEST STREET
01622 686366

MANCHESTER

88 HIGH STREET CITY CENTRE
0161 831 7969

NEWCASTLE

19 NEWGATE STREET
0191 221 2320

NORWICH

29-34 ST GEORE STREET
01603 767605

NOTTINGHAM

39 ST MARKS ROAD SHEERWOOD
0115 911 2121

OXFORD*

41 ST CLEMENTS STREET
01865 241773

PETERBOROUGH

OPEN SUNDAY

36 BE A PARK ROAD
01733 897697

PLYMOUTH*

OPEN SUNDAY

12 CONCIV STREET
01752 226011

POOL*

LATIMER HOUSE, 44-46 HIGH STREET
01202 671677

PRESTON

OPEN SUNDAY

43 LINCOLN AV
01772 825777

READING*

OPEN SUNDAY

3-4 THE WALK, KING STREET
0118 959 7768

STAINES

OPEN SUNDAY

4 THAMES ROAD
01784 460777

SWINDON

9 COMMERICAL ROAD
01793 610992

SWISS COTTAGE

OPEN SUNDAY

23 NORTHWAYS PARADE, FINCHLEY RD
020 7722 9777

TUNBRIDGE WELLS

38 ST GEORE STREET
01892 531543

WATFORD

478 ST ALBANS ROAD
01923 213533

WEYBRIDGE

8-9 COMMERCIAL ROAD
01932 825581

WILMSlow

3-4 THE WALK, KING STREET
01932 828525

WOLVERHAMPTON

29-36 CEDARWOOD ROAD
01902 312225

YEOVIL

77 CHASE SIDE
01935 700078

PRICING

POLICY

We always try to ensure our prices are highly competitive. In the event you can find the same products and excellent service at a lower price, please bring it to our stores managers’ attention.

FLEXIBLE

FINANCE

OPTIONS’S

Spread the cost of buying. Flexible finance options* are available on the majority of products we stock.

*Subject to manufacture and availability. Contact your local store for more information.

PLEASE NOTE

Some products/brands are not available at all stores. Please call to confirm or visit our website before travelling. Special Offers and Sale Offers - Not in conjunction with any other offer.

www.ssv.com
Silver Machines

Although you can buy a CD player for £20 at your local supermarket (that also plays DVDs!), spending a serious sum really yields benefits. In this month's supertest, Noel Keywood rounds up four sub-£1,000 models from Cambridge Audio, Roksan, Creek and Vincent...

Lovely as the analogue LP is, for most people Compact Disc is the only practical choice when it comes to listening to music in the home. All four players here give results that are a step up from the norm in audio quality, and genuinely provide a better listening experience. They gave us a less mechanical and sterile presentation than typical budget CD players, with a feeling of clarity and stage depth, a sense of solidity to singers and instruments and, in some cases, elimination of the piercing effects of sibilance. A common criticism of CD is that it sounds bright, sharp, hard and sterile, but the mid-price machines tested here address these concerns, although by no means equally...

Just how good can CD sound? If you are able and prepared to shell out thousands for a Tube Technology Fusion CD64 or Chord Electronics DAC64, then it gets very good indeed. The main reason these players sound so special - and different to the norm - is that they contain the unique Rob Watts WTA digital filter - and you pay for such a specialist item.

"these players are a step up from the norm in audio quality..."

Lower down the price ladder, the players here rely on more conventional parts, albeit high quality items, from a variety of semiconductor and drive manufacturers around the world. Unfortunately, no matter how much processing is crammed into CD players, such as the impressive degree of upsampling used in Cambridge's £500 Azur 740C, improvements do not necessarily address all of CD's limitations equally.

There's little useful work you can get a valve to do in a CD player, other than amplify the analogue signal before it reaches the output sockets, yet all the same they make a big difference to the sound - most would say for the better. Valves add a feeling of depth and spaciousness, giving music a more natural, organic sound if you like. Harshness is suppressed and stage depth magically seems to appear, helping to rid CD of its unidimensionality. The associated downside however, is a loss of the intense detailing that solid-state players like the Cambridge in this group can provide. Valves can add a darkening of the sound and a generally more louche air that forsakes the clinical correctness and sterility of solid-state for something a little more human, shall we say!

I could not argue that valve output players are more accurate, so much as they have a presentation that is worth hearing, simply because it makes music enjoyable. A small caveat is that not all valve equipped players are equal; they tend to come from smaller specialist manufacturers and their choice of parts can be 'interesting' to say the least! I like and use an Eastern Electric Minimax, and it sounds quite different to the tube-equipped Vincent in this test. So as always, read what we say, bearing in mind we apply advanced measurements before listening, and then try and listen at a dealer if you can. CD is worth playing properly, and with £1,000 you can buy a fine design.
CAMBRIDGE 740C £500

The Azur 740C is very talented at the price. It acts not just as an upsampling player, but also a digital-to-analogue convertor. Cambridge use Adaptive Time Filtering from Anagram Technologies of Switzerland, with digital signal processing carried out through an Analogue Devices Black Fin DSP to yield a highly processed digital signal running at a high 384kHz sample rate. This then passes through Wolfson DACs connected in differential mode for best noise cancellation. It's a lot of processing for a £500 player, but Cambridge also provide two digital inputs, each with an optical and an electrical (phono socket) SPDIF connector. These can be selected from the front panel. Whilst CD plays only at 384kHz rate, external sources can be converted to 48, 96 or 192kHz at 16, 20 or 24bit resolution, with or without dither applied to reduce low level distortion. As Cambridge say, most CDs are dithered in any case nowadays to ameliorate the grotty sound of 16bit, so you don't need this when using the 740C as a stand alone DAC for a CD transport, so much as other digital sources.

The Azur 740C measures 430x315x115mm and weighs 6.4kgs. Audio outputs are phono sockets, and there are optical and electrical digital outputs too.

SOUND QUALITY
Perhaps predictably, the Azur 740C has an easy-going balance that initially comes over as gentle. Good upsampled players I have used in the past were not dissimilar, I recall. But the player has a sophistication to its delivery that becomes apparent as you relax and spend time with it. There is less immediate force and impact than from the Vincent or Roksan, although in the longer term the 740C proved weighty and detailed, if with more foreshortened depth perspective than the other, considerably more expensive, models. Celine Dion's 'A New Day' was vastly detailed, as crisp as a winter morning and was underpinned by prodigious bass. I admired the way the Cambridge mined information from discs and laid it out clearly; this is an upfront player across the upper midband, but it is less forthcoming across the lower midband, losing warmth and some atmosphere in the process. Here is a player to look right into what's on a CD; it places no gloss over things, displaying a degree of revelation that most rivals are unable to match. In its very own way, then, the 740C is great value.

MEASURED PERFORMANCE

The Cambridge has a classic frequency response characteristic, with slowly falling upper treble from a well damped time domain response. This tends to give a smooth sound, with no emphasis of upper treble, unlike the peakier response appearing more commonly nowadays.

There was no measurable distortion at -30dB, our measurement showing noise, another analyser revealed, not discrete distortion harmonics. Under these circumstances distortion measures a low 0.004%, and at -60dB it was again low at 0.24%, helping toward a fine EIAJ dynamic range value of 111dB.

Jitter measurement of the digital output returned a value of around 100pS over most of the audio band, with no programme-related components.

VERDICT ⭐⭐⭐⭐ £
A vividly revealing player with rock-solid lower bass, if a frosty demeanour. Great value.

FOR
- extremely detailed
- insightful
- seismic deep bass

AGAINST
- lacks warmth
Minimalist masterpieces!

The new Antila CD player with its unique MD² active differential multi-DAC converter technology provides breathtaking realism and a tactile panoramic image.

LIPS ensures the ultimate simplicity in use and flexibility for the future.

Only through hearing will you truly believe.

To locate your nearest dealer call Leema Acoustics on 01938 811900 or log on to www.leema-acoustics.com

Stunning sound quality and captivating good looks create a striking impression in any environment.

LeeMa Acoustics
Beautifully Engineered Sound

Corvus | Single Channel Amplifier
Hydro | Slave Amplifier
Tucana | Audiophile Stereo Amplifier
Cygnus | Advanced Phono Stage

WorId Radio History
CREEK CLASSIC CD £850

The latest incarnation of Creek's mid-price CD player design is an evolution of the tried and trusted CD50Mk2, that impressed us back in the March 2004 edition of Hi-Fi World. Adhering nicely to the 'if it ain't broke, don't fix it' school of design, the Classic incorporates a few choice modifications over its predecessor in order to keep things competitive.

The most visible change, albeit one that is still quite subtle, is a slight restyle to the casework in order to ensure that the unit matches physically well with its Classic series brethren. Under the bonnet, however, the tweaking has reached higher levels by a few useful additions. Firstly, improved circuitry and shorter signal paths have been fitted throughout the player and the power supplies have been upgraded with improved, low noise regulators and resistors. Twin mains transformers keep the supplies to critical areas separate for good isolation and the audio signal passes through a buffer before passing into the DACs for good immunity to shock and vibration.

Measuring 430x70x317mm and weighing 6kgs, the Classic CD is a compact and neat design and has analogue and digital outputs (both optical and coaxial).

SOUND QUALITY

In contrast to the other players in this test, which have a definite tonal character to them, the Creek proved remarkably neutral. No matter what source material was fed to it, the Classic CD remained composed, detailed and thoroughly enjoyable to listen to.

Soundstaging was excellent, with good detail retrieval from instruments and vocalists. Bass was pleasingly weighty and rhythmical without ever becoming wallowy or boomy, and high frequencies were smooth, sweet and tidy. Spinning Celine Dion's 'I'm Alive' once again revealed excellent weight to the sound and the sibilant nature of the track was well represented without becoming unpleasant. With the Creek, pianos and other acoustic instruments had good realism and depth to them.

Ultimately, the Creek is an excellent and 'safe' option. It is a very unflappable player and, whilst lacking the capacious soundstaging of the Vincent or the bass grunt of the Roksan, also sidesteps their downsides neatly, never becoming disagreeable or harsh.

MEASURED PERFORMANCE

The Classic measures flat to 21.2kHz (-1dB) in its frequency response, with no roll down at all at high frequencies our analysis shows. Subjectively, it will not lack treble. This player was very linear right through the audio range, producing little distortion. At -30dB it returned a figure of just 0.004%, our analysis shows, putting it up with the best. An even balance of spectral components exists, mostly noise another analyser showed.

Resolution at low levels was good too, a dithered -80dB signal returning 1.8% second harmonic only.

Jitter was unusually low right across the audio band and up to 100kHz, measuring less than 10pS. There were no audio related components, a sweep showed. The Classic turned in an excellent set of performance figures. It should sound balanced, smooth and very clean, with no softening of treble.

FREQUENCY RESPONSE

DISTORTION

VERDICT

A polished presentation, strong in every way: spacious, smooth and as natural as CD gets.
ROKSAN CASPIAN £800

The Caspian is an all solid-state player of conventional design and construction: there isn’t a valve in sight! Its solidity feels reassuring, both when handling it and when button pressing. Weighing in at 9kgs this is one of the heavier models within our group and it sat where it was put. It measures 88x432x300mm and a comprehensive range of front panel controls allow it to be used without the remote. The rear panel carries no fewer than three digital outputs, optical, electrical (coaxial) and an AES/EBU balanced XLR signal. The latter is unusual and generally considered to give best quality as it minimises noise pickup, which can fall through into the analogue domain as jitter in the absence of re-clocking. Inside Roksan use a Texas Instruments PCM1730 DAC with 24/192kHz internal resolution, an advanced item with good performance, and a rare choice.

SOUND QUALITY
This a suave and composed sounding player, that seemingly avoids strong character traits to give a convincingly natural delivery. It has well damped yet resonantly deep bass with real power to it; drums start and stop cleanly and with 'Copperhead Road' the opening drum rolls had a grippingly real sense of size and power as they rolled dramatically across the sound stage. The Roksan has a superbly grippy delivery that is polished in the extreme. Sibilance in Celine Dion’s 'I’m Alive' had an edge to it but didn’t leave my ears ringing, as it could with the other players. The Roksan gets things just about as right here as is possible from CD, unless you spend much more.

Celine Dion, however, sounded a little robotic. This quality became obvious with Vlado Perlemuter playing Chopin’s Opus 48 No1, where his piano had a hardness of tone that was difficult to resolve with the real life instrument. The Roksan is very correct, has goodly amounts of stage depth, bass power and dynamic resolution, but it has a hardness of tone that can make music and singers sound a tad mechanical. The same recording on other players was more convincing: what I heard didn’t clash with my perceptions of what a piano should sound like.

Overall, a very accomplished player that effortlessly justifies its price tag, it has poise, accompanied by a dynamism that many will love.

MEASURED PERFORMANCE
The Caspian had a neat response shape, with no peaks or dips. Reaching smoothly from 2Hz up to 21.1kHz (-1dB) this player is as good as it gets in terms of frequency response smoothness and extension.

The Caspian was very linear right through the audio range, turning in an excellent set of distortion figures. At -30dB it returned a figure of just 0.0003%, putting it up with the best. Our analysis shows an even balance of spectral components, with no one dominating. Resolution at low levels was good too, a dithered -90dB signal returning 1.8% second harmonic only. Jitter was low across the audio band, peaking randomly at around 30pS. There were no audio related components, a sweep showed. Output measured a normal 2.1V and EIAJ dynamic range was a high 111dB.

The Caspian turned in a good set of figures all round. It should sound balanced and smooth. NK

Frequency response (-1dB)
2Hz-21.1kHz  0.0003%
-6dB        0.0004%
-60dB       0.22%
-90dB       2.3%
-80dB dithered 1.8%

Separation (1kHz) 104dB
Noise (IEC A) -112dB
Dynamic range 111dB
Output 2.1V

SOUND QUALITY
This a suave and composed sounding player, that seemingly avoids strong character traits to give a convincingly natural delivery. It has well damped yet resonantly deep bass with real power to it; drums start and stop cleanly and with 'Copperhead Road' the opening drum rolls had a grippingly real sense of size and power as they rolled dramatically across the sound stage. The Roksan has a superbly grippy delivery that is polished in the extreme. Sibilance in Celine Dion’s 'I’m Alive' had an edge to it but didn’t leave my ears ringing, as it could with the other players. The Roksan gets things just about as right here as is possible from CD, unless you spend much more.

Celine Dion, however, sounded a little robotic. This quality became obvious with Vlado Perlemuter playing Chopin’s Opus 48 No1, where his piano had a hardness of tone that was difficult to resolve with the real life instrument. The Roksan is very correct, has goodly amounts of stage depth, bass power and dynamic resolution, but it has a hardness of tone that can make music and singers sound a tad mechanical. The same recording on other players was more convincing: what I heard didn’t clash with my perceptions of what a piano should sound like.

Overall, a very accomplished player that effortlessly justifies its price tag, it has poise, accompanied by a dynamism that many will love.
VINCENT CD-S6MK £999

Like all Vincent products, this one is a hybrid that uses valves as well as solid-state devices, and you get the valves on public display in an illuminated window, no less! The remote control has a Dim function, but doesn’t toggle valve illumination as on the SV-236 amplifier; instead it’s the fluorescent display panel that has Bright, Dim and Off options. The valve is bathed in a strong orange glow from a set of LEDs, illumination being adjustable from bright to off by a four position rear panel switch.

This player uses Burr Brown PCM-1732 DACs with 24bit/96kHz resolution, as well as a Pacific Microsonics HDCD decoder, so the smoothness and air with HDCD discs can be fully appreciated. As always, the valves are output devices operating as cathode followers, which provide single-ended Class A operation by their very nature. The Vincent has a headphone output on the front panel.

There’s no Direct output that bypasses the valves, but there is a balanced XLR output and measurement of output impedance suggests both this and unbalanced are derived from the output valves, explaining the use of three 12AX7 double triodes and one 12AU7 - four valves instead of the usual two. This is a better arrangement than using a convertor chip to derive a balanced output.

Of our group this player was the sturdiest and largest, measuring 430x125x330mm and weighing in at 9kgs.

SOUND QUALITY
The CD-S6MK was very ‘obvious’ in its sound, or characterful I could say. It has solidly delivered, punchy bass and, as measurement predicted, treble that was always bright and sometimes a little prone to sizzle. Playing the treble laden steel string guitars of Steve Earle’s ‘Copperhead Road’ is my test for this and sure enough his close miked vocals hissed whilst the guitars bordered on lacerative. All the same, no one could come away unimpressed by the vast sound stage of this player, and the way drums thundered across it as they were panned. The Vincent puts up a monster of a performance in terms of dynamics and it has great stage depth too.

With CDs having less high frequency energy, the top end emphasis had no effect. Vlado Perlemuter’s piano had fantastic scale and a convincing timbre. The CD-S6MK was superb with classical music, sounding smooth and expansive - and convincing.

MEASURED PERFORMANCE

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Separation (1kHz)</td>
<td>113dB</td>
</tr>
<tr>
<td>Noise (IEC A)</td>
<td>-99dB</td>
</tr>
<tr>
<td>Dynamic range (EIAJ)</td>
<td>104dB</td>
</tr>
<tr>
<td>Output (unbal./ bal.)</td>
<td>2.4 / 4.8V</td>
</tr>
</tbody>
</table>

FREQUENCY RESPONSE

DISTORTION

FOR
- capacious soundstaging
- extended dynamics
- timbrally convincing

AGAINST
- sharp upper treble
- bulky!
unprecedented audio realism.
unrivalled HD crystal clarity and
holographic imaging. this is Aurousal.

acoustically optimised, full-range, flex-contoured
light metal alloy technology. finely tailored flex
affords an effectively infinitely-variable diaphragm
diameter. frequencies are seamlessly integrated
from 45Hz to 22KHz, with no crossover
components to degrade the dynamics.

find out more at
www.aurousal.com
or email sales@aurousal.com

Find us in room 1403 at the Heathrow High Fidelity Show 07,
Park Inn, 31st March - 1st April.
Up to £500 or so, even well designed CD players give you that mechanical sound that audiophiles are so quick to criticise. I've measured and listened to enough of these players to know they measure well and are not doing anything too wrong in a technical sense. It's just that they rely exclusively on budget parts and this takes its toll on the sound. Every little bit, down to the last capacitor, is cost cut - that's just how it's done nowadays. Upsampling confers a benefit, but it is small if the rest of the player is cheap and cheerful. The entire package must be appropriately designed and specified if it is to deliver the sort of open and spacious sound quality players like those tested here provide.

Cambridge's Azur 740C player offers it all for a bargain price of £500 by acting as a standalone DAC as well as a CD player. In its own way, in the enormous amount of detail it is able to retrieve and a peculiarly powerful form of low bass that seems to rise up from below the floorboards, it is a talented design and fantastic value. Of all four players here, though, it was also the most characterful in its sound, an upper midrange sheen emphasising sibilant recordings, for example. A player like this works well with high quality programme material, but isn't so convincing with close-miked vocals, for example. This is a player for those who want real analysis, as most others are less forward and revealing.

Very close to each other in their basic nature were the Creek Classic and the Roksan Caspian. Of the two I found the Creek easier to live with, whilst the Roksan was more challenging and more forceful. Lovers of hard rock who like verve and pace, coupled with a bass delivery I'd describe as an iron punch, will take to the Caspian. It has fantastic composure, coming across as all-of-a-piece, and only slips back when classical instruments with rich timbral signatures enter the equation. It is here that the slick sounding Creek Classic moves gently but convincingly ahead. It might not quite have the pacy dynamics of the Roksan, but it is more even in its approach to all forms of music and, by any standards, is lovely to listen to. The Creek offers it all really: it is easy on the eye, easy to use, all but technology-free as far as an owner is concerned, but sounds open and spacious, tidy and relaxed. It offers a class performance whatever way you look at it, on the test bench or in a show off against the market's most adept rivals.

And that leaves the Vincent CD-S6MK. This player is Left Field; see it racing up the wing to score over the heads of all else with a fabulous presentation that leaves you asking "where did that come from?" The Vincent is breathtaking in a way that you do not really attribute either to valves or CD. It isn't as warm, even syrupy, as our resident Eastern Electric Minimax player, nor as bright and challenging as our Shanling CD-T80. Instead it constructs a panoramic sound with breathtaking dynamics that defies convention: this isn't CD as we usually think of it. Okay, I heard its sharp treble at times, bringing a fizz to sibilance for example, but I suspect many would forgive its sins to enjoy its strengths.

So here are four quality CD players, each of which has great strengths. Hopefully amongst them, there's something that suits you...
Few phono stages come more vast in size than the huge Aesthetix Rhea. Noel Keywood enjoys this sizeable slice of high end America...

They do it different over there. This is surely the biggest phono stage I have ever encountered, yet Aesthetix call the Rhea, "a smaller, less expensive version" of their lo product. This shows where the company is coming from. Aesthetix is a true American high end manufacturer, for people with houses to match the size of their hi-fi systems!

It is so vast that it barely fitted atop our Henley rack. With Imperial dimensions quoted as "18" Width x 17 5/8" Depth x 4 3/8" Height" you know this product hails from the USA, where a friend tells me his walk-in bedroom wardrobe is bigger than a typical UK kitchen! The size is accompanied by an equally capacious price of £3,175.

The Rhea shows just how much impression vinyl is making on the US high end scene. It is doubtless designed to play the expensive Creedence Clearwater 45rpm an armful of Bo Diddley LPs the other night. I was told that LPs are "original music". He's the sort of avid collector who, alongside audiophiles, may spend thousands on a phono stage able to reveal every little nuance of an original recording. As he pointed out, his record collection is worth far more than the equipment he plays it on - at £30 a disc for audiophile pressings it doesn't take so many to equal the price of this phono stage! All the same, is it really worth 1,200 LPs?

Well, certainly in terms of size and complexity, yes. I have rarely encountered a phono stage that offers so many connections and adjustments. It has no fewer than three phono inputs for example, for those with three record decks. I'd only need six of them, then - AS. Microprocessor control is built in, which demands all-electronic switching, so there are numerous relays inside and every button press, on the front panel or the remote control (yes, really!) is accompanied by much clicking and the associated time delay.

A large, vivid blue LED display can be seen across the sort of room Americans owning a stage like this may well have. At switch on it shows, by default, the input selected. Gain can be set individually for each input, and there's a wide range, from x1 10 for the highest output Moving Magnet cartridges through to a massive x6950 for the lowest output moving coils. But that's not all - because the Rhea has balanced outputs (XLR sockets) in addition to conventional unbalanced (phono sockets) outputs, from which the unbalanced output is derived, balanced output gives double the gain figures above. Using a balanced line can then give you a vast x14815 gain: under test a low 1mV in gave no less than 14.815V out. Phew!

Lacking input transformers I was expecting to measure noise (hiss), because valves are not as quiet as transistors, but this is an extremely quiet design, with an input noise value up with the best solid-state stages. Aesthetix say there are no solid-state devices in the signal chain, so they get very low noise from the Sovtek 12AX7LP input valves.

Input load can also be selected by remote control, so you can judge the affect on sound quality without jumping up and down from the settee and playing around with diddy DIP switches and the like. Aesthetix have dreamt up an arrangement that is totally new to me: the display window actually rocks laterally. Press the left side to decrease gain or load value; press the right side to increase it. More astonishment in Keywood towers!

The gain values are expressed...
in dB, by the way, so x110 (+41db) is flagged up simply as 38, the 3dB discrepancy being unimportant.

Press Load on the front panel or remote control and you get the input load value. This is the resistive load only, not parallel capacitance which cannot be adjusted. Values available are 47k, 10k, 5k, 2.5k, 1k, 500, 250, 125 and 75 Ohms. Most useful are 47k for MM cartridges and 125 for MCs. I sometimes use 10 Ohms in my own preamp to damp a zingy sounding low-Z MC, so this preamp doesn’t quite cover every option, and of course you cannot switch in capacitive loading for MMs, an option available on most dedicated phono stages. However, the Rhea has some other tricks up its sleeve. Strangest is a Demagnetiser, a slightly alarming idea since every cartridge relies on magnetism and would fall silent if this was to eliminate it! I presume it doesn’t (and couldn’t) generate anything like enough power to demagnetise the permanent magnet that exists in every cartridge, so it likely reduces residual magnetism in core materials to zero.

The Rhea is superbly built and exhibits a small benefit with long lines. Input noise, IEC A weighted, was 0.6uV - as low as it gets. Input overload was satisfactory at 61mV, and output overload 25V (unbalanced), the former being important at low gain, the latter at high gain. Total gain range was x110 up to x6950, and double that through the balanced output - all anyone would need for the highest output MMs to the lowest output MCs. Input capacitance is 200pF and unadjustable.

The Aesthetix measures well in every respect. NK

VERDICT

Impressively complex valve phono that gives fine results with moving coil cartridges.

AESTHETIX RHEA £3,175
Distributed by Audio Reference +44 (0)1252 772705 www.musicalsurroundings.com/aesthetix

FOR

- solid, weighty bass
- open and revealing midband
- connectivity
- remote control

AGAINST

- physical size!
- price

CONCLUSION

The huge Aesthetix Rhea epitomises the US high end sound. Brilliance and power in the bass, lavishy smooth up top and with a crisp, engaging midband, it will flatten both old vinyl pressings and new. It offers tremendous flexibility too in terms of loading and input switching. Its extraordinary level of automation is another factor that will impress many. At this price, it is obviously not for everyone, and - no less importantly - it may be too big! If you’ve got a house and pocket to match however, it is an essential audition.

MEASURED PERFORMANCE

The Aesthetix | Frequency response 5Hz-30kHz | Separation 66dB | Noise (e.i.n.) 0.6uV | Distortion -0.02 % | Gain (unbal) x110, 221, 440, 875, 1740, 3480, 6950 | Overload 61mV in / 25V out

FREQUENCY RESPONSE

The Aesthetix

Frequency response

-0.5dB at 20kHz and -0.25dB at 20Hz, so deviations are small. The -1dB bandwidth we usually quote was a wide 5Hz-30kHz. There is no warp filter, so the lower limit cannot be raised. Input noise, IEC A weighted, was a low 0.6uV - as low as it gets. Input overload was satisfactory at 61mV, and output overload 25V (unbalanced), the former being important at low gain, the latter at high gain. Total gain range was x110 up to x6950, and double that through the balanced output - all anyone would need for the highest output MMs to the lowest output MCs. Input capacitance is 200pF and unadjustable.

The Aesthetix measures well in every respect. NK
In a world where so much looks the same, we take pride in being different!

Lifetime warranty is a natural part of our philosophy

Densen products are built for life and for long-lasting state-of-the-art performance. That's why all Densen products come with an exclusive lifetime warranty. The warranty is a global carry-in warranty that lasts as long as you own the product. At this time in history, Densen is the only manufacturer to offer lifetime warranty on high-end Hi-Fi. However, the warranty is no longer valid if you want to find out if the products float on water. Believe us, they don't...

It is our intention to make complete products. Not just products that are sonically superior, but complete like a perfect circle. As you learn about Densen, you'll discover that we go the extra mile in every aspect: design, user-friendliness, quality, warranty, upgradeability, production methods and of course sound quality. But you really won't have a clue about it all until you get to hear and see what we're talking about in real life. Then you will know what we mean when we say Air-Guitar factor (say what? check our website). There is one Air-Guitar / Air-Baton included with every Densen product. LIFE IS TOO SHORT FOR BORING HI-FI

This is some of the awards our products have received from the most respected magazines in the world:

Authorised dealers:

Acoustic Arts, Bedfordshire, Tel. 01923 245250 - Adventures In Hi-Fi Ltd. Chester, Tel. 01942 234202 - The Audio Room. Hedon, Tel. 01482 891375 - Adams & Janett, East Sussex, Tel. 01424 437165 - Divine Audio, Leicestershire, Tel. 01668 432999 - Glasgow Audio. Glasgow, Tel. 01413 324707 - Hi-Fi Studios. Doncaster. Tel. 01302 725530 - Holburn Hi-Fi. Aberdeen, Tel. 01224 585713 - New Audio Frontiers. Loughborough, Tel. 01509 260002 - Phonography, Ringwood, Tel. 01425 641230 - Practical Hi-Fi. Lancaster, Tel. 01524 39657 - Practical Hi-Fi. Manchester, Tel. 01618 398829 - Practical Hi-Fi. Preston, Tel. 01772 863956 - Practical Hi-Fi. Warrington, Tel. 01925 832179 - R.J.F, Cornwall, Tel. 01209 710777 - Sound Seduction, Sawbridgeworth, Tel. 01732 456573 - VideoTech, Huddersfield, Tel. 01484 516670

Densen Audio Technologies - Phone: (+45) 75 18 12 14 - E-mail: mail@densen.dk
www.densen.com
Marantz’s DV9600 is that rare beast in the audio-visual jungle, a DVD player that plays video superbly, yet handles all standard and hi res audio formats with equal skill, says Patrick Cleasby...

I have to confess a certain affection for Marantz products, as the first CD player I ever saw was a CD73 back in 1984. By 1990 I became quite attached to my CD50 but, since my adventures in high-resolution digital, I have only had my hands on the odd stereo SACD Marantz player. The £1,500 DV9600 universal player has a serious chance of becoming the solution to my eternal quest to find the best CD/SACD/DVD-A compromise...

The DV9600 has been on the market on both sides of the pond for over a year. Although its competitors are of a similar vintage, if you’re more interested in hardcore ‘download the latest ‘Heroes’ episode as DIVX as soon as it airs in the States’ video, then its lack of ability to play such dubious wares natively off disc may be a downside, particularly when compared with the likes of the Arcam DV137.

Still, other than this, the DV9600 has all the tweaks and flexibility a videophile could wish for, and is right on the money in the HD upscaling of DVD stokes, going right up to 1080p and only lacking the Arcam’s somewhat marginal 768p capability (although a lot of our screens are this native resolution, many of them won’t negotiate outside the standard 720 and 1080p options).

Yet we’re here for the audio aren’t we! For the surround audio crowd using HDMI it may be a disappointment that the HDMI is only 1.1 level here, so no native DSD will be going to your amp even if it is capable of decoding it. We do, though, have ingeniously designed analogue surround outputs, and for any of you who have a 2004-vintage high end AV amp with iLink/IEEE1394/ Firewire connectivity you may stand a chance of getting the Marantz to talk digitally to it. Not having any such examples to hand I can’t vouch for the DV9600’s interoperability.

The Marantz negotiates its video connection over HDMI effortlessly, and is intuitive to set up and use, which is a good job as this review sample had lost its manual! As I run my Toshiba 32” LCD in 720p from Virgin V+ HD, I elected to set the Marantz to the same resolution. Unfortunately I do not yet have 1080p monitoring capability, but within the HDMI set up menu are a few little gems which set the Marantz apart from some of the competition.

The one I particularly like is the 16:9 squeeze option over HDMI, as opposed to 16:9 wide, which means correctly flagged 4:3 extras on a 16:9 DVD display in their true ratio with pillar box sidebars while the main feature is still presented properly in anamorphic widescreen. This is the way any true videophile should want to watch such things!

Yet when the Marantz blurb talks of ‘uncompressed video’ going up the HDMI connection what they mean is that the video processor uses clever chroma upsampling techniques (more commonly seen in pro kit) to extrapolate full 4:4:4 component chroma information from the DVD’s compressed 4:2:0 colourspace (the same colourspace compression seen in PAL DV – SD ‘broadcast quality’ is the less colour compressed 4:2:2 found in Sony’s, now legacy, Digibeta pro format). This is a ‘pro’ diversion which should simply mean you get a very nice picture from the 14bit 216Mhz video circuitry, if you use the HDMI settings advisedly.

SOUND QUALITY

Given that people will be buying this at least for some video capability (otherwise Marantz have some nice bespoke SACD players to sell you), I kicked off with a quick look at the video and found it very capable on my newest Harry Potter DVD video (I have kids, right?). Still, moving on to the main event, the DV9600 is one of those machines that shocks you with its musical ability the instant you slot that first CD into the drawer — it proved an all rounder beyond my expectations.

ABC’s recent ‘Deluxe Edition’ remastered CD reissue of ‘Lexicon of Love’ showed its mettle. Whereas most DVD players, even at this price, offer a polite but perfunctory sixteen bit sound, the Marantz was taking real trouble to delve right into the disc, offering a highly musically insightful sound. The wide soundstaging was the highlight, the
MAINS FILTERING ★ JAYA

Two Versions: Standard / Silver

The key to the Jaya's exceptional performance is the way it tackles not only spikes, but also Radio Frequency Interference (RFI) on the mains. On a typical domestic supply there is a vast amount of RFI. At lower frequencies there is noise from power supply rectifiers, and further up the RF spectrum there is noise from digital systems and the interference injected into the mains by mobile phones. As well as employing high quality electronic components for the filter network, the units incorporate the acoustic absorption technology found in our other products.

When the Jaya is used, RFI getting into the system is massively reduced. RFI is very harmful to the operation of virtually all circuitry used in audio and audiovisual systems. Amplifiers and analogue sources benefit significantly from the reduction in noise floor. In particular, digital circuitry is very prone to such interference.

But let us put it another way - the use of a Jaya or Silver Jaya brings huge improvements to the performance of any system.

“On the face of it, an aluminium box that simply plugs into a spare socket shouldn’t be able to do this. In practice it’s all too easy to hear. Suspend your disbelief and give it a try - after all, no one is going to take your money unless you want them to. The trouble is, you will want them to. You really, really will!” Roy Gregory hifi+
right into the disc, offering a highly musically insightful sound. The wide soundstaging was the highlight, the DV9600 painting an expansive picture with loads of detail going right into the back of the mix. At the same time, it remained very smooth - its insight didn't come from undue forwardness.

It was plenty musical too. The recent solo single from Everything but the Girl's Tracey Thorn, 'It's All True' had a great analogue synth pulse groove to it and a lot of high range drum machine cymbals which could have easily been over-cutting, but they remained within safe, non-fatiguing listening bounds. That was followed by a nice healthy slab of Beth Ditto and The Gossip, which proved the Marantz had no less of a way with a raucous guitar dirty and real cymbals. Rhythmically engaging, tonally even and dynamic in equal measures, this is certainly the best quality CD playback I have heard at the price, among the myriad universal players I have tested.

Still, I must say the lack of HDCD decoding is a disappointment considering how great those Cirrus Logic DACs via analogue outputs sound. The DV9600 really excels with electronic music, making Japan's 'Gentlemen Take Polaroids' and the early works of Stephen Duffy sound as near to the lovely sound of editor DP's vinyl system as is possible via CD. Equally though, 'Modern Times' from the traditional elder rock statesman Bob Dylan, sounded warm and inviting. All of this was done using the 'Pure' mode which shuts down dimmer, video and digital output circuitry. It even makes the massively compressed 'A Weekend In The City' by Bloc Party sound musical, which is no small feat...

The usual hi res suspects yielded some extremely high quality results as well. As most universals I have previously tested came from the DVD Forum side of the fence, originally they all tended to favour DVD-A, but the ultimate test of DVD-A vs. SACD fairness (Steely Dan's 'Gaucho' - both discs mastered by the same guy and converted direct to PCM or DSD off the new analogue archive surround master) yielded the most level result I've ever heard. Virtually indistinguishable, I still just about favour the DVD-A for a more integrated surround soundfield and a less harsh high end, but I would say who wouldn't?

**CONCLUSION**

A highly desirable prospect on simple visual appeal and robust physical and technical design, once you audition the DV9600 you are bound to be impressed with the sympathetic even-handedness with which it plays all music. But the real selling point for me is that you get that sound whichever of the three audio formats you are using. Vintage CDs sound blissful and modern compressed monstrosities are rendered just about listenable. For once, equivalent DVD-A and SACDs are uniformly excellent and virtually indistinguishable to the ear. A real feat, and only achieved just before both formats hit the slab, I fear!

Of course £1,500 is a lot to pay for a DVD player to watch films on, particularly given that 'The Man' is probably going to persuade you to lash out on a high def player in the next couple of years, or at least a PlayStation 3. However, even if you're not particularly into DVD-A and SACD, but have a large library of DVDs and CDs and a decent audio and 1080p capable playback system, then this is among the very best mass market 'does everything before HD' players around. Heartily recommended.
"The ECSpre Audiophile line level pre amplifier"

"If god is in the details, then this ecs pre/power system should provide more than a few religious experiences."

Jason Kennedy Hifi Choice 119, The collection edition

Unique advanced design

The first ever multi source pre amp to employ the NeverConnected power supply. Zero feedback, Fully balanced. Using a unique ground switching selector.

Simple and Ergonomic

Provided with a universal learning remote control to operate every other component in your current system. Large display, channel balance control, phase switch control.

Supported by long warranty and a unique support program

This extraordinary, musical product is supported by ECS with a service that offers discerning music lovers a peace of mind, pride of ownership, and a convenient way to audition and purchase it. 5 years warranty are offered (UK only), and a dedicated phone line is available for our customers to use when they require assistance or advice.

ECS power amplifiers

Harmonic Technology cables

Aurios isolation bearings

www.ecsamplifiers.co.uk

Contacts

sales@ecsamplifiers.co.uk
(+44) 0208 932 7995/0208 743 8880
ECS, Impress House, Mansell Road, London W3 7QH
Black Magic

Russ Andrews' DAC-1 USB is a cracking new upsampling digital to analogue convertor with a twist — it takes USB inputs. David Price listens in...

Although always sonically effective, some Russ Andrews electronics I've tried in the past have been less than lavishly presented. I think 'utilitarian' is a kind way to describe some of the little black boxes I've come across. So it was with not inconsiderable surprise when I pulled the new DAC-1 USB out of its packing, that I found a beautifully finished, superbly built bit of kit that frankly wouldn't disgrace a Japanese high end product.

The 212x55x290mm box comprises an immaculately finished thick black brushed aluminium front panel and neat, crisply folded pressed steel case finished in matt black. The fascia comprises an on-off switch, rotary source selector and 192-BYPASS switch, which alludes to the 24bit Delta-Sigma DAC inside, with 192kHz upsampling option. Inside there's an AKM4395 DAC chipset, with sixth-order digital filter and 'Asynchronous Sampling Rate Conversion' accepting anything up to 24bit, 96kHz signals, plus a specially designed clock circuit employing a PLL (phase locked loop) said to make for extremely low jitter. The analogue output stage is full Class A, a claim substantiated by the not inconsiderable amounts of heat coming out of the unit, and a sizeable toroidal transformer is fitted.

The action of all the switches is superb, the sort of thing you used to get from a top Nakamichi tape deck. At 3.5kg the unit also feels far heavier than it has a right to be, considering its modest size. Needless to say, its pedigree speaks volumes — halfway through the review period I learned that it's built by April Music in South Korea, home of the excellent Stello range of 'affordable audiophile' separates. Indeed, it transpired to be exactly the same as the Stello DA100, with the exception of a Russ Andrews-designed power supply.

For me, the build of this £599 machine was its most striking feature, but for the marketers the headline grabber is supposed to be the little USB legend on the far right of the digital input selector. That's because, as well as one coaxial and two optical digital inputs, this DAC accepts USB digital audio signals from computers (PCs and Macs). Effectively then, you can hear all that music on your computer (and if you're like me, then it's a lot) without it having to go anywhere near your computer's internal DACs and analogue output stage (yay)! The unit is very well packaged, and comes complete with a high quality Russ Andrews Powermax mains cable, plus a usefully long USB cable for computer attachment.

SOUND QUALITY

Kicking off with a high quality low jitter signal from a Trichord Clock 4 modded high end Sony CD spinner, the DAC-1 USB proved a most impressive performer. Indeed, I have to say it's one of the most revealing DACs I've heard near the price, so much detail did it throw out, and with such precision...

Beginning with the processed pop of the Inspirai Carpets' 'Move', and the Russ Andrews DAC provided a spry sound, with oodles of midband information and a crisp, well ordered treble. The hi hat cymbals had real bite, but weren't crunchy or hard, while the vocals were a treat — this DAC really connects with human voices, and tells you all about their every last inflexion. Bass wasn't overly generous, but was taut and tight like few others I've heard under £1,000.

Clicking the 192kHz upsampling in, and there was quite a dramatic effect. Subjectively, the treble and upper midband move 'back' a fraction, and with it comes a good deal of extra 'space' — there's no other word for it. The upper mid smooths out just a touch, and there's no doubt — you don't want to go back to the non-oversampling option. With greater finesse to the treble, I could more clearly hear that the drummer was using triggers on an electronic kit, rather than hitting acoustic drums...

"thumbs aloft for this little black box - it is almost good enough to eat..."
...Linn LP-12 Klinik

8th-9th May 2007 Beaconsfield

Due to an unprecedented success Martin Kleiser will be holding another Linn LP-12 Klinik.

An opportunity to have your turntable checked out free of charge by experts from Linn.

Located just five minutes from the M25/M40 junction and only twenty minutes from Hanger Lane, if you are coming from London.

Enjoy a coffee whilst listening to your favourite albums replayed on the latest edition of the LP 12, fitted with the Keel sub chassis and Ekos SE tone-arm. An experience you will not want to miss!

To help us organise the day please call ahead of time. If you have any questions or cannot attend but want to discuss future upgrades please call Colin Macey “The Sondekmeister.”

...Colin Macey
01494 681300
feed from the CD spinner, but the result was still unexpectedly musical. Again, the upsampling is the icing on the cake, adding just a touch of silk to the treble, and some air and space to the mid and high frequencies, letting that fantastic midband really breathe.

**CONCLUSION**

An excellent product then. Typically quirky (just as you’d expect from Russ Andrews), yet brilliantly built (as you’d expect from April Music), the DAC-I USB is an extremely clean and detailed sounding device, with excellent timing and tonal accuracy. The icing on the cake is the USB input, something I imagine most audiophiles don’t think they’ll ever use. Well, I found I did, and interestingly it wasn’t so much for playing back my music collection (I already have a perfectly good set of discs for that), but for listening to internet radio – where excellent results can be had. Overall then, thumbs aloft for this little black magic box – it’s almost good enough to eat.

**REFERENCE SYSTEM**

Sony CDP-X303ES/Trichord Clock 4 CD player
MF Audio Passive Magnetic Preamplifier (silver)
Rotel RB-1092 power amplifier
Yamaha NS1000M loudspeakers
Black Rhodium interconnects/cables

**VERDICT**

Truly accomplished sound allied to fantastic build and the added boon of USB make this a standout product at the price.

**RUSS ANDREWS**

**DAC-1 USB** £599
Russ Andrews  +44 (0)845 345 1550
www.russandrews.com

**FOR**
- detail
- rhythmic drive
- build, finish, features

**AGAINST**
- nothing at the price

---

**MEASURED PERFORMANCE**

A distinctive feature of this digital-to-analogue converter (DAC) is its gentle falling upper treble output, our high resolution convolved impulse analysis reveals. This will ensure it sounds smooth, lacking CD bite, and it tends to make for a cohesive sound, as treble is subjectively pulled back into the soundfield. Together with very low distortion, figures I would expect this DAC to come over as smooth, clean, nasy going yet cohesive in basic presentation. Interestingly, switching from Bypass to 192kHz upsampling reduced the noise floor by 6dB, although it did not affect frequency response or distortion figures. Dynamic range also improved by a few dB, reaching a high value of 111dB.

The Russ Andrews DAC-1 is nicely engineered, measuring and working well on the test bench. It should sound good. NK

**FREQUENCY RESPONSE**

- Frequency response (-6dB)
  -2Hz-20kHz
  | 9.00 |
  | 0.01 |
  | 0.09 |
  | 0.11 |
  | 1.07 |
  | 9.00 |
  | 0.06 |

- Distortion (%)
  *2Hz-20kHz*
  -0dB: 0.00
  -6dB: 0.018
  -60dB: 0.22

---

**CONCLUSION**

An excellent product then. Typically quirky (just as you’d expect from Russ Andrews), yet brilliantly built (as you’d expect from April Music), the DAC-I USB is an extremely clean and detailed sounding device, with excellent timing and tonal accuracy. The icing on the cake is the USB input, something I imagine most audiophiles don’t think they’ll ever use. Well, I found I did, and interestingly it wasn’t so much for playing back my music collection (I already have a perfectly good set of discs for that), but for listening to internet radio – where excellent results can be had. Overall then, thumbs aloft for this little black magic box – it’s almost good enough to eat.

**REFERENCE SYSTEM**

Sony CDP-X303ES/Trichord Clock 4 CD player
MF Audio Passive Magnetic Preamplifier (silver)
Rotel RB-1092 power amplifier
Yamaha NS1000M loudspeakers
Black Rhodium interconnects/cables

**VERDICT**

Truly accomplished sound allied to fantastic build and the added boon of USB make this a standout product at the price.

**RUSS ANDREWS**

**DAC-1 USB** £599
Russ Andrews  +44 (0)845 345 1550
www.russandrews.com

**FOR**
- detail
- rhythmic drive
- build, finish, features

**AGAINST**
- nothing at the price
At nearly five thousand pounds, Origin Live’s brand new Enterprise tonearm has a real fight on its hands, says David Price...

Starship Trooper

Some ten years back, Origin Live came up with a brilliant £75 ‘structural modification’ which gave the Rega RB300 a considerable fillip. Suddenly this venerable fifteen year old pickup was back on the map, with a much more ‘easy’ and relaxed sound thanks to its superior counterweight arrangement. Internal rewiring options also took out some of the tonal dryness, and suddenly this arm was challenging giants like the SME Series V (if carefully set up) in several respects...

Origin Live then took their idea and ran with it. A range of tonearms was launched, all basically variations on the Rega RB theme. We had the OL I (a Rega RB250 rewired and with various structural modifications), the Silver (a far more tweaked RB250), then the Conqueror, Encounter and Illustrious. Each new variant moved the design further away from the original Rega, and the sonic voicing of each new arm took it even further away from the RB300, to the extent where the Conqueror, for example, is totally unrecognisable – it sounds closer to a Hadcock than a Rega, in my humble opinion! In truth, the Enterprise is as far away from a Rega RB300 as the 2007 997-series Porsche 911 is from a 1938 Volkswagen Beetle.

The Enterprise is the ultimate expression of the Origin Live philosophy, with myriad technical differences between it and the already superb Conqueror. By any standards, it’s a beautifully built bit better than the SME Series V, Linn Ekos SE, Cartridge Man Conductor, Graham Phantom B44 and Tri-Planar Precision Tonearm, all of which are under half the price, its value for money is surely questionable.

To make matters worse, tonearms are so subjective, as well as being very system-dependent, and open to matching/synergy issues with their host turntables and/or cartridges they’re tracking - that it’s a tricky thing to come to a definitive position on whether the arm is right for you. Still, nothing ventured, nothing gained!

"a great mix of tonal accuracy and rhythmic flow..."

What’s less open to question is the Enterprise’s superb construction (and frankly, at this price, it should be nothing less). The Enterprise features a completely new armtube of kit, but its main problem is that £4,500 is a massive amount of money to spend on a tonearm, and so it lays itself open to challengers from every direction. If it is not comprehensively...
incorporating bi-metallic technology "to reduce resonance and increase rigidity", and there's a low friction, stable dual pivot bearing design for vertical movement, with two single points in sapphire cups, widely spaced to mimic gimbal bearing stability but with much lower friction. The bearings for horizontal movement are highly specified low friction items, conventionally oriented. The tonearm features inbuilt VTA height adjustment, and a counterweight designed for low vertical inertia and high transverse inertia, which Origin Live's Mark Baker says is advantageous for holding cartridges steady. Finally, the "highest grade wiring" is used throughout, with deep cryogenically treated internal Litz wiring and silver bullet plugs.

Setup was straightforward, the Enterprise fitting a standard Rega mounting hole (like all Origin Live arms). Close examination of the comprehensive set-up instructions shows two points that don't apply to other OL arms. First, backing off the top two tiny alien screws on the back face of the arm by one turn releases the transit bolts - which is a must for decent sound. And secondly, Mark Baker recommends that the height adjuster should be only very lightly clamped - if at all. This helps to decouple the arm from the turntable to which it is fitted, an idea for which Mark is a keen advocate.

**SOUND QUALITY**

Having had a range of high performance arms in my GyroDec of late, I was fascinated by how this would sound. Using my usual van den Hul Frog MC reference, I was greeted by an exceedingly fast and open performance. Kicking off with The Associates' 'Party Fears Two' from their early eighties classic 'Sulk', I was reminded why with the Enterprise. The opening few bars were superbly articulated, with one of the most vivid midbands I've heard from vinyl. Randy Crawford's breathy vocals were again quite delicious, tremendously expressive and sumptuous too. Tonally, the Michell Orbe and GyroDec are especially gifted in carrying the 'timbre' and 'tone' of voices and instruments, and the Enterprise was particularly good at showcasing this when the drums kicked in, I was treated to a mesmeric performance, with fulsome bass, great insight across the midband with wonderful filigree detailing on strings. There was an immensely satisfying rasp to brass and hi-hats which sounded like they were in the room with me.

The Enterprise is a real music maker too, although rhythmically it is a long way from its cheaper Origin Live stable mates. Genesis' 'Mad Man Moon' showcased Phil Collins' drumming to fantastic effect, the kit sounding tremendously powerful and dynamic, yet having a lilting rhythm that sounded more Naïm ARO than SME V. Once again, the hi-hat work was a joy, the cymbals having a crisp tone and tremendous attack. Moving to Kraftwerk's 'Computerwelt', the Enterprise's rhythmic ability shone once again - throwing out a hypnotic groove that surpassed even the TriPlanar Precision tonearm.

Moving to my DG pressing of Beethoven's Pastoral Symphony (KaraJan, Berliner Philharmonic), the Origin Live threw out a tremendously impressive recorded acoustic, just a little narrower than the Cartridge Man Conductor left to right, but deeper front to back. Tonally, the Enterprise sounded clean right up and down the frequency band, but there was a gentle bloom in the upper bass which made this rather sterile recording sound more listenable. The GyroDec, by modern standards, is an ever-so-slightly warm sounding turntable, so it is likely this is what I was hearing here.

**CONCLUSION**

Overall, this is a superb pickup arm with a grippingly musical sound and lovely rhythmic ability. It has wonderful tonal shading (an SME Series V sounds monochrome, by comparison) and deep soundstaging with masses of detail. It's not quite as expansive as the Cartridge Man Conductor in terms of left to right staging, but overall it's an exceptional performer - one which offers a brilliant mix of tonality and rhythmic grip.

Still, £4,500 is a heck of a lot of money, and this is my only real criticism, as there is so much competition below it - not least Origin Live's own Conqueror, which will be all most people should ever need. The Enterprise is subtly but obviously better, but many would find the additional outlay better spent elsewhere - of course, this point is pertinent to all high end products, not just this. Those in the fortunate position to contemplate purchasing it might be interested to know that Origin Live do a one-month 'money back guarantee'. Personally, I doubt that they find the need to honour it very often.

---

**MEASURED PERFORMANCE**

Our vibration analysis of the Enterprise clearly shows the presence of two large peaks, so high they leave the top of the trace, thus exceeding 0.3g. The first is at a high 400Hz, and is the main arm tube mode. Its frequency is greater than the usual 200Hz or so of normal tubes, and so is its amplitude. This shows the Enterprise has a very stiff tube, but with little damping. At this frequency, and with reasonably narrow bandwidth bass quality may well seem taut and controlled, but it is likely the Enterprise will have some character and possibly some amount of general detail in the midrange. A second, slightly smaller peak at 750Hz may well contribute to the effect. The headshell shows signs of higher frequency modes, suggesting it will sound lively.

The Enterprise is likely to sound fast and clean with a bright delivery I suspect, perhaps heard as some sheen. It will probably sound entertaining, NK.V.

--

**REFERENCE SYSTEM**

Michell GyroDec/vdH The Frog Note Products PhoNote MF Audio Passive Pre (silver) 2xNuForce Reference 9SE Yamaha NS1000M

---

**VERDICT**

One of the most explicitly musical tonearms around, it nevertheless faces stiff competition at the price.

ORIGIN LIVE

**ENTERPRISE** £4,500

Origin Live

C: +44 (0)2380 578877

www.originlive.com

**FOR**

- engaging, vivid sound
- rhythmic flow
- dynamics

**AGAINST**

- price
Race bred

The F80 portable home entertainment system is one of Meridian's most interesting products since the company's inception, some thirty years ago, says David Price...

Way back in 1974, one of the most striking pieces of industrial design the hi-fi world has seen surfaced - in the esoteric shape(s) of the Lecson AC/API preamplifier/power amplifier combination. At a stroke, the two men behind it, Allen Boothroyd and Robert Stuart, marked themselves out as one of the greatest design partnerships in the British audio industry.

In 1977, when the Meridian brand was launched on an unsuspecting world, the Boothroyd/Stuart partnership again showing itself as capable of conceiving one of the world's most arresting combinations of form and function, in the shape of the 101/105 pre-power amplifier. This combo sounded superb by the standards of the day, and looked, worked and felt like absolutely nothing else on the market - its stark minimalism a dramatic contrast to the massive, button-festooned amplifiers coming out of Japan, for example.

Meridian went from strength to strength, the company becoming one of the most successful British specialist names, and has never been anything less than highly respected since, with a copper-bottomed reputation for design and build.

As an ex-owner of a Meridian 101B/101D pre-power, and a real fan of Boothroyd-Stuart designs, I personally feel the brand has had its eye slightly off the ball for the past few years. There's no question it has been doing great things with DVD, but I have found some of the visual 'freshness' that the early designs showed has gone from Meridian's latest range of rather conservative looking but highly competent products. What they've needed, in my view, has been something as radical as the Lexcons or 100 series, to breathe what car journalists used to call 'edge design' back into a mature, stale hi-fi market.

Meridian says it has built the F80 in the tradition of a proper 'home wireless': one that would be a focus for ears and eyes and fill a room with sound.

Well, here it is. The Meridian F80 is not a serious 'hi-fi separates' product, and anyone who reviews it as such is missing the point. It is here to serve two functions. First is to put Meridian on the cultural CE map. As editor of a hi-fi magazine, I often find myself explaining the industry to casual acquaintances. Whilst such 'civilians' will invariably have heard of brands like Ferrari or Aston Martin, mention the words Meridian or Linn and they'll look at you blankly. To me, this is the biggest problem our industry faces - we don't have any big global brands that transcend 'mere' audio equipment, and we should have.

By doing a joint venture with Ferrari, who supplied some of the construction technology, Meridian will be in markets it could never previously have reached. It is an excellent idea from Bob Stuart, but I have to ask why he didn't do it fifteen years earlier - he and Allen Boothroyd are precisely the people who could come up with 'a design for life', in my opinion.

The other raison d'être for the F80 is to give people the option of buying a very high quality portable music (and movie) centre. Basically, it's a glorified table radio with DAB/AM/FM and silver disc (CD, CD-DA, CD-R/RW, MP3, WMA, DualDisc, DVD-V and DVD-R/RW) functionality - but this is to underestimate what's inside, and what it can do. This is no pale Bose imitation, but hi-fi in miniature, with all the technology that Meridian use (albeit on a larger scale) in their separates. The elliptical shape is striking yet simple and elegant, and comes in five official Ferrari colour options, while limited edition luxury finishes will be unveiled later this year.

Inside its high quality (408x230x185mm) plastic shell, the 6.5kg F80 sports a solid diecast metal base, and three loudspeakers...
mounted in separate, inert enclosures created from a special alloy-injected composite. "It was within this field of materials technology that Ferrari's close co-operation and specialist expertise proved invaluable", say Meridian. The electronics are impressive – there's a DAB/FM/AM tuner with built-in antenna for local radio reception, and dual connections for external antennae. To give you an idea of the detailed thinking that lies behind the F80, these are individually assignable so you can use one for AM and the other for cable radio, for example. The speakers are all under digital signal processing control, with three power amplifiers delivering 80W to the two front speakers, plus an integral rear subwoofer. The loudspeakers themselves are special full-range designs, custom-made with powerful neodymium magnets and cones fashioned from magnesium and aluminium alloy.

This is all well and good, but for me it's the display and control interface that are really going to sell the F80, and it is interesting to say the least. The front of the unit has a superb fine-pitch dot matrix 'organic LED' display, which gives extremely comprehensive information. For example, in radio mode, it shows the station name, bitrate, stereo/mono mode, radio text and the station names of one bank of presets. Press the right hand arrow button and it displays the station names programmed into the next bank of presets. Switch source to disc, and it shows the track and time information, and the display above the row of buttons changes to offer other options. The idea, then, is that there's an 'adaptive interface' - the lower display section, in conjunction with six unlabelled buttons in the centre of the row, operates all the functions necessary. It works very well, requiring very little acclimatisation, and the only other control on the whole machine is a rotary volume knob on the bottom right hand side of the case. The other key point is the F80's connectivity. Around the back, there are sockets you'll never find on any other 'table radio'. There's a 3.5mm minijack stereo input, optical digital input and output, a 'dock' input (for a forthcoming bespoke iPod dock), plus composite and S-Video outputs for the DVD player. All this means that the F80 does a better than average job of connecting up to the outside world.

**TRACK TESTING**

Of course, this is not - repeat, not - designed to compete pound for pound with a £1,495 separates hi-fi. However, in two respects at least it is far better, as the F80 is a joy to use and to look at. Sonically, I found this half moon-shaped Meridian to be like most hi-fi - it sounded mediocre cold, out of the box. Given a good few 'warm up laps' however, things really shifted up a gear, and I could hear that the company has put serious work into the audio performance of the F80. It really does sound rather good, which makes it quite unlike any other product of its type I've heard so far, even including the likes of the B&O BeoSound One (£850) which is its closest obvious rival. Like all modern Meridian kit, it has a very clean midband, with lots of detail and a sense of finesse that shows its high end origins. It is dry tonally - don't expect the rich sound of an old valve table radio - but, by no means stark. Rather, the F80 makes more than a half-hearted attempt at trying to reproduce accurately and in an uncoloured way, what's on the disc (or radio). The Meridian impresses by giving real midband insight, yet doesn't sound thin. The rear mounted subwoofer sees to that, by offering real bass reinforcement, but doesn't seem boomy or semi-detached either.

With a decently recorded CD, you get a genuinely musically enjoyable sound, and this is even when you've just been listening to a serious separates system - it is - to cut a long story short - very clean, controlled, punchy and clean. Placement is of course an issue, and the sorts of locations the F80 is likely to find itself may not flatter it sonically. It's best of all in open space in the centre of a room, but even shoved in a corner sitting at an angle, it still fills a decent sized room with sound (and the system has a range of DSP settings to compensate for room placement). Even when you 'hit the loud pedal', the Meridian remains clean and undistorted, showing the benefit of what must be very rigid internal construction - there are no rattles or hums here.

**Downsides?** Well, it's just a tad veiled in the treble (what do you expect, they are full range speakers!), and there's the slightest hint of sibilance sometimes, when you've just switched on. The video isn't amazing - a bespoke £2000 DVD player does better, but it's still a good feature to have for bedrooms with small TVs, for a spot of casual viewing. My only real criticism is that I'd like to have been wireless enabled, like the MagicBox Imp Wi-Fi radio - what better way to listen to the music on your laptop?

Overall, this is a product that is very hard to argue with. Sure, it is expensive, but its target customers won't really be too bothered about that. Brillantly conceived, superbly executed and eminently 'fit for purpose', I hope it's the beginning of many more interesting "out of the box" thoughts from Messrs Boothroyd and Stuart.

"with a decently recorded CD, you get a genuinely musically enjoyable sound"
SPECIAL INTRODUCTORY OFFER!!!

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

ON-LINE MAGAZINE SUBSCRIPTION SLASHED BY 50% TO JUST £20 for 12 issues

£1.90 for 1 issue

check out our free trial issue

VISIT OUR WEBSITE: www.hi-fiworld.co.uk and select "Buy Our On-Line Edition Here" at top right.

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

Channa Vithana assembles a racy looking digital source-based £3,000 separates system from Creek, Design e and B&W...

There's more to audio nirvana than sticking a pile of 'five star' reviewed separates in the same room and expecting them to give great sound. This is even more the case at mid-price level, where there's a dizzying variety of componentry to choose from, and 'mixing and matching' becomes a fine art. In light of this, I have been fortunate to assemble a superb and distinctly different CD-based combination for just under £3,000.

The latest affordable, fully remote-controlled Creek Evo electronics now feature 12mm thick aluminium front panels, much better casework and stylish - rather than 'agricultural' - design in comparison to their predecessors. The Evo amplifier uses a Burr Brown PGA2311 microcontroller controlled stepped-attenuated resistor volume control, operable in eighty 1dB graduations. It is finished externally with a 40mm thick solid rotary knob that along with the precision steps of the encoder is a delight to operate. The claimed power output looks good at 85W into 8 Ohms and 160W into 4. The power supply uses a 250VA transformer with separate windings for analogue and digital sections. Features include four line inputs, one for optional MM or MC boards, separate tape selection and preamp output. The dimensions for the Evo amplifier are 430x80x340mm and 8.6kg weight.

The Evo CD player uses a Phillips VAM1201 laser assembly and a Burr Brown PCM1738 DAC with custom designed software to control the servos and functions. For the power supply, Creek says the Evo CD player uses a single high current C core mains transformer fed from the mains via a custom designed common mode filter. To stabilise and isolate the voltages to the various analogue and digital circuits, the Evo sports eight voltage regulators. Digital and analogue supplies are kept separate and the master clock uses its own supply. The Evo CD has electrical and optical digital outputs. Its dimensions are 430x70x340mm and weight is 6kg.

Design e was formed in 1996 and is run by Ian Webster and Hugh Tomlinson. Trained in Automotive Design at the influential Coventry University degree course, where one of his tutors was Simon Saunders, Ian Webster went on to work for Mitsubishi and Ford in car design. Webster's spherically designed £745 GT3 loudspeakers are actually more conservative compared to his avant-garde floorstanding GT1 design. The spherical enclosure, says Webster, is made from polyurethane for a consistent 8mm thickness and superior finishing surfaces. Webster says, "Hugh (Tomlinson's) research demonstrated that the sphere eliminates a lot of the problems associated with the traditional oblong box loudspeaker housings. This also revealed that damping material wasn't needed and the quality of sound is enhanced by the clean interior of the housing. The (rear) port has some damping material around it because it is the only long straight piece within the spherical housing. Hugh therefore decided that it would benefit from the material and testing proved him correct".

A finely turned solid oak upstand forms textural contrast, though a matched all-black polyurethane GT3 stand is optional. A 28mm cloth dome tweeter and neodymium magnet are used within a solid oak separate enclosure, above. The mid/bass driver is a 6.5 inch sandwich cone, while the crossover uses aircored inductors and foil-wrapped capacitors. The review samples were finished in a very attractive metallic...
tangent
EVO
WHEN SOUND AND SIZE MATTERS...

Tangent EVO are trendy colourful mini HiFi loudspeakers that will fit any room and interior décor in your home.

Tangent EVO are engineered to deliver performance of large loudspeakers in the smallest possible design.

DESIGN | ENGINEERING | PERFECTION
For more information please visit
www.tangent-audio.com

Podium prefer to leave it to others to talk on their behalf.

Hi-Fi World wrote...

'.......... demonstrated a new range of "flat horn" loudspeakers called Podium-1, whose manufacturers say it does not use ribbons, subwoofers or electrostatics. The Podium-1s look vanishingly thin in profile. Approximate retail price is in the £3,000 to £4,000 range and their sound was outstanding – they had a deep and wide presentation to worry Quads at twice the price...'

An owner wrote:

'The Podiums really do rewrite the rule book of loudspeakers! An ultra-low colouration, full frequency range panel with massive bass extension, which images over most of the listening room and is insensitive to position. Oh - and looks stunning.'

Stereophile wrote:

".......... with a money-back-if-not-satisfied guarantee; and it delivers a sound with a very generous and convincing sense of scale." & "its ability to generate impressive dynamics was both intriguing and very persuasive indeed."

http://www.podiumsound.co.uk

Telephone 0845 2297922
drivers are made from a concave aluminium structure with a mica cone and an expanded polystyrene core. There is more technical information at www.bwspeakers.com, including a downloadable white paper. Volume, low-pass filter, bass roll-off alignment, phase and on/off/auto sensing are all adjustable via a next set of controls at the rear of the cabinet while there is a discreet green/red operation light at the top. The PV I dimensions are 335.5x289x347mm and 20.5kg weight.

**SOUND QUALITY**

With the system finally right, it was set up carefully, run in and warmed through, and things began to really sing. Proof of this was the fact that the 'Bach Trio Sonatas' by Palladian Ensemble had a superbly balanced overall presentation. The music was revealed in a very natural manner, and all the instruments had convincing timbre. The GT3 and PV I loudspeaker combination showcased their very revealing qualities in opening out the layers presented by the Evo electronics within 'The Bach Trio Sonatas'. The PV I then provided discernible body to the lower-mid frequencies, especially with the cello. With 'A Meeting By The River' featuring Ry Cooder and V.M. Bhatt, the music was beautifully rendered - the interplay between Cooder on 'Bottleneck Guitar' and Bhatt on 'Mohan Vina' was stunning, and the interlinked guitar phrasing of these two players was finely revealed. With the powerful and dynamic tabla on 'Ganges Delta Blues', the music was deep, bold and expressive in the lower frequencies. Here the precisely phrased intricacies of the two lead instruments were entirely unaffected by the deep bass thrusts of the tabla. Additionally, due to the excellent tempo and rhythmical ability of this system, the delicate fingerpick percussion from the tabla was revealed with definition and precision, sounding cohesive rather than dislocated.

Moving to hard rock in the shape of 'S&M' by Metallica, the system remained clear, expansive and powerful with excellent resolution to the horns and violins of the hundred-piece San Francisco Symphony. As 'The Ecstasy Of Gold' faded seamlessly into 'The Call Of Ktsu', and the opening guitar parts developed into the thrash-metal section, the transition was superb. Its epic structure was revealed brilliantly, thanks to the system's excellent instrumental separation and lack of compression.

The dance-pop of 'Outside' from George Michael's 'Twenty Five' compilation was clear and musical with real scale and bass power. The effortless low frequency grooves were impressively revealed via the GT3 and PV I partnership, while higher-frequencies from the Evos had finesse and impact. Instrumental separation was excellent, revealing the many layers of funk guitar sounds, multi-tracked vocals and keyboards.

**CONCLUSION**

There are one thousand and one different ways of putting together a £3,000 separates system, but this one certainly stands out as a particularly strong combination, and quirky too! The Creek EVO CD player and integrated amplifier give an excellent, affordable basis, and are easily good enough to be partnered with the more expensive Design e GT3 loudspeakers and B&W PV I subwoofer combination. Whereas the Creeks are businesseslike, and are 'all go and no show', the loudspeakers form a dramatic centre point to the system. The flawlessly built B&W PV I sub being an excellent match for the beautifully crafted GT3 speakers - which themselves are much more than just a pretty face (I have used them, without a PV I, in a high-end £9,000 Jensen B-400XS/B-200/B-350 CD/pre-power system where their inherently revealing and rhythmical qualities worked superbly). Together, this £3,000 system offers an attractively different yet tuneful alternative to the mass-produced norm.
Pre, Eminent

David Price auditions a most distinguished sounding high end preamplifier from European Circuit Solutions, the ECS Pre...

The best preamplifier is no preamplifier, something that hardly makes you predisposed to splashing all your cash on one — you can sometimes live without a preamp, but not a power amp, source or speakers! As far as this particular part of your hi-fi is concerned, it's very much a case of less is more.

But the simple fact is that anyone who lives with two or more music sources is going to have to submit to buying a switching unit and volume control (i.e. a preamplifier) and as anything is going to degrade sound to an extent, the better it is the less sound degradation you get. In the case of the ECSpre you see here, you'll need to spend £5,500 — and for that you should expect very little deterioration indeed...

Despite the considerable bulk and weight of this product, the key to its design is the short signal path philosophy. Said to comprise only one Single-Ended bipolar amplifying stage in a "novel configuration", operating without loop negative feedback and with a "super high quality" air gapped output transformer, this is not a conventional solid-state preamp. ECS says, "such a circuit would be unthinkable without a massive design effort in respect to power supplies, since the gain topology relies totally on the design of the supply system to fully exploit the potential quality of the amplifier circuit."

Interestingly, the power supply is licensed from 'NeverConnected' and "custom tuned by ECS for optimum performance in this application". NeverConnected employs unique FET commutation circuitry to create a 'virtual battery' supply. Further stages of isolating regulation, operating with critical choices for passive components, especially the decoupling capacitors, are featured.

The output transformer also enables both balanced and single ended outputs, and via a high quality, remotely controlled relay, user control of absolute phase. Due to the unique nature of the circuit, users can use a chosen output regardless of the type of input they use for various other sources.

The ECSpre is a very large, heavyweight affair, with distinct 'art deco' styling which I am afraid wasn't really to my taste, simply because it imposed itself on my room rather more than I was comfortable with. Still, each unto their own, and ECS are to be congratulated for at least daring to be different. The two tone satin black and brushed metal fascia is dominated by 20mm green LED displays, showing left and right volume levels respectively — again these were far too big in my opinion, although ECS say they are deliberately so, in order to be readable from a distance. Well, I suppose if you can afford £5,500 for a preamplifier then you can afford a vast room to go with it!

It's a well built machine alright, but it would not compare well in its volume control action, for example, with similarly priced Japanese high end, I am sorry to say. The busy rear panel sports six RCA phono inputs and one balanced XLR in, plus two balanced outs and one RCA phono output. The preamplifier has a one hundred step volume control, using a ladder attenuator under micropro-
review

Processor control. This is operable by a supplied learning remote, as is balance, input selection, muting and absolute phase. Again, at the price, I would have liked a more swish remote control.

"most high end systems simply won't be good enough to show this preamp's superlative transparency..."

SOUND QUALITY

Regular readers will know that I have been using the MF Audio Silver Passive Pre in my system for many months now, and it is one which I hold in extremely high regard. At less than half the price of the ECSpre, I feared that in value for money terms at least, this was going to be something of a rout...

The ECSpre is without doubt an immensely capable device. Back to back with the MF Audio Silver, it was the first preamplifier I've ever heard that was able to tell me what was going wrong with the MF. That said, I have to say that the MF still held its own very well — and extensive A-B tests only left me with increased regard for both products!

Given that the MF Audio Silver is one of the most transparent and revealing preamplifiers around, it was something of a surprise to find that the ECSpre was even better in these regards. Yes's 'Owner of a Lonely Heart' was the first record on the turntable, and I couldn't help but be impressed by what the MF Audio was doing. Through my current reference system, it threw out a tremendously big, bold and musical sound, with superb dynamics and detailing.

Substituting the ECS, and by the end of the first bar I could hear it was something to be reckoned with. When the song kicked in there was a whole extra layer of detailing. Most profound was the reverb on Jon Anderson's voice; it was there to be heard with the MF, but the ECS showed just how much of it there was, and I could hear his words echoing all around, seemingly with one second delays. It was quite an ear-opener, as the ECS was unpicking extra layers of detail the MF was...
"the singularly most addicting piece of gear I have ever heard"

10 AUDIO REVIEW

"A new benchmark for musical communication"

STEREO TIMES

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

STEREOPHILE

Winner of Stereo Times magazine Most wanted component of 2005 award

"The best tonearm I've heard"

HI FI WORLD

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

Tonearm Models

Enterprise
Conqueror
Illustrious
Encounter
Silver
OL1

Closest to the original sound

Ultimate performance

"The best musical results of any turntable I've ever heard, regardless of price.

Since I've been listening to turntables professionally for 32 years and am aware of the pitfalls of ultimate proclamations, I hesitate somewhat to make this statement. Nevertheless, it is true. The level of musical communication available from the Illustrious/Aurora Gold is in a class by itself. It sets a new reference."

STEREOTIMES on the Aurora gold turntable & illustrious tonearm

ORIGIN LIVE

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

Full information on web site www.originlive.com

ELEANOR MCEVOY

"First class songs sung by a genuinely soulful singer. Spare, clean arrangements and respectful covers. I think that about ticks all the boxes" - Maverick

"Irish chanteuse finds the grit on fifth album" - Uncut

"McEvoy still surprises with her jagged-edged personality that celebrates rather than suppresses dissonance" - Irish Times

"Rags of class, 'Out There' has several striking tracks. McEvoy earns plenty of respect for her multi-instrumental skills & also her writing gets better & better" - Daily Telegraph

"Take the best of Yola and the power of Early Hours and you still won't get close to Out There. There's vinyl on the way, but the SACD is so darn good you should get it now, because this is one album you don't want to be waiting for. Recording: 10 Performance: 10" - HiFi+

All Eleanor McEvoy albums available at The Heathrow High Fidelity 2007 Show from Diverse Vinyl

www.eleanormcevoy.com www.myspace.com/emcevoymusic
simply glossing over.

I have to say I was quite stunned, as normally comparisons with the MF and other preamps produce the opposite result. I know that the ECS is twice the price, and so should be doing all this, but to date the MF has been so capable that such common sense rules don't apply.

In other respects, the ECS had the legs on the MF, with a substantially more expansive stage. The MF seems to pull the whole recorded acoustic towards the centre of the speakers, whereas the ECS pushed it wide to the left and right extremities of the room. Likewise, the stage depth fell back substantially better, and within this there was more light and shade. The sense of physical space the ECS achieved was superb.

Tonally, it was also seriously impressive. Andrea's 'Morning Child' on CD was a joy, with a better lit midband. The MF Audio Silver was a tad 'dull' across the upper mid and treble in comparison, and the ECS managed to provide a better sense of space and air without ever sounding harsh. There was also a real sense of listening to the instruments' natural timbre; glassy piano recordings sounded glassy, warm ones warm. Again, there was a very slightly wider variety to the ECS's tonal palette.

However, the ECS didn't have it all its own way. The bass on the MF was more 'of a piece'; ever so slightly stronger, it was also more fluid and just seemed to flow more convincingly. The ECS was workmanlike and dutiful at the low end, giving a tight and taut bass sound but not really showing any signs of relish. On my vinyl pressing of UB40's 'King', the MF seemed more emotionally engaged with the song. The ECS, despite supplying a breathtakingly wide stage and startling insight into the minutiae of the recording, simply didn't seem to be having as much fun. Falling back on the dreaded car analogies, we seemed to have a case of a massive Yank muscle car trying to follow a smaller European sportster on twisty roads...

Most obvious was the MF Audio's dynamic alacrity. The ECS proved in no way deficient, it's just that on musical peaks, the MF seemed to be able to signpost the power and exertion the musicians were putting in, whereas the ECS took a more relaxed approach.

Interestingly, on dynamic crescendos in classical music, the ECS was obviously in more control, letting more detail through even when the entire orchestra was pressed into action, but still the MF Audio went louder and seemed less compressed.

CONCLUSION

By any standards, this is a sublime sounding preamplifier, and one that will delight its purchasers. It is unceasingly, remarkably clean and precise across the midband and treble, with an ability to scythe through music that I've never heard before. Its sense of physical scale and proportion is also excellent, and quite special in the great preamplifier scheme of things.

However, nothing is ever simple in high end hi-fi, and I have to say that it not quite so accomplished in every department. Rhythmically it is very adept, especially across the midband, but its bass is a fraction slower and less well articulated than the MF Audio. It has a more even-handed and less emotional character which some will love, and others will not — and this is particularly noticeable on dynamics, which aren't quite as convincingly carried as the MF. However, the sheer clarity and composure on dynamic peaks is obviously superior, and many will be happy to trade one for the other.

I won't say the ECSpre is cracking value for money at this price (I don't think any piece of hi-fi is for this sum), I can see why it is selling for this, and I can also appreciate why people are buying it. I am awarding it four globes, because I think its bass isn't quite as good as it should be against the diminutive MF Audio, but I came very close to giving it five — so stunning is it across the mid in terms of detailing and depth perspective.

As a caveat, I actually think most people's systems won't be good enough to show this superlative transparency up. My Quad 989 electrostatics missed all the extra reverb around the vocals on the Yes track, and it was only when I moved to Yamaha NS1000Ms that it flooded out. If you're running £14,000 Apogees, you may well find that only the ECSpre will do, but back down in the real world, the MF Audio will do it all for half the price or less.

Overall then, in some respects, the best preamplifier I have heard, and a total joy. At this level though, whether you should buy it depends entirely on you, your finances, your tastes and the rest of your system. Go find that dealer and decide for yourself!

MEASUREMENTS

The main point of note about the ECS is that its simple circuit topology offers little gain: just x1.2 from the normal unbalanced phono socket CD input to the phono socket output. The balanced output gives double this and it's the most on offer. Via the balanced input to balanced output gain measured just x1.5. This is fine for matching CD, SACD and DVD players to most (but not all) power amps, which need just 1V in, but things get difficult if you use, say, a quality phono stage with limited gain. Otherwise, frequency response was wide and distortion low. Input noise was high in absolute terms, but still low enough to be inaudible. So the ECS measures well, but it has little gain.

REFERENCE SYSTEM

ECS Pre - £5,500
ECS amplifiers C(+44(0)2087438880
www.ecsamplifiers.co.uk

VERDICT

Startling soundstaging, clarity and composure make it one of the best preamps in the world, but less expressively musical than some — and finish lacking at the price.

AGAINST

- sublime detailing
- breathtaking soundstaging
- supreme cohesion
- tonal acuity

FOR

- absolute dynamic ability
- bass articulation
- imposing styling
- finish

REFERENCE SYSTEM

Michell GyroDec/Michell TecnoArm a/vdH The Frog Note Products Phonote Phonostage
MF Audio Passive Magnetic Preamplifier (silver)
NuForce Reference 9SE monoblock power amplifiers
World Audio Design K5881 (modded) power amplifier
Rotel RB-1092 power amplifier
Yamaha NS1000M loudspeakers
Quad ESL 989 loudspeakers
Black Rhodium interconnects/cables

This page is from the May 2007 Hi-Fi World magazine. The review is about an ECS preamplifier and compares it to the MF Audio Silver. The review highlights the ECS's superior clarity, composure, and soundstaging, but also points out that it may not be suitable for all systems due to its high price point.
Vinyl replay has come a long way since the 1970s, with new developments seemingly every month. Ortofon's brand new 2M Red and Blue moving magnets are the company's latest cartridge offerings, promising far superior sound to the old 520 range. So how do they compare to a thirty year old classic budget MM, such as Nagaoka's MP11? Noel Keywood couldn't resist finding out...

It is not everyday that Ortofon announce a new range of budget moving magnet cartridges. In fact, the last time this happened was well over a decade ago, and whilst the brand has been very strong with moving coils, their MMs never really made the same impact. In fact, you need to go as far back as the late nineteen seventies, when the likes of the FF15E and VMS20E were automatic choices for those seeking high quality affordable moving magnets, to find Ortofon leading this particular market.

Britain is a tough retail environment for cartridge manufacturers, as local boys Goldring have a small range of easy to use and inexpensive moving magnet cartridges that sound superb - and it is this brand that has caused Ortofon trouble of late. Back in the eighties however, the must-have budget moving was the Nagaoka MP11. This was a really decent little device, but seemed to disappear from view in the nineties. So when we spotted this old name on the Musonic website, we were surprised to say the least.

At £30 it is about as cheap as they come - so inexpensive that you might wonder whether it will damage your records - but many moons ago I found Nagaoka cartridges were clever designs and was impressed.

The surprise realisation that they were still on sale here in the UK meant that a reappraisal was hard to resist, and what better product to put these brand new 'state of the art' Ortofon in context?

Was the current MP11 a true unreconstructed oldie I wondered (Denon DL103 style), or had Nagaoka tweaked it here and there to keep up form? Only tests would tell. Nagaoka (and Denon) may well be content to offer today products they were making last century, but others have moved on.

The Ortofon are bang up to date in their sound. Their price is a little more serious too, at £60 for the 2M Red and £120 for the 2M Blue. So we're not quite comparing like with like in this little review, so much as taking a close look at what you can get without spending a fortune and asking whether the march of progress actually brings any benefits.

As cartridges have now become acceptable second-hand buys on eBay, our letters pages show, this review also identifies what to expect from an oldie.

Cartridges are characterful things with their own strengths and drawbacks, as any user of a Decca London Blue can attest. At this budget level I tend to ask myself whether a cartridge masks or reveals the loveliness of LP played properly - and whether it causes damage or not! And whilst I choose to use an Ortofon Kontrapunkt b moving coil with an Eastern Electric Minimax valve phono stage, I have a lot of time and regard for moving magnet cartridges, being something of a Goldring fan. They may not have the see-through clarity of MCs, nor the delicacy of reproduction, but good ones can be a lot of fun to listen to, yet cost peanuts, as this review shows...

**ORTOFON 2M RED AND BLUE**

Both Ortofon 2M cartridges have neat synthetic bodies, with parallel sides that facilitate accurate alignment in the headshell. The area behind the stylus is sculpted away. They are compact designs that will physically fit any headshell easily, and the weight is right too, at 6.5gms being a value any arm can balance out. The stylus assembly has a removable cover, that removes easily when you know how; it takes a little study.

As in any moving magnet design, the stylus is removable to enable easy replacement. Ortofon suggest you remove the stylus assembly before fitting the cartridge, but the cover is usually sufficient if you have an arm with a removable headshell and steady hands. Another useful...
The most significant feature of these new cartridges was revealed by measurement: frequency response is such that they will possess none of the warmth in their sound of old designs. As is common, the less expensive model, the Red, has been engineered for a less bright and more forgiving sound than the more expensive Blue, but by any standard do not expect either to sound warm. You can expect the Blue to have better resolved treble too, from a more sophisticated stylus profile.

**SOUND QUALITY**

Listening to this little group, there was no doubt which were the new 'cutting edge' cartridges, and which was the nineteen seventies classic. For example, I spun The Scissor Sisters 'I Don't Feel Like Dancing', from an album that spins at 45rpm no less. I got the freshest delivery I've ever heard, short of a moving coil. This track had a clarity in its vocals and a speed to its bass that defies price rivals, whilst the 2M Blue's balance suits such material, it's less flattering with run of the mill oldies that are less than perfect. For example, I spun the Waterboys 'Preparing to Fly', from their 1993 album 'Dream Harder' - not a paragon of good sound quality, granted - and it sounded light in its bass, although extremely well resolved in its vocals. Moving to 45rpm singles with accented bass, such as the Goldfrapp 'Ooh La La', another modern pressing with good recording and cutting quality, and the Blue delivered the most composed and tightly ordered sound I've heard from any moving magnet cartridge.

So Ortofon's new 2M Blue is very much a modern day, high resolution cartridge, especially suitable for modern recordings. It stands in stark contrast to a golden oldie like the Nagaoka MP III, which would gloss over the poor balance of the Waterboys album when the Blue tells it like it is. The MP III is not a revealing cartridge - quite the reverse. This £120 moving magnet gave me Tracey Chapman in vivid detail, close in front of me singing 'Talking 'Bout a Revolution'. There was seemingly little I could not hear of this performance. Bass was tightly controlled and there was plenty of timbral character to be heard within instruments, instead of the generous but not especially informative bass of the Nagaoka. As usual I felt the cartridge worked well in the Rega RB250 arm we use for budget designs, its rigid tube ensuring the 2M Blue gave good stereo across the lower midband, as well as firm bass.

With Phil Collins 'Hello I Must be Going' album there was a brightness to backing horns that ensured they cut through the mix with a vigour that you will not hear elsewhere at this price, if with some lightness of body about them. Not surprisingly cymbals had a ringing presence too. Here I get to an interesting caveat with this cartridge: it possesses little ability to gloss over mediocre recordings.

With a modern cut like The Scissor Sisters 'I Don't Feel Like Dancing', from an album that spins at 45rpm no less, I got the freshest delivery I've ever heard, short of a moving coil. This track had a clarity in its vocals and a speed to its bass that defies price rivals, whilst the 2M Blue's balance suits such material, it's less flattering with run of the mill oldies that are less than perfect. For example, I spun The Waterboys 'Preparing to Fly', from their 1993 album 'Dream Harder' - not a paragon of good sound quality, granted - and it sounded light in its bass, although extremely well resolved in its vocals. Moving to 45rpm singles with accented bass, such as the Goldfrapp 'Ooh La La', another modern pressing with good recording and cutting quality, and the Blue delivered the most composed and tightly ordered sound I've heard from any moving magnet cartridge.

So Ortofon's new 2M Blue is very much a modern day, high resolution cartridge, especially suitable for modern recordings. It stands in stark contrast to a golden oldie like the Nagaoka MP III, which would gloss over the poor balance of the Waterboys album when the Blue tells it like it is. The MP III is not a revealing cartridge - quite the reverse.

---

**MEASURED PERFORMANCE**

A notable feature of the new Ortofon 2M Moving Magnet cartridges is a frequency response that tilts slowly upward as frequency rises. I have never seen such a trend before in any cartridge. It suggests they will sound forward and detailed, certainly lacking the traditional warmth of MMs. The £60 budget Red has a little less upper treble than the Blue, so the latter will be a tad more incisive and revealing.

Midband tracking was much the same with both, the top torturer track being negotiated, but only just, with a little mistracking on one channel. In the midband, the Blue has a more obvious advantage, due to the lower tip mass of its stylus assembly, where a nude diamond is used. Vertical tracking angle was high with both, which raised vertical modulation distortion to 5%. The Blue was a little better here measuring exactly 30 degrees against 33 of the Red. Output was high from both models, measuring 7mV at 5cms/sec rms.

Expect a forward, highly detailed sound from these cartridges, possibly with some brightness. They measure well, following modern trends toward a bright balance that delivers detail and insight.

**VERDICT**

**2M RED**

Ultra modern design that brings new levels of detail to the price, but lacks richness that some crave.

**FOR**

- ease of fitment
- tracking
- detail

**AGAINST**

- lacking in richness

**VERDICT**

**2M BLUE**

Exceptional insight and smoothness allied to fine tracking makes this a great buy for those seeking a modern sound.

**FOR**

- ease of fitment
- tracking
- superb insight

**AGAINST**

- lacks warmth

---

**ORTOFON 2M RED £60**

Distributed by Henley Designs

C: +44 (0)1235 511166

www.henleydesigns.co.uk

---

**SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Feature</th>
<th>2M RED</th>
<th>2M BLUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tracking ability (300Hz)</td>
<td>80µm</td>
<td>65µm</td>
</tr>
<tr>
<td>lateral vertical</td>
<td>45µm</td>
<td>30µm</td>
</tr>
<tr>
<td>lateral (1kHz)</td>
<td>20/23ms/sec.</td>
<td>25/30ms/sec.</td>
</tr>
<tr>
<td>Distortion (45µm)</td>
<td>1.4/0.8%</td>
<td>1.5/1.2%</td>
</tr>
<tr>
<td>lateral vertical</td>
<td>5.4/5%</td>
<td>7/8%</td>
</tr>
<tr>
<td>Output (5cms/sec rms)</td>
<td>7mV</td>
<td>7.5mV</td>
</tr>
<tr>
<td><strong>FREQUENCY RESPONSE 2M RED</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Red - Outer grooves</td>
<td></td>
<td></td>
</tr>
<tr>
<td>White - Inner grooves</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>FREQUENCY RESPONSE 2M BLUE</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Red - Outer grooves</td>
<td></td>
<td></td>
</tr>
<tr>
<td>White - Inner grooves</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

**VERDICT**

**2M RED**

Ultra modern design that brings new levels of detail to the price, but lacks richness that some crave.

**FOR**

- ease of fitment
- tracking
- detail

**AGAINST**

- lacking in richness

**VERDICT**

**2M BLUE**

Exceptional insight and smoothness allied to fine tracking makes this a great buy for those seeking a modern sound.

**FOR**

- ease of fitment
- tracking
- superb insight

**AGAINST**

- lacks warmth

---

**ORTOFON 2M RED £60**

Distributed by Henley Designs

C: +44 (0)1235 511166

www.henleydesigns.co.uk

---

**SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Feature</th>
<th>2M RED</th>
<th>2M BLUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tracking ability (300Hz)</td>
<td>80µm</td>
<td>65µm</td>
</tr>
<tr>
<td>lateral vertical</td>
<td>45µm</td>
<td>30µm</td>
</tr>
<tr>
<td>lateral (1kHz)</td>
<td>20/23ms/sec.</td>
<td>25/30ms/sec.</td>
</tr>
<tr>
<td>Distortion (45µm)</td>
<td>1.4/0.8%</td>
<td>1.5/1.2%</td>
</tr>
<tr>
<td>lateral vertical</td>
<td>5.4/5%</td>
<td>7/8%</td>
</tr>
<tr>
<td>Output (5cms/sec rms)</td>
<td>7mV</td>
<td>7.5mV</td>
</tr>
<tr>
<td><strong>FREQUENCY RESPONSE 2M RED</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Red - Outer grooves</td>
<td></td>
<td></td>
</tr>
<tr>
<td>White - Inner grooves</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>FREQUENCY RESPONSE 2M BLUE</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Red - Outer grooves</td>
<td></td>
<td></td>
</tr>
<tr>
<td>White - Inner grooves</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Is this the biggest upgrade you have ever made?

Plug in the world's most technically advanced audio interfaces and experience more authoritative bass, clearer midrange and more articulate highs. With up to 71 articulation poles, it is like having multiple cables in one - you simply hear more music.

www.mitcables.com

Distributed by: Audiobility, PO Box 988, Cheltenham. GL50 9FJ, Tel 0870 777 2991, enquiries@audiobility.co.uk

whestTWO *west-tō, n* musical, detailed; radical

www.whestaudio.co.uk
t: 020 8965 4535
in fact - and shows its age in this company. The new Ortofons really do show how vinyl has moved on, in recording quality as well as replay ability. The inexpensive Red was a very interesting proposition at its low price. It lacks the top end bite, but also top end detail of the Blue's stylus, yet it still comes over as clear and open in its sound, with a fine tone on good material. Surprisingly, it also has more powerful low bass, making it muscular and weighty on well-recorded discs.

In a nutshell then, the new Ortofon 2M Blue and Red moving magnet cartridges offer a thoroughly modern sound that suits today's albums. Both are highly revealing and an engaging listen that is nothing other than very impressive at the price.

NAGAOKA MP11

One look at the MP11's bodywork is enough to convince any potential buyer that this little cartridge is from the functional design school and not a candidate for any Museum of Modern Art. Never mind though, as those boxy parallel sides are just what is wanted for accurate alignment in an arm's headshell. Skew in the headshell raises distortion considerably, from around 1% up to 2% or more, so the MP11's boxiness is no bad thing. Weighing in at 6.8gms it is also a perfect match for the balancing system of every arm, as all can cope with 6-10gms.

At the price the Nagaoka's MP11 comes in simple packaging by Shure standards, but this is of little consequence in itself, as it's the cartridge that matters and here, I found, have maintained standards. Tests showed that at the recommended tracking force of 2gms - very close to Goldring and Ortofon's use of 1.8gms, note - the MP11 sailed through all tracking tests with an ease that few can match at any price. Consequently, the MP11 is a fine choice for preserving valuable LPs if you are cash-strapped, as it will never mistrack. I ought to point out though, that if you play old LPs with a new cartridge like this you may well hear the damage imprinted into the groove walls by the mistracking of previous cartridges.

SOUND QUALITY

As we've shown, the Nagaoka MP11 is no match for either of the Ortofon 2M moving magnets, but it still sounds as lovely as ever. It is truly romantic sounding device, giving a sepia-tinted, soft outlined picture rather than an in-your-face presentation, 2007-style. The class of its act is very apparent in some areas. It comes across as superibly relaxed and in control, a real effortless delivery that demands a visit to the port cabinet and perhaps ignition of a big, fat cigar (I don't touch either, but somehow it all seems appropriate) as you relax to listen to your record collection.

There's no edginess or insecurity to be heard here, largely as a result of its fabulous tracking ability and that rolled off treble, at least, through an Eastern Electric Minimax valve phono stage with no additional capacitive loading applied. In an SME M2-10 arm there were oodles of bass and its quality wasn't too bad. I might say slightly fulsome and rounded, but not as glossy as I have heard. I suspect the Japanese like large bass though, as the MP11 reminds me a little of the Denon here. Stereo images were firm and stably positioned on a stage that was wide. However, the warmth of the sound was apparent and there was no great focus to images, just believable solidity. Nor was there any great detail in the treble to be heard.

Some might say the MP11 lacks real pace, but what you lose on the swings you simply get back on the roundabouts with this design. It is creamy smooth sounding, admittedly a bit opaque by modern standards, totally relaxing and supremely confident. It also clean and dynamic in a most unchallenging way. Much like Shure's similarly long-in-the-tooth M97xE the smooth sophistication of the sound is a treat, if not for the critical of ear. This is one to go with the carpet slippers. As such it is £30 well spent insofar as you will relax and enjoy what you hear, although it is a long way off what is possible from a £120 Goldring quite frankly, and in a different world to the analytical Ortofons.

Run through a solid-state Trichord Diablo phono stage with 400pF loading applied internally across the input sockets the MP11 predictably sounded brighter, but still opaque and less smooth. Some may prefer it but the MP11 doesn't become a Koetsu. Those with a soldering iron and a few 400pF capacitors may like to try this all the same.

CONCLUSION

I really liked the sound of this cartridge. It was blissfully smooth, broad staged and dynamically powerful. You don't get high levels of insight or detail, but all the same for £30 there's plenty of enjoyment to be had. In summary then, the Nagaoka MP11 proved a dramatic counterpoint to the new Ortofon 2Ms - residing at opposite ends of the scale. One is warm, fluffy and romantic, the others are forensically revealing and intensely communicative. One is already a classic, while the other two deserve to be so in thirty years time.

VERDICT

Budget classic with fantastic tracking and cuddly, warm sound. A starter cartridge that cannot be beaten.

NAGAOKA MP11

Musonic (UK) Ltd.
+44 (0)208 950 5151
www.musonic.co.uk

FOR:
- superb tracking
- low price

AGAINST:
- lacks insight

MEASURED PERFORMANCE

The MP11 has amazing tracking ability for a budget cartridge: it cleared all test tracks with ease, even torture tracks few cartridges can manage, with a secure and undistorted performance at 2gms downforce in an SME M2-10! It will sound confident and relaxed even on loud vocal passages. This will be helped by a warmth in its sound imposed by the falling treble due to generator losses, as our frequency response graph (red trace) shows. Here, the MP11 betrays its age: modern MMs like Goldrings don't suffer this anymore. However, with 400pF loading, the frequency response measured ruler flat (green trace), so the MP11 can be tweaked to become unusually accurate in its basic tonal balance. A vertical tracking angle of exactly 30degrees resulted in unusually low distortion on vertical modulation (left and right images), making this a low distortion cartridge overall. Output was high at 5.4mV and channel separation also high at 33dB.

The MP11 measures exceptionally well. It is a superb cartridge at the price and will give a fine sound if properly loaded. NK
Loaded up with high tech materials, the German Isophon Cassiano loudspeakers feature some very innovative technology. Adam Smith listens in.

Isophon is a name that will be familiar to some, as makers of automotive loudspeaker drive units. However, this part of the company is under the French electronics giant, Thomson, who owns the original trademarks and designs but no longer manufactures under this name. The range of high-end loudspeakers that include the Cassiano are the brainchild of Dr. Roland Gauder of Acoustic Consulting, an independent company that designs a variety of high-end electronics, turntables and loudspeakers. Dr. Gauder commenced his career in Berlin with Isophon in 1989, and was granted permission to market under the Isophon brand name when the company was split up in 1997.

All models in the current Isophon range are manufactured in Acoustic Consulting’s facility and custom finishes made to customer’s requirements can be accommodated without any problems. Indeed the company’s website boasts of over 200 finishes available on the Cortina, Corvara and Cassiano models, so there should be something in the portfolio to please everyone!

The Cassianos, and their larger brothers, the Arabbas, mark a new departure in design, however, as they make use of ceramic-coned bass and midrange drivers sourced from Theil in Germany. The Arabba comes with a diamond dome tweeter as standard, whilst the Cassiano can be specified with either a diamond or ceramic type - we are testing the diamond version here, but the ceramic version will save you around £4,000. Incidentally, the Arabba was awarded the coveted “Best Sound in Show” award for the January 2007 CES exhibition, so its younger brother has a lot to live up to.

Named after the San Cassiano ski resort in the southern Tyrol, the Cassiano is an attractively styled loudspeaker with a sleek and well profiled cabinet that does go some way to disguising its size. With dimensions of approximately 110 x 21 x 41 cm (H x W x D) and each speaker weighing in at 30kg, they are not diminutive shrinking violets by any means. This is aided by the sandwich construction of the cabinet which features a layer of damping sand in between, along with extensive internal bracing. The gloss black finish of our review samples commands a £400 premium but is utterly fabulous and Isophon provide no less than a can of Steinway polish to keep them shiny.

One single set of WBT terminals are fitted to the Cassianos and they also have jumper links to set lower bass equalisation to flat, +1.5dB or -1.5dB in order to optimise performance in various positions in the room. All of these items are fitted to the bottom surface...
of the loudspeakers, which further adds to their clean lines. Driver complement consists of two seven inch (175mm) ceramic bass drivers, one seven inch ceramic midrange and the 0.75in (19mm) tweeter. These are connected together using a crossover that is unique in offering filter slopes of no less than 50dB per octave - fourth order slopes of 24dB per octave are considered steep in the audio world and so these are positively precipitous!

Isophon say that the use of a low order crossover leads to overlap of driver output over a wide frequency band, giving rise to poor separation. On the other hand, steep crossover slopes have in the past been accused of robbing music of its dynamics and emotion, however, Isophon assure us this is not the case with the Cassianos.

In order to confirm this, the Cassianos were duly inserted into our test system of Quad QC24 and II-Forty amplifiers, a Cambridge Azur 840C CD player and an Eastern Electric Minimax phono stage. Vinyl sources included our Pioneer PLC-590/SME M2-10 and the Slatedeck Cassianos. Forty amplifiers, a Cambridge Azur Cassianos were duly inserted into Cassianos. In order to confirm this, the Cassianos were duly inserted into our test system of Quad QC24 and II-Forty amplifiers, a Cambridge Azur 840C CD player and an Eastern Electric Minimax phono stage. Vinyl sources included our Pioneer PLC-590/SME M2-10 and the Slatedeck Cassianos. Forty amplifiers, a Cambridge Azur Cassianos were duly inserted into Cassianos.

SOUND QUALITY

'Big' is not only the name of a 1988 Tom Hanks film, but also the word that kept popping into my head during my time auditioning the Cassianos. Whilst it can also be used to describe their height (and price tag...) it is most aptly applied to the soundstage that they generate - make no mistake about it, for realism, spatial abilities and soundstaging, these are amongst the best non-electrostatic loudspeakers I have encountered. No matter what music I played, I could shut my eyes and be transported straight to the concert hall, studio or even dance tent where it was recorded.

The Isophon's' bass is immensely deep and powerful, yet exhibits pace, fluidity and a lightness of touch when required that belies their dimensions. Stringed bass instruments, whether acoustic or electric had real depth and emotion, with each plucked string having superbly defined leading edges and a beautifully judged and natural decay. In fact, all instruments sounded astonishingly real.

The rare and expensive materials used in the midrange and tweeter also prove their worth with every track played. Vocalists have sumptuous detail and atmosphere to their performances, with each intake of breath between lines almost uncanny. The Cassianos have a rare ability to take those aspects should confer upon the Cassianos a good, weighty, yet even character. These aspects should confer upon the Cassianos a good, weighty, yet even character.

MEASURED PERFORMANCE

Frequency response of the Cassianos is commendably smooth and even across their entire bandwidth, with no major peaks, dips or anomalies to speak of. Treble starts to roll down gently from around 15kHz, meaning that the Cassianos will not be harsh. Bass output is very good. With the crossover jumpers set to 0dB, the main drivers operate down to 60Hz, augmented by the downward-firing port, which operates at around 100Hz. These aspects should confer upon the Cassianos a good, weighty, yet even character.

Sensitivity is good at 87dB but measured impedance shows that the Cassianos will be something of a tricky load for many amplifiers. Electrically well damped, they have an average measured value of 4.7 Ohms, which tallies well with the manufacturer's 4 Ohm rating. However, the Cassianos dip down to a minimum of around 2 Ohms at low frequencies - just where most power is generally required. Consequently an amplifier of at least 60-70W that operates into loads as low as 2 Ohms will be required to get the best from the Cassianos. AS
SUBSCRIBE TODAY SPECIAL

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

UK SUBSCRIPTION ONLY £40

£40.00 FOR 12 MONTHS PLUS 1 FREE ISSUE UK ONLY

FREE postage & packaging.

SO WHAT ARE YOU WAITING FOR? CALL NOW!!!

SUBSCRIPTION HOTLINE 01442 879097
Lines open Mon-Fri 9.00-5.00 or (weekend answering service available)

TEXT SUBS.HIFI TO 07797 800 800 and we'll call you back

email: hifiworld@webscribe.co.uk
Fax No: 01442 872279
**INTRODUCTORY OFFER!!!!**

- Get your issue of hi-fi world straight to your door!
- Get to our amazing classified ads first and grab a bargain!!
- Run by dedicated hi-fi engineers and enthusiasts.
- Hi-Fi World has become famous for its informative reviews and radical kit designs.

**FOR BACK ISSUES ENQUIRIES PLEASE CALL**
01442 879097
OVERSEAS
+44 (0) 1442 879097

---

**YES! I want to subscribe to Hi-Fi World for:-**

- £40.00 for 12 months plus 1 free issue (UK only)

**Your Details**

<table>
<thead>
<tr>
<th>Title</th>
<th>Initial</th>
<th>Surname</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Address

<table>
<thead>
<tr>
<th>Post Code</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

Daytime Tel:

Start Issue

Delivery Address (if different)

<table>
<thead>
<tr>
<th>I would like to pay by cheque made payable to Audio Publishing Ltd.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

Please debit my VISA ☐ MASTER ☐ MAESTRO ☐ AMEX ☐ CARD (SWITCH)

Security No: ☐ ☐ ☐ (last three digits printed on the signature strip)

Valid from Date: ____/______ Expiry Date: ____/______

Switch card issue No: ☐ ☐

Cardholder Signature: ____________________________

**Please choose service:-**

- EUROPE Airmail £50.00 ☐
- OVERSEAS Airmail £70.00 ☐

**Send this form to:**

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

---

**FOR OUR ON-LINE MAGAZINE SEE P54**
Jailhouse Rock

All the way from Memphis come the Eggleston Works Isabel loudspeakers. Adam Smith dons his blue suede shoes and takes a listen.

When thinking of great names from Tennessee, Elvis Presley and Graceland would immediately spring to mind, possibly closely followed by Jack Daniels. I suspect, however, that loudspeaker manufacturers would not be high on the list for many of us here in the UK, but this could well be ripe for change.

Since 1992, Eggleston Works have been manufacturing loudspeakers, and are rightly proud that their factory in downtown Memphis is very close to "the birthplace of Blues and Rock 'n' Roll". Each loudspeaker is built almost entirely by hand, making use of top quality materials, assembled with great care and attention to detail. As an example, each cabinet is constructed using two MDF panels, each of which is five-eighths of an inch thick and glued together with viscoelastic damping material.

All loudspeakers are then hand-finished in an eight hour process that uses over a dozen different specialised polishing and finishing tools. As if this was not enough, the finishing touch is a granite slab carefully aligned and affixed to each side panel. This confers superb rigidity to the cabinet and is aimed to virtually eliminating cabinet colouration.

With a range currently consisting of eight loudspeakers and stretching up to the impressive 'Ivy', weighing in at no less than 360kg and sporting a rather astonishing twenty three drive units (only eight of which are visible!), Eggleston Works can offer a comprehensive selection of models to suit virtually all pockets and rooms. However, our pockets are quite shallow here at Hi-Fi World, so we elected to listen to the babies of the range, the Isabels. With a price tag of £2,299 these are compact standmounting loudspeakers that include matching bases in their price.

A two way design, the Isabels make use of Eggleston Works' universal six inch (150mm) bass/midrange driver that features a polypropylene cone, double magnet motor unit and a three inch (75mm) voice coil for good power handling and reduced distortion. Most unusually, it is run full-range with no crossover, which requires a very careful design in order that the cone does not become aurally offensive when it enters its breakup region (which, of course, a crossover filters out).

This is mated to a one inch (25mm) soft dome Dynaudio Esotar tweeter, filtered via a simple hard-wired crossover. A single set of input terminals are provided and, thanks in no small part to those granite side panels, the Isabels weigh a considerable 25kg. Connected up to our test system that includes Quad QC24 and II-Forty amplifiers, a Cambridge Azur 840C CD player and an Eastern Electric Minimax phono stage fed by vinyl sources including our Pioneer PLC-590/SME M2-10 and...
is to ensure that it is supported well on a sturdy and acoustically inert stand. Unfortunately things did not get off to a promising start with the Isabels as their bass was boxy with a noticeably 'honky' nature. Kevin Akam from Signature Audio advised that mass loading the bases was a good idea, which did indeed improve things. However, for review purposes I set the speakers up on a pair of conventional 60cm Sound Organisation stands and this elicited the best results from them.

As suspected from the measurements taken (See MEASURED PERFORMANCE) the bass from the Isabel loudspeakers was not the deepest around, even given their cabinet size. Fortunately what was there was tight, punchy and tuneful, and they never sounded lightweight. This integrated well into the higher frequencies and it was here that the granite side panels paid dividends as the midrange was very clean and detailed with no boxy colouration. The soundstage set up by the Isabels was surprisingly capacious and they offered a sense of scale that one generally only experiences with larger loudspeakers. Listening to Emmylou Harris’s ‘Jerusalem Tomorrow’, her vocals had a rich fluidity to them and she was sat perfectly centre stage, with the accompanying double bass thumping gently away behind her. Treble was very sweet and clean, yet well detailed, the rise in output towards 20kHz clearly helping here. Percussive effects such as cymbals were free from any unpleasant ‘zing’ but had good realism and body to them. Once again the clean nature of the midband came to the fore and worked well with the higher frequencies to ensure that all details were retrieved and presented well.

Steve Earle’s ’Copperhead Road’ recording can become quite harsh and muddled through some loudspeakers but I was pleased to hear that the Isabels did not fall into this trap, remaining composed and unflustered throughout the CD. On a couple of occasions it would have been nice if they had let rip a little more but, on the whole, their innate sense of polish and precision is enjoyable.

CONCLUSION

The Eggleston Works Isabels have a very poised nature and they excel on acoustic and atmospheric music. They also seemed to suit vinyl very well, thanks to their expansive soundstage.

The only area in which they seem to hold back somewhat is when the pace of the music steps up a gear or two, as they are not the ‘rockiest’ speakers around, despite those granite sides! That said, they never became jumbled or congested, as I have heard some loudspeakers do, they just never seemed to dig totally into the heart of the rhythm.

Ultimately, however, the Isabels are a well considered design that have a very enjoyable sound. Their accomplished and sophisticated performance speaks volumes for the technology used in their cabinet construction and driver technology, especially given the crossover-less nature of the main drive unit.

MEASURED PERFORMANCE

The Eggleston Works Isabel loudspeakers have a slightly uneven nature to their output but not in areas that cause concern. The lift in midrange output from 600Hz to 1kHz will add presence and details to vocals, but the flat response just above this should minimise any harshness in this area. Treble output rises steadily above 10kHz which will add detail and sparkle to the sound.

Bass output starts to roll off at 150Hz and the port is tuned to around 100Hz, meaning that earth-shattering bass will not be on the agenda. That said, the port is rear-mounted and so will enable fine tuning via judicious positioning.

Measured sensitivity was fine for a small loudspeaker at 85dB and the Impedance curve shows a smooth and well damped response. Average impedance is 9.1 Ohms, dipping to a minimum of 7 Ohms. The Isabels will not be difficult to drive and should work well with around 40-50W.

FREQUENCY RESPONSE

Green = Driver output
Red = Port output

IMPEDANCE

VERDICT

Stylish and well designed loudspeakers with an impressive soundstage. The Isabels perform consistently with a wide variety of music.

EGGLESTON WORKS
ISABEL £2,299
Distributed by Signature Audio
+44(0) 208 480 3333
www.egglestonworks.com

FOR
- Build quality and finish
- Excellent soundstaging
- Well balanced performance

AGAINST
- A little polite at times
- Perform better on stands other than those supplied
The NEW Shadow Audio Online Shop

No matter what time of day it is, you can now buy selected products and a large range of accessories online at www.shadowaudio.co.uk from the comfort of your own chair...

Selected products for Online purchase include:

SELECTED ACCESSORIES:
- Analogue
- Cables
- Cleaning
- Mains Conditioning
- Isolation / Support
- Room Acoustics
- Storage

SELECTED PRODUCTS:
- Amplifiers
- CD Players
- Loudspeakers
- Tuners
- Turntables
- Audiophile Recordings (CD, Vinyl)

SELECTED BRANDS:
- Apollo
- ART Loudspeakers
- Black Rhodium
- CEC
- Clearaudio
- Custom Design
- Eastern Electric
- Eclipse Speakers
- JAS Audio
- IsoTek
- Nordost
- Slim Devices
- Turtle Records
- VPI & more to come...

www.shadowaudio.co.uk
"Subwoofers can work very well when carefully operated"

Adam Smith

The annual Bristol Hi-Fi Show took place on the weekend of the 23rd to 25th February, and as can be seen from our show report on page 90, there was some very nice equipment there, making some impressive sounds. I have been attending this show since the late 1980s when I first graciously allowed my father to chauffeur me there for the day and I have only missed one or two since then. It was interesting to be working the show from the 'other side of the counter' as it were, for the first time and it was nice to meet so many keen Hi-Fi World readers in person.

From my new perspective, it appears that attendees cover a wide spectrum. For every few people who wander round with wide eyes and a childish enthusiasm for the shiny things on display, there is a healthy cynic casting a Roger Moore-style raised eyebrow over things. I am also informed by one or two manufacturers that there are a few punters whose sole purpose for visiting seems to be to tell them where they are going wrong in their design/marketing/sound quality, but I like to think that none of our fine readers fall into this bracket!

From my own perspective, I have always enjoyed the show and listening to the equipment on demonstration. There are inevitably both good and bad demonstrations to hear, but I cannot help noticing what appears to be a depressing trend developing; namely the curse of bad subwoofer bass.

Since the first tentative steps taken by multi-channel surround sound setups in the early days of Dolby Surround, the subwoofer has been an integral part of a multi-channel system. In the early days, quite a few were little more than big drivers in floppy boxes that rumble your sofa suitably during explosions, but there has been an increasing drive towards more competent units in recent years.

The growth of the home cinema section of the industry has seen many people throw out their old music centres, mid systems and the like, and replace them by one or two boxes that will handle multi-channel DVDs as well as good old fashioned stereo CDs, DAB and FM radio. As a consequence, the set of surround sound 'speakers now has to be of sufficient quality to cope with two channel music and the subwoofer has moved up greatly in importance from its main role as sofa-shaker.

So, it is now possible to wander round a show such as Bristol Sound and Vision and listen to glorious stereo sound from these all-singing and all-dancing surround systems, correct? Well...it would appear not. This is now the second year running that I have been thoroughly depressed by the wallowy, soggy, limp and occasionally downright boomy bass coming from a great deal of the rooms. I have spent time both designing and listening to subwoofers and I know there are some good ones out there, but I am not surprised that a great number of the hi-fi fraternity frown upon them judging by many at Bristol this year.

Leaving aside the designs themselves, a great deal of the problem is in the integration of the sub to the main loudspeakers and its positioning. I remember an episode of Channel 5's "Gadget Show" a year or so back that was testing surround sound systems of various price levels. The thing that depressed me the most was the presenter saying that the position of the rear 'speakers is vital in such a system and insinuating that the subwoofer could be dumped virtually wherever you like. I personally feel he put these two precisely the wrong way round and it is no wonder that the portion of the general public who are less hi-fi aware think that real bass involves boom, thump and not much else.

The rear loudspeakers in such a setup carry comparatively little information, yet the subwoofer carries the signal that underpins ALL of the other channels, be there another four, five or even six. Things become even more critical in stereo where the subwoofer not only has to provide suitable low frequency accompaniment to the stereo 'speakers but needs to effectively 'disappear' whilst doing so. If the bass is wrong, then there is a reasonable chance that a fair chunk of the frequency range will be wrong. Now at this point many people will rightly point out that a hotel bedroom is hardly an ideal location for a hi-fi or surround sound system setup and I would agree up to a point. However if this were the absolute truth then there surely every single system at such a show would sound bad, which is simply not the case.

It seems to me that some dealers (and even the odd manufacturer...) could do with a lesson in subwoofer setup and integration as they should be - like children - seen and not heard! If you can sit in a demonstration, shut your eyes and tell which direction the bass is coming from, then the subwoofer is not doing its job properly, and I can recall only two rooms at the 2006 Bristol show where I heard sound-on-integration - a rather saddening statistic.

Contrary to what some die-hard audiophiles would have you believe, subwoofers can work very well when carefully operated and are more than just glorified explosion makers. In many ways they can be like vinyl, in that the more time and care is taken with their setup, the more they will reward. It is a pity that comparatively few users have the inclination to explore their abilities and settle for copious quantities of boom and thud. Mind you, quite a few appear to enjoy this, so perhaps I should stop interfering...
Hi-definition audio

Explore your senses with the ultimate in world class Hi-Fi

Visit www.naim-audio.com for details of your nearest retailer
or email info@naim-uk.com
"we could see a genuine revolution in wireless loudspeakers..."

dominic todd

I

ever there was a divisive issue with hi-fi separates, it would be cables. Some believe they make a huge difference, others none whatsoever. Most of us take the middle ground and realise that wires help fine tune a system and can make a discernible difference, but not to the extent that their value should exceed the cost of the original hardware – as, unsurprisingly, advocated by some cable manufacturers...

Yet there’s another issue here, and that’s that some people don’t like the idea of wires at all. When I worked at the ‘coal face’ in hi-fi retail, the number of system sales I saw fall through because of disapproval from the significant other was… significant. Disapproval came, as many of you will know, from not the sound of a system but its size, aesthetics, colour and, yes, the tangle of wires involved. To maintain cohabitation then, a compromise often has to be struck. So it was with interest that I viewed the latest selection of wireless products at the recent Bristol hi-fi show.

Wireless speakers aren’t a new phenomenon, but I noticed a more serious presence this year than ever before. Before Wi-Fi, wireless speakers used infrared or radio frequencies and were, let’s face it, pretty awful sounding. The advent of Wi-Fi has made a big difference, and a few years ago we began to see home cinema system designs launched. Rather than awful, the sound quality was now just about tolerable. Whilst these loudspeakers were a long way from what would be deemed acceptable by an audiophile, by comparison with their peers, they weren’t all that bad.

Now we have the audiophile wireless loudspeaker – or at least that’s what the manufacturers claim. Whilst at Bristol I came across two floorstanders that offered wireless connections. The eagerly awaited Canton CD3500s sign in at £2,000 a pair. This is hardly budget territory, and puts them straight up against the likes of the hugely impressive (wired) Yamaha Soavos. So how did they sound? Well, not too bad actually. Bass was strong and there were decent levels of transparency. The only problem with these German boxes is that they use aluminium treble, midrange and bass units with, erm, an aluminium cabinet and base plinth. As you can imagine the sound quality is rather metallic at the best of times, and certainly on the bright side of neutral. In conclusion, the CD3500s sound like a decent pair of £500 floorstanders, but are not a true rival for the best wired rivals at this price.

Offering a completely different sonic perspective were the intriguing Free loudspeakers. Like the Cantons, these compact floorstanders offer built-in digital amplification, thereby negating the need for further amplification. Finished in satin white or black, it’s not hard to see the Apple market as a major potential customer. Yet, unlike the vast majority of the Apple coat-tailers, these speakers showed considerable audiophile potential. Designed to work with the Apple Airport Express or Sonos ZP80, the Free ’speakers are actually built by the highly respected PMC.

With a single, cast magnesium chassis bass cone and soft dome tweeter, the sound quality was a million miles away from the Cantons. Whilst not quite as explicit, it was smooth, harmonious and exceptionally well integrated. The bass couldn’t match the Soavo, but considering the smaller size, this is no great surprise. Considering the limitations of wireless transmission, they actually sounded quite good.

Granted, a typical wired speaker at £2,000 would still sound better, but the Frees certainly more than hinted at the technology’s potential. Consider the cost saving from not having to buy an amplifier, loudspeaker and interconnect cables, and I could see how these will appeal to a small, but significant, section of the hi-fi market.

Now we come to the major downside, Of course, although both these designs purport to be wireless, they are in fact anything but. Both use active amplification and therefore require mains cables to each box. The Frees have the power socket underneath so that if one was to rewire from scratch one could place a mains socket beneath each box, thereby giving the effect of a totally detangled speaker. Yet, this could be a costly solution, and one that many wouldn’t be prepared to stretch to. In short, it’s not the sound quality limitations - which are improving all the time - which limits the appeal of wireless loudspeakers, but the mains cables. Late last year the boffins at the Massachusetts Institute of Technology announced that they were working on a wireless power transmission system. At the moment the system is still at the theoretical stage and many believe they are a long way from actually implementing the technology.

Were this to ever get off the ground, we could see a genuine revolution in wireless loudspeakers, much as we did with Digital cordless phones a few years ago. Could this be the end of the road for the traditional amplifier and loudspeaker cable? Well, I think we’re a long way off that yet, but the advent of the decent sounding, entirely wire-free loudspeaker is now less of a figure of science fiction than ever before. Watch this space...
Lucy just couldn’t understand Tom’s sudden lack of interest in an early night.

Superb Hi-Fi ......

Just a little more desirable than the norm.

Distributed in the UK by: Henley Designs, 01235 511166, www.henleydesigns.co.uk, mial@henleydesigns.co.uk
For fans of audiophile vinyl records, there exists a rift. It may be not dramatic and has yet to result in violence, but it's still very much there.

On one side of the fence are those music fans who believe that an old recording, if reissued in an audiophile wrapping, should retain the original sound, essence and atmosphere. That means the original processing and effects - compression, EQ settings, and the like - were laid upon the production masters to form the post-production or mix master that became the final sound the public heard at the time via their transistor radios and Dansette record players.

What these fans want is, in effect, a new original. Almost as if they were stepping back in time and buying the original record when it was released in 1963, or whenever.

One such advocate of this philosophy is Bob Irwin, MD for the audiophile record label Sundazed, based in the USA. He loves his original mono versions of the Byrds, reissued in 2005. "Each record offers a unique listening experience in mono. I feel as though we perfectly captured the feel, warmth and texture of the original mono Columbia 1A pressings of these records. Also, the artwork closely mirrors the original album covers - that, too, is a part of the equation that we take very seriously."

That's fine, if you like that sort of thing. The problem is, we live in the twenty first century and we can do wonderful things with music now that they could not do back in the 1960s.

Audiophile record label, Speakers Corner' MD, Kai Seemann, based in Germany, sits on the opposite side of the fence. In fact, when he is about to remaster an old original, unlike many other labels, he refuses to introduce an original copy of the record into the studio to act as a reference. A move I am wholly in favour of - and this is why...

"I try to avoid the A-B comparison with an original album because the studio engineers may want to copy what the original mastering engineer had done in the past - consciously or subconsciously. I want my mastering engineers to make the best out of the original master with their currently available equipment. I don't want to make a copy of the original. Maybe the original was good - maybe not. Sometimes it was equalised very heavily to accommodate the turntables of the time but that's not what I want. I want the engineers to listen to the tapes and make the very best of it for today's turntables."

To labour the point, it was as if Wes Montgomery and Jimmie Smith, whose Dynamic Duo vinyl LP I review in the audiophile vinyl column in this issue, had recorded their album this year and took their master to the top US-based mastering engineers, Acoustech, who are now using only their judgement and latest equipment, nothing else, to master the album.

"This is a record which is not dramatically rare - you can buy it for $20-$30 on eBay," added Seemann. "What sense would it make to produce a new reissue that sounds exactly the same as the original? We can bring something new to it. Why wouldn't we do that? If you want the original then it is not that difficult to find an original in good condition. If you want to listen to the original sound then that's fine, do it."

The Speakers Corner philosophy is that, in the 1960s, if the engineers could have mastered records with the technology that we have now, both the original and reissue would sound the same. The artists would have backed them up 100% too. Of course, it is not always possible to do that because original masters are not always available or are damaged or worn in some way but, if we can do better, why not do better? Why limit ourselves by the original pressing which is not always great to begin with?

Take the current generation of cutting lathes, for example. The models cutting engineers use today were first built during the 1980s, so they're not exactly current technology. However, the better lathes, Neumanns for example, are mechanically very rigid, much more rigid than anything available in the 1960s. This means you can introduce much higher sound levels and more dynamics. "As it was," said Seemann, "in the sixties, the standard of recording was much higher than the standard of reproducing so the energy and information was already in the tape but they were not able to reproduce records properly. In a lot of cases they made very large compromises to get this energy on the record without the turntable, which would track the record sooner or later, distorting or jumping. The record deck, at the time, was the big bottle neck."

American-based audiophile label Classic Records has a favourite slogan: 'remember the sound'. "What we want," concluded Seemann, "is more like 'remember the feeling' because that is what is in the tape. If we can extract more of that feeling that is in tape, why shouldn't we do that?"
Walrus
Exciting New Products
From Around The World.
Available Now At Walrus.

MBL 111 RC
'Dieses ist nicht ein Dalek aus Deutschland?!
Of course not! This is the MBL 111RC loudspeaker.
Here at the shop, we have the even more amazing looking full-range model, the MBL 111E Radialstrahler-Hybrid System loudspeakers available for audition.
Also available for demo too is MBL's top of the range CD Player, the MBL 1531.
Wirklich wundervoll, yah...!”

Basis Audio 2500 Signature

Horning Agathon Ultimate
Remember when you were taught never to judge a person or an object by its look?
The Horning Agathon Ultimate is a classic example. The technology involved with these loudspeakers is so complex that we decided its best for you to read about them on the web. No doubt you'll also come across the excellent reviews too. Wait till you see the back of the loudspeaker; looks nothing like the back of your fridge...

Emille is a new brand from Korea. As it turns out the Emille KI-240 is one of the best sounding valve-powered integrated amplifiers available in the UK today. We are sure you'll agree with Emille KI-240

Musically satisfying... modern yet romantic is what comes to mind when describing the sound of this new valve driven line stage preamplifier, the Melody Pure Black 101D.

The new Shanling CD Player, CD5-500, is visually so striking that we thought it best for you to come and see it in the flesh. Meanwhile we can show you what the national flag of China looks like!

The Music First Audio Passive Magnetic Preamplifier has been winning awards and accolades for the last year or so. Walrus was one of the first dealers in the UK to demonstrate its virtues.

We've just taken delivery of the latest Basis Audio 2500 Signature Turntable, as if there are not enough turntables at Walrus already! No doubt some of you might think it looks and sounds just like another brand of fashionable turntable in acrylic these days! Well, you'll be wrong. For an example, what look like 4 ordinary aluminium legs turn out to be very sophisticated, user adjustable, oil-damped suspension towers...

The real Simon Yorke with his S7 Turntable and Tonearm system.

Shop : 11 New Quebec Street
London W1H 7RW
Web : www.walrus.co.uk
Email : contact@walrus.co.uk

Walrus' New Mascot

Phone : +44(0)20 7724 7224
Fax : +44(0)20 7724 4347

Phone: +44(0)20 7724 7224
Fax : +44(0)20 7724 4347
Shop : 11 New Quebec Street
London W1H 7RW
Web : www.walrus.co.uk
Email : contact@walrus.co.uk
The public service broadcasters and some of the TV equipment manufacturers and retailers have launched a campaign called "HDforAll", with the aim of "lobbying Ofcom, Government and other stakeholders to ensure that enough spectrum is reserved to enable the BBC, ITV, Channel 4 and Five to broadcast in high definition [on Freeview]."

The spectrum in question consists of fourteen UHF channels that will be freed-up once analogue TV is switched off in 2012/2013, and the dispute is over the fact that Ofcom wants to auction this spectrum to the highest bidder; and the broadcasters fear that the mobile phone networks will outbid them for it.

The crux of the disagreement is that Ofcom says that the 'big 5' TV channels could transmit in HD on Freeview, but the broadcasters say that this could only happen if there is a significant reduction in [the] quantity and quality of existing standard-definition TV channels.

HDTV channels are expected to use bit rate levels in the region of 8 – 10 Mbps once developers have gained more experience with the new MPEG-4 H.264 video codec that is used for HDTV; so to transmit the 'big 5' TV channels in HD would require 40 – 50 Mbps of capacity.

Once analogue TV has been switched off the transmitter powers of the Freeview multiplexes will be increased, which will lead to the overall Freeview capacity to increase from the current 120 Mbps to 144 Mbps. Also, ITV now owns the multiplex on which pay-TV service Top-Up TV transmits, so it will be able to reclaim all of that capacity when Top-Up TV’s contract ends in 2010; the BBC has quite a lot of spare capacity on its multiplexes; and there are some channels that, in my opinion, are simply wasting space, such as E4+1, which is just E4 delayed by an hour.

So there will be sufficient capacity to allow HD versions of the 'big 5' TV channels to launch once analogue TV has been switched off, which suggests that the broadcasters have an ulterior motive for wanting this spectrum — apart from the obvious reason that if the government gives it to them it's cheaper than having to bid for it in an auction.

First of all, the BBC, ITV, Channel 4 and Five inherently favour Freeview, because their channels account for the vast majority of all Freeview viewing, whereas on Sky and cable their share of viewing is much lower due to the large number of channels available. So, personally I think they want this additional spectrum because it will allow them to transmit some of their other channels in HD as well as the 'big 5', and they hope this will discourage users from switching to Sky or cable to get their fix of HDTV.

The BBC also has an additional and important reason for favouring Freeview. This can best be explained by considering Greg Dyke's candid admission that the rationale behind the launch of Freeview was to flood the UK market with set-top boxes that don't have card slots, because the absence of card slots rules out subscription payments, which is an alternative means of funding the BBC; so this would ensure that the BBC could hang on to secured funding via the Licence Fee for another decade or more.

I'm very much in favour of HDTV, but I think it would be wrong to donate this spectrum to the broadcasters for a number of reasons.

Firstly, the "sweet spot" for mobile applications consists of the frequency range from 300 MHz to 3 GHz. So terrestrial TV is consuming around 400 MHz — or 15% — of this prime spectrum even though it could be transmitted at far higher frequencies.

Secondly, the UK rushed into launching terrestrial digital TV and used the '2K' DVB-T mode (DVB-T is the standard used for Freeview) when they could have waited just a few months to use the '8K' mode, which would have allowed the spectrum to be used far more efficiently than at present. So is it right that the broadcasters should be bailed out because they've made bad technology decisions in the past?

Thirdly, the BBC R&D department recently published results of tests using a technology called 'MIMO' along with DVB-T — which could form the basis of a new DVB-T2 standard — and the results indicate that the capacity on Freeview could be doubled, albeit that users would need to install a new aerial.

This last point seals it as far as I'm concerned, because a doubling of the capacity would allow around 30 – 35 TV channels to broadcast in HD on Freeview, so the freed-up spectrum could be used for applications such as mobile TV and mobile broadband Internet instead.

If the backers of the HDforAll campaign want this extra spectrum to launch more than 30 – 35 HD channels so that Freeview can better compete with the other digital TV platforms they should collectively bid for it in the auction. If they lose, they didn't value it highly enough.
Some decisions are just so simple

WHAT Hi-Fi? SOUND AND VISION AWARDS 2006
PRODUCT OF THE YEAR STEREO AMPLIFIERS
ROKSAN KANDY L.III

Distributed in the UK by: Henley Designs, 01235 511166 www.henleydesigns.co.uk, info@henleydesigns.co.uk
It was the April 1993 edition of Hi-Fi World that featured a Garrard history, along with the revival of my Garrard 401 turntable. It was serviced by Dr. Marin Bastin and fitted to one of his sturdy plinths, along with a new SME312 12in tonearm. That issue sold out.

To this day I use the same turntable and arm; it sits in the lounge next to me. I have a Leak Troubleshine, tuner now in need of a service I have to admit, so not in everyday use. You might think then, as I know many do, that I am a real classic hi-fi enthusiast, but I am not! Quite the reverse, in truth. A lot of engineering from the past is best preserved, as a reminder of how things were, to give us some appreciation of how far we have progressed and how much better products are today. And that includes old hi-fi.

I love our industrial past, as many engineers do, and you'll catch me staring in awe at, for example, the S.S. Great Britain (see www.ssgreatbritain.org) that we visited recently. I well know how lovely the 22/11 amplifiers, such as the 405. Electronic components were often little better than the shaky connectors used.

You are on the look out for an old cartridge? Why? Inside lie two prodigious coils of fine wire, 'fine' meaning thin, not good. It wasn't selected for its 3ns purity twenty years ago, but was wound on copiously to compensate for the weak magnets of the time. Now, with Neodymium magnets and better magnetic circuits today's cartridges don't need coils inside to rival those from Japan. The detail engineering somehow captures the Zeitgeist. Even Quad eventually admitted that poor electrolytic capacitors seriously compromised their early amplifiers, such as the 405. Electronic components were often little better than the shaky connectors used.

Wind on to the 1970s and you still find most electronic equipment peppered with this stuff. Tiny input sockets and multi-pin power connectors used on this amplifier were found everywhere else too. I well know how lovely the 22/11 sounds and I should really have a pair in the loft, but I don't. Mine departed to an eager owner long ago.

There are a few golden oldies just as his was pretty crude, as basic in the way it was put together as the Great Britain.

The market for high quality audio began to develop in the 1960s and it's from this time that old classics I have used - and soldered - have come. Most notable was a Quad 22/11 amplifier. This dear old thing does have a lovely sonic flavour: measure it as I did after restoration and you soon find out why. The small output transformers really aren't up to much by modern standards. Peter Walker openly admitted they limited low frequency output (i.e. would not produce much bass) to protect the Quad ESL57 loudspeaker. At least, that's what he said... I sometimes wondered whether he simply found justification for the stringent cost cutting often used by Quad, behind the expensive fascias. If this was the case, then it was only the spirit of the time, because the rusty tin plated input sockets and multi-pin power connectors used on this amplifier were found everywhere else too. I well know how lovely the 22/11 sounds and I should really have a pair in the loft, but I don't. Mine departed to an eager owner long ago.

This was also the age of that loudspeaker screw terminals that poor electrolytic capacitors had to be connected to. At least you can still find these when looking for an old Quad 22/11 amplifier. It may have been the April 1993 edition of Hi-Fi World that featured a Garrard history, along with the revival of my Garrard 401 turntable. It was serviced by Dr. Marin Bastin and fitted to one of his sturdy plinths, along with a new SME312 12in tonearm. That issue sold out.

To this day I use the same turntable and arm; it sits in the lounge next to me. I have a Leak Troubleshine, tuner now in need of a service I have to admit, so not in everyday use. You might think then, as I know many do, that I am a real classic hi-fi enthusiast, but I am not! Quite the reverse, in truth. A lot of engineering from the past is best preserved, as a reminder of how things were, to give us some appreciation of how far we have progressed and how much better products are today. And that includes old hi-fi.

I love our industrial past, as many engineers do, and you'll catch me staring in awe at, for example, the S.S. Great Britain (see www.ssgreatbritain.org) that we visited recently. I well know how lovely the 22/11 amplifiers, such as the 405. Electronic components were often little better than the shaky connectors used.

You are on the look out for an old cartridge? Why? Inside lie two prodigious coils of fine wire, 'fine' meaning thin, not good. It wasn't selected for its 3ns purity twenty years ago, but was wound on copiously to compensate for the weak magnets of the time. Now, with Neodymium magnets and better magnetic circuits today's cartridges don't need coils inside to rival those from Japan. The detail engineering somehow captures the Zeitgeist. Even Quad eventually admitted that poor electrolytic capacitors seriously compromised their early amplifiers, such as the 405. Electronic components were often little better than the shaky connectors used.

Wind on to the 1970s and you still find most electronic equipment peppered with this stuff. Tiny input sockets and multi-pin power connectors used on this amplifier were found everywhere else too. I well know how lovely the 22/11 sounds and I should really have a pair in the loft, but I don't. Mine departed to an eager owner long ago.

There are a few golden oldies around that do a great job even today, like the Garrard turntables, but otherwise I feel today's products are better engineered and less expensive than most oldies. I love the past, but I am no romantic and don't feel it is better.
JIMMY SMITH & WES MONTGOMERY
Jimmy & Wes: The Dynamic Duo
Speakers Corner/Verve

This album was the result of a large session. In fact, so large, two albums were created from it. The second was called 'Further Adventures Of Jimmy And Wes'. Kai Seemann, MD for Speakers Corner, explained that, "we initially tried to make a double album featuring both records but a lot of tracks were damaged on the original tape." Now comes the spooky bit. To create the two albums, the original record label Verve didn’t just cut the session in half, assigning the first half to one album and the second half to another album. What happened was that the label actually filtered through each track and, for example, said, 'the first track is for album X, the next two are for album Y, the next one is for album X, the next one is for album Y' and so on. However, strangely, "all the tracks for the first LP, which we have now, have survived and almost none of the second album has survived. So our initial double album plan had to be stopped. I have no satisfactory reason why this has occurred because I have used other tapes from the same supplier, recorded at the same time and probably stored next to each other".

Jazz-based conspiracy theorists could have a field day with this one, although I’m reliably informed that the Verve studios never contained a grassy knoll. 'The Dynamic Duo', excellently mastered at Acoustech in the USA, is a superb album and a must for any jazz fan, the pair compliment each other superbly. Smith, who revolutionised the Hammond organ in jazz, smooths out Montgomery’s biting guitar runs but there’s lots of time and space for crowning solos that take the breath away. Genius.

STEVIE RAY VAUGHAN
Texas Flood
Pure Pleasure/Epic

This is not the first Stevie Ray album from Pure Pleasure. 'Couldn’t Stand The Weather' sold so well and was so well received that a ‘sequel’ was always on the cards. This release utilises the original master tapes, direct from Sony’s archives in the USA. However, masters are not allowed to leave the country so, said Pure Pleasure MD Tony Hickmott, ”Sony actually created a flat copy for me onto a fresh reel of analogue tape. The original, which was laid down in 1983, was in good condition so the copy was quickly made for me". Originally, Vaughan would have recorded the album to a multitrack tape. This tape would hold the bare musical information, without any studio enhancements. From that, the engineer would change the balance of the instruments, add any effects and then commit that to another tape known as a post-production or mix tape. This mix tape is the copy that Hickmott was given to work with. "I then passed this tape onto my mastering engineer, Ray Staff at Alchemy, based in the UK. His job is to either equal the quality of the original or surpass it."

Vaughan’s best album, this release started the eighties blues
revival. The final release is up to Pure Pleasure’s high standards. In fact, it has that classic seventies rock album feel: warm, tight bass with vocals allowed to distort on occasion, ‘tingy’ cymbals and the odd screeching guitar. Intriguingly, this edition is a double album - disc 1 is the original album whilst disc 2 is an analogue version of the bonus tracks released with an earlier CD release. This is the very first time the bonus tracks have ever appeared on vinyl.

MIGHTY BABY
A Jug Of Love
Sunbeam Records/Blue Horizon

The keyboard player for the original band, Ian Whitman, who now lives in Spain, revealed that he owned a master tape for this particular album. Sunbeam MD Steven Carr was delighted. “He didn’t have the original master. I think the multitrack was mixed down to a 2-tracker and he probably had the safety copy or something - which was more common at the time. The condition wasn’t bad, I was quite surprised. It played straight through. I’ve done stuff, using tapes from Abbey Road, where the edits have popped like nobody’s business. This one was fine, though.”

Carr is not a fan of supportive band members “The last thing you want is a band member being of practical help, because they tend not to be. Most musicians have got cloth ears and the rest are half mad. Band members also want whatever they’ve done to sound the loudest.”

Toting progressive and psychedelic licks and with definite West Coast vibes: a thread of beautiful harmony here, a Jerry Garcia-like guitar solo there, the English derivation is, however, stamped onto the work. This is the band’s final album, sounding almost like ‘Meddle’-era Pink Floyd. It rambles on a bit but this is still an excellent disc, presenting enough colours and tones to keep you interested. The vinyl is contained within a sturdy gatefold which features an interview printed on the inner sides with photographs and other record illustrations.

JOHN ENTWISTLE
Smash Your Head Against The Wall
Earmark/Track Records

One of the most important and distinctive bass players the world has ever known, before him bass players were part of the stage wallpaper. Entwistle was the calm amongst the storm that was the rest of The Who yet his bass work was musically complex and physically demanding. As The Who’s guitarist and songwriter Pete Townshend said, “you quickly got the feeling that, yes, he’s playing the bass but he’s not really playing the bass. This is something else. He realised that he had the power to change the f**king instrument!”

Entwistle had shown his songwriting credentials during his time in The Who with the likes of ‘Boris the Spider’, ‘Whiskey Man’ and ‘My Wife’. This, his first solo album released in 1971 was his best. Not surprisingly, the album had a strong Who sound and influence. It also allowed Entwistle to spread his wings. For example, in ‘Pick Me Up’ he plays the whole horn section – many fans were unaware that Entwistle had been trained to play the French Horn at a young age along with the piano!

In many ways, it was a dark album but with superb melodic lines. This Earmark release has been mastered onto 180gm vinyl and set within a gatefold cover. It features the original album only so doesn’t include any extra tracks, such as the Repertoire 1996 CD issue which adds “Cinnamon Girl”. The Earmark release is big and bold with drums and bass to the fore and the vocals hovering over the instruments. It’s not so much heavy rock as big rock. The cut is pretty quiet too which is welcome. All in all, this is a recommended release, especially as original vinyl copies are not too thick on the ground.

CONTACTS:
Diverse Vinyl
+44(0)1633 256261
www.diversevinyl.com

Stamford Audio
+44(0)1223 894999
www.stamfordaudio.com
Still loving music as much as you!

Due to it's continued success!

WINTER SALE CONTINUES...

Committed to bringing YOU the very best and latest of Audiophile releases!!

Following the success of the Hercules Power Supply, Stamford Audio are pleased to Announce the Hercules is now also available from the following dealerships:

Audio T, Grahams, Doug Brady Hi Fi, Billy Vee, Sound Gallery and Cynbiosis of Leicester.

Best Sellers - March

FOR DETAILS ON ANY OF THE ABOVE PLEASE PHONE US OR VISIT OUR WEBSITE

Please note with immediate effect ALL music has been transferred to Stamford and all orders will be despatched from there. To visit, the shop is situated in the middle of Stamford, just look for Richman of Stamford, where Gordon, Simon and the Team will look after your audio needs!!

Stamford Audio Ltd, Unit H3, The Mount, Cardinals Green, Cambridge CB21 4QX
Tel: 01223 894999 Email: www.stamfordaudio.com
Presto!

With nearly 5,500 stations, fine sound and freedom from DAB woes, the MagicBox Imp is an automatic choice for radio fans, says Steven Green...

Just like the Acoustic Energy Wi-Fi Radio with which it shares seemingly identical dimensions, the £129 MagicBox Imp is very compact, measuring just 4.5in square on its base. It's very attractive too, with an iPod-esque white plastic and aluminium colour scheme and that eye-catching tapered front-panel housing a blue display and scroll wheel.

Setting up was quicker and simpler than I had expected, consisting only of switching the radio on, scanning for Wi-Fi networks and entering the security key for my wireless network (both WEP and WPA are supported), with the whole process only taking a couple of minutes before I was free to start listening to radio stations.

The Internet radio stations available are sorted alphanumerically by genre or by location, but with around 5,300 stations available, searching for individual stations was a chore, as the lists are so long. However, a new feature called My Stuff has been added that largely obviates the need to do a lot of scrolling through these station lists. My Stuff allows users to add their favourite stations and the URLs of streams that aren't already listed to the My Stuff section of their account at Reciva's Internet radio portal (www.reciva.com — Reciva is the company that produces the modules) and enter the security key for your radio. But when I went to download and install it — both the My Stuff and a vertical scroll feature appeared following such an upgrade — this feature will allow Reciva to deliver support for more audio formats in future as well as to improve the operability of receivers.

In operation, the Imp performed reasonably well when connecting to most radio streams, but there were occasions when I felt it took too long in comparison to the time it took my PC to connect to the same stream.

The other side of the Imp is its media player, which allows you to stream audio wirelessly from your PC. Music started playing on the media player quickly once requested, but one drawback was that it inexplicably paused for a couple of seconds mid-track occasionally. Another slight grumble I had was that as the radio only supports the MP3, WMA, Real Audio, MPEG-2 AAC and WAV audio formats, this means that 95% of the audio on my PC wasn't supported! So I would hope that Reciva adds support for other commonly used formats shortly, such as FLAC, MPEG-4 AAC/AAC+, (file extensions .mp4 and .m4a), Ogg Vorbis and MP2.

SOUND QUALITY

When playing high bit rate MP3 files from my PC the sound quality was unusually excellent for a device with such a small speaker, delivering a pleasingly crisp and punchy sound. The radio performed best in the bass and midrange, but a slightly shrill treble let things down occasionally. As you would expect, the audio quality of Internet radio stations was highly dependent on the bit rate used, with the higher bit rate streams providing higher audio quality, and vice versa. The one negative issue as far as sound quality goes was that 128kbps WMA streams that use a technology called Intellistream were only being received at 32kbps, so the audio quality was reduced accordingly, but Reciva assured me that this issue will be solved in the near future.

Overall, I love this radio and the concept of Wi-Fi Internet radios in general, because it was a breath of fresh air not to be limited to the choice of stations available on FM and DAB, and the ability to stream audio from my PC to a portable radio was just the icing on the cake. Furthermore, as the firmware of Internet radios can be so easily upgraded, I'm inclined to be a little more forgiving of any current problems it has with the expectation that they will be solved in the near future.

WHAT IS IT?

A Wi-Fi Internet radio that works like a normal mains-powered radio, but which gives access to over 5,300 Internet radio stations from around the world, including over 500 from the UK. The Imp also allows you to play audio streamed wirelessly from your PC. To use an Imp, you need to have a broadband Internet connection, and a Wi-Fi router (if you need to buy one, the wireless router that seems to be almost universally recommended is the Netgear DG834G).

FOR
- future-proof
- range of stations
- sound quality

AGAINST
- connection time
- audio format support

VERDICT

A great concept and surprisingly good sound for its size, but not quite there yet.

MAGICBOX IMP

£129

MagicBox

C +44 (0)1959 565525

www.magicboxproducts.co.uk

MAY 2007 HI-FI WORLD
The Quad 99 series electronics and L2 series loudspeakers are a match made in heaven. Detail, accuracy and refinement all combine to present one of the most musical and insightful systems available – and with our new 99CDP-2, will integrate seamlessly into your digital world allowing up to 6* digital sources to benefit from our state-of-the-art DACs.

* CDP-2 includes 3 x Optical and 2 x Co-axial digital inputs.

"this system is something of a musical genius"
– What Hi-Fi? Sound and Vision

A new breed
Quad L2 series Loudspeakers

Quadrature

the closest approach to the original sound.

Quad Electroacoustics Ltd,
IAG House, Sovereign Court, Emine
Business Park, Huntingdon, Cambs, PE29
6XU

Tel: 01480 447700, Fax: 01480 431767
www.quad-hifi.co.uk
TIMESTER T200 MK £379
Unashamedly an eccentric specialist hi-fi product in the mould of the Flying Mole amplifier and Zu Druid loudspeaker, this is a small triode tube amplifier offering around 3W per side from two 6N3P02s (5670) and two EL8402s. Ostensibly, the importer calls it a 'multimedia' amp, by which they mean it is designed to work with (shock horror!) iPods and PCs. It has a single stereo line input via RCA phonos (for your digital portable or full size CD player), plus a USB input for a PC or Mac. It has one set of loudspeaker outputs, and a 6.3mm front panel headphone jack.

The USB input is an interesting feature (the Russ Andrews DAC-1 USB reviewed on p47 also has one, so it must be catching on), the idea being that you can plug your computer in, set the T-200 as a audio output device in your operating system's 'Preferences' menu, whereupon the Timester will play all your computer audio files.

The basic version reviewed here costs £379, and there's said to be a version with UK-made output transformers costing £429 available any day now. One year's manufacturer warranty is offered. This diminutive (238 x 138 x 148 mm, 5.5kg) little thing is surprisingly well finished, especially considering its Chinese origin. The Perspex front panel is clean, the switches move nicely and the rear panel is robust. There's a chrome plated cage for the valves, and the output transformer cover is a quality item. Timester quote 600mW from the headphone amp. Inside, there is Burr-Brown PCM2702 Delta Sigma DAC for the USB connection. Given that's there is an internal DAC, it would have been nice to access this by more conventional means, such as a TOSLink input too. A standard IEC mains input is fitted around the back, and there's a decent set of loudspeaker binding posts.

Switch on and it's a veritable sight for sore eyes - each tube is uplit by a blue LED, which gives a pleasing effect. There's little in the way of hum or hiss, and after about fifteen minutes the Timester is making sweet music. This is precisely what it is - soft, warm and mellifluous. Disciples of the Naim Nait 5 college of music making won't like it. The Timester is an unashamedly old school valve amplifier, and you can never forget it. You'll need speakers with over 90dB sensitivity (such as Revolver R16s) for any sort of decent level.

Kicking off with Supertramp's 'Child of Vision', and I was surprised how pleasant this little amp was to listen to. It is a sugary sounding device, coloured in the traditional tube sense of the word (everything is given a sepia tint), and the effect was very pleasant. Most impressive was the way it hung vocals out in space, the loudspeakers seemingly disappearing into my listening room. Treble was as silky as you'd expect, the midband proved a tad opaque but very spacious, and bass soft and warm but with little in terms of drive. Again, by solid-state standards (Onkyo's A-933 being my favourite at this price), there was very little power or drive, but the Timester's sound was such that this didn't seem to matter. It is beguilingly musical in its way, with a nicely lucid midband that makes transistor rivals seem frigid.

Power is very limited of course, so don't buy this for anything more than small rooms - dens and bedrooms are where this amp was designed to reside. I was able to get decent listening levels before the output transformers saturated, but switching to the USB input resulted in a marked drop in volume level. It made quite a nice noise via its internal DAC when driven from my Mac PowerBook G4, with lots of detail, clarity and a most propulsive rhythmic sound, but it was hampered by lack of gain. The headphone section sounds very good indeed, but it's certainly not from the Musical Fidelity X-CAINS school of headphone amplifiers (i.e. clean and precise), preferring to add its characteristic euphony to the clinical sound of my Sennheiser HD650s.

Overall then, an unlikely thumbs up for this loveable little thing — for those wanting sweet sound in small rooms, it represents cracking value for money.

Contact Lamplitube on +44 (0) 1322 334033 or email info@minitubeamps.com.
Metallica

Dominic Todd pens a paean of praise to his favourite classic loudspeaker, Celestion's SL600...

First shown at the 1981 Harrogate Hi-Fi Show, and launched the following year, it is fair to say that Celestion's SL6 revolutionised the loudspeaker market.

What made this speaker special was the scale of sound available from such a compact cabinet. Rather like the Wharfedale Diamond had done just months before, the SL6 proved that a large cabinet wasn't required to create a decent sound. At the time, the SL6 was one of the most thoroughly researched speakers ever produced and used the then new-fangled laser velocity analysis to measure driver and cabinet performance.

Such research proved invaluable. At a time when most speaker cabinets flexed like a Rolf Harris wobble board, the SL6 used a highly rigid, internally braced cabinet. Even more intriguing was the electro-formed copper tweeter: This was unique at the time and played its part in spreading metal dome tweeters across the hi-fi industry. As it turned out, using copper did nothing to help the horrendous inefficiency, but it was free from much of the 'grain' of later aluminium designs.

Matched to this was a 165mm Kobex coned woofer with integrated and inverted phase cap. This seems unexceptional now, but was quite something at a time when most manufacturers still used paper and glue. Matched to a substantial magnet and PVC surround, the woofer gave exceptional bass weight. At least it gave exceptional bass weight when matched to a powerful amplifier for, at 82dB the SL6 was one of the most inefficient speakers ever made.

Celestion soon realised this and it wasn't long before more work with laser velocity analysis produced the SL6S. This swapped the copper tweeter for an aluminium one, the chipboard cabinet for MDF, and gave the woofer a new two piece surround. The combined effect not only improved efficiency to a heady 84dB, but also granted the SL6 a brighter balance, with less congestion in the bass.

In late 1988 came the final version, the SL6Si. This time around, the main changes were to the crossover, which became biwirable and fitted with rather nice Michell-type gold-plated terminals. With the advent of the Si range, Celestion also launched the rather awkward SL12Si. Effectively this was an SL6Si with an extra bass unit and it sounded muddled - to put it politely. It's not the best representative of the SL family and probably the only one worth avoiding.

THE NEXT STEP

Launched just two years after the SL6, the SL600 took speaker technology to new heights. At a time when most loudspeakers, including the then current SL6, used chipboard, the SL600 was fashioned from high-tech aluminium Aerolam. As the name suggests, this was a material developed for the aeronautical world and used an aluminium honeycomb sandwiched between aluminium sheets. Material costs were huge, and accounted for the SL600's hefty price tag of £700 - a lot of money in the early '80s.
It was worth it. The exceptionally light cabinet was also particularly rigid and free from colouration. To provide suitable damping, the cabinet was filled with layers of varied densities of foam. The original Kobex woofer and copper tweeter made it across from the SL6 but, in this case, they were hand selected. The hardwired crossover was matched to a specific tweeter, thus ensuring correct alignment with the 2kHz compensation network. Like the SL6, the first SL600s used simple 4mm speaker sockets – making banana plugs essential.

Unlike the SL6, the SL600 came without a grill. This was because the cabinet would lose rigidity if drilled further for grill mounting points. Yet, with its smart Nextel paintwork and diecast metal faceplates, few customers would want to cover the SL600. Let’s not forget, this was seriously hi-tech stuff in 1984!

Celestion obviously received complaints about its lack of grill, as the next version, the SL600Si, featured one (cleverly attached to the existing faceplate bolts). Skipping the ‘S’ improvements altogether, it was only in 1988 when the SL600 got its first upgrade. Like the SL6, the new Si included a revised crossover with biwiring and some cosmetic tidying including a new, harder wearing, paint. Interestingly, the SL600 never got the aluminium tweeter or the dual density woofer surround (they were destined for the even posher SL700) but perhaps this was no bad thing as it meant that, for better or worse, the SL600 never lost its original character.

**SOUND QUALITY**

Celestion SL600s divided audiophile opinion like few other loudspeakers ever made. Detractors criticised the ‘fat upon’ sound, slow bass and tragic efficiency, whereas supporters loved their eerie transparency. Taking the nay-sayers first, there is no doubt that the SL600s are woefully inefficient. -82dB rules them out for use with many amplifiers. In addition to this, they also tend to be system and room fussy. They require plenty of space from a rear wall and, believe it or not, decent room temperature – that PVC woofer surround moves very little when it gets cold! Against modern speakers, bass can also justifiably labelled as ‘off the pace’ or ‘turgid’. Yet, just before you write them off, take a closer listen...

When properly set up and matched with sympathetic ancillaries, the SL600s produce a wonderfully holographic soundstage that can rival a Quad electrostatic for transparency. Furthermore, there’s a seamless flow from bass to treble that, even today, is impressive in its even-handnessed. That copper tweeter may have been insufficient, but it suffered none of the gristy and spiky characteristics that many later aluminium domes suffered from. Instead, it provided good detail and, crucially, a level of upper mid that enabled it to blend with the woofer. Precise, subtle, seamless and transparent: the SL600 was, and perhaps more remarkably still is, all of these.

Differences between the standard and Si model are slight. The treble has perhaps a touch more detail, but there’s not a lot in it. If you’re in the fortunate position to bi-amp however, then the biwiring terminals of the Si make it a must-have option. Incidentally, either pair benefit from a pair of heavy 20-24” high stands. Whatever you do, though, don’t use top spikes, as these pierce the delicate cabinets!

As with most speakers, tweaking brings out some benefits in sound. Probably the greatest difference can be made by simply changing the internal speaker cable. The standard cable is not the best, and a decent modern cable really opens the sound up. If you do take this course, do watch the tweeter, though. The solder connection to it is fiddly and a mistake could damage the unit. Personally I’d leave the crossover and internal damping foam well alone. However, if you don’t mind the odd looks, then removing the bass faceplate is an easy way of improving the imaging. Whilst you’re there, don’t forget to tighten up the woofer’s bolts. Like any speaker, these work loose after a while, and affect the speed and impact of sound.

**BUYING SECOND-HAND**

Although far from universally loved, the SL600s still have a cult following. Unlike the SL6, prices for the SL600 are higher than you might expect for a twenty year old design. Whereas as little as £30 to £150 should find a pair of working SL6s, you need more like £200 to get hold of a pair of the ‘600s – and this would be for a tatty pair. For a mint and boxed set of SL600Sis, with grills and possibly even stands you could be looking at anything up to £500.

Although not cheap, these speakers are extremely long lasting. That PVC and Kobex woofer may be inefficient, but boy does it last well. The copper tweeter is similarly robust. It’s good to know that the SL600s can still be serviced - Celestion themselves no longer support the model but there are specialists such as DK Loudspeaker Specialists (+44 (0) 1708 447344) that can help.

Apart from the drive units, the main consideration when buying a pair of SL600s is the cabinet. Whilst Aerolam is very rigid, it’s also rather soft. Dented cabinets aren’t unusual, and are not something that can be patched up with wood glue and plastic wood! Small dents won’t affect the sound but anything larger effectively relegates the speakers to the role of parts donor. Cosmetically,
Show Time

David Price and Adam Smith round up their faves from the Bristol Sound & Vision Show

PIONEER
Pioneer were exhibiting a welcome return to two channel audio with their new PD-D6-J SACD/CD player along with the A-A6-J and A-A9-J amplifiers. Combining sleek styling with a wealth of audiophile features, all items were making some very promising noises through Pioneer’s own TAD-branded loudspeakers.

QUAD
Quad were exhibiting their superb ESL-2905 loudspeakers using prototypes of their brand new Il-Eighty monoblock power amplifiers. Taking the already superb Il-Forty amplifiers as a starting point, the new items increase the valve count and thus the power output to 80 watts, more than enough for the most demanding loudspeaker. Interestingly, playing a visitor’s requested Robert Miles track, this setup more than disproved the old notion that ‘electrostatics don’t do bass’...

SPENDOR
Spendor were showing samples of their new flagship loudspeakers, the ST-1s, which they estimate will sell for around £5,000. The ST-1s feature brand new drive units, housed in a stylish gloss black cabinet which has a contrasting panel down the front. This contrasting front panel will be available in a wide variety of finishes, including wood, leather and metal of differing types.

HENLEY DESIGNS
Henley Designs had a party atmosphere in their room all weekend thanks to their lava lamps and a certain individual mysteriously known only as ‘Billy the Fridge’! Supplying suitable sounds were two Pro-ject and Roksan based systems, one of which was running the brand new Ortofon 2M Blue moving magnet cartridge. Initial responses were very positive from the Hi-Fi World team...
NEAT
Neat Acoustics were demonstrating their new Momentum 3i and 4i loudspeakers, the former being a standmounter that retails for £1,745 and the latter a floorstander retailing at £2,695. Both make use of isobaric bass loading and the 4i is particularly interesting as it uses two 6.5 inch bass units in this configuration, and hidden from view. Watch this space for a review...

ARCAM
One of the most interesting new Arcam products for years was the FMJ MS250 Music Server. £3,000 is a lot to pay, but it’s a very sophisticated beast and with superb sound too!

REGA
Rega’s resident vinyl boffin Terry Bateman’s fingerprints are all over the new Rega MC Stage - a full on audiophile phono stage with highly adjustable loading and sensitivity. Rega also had their new Apheta MC cartridge on show too...

LINN
About time too is what we say - a brilliant evolution of the Sondek! Some weren’t quite so sure, but there’s no doubting the latest LP12 SE is tighter, cleaner, faster and more modern sounding. Again, wait here for the definitive review...

LEEMA
Following our rave review of the baby Xen a few months back, it was interesting to hear a cheaper evolution of them. Diminutive, but with a fantastically clean and musical sound, they could be one of the best mini monitors on sale when they hit the shops next month...

ONKYO
Onkyo started life as a speaker manufacturer, and the D-TK10 - produced in association with high end guitar specialist Takamine, shows they haven’t lost their touch. Amazing sound from tiny cabs, but they do cost $2,000...
Famous for the legendary D200 power amplifier, GamuT now offers a superb complete music system.

Great GamuT System

GamuT is one of the very few companies that can offer a FULLY "SORTED" SYSTEM with equally high quality components in every category — in our opinion. Well, maybe not just ours:

"As the audiophile press has affirmed for several years now, GamuT is on to something very, very good." (JV Serinus, Stereophile)

GamuT's latest arrival, the CD3 CD player, completes a SUPERBLY MUSICAL SYSTEM, everything in its place and sounding "right".

"It has superb resolve of fine detail ...a perfectly judged balance and ...an irresistible ability to draw you into the music." — Hi-Fi Choice

GamuT have merged their excellent D3 preamp with the legendary D200 power amp (an earlier Editor's Choice), making the Di ISO, an impressively CAPABLE AND TRANSPARENT integrated amp. — Hi-Fi Choice's view on the GamuT Di ISO: "This is clearly a gorgeous amplifier" — another Editor’s Choice.

GamuT make three speakers — the stand-mount L3 and two floorstanders — all cut from the same cloth and using superb drive units such as the Revelator tweeter.

Comments on a GamuT system:
"The CD3, Di ISO, and L-7 just flat-out worked for me. Music was alive and filled with the little pleasures that make you smile, nod, tap your foot, or even boogie." (Stereophile)

Visit www.gamutaudio.com/reviews/

Customers say we make some of the BEST SOUNDS they have ever heard, so you know we can do the same in your home. Our advice will take account of your best components and guide you where change is needed, in stages you can afford. You AVOID EXPENSIVE MISTAKES, enjoy music along the way and save money in the long run.

J UST LISTEN AND YOU’LL KNOW

BRITISH DESIGN AND ENGINEERING AT ITS BEST

After 35 years, Michell is still a family run business with a team of dedicated and proud craftsmen, producing quality turntables and accessories

The Michell flagship for music lovers who are not prepared to compromise

The classic Michell turntable, refined over many years of development to its current level of performance.

Entry level turntable incorporating features from the classic Gyro

CD: ACCUSTIC ARTS, BEL CANTO, ACS (ELGAR, DELIUS, PURCELL, VERDI, VERONA, P.B.), GAMUT, RESOLUTION AUDIO, STELLO, WADA, VINYL AESTHETICS, AVID, CLEARAUDIO, DNM, GRAHAM, THE GROOVE, LEHMANN, MICHIEL, ORIGIN LIVE, SUMIKO, BLUE POINT SPECIAL, TRANSFIGURATION, AMPLIFIERS: BEL CANTO, CAT, DX DESIGN, DNM, GAMUT, HAGCIRO, HALLAND, SONNETEER, STELLO, LOUDSPEAKERS: AUDIO PHYSIC, DALL, ETHOS, GAMUT, NEAT, TOTEM, CABLES: CHORD Co., DNM, NORDOST, SILENCE, VERTEX AQ, MAINS VERTEX AQ, SUPPORTS: ARCO, STANDS UNIQUE, VERTEX AQ

MICHELL ENGINEERING

J A Michell Engineering Ltd
2 Theobald Street, Borehamwood, Hertfordshire, England, WD6 4SE

Telephone: 020-8963 0771
Fax: 020-8207 4688
michell-engineering.co.uk
Crossovers are the 'bête noir' of loudspeakers, but do they really cause more problems than they're worth? Peter Comeau explains...

First Order
First of all why do we need to crossover at all? To see why, you really need to have a listen to one of the full range drive units that are the 'fave rave' of the DIY speaker fraternity. Listen to a Fostex or a Lowther in comparison to a two-way speaker and you'll be immediately aware of the lack of bass power and treble extension, as well as honky, clappy, tubey, papery colorations in some areas of the midband.

Now before I get a raft of letters and e-mails from DIY speaker builders I will own up to a liking for full range drivers and their coherence through the midband. But for most listeners their colorations and bandwidth limitations rule them out.

So why can't we make a full range drive unit that really works well? The problems lie in the physics of turning electrical impulses from your amplifier into acoustic energy in the room. If you have read the previous articles on enclosure design you will have realised that, to do a good job, bass units need to be relatively large. This makes
'Breakup' modes are caused when the drive unit stops behaving like a piston. Part of the diaphragm starts to move independently and this can be audibly noticeable. You can see the 'breakup' modes as ripples in the frequency response that match with those in the impedance graph.

Look at the graph and you'll see a kink in the impedance plot which matches the beginning of dips and peaks in the frequency response at 600Hz.

By comparison a very stiff, cast magnesium cone stays pistonic over a wide frequency range and pushes the 'breakup' modes higher in frequency. However the rigidity of the cone eventually results in a strong resonance at 5kHz. This resonance can be successfully 'dialled out' by clever crossover techniques.

The capacitor increases in impedance as the frequency drops, so less midrange energy is fed to the treble unit whilst all the high frequencies are 'let through'.

We call this a 'first order' crossover. It is the simplest, and the easiest to manage, type of electrical crossover and has many adherents. Its two primary attractions are that it is easy to experiment with and there is no phase shift between the drivers throughout the crossover region.

For these reasons many DIY speaker builders stop there. They can tinker with the values until they get good performance just by listening to the results. All you need are two 'perfect' drive units and a handful of inductors and capacitors.

So why aren't all speakers made this way? Well the problem is that there are very few 'perfect' drive units that meet all the first order requirements. Look at the graphs and you'll see that the drive units have to behave impeccably for at least three octaves beyond the crossover frequency. In other words unless they are free from colorations, resonances and distortions and have a smooth frequency response over the majority of the audio band you will not be able to design a clean, transparent sounding loudspeaker.

As for the attractions of 'linear phase' this demands that the drive units maintain their frequency and phase response for three octaves beyond the crossover frequency. Think about it. If you cross over at 2kHz your bass/midrange unit has to have a bandwidth up to 16kHz. Even worse your treble unit has to be useable down to 250Hz!

Now drive units with this sort of behaviour are few and far between. The upshot is that using first order crossovers with normal drive units results in performance restrictions. You may be aware of colorations from the bass midrange unit through the upper midrange and treble region and you will certainly notice distortion from the treble unit at lower frequencies.

Furthermore if you can measure the frequency response you will find huge deviations from what the theory tells you. This is because the theory is based on the drive unit having a linear impedance beyond the crossover frequency. If you look at a typical bass unit impedance you will see that, due to the inductance of the voice coil, the impedance rises rapidly through the midrange. This means that, in combination with your series crossover inductor, the impedance increases dramatically as the frequency goes up. In fact it often
First order slopes are very gentle at just 6dB/Octave attenuation below the crossover frequency. So the use of first order crossovers requires exemplary drive units with good behaviour over a very wide frequency range.

Phase response from first order filters is electrically in perfect synchronisation (HF red, LF green). But the phase response of real drive units will not be such a good match.

goes up so fast that, in combination with the falling response of the drive unit, the resulting 'acoustic' crossover approximates to a third order slope!

Worse is to come with the treble unit. Common sense dictates that, in order to have a wide bandwidth, we should choose a treble unit with a very low fundamental resonance (F0). But sling a series capacitor in series with these types of treble units and you will find that the midrange output drops dramatically through the crossover region. It's all because the electrical crossover slopes are too shallow. To compensate for the droop in at mid to high frequencies from the treble unit you lift its sensitivity and then it sounds too 'bright' in the treble range. For these reasons it is easier to work with real drive units using higher order crossovers.

SECOND ORDER
The next step up from first order is, of course, second order. Here we add a second 'leg' to each inductor and capacitor. The series inductor to the bass unit now has a capacitor across the bass unit. This capacitor 'shunts' some of the treble energy away from the drive unit (remember – a capacitor's impedance falls as the frequency gets higher).

Similarly there is an inductor across the treble unit to 'shunt' away some of the midrange energy. The overall result is a 12dB/Octave electrical slope. So far, so good, but the theory of second order crossovers shows that the phase shifts by 180° through the crossover region. This means that we have to reverse the connections to the treble unit.

Now this would be all well and good if we could maintain the phase response of the bass unit and treble unit either side of the crossover. But real-world drive units don't behave like this and very often the combined phase response of the electrical output of the crossover and the acoustic performance of the drive unit result in phase discrepancies which wreck the smooth crossover we are aiming for.

THIRD ORDER
Typically the use of second order electrical crossovers combined with the falling response and phase and impedance characteristics of real drive units results in a third order acoustic performance. So it is best that we concentrate our energies by looking at the benefits a third order crossover gives us.

Let's start with slopes. A third order slope is 18dB/Octave so, at last, we are starting to be able to 'hide' the out of band colorations and distortions of our drive units. Now we only have to make sure that our drive units behave themselves for little over an octave either side of the crossover frequency!

Phase response is, in theory, shifted by 90° through the crossover region but this, as we'll see when we start measuring 'real' loudspeakers, isn't the problem that it first appears to be. Theoretically we need to add a third element to each crossover leg – another series inductor leading to the bass unit and a second capacitor in series with the treble unit. You can see that there is a 'block/shunt/block' action going on here which increases the rate at which electrical energy is filtered to the drive units.

However, as we have said, there isn't always the need to add this third element. For example the impedance of many bass units rises so fast above the crossover frequency that they achieve a 6dB/Octave acoustic slope naturally. Add this to the 12dB/
DIY FEATURE

Octave of a second order electrical crossover and, bingo, there is your third order acoustic crossover. So you will often see what initially looks like a mismatch of second order and third order crossovers in commercial speakers, but bear in mind that you are only looking at electrical slopes. It is the final, acoustic slopes that we are more interested in.

ACTIVE CROSSOVERS

From third order we can go on adding elements to take us to fourth order electrical crossovers, but now things start to become rather unmanageable. Imagine, if you will, juggling the values of all those elements to try and achieve the desired acoustic crossover. As you change the value of just one component it can affect the performance so much that you need to adjust the values of all the other components to 'balance' the result.

It is difficult enough doing this with third order crossovers. Adding the complexity of a fourth element in each leg is asking for trouble. In addition, as the filter slope increases, the 'ringing' of the filter becomes worse. Unless carefully managed this affects the transient response and adds 'hardness' and 'sharpness' to the sound through the crossover region which can become fatiguing.

Every time we add elements to the crossover the reflected impedance to the amplifier runs the risk of looking worse. The swing of capacitance to inductance through the crossover region can upset even the most well behaved amplifiers. So it is in our interest to try and keep the overall system impedance looking fairly benign, otherwise the speakers will sound very different in character depending on the amplifier they are partnered with.

For these reasons the role of higher order crossovers is often kept in the electronic domain. There is a persuasive argument for coupling a power amplifier to each drive unit and putting the crossover in the preamplifier section. To start with the amplifier can control the drive unit more accurately if it doesn’t have the impedance of the crossover in the way. Then we can build a high slope into an electronic crossover, with fewer problems than attempting it with passive components, and achieve the desired acoustic response by ‘mapping’ the drive unit characteristics to the required filter slopes in an ‘active’ crossover design.

If speaker designers had their way then I suspect that most speakers would be ‘active’ designs.

But the complexity, and expense, of adding an amplifier for each drive unit and moving the crossover design into the preamplifier are often beyond the amateur designer’s capabilities. Commercially it is something of a non-starter as it moves the ‘mix and match’ approach that is typical of the separates hi-fi market into a ‘system’ approach from each manufacturer. That is why you are likely to find successful active speakers only from the ‘system’ brands such as Bang & Olufsen and Meridian.

CALCULATIONS

OK, so where are the calculations, you know, the ones to select the right values for our crossover elements? Sorry to disappoint you, but they don’t exist! Yes, I know that you can look up spreadsheets and calculators that give you theoretical values for a given crossover frequency. But look at what they ask you. What is the impedance of the drive units?

Indeed, just what is the impedance of the drive units? A bass unit may be 8 Ohms at 250Hz but it is likely to have an impedance of 22 Ohms at 1kHz. It is a variable, not a fixed, impedance and your crossover calculator cannot possibly take a guess at the component values for an impedance that varies with frequency.

So just how do you get started? The old way, and for many the best way, was to take the prototype and, bingo, there is your ‘system’ brands such as Bang & Olufsen and Meridian.

Then back into the chamber again to find out what damage you had done to the desired frequency response and so on.

This process of iteration between measurement and listening is very time consuming, but it is a path you have to follow if you want to design accurate, clean, transparent speakers. To do it by listening alone is very, very frustrating as you really don’t know where you are in terms of ironing out problems.

SHORTCUTS

Occasionally we see loudspeakers come in for review that have, fairly obviously, been designed by ear without recourse to, or perhaps ignoring, the requirements for a smooth frequency response. Generally they have one or two ‘problem’ areas which show up on audition, perhaps a ‘gap’ in the upper midrange which leads to a ‘dulled’ presentation of detail or a ‘peak’ in the treble region that makes them overbright.

Let me tell you it is much easier to iron out all the frequency response anomalies and then ‘tune’ the acoustic performance than just ‘play it by ear’.

Now this may be a disappointment to you budding speaker designers, but don’t become downhearted and give up yet. Next month we’ll look at ways that you can use a computer to run your own speaker into a measurement chamber with a bucketful of crossover components and start plugging in values until the response looked reasonable.

Then you took the prototype speaker and crossover into the listening room and fiddled about with it until it sounded half reasonable.
When it comes down to a choice of cartridge to play your cherished vinyl, most enthusiasts have no doubt that the moving coil remains king.

To my ears the attributes of a moving coil cartridge are greater finesse and detail retrieval of information from the groove and superior presentation of the musical performance. Now that’s not to say that there aren’t some great MM cartridges out there, and I would be happy to use many of them, but I generally get a bigger buzz from music relayed via a Moving Coil.

However, the downside is that 99% of the great and good MC cartridges are low output. If you don’t know what that means, I am talking about signal levels that are scaled in microvolts.

Now we have a difficult enough job amplifying the millivolt levels that are generated by Moving Magnet cartridges whilst avoiding noise and distortion. But bringing MC cartridge output up to the signal levels that a preamplifier can handle is a tough job indeed.

**HEAD AMP OR TRANSFORMER?**

When Moving Coil cartridges were first introduced in the ‘50s the classic method of matching them to Phono preamplifiers was to use a transformer. Many of these transformers were based on microphone transformer design and were physically small. In fact Ortofon, in their classic SPU-GT cartridge, introduced a version with transformers built into the cartridge body.

You can imagine that many of these transformers were not optimised for the wide bandwidth, highly dynamic signals that were coming out of the cartridges. As a result the MC step-up transformer found itself with a bad name.

The ‘70s saw a raft of MC cartridge head amplifiers appearing. Typical head amp designs of this period used multiple, parallel transistors as the initial gain stage in order to reduce impedance and noise, and coupled this to high levels of loop feedback to keep distortion low. Some designers opted for the use of high power transistors, where the larger junction area reduces the base-emitter impedance, to try and effect a better match to the low impedance of the Moving Coil cartridge. Latterly the availability of very low noise op-amp integrated circuits has made the whole design process simpler, though not necessarily better.

In any case, having experimented over more than two decades with all types of head amp circuit designs, and having tried most of the commercial designs on the market, I have come to one conclusion. There is nothing like a good transformer.

OK, so a transformer is prone to picking up hum from nearby power supplies. But other than that it is totally noise free and, by choosing the construction carefully, distortion can be kept low too. As usual with transformers the bandwidth is dependant on the mechanical design, but if cost is not restrictive then this can be managed effectively.

**LOAD MATCHING**

The major advantage accruing to a transformer as a step-up device is that it matches the impedances correctly. It also helps that the series self inductance of the generator coil is matched to the inductance of the transformer. A Moving Coil cartridge is a very low impedance device, typically 5 - 25 Ohms as a generator, so we really struggle when trying to design a transistor (or valve) circuit to match the cartridge impedance for efficient signal transfer.

Specify your transformer correctly, however, and you achieve the ideal match between the phono amp and the load specified for the cartridge. As we are building the MC transformer into the WDPhono3 we can easily provide the necessary load matching.

For our MC transformer we decided on using two primary coils with a 1:20 ratio to the secondary. By connecting the primaries in parallel we keep the 1:20 ratio, whereas if we connect them in series we obtain lower gain from a 1:10 ratio. Which you choose depends on your cartridge output. We can then adjust the matching impedance by selecting a secondary load.

For a transformer the impedance of the primary is equal to the impedance of the secondary x n², where n is the turns ratio. Typically a Moving Coil cartridge works well into a 50 Ohm or 100 Ohm load. If we do the calculations based on 100 Ohms then we will require a secondary load of 10K Ohms for the 1:10 ratio of the primaries in series. For the higher gain 1:20 ratio the secondary load becomes 40K Ohms. If you prefer a 50 Ohm load for your cartridge then just halve the load resistances.

All we have to do, now, is to switch these values into our WDPhono3 input circuit when we link up the step-up transformers. But we decided to go one better than that. For WDPhono3 we have integrated input switching relays so that we can switch between two transformers fitted to the MC input. The required load resistors are then connected to the secondaries of the transformers and automatically switched in when the MC input is chosen via the front panel switch. You can use WDPhono3 to switch between two turntables if you want to – how cool is that?

*Next month: On Test*
**KIT & COMPONENTS SUPPLIERS**

**COMPONENT SUPPLIERS**

**AUDIO SYNTHESIS**
PO Box 50 Nottingham, NG9 1DX
Tel: 01159 224138 Fax: 01159 229701
Email: salesinfo@audiosynthesis.co.uk
Website: www.audiosynthesis.co.uk

**VISAY BULK FOIL RESISTORS** - unquestionably the world's finest resistor for audio applications. Thousands of VSRU 0.3W 300V Somp 1% values in stock at the lowest possible prices eg. values up to 20K at £3.50+vat. HIGH PURITY SILVERWIRE - Teflon insulated ->99.99% purity, 0.6mm and 1.0mm diameter. Ideal for internal wiring, interconnects or speaker cables.

**NOTEWORTHY AUDIO LIMITED**
36 Buckingham Street, Aylesbury, Buckinghamshire, HP20 2LY
Tel: 01296 422224
info: info@noteworthyaudio.co.uk
Website: www.noteworthyaudio.co.uk

Suppliers of a selected range of audiophile valve kits and components. Including the Sostekit range of valve amplifiers, Audio Note one times oversampling Dac Kit 1.1 and Lawther drive units. Plus a range of components and accessories from Eichmann, Furrtech, Wonder Soldier, Cagg and many more. For a list of the extensive range of manufactured products and the special offers we stock please see our website or call for details. We are open from 9.30 to 5.30 Tuesday to Saturday, with demonstration stock of our kits available - please call in advance to book an audition.

**AUDIOMAR INT. LTD**
Unit 14 Pier Road, Pembroke Dock, Pembrokeshire, SA72 6TR
Tel: 01456 685601 Fax: 01456 685602
Web: www.audiomarchlimited.com
E-mail: info@audiomarchinternational.com

Extensive range of audio passives and active components including DACT, Black Gate, Sanyo, Elna & Vishay. We are the manufacturer and sole distributor for Superdik 3 master clock & Invisus discrete regulators. Visit our online store for pricing and information. Secure online ordering available.

**LOUDSPEAKER KIT SUPPLIERS**

**ARENA ELECTRONICS LTD**
59 Main Street, Great Gidding, Huntingdon, Cambridgeshire PE28 5NU
Tel: 01832 293320 Fax: 01832 293372
email: sales@seas.co.uk
Website: www.seas.co.uk

Arena Electronics was appointed official UK distributor for SEAS high performance drive units in January 2006. We offer the full range of SEAS drive units, designed and built in Norway, together with speaker kits and advice for DIY speaker builders. These include the World Designs WD25A project, complete parts for which can be purchased on our website including the cabinet kit.

**IPL ACOUSTICS,**
Chelsea Villa, Tons Park, Ilfracombe, North Devon, EX34 8AY
Tel/Fax: 01271 867439
Please visit website for full catalogue of products:
www.placoustics.co.uk

IPL supply a range of 9 high quality transmission line speaker kits and a full range of Hi Fi and AV speaker kits including 2 powerful active subwoofers. Drive units are available from Hi Fi research, Seas, Morel, Furrtech and IPL custom built drivers. IPL also supply-quality crossover components, cabinet accessories, including Silver plated PTFE insulated cables, and the very highly rated Alter-Hambin Digital amplifier.

**IMPACT AUDIO**
Unit 102, The Courtyard, Railway Green Business Centre, Railway Green, Crewe, Cheshire, CW1 5PR
Tel: 01270 882243 Fax: 01270 882241
info: info@impactaudio.co.uk
Website: www.impactaudio.co.uk

Main UK distributors of VISATON loudspeaker kits, drive units and accessories. We offer over 35 professionally designed kits from one of Europe's leading manufacturers. Drive units include the MHT 12 ribbon tweeter, Ti 100 titanium cone midrange and the new TiW range of high power woofers. Contact us for a free catalogue or visit our website for full details.

**WILMSLOW AUDIO**
50 Main Street, Broughton Astley, Leicester, LE9 6RD
Tel: 01455 286603 Fax: 01455 286605
Email: sales@wilmslowaudio.co.uk
Website: www.wilmslowaudio.co.uk

Contact us for a copy of our FREE Full Colour Catalogue or visit our Website with secure online ordering.

The UK's largest supplier of loudspeaker kits, drive units and components. We also have a range of subwoofer kits and amplifier modules available. Official UK distributor for ATC, Morel, Peerless, Scan-speak, Seas, Viis and Volt. Beware of imitations, we only stock drive units made by the genuine manufacturers. We offer a full repair and upgrade service on most makes of loudspeakers.

**VALUE AND OUTPUT TRANSFORMER SUPPLIERS**

**CHELMER VALVE COMPANY LTD**
The Stables, Baddow Park, Great Baddow, Chelmsford, Essex, CM2 7SY
Tel: 01245 241300 Fax: 01245 241309
Email: sales@chelmervalve.co.uk
Website: www.chelmervalve.com

Premium range of audio valves, tested/selected for low noise, hum, microphony; power valves burnt-in. Huge stock of valves/tubes of all type, audio valves (inc. NOS types), industrial etc. Also large stocks of semiconductors. Many obsolete types.

**BILLINGTON EXPORT LTD**
1E Gillmans Trading Estate, Billingshurst, West Sussex RH14 9EZ
Tel: 01403 783519
Email: sales@bel-tubes.co.uk
Website: www.bel-tubes.co.uk


**MODIFICATION SERVICES**

**AUDIOMAR INT. LTD**
Unit 14, Pier Road, Pembroke Dock, Pembrokeshire, SA72 6TR
Tel: 01456 685601 Fax: 01456 685602
Web: www.audiomarchinternational.com
E-mail: info@audiomarchinternational.com
Upgrade services available for all CD, SACD & DVD players. With our latest products we are able to advance CD playback way beyond what 'stock' players are capable of resolving. Our extensive knowledge base and upgrade techniques make us world leaders in digital upgrades. Various upgrade solutions are available to suit your budget and desired performance.

**REPAIRS & RESTORATION**

**AUDIOLABORATORIES (LEEDS)**
3 Kirkdale Terrace Industrial Estate Leeds LS12 1DB UK
Tel/Fax +44 (0)113 2440378
The UK's Leading Service & Restoration Specialists. Repairs/Restorations to Modern/Classical/vintage valve hi-fi, musical and cinema amplifiers, control units etc. We will even build that kit for you or design something special. Please visit our Wholesale only Website at:- www.audiolabs.co.uk for complete details of our comprehensive services. Alternatively, contact us at:-

**ARKLESS ELECTRONICS.**
Tel. 01670 829691
E-mail: arkless.electronics@btinternet.com

Specialist in repairs, restoration and modifications to all amplifiers, valve or solid state, ancient and modern. Design service for companies and hobbyists. Amps, preamps, phonostages, active crossovers, psu's etc custom built to order. Kits built/debugged. Please enquire for any other services. Ex design engineer for well known hi-fi companies.

**POWER SUPPLIES**

**PAUL HYNES DESIGN**
Keld Cottage, Askham, Penrith, Cumbria, CA10 2PG
Tel: 01931 712822
Email: paulhynes@freezone.co.uk
Website: paulhynesdesign.com

Specialist in repairs, restoration and modifications to all amplifiers, valve or solid state, ancient and modern. Design service for companies and hobbyists. Amps, preamps, phonostages, active crossovers, psu's etc custom built to order. Kits built/debugged. Please enquire for any other services. Ex design engineer for well known hi-fi companies.
Letter of the Month

MIXED UP

Firstly I must say, Hi-Fi World has been coming up with some great articles that are of real use to me at the moment, in particular around the subject of direct-drive turntables. I have been pondering the matter myself for a while following the theft of two Vestax PDX-2000 turntables, a Vestax PMC-25 mixer (which was my pride and joy - I have kind of replaced it with a PIMC-230 which is something of a consolation), a Nait 3 and a Marantz CD63 which at the time served my needs spinning tunes together and generally having a ball. I should mention that since then I have made myself a pair of Studio Monitors from Wilmslow Audio with upgraded tweeters, caps and wiring which I am happy enough to live with for the time being. However, I have been suffering greatly with the sound from an old Dual 505 and a Denon combo thing that some friends passed on to help me out; it works, but it is definitely not music as I know it.

Now having accumulated a reasonable sum of money, I am trying to reconcile houseparty DJ'ing with budding audiophile tendencies kept mainly in check previously by spending far too much on music. My girlfriend is getting sick of the sight of magazines with photos of 'wires and things'. The article on the Vestax deck recently was interesting but swung me away from the brand to look at the alternatives.

Ideas began to coalesce after reading about the Origin Live mod to allow a replacement arm onto SL200s and the more I have thought about it, the more determined I have become to follow this path, adding OL Silver 2s, SDS platters, some decent oil and perhaps Isolate footers to provide some basic isolation until I can afford to address proper support furniture at a later date.

You seem very keen on the Goldring 1042 cartridge at the moment. I had been thinking about the Reson Mica from previous experience. How would you describe subjective differences between the two and do you think it would be enough to make a comparison (and the extra outlay) worthwhile? (I am not into backspins and aggressive cutting; they'll be treated with respect!).

In terms of CD player, I am very pleased with the sound of the EERA DL1 player from France and think that I will have one, though of course thinking about spending so much on it is a bit daunting. Also, do you know of any shops in the London area that sell the Vincents? I have sent an e-mail to Ruark but not received a reply so far. I have been struggling to come to a conclusion about amplification and I'm looking at a budget of £1.5k or thereabouts. I have thought about going back to Naim and have listened to a Musical Fidelity A5 which sounded pretty okay, but wasn’t entirely convinced by build or looks. I have to say that I have been rather tantalised by Adam's 'glowing' review of the Vincent monoblocks, they certainly seem to cover my preference for controlled, deep bass, power and sweeter upper-bands, as I could really do without the sonic gritting I get every time with the current combo. I am looking forward to seeing what you’ve done with the power cable, isolation pads and plinth - lots of detail and pics please!

Now having accumulated a reasonable sum of money, I am trying to reconcile houseparty DJ'ing with budding audiophile tendencies kept mainly in check previously by spending far too much on music. My girlfriend is getting sick of the sight of magazines with photos of 'wires and things'. The article on the Vestax deck recently was interesting but swung me away from the brand to look at the alternatives.

Ideas began to coalesce after reading about the Origin Live mod to allow a replacement arm onto SL200s and the more I have thought about it, the more determined I have become to follow this path, adding OL Silver 2s, SDS platters, some decent oil and perhaps Isolate footers to provide some basic isolation until I can afford to address proper support furniture at a later date.

You seem very keen on the Goldring 1042 cartridge at the moment. I had been thinking about the Reson Mica from previous experience. How would you describe subjective differences between the two and do you think it would be enough to make a comparison (and the extra outlay) worthwhile? (I am not into backspins and aggressive cutting; they'll be treated with respect!).

In terms of CD player, I am very pleased with the sound of the EERA DL1 player from France and think that I will have one, though of course thinking about spending so much on it is a bit daunting. Also, do you know of any shops in the London area that sell the Vincents? I have sent an e-mail to Ruark but not received a reply so far. I have been struggling to come to a conclusion about amplification and I'm looking at a budget of £1.5k or thereabouts. I have thought about going back to Naim and have listened to a Musical Fidelity A5 which sounded pretty okay, but wasn’t entirely convinced by build or looks. I have to say that I have been rather tantalised by Adam’s 'glowing' review of the Vincent monoblocks, they certainly seem to cover my preference for controlled, deep bass, power and sweeter upper-bands, as I could really do without the sonic gritting I get every time with the current combo. No real comments about build quality or reliability though?

Dished? Two Vestax PDX-2000 turntables. How do you replace them?

Now having accumulated a reasonable sum of money, I am trying to reconcile houseparty DJ'ing with budding audiophile tendencies kept mainly in check previously by spending far too much on music. My girlfriend is getting sick of the sight of magazines with photos of 'wires and things'. The article on the Vestax deck recently was interesting but swung me away from the brand to look at the alternatives.

Ideas began to coalesce after reading about the Origin Live mod to allow a replacement arm onto SL200s and the more I have thought about it, the more determined I have become to follow this path, adding OL Silver 2s, SDS platters, some decent oil and perhaps Isolate footers to provide some basic isolation until I can afford to address proper support furniture at a later date.

You seem very keen on the Goldring 1042 cartridge at the moment. I had been thinking about the Reson Mica from previous experience. How would you describe subjective differences between the two and do you think it would be enough to make a comparison (and the extra outlay) worthwhile? (I am not into backspins and aggressive cutting; they'll be treated with respect!).

In terms of CD player, I am very pleased with the sound of the EERA DL1 player from France and think that I will have one, though of course thinking about spending so much on it is a bit daunting. Also, do you know of any shops in the London area that sell the Vincents? I have sent an e-mail to Ruark but not received a reply so far. I have been struggling to come to a conclusion about amplification and I'm looking at a budget of £1.5k or thereabouts. I have thought about going back to Naim and have listened to a Musical Fidelity A5 which sounded pretty okay, but wasn’t entirely convinced by build or looks. I have to say that I have been rather tantalised by Adam’s 'glowing' review of the Vincent monoblocks, they certainly seem to cover my preference for controlled, deep bass, power and sweeter upper-bands, as I could really do without the sonic gritting I get every time with the current combo. No real comments about build quality or reliability though?

I had been thinking about an integrated amp at first but then figure I could afford something like the Vincents if I use the Vestax as a pre/control. I kind of know that this is the weakest link amongst the other gear and am wondering, firstly, whether I am being completely mad and, secondly, what can be done to maximise its performance?

The most obvious place (to me) to start is at its power supply, a wall wart job with a very weedy detachable cord, so I'm wondering if you know of any engineers who might be able to replace this with a more robust arrangement and perhaps also have enough knowledge to take a look around inside to see if there are components that could be upgraded to beef things up? Close proximity to London would be a great benefit.

I had also (in a daydream) wondered if any benefit could be had from converting the mixer to run off 12V batteries? Is that a straightforward
thing or what issues hinder it? Any advice respectfully received, hope you can help in some way.

Gareth Richards

Upgrading the Technics as you suggest is a fine idea and would definitely improve your audio quality. However, if your houseparty DJ-ing is carried out at places other than your home, it might be worth considering a couple of standard Technics or Vestax decks for this purpose and then have a dedicated hi-fi deck at home. This is the route I have taken, and there is a lot to be said for not being spilt over my SLI210 or PDX-100, whereas if either were my main deck, I would be more concerned! I have heard problems with the Technics SL1200 project plinth fabrication, so the feature has been delayed. Regardless of the plinth situation, I will soon be running the Vestax PMC-250 has rotary controls that should perform respectably well and are a superb combo that I'm in o quandary! Some time ago my now retired bank manager, a generous hi-fi fan, gave me an Entre moving coil cartridge (Graham, If you see this, please feel free to contact me and we can resume our chats about hi-fi.). Although I've been unable to find out much about it, I'm led to believe that in its day, it was a reasonably expensive and good piece of kit. Once fitted it was obviously superior to the Rega MM cartridge it replaced and I've been very happy with its performance, but I will need to replace it in the not too distant future and the question is, with what?

Have I been horribly spoiled and need to spend £500 plus (which I can't afford) to match its performance, or have times moved on and a less expensive replacement may be in order? I listen to a lot of accessible jazz such as Dave Grusin, Jaco Pastorius, George Duke and other quite musically complex material including Joni Mitchell, Steely Dan, Tears for fears and Little Feat. To be honest I can't really justify spending more than around £100 and I realise (unless I can pick up another used one) my choice will be limited. My present number one system comprises; Rega Planar 3, RB300 with Michell TecnoWeight conversion, Audiolab 8000A amp (and its MC input) into MS 208s via VDH 'the Clearwater' cable. Digital is provided by Arcam Alpha Plus and Arcam Delta Black Box.

Also another question, is there a direct link to the love of motorcycles and hi-fi? I've seen several references to bikes

Technics SL1210 - one alternative to the Vestax for home and DJ use.

having to worry unduly about a pint being split over my SLI120 or PDX-A1, whereas if either were my main deck, I would be more concerned! I have not personally heard the Reson Mica cartridge, but the Goldring 1042 is a superb unit for a similar price - an audition would be mandatory here.

The Vincent SA-T1 and SP-T100 amplifiers are a superb combo that impressed me considerably and are well worth seeking out. It might be a good idea to give Ruark a ring on 01702 601410 if they're not answering their e-mails too promptly. The Vestax mixer is a well made unit that should perform respectably well in a hi-fi system, but the dedicated Vincent preamp will be much better. Obviously it is difficult for us to comment on equipment's long-term longevity as it generally passes through our hands fairly quickly, but the Vincents are very solidly made and weighty - if their internal construction is anywhere near as good as their externals, then you should have no worries.

Interestingly, the idea of modifying a mixer for better sound performance is something that has crossed my mind before, with internal components and controls prime targets for upgrading. If my addled brain serves me correctly, the Vestax PMC-250 has rotary controls rather than sliders and so this would seem an ideal candidate for some upgraded internal wiring, ALPS pots and posh capacitors. Equally, a power supply upgrade would only bring improvements but I am not entirely convinced that battery power is strictly necessary. I have visions of you lugging a car battery around to parts with you, which would not exactly make life easy! AS

Gareth - I have had problems with the Technics SL1200 project plinth fabrication, so the feature has been delayed. Regardless of the plinth situation, I will soon be running the thing or what issues hinder it? Any advice respectfully received, hope you can help in some way.

Gareth Richards

Upgrading the Technics as you suggest is a fine idea and would definitely improve your audio quality. However, if your houseparty DJ-ing is carried out at places other than your home, it might be worth considering a couple of standard Technics or Vestax decks for this purpose and then have a dedicated hi-fi deck at home. This is the route I have taken, and there is a lot to be said for not being spilt over my SLI210 or PDX-100, whereas if either were my main deck, I would be more concerned! I have heard problems with the Technics SL1200 project plinth fabrication, so the feature has been delayed. Regardless of the plinth situation, I will soon be running the

SL1200 with heavily tweaked Rega arm, isolaplatmat and the latest Isonote feet, and will be reporting in due course. DP

CRACKING THE DECODE

March Hi-Fi World's article on GT Audio's Leak Troughline updating to stereo using a "modern Decoder" was of interest. I think you'll find that One Thing Audio's Decoder blows Graham Tricker's away, and including realignment at about half the cost! Am I right to think that if the decoder is fitted inside the Troughline, the sound quality and separation would suffer due to heat stress? Would it not be much better to use the One Thing decoder in its own external case? You could then use the same decoder with more than one turner. Perhaps you could bring this matter to the attention of your many readers who still rate FM Radio as one of the finest of sources.

Mike Rodway.

Hmm! Your letter sounds like a disguised Press Release of the unsubtle kind Mike. All the same, a One Thing decoder did arrive at Hi-Fi World towers recently and is awaiting our reverent attentions. We will likely have a review of it in the next issue.

NK

CARTRIDGE CONUNDRUM

I'm in a quandary! Some time ago my now retired bank manager, a generous hi-fi fan, gave me an Entre moving coil cartridge (Graham, If you see this, please feel free to contact me and we can resume our chats about hi-fi.). Although I've been unable to find out much about it, I'm led to believe that in its day, it was a reasonably expensive and good piece of kit. Once fitted it was obviously superior to the Rega MM cartridge it replaced and I've been very happy with its performance, but I will need to replace it in the not too distant future and the question is, with what?

Have I been horribly spoiled and need to spend £500 plus (which I can't afford) to match its performance, or have times moved on and a less expensive replacement may be in order? I listen to a lot of accessible jazz such as Dave Grusin, Jaco Pastorius, George Duke and other quite musically complex material including Joni Mitchell, Steely Dan, Tears for fears and Little Feat. To be honest I can't really justify spending more than around £100 and I realise (unless I can pick up another used one) my choice will be limited. My present number one system comprises; Rega Planar 3, RB300 with Michell TecnoWeight conversion, Audiolab 8000A amp (and its MC input) into MS 208s via VDH 'the Clearwater' cable. Digital is provided by Arcam Alpha Plus and Arcam Delta Black Box.

Also another question, is there a direct link to the love of motorcycles and hi-fi? I've seen several references to bikes

Leak Troughline goes stereo with the One Thing external decoder. But is it better than GT Audio's?
in your magazine and mail my friends who like hi-fi but also own bikes (I ride a
ZZR 1100).

Terry Symonds

Used cartridges are something of a minefield, Terry, as you can never be sure exactly how many hours the stylus has under it, or what sort of conditions the records that is has played were in. For your £100 budget, the immediate candidates that spring to mind are the new Ortofon Tango and Denon DL103 if you really want another MC, or if you don’t mind going ‘back’ to the MM stable, we have all been extremely impressed by the Goldring 1012GX.

Although I have not heard an Entre MC, I agree with you in that it was supposed to be a rather good item in its day and, consequently, I suspect you would have to move up to a forum very close to you and had started posting replies to some threads, I suppose I thought these forums would be made up of erudite enthusiasts (more House of Lords than House of Commons) where I would learn insights and tips to enhance my system and discover the meaning of life. I really was rather excited! However, what I discovered was a bunch of overgrown schoolchildren shouting about how great their systems were!

I have to own up. I have a Lingo’d LP12 which I had upgraded with a Hadcock 242 and Music Maker cartridge. Well, as this wasn’t a Garrard 301/401 it was rubbish. I defended my deck as I am attached to it and don’t feel the urge to spend more money on a different but not necessarily better sound. When I stated that I didn’t want to rush out and replace it with an idler drive, tus all round. After admitting that I had heard the arm and cartridge on a Michell Gyro with Orbe updates and didn’t hear any difference to mine that was it! Impaired hearing and the taste of a Big Brother contestant! A bit depressing really.

On to the Cartridge Man. Musicmaker. David said it didn’t do it for him. I was jumping up and down in agreement. It’s very fine but in my system just seemed boring and the vocals appeared recessed. My system is a Craft Epoch pre, VTL ST5S power (EL34s) and Monitor Audio Studio 20s so you would expect a bit of boogie. I restored my old Denon DL304 (do you hate these as much as the DL103s?) and bought an MC step up from Noteworthy Audio to use with the Craft MM stage. Brilliant! Until I played around with the cantilever and killed it.

This letter was going to be about cartridge should I buy next? I put the Music Maker back on but it sounds different. The bass is stronger, instruments more natural, especially acoustic, and vocals fine. I don’t know if I have set it up better but it is a marked improvement. I miss the brightly lit midband of the Denon but not the increased surface noise. It now boogies! I still wonder about a new cartridge but only because like wine tasting I want to see if there is anything better.

As a final piece, having read comments by Noel, I rewired my listening room which was a necessity not an experiment, with 4mm twin and earth from RS Components (6mm won’t fit in to MK sockets). As I had a lot of cable left over and was bored one afternoon, I swapped my van den Hul CS1/22 speaker cable for the twin and earth. I haven’t changed back. I use vdm interconnects which I’ve kept after substituting different makes so this is down to what works in my system as opposed to better etc. Makes you think, doesn’t it?

Really finally? Are you going to be testing the new SE mods for the Linn LP12? They seem very pricey. Thanks for a fun and stimulating mag.

Steven Slowthe

Ah the good old forums - I must confess to spending more time than is probably good for me perusing a few of these and I have always felt that most should be viewed chiefly as a source of entertainment that occasionally turns up some very useful snippets, rather than being a plethora of accurate information! Remember that if you like your equipment, then what business is it of anyone else to cast aspersions on what you have? Certainly the LP12 is a fine deck and whether it is better or worse than the Garrard 301/401 is a matter of personal opinion. Whilst, as a 301 owner, my allegiance is clear, it is worth remembering that the LP12 is second only to the Technics SL1200 in terms of production longevity, so it is certainly no duffer.

I have experienced a similar cartridge situation to yours a couple of years back when I stumbled across a secondhand AT33 moving coil. On first trying it, I found it to be harsh, spity and fairly unpleasant and it went straight back into its box. Moving forward a year or so I brought along a house move and my equipment set up in a new room - all sounding fine with the exception of the turntable which sounded dull and lifeless. After checking setup for the umpteenth time I suddenly
Linn LP12 - a great turntable that improved even further recently with a whole series of upgrades.

remembered that little box. Needless to say, the AT33 injected just the right amount of verve into the setup and found itself being used for a good year or so until an AT-0C9 came along and made everything rather more sophisticated. By all means try out a few other cartridges, but beware of change for change's sake, especially if you find you have taken a liking to the Music Maker. AS

Hi Steve. We like the LP12 and have nothing against belt drives either, which generally sound clean and spacious. The Garrard 401 I use is simply very convenient, is a firm platform that can accept any arm and has a pacy and grippy sound with great - almost breathless - timing, plus deep bass. I suspect, however, that a good Direct Drive could manage as well, or perhaps better. Also, the 401 isn't perfect; it has a slightly grey midband, and here the LP12 is superior.

I feel pickup arms remain grossly misunderstood design-wise and that there is a long way to go here. The only starting point would be some sort of computer based structural analysis to see whether current structures and materials are sensible. I suspect they are not - and our measurements tend to bear this out. A good arm will provide better results overall, so as better arm designs come through, as I am sure they will, this will be the largest determinant of sound quality.

We don't hate the Denon DL103 moving coil cartridge either! It's good enough at the (low) price and has a strong following. Measurement showed it is a great tracker too. All the same, I feel there are better experiences to be had at the price, preferring Goldring MMs, for example. Put a 1012GX, 1022GX or 1042 in a Rega RB300 and you have a great combo, at an affordable price, that has real verve. NK

I'm for 'em! There's nothing wrong with anyone having 'the oxygen of publicity', as Mrs T once famously put it - it's just that you have to use your brain and suspend disbelief when you read some people's posts.

Denon DL103 and DL103R - fine moving coil value at £99 and £199 respectively.

First, who is likely to be posting on forums? Casual observers, middle-of-the-road folk, people with very wide experience of hi-fi? Or opinionated, tendentious zealots? Well, you never know. I would politely suggest that most denizens of hi-fi forums have an extreme interest or passion for the subject, and this may 'colour' their views. The operative word is 'may' as this could also make them exceptionally well informed. For example, some of our readers' letters show stunning insight and experience, others something of a misunderstanding of the topic - and you just never know.

The other point is that many forum posts are quite aggressive - for example, blithely dismissing your use of an LP12 and implying you must be stupid for owning one. Well I've heard a good number of great turntables, and for some types of music I've still never heard anything better. In other instances, I wouldn't touch it with a bargepole, but my point is that if I was a full-on jazz fan, for example, I'd be running one now and not a GyroDec and/or Pioneer PL-L1000. The longer I do this job, the harder I find it to laugh derisively at other peoples' systems - generally enthusiasts have evolved their set-ups into something that does it for them. Forum-goers, I would argue, often have a more simplistic and less three dimensional view of life...

As for your cartridge, I am afraid the MusicMaker didn't float my boat. I must confess that (like Noel) I'm a fan of the subtlety and insight a serious moving coil can bring. Moving magnets such as the MusicMaker are just too veiled in the treble and opaque in the midband for my tastes, although it is excellent in other respects, as its name suggests! I personally would go for an Ortofon Rondo Bronze (£500) which will give you the clarity and bite of the Denon 304 with a good deal more finesse. It is slightly less warm though, but your Linn LP12 should add a little

SPEAKING BRIEFLY

Just a very quick question: did your magazine ever do a test of the B&W 803D loudspeakers and, if so, what were your experiences of them?

Raymond Van Rompaey
Raymond, we have not covered this particular model. That said, I did spend a while with a pair of pre-diamond tweeter 803s and liked them - they had the typical B&W qualities of accuracy, good detail and bass depth and I would imagine that the diamond tweeter will only improve on this. It is difficult to comment on whether you will like them, however, without knowing your musical preferences and the rest of your system. AS

We've only done the B&W 801D so far, and I chose to review this above the 803D for the former's massive 15" bass driver (the 803D uses three 7" cones in parallel). I've heard the 803D sound very impressive, with a clean, measured, detailed monitor sound, but personally, the 801D did something that the 3 didn't - which is to move air with effortless grunt. It is truly charismatic in the best sense of the word, and the best B&W speaker I've yet heard. DP

INDEXING

I am currently re-reading my collection of hi-fi magazines, with the claimed goal of making an index of the articles I have found useful/interesting in order to be able to quickly find them again. In fact, I am suspicious that this is just a pretext as I enjoy reading the magazines again!

However, re-reading articles from different magazines over a long period (15 years) has made me aware of some general 'tendencies':
- A piece of equipment doesn't need to measure well in order to deliver the goods
- The revival of vinyl and valves
- The 'boom' of what was in the past considered as secondary accessories (if ever) such as cables, mains filters, connectors, add-on power supplies etc.
- The 'loudspeakers set-up' concept
- Followed by the 'turntable set-up' concept, followed by the 'arm/cartridge set-up' concept etc.
- As opposed to the above, the 'listening room acoustics' concept has made a more timid appearance
- The concept of 'synergy' when assembling two or more components
- The use of French words or expressions in English audio-related literature is also relatively recent. It has started first in the US, then appeared on the internet, and finally reached the UK hardcopy press too. As with any trendy fashion it is sometimes misused and/or misspelt (i.e. 'fates accompli' in HFW June 2006, p68)

An obvious conclusion is that hi-fi is definitely an industry and that the hi-fi magazines reflect it. After all the press is an industry too, and a big market, especially for cable manufacturers. As far as HFW is concerned, I have noticed a net improvement since the 'DP/NK' editorship in general and that the word 'couth' has made a very new but often-used appearance as an adjective in the reviews. I also feel that maybe I need to start a special index 'DP' and the 'NS1000'! Overall HFW would be my hi-fi mag. of choice if I had to read but one. In particular, the editorial tone, the articles 'on a theme', the comparisons between 'old and new', the Mail and the DIY sections are what makes your magazine far above the others. However, I would like to add my contributions to some audio-related topics if I may:

(1) Vinyl vs. CD vs. master tapes: generally, people are comparing apples and oranges. There is not one master tape - there is the master tape for vinyl, another one for CD and sometimes a third one for radio. The first aim of mastering is to adapt the final mix to the medium the work will be released on. If an album has to be released on vinyl and on CD there will be two different master tapes (or digital files) created. If tracks X and Y have to go on air for promotion there will a third master made for tracks X and Y. It is therefore in general irrelevant to compare a vinyl to a CD as the latter has been made using either the record as the master (the worst case) or the master tape (mastered for vinyl). Only when the mastering has been done using the final mix has the CD a chance.

For reference: The Who 'Live at Leeds' on vinyl (1970), on CD (1987), on remastered CD (1995) and on remixed and remastered CD (2001). As the CD versions are improving with time I guess that the 1987 version used the vinyl as the master, the 1995 version very likely used the vinyl master tapes and the 2001 version obviously used the original tapes since it has been remixed.

I am not comparing analog vs. digital playback, I am just trying to point out that a huge amount of CDs had been made using a masters custom-made for vinyl and therefore are flawed from the start from a sonic point of view.

(2) DP and the NS1000: apart from the fact that you need to keep your Yams intact as it serves you as a reviewing tool, have you ever considered driving them multi-amplified? Let's say with the NuForce for the bass and your modded WAD for the medium and treble? A second-hand computer (you don't need great speed for the purpose) equipped with a 4-output soundcard and some audio software is all you need to make a digital crossover and it is easier to do and cheaper than to build a WAD kit! On the other hand you can use a Behringer DCX2496, just ask AG to rebuild the power supply as the stock one is hopeless.

(3) CV and speakers used tuned cabinets: besides the Waterfall, Eclipse and Bösendorfer please have a listen to models from Ocellia (www.oellia.com), OSH (www.osh-antimis.com) and Auditorium 23 (www.auditorium23.de).

Ocellia Calliope loudspeakers - reviewer Channa should have a listen, says reader Jean-Christophe Xerri. Not only do they make use of tuned cabinets and they sound 'natural' but also they are very efficient, crossoverless and just love low-powered valve amps (don't forget to invite NKC).

Finally, there are a couple of topics I would like to read on: firstly a mains-isolated system. There are already turntables, phono preamps, portable digital recorders, computers, DACs, line preamps (and TVCs), integrated amps with battery-powered PS. Why not building an entire system free from the noisy mains corruption?
Yamaha NS1000 (again!) - benefit immensely from a set of custom-made stands.

Secondly, digital room correction. There are already existing products (Lyngdorf, Tact, DEXQ) as well as DIY attempts on the net that do not cost an arm and a leg. Wouldn’t it be a good thing to experiment what the mixing engineer attempted to do without transforming our listening room (which is also the family living room for most of us) into a studio suite spolt with absorbers, diffusers and Helmholz resonators? That’s enough for now. Keep up the good work!

Jean-Christophe Xerri

Hmm, I am not entirely sure that it is true that a piece of equipment does not need to measure well in order to sound good. Very often any irregularities in measurement can indeed be heard but the important point is whether their resulting effects are objectionable or fairly benign. Ultimately, however, we do tend to find that the best-sounding equipment that we audition does indeed measure fairly well as well. Just to confuse things even further however, we do sometimes find that a set of good measurements do not necessarily guarantee a good sound...

I don’t think anyone could have predicted fifteen years ago how some aspects of the current audio industry, such as valves and vinyl, would have developed. Others, such as proper setup, system synergy and suitable accessories, seem to be a natural progression to me and I am surprised that it took so long for someone to realise that the best place to site their loudspeakers was not actually plonked down beside the sofa with a pot plant on top of them. Hi-fi is an immensely rewarding pastime, but is not really a fit-and-forget activity, especially if you like those valves and vinyl!

As to the use of French, I suspect that, deep-down, we feel it confers a sense of the exotic and mysterious upon us when we use it. Of course, slipping into the realms of Del-Boy Trotter is always a danger, so we shall have to monitor these more closely in future. Mangetout!

AS

Au contraire Rodney - I mean Adam! Sometimes we need to use French to describe situations or sensations for which adjectives or phrases don’t exist in English. No excuse for the odd typo admittedly, but using foreign words is accepted English practice, and useful too - as anyone who’s ever tried to describe déjà vu in English will know!

As for the Yamaha NS1000Ms and myself, I now realise I have spawned a monster. I use them because I’ve yet to hear more transparent loudspeakers (from any era), but I admit they are flawed in some ways (like every other speaker). The trouble is, after twenty years in the wilderness (in this country at least), it appears that every single English-speaking NS1000 owner in the world picked up on me using them and decided to write in.

Apologies for this, as I realise it is terminally dull for non-NS1000 owners - maybe we should introduce a ban, like the French once tried with English words in langue française! Given what I’ve just said, I shall not divulge my plans to run my Yams with Marantz electronic crossovers...

DP

CD and LP come from different master tapes, so they cannot be compared. Heaven Seventeen’s ‘Luxury Gap’ CD demonstrated what happens when you use the same master, in this case the LP cutting master.

There were some glorious examples of CDs being derived from LP cutting masters. Heaven Seventeen’s ‘Luxury Gap’ being a classic example. But I am not aware this was ever a common practice/mistake. Quite the reverse in fact: the recording business was excited by the introduction of CD and the lack of any need to derive a special cutting master, due to CD’s intrinsic accuracy. Back then, digital was inarguably perfect, remember? Early CDs were flawed for a variety of reasons. Engineers were told CD had 96dB dynamic range, but that they must not run into overload at the mastering stage (digital has a strict headroom limit). So music was transcribed at a low level, in the belief that 96dB gave more than enough headway. What few realised was that digital was only ‘perfect’ at full level; at low levels it was very imperfect, distorting heavily in a way LP had never done. This greyed and coarsened the sound of early CD. This behaviour, as well as poor A/D convertors and jitter, hampered sound quality. Modern recordings are a lot better all the way along the signal chain and you can hear it. It is certainly the case that LPs and CDs are usually from different master tapes and therefore not directly comparable, but I compare them in any case! It’s always interesting.

The issue of measurement is a little complex. Yes, products that measure badly can sound good, but that really depends upon what it is that measures badly. Not all measurements say much about sound quality, channel separation being one; much above 23dB is good enough for us.

to perceive stereo. Distortion is another controversial one: second harmonic distortion (a signal at twice the frequency of the stimulus) is also subjectively innocuous. Third harmonic adds sharpness, but at low levels gives the sound incision and a hard edged quality that some like, as it seems to ‘sharpen things up’.

Much above this however and the ear starts to hear distortion not as a change in quality of the music, but...
Hitachi HMA-7500 amplifier - measured perfectly back in 1979, but didn't sound that way.

as a separate interfering signal. Then there's the modulation pattern of the distortion, or whether it is correlated with the music.

Cartridge mistracking is interesting in an illustrative example; just before mistracking a pickup cartridge produces lots of distortion, but it isn't heard as such. As soon as the stylus lets go, the signal starts to take on a modulation pattern as higher harmonics join lower ones (that characteristic zzz... zzz) and this the ear hears immediately. Digital distortion is often uncorrelated with the music and possesses components that may be of fifteen times higher frequency than the stimulus; the ear detects this as something totally removed from the music, as greyness, hash, hardness and what have you. So there's distortion - and distortion! Some is innocuous, like 5% second harmonic, but some is not, like 1% digital quantisation distortion. So products can measure badly, but sound quite good all the same.

The converse is more difficult: products that measure well and sound bad. This is where argument breaks out! My oft quoted example was one of the first MOSFET amplifiers, launched in the late 1970s, the Hitachi HMA-7500.

This was distortion-free, even at high frequencies, and measured perfectly in every other respect, yet there was no sound quality benefit. The reverse in fact: it had a peculiarly unengaging sound, characterised by a lack of stage depth and a slightly opaque quality. It was lifeless and unengaging to listen to; one reviewer said amplifiers like this sounded “boring” and, in a nutshell, he was right. Yet it measured perfectly, so here was a total contradiction. Why?

Many people have put forward reasons, but to this day I am unaware of any measurable proof. Some amplifiers today, often based around MOSFETs, still measure perfectly and yet seem to benefit little, if at all, in sound quality. The general suspicion is that excessive feedback is the culprit, and, in the case of the HMA-7500, poor 1970s component quality. These days component quality has improved and so has sound quality, but still it is difficult to measure any difference between then and now, so what the ear is hearing, heaven knows! Thankfully, this situation, where a product measures perfectly but doesn't necessarily sound so good, mainly affects amplifiers and we just have to live with it. It doesn't negate the value of measurement, but it does suggest that with amplifiers the measurements we use are best at determining general operability rather than ultimate sound quality. Unfortunately, whilst this contradiction between measurement and sound quality exists with amplifiers there will always be room for argument, the most common being that our subjective assessment is flawed, not the amplifier. If this was the case then an awful lot of people around the world are deluded. All the same, at Hi-Fi World we endeavour to have more than one person listen to a product, often under different circumstances and always without prior discussion, to ensure there is consistency of view.

Generalising then, if a product measures well then there is a good chance it will sound at least respectable. If it measures badly then the reason why is the issue when it comes to influence upon sound quality. In this case measurement usefuly warns that sound quality traits are due to measured imperfection, avoiding the unfortunate situation where a reviewer hears the effect, likes it and declares the product a winner. Dah!

What studio engineers do with equalisers and all the other gadgets they have available to them nowadays is a little different to improving room acoustics. We recommend more sumptuous furniture rather than treatment panels, although Studiospares have a good range of all those ugly things you list that can help. Helmholtz resonators? Try a tall bookcase in a corner - much more effective.

Hasn't French always been a part of English, even if Wikipedia says our roots are West Germanic (who said hi-fi is confusing?). Start worrying when we turn to Gaelic. NK

Go raibh maith agat ar do líon. SM

HEADING NORTH

I have read and subscribed to Hi-Fi World since issue 14 and I admire your comments on hi-fi as we both think very much along the same lines. I, like yourself, purchased a brand new Garrard 401 turntable in 1970 which I fitted into a Howland West plinth with a Neat Q208 tonearm and a Shure M75ED cartridge. This was amplified by my first amplifier which was a 45W (RMS) Nikko TRM1200 and it fed a pair of Wharfedale Unit 5 kit speakers (3 way units with a 12in bass driver). In 1976 I upgraded the arm to an Acos Lustre GST1 and in 1981 the cartridge was changed to a Goldring G900 IGC. The rest of my system was upgraded to a top end Rotel 1010 setup complete with tuner, tape deck, 100W pre/power amps., complete with a spectrum analyser with an on-board pink noise generator, condenser mic. and a matching graphic equaliser to control it, all housed in its matching metallic brown and glass cabinet. Excellent!

After lots of careful auditioning the speakers were changed for a set of 15in Tannoy Berkeley Dual Concentrics. All of this only had moderate use up until 1983 when I purchased (wait for it) a Philips CD104 CD player. This lasted until the mid nineties when it was replaced with a Marantz CD63 to which I later added a Micromega Duo BS2 DAC that turned out to be quite a smooth and detailed combo, for CD anyway! I then found a second hand Meridian 200 transport and 263 Delta Sigma DAC advertised in Hi-Fi World by a high-end dealer in London for the modest sum of £399. I quickly phoned them up and was lucky enough to secure a deal. When they arrived I unpacked them and was stunned to see the condition they were in. Immaculate! They were also supplied with a van den Hul digital interconnect, I could not believe my luck. I sent the transport off to Meridian for a check-up and service. Meridian contacted me and asked if I would like to have the unit upgraded as well. For the service and upgrade they wanted the princely sum of £35 so I snapped up their offer. When it arrived back I connected it up and what a difference. Deeper, tighter bass and more detail, for CD anyway! I then found a second hand Marantz CD63...
Having had some past experience of building hi-fi I decided to go for it. I phoned up and ordered the three PMC DB1+ units. I then saved up and purchased a pair of 300B PSE monoblocks which I started to build but unfortunately had to put on hold due to health reasons. This led to me having to give up work and because of this and a few other reasons we decided to sell up and move from Kent to north west Cumbria where my other half is from.

The upside of all this was that I could afford to buy a large, detached Victorian house with 18in thick walls, solid internal walls and doors, 9ft 6in high ceilings and - most importantly - my own wife-free A/V room complete with open fireplace, large (9ft long) sofa, wine/beer glasses fixed to the wall next to it and an in-room chiller to keep it in. An audiophile’s dream set up I think!

Since I moved up here five years ago I have set up an A/V system using mainly second hand equipment such as a Rotel RSP985 THX processor hooked up to two Rotel 2 channel power amps. and a Rotel 6 channel amp. bridged to the Tannoy 628 rears with a pair of Mission 751 units that a friend of mine had blown up and was going to take to the dump. I rescued these and after inspection found that two bass drivers and one tweeter were dead, but the crossovers were both okay. I phoned Mission and a very helpful lady called Nikki said that she could supply me with original bass drivers and a butterfly repair kit for the tweeters. The total cost would be £89.35 for all four units inc. p&p so I placed an order. I have since restored these and once again they are singing.

I enjoyed doing this so much that I have decided to upgrade the crossovers and with the help of Peter Comeau and Nick Holland at Arena Electronics I have changed the internal wiring with the capacitors with their SAX type. If the inspection found that two bass drivers - sounds great, much better than my Mission and will hopefully enjoy for many years to come.

Graham Taylor,

Hi Graham. It is difficult to know quite what to say about the Music Maker III cartridge as a second-hand deal without a price - and age. As always though, you need to be sure it has some life left in it, and is not worn out - or going that way. Two new Ortofon moving magnet designs have just arrived however - see our review this month - and more top quality moving magnet cartridges from a well known and respected manufacturer are due out soon, so don't act hastily!

Like your house by the way - sounds great, much better than my 1910 piece of London Victorian that has - er - structural limitations shall we say, in contrast to what you have found in Cumbria (meaning the walls are crap and the roof leaks!).

- Creek - Destiny CD/Amp + PMC DB1 System

**£2735**

Save **£340**

Creek have a winner here. Tuneful, vibrant, a great partner for PMC - Come and listen. Could this be your Destiny? For this month we include PMC DB1+ for half price!
We are proud to announce that we are dealers for VPI RECORD DECKS, K&B, ARIZONA GOLDRING, PROJECT, E.A.R, INCA DESIGN, MUDDY, WE HAVE VARIOUS CARTRIDGES IN STOCK - MORE EQUIPMENT ARRIVING DAILY - please ring or we will.

E-Mail: matrix@matrixhi-fi.co.uk

M&B AND 2007 QUALITY VINTAGE/NEW Hi-Fi

6-7 DARENTH ROAD, DARTFORD
KENT DA1 4LU, U.K.

TEL: 01322 287875 287891 22768
FAX: 01322 227680

RECORD DECKS/HEAD AMPS/STONE AMPS

SPIECERS

POWER AMPLIFIERS

POWER CONDITIONERS

MISC

How to get the most out of your record player in 3 easy steps:

1. Buy from Musonic
2. Fit your purchase to your player
3. Turn up the volume

After 50 years in the business
We know what we're talking about!

Manufacturers and suppliers of Styli, Pickup Cartridges and Audio Accessories.

Musonic (UK) Limited
271B Wenta Business Centre
Colne Way, Watford
Hertfordshire WD24 7ND
Tel: 020 8950 5151
Fax: 020 8950 5391.

For info and to buy online visit:
www.musonic.co.uk
LAT INTERNATIONAL
Since 1989
IC 300 Signature, IC 200 MKII,
IC 100 MKII Analog,
DI-30 Signature & DI-20 Digital
and VI-6 Video Interconnects,
AC-2 MKII Power cord,
SS800 MKII and SS1000 MKII
Loudspeaker cables, also available in Biwire form.
- Tonearm interconnects TA300, TA200 and
TA100. Solid Core Silverfused wire technology with Teflon insulation and are fully shielded.

LAT International Maintenance products - Contact Cleaner, Record Cleaning solution,
CD/DVD disk cleaning solution Enhancement products - Vibra Killers, C Diamond, Once & Done and Green Line

AUDUSA OOM products include ceramic speaker cable isolators from the USA, MK Tough plugs, IEC’s, & Wattgate 320L IEC with silver plated contacts. Locking banana and RCA connectors with silver plated pins.

North Star
192 top loading Transport (Pro 2 CD Mech) and Extremo DAC.

AUDUSA EUPEN
The world's only true Ferrite technology cables - a high quality ferrite is extruded over the conductor strands.
Power Cords - GNLM 5/2.5 (CSA 2.5) and GNLM 05/04. From £48 for a 1m cord terminated with an IEC and MK tough plug. Other terminations include Fig of 8, 16 amp IEC, and mains plugs Schuko, USA, Danish, India, Swiss etc.

Bosendorfer Loudspeakers

WWW.AUDUSA.COM
T: 020 8241 9826, 020 8264 0249   F: 020 8241 0999   E: sales@audusa.com
Come and meet the Hi-Fi World team at The Heathrow High Fidelity Show 2007 at The Park Inn Heathrow on 31st March - 1st April 2007.

Park Inn Hotel, Bath Road, Heathrow, Middlesex, UB7 0DU
Design and Build service available.

Contact: Gareth Ellis, 01938 500672 / 07890 917105
History has a way of repeating itself...

1. TRANSCRIPTORS REFERENCE TURNTABLE 2. FLUID ARM 3. STYLS SCALES
[ RANGE OF SPARE PARTS AVAILABLE / FULL TURNTABLE RESTORATION SERVICE ]

TRANSCRIPTOR Ref MKII + SME M2-10 ARM - £2,995.00

TRANSCRIPTORS TURNTABLES

UK Distributor: English Valve Amplifiers
67 Springfield Road • St Leonards-on-Sea • East Sussex • TN38 0TU
Tel: 01424 445107 • Mob: 07842 126218 • Email: paul@valve-amps.co.uk • Web: www.valve-amps.co.uk

Rochester Hi-Fi
30 HIGH STREET, ROCHESTER, KENT, ME1 1LD - 01634 880037

ARCAM, ATACAMA, AUDION, AUDIOPHILE BASE, AVI, CHORD CABLES, CHORD ELECTRONICS, CLEARAUDIO, CREEK, DALI, DK DESIGN, EPOS, EUPEN, EXPOSURE, FOCAL JMLAB, GAMUT, GRAVES AUDIO, GRAHAM SLEE, LAT INTERNATIONAL, METRONOME TECHNOLOGIES, NORTHSTAR, NOTTINGHAM ANALOGUE, NU FORCE, OPTIMUM, ORIGIN LIVE, PARTINGTON, PROJECT, QUADRASPIRE, RESOLUTION AUDIO, RENAISSANCE, STIRLING LS35/a, TANNOY PRESTIGE, USHER.

www.rochesterhi-fi.co.uk
It's grim up north...
TURBOCHARGING YOUR REGA ARM

"Nothing less than total dynamite"  
HI-FI WORLD

If you are the proud owner of any Rega tonearm, you are now in the enviable position to transform it's performance into the league of super arms with our modifications. The OL structural modification at £75 will enable your Rega to perform at a level exceeding that of some arms costing over £1000!! High performance re-wiring with high grade litz wire is also offered at an additional £70 and external re-wiring is also £70 further increasing the performance.

"I have to say the Rega modifications turn this humble arm into a real giant killer. Gone is the rather grey, sterile sound of the cooking Rega. Instead, total colour is fresh, dynamics have great speed and impact, and the sound stage is huge."

HI-FI WORLD ON STRUCTURAL MODIFICATION

Structural modification awarded 5 star rating by

Internal Rewiring - £70
External Rewiring - £70
High conductivity phono plugs £20

If you do not have an arm we can supply the OL1 arm (manufactured by Rega) £124

Arm modifications normally returned within 1 - 3 days

---

"The single most important upgrade you can ever make to any record deck concerns the motor drive...nothing can prepare you for the shock of going DC. In a word, gobsmacking."

COMMON GROUND MAGAZINE

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

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

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

Standard dc Motor Kit - £199
Advanced dc Motor Kit - £539
Upgrade Transformer - £175
Upgrade DC 200 motor - £129 with kit

---

Made by enthusiasts for enthusiasts

MB50 Monoblocks
CM05 Preamplifier
A50R Integrated amplifier

Anatek Acoustics

Anatek's famous fully patented output stage helps to produce a remarkably natural sound. It has all the benefits of Class A (non-switching) with no crossover distortion but does not generate the heat and consequent stresses on components.

For more information please visit: www.anatekaudios.co.uk or call +44 (0)1903 534902
Heatherdale audio limited

9% FINANCE AVAILABLE FOR UP TO 3 YEARS ON SELECTED ITEMS. SUBJECT TO STATUS. CONDITIONS APPLY.

SPEAKERS
- JM LABS Mezzo Utopia speakers
- B&W 801 MK 1 speakers
- B&W 802 MK 1 speakers
- Tannoy Westminster Royal HE speakers
- Dynaudio Audience 7 speakers
- Origin Live OL-2 speakers
- KEF Concourse speakers

PRE-AMPS;
- Mark Levinson ML380 pre amp
- Mark Levinson ML380S pre amp
- Audio Note M8 pre amp with phono (£19500)
- Audio Note Zero remote control pre amp (new)
- Audio Note ML380S pre amp

AMPLIFIERS
- Linn 3700 Power Amp with Passive Pre
- Parasound Titan Tower Integrated Amplifier
- Pair of Trilogy 902 Power Amps with Trilogy 902 Pre Amp
- Nakamichi Amp 1 with Cassette Deck 2 \\& CD Player 3
- Meridian 605 Monoblocks
- Audionote Kogen Mono Amps (£36000)
- Exposure 15 Integrated Amp
- Mark Levinson ML403 Power Amp
- Korg Trinity 100 SS Monoblocks
- Classe A CA201 Power Amp
- Audionote Nerd-Moda-Moda

CD PLAYERS & TRANSPORTS
- Theta Data Basic 2 CD Transport
- Theta Chroma DAC with HDCD
- Esoteric C-03XSE CD/SACD Player (our demo model)
- Sony CDP-M1 CD Player

PRE-AMPS;
- Mark Levinson ML380 pre amp
- Mark Levinson ML380S pre amp
- Audio Note M8 pre amp with phono (£19500)
- Mark Levinson ML380S pre amp
- Audio Note Zero remote control pre amp (new)
- Mark Levinson 29 Pre Amp

CD PLAYERS & TRANSPORTS
- Theta Data Basic 2 CD Transport
- Theta Chroma DAC with HDCD
- Esoteric C-03XSE CD/SACD Player (our demo model)
- Sony CDP-M1 CD Player

AMPLIFIERS
- Linn 3700 Power Amp with Passive Pre
- Parasound Titan Tower Integrated Amplifier
- Pair of Trilogy 902 Power Amps with Trilogy 902 Pre Amp
- Nakamichi Amp 1 with Cassette Deck 2 \\& CD Player 3
- Meridian 605 Monoblocks
- Audionote Kogen Mono Amps (£36000)
- Exposure 15 Integrated Amp
- Mark Levinson ML403 Power Amp
- Korg Trinity 100 SS Monoblocks
- Classe A CA201 Power Amp
- Audionote Nerd-Moda-Moda

PRE-AMPS;
- Mark Levinson ML380 pre amp
- Mark Levinson ML380S pre amp
- Audio Note M8 pre amp with phono (£19500)
- Mark Levinson ML380S pre amp
- Audio Note Zero remote control pre amp (new)
- Mark Levinson 29 Pre Amp

CD PLAYERS & TRANSPORTS
- Theta Data Basic 2 CD Transport
- Theta Chroma DAC with HDCD
- Esoteric C-03XSE CD/SACD Player (our demo model)
- Sony CDP-M1 CD Player

AMPLIFIERS
- Linn 3700 Power Amp with Passive Pre
- Parasound Titan Tower Integrated Amplifier
- Pair of Trilogy 902 Power Amps with Trilogy 902 Pre Amp
- Nakamichi Amp 1 with Cassette Deck 2 \\& CD Player 3
- Meridian 605 Monoblocks
- Audionote Kogen Mono Amps (£36000)
- Exposure 15 Integrated Amp
- Mark Levinson ML403 Power Amp
- Korg Trinity 100 SS Monoblocks
- Classe A CA201 Power Amp
- Audionote Nerd-Moda-Moda

PRE-AMPS;
- Mark Levinson ML380 pre amp
- Mark Levinson ML380S pre amp
- Audio Note M8 pre amp with phono (£19500)
dCS

are world leaders in digital audio technology. Their Unique patented Ring DAC Conversion architecture and advanced in house IC design skills have made their high end audio converters the first choice of discerning audiophiles.

Whether you listen to CD or SACD, dCS products deliver a performance from silver disc that can best be described as truly breathtaking and with the emergence of stunning new models, they will as before, lead the way.

Contact Sounds-of-Music for more information or to arrange a personal audition.

LUMLEY

was created by John Jeffries.

The Lumley Stratosphere reference turntable is one man's dream to give music lovers one of the finest turntables in existence today.

It comes at a premium but if you want the best at it's price, nothing comes close to the Lumley Stratosphere. It is a true compliment to every musician who ever breathed.

Contact Sounds-of-Music for more information or to arrange a personal audition.

SME

now has over 40 years experience in high quality precision engineering and the Company's plant at Steyning is now probably the largest and one of the best equipped concerns devoted to the manufacture of precision pick-up arms and turntables.

A little more affordable but none the less capable of true 'State of the Art performances'. The present manufacturing programme consists of three precision turntables and twelve standard pick-up arms so offering one of the most comprehensive ranges available today. Engineering at its finest.

Contact Sounds-of-Music for more information or to arrange a personal audition.

QUAD

since 1936 has been at the very cutting edge of high-end audio, winning acclaim and respect for their products around the world. Build quality and reputation for service is unequalled in the world of consumer electronics, as is the longevity of the products they manufacture.

Quad hi-fi systems have and continue to endure decades, having been passed from father to son and even grandson.

Most famous of course is the legendary range of Quad Electrostatic loudspeakers, one of our true favourites and arguably one of the finest loudspeakers available today.

Contact Sounds-of-Music for more information or to arrange a personal audition.

sounds of music

Tel: 01435 865 212
Fax: 01435 865 213
www.sounds-of-music.co.uk
info@sounds-of-music.co.uk

Sounds of Music
Firgrove Business Park, Firgrove Road, Cross in hand, Nr Heathfield, East Sussex, TN21 0QL
By appointment only please.

- 8 Demonstration Rooms
- One of the best product selections in the uk
- Free all-day parking to the door
- One-month home trial scheme*
- Extended Guarantees for free*
  *subject to conditions.
Ex-demo and second hand items

Digital

<table>
<thead>
<tr>
<th>Item</th>
<th>Was</th>
<th>Now</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arcam Diva CD92 Silver</td>
<td>799</td>
<td>449</td>
</tr>
<tr>
<td>Audio Syntex DXA Decade 22 Bi Balanced S/H</td>
<td>3500</td>
<td>1799</td>
</tr>
<tr>
<td>Audio Syntex DXA Decade 22 Bi Single ended S/H</td>
<td>2999</td>
<td>1499</td>
</tr>
<tr>
<td>dCS Elgar Plus DAC &amp;BNB</td>
<td>9500</td>
<td>6449</td>
</tr>
<tr>
<td>dCS PB SACD/CD Player BNIB</td>
<td>6500</td>
<td>4999</td>
</tr>
<tr>
<td>dCS Verdi Encore Transport BNIB</td>
<td>9500</td>
<td>6449</td>
</tr>
<tr>
<td>dCS Verdi laScala SACD/CD Transport Upsampler</td>
<td>9000</td>
<td>4250</td>
</tr>
<tr>
<td>Denon DE1100 XS x demo</td>
<td>2999</td>
<td>1499</td>
</tr>
<tr>
<td>Linn Kalk CD Player S/H</td>
<td>1999</td>
<td>499</td>
</tr>
<tr>
<td>Linn Kalk Nurnberg DAC S/H</td>
<td>N/A</td>
<td>329</td>
</tr>
<tr>
<td>Marantz CD65 Kil Sig MKII S/H</td>
<td>N/A</td>
<td>329</td>
</tr>
<tr>
<td>Nagra DAC x demo</td>
<td>7250</td>
<td>3999</td>
</tr>
<tr>
<td>Naim Audio CD3.3 S/H</td>
<td>N/A</td>
<td>399</td>
</tr>
<tr>
<td>Naim Audio CD3.3 Serviced</td>
<td>N/A</td>
<td>375</td>
</tr>
<tr>
<td>Nakamichi MB10 S/PlHD</td>
<td>N/A</td>
<td>149</td>
</tr>
<tr>
<td>Orpheus labs Zero CD player x demo</td>
<td>4600</td>
<td>2999</td>
</tr>
<tr>
<td>Shunyao CD-T80 Valve CD Player S/H</td>
<td>600</td>
<td>399</td>
</tr>
<tr>
<td>Theta Generation V B/S Balanced</td>
<td>6260</td>
<td>1299</td>
</tr>
<tr>
<td>Theta Pro Basic II DAC with Oscom/Balanced S/H</td>
<td>2990</td>
<td>695</td>
</tr>
</tbody>
</table>

Analogue

<table>
<thead>
<tr>
<th>Item</th>
<th>Was</th>
<th>Now</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audio Technica 5 Shape Arm wand for AT1100</td>
<td>N/A</td>
<td>49</td>
</tr>
<tr>
<td>Audio Technica AT1010S Shape Arm Used</td>
<td>N/A</td>
<td>279</td>
</tr>
<tr>
<td>Audio Technica AT1120 Straight Arm New Boxed</td>
<td>N/A</td>
<td>119</td>
</tr>
<tr>
<td>Audio Technica AT1120 Straight Arm New Boxed</td>
<td>N/A</td>
<td>119</td>
</tr>
<tr>
<td>Heed Audio Orbit 1 TT PSU New &amp; Boxed</td>
<td>225</td>
<td>179</td>
</tr>
<tr>
<td>Kuzma Stabi/Stigo 3 Turntable New &amp; Boxed</td>
<td>N/A</td>
<td>1399</td>
</tr>
<tr>
<td>Logic DM101 rare wooden finish SME CutS/H</td>
<td>D/A</td>
<td>179</td>
</tr>
<tr>
<td>McCormick Micro Drive Phonos Stage S/H</td>
<td>650</td>
<td>326</td>
</tr>
<tr>
<td>Phonomena BPS Battery supply for phonos BN/B</td>
<td>650</td>
<td>359</td>
</tr>
<tr>
<td>Phonomena Phono stage M/MIC BN/B</td>
<td>650</td>
<td>359</td>
</tr>
<tr>
<td>Rega P2/2 Bias Turntable</td>
<td>270</td>
<td>179</td>
</tr>
<tr>
<td>Vdf Grasshopper GLA IIi MkII Cartridge</td>
<td>2500</td>
<td>1699</td>
</tr>
<tr>
<td>VPI HRX-X Turntable x-dem</td>
<td>9250</td>
<td>6999</td>
</tr>
</tbody>
</table>

Preamplifiers

<table>
<thead>
<tr>
<th>Item</th>
<th>Was</th>
<th>Now</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audio Analogue Bellini Remote Preamplifier X-demo</td>
<td>625</td>
<td>399</td>
</tr>
<tr>
<td>Audio Research SP16L</td>
<td>1799</td>
<td>1249</td>
</tr>
<tr>
<td>Beard CA36 Preamp MCM/M S/H</td>
<td>N/A</td>
<td>399</td>
</tr>
<tr>
<td>Conrad Johnson Premier 18 LS x-demo</td>
<td>4000</td>
<td>1999</td>
</tr>
<tr>
<td>Convergent Audio CAT SL1 Signature Black</td>
<td>600</td>
<td>2200</td>
</tr>
<tr>
<td>Denon SG20 Preamplifier</td>
<td>1100</td>
<td>799</td>
</tr>
<tr>
<td>Electrocompaniet E54 RIAA Preamp S/H</td>
<td>1799</td>
<td>599</td>
</tr>
<tr>
<td>Musical Fidelity X100 Preampifier S/H</td>
<td>899</td>
<td>499</td>
</tr>
<tr>
<td>Nagra PRL with remote x-demo</td>
<td>5450</td>
<td>2399</td>
</tr>
<tr>
<td>Nagra PLP battery Phonos stage x demo</td>
<td>7250</td>
<td>1999</td>
</tr>
<tr>
<td>Orpheus Two Preamplifier x demo</td>
<td>3200</td>
<td>1999</td>
</tr>
<tr>
<td>Rotkan L1 Preamp (requires PSUS) S/H</td>
<td>2299</td>
<td>999</td>
</tr>
<tr>
<td>Rotkan L1.5 Preamp (requires PSUS) S/H</td>
<td>2699</td>
<td>1299</td>
</tr>
<tr>
<td>Spectral DMC 30s Reference Preamplifier x-demo</td>
<td>7600</td>
<td>4499</td>
</tr>
<tr>
<td>Sugden masterclass Preamplifier x-demo</td>
<td>2300</td>
<td>1599</td>
</tr>
</tbody>
</table>

Amplifiers

<table>
<thead>
<tr>
<th>Item</th>
<th>Was</th>
<th>Now</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audio Research VM220 Valve mono Amplifiers x-demo</td>
<td>9000</td>
<td>7499</td>
</tr>
<tr>
<td>Audio Research V555 Stereo Power Amplifier S/H</td>
<td>2499</td>
<td>1699</td>
</tr>
<tr>
<td>Audio Research VTTX100III Valve Power Amplifier S/H</td>
<td>6800</td>
<td>3899</td>
</tr>
<tr>
<td>Audio Research VTT6 Stereo Power Amplifier S/H</td>
<td>1959</td>
<td>795</td>
</tr>
<tr>
<td>Behringer PAM8020 S/H</td>
<td>N/A</td>
<td>599</td>
</tr>
<tr>
<td>Conrad Johnson MV80 SE Valve Amplifier S/H</td>
<td>2500</td>
<td>1859</td>
</tr>
<tr>
<td>Conrad Johnson Premier 350S S/M/A x demo</td>
<td>6000</td>
<td>5999</td>
</tr>
<tr>
<td>Denon Denon 3000 S/H</td>
<td>1800</td>
<td>999</td>
</tr>
<tr>
<td>Densen Denon 630 S/H</td>
<td>1800</td>
<td>999</td>
</tr>
<tr>
<td>Densen Denon 340 x demo</td>
<td>1500</td>
<td>999</td>
</tr>
<tr>
<td>Krell KAV400xii Black x-demo</td>
<td>2488</td>
<td>2199</td>
</tr>
<tr>
<td>Nagra MPARCM X – demo</td>
<td>10450</td>
<td>7999</td>
</tr>
<tr>
<td>Naim 30.5 ST1/40 Pre Power S/H</td>
<td>N/A</td>
<td>399</td>
</tr>
<tr>
<td>Naim 42.5/110 Pre Power S/H</td>
<td>N/A</td>
<td>299</td>
</tr>
<tr>
<td>Orpheus Three power amplifier (requires PSUS) S/H</td>
<td>2699</td>
<td>1799</td>
</tr>
<tr>
<td>Rotkan S1.5 stereo power amplifier silver S/H</td>
<td>1495</td>
<td>599</td>
</tr>
<tr>
<td>Sugden masterclass mokots x demo</td>
<td>6600</td>
<td>4999</td>
</tr>
</tbody>
</table>

Loudspeakers

<table>
<thead>
<tr>
<th>Item</th>
<th>Was</th>
<th>Now</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audio Physic Spark 3 maple x-demo</td>
<td>1699</td>
<td>1099</td>
</tr>
<tr>
<td>Becker 107MKII Supreme hybrid Ribbons S/H</td>
<td>1750</td>
<td>799</td>
</tr>
<tr>
<td>Audiophile Adaptrane II with stands S/H</td>
<td>2150</td>
<td>1299</td>
</tr>
<tr>
<td>JM Lab Micro Utopia Classic x-demo</td>
<td>4700</td>
<td>3750</td>
</tr>
<tr>
<td>JM Lab Electro 727 be Anniversary S/H</td>
<td>2800</td>
<td>1699</td>
</tr>
<tr>
<td>KEF Reference 104.2 S/H</td>
<td>N/A</td>
<td>449</td>
</tr>
<tr>
<td>Martin Logan Aeon I oak x demo</td>
<td>3189</td>
<td>2300</td>
</tr>
<tr>
<td>Monitor Audio Radius 360 Subwoofer Cherry S/H</td>
<td>350</td>
<td>249</td>
</tr>
<tr>
<td>Pen Audio Rebel 2 x demo</td>
<td>995</td>
<td>699</td>
</tr>
<tr>
<td>Pen Audio Champ Active Subwoofer x demo</td>
<td>1995</td>
<td>998</td>
</tr>
<tr>
<td>ProAc Response D23 Maple x demo</td>
<td>2800</td>
<td>2199</td>
</tr>
<tr>
<td>Rogers L7 Teak S/H</td>
<td>N/A</td>
<td>199</td>
</tr>
<tr>
<td>Rotkan JM1.5 Rosewood S/H</td>
<td>N/A</td>
<td>399</td>
</tr>
<tr>
<td>Rega ELEA 2000 S/H</td>
<td>850</td>
<td>449</td>
</tr>
<tr>
<td>Roberts Fieber Concerto Walnut S/H</td>
<td>999</td>
<td>599</td>
</tr>
<tr>
<td>Roberts Fieber Concerto Walnut S/H</td>
<td>449</td>
<td>229</td>
</tr>
<tr>
<td>Spendor S3 Cherry S/H</td>
<td>599</td>
<td>379</td>
</tr>
</tbody>
</table>

Cables and Accessories

<table>
<thead>
<tr>
<th>Item</th>
<th>Was</th>
<th>Now</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cogan Hall Intermezzo EDM 0.75m RCA/S/H</td>
<td>N/A</td>
<td>99</td>
</tr>
<tr>
<td>Maitral MDC 2 1m RCA/RCA 75ohm Digital cable New boxed</td>
<td>420</td>
<td>249</td>
</tr>
<tr>
<td>Nandoi Shi channel mains cable x demo</td>
<td>223</td>
<td>175</td>
</tr>
<tr>
<td>Shun Mook 1pr Spatial Controller x-demo</td>
<td>450</td>
<td>229</td>
</tr>
<tr>
<td>Shun Mook Ultra Diamond Rotators set of 3 x-demo</td>
<td>710</td>
<td>399</td>
</tr>
<tr>
<td>Siltech LS188 Classic 2x3m Silver &amp; Gold Speaker cable BNIB</td>
<td>3950</td>
<td>2995</td>
</tr>
<tr>
<td>Sound Organisation Record Rack with CD insert S/H</td>
<td>N/A</td>
<td>400</td>
</tr>
<tr>
<td>Spectral MI-350 20ft interconnect RCA-RCA x demo</td>
<td>1400</td>
<td>799</td>
</tr>
<tr>
<td>Transparent Music Link Plus 10R RCA-RCA S/H</td>
<td>459</td>
<td>229</td>
</tr>
<tr>
<td>Transparent The Link 1.5m RCA-RCA S/H</td>
<td>190</td>
<td>93</td>
</tr>
<tr>
<td>Vcd CD1021 Mk2 2m S/H</td>
<td>199</td>
<td>99</td>
</tr>
<tr>
<td>Western Electric 300b Valves 1Pair NEW</td>
<td>650</td>
<td>549</td>
</tr>
</tbody>
</table>

Suppliers and installers of High Quality Audio Systems

<table>
<thead>
<tr>
<th>Item</th>
<th>Was</th>
<th>Now</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audio Research</td>
<td>850</td>
<td>599</td>
</tr>
<tr>
<td>Audio Research</td>
<td>1500</td>
<td>999</td>
</tr>
<tr>
<td>Audio Research</td>
<td>1900</td>
<td>799</td>
</tr>
<tr>
<td>Audio Research</td>
<td>1995</td>
<td>999</td>
</tr>
<tr>
<td>Audio Research</td>
<td>2300</td>
<td>1750</td>
</tr>
<tr>
<td>Audio Research</td>
<td>2700</td>
<td>1999</td>
</tr>
<tr>
<td>Audio Research</td>
<td>395</td>
<td>199</td>
</tr>
<tr>
<td>Audio Research</td>
<td>450</td>
<td>249</td>
</tr>
<tr>
<td>Audio Research</td>
<td>725</td>
<td>400</td>
</tr>
<tr>
<td>Audio Research</td>
<td>999</td>
<td>599</td>
</tr>
<tr>
<td>Audio Research</td>
<td>1400</td>
<td>799</td>
</tr>
<tr>
<td>Audio Research</td>
<td>1750</td>
<td>999</td>
</tr>
<tr>
<td>Audio Research</td>
<td>2200</td>
<td>1299</td>
</tr>
<tr>
<td>Audio Research</td>
<td>2250</td>
<td>1499</td>
</tr>
<tr>
<td>Audio Research</td>
<td>2800</td>
<td>1699</td>
</tr>
<tr>
<td>Audio Research</td>
<td>350</td>
<td>249</td>
</tr>
<tr>
<td>Audio Research</td>
<td>450</td>
<td>229</td>
</tr>
<tr>
<td>Audio Research</td>
<td>710</td>
<td>399</td>
</tr>
<tr>
<td>Audio Research</td>
<td>3950</td>
<td>2995</td>
</tr>
<tr>
<td>Audio Research</td>
<td>1900</td>
<td>93</td>
</tr>
<tr>
<td>Audio Research</td>
<td>1999</td>
<td>999</td>
</tr>
<tr>
<td>Audio Research</td>
<td>3950</td>
<td>2995</td>
</tr>
<tr>
<td>Audio Research</td>
<td>350</td>
<td>249</td>
</tr>
<tr>
<td>Audio Research</td>
<td>2800</td>
<td>1699</td>
</tr>
<tr>
<td>Audio Research</td>
<td>1400</td>
<td>799</td>
</tr>
<tr>
<td>Audio Research</td>
<td>1900</td>
<td>799</td>
</tr>
<tr>
<td>Audio Research</td>
<td>1995</td>
<td>999</td>
</tr>
</tbody>
</table>

Midland Audio X-change are looking for Audio Research, Krell, Mark Levinson, Naim Audio, SME, Wadia.
DIAL A DEALER

This is a comprehensive directory of Hi-Fi Dealers throughout the UK and Ireland.

BIRMINGHAM

MIDLAND RADIO SUPPLIES.
Tel: 0121 706 0313. Vintage & Classics. We buy and sell the best of British Designs and manufactured mono and stereo valve amplifiers radio tuners, turntables, pickups, loudspeakers systems, horns, drive units, tape recorders, microphones, mixers, measuring apparatus, valves and testers. Mono and stereo LPs and Tapes. Quality items required now.

BRISTOL & BATH

THE RIGHT NOTE

V'AUDIO
HiFi Consultants: 36 Druid Hill, Stoke Bishop, Bristol. BS9 1EJ. Tel: 0117 968 6005.
ATC, AW, Alon/Nola, AR Jordan, Audio Analogue, Avid, Electromanipanet, Infinity, Origin Live, Ruark, SME, Sugden, Triangle, Unison Research, VPI, Projectors / Sim2, JVC, Mitsubishi, Infocus. Screens/ Stewart, Draper, Da-lite. Demo's by appointment only - Please ring/e-mail for unbiased, honest advice based on 40 years experience. (icvhifi@yahoo.co.uk). We are not a shop!

CHESHIRE

ACOUSTICA
17 Hoole Rd, Chester CH2 3NH. www.acoustica.co.uk.
Tel 01244 344227. HiFi & Home Cinema from Amphion, Arcam, ART, Ayre, B&W Nautilus, Classe, Focal, JM Lab, Monitor Audio, Naim Audio, Primare, Rega, REL, Rotel, Sendor, Sugden, Thiel, Wadia. We offer full demonstration facilities, interest free credit, delivery & install systems throughout Cheshire, Merseyside & North Wales. Tuesday to Saturday 10.00 to 5.30.

ACTON GATE AUDIO
www.acton-gate-audio.co.uk
4 Ruabon Road, Wrexham, LL13 7PB. (01978) 313464
Tuesday - Staurday 9.00 - 17.00
email: info@acton-gate.com

CLEVELAND

WAVEFRONT AUDIO
For 2 Channel Music Systems. Hear the Modwright Pre Amplifier, Albedo Cables, Almarno Valve Amplifiers, Cain & Cain Speakers, Rethm Full Range Speakers, Acoustic Zen Adagio, Battery Powered Amplifiers from Red Wine Audio. Digital Amps DAC's, Pre's and Head Amps from Channel Islands Audio. Pure Power APS. Contact andy@wavefrontaudio.co.uk. Web site www.wavefrontaudio.co.uk or Andy 01642 482 393.

KENT

SUGARBUSH RECORDS
8 Hawkenbury Road Tunbridge Wells Kent, TN2 5BJ
United Kingdom
tel: (+44) 01892 541 746
Free vinyl LP catalogue. Every month-24 pages-rare & deleted ex+ and mint LPs starting at only £4.99. 60's & 70's Rock, Jazz, Blues, Psych, Progressive, Soul, Folk. It is the best regular vinyl catalogue in the UK! Call or write today.

MIDDLESEX

RIVERSIDE HI-FI
422 Richmond Road, East Twickenham, Middlesex, TW1 2EB.
Tel: 020 8892 7613.
www.riversidehifi.co.uk.
email soundadvice@riversidehifi.co.uk.
Audio Research, Blueroom, Bose, B&O, Copland, Denon, Fatman, Infocus, Krell, Loeve, Living Control, Martin Logan, Michell, Monitor Audio, Martin Logan, NAD, Primaluna, Project, QED, Optoma, Rel, Roksan, Sonnheiser, SpeakerCraft, Susan Faber, Theta, Wilson. Export orders welcome. UK mail order available. All major credit cards. Open 10am-5.30pm Mon-Sat.

SOMERSET

ALTERNATIVE AUDIO,
Brompton Ralph, Taunton, Somerset,
Tel: 01984 624242
www.alternativeaudio.co.uk.
Email: peter@alternativeaudio.co.uk.
We specialise in valve amplification and vinyl replay with the accent on high quality musical enjoyment. Ex-Dem and used equipment for sale. Art Audio, Border Patrol, Clearaudio, Diapason, EAR/Yoshino, Experience Filtration, Lector, LFQ Audio, Lyra, Music First Audio, Nottingham Analogue, Opera, Quadrasure, Shun Mook, SME, Transfiguration, Unison Research, Vandersteen Audio.

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

Audio Republic
78 Otley Road, Leeds
0113 217 7294
www.audio-republic.co.uk for the best in quality hifi in West Yorkshire, representing Naim Audio, Rega, Sugden, Conrad Johnson, Krell, Copland, Karon Acoustic, Arcam, Nottingham Analogue, Rekstar, Hutter, Avalon, Proac, Dynaudio, PMC, Fujitsu, M&K, Finite Elemente, SME, Cardas and others. Open Tues-Sat 9.30am to 5.30pm

Vinyl/record mail order

Diverse Vinyl
10 Charles Street, Newport,
NP20 1UJ.
Tel/Fax: 01633 259661/256261.
Email: sales@diversevinyl.com. Probably the most varied and impressive selection of brand new LP’s you’ll find anywhere: international new releases, reissues and audiophile products. Also UK distributor of the Disco Anti Static LP Cleaning Device. Call for a free catalogue, or visit www.diversevinyl.com

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

Manufacturers

Creek Audio Ltd
12 Avebury Court, Mark Road, Hemel Hempstead, Herts, HP2 7TA.
Tel. 01442 260146
E-mail: info@creekaudio.com
Internet: www.creekaudio.com
The beginning of 2006 saw Creek Audio launch two exciting new ranges, EVO at entry level and its high end - Destiny. At the same time, Creek’s most popular products in the past 5 years, the 5350SE amp, CD50mk2 CD player and T50 tuner are now branded as Creek Classics. The OBH miniature range completes this new Creek line-up.

Epos Acoustics
2 Avebury Court, Mark Road, Hemel Hempstead, Herts, HP2 7TA.
Tel. 01442 260146.
Email: info@epos-acoustics.com
Website: www.epos-acoustics.com
Innovative design and superior sound distinguish EPOS speakers from other brands in similar price categories. Nine models in total including a 5.1 surround system. All available in 3 finishes. Supporting stands and plinths complement the speakers. In addition to its two channel appeal, Epos is now equally sought after in the fast expanding world of home cinema.

E.Gane and Son
For service repairs, upgrades and re-manufacturing of all valve audio equipment, leak through line specialists, realigned etc. We have been restoring leak products back to new for over 40 years. Mail order service available worldwide. For more information contact E.Gane and Son. Established 1948 on 00 44 02087432727

Monitor Audio Ltd
24 Brook Road, Rayleigh, Essex SS6 7XL
Tel 01268 740 580.
Fax 01268 740 589
E-mail: info@monitoraudio.co.uk
Website: www.monitoraudio.co.uk
Monitor Audio designs and manufactures British loudspeakers of the highest quality. Since 1972 Monitor Audio has been developing and perfecting the implementation of metal drivers, innovative crossovers and exemplary speaker cabinet construction and finish to further the ideal of achieving sound which to the original is “as close as it gets”.

PMC/Bryston
PMC & Bryston are Emmy award winning Loudspeaker & Amplifier manufacturers - Used throughout the professional world as reference. Our clients record for Deutsche Grammophon, Decca and countless blockbuster Movies. The identical award winning ATL (Advanced Transmission Line) technology is used in all Hi-Fi designs from the DB1+ to the Active BBS XBD.

Sugden Audio Products
Designed and manufactured in the UK, each Sugden product is hand-built by one highly skilled technician. A full range of pure class A amplifiers are available including integrated, stereo power and the incredible Masterclass balanced monoblocks. The class A HeadMaster offers a pre-amp with three inputs a fixed and variable output with remote control. The HeadMaster can be used as a control unit in a high quality audio system and excels with headphones. Please contact us for product information, dealer list and brochures.

M & J Design Ltd (Music)
Superb Interconnect Cables; balanced or phono, made to measure. Using silver plated pure copper, and the finest connectors, these cables present the clearest possible path for your signal, the end result being sublime listening pleasure. Each cable set is serial numbered and have their own instructions and are guaranteed. MJ Design Ltd (Music) 01628 622115 & 07809 394995. John@MandJ@btinternet.com

Meet Your Maker
A reference guide to Britain’s manufacturers and distributors
We have selected SEAS Drive Units for their natural sounding performance and smooth response allowing simple crossovers to be used. Below is a selection of drive units from the complete SEAS range that we hold in stock. Ring us to enquire about drive units not shown here.

**SEAS A26RE4 £ 71.98**
25cm (10") Paper Cone Bass unit as used in the WD25 Speaker kits

**SEAS CA22RNX £ 83.79**
22cm (8") Paper Cone Bass unit 89dB for TL or Aperiodic designs

**SEAS CA18RLY £ 51.11**
18cm (7") Paper Cone Bass unit 88dB for Bass Reflex designs

**SEAS CA15RLY £ 53.52**
15cm (5.75") Paper Cone Bass unit 87dB for Bass Reflex designs

**SEAS 29TFF/W £ 38.34**
29mm soft dome treble unit used in the WD25 STD speaker kits

**SEAS T29CF001 £ 137.82**
29mm Excel soft dome treble unit used in WD25 XL speaker kits

**SEAS T25CF002 £ 161.09**
25mm Excel 'Millenium' treble unit lowest distortion, smooth response

**SONIQS M8 spike set £ 4.70**
Set of four speaker floor spikes with matching M8 cabinet inserts

**SONIQS M4x16mm £ 0.08**
**SONIQS M4x25mm £ 0.09**
Hex Hd Nickel Plated wood screws

**SONIQS PDC per metre £ 2.61**
Heavy 6mm Bitumen Panel Damping Compound 50mm wide strip

**SONIQS CDF per metre £ 1.49**
Long fibre enclosure damping mat 30mm thick by 250mm wide

**Aperiodic reticulated foam £ 1.25**
80ppi reticulated foam strip for Aperiodic port airflow resistance

**SONIQS Ferrite Inductors**
SONIQS coils are wound on high density 12.5mm dia. ferrite cores for high power handling and dynamic range. High purity copper 0.71mm wire heat bonded to reduce vibrational effects. Tolerance 5%. State value required when ordering.

- 25mm core 0.33 - 0.6mH £ 2.47
- 50mm core 0.6 - 1.0mH £ 3.49
- 50mm core 1.1 - 2.5mH £ 3.98

**SONIQS Air-Core Inductors**
SONIQS air core coils utilise 0.56mm dia high purity copper wire on a rectangular bobbin that allows vertical and horizontal orientation to minimise coupling effects. Tolerance 5%. State value required when ordering.

- Air-core coil 0.18 - 0.5mH £ 1.99

**SONIQS Polypropylene Caps**
SONIQS capacitors are formed from high voltage polypropylene film and hand soldered using silver solder to copper leads. Construction and resin encapsulation has been formulated for optimum acoustic and electrical performance.

- PXX 1.0uF 250V £ 1.13
- PXX 1.5uF 250V £ 1.28
- PXX 2.2uF 250V £ 1.41
- PXX 3.3uF 250V £ 1.70
- PXX 4.7uF 250V £ 2.06
- PXX 5.6uF 250V £ 2.35
- PXX 6.8uF 250V £ 2.66
- PXX 8.2uF 250V £ 2.90
- PXX 10uF 250V £ 3.18
- PXX 12uF 250V £ 3.74
- PXX 15uF 250V £ 5.03
- PXX 18uF 250V £ 6.03
- SAX 1.0uF 630V £ 2.40
- SAX 1.5uF 630V £ 2.81
- SAX 2.2uF 630V £ 3.17
- SAX 3.3uF 630V £ 4.19
- SAX 4.7uF 630V £ 4.49
- SAX 5.6uF 630V £ 5.28
- SAX 6.8uF 630V £ 6.16
- SAX 8.2uF 630V £ 6.93

**SONIQS TP1 panel £ 3.60**
Bi-wireable terminal panel with gold plated connections allowing spade, bare wire and 4mm plugs. Plain Tufnol CCB circuit board also available to fit PCB slot at rear to allow component hard wiring.

**SONIQS CCB board £ 1.49**

We offer a crossover and speaker design service to suit your specific requirements. Please ring or e-mail for details. See our on-line catalogue at www.world-designs.co.uk Tel: 01832 293320
specialist hi-fi dealers

London

Oranges & Lemons

Hi-Fi, Home Cinema & Multi-room Specialists

020 7924 2040
www.orangeslemons.co.uk
email: oranges.lemons@virgin.net

Martin Logan Clarity
Moon 5i
Sonus Faber Concerto
Knoll KAV300CD
Copland CDA 813
Audio Analogue Enigma
Sonus Faber Cremona
Union Research COP

Speakers - Ex Demonstration - Cherry
Speaker - Ex Demonstration - Black
Speakers - Port Exchange - Walnut
CD Player - Port Exchange
CD Player - Ex Demonstration
System - New, Boxed with Warranty
Speakers - New, Slight damage
CD Player - Ex Demonstration

£1895 (£2200)
£2100 (£2695)
£350 (£2970)
£795 (£2300)
£1395 (£2100)
£695 (£399)
£4200 (£5000)
£699 (£895)

Are you hearing your Naim Audio system at anywhere near its full potential? The inherent sonic ability of a Naim Audio system has never been in doubt, however with products such as the Fraim support and more recently the Hi Line interconnect and CD855PS CD power supply, Naim Audio themselves have simply demonstrated the ever greater levels of performance that are achievable with your existing components. Tom Tom Audio can optimise your Naim Audio system through thoughtful and creative upgrade routes, and by utilising a number of products and accessories that are both compatible with and sensitive to the Naim Audio ethos. As well as a range of loudspeakers and analogue products that work wonderfully with Naim Audio electronics we also have a range of compatible accessories that will unlock the potential of your system and maximise the investment you have already made. These include the incredible range of products from Vertex AQ, an end to end solution of supports, filters and cabling that will simply stun you. The incredible effect of this system can be demonstrated here or in your own system, but prepare to be shocked.

Loudspeakers: Naim Audio, Kudos Audio, Neat Acoustics, ART, Shahinian, Audio Physic, Living Voice

Supports & Cabling: Naim Audio, Vertex AQ, Nordost, Chord Company, Isoblue, Kudos Audio

Analogue: Naim Audio, Avid, Dynavector, Lyra, Tom Evans

Call St Albans 01727 86 86 59
Visit www.tomtomaudio.com

Naim Specialists

Front End Problem?

The Cartridge Man

It doesn’t have to cost an arm and a leg to get the best - listen to my Koetsu - and Decca -eter.

Also agents for Croft, Hadcock, E.A.R. Mitchell & Moth.

plus cartridge re-tipping service 020 8688 6565
Website: www.thecartridgeman.com

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

Services & Consultants

Valves & Tubes

Chelmer Valve Company

Buy CVC. PREMIUM HI - FI valves direct from us. All valves processed for improved performance. We also have stock of MAJOR BRAND types inc.
MULLARD, GEC, BRIMAR, RCA, GE, PHILIPS, etc.

Unit 12, Damgate Lane Ind. Est, Acle, Norwich, NR13 3DJ
Tel 01493 750075 Fax 01493 751155
Website: www.chelmervalve.com

D.C. Boultons

Loudspeaker Repairs & Manufacture

All types including P.A. Disco, Hi-Fi, Juke Box etc.
Agents for B&C, Celestion, Eminence, Fane, Precision Devices etc.
From re-foams to complete re-builds, even with slipped magnets.

Trade and retail supplied.
Custom units our speciality.
Over 35 years experience of loudspeaker design
Unit 12, Damgate Lane Ind. Est, Acle, Norwich, NR13 3DJ
Tel 01493 750075 Fax 01493 751155

D.C. Boultons
Loudspeaker Repairs & Manufacture
All types including P.A. Disco, Hi-Fi, Juke Box etc.
Agents for B&C, Celestion, Eminence, Fane, Precision Devices etc.
From re-foams to complete re-builds, even with slipped magnets.

Trade and retail supplied.
Custom units our speciality.
Over 35 years experience of loudspeaker design
Unit 12, Damgate Lane Ind. Est, Acle, Norwich, NR13 3DJ
Tel 01493 750075 Fax 01493 751155
WE ACCEPT PAYPAL PAYMENTS and ALL CREDIT CARDS!!
NAIM dealer for the South West:
TANNY, KEF, LEITOR, VIVA, AUDION, AUDIO NOTE, MICHELL

PRODUCT TESTING IN HI-FI WORLD

To ensure the upmost accuracy in our product reviews, HiFi-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 Brüel&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 Brüel&Kjaer accelerometer.

No other UK hi-fi magazine has in-house testing, and none has access to such advanced tests across all types of equipment. That's why you can depend on HiFi-World reviews.
Terms and Conditions: Only one advert per reader. Maximum length per advert is 30 words. Adverts over 30 words will not be accepted. Telephone numbers and E-mail addresses are treated as one word. Model numbers are treated as one word. Email your advert to: classifiedads@hi-fiworld.co.uk or fill in the form on page 129 and post it to Hi-Fi World Free Readers Ads, Suite G4, Argo House, Kilburn Park Road, London NW6 5LF. Sorry, we cannot accept adverts over the telephone. The Publisher reserves the right to judge submissions.

Audiojumble Grand M25 presents Asha2t Audiojumble at Peace Memorial Hall, Woodfield Lane, M25 junction 9, 10am/11am. Sunday 15th April. Tel: 07730 134 973 (Jun)

Audiostatic Wings c/w optional Fins. 3.5 Years old. Silver. superb Full-range Electrostatics in lovely condition. Boxes, manuals. May also sell final £200 in piano black gloss. £1900 Both £2300 01458 860765

Linn Genki CD, silver, 14 months old, (£1100) £650; Linn LK85 Power Amp, silver, £350. PMC TB2 standmount Speakers, 14 months old, (£800), £550. All boxed, mint. Nottingham 0115 960 3934

Acoustic Energy A1E MK 3 Reference Speakers, cherry, mint condition, boxed with manual £825.00 (£1695.00). Musical Fidelity A308 integrated amplifier, mint condition, boxed with manual £925.00 (£2000.00). Tel: 01732 220664

Two Ray Lumley Reference 120 monoblock valve amps. One ok; other just stopped working. Buyer collects as they are a two man lift. Cost £4500 new £1950 ono. Email: donwilliam@aol.com

Marantz Amplifier PM10001 K1 Signature £425. Marantz CD SA7001 K1 Signature £450. Marantz Tuner ST7001 £200. Silver, boxed, mint, guarantees. B&W CM1 speakers, maple, £300. Glass Hi-Fi stand, 5 shelves £45. Tel: 0115 975 4070

Tom Evans - The Grove Phono. Set for Vth Cartridges. Eight Months Old and only Forty Hours Use. Stunning. Sound-read the reviews. Only 1200 Pounds. Tel. 07956 125 695

AudioLabs 8000S remote control amplifier in black finish, immaculate condition, in original box with instructions, £260.00 (ono) 01453-545551 Bristol/Gloucestershire area.


Pioneer Amplifier. Turntable, tuner, cartridge deck, Sony CD/DVD player in glass cabinet. Manuals, remote control and two large free standing speakers. Good working order £120. 01322 338213.

Sony KDF-50A12U. Bravia 50 inch rear projection TV, high definition, 3 LCD with freeview. £1250. Tel: 07957 988 505

Crocop Eroch Elite, Crofmod £510; Crof Cypher 7W 6A7SG OTL, £2500 (£4000); Audio Classic speakers, high sensitivity, Cherry, Hayden Boardman design, stands £750 (£1500). £3500 everything, offers. 07683 803682

Passlab amps, Audionote elsp, speakers, stands, cables, cartridge, Altec speakers, AVI CD player, E & R Transformer, Nakamichi 1000, 5B2Z, Studer, Akai Reel & Reel. Ariston Turntable, various new 300B valves, 07944960290 stevefirthman@hotmail.co.uk

Creek T50 F1/4M. Nordost Heritage subscription with special offer. £1650. Tel: 0190 463 4112.

Creek T50 5M/4M high quality turner. Superb sound. Only 20 months old. Mint condition with box and instructions. Cost £595. Will accept £300. Buyer collects or by arrangement. Tel: 02380 274 494

Arcam Alpha 8R and 8P. B&V DM 602 S2 bi-wireable standmount speakers. Good upgrade from a budget system, £450 or may split. (They work well together though). Mike 07710 737 232

Usger. 1.5 Power amp. 150 watts per channel. Class A. (£1500). Selling: £850. Buyer collects. Townshend Isola speaker cable, 2.5 metres, £185. Tel: 01491 614 325

Dynaudio Audience 62 for sale. 4 years old, cherry finish, good condition. £400 ono, demo available. Contact Jeremy 07977 254160

Musical Fidelity A-1000 pure Class A amplifier and p.s.u. Near mint condition. £595 ono. Tel: 07944 117 4084 (Berks)

Glasshouse 300B-SE power amplifier with matched pair J/Tea trio amp complete with NAD 1000 full feature pre-amp. £600. Tel: 01344 454 504 (Bracknell)

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 £369
WDKEL84 built and tested £544

WD88VA Valve Amplifier Kit

"It proved itself to be an engaging valve amplifier that measured well and sounded superb. Quite simply it plays music, and plays it extremely well."

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 Integrated Amp kit £849
WD88VA built and tested £1099

Headphone II Valve Amplifier Kit

"Headphone II 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 wired to drive any headphones between 16 to 300 Ohms.

Headphone II kit £275
Headphone II built and tested £404

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"

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

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

WD25T Floorstanding Speaker Kit

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

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.

WD25T STD kit (pair) £279
WD25T XL kit (pair) £459

All our kits are complete with pictorial easy-to-follow instructions.
All parts are included: all you need is a screwdriver and soldering iron.
Tel: 0114 2339603 evenings.
Vdeh The First 0.6m loose £ 60.
Vdeh The First 0.6m boxed £ 65.
Audiolab 8000SX boxed £ 250.
All Manuals, Remote Control
Mission 753f blk. boxed £ 300.
NEAT ELITE SE maple £ 600.
125
We stock a full range of valves (tubes) from famous manufacturers. The list below is a selection of favourites. If you don't see what you want - please ring or e-mail. We are happy to match valves on request.

**EL84M Russian (Sovtek)** £11.49
**EL84 JJ (to Tesla Specification)** £9.75
**JJ 300B (popular and reliable)** £8.35
**EH300B Gold Grid** £69.00
**Svetlana KT88 (outstanding)** £36.50
**Sovtek 6550 WE** £19.49
**Sovtek 5881** £12.49
**EL34 ElectroHarmonix** £11.85
**EL34 JJ (balanced and precise)** £15.49
**5U4G Sovtek** £9.94
**GZ34 JJ** £16.99
**5687 WB Philips NOS (gutsy)** £12.49
**Svetlana 6N1P** £6.50
**6SN7GT EH (to RCA spec)** £10.25
**ECF80 EI** £7.30

**VALVE BASES**

- **B7A Chassis Mount** £4.70
- **B9A Chassis Mount** £4.70
- **B9A PCB Mount** £4.70
- **Octal Chassis Mount** £4.70
- **UX4 Chassis Mount** £16.98

**BOOKS**

- **Valve & Transistor Audio Amps by John Linsley Hood** £24.50
- **Self on Audio by Douglas Self** £26.50
- **Valve Radio & Audio Repair Handbook by Chas E. Miller** £22.50

**Valve Amplifiers**
by Morgan Jones £29.50
**Building Valve Amplifiers**
by Morgan Jones £19.50
**Life & Works of A.D. Blumlein**
by R.C. Alexander £18.00
**Understand Amplifiers**
by Owen Bishop £19.50
**Audio & Hi-Fi Handbook**
edited by Ian Sinclair £34.50

**Eichmann Ballet Plug**
phono plugs - pack of 4 £25.00
**Neutrik Professional Gold Plated**
phono plugs - pack of 2 - Red/W £1.69
**Gold plated, teflon insulated**
phono sockets - pack of 2 £4.75
**Silver plated speaker terminals**
pack of 2 £9.40
**Twin speaker Terminal Set**
chassis insulated - Red/Bk £2.94
**Chassis mount earth post**
nickel plated £1.23

**EIHPNALLLELYEA**

**Hardwire Tag Board**
twin rows of 18 tags £2.33
**Switched IEC AC ‘mains’ inlet**
chassis mount with fuse £2.88
**Unswitched IEC AC ‘mains’ inlet**
chassis mount with fuse £2.34
**UK IEC AC ‘mains’ cable**
ﬁtted with fused plug, 2m length £5.36

**PRINTED CIRCUIT BOARDS**

- **HD83 Headphone II** £16.25
- **Phono II phono stage** £16.25
- **PSU II power supply** £16.25
- **Pre II preamplifier** £16.25
- **KEL84 Power amp** £24.98

**POWER SUPPLY PARTS**

- **UF5408 700V 3A rectifier diode**
  ultra-fast recovery £1.25
- **Cree CSD4060A rectifier diode**
  Schottky 600V 4A £6.75
- **Jensen 4700uF 16v DC**
  4 terminal electrolytic £25.85
- **RIF A 47uF 100V DC**
  PEG Axial Al Electrolytic £2.99
- **RIFA 100uF 100V DC**
  PEG Axial Al Electrolytic £4.25
- **Polyester 0.1uF 630v DC**
  WIMA Metallised ﬁlm £0.55
- **Polyester 0.47uF 630v DC**
  WIMA Metallised ﬁlm £1.29
- **Panasonic FC 220uF 500V DC**
  Low ESR Al electrolytic £8.95
- **Bridge Rectifier 25A 700V**
  28.5mm x 7.5mm £3.25
WANTED: DECCA FFSS heads wanted. Mono, 78, HFE. Tel: 01344 776 445.


REGA 3, RB300 with CS Split Slab (Ref RT. LPT) + Avondale Taps I power supply and Space Mat. £300 ono. Thorens TD150 with Linn Basik + and LP12 springs. £100. Tel: 0780 320 7330.

ELECTRONICS HOBBYST requires for projects non working Quad 34 and 44 preamps. 405, 606 power amplifiers. Quad and Leak tuners. 405 boards etc. Contact Mike on 01758 613 790 for price.

MUSICAL FIDELITY Tri-Vista 21 DAC and X-Ray V3 CD, both mint condition and lightly used. £1100 ono. Will split.

Isotek Substation with two Transformer sections. £500 ono. Tel: 01625 430 797

NYTECH CTA252XDI2, mint, boxed, manual, £150. Leak Troubline tuner Stereo II. Professionally fitted decoder. Sounds nice. £130. Mystic G-0hen amplifier. Needs looking at but works. £90. Tel: 01922 865 414.


QED XT400 speaker cables. 5 metres long bi-wired/bi-amped pair. Terminated with 4mm Airloc plugs at each end. £180 ono 01453-545551 Bristol/Gloucestershire area.

MUSICAL FIDELITY XAS100 power amp. A3CR pre-amp. A3 CD. Castle Richmond 3i. Kef Gora 7 standmounts. Stands. Denon TU215RDC turner. All items excellent condition and little used. All going cheap. Tel: 07818 894 926

WILLIAMS HART monoblocs £900. Lyngdorfs SDA1 integrated £1000. Three months use. Two of the best amps ever. Voyer turntable table, played less than hundred LPs. £800. Tel: 01977 620 558

AUDIO RESEARCH SP8 £795. Edison Twelve £225. Rata turntable stand £130. Oracle Paris turntable £450. Audio Note Anv £135. Kelvin Labs integrated £225. Leak Troubline mono. Hugen stands for Audio Note K's £145. Rehdeko RK125s, Mullard ECCR3's, EL84's. Tel: 0113 255 9475

ARCAM 8 Delta 90.2 Intergrated Stereo amplifier £100. Arcam Delta 70.2 Compact Disc player £100. Arcam Delta Black Box Digital Audio Interface £100. Arcam Delta 80 AM/FM Stereo Tuner £100. Email: snagaitis@hotmail.co.uk

MINT CONDITION Tube Technology pre-amp and power supply. £1500. Genesis mono block power amps. £3000. If you know your High-End hi-fi call Vernon on 07836 697 717. No timeswasters. Thanks


RFD RDM2 standmount Reference monitors. Black with thick high gloss solid cherry side cheeks. Excellent looks and sound. Cost £700. Sell for £200. Tel: 0116 284 9087 (Leicester area)


FREE READER CLASSIFIEDS

GUIDELINES FOR BUYING AND SELLING SECOND-HAND EQUIPMENT

FOR THE BUYER

1. Not everyone is honest - Buyer Beware!
2. Don't send cash!
3. Accept no verbal guarantees.
4. Have you heard the item or something similar? If not, why do you want it?
5. Don't pretend to have knowledge - it's your fingers that will get burnt!
6. Is it working? If not, why?
7. Has it been modified and, if so, have notes been kept?
8. Was it any good in the first place?
9. Don't send cash!
10. If you are in the slightest doubt, arrange an audition (see point 5) If it's too far, wait for another time.
11. Either buy it or don't: vendors are excusably impatient with 'consultation' exercises.
12. Don't send cash!

FOR THE SELLER

1. Not everyone is honest - Seller Beware!
2. Make no verbal guarantees.
3. Even 'nearly new' is still second-hand. If the manufacturer's guarantee is no longer in force, your price should reflect this.
4. There is very little intrinsic value in second-hand hi-fi; it's only worth what someone will pay for it.
5. The best guide to pricing is last month's Classifieds: that a 'classic' was worth £xxx a year or two ago is no guide. Values fall as well as rise.
6. Amateur second-hand dealing is not a big money game: you win some, you lose some.
7. Be prompt with despatch. If in doubt about buyer's bona-fides, either wash out the deal or send C.O.D.
8. There will always be time-wasters: be tolerant within reason!
NEXT MONTH

June 2007’s Hi-Fi World is a veritable cornucopia of the weird and wonderful - we have a heady mixture of the great and the good in hi-fi hardware. Here’s just some of what we hope to bring you:

PODIUM ONE LOUDSPEAKERS - PANEL PERFECTION? EXCLUSIVE!
£100K SYSTEM FEATURE - HOW THE OTHER HALF LIVE!
REVOLVER AVF LOUDSPEAKERS - TOWERS OF POWER?
LUXMAN L550A VALVE INTEGRATED - JAPANESE CRACKER? EXCLUSIVE!
AUDIA FLIGHT CD TWO CD PLAYER - SEXY NEW SILVER DISC SPINNER EXCLUSIVE!
SHANLING MC-3 MINI SYSTEM - TAKING THE FIGHT TO DENON
CD ACCESSORY SUPERTEST - GET THE BEST FROM YOUR DISCS
PROGRESSION PARALLEL TRACKER TONEARM - CHEAP AND EASY EXCLUSIVE!
FATMAN ITUBE AUDIO SYSTEM - WHEN THE IPOD MET THE VALVE
OLDE WORLDE; MORDAUNT SHORT SYSTEM 442 LOUDSPEAKERS - EIGHTIES BRUISER REVISITED
CHANNEL ISLANDS AUDIO D100 MONOBLOCKS - OFFSHORE AUDIO HAVEN? (pictured)
DENON DVD3930 DVD PLAYER - HOT NEW MID-PRICE HI RES CONTENDER
NUFORCE REFERENCE 9 PREAMP - AS GOOD AS THE REF9SE POWER AMPS? EXCLUSIVE!

PICK UP THE JUNE 2007 ISSUE OF HI-FI WORLD ON SALE JUNE 30TH OR SUBSCRIBE. SEE PAGE 68
ADVERTISERS INDEX

2nd Hand Hi-Fi 113
Anatek 114
Audio Xpress 107
Audiocraft 109
Audusa 108
Aurousal 38
B&W BC
Big Ears 122
Billy Vee 106
Choice Hi-Fi 123,125
Classique Sounds 111
Decent Audio 115
Densen 42
ECS 46
English Valve Audio 112
Heatherdale 115
Henley Designs 76,80
Hi Audio 44
Hi-End Cable 111
Hi-Fi Sound 113
Horn Audio 111
I Cube 56
Ian Edwards 115
Ian Harrison 114
Kudos 115
Leema 34
Linn 6
Mantra Audio 109
Martin Kleiser 48
Matrix 107
Meridian 24
Michell Engineering 92
Midland Audio Exchange 117
Mikam North 60
MIT Cables 64
Musonic 107
Naim 74
Origin Live 60,114
Pioneer IFC
Podium 56
Quad 86
Real Hi-Fi 26
Retro Reproduction 109
Rochester Hi-Fi 112
Sevenoaks 28,29,30,31
Shadow Audio 72
Signature Audio IBC
Slim Devices 12
Sounds of Music 116
Sounds4Enjoyment 16
Stamford Audio 84
Tangent 56
The Right Note 92
Tube Shop 107
Turntable World 113
Vertex 44
Walrus 78
Walrus Audio 64
World Design 120,124,126

FREE READER CLASSIFIED ADS ORDER FORM

TERMS AND CONDITIONS: Only one advert per reader. Maximum length per advert is 30 words. Adverts over 30 words will not be accepted. Telephone numbers and E-mail addresses are treated as one word. Model numbers are treated as one word i.e. Quad 303 = two words. Sorry, we cannot accept adverts over the telephone. The Publisher reserves the right to judge submissions.

You can email your advert to us at: classifieds@hi-fiworld.co.uk or write or type your advertisement copy in block capitals with one word per box and post it to us at:

Hi-Fi World Free Readers Ads,
Unit G4, Argo House, Kilburn Park Road,
London, NW6 5LF.

WE WILL ACCEPT PHOTOCOPIES OF THIS FORM

Name: ____________________________
Address: ____________________________
Post Code: ____________________________
Daytime Tel: ____________________________

FREE READER CLASSIFIED ADS COPY DEADLINES
JUNE 2007 - 5TH APRIL 2007
JULY 2007 - 9TH MAY 2007
The Verve years were great for Ella Fitzgerald. She had moved on from Decca where she struggled with patchy material — some excellent, but too many of them novelties. Her Song Book series at Verve launched her star into the stratosphere where it has stayed ever since. Her 'Cole Porter Song Book', for example, became one of the biggest selling jazz records of all time. Fitzgerald began recording the Song Book series for Verve in 1956 with Rogers and Hart, and the last was undertaken in 1963 with Jerome Kern.

Speakers Corner began covering the Song Book series back in the year 2000, with the 'Cole Porter Song Book'. It was at this time that the label had the idea to publish all seven of the original series because the initial set sold so well. The label then issued a second series with consistently high sales — and so the series has continued with the new release of the 'Jerome Kern Song Book' featuring standards such as 'A Fine Romance', 'Can't Help Loving That Man', 'The Way You Look Tonight' and 'I'm Old Fashioned'. It is a beautiful release, superbly mastered by Acoustech in the USA.

Rather than a complete unit of song books, the audiophile has to look at the series as a suite of linked yet separate albums. Some of the albums were recorded in mono and some in stereo. To that extent, Speakers Corner produced the very first stereo versions on vinyl of Song Book songs with the few tracks that appeared on the largely mono Rogers and Hart production.

The final vinyl volume will be the Harold Arlen Song Book which will be issued either late this year or early next year. CD fans should hunt down the song books on the Verve label. The ambitious can even purchase the entire series as a magnificent box set of sixteen discs. Vinyl fans who happen to be Fitzgerald completists may have to make some tough decisions too. Mainly because the CD versions of the song books included an array of extra tracks. As the MD of Speakers Corner, Kai Seemann, explained his vinyl versions, "sometimes include the extra tracks. If there was enough space on the LP we did. Sometimes there was no space left. For example, if a track was deemed too long for an album side, the sound quality would degrade so I wouldn't feature it."

Speakers Corner sometimes found themselves with a spare fifteen minute track but it was too short to include on an extra 33rpm record or even a double sided 45rpm vinyl. So why didn't they include it on a supplementary 10" or single sided 45rpm disc? "We are not able to manufacture 10" vinyl discs to the thickness we require. I could have done it with a single-sided 45rpm disc but I feel uncomfortable where one side is completely blank. It's unattractive. When Classic do it they have an entire album on one-sided discs. Oddly enough, we tried that route but our customers didn't appreciate it — maybe we have different customers."

There are no extra tracks on the new Jerome Kern release but, then, there are none on the older CD version either. In fact, Speakers Corner didn't utilise the CD sets for comparison, to see what extra tracks were out there; the company instead depended on the tape library at Universal and for that library to say that, 'well on this tape we're giving you, there are extra tracks'. Some might call this approach rather blinkered and less than diligent whilst others might say the company wanted to give the public the best sounding product available and so only worked with the best tapes, instead of mooching around on the floor looking for bits and pieces to add to the end of an album.

As individual records, the Song Book series is not perfect. The arrangements (on Cole Porter and Rogers and Hart, lovely as they are) can rightly be accused of being a little plodding which was restrictive to Fitzgerald. The heights were reached on the Gershwin and Duke Ellington Song Books where Duke Ellington and Nelson Riddle respectively created arrangements more suited to Fitzgerald's style. Taken as a whole, however, the Song Book series is a tour de force, an essential item for any fan of the popular song and an ideal method of dipping your toes into some of the cream of the songwriting crop.
Upgrade your system in one fell swoop!

"Absolutely love the performance."  
Mr K. Tasker

"The best I've heard in 20 years."
Professor R. Jowitt

PS Audio is a recognised leader in power quality and power protection products. If you want to protect the investment in your system, and enjoy a dramatic improvement in your existing components at the same time, try the new Power Plant Premier.

The Power Plant Premier is the world's only true AC regenerator that offers the full power of the wall, low distortion even with difficult loads, MultiWave, CleanWave, remote control, true surge protection, front panel harmonic power analyzer, AC volt meter, and outstanding AC isolation. All this for just £1,799 represents unbeatable value.

The Premier Power Plant is now available in the UK with US and UK plug outlets. Please call for more information.

Digital Link III DAC £1,099
GCHA Headphone Amplifier £799
GCPH Phono Stage £799

"The Crowning Jewel... is the Digital Link III."
Absolute Sound, March 2007

"Brilliant. Loads of power and detail."
ImageXperience, March 2007

20 / 20 Hi-Fi News, May 2007

Dealer enquiries welcome
Audio signals are like spring water. The further they flow from their source, the greater the risk to their natural purity and vitality. Like a glass of cool, clear water, fresh from the stream, nothing compares to hearing music with the cleansing clarity it was created with.

At B&W, we like to get listeners as close to the source as possible. The signal path in an 800 Series speaker couldn’t be any shorter, simpler or sweeter. By optimising, in every detail, the mechanical design of the drive units, we minimise the need for extra electrical components in the crossover. Less quantity, more quality. Every component we do use is handpicked after painstaking listening tests. Together in the 800 Series crossover, they deliver sound with every original nuance and texture intact.

Not all water tastes the same. No other speakers sound like the 800 Series.

www.bw800.com
Visit our website and order your free DVD
Call +44 (0)1903 221 500