

HI-FI WORLD

NOVEMBER 2013

UK £4.10

www.hi-fiworld.co.uk

FREE READER CLASSIFIED ADS IN THIS ISSUE!



EXCLUSIVE!
QUADRAL
ORKAN
AKTIV VIII
 loudspeakers



EXCLUSIVE!
PROJECT ESSENTIAL 2
 turntable



NAIM NAIT 5si
 amplifier

EXCLUSIVE!
ICON
AUDIO
STEREO
60 MKIII
 amplifier with KT150s



COMPETITION



WIN AN INSPIRE BLACK
MAGIC S1 TURNTABLE
 WORTH £690!
 (UK ONLY)

OHDE & SCHWARZ MEASUREMENT



- CYRUS STREAM XA STREAMER **EXCLUSIVE!**
- CREEK EVOLUTION 2 AMPLIFIER **EXCLUSIVE!**
- ACOUSTIC ENERGY 301 LOUDSPEAKERS **EXCLUSIVE!**
- ARCAM rBLINK BLUETOOTH RECEIVER **EXCLUSIVE!**
- LEEMA ACOUSTICS ELEMENTS ULTRA PHONOSTAGE **EXCLUSIVE!**

NOVEMBER 2013



8 PAGES OF LETTERS - THE BEST WINS A PAIR OF KEF Q100 LOUDSPEAKERS! (UK ONLY)

World Radio History





Upgrade to Diamond Upgrade your speakers this autumn to 800 Series Diamond and your retailer will buy back your existing speakers*. 800 Series Diamond represents the pinnacle of performance. New drivers, crossovers and iconic diamond tweeters deliver sound quality that will leave you speechless. **Contact your local retailer to find out more or visit www.bowers-wilkins.co.uk/upgrade**

NORTH

Acoustica

Chester, 01244 344227,
info@acoustica.co.uk,
acoustica.co.uk

The Audio Room

Hull, 01482 891375,
hifi@audiroom.co.uk,
theaudiroom.co.uk

Glasgow Audio

Glasgow, 0141 332 4707,
note@glasgowaudio.com,
glasgowaudio.com

Hi-Fi Corner

Edinburgh, 0131 556 7901,
sales@hificorner.co.uk,
hificorner.co.uk

Huddersfield Hi-Fi

Huddersfield, 01484 544668,
info@audiovation.co.uk,
audiovation.co.uk

Lintone Audio

Gateshead, 0191 4774167,
sales@lintone.co.uk,
www.lintone.co.uk

Moorgate Acoustics Ltd

Sheffield, 0114 275 6048,
sales@moorgateacoustics.co.uk,
moorgateacoustics.co.uk

Robert Ritchie Hi-Fi

Montrose, 01674 673765,
shop@robertritchie-hifi.com,
robertritchie-hifi.com

Sound Organisation

York, 01904 627108,
info@soundorg.co.uk,
soundorg.co.uk

SOUTH

Audience

Bath, 01225 333310,
andrew@audience.org.uk,
audience.org.uk

The Audio File

Cambridge, 01223 368305,
cambridge@audiofile.co.uk,
audiofile.co.uk

Audio Venue

Ealing, 0208 567 8703,
w5@audiovenue.com,
audiovenue.com

Billy Vee Sound Systems

Lewisham, 020 8318 5755,
sales@billyvee.co.uk,
billyvee.co.uk

Chew & Osborne

Epping, 01992 574242,
sales.epping@chewandosborne.co.uk,
chewandosborne.co.uk

Grahams Hi-Fi

Islington, 020 7226 5500,
enq@grahams.co.uk,
grahams.co.uk

Infidelity

Kingston On Thames, 020 8943 3530,
info@infidelity.co.uk,
infidelity.co.uk

Martin's Hi-Fi

Norwich, 01603 627010,
sales@martinshifi.co.uk,
martinshifi.co.uk

Music Matters

Birmingham, 0121 429 2811,
birmingham@musicmatters.co.uk,
musicmatters.co.uk

Oranges & Lemons

Battersea, 020 7924 2040,
shop@oandlhifi.co.uk,
oandlhifi.co.uk

Sound Academy

Bloxwich, 01922 493499,
sales@soundacademy.co.uk,
soundacademy.co.uk

Phase 3

Worthing, 01903 245577,
worthing@phase3.co,
phase3hifi.com

PJ HiFi

Guildford, 01483 504801,
info@pjhifi,
pjhifi.co.uk

Robert Taussig

London, 020 7487 3455,
sales@roberttaussig.co.uk,
www.roberttaussig.co.uk

Senso Systems

Truro, 01872 273215,
michael@senso-systems.co.uk,
senso-systems.co.uk

Soundcraft Hi-Fi

Ashford, 01233 624441,
sales@soundcrafthifi.com,
soundcrafthifi.com

The Sound Gallery

High Wycombe, 01494 531682,
sales@soundgallery.co.uk,
soundgallery.co.uk

IRELAND

Cloney Audio

Blackrock, 00 353 1288 9449,
sales@cloneyaudio.com,
cloneyaudio.com

Flicks

Bangor, 0289 146 1415,
sales@flicks.ie,
flicks.ie

*Terms and conditions apply.

welcome

EDITOR

Noel Keywood
tel: +44 (0) 20 372 6018
e-mail: editorial@hi-fiworld.co.uk

DESIGN EDITOR

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

PRODUCTION EDITOR

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

ADVERTISING EXECUTIVE

Brad Francis
tel: +44 (0) 1923 677 256
mob: +44 (0) 771 542 1569
e-mail: advertising@hi-fiworld.co.uk

ACCOUNTS

Louise Palfrey
tel: +44 (0) 203 005 4927
mob: +44 (0) 7917 047 548
e-mail: louise@hi-fiworld.co.uk

PUBLISHER

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

FREE READERS CLASSIFIEDS

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

SUBSCRIPTIONS

tel: +44 (0) 1442 820 580
fax: +44 (0) 1442 827 912
e-mail: hi-fiworld@webscribe.co.uk

PHOTOGRAPHY

David Noble
tel: +44 (0) 20 7625 3134

WRITERS

Paul Rigby, Rafael Todes, Tony Bolton,
Jon Myles, Martin Pipe



Icon Audio's Stereo 60 MkIII amplifier on our front cover this month might have been used in Bank power station before it became Tate Modern and they did away with massive voltmeters. But that is all part of its retro chic. As are the glowing valves and its eerily iridescent voltage regulator. The real point of interest though are those lovely looking KT150 valves that conjure up visions of another London building, the Gherkin, just a little way from Bank. These look altogether more

modern – and that's the point: they are a new design, better built, more robust and with a better sound than much of what has gone before. You can find out more about this amplifier on p10 of this issue.

Music streaming from computer to hi-fi is a popular activity these days and nearly every manufacturer is in on the act. Cyrus are easily able to hold their own in this field, as you'll find when reading our review on p14 of their new Stream Xa, with its glorious colour-screen remote control.

A venerable idea in high fidelity is the active loudspeaker. With electronic equalisation and power amplifiers on-board, actives have a lot of potential benefits. Unfortunately, they are usually squandered in the design process. Quadral of Germany take a stab at an active, bringing us the Orkan VIII active that we review on p28. See how it manages to avoid the pitfalls to come out shining.

On page 83 we look at another active loudspeaker, but this time at the other end of the size and price scale, the NuForce Cube. It's powered and it uses NuForce Class D amplifiers. In spite of its tiny size it even has an on-board DAC to convert digital to analogue. OK, it isn't true high fidelity but it is a fascinating little loudspeaker that will wow onlookers.

From old ideas updated like modern power valves or active loudspeakers, to new technologies like streamers, this month's Hi-Fi World has it all. I hope you enjoy its great selection of products and reviews.

Noel Keywood
Editor



testing (see www.hi-fiworld.co.uk for full explanations of all our tests)

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

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

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

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

hi-fi world

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

verdicts

●●●●● OUTSTANDING
●●●● EXCELLENT
●●● GOOD
●● MEDITOCRE
● POOR
£ VALUE

amongst the best
extremely capable
worth auditioning
unremarkable
flawed
keenly priced



ELECTRONIC MAGAZINE

Go to our website www.hi-fiworld.co.uk to buy an electronic version of this magazine, individual issues, back issues or a subscription.

Distributed by Seymour Distribution Ltd 86 Newman Street London, W1T 3EX Tel: +44 (0) 20 7396 8000 Printed by Benhamgoodhead Print Limited Tel: +44 (0) 1869 363 333
Our Agents in Malaysia Millennium Hi-Fi & AV Simon Chang Showroom & office, 500-1-3 First Floor Wisma Indah (Shen Court), Jalan Tun Razak 50400 Kuala Lumpur, Malaysia
Tel: 603 9283 8171 Fax: 603 9281 3762 e-mail: info@millennium-audio.com

All unsolicited submissions and goods are at the owner's risk. We accept no responsibility for such submissions, nor do we undertake to return them.
No material may be reproduced from this magazine without the publisher's written permission. © Audio Publishing Ltd

contents



LOUDSPEAKERS

QUADRAL ORKAN VIII AKTIV LOUDSPEAKERS 28
Noel Keywood listens to active loudspeakers and is impressed

ACOUSTIC ENERGY 300 LOUDSPEAKERS 59
Jon Myles gets great bass from budget AEs

NUFORCE CUBE 83
Jon Myles listens to neat little computer speakers

DIGITAL

CYRUS STREAM XA/N-REMOTE 14
Martin Pipe gets streaming with the new Cyrus Xa

CREEK EVOLUTION 2 AMPLIFIER 34
Martin Pipe renews his love of Creek with a new Evolution

COWAN D2 MP3 PLAYER 41
Martin Pipe tackles a smart little media player

ARCAM rBLINK BLUETOOTH RECEIVER 56
Jon Myles on the wonders of music over Bluetooth

NAD WIRELESS USB DAC 67
Jon Myles takes to the air with USB

AMPLIFICATION

**ICON AUDIO STEREO 60 MKIII
KT150 AMPLIFIERS 10**
Noel Keywood lives with the new KT150 valve

NAIM NAIT 5si 52
Jon Myles loves Naim's new Nait 5Si amplifier



NOVEMBER 2013

VOLUME 23 : NO. 9

FEATURES

102 DIRECT DRIVE TURNTABLES

The secrets of Direct Drive are revealed by expert Dave Cawley of Timestep Electronics/Sound Hi-Fi in this first installment

OLDE WORLDE

105 MARANTZ DD82 DIGITAL DCC CASSETTE DECK

Martin Pipe on the history of DCC and the workings of a Marantz DD82 DCC recorder

VINYL

84 NEWS

All the latest and greatest vinyl releases for you, from the pen of Paul Rigby

86 PROJECT ESSENTIAL II TURNTABLE

Tony Bolton on a super budget LP spinner

91 LEEMA ELEMENTARY ULTRA PHONOSTAGE

Tony Bolton reviews a great new phono stage from Leema

95 SOUNDBITES

ACC-SEE 7" clear PVC record sleeves/Analogue Studio inner record sleeves/Glorious Record Box vinyl LP storage



HEADPHONES

63 ONKYO HEADPHONES

Martin Pipe checks out Onkyo ES-HF300 headphones

REGULARS

6 NEWS

Words from the world...

19 MAIL

Eight pages of your views, wonderful as always...

33 COMPETITION

Your chance to win an Inspire Black Magic Si turntable worth £690

38 SUBSCRIPTIONS

Ensure your copy every month and save money too!

45 WORLD STANDARDS

Updated guide to the latest and greatest hi-fi hardware on sale

64 AUDIOPHILE VINYL

Paul Rigby rounds up the latest audiophile vinyl releases

76 WORLD CLASSICS

Brilliant designs that have stood the test of time...

71,73,75 OPINION

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

96 DIAL-A-DEALER

A comprehensive guide to UK hi-fi retailers

110 CLASSIFIEDS

Two pages of second-hand bargains

112 NEXT MONTH

What we hope to bring you in the next sizzling issue...

113 ADVERTISERS' INDEX

114 CLASSIC CUTS

10cc, by Paul Rigby



email:news@hi-fiworld.co.uk

news

TAD EVOLUTION

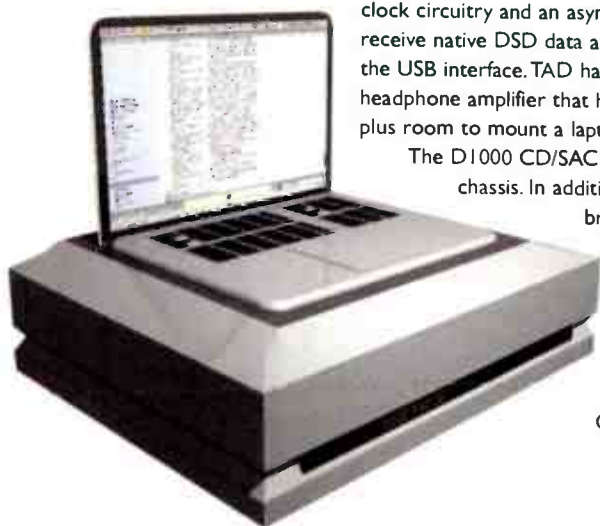
As Teac retains a relationship with Esoteric, Pioneer retains a similar relationship with Technical Audio Devices Laboratories (TAD). The latter has released two new, high-end, products in their Evolution Series, the DA1000 Digital to Analogue Converter and the D1000 CD player.

Based on the D600 CD Player, the DA1000 utilises the same UPCG clock circuitry and an asynchronous redirection USB input to receive native DSD data as well as PC audio data (PCM) through the USB interface. TAD has equipped the DA1000 with a matching headphone amplifier that has its own dedicated volume control plus room to mount a laptop on the top of the chassis.

The D1000 CD/SACD player has the CD mechanism unit directly fixed to its bespoke 8mm thick aluminium chassis. In addition to these measures, the D1000's toroidal transformer is mounted on a 6mm thick brass plate to further enhance the anti-vibrational techniques employed on this unit.

The disc tray section has been given a sculpted aluminium appearance that has been specially selected for the purpose of damping the sheet material that is used in the disc tray. The latter is also fitted with a black sheet that avoids the diffusion of the laser beam by improving the reading ability of the digital data. The use of a brushless motor spindle imparts the D1000 with a very low noise and long life. Price for the D1000 £14,000 is while the DA1000 is priced at £12,000

Call 0203 5442338 or email info@nunudistribution.co.uk



NAD VISO HP50 'PHONES

The NAD VISO HP50 Over-Ear Noise Isolating Headphones feature soft, noise-isolating earpads to reduce the effects of ambient noise that is further encouraged by Room Feel technology from NAD's sister company, PSB Speakers. The HP50 features acoustically optimised ear cups and specially-developed 40mm drivers.

They also include a custom-designed carrying case and two detachable tangle-free cords: one standard and one with an Apple iDevice 3-button remote.

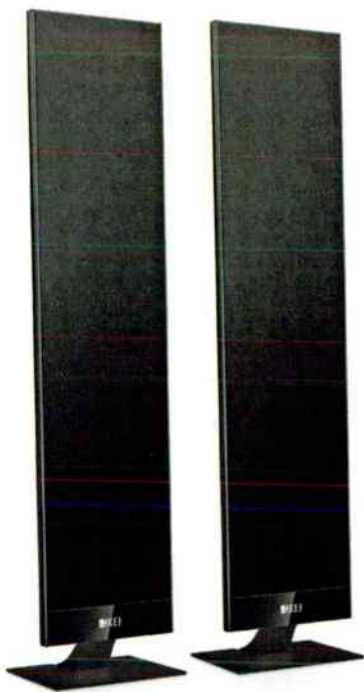
The NAD VISO HP50 is priced at £250.

Click on www.NADelectronics.com for more information.



CHORD COMPANY SARSEN

The new Sarsen speaker cable provides a narrow diameter of less than 4mm. Its conductors are built from multi-stranded oxygen free copper and, like other Chord Company speaker cables, are arranged in a twisted pair configuration. The Sarsen cable uses FEP insulation, which is a form of PTFE. FEP, however, has slightly different electrical characteristics, which the Chord Company believes to be better suited for use with non-plated copper conductors, such as those featured in Sarsen. The two conductors are then covered with a special PVC outer jacket. The Sarsen speaker cable is priced at £8 per metre and can be terminated with 4mm banana plugs, BFA connectors and spade connectors.



KEF V SERIES

KEF has announced the introduction of the first model in its new V Series range of audio-video products, the V300 digital TV sound system. At only 35mm thick, the V300 speakers are designed to flank the TV screen. Featuring four 115mm bass drivers and two 25mm aluminium tweeters with KEF's 'tangerine' waveguide, the V300s are driven by an activation module containing an independent, dual Class D digital amplifier with a switchable on board DSP EQ allowing users to optimise the bass response according to whether the speakers are desk/table mounted or fixed to the wall. The activation module can be fixed to the back of the TV screen via the VESA points, wall mounted with an optional flush mount kit or placed in a cabinet.

The V300s come with desk stands, yet can be wall mounted or used in conjunction with optional floor stands, which feature KEF's Selecta-mount.

The V300 can be partnered with any KEF subwoofer. The subwoofer output is also easy to adjust via the same TV remote. Price is £700 for the pair. Optional V300 Floor Stands are £225 per pair.

Click on www.kef.com for more details.



ARCAM 4K AV Receiver

Arcam's new AVR750 receiver includes seven HDMI inputs, two HDMI outputs, is ARC compatible and comes with Class G power amplification.

Both video and audio stages are designed to embrace both current and upcoming technologies with 4K Ultra HD and 3D video capability built-in, while both standard and high definition sources can be scaled to any resolution where required.

An internal tuner provides a fully integrated FM/DAB/DAB+ radio solution. Worldwide access to radio stations is provided through the network connection, which also interfaces to uPnP audio servers. The USB port supports memory devices as well as digital audio from your iPod, iPhone or iPad while Bluetooth, USB and Airplay are all available using Arcam rSeries modules.

Control of the AVR750 is possible via Ethernet, enabling it to be fully integrated with whole house control systems: RS232, 12V triggers and standard IR control are also included.

Meanwhile, the Songbook app (iOS) can control Internet Radio and uPnP streaming from PC, MAC and NAS Drives. The Arcam Remote (iOS iPad only) is also available for full control and setup of the AVR750. Price is £4,000.

Click on www.arcam.co.uk for more information.



BLACK RHODIUM POWER CABLES

Black Rhodium has announced the launch of the Aspect and Essence mains power cables. Both incorporate Black Rhodium's low Transient Phase Distortion construction and Deep Cryogenic Processing. The latter is applied to the cable to rearrange its molecular distribution into a more uniform structure.

Features include the adding of silicone rubber insulation for low dielectric loss while both include thirty conductors of 0.25mm tinned copper.

The Aspect is priced at £350 for a 1.5m

length with the Essence, terminated with

black rhodium plated connectors, is priced

at £950 for the same length. Longer lengths are available to order at £100 per additional metre

Call 01332 342233 or click on more www.blackrhodium.co.uk for more information.





ATC SCM 7 AND SCM 11

Designed for small to medium scale stereo and multi-channel applications, these two new speaker models incorporate wholly ATC designed curved cabinets and the 25mm soft dome SH25-76 tweeter. You'll also find updated bass/mid drivers and crossovers.

Sharing technology with the ATC soft domed mid-range drive unit, the new tweeter employs a dual suspension system. The complex, shaped, soft-domed diaphragm is joined by a 5.5mm rigid alloy waveguide. Improved crossovers featuring metallised polypropylene capacitors, large air cored inductors and ceramic wire-round resistors are included.

For the SCM7, the 125mm mid/bass driver features a 45mm soft dome and a 3.5kg high-energy magnet system, which includes a 45mm flat wire voice coil.

For the SCM11, you will find an ATC CLD 150mm mid-bass driver incorporating a 45mm soft dome. Constrained Layer Damping is included too.

Manufactured in-house, the new SCM7 is priced at £810 with the SCM11 at £1,200.

Call 01285 760561 or click on www.atcloudspeakers.co.uk for more information.

MONSTER FREEDOM

Monster has announced that it is expanding its line of iSport-Headphones with its first on-ear wireless model, the iSport Freedom. The water resistant, anti-microbial and sweat proof Freedom features Bluetooth wireless capability (supporting the aptX codec).

The included lithium polymer rechargeable battery provides thirty hours or more of music playback and calls while the button layout on the earcups features play, pause, track and volume controls. The Freedom also includes a 3.5m ControlTalk Universal microphone cable for direct hardwired use for smartphones. Price is £240.



Click on www.monsterproducts.com, access the Facebook page at www.facebook.com/monsterproducts or Twitter at www.twitter.com/monsterproducts.



MARLEY LEGEND IN-EAR HEADPHONES

The House of Marley has announced the launch of its new flagship Marley Legend in-ear headphones. With a balanced armature design, it combines an aluminium body with sapele wood detailing.

Arriving with five sizes of ear tips they include a specially designed anti-tangle cord. Priced at £199.

Click on www.thehouseofmarley.com for more information.



CARDAS DUO

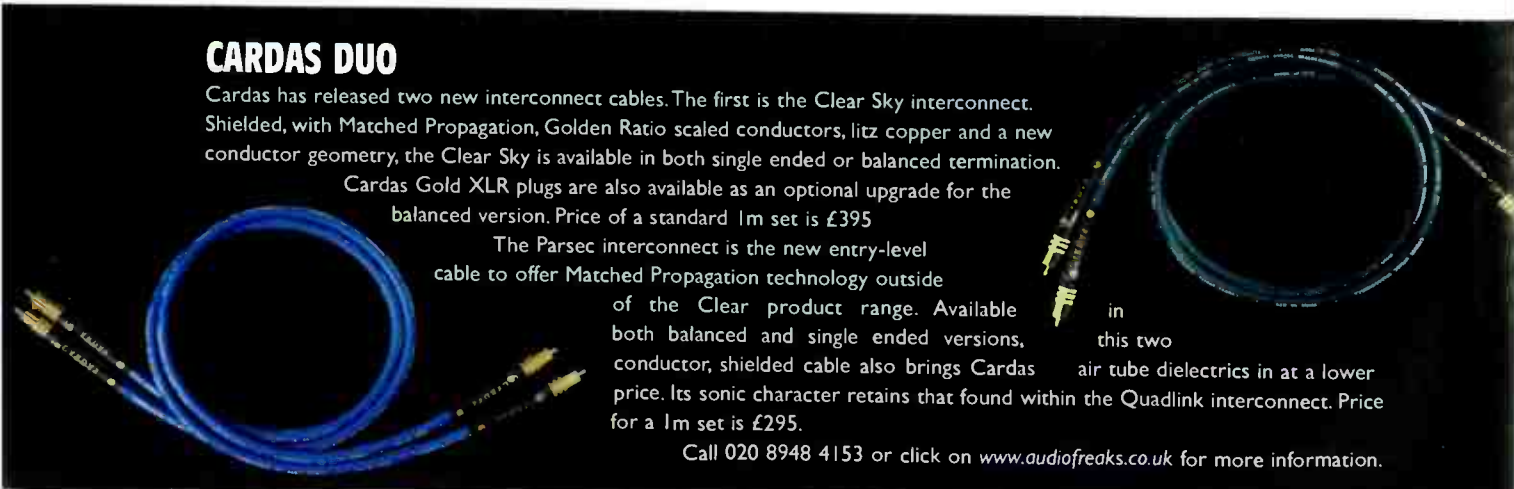
Cardas has released two new interconnect cables. The first is the Clear Sky interconnect. Shielded, with Matched Propagation, Golden Ratio scaled conductors, litz copper and a new conductor geometry, the Clear Sky is available in both single ended or balanced termination.

Cardas Gold XLR plugs are also available as an optional upgrade for the balanced version. Price of a standard 1m set is £395

The Parsec interconnect is the new entry-level cable to offer Matched Propagation technology outside

of the Clear product range. Available in both balanced and single ended versions, conductor, shielded cable also brings Cardas air tube dielectrics in at a lower price. Its sonic character retains that found within the Quadlink interconnect. Price for a 1m set is £295.

Call 020 8948 4153 or click on www.audiofreaks.co.uk for more information.





FOCAL ARIA 900

The new Focal Aria 900 range has replaced the Chorus 800 V range. The Aria design includes 'F' (for Flax) sandwich cones, the result of more than five years' work towards achieving more affordable sandwich structures. It features a piece of very high quality flax, placed between two very thin glass fibre sheets.

A newly developed TNF tweeter is included, featuring an aluminium/magnesium alloy inverted dome, supported on a Poron suspension (developed from the Utopia tweeter). The tweeter itself has a front plate waveguide.

The Aria 900 series cabinets are constructed from a combination of 18mm and 24mm controlled density HDF (High Density Fibreboard) with non-parallel sides and bracing at strategic points. The floorstanding speakers incorporate two vents (horizontal and vertical) in PowerFlow configuration for a 50% air movement speed reduction in the vents. Finally, the midrange and treble sections have their own sealed enclosures with non-parallel walls to minimise internal standing waves.

Aria 900 cabinets are available in walnut or black high gloss. Every speaker cabinet has a glass top and leather finished front, highlighted with brushed gunmetal trim rings.

Price's range from £550 for the Arai CC 900 to £3,100 for the Aria 948. Call 0845 660 2680 or click on www.focal.com for more information.



RUSS ANDREWS NEW POWERKORDS

Russ Andrews has announced a new range of its PowerKords. The three new cables: PowerKord-100, PowerKord-300 and PowerKord-500 feature geometrical matrix enhancements to the Kimber Kable and improvements to the earth conductor. A woven cable geometry is utilized and each model in the range features an increasing number of woven conductors: the PowerKord-100 has eight hyper-pure Kimber Kable conductors, the PowerKord-300 uses sixteen and the range topping PowerKord-500 benefits from twenty-four individual conductors.

All three cables are fitted with a substantially larger gauge earth wire that boasts four times the cross sectional surface area of the previous generation. A new soft-feel insulation covers the earth to reduce the instances of mechanical noise.

The R&D efforts even extended to the type of sleeving used across the range, with the choice being a noise reduction design featuring bi-axially braided mono and multi-filament PET yarns, which was originally developed for sensitive installations where reduction of noise is required. The sleeving locks the woven conductors in place and helps remove mechanical noise in the cable.

The three cables are fitted with high performance mains plugs, including Russ Andrews fuses and Wattgate IEC plugs. As standard, the PowerKord-100 and 300 models come with the Wattgate 320i plug, which can be upgraded on the 300 to the silver Wattgate 350i Ag, which also comes as standard on the PowerKord-500. Each of the cables can be fitted with 16A Wattgate plugs for connection to Russ Andrews Silencer/PowerBlocks or other items of equipment that use a 16A IEC.

Prices per metre are: PowerKord-100, £150; PowerKord-300, £230 and PowerKord-500 £440.

Call 01539 797300 or click on www.russandrews.com

TIVOLI BLUETOOTH ALL-IN-ONE

Tivoli Audio has announced the Music System+, the latest version of its Music System series.

Integrated features include the latest wireless Bluetooth technology, digital and analogue radio tuners, as well as a slot-loading CD player. Also included are separate amplifiers, an integrated stereo SpacePhase Wide Mode (that provides an enhanced soundstage audio mode) and adjustable, downward-firing subwoofer. The integrated CD player is compatible with MP3, WMA and CD-R/CD-RW formats.

The Tivoli Audio Music System+ is priced at £699.00.

Contact tivoliaudio.co.uk for more information. The set can now be purchased online at John Lewis.

SONY WALKMAN WH SERIES

The new Walkman WH Series offers a digital music player, speakers and headphones all in one, wire-free, design. The

Walkman NWZ-WH505 and NWZ-WH303 models allow you to

switch between sound modes for dynamic, enhanced bass or clear, sustained mid-to-high range vocals.

When you want to listen outdoors and still hear what's around you, hang your WH Series Walkman around your neck and activate the surround sound speakers at a touch.

They feature xLOUD and VPT speaker technologies. The

units run on a full charge for twenty hours with a built-in storage of 16GB on the WH505 (4GB on the WH303).

The new WH303 and WH505 Series Walkman models will be priced at £99 and £179 respectively.

Click on www.sony.co.uk for more information.





A new valve has arrived for tomorrow's valve amplifiers, the KT150. Icon Audio fit it to their Stereo 60 MkII and Noel Keywood listens to the result.

T Tomorrow

It isn't a new amplifier, but it might as well be. Icon Audio's powerful Stereo 60 MkIII gets its original KT120 output valves replaced by new KT150s and everything goes

skyward – power and sound quality. Suddenly, we are measuring over 80 Watts from an integrated valve amplifier – amazing. The new Stereo 60 MkIII is enormously powerful and very svelte too. Valve technology

moves ahead.

That new technology concerns the output valves. KT150s are the latest iteration of the KT120, a recent Kinkless Tetrode based on the old KT88, introduced in 1958.

The KT120 was a stretched KT88, made larger to handle more power. But the KT120 isn't a particularly subtle sounding valve. Less refined than the KT88, it can sound a tad fierce or piercing in its delivery, according to the circuit it is used in. An alternative view is that it has speed and incision, sounding considerably less soft, warm even



plugged in. The chassis is purposeful rather than beautiful, but its eye catching old-style illuminated meter glows satisfyingly yellow in the dark, beneath valves whose heaters glow a dull red – and extra icing on the visual cake is provided by an OD3 voltage stabiliser valve that glows a strange iridescent purple at centre front. In low lighting this is an amplifier you'll notice.

At 43kgs the Stereo 60 is a heavy lift onto a shelf. One person can do it, but two are best, especially if Health and Safety requirements have to be met. The weight is in its array of transformers. At centre rear sits a mains transformer and either side of it are large output transformers, all shrouded in screening cans. In front of the mains transformer sits a small smoothing choke, a classic valve amplifier item that ensures there's no noise on the internal power lines.

Then there are the valves, four KT150s that should be good for around 3000 hours, two 6SN7 drivers and two 6SL7 low level preamplifier valves that should last at least 10,000 hours. They're all commonly available.

To get as much power as possible 'fixed bias' is used, meaning it must be adjusted! The meter serves as a bias check and adjustment is usually needed only after months of use. Because the adjusters are clearly visible this is a quick and easy process. The bias

adjustment valve selection switch is a rotary at far left. To its right lies an Ultralinear / Triode switch that arranges the KT150 tetrodes to work as triodes, giving a choice between power and sound quality. Triode setting offers best quality but less power, 50 Watts on this amplifier. Output triodes hold all honours for best sound quality and I use 300B triodes at home. The big old triodes – 300B, 211, 845 – are much like old cars with large, unstressed engines – more relaxing than exciting. Modern tetrodes strapped as triodes sound good, if not quite the same.

There isn't a vast difference in sound quality between these two modes of working on the Stereo 60 MkIII, but Triode is sweetest and most liquid and most people will gravitate to it I suspect. Technically, triode working gives more degenerative feedback across the valve and lower distortion. Our measurements showed that on the Stereo 60 Triode mode produced second harmonic distortion, whilst Ultralinear gave a tad of third harmonic, levels being very similar. This is as hoped, so all works well here.

The volume control uses an Alps Blue potentiometer, for good sound quality, channel matching and long life. It is motorised and remote control is fitted. There is a Tape/Source switch and a three position input selector. This Icom amplifier has its power switch on the left side, at rear – not an especially convenient location. It makes electrical sense,

somnambulant than most other power valves, especially old triodes like the 300B.

New Sensor Corporation seemed to know the KT120 could be improved and have come up with just that in the Tung Sol KT150. It handles slightly more power, is better built and sounds far smoother. But it is also more than double the price, costing £100 apiece against £42 for the KT120. That makes replacing two matched pairs a hefty £400.

The Stereo 60 MkIII was designed for the KT120, but the KT150 is a plug-in replacement – so that's what Icom have done. They've plugged in KT150s and the result is an attractive amplifier that catches the eye: those KT150s look sleek and peculiarly modern, and they feel solid when being

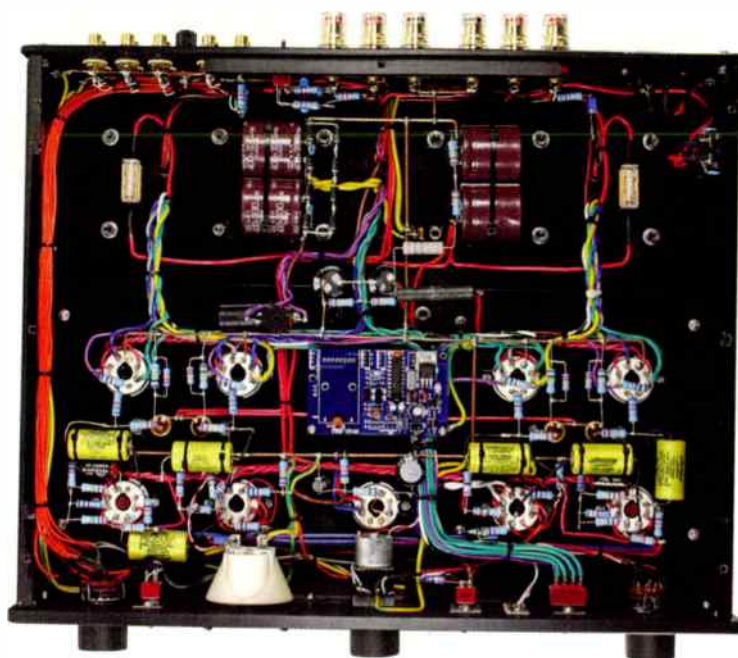


Loudspeaker output terminals are gold plated and fully shrouded, catering for 4 Ohm and 8 Ohm loudspeakers. The sensitivity switch sits between them and the inputs.

keeping mains away from input valves to avoid hum. Switching on is kept silent by an automatic mute circuit, making the Stereo 60 MkIII noise free at switch on.

The rear panel carries 8 Ohm and 4 Ohm loudspeaker terminals, four line inputs, one tape output and a small High/Low sensitivity switch, that needs some explaining. It switches feedback on or off – an unusual thing to do. Icon recommend it is best at the down (on) position, marked L for low, meaning low sensitivity with feedback applied. Most amplifiers use feedback to lower distortion; virtually none work without it. However, valves can be used without feedback, giving a more relaxed, often more fulsome sound that many prefer. Icon Audio recommend feedback is left on and technically I agree with them. It offers a good balance of properties, including well controlled bass with a large number of loudspeakers, particularly those with weak

A big illuminated meter shows bias setting, as well as output level.



Neat underside wiring in looms make for a clean appearance and easy servicing, because components are unobstructed by wires. White ceramic valve holders are used, plus quality audio components.

"turning feedback off, suddenly the stage opened up and developed a sense of cavernous depth"

acoustic damping and plentiful bass. Loudspeakers that are well damped acoustically, giving controlled but not heavy bass, actually benefit from low damping factor, however, and that was the case with the loudspeakers I used.

SOUND QUALITY

We ran in the amplifier for 40 hours to bed down both components and valves; there was just a small drift in quiescent current over this period in the output stage that a quick tweak of the bias adjusters fixed. Like the Audio Research VSi75 I reviewed last month, I was happy to use a pair of Tannoy Precision 6.4 loudspeakers with this amplifier.

Set to vanilla flavour, meaning Ultra Linear, 8 Ohm outputs and sensitivity at Low, the Stereo 60 MkIII had a smooth midband that bordered on creamy. In contrast treble was strong and quite pronounced, bordering on sharp, whilst bass was in good balance, but not excessive and certainly not boomy, but then the Tannoys are not

bass heavy loudspeakers. In fact, as Tannoys go they're quite restrained.

All this was fine until I started winding up volume with some older CD rips from Gerry Rafferty like 'Its Easy to Talk'. This is an old CD (1992) and can come over as hard edged – as it did with the Stereo 60 at vanilla. The KT150 is a silkier, creamier kinkless tetrode than the KT120 and far more svelte, but it still has some top end bite, at least compared to the 300Bs I use at home. It doesn't flatter old material and it makes limitations explicit. With later (2007), cleaner CD like The Eagles 'It's Your World Now' single drum strikes were deliciously taut and resonant, accordion rich in harmonics and Glen Frey's vocals were shimmeringly clear, chiselled in crystal it seemed. The KT88 always gave a modern sound with a balance more like a transistor amplifier, yet with the dynamic punch and sense of depth you get with valves; the Stereo 60 MkII with KT150s offers a stronger, meatier but equally fast presentation.

As you might have guessed though I was eager to see how the options fared and this is where things got interesting. Switching from Ultralinear to Triode had least effect, a small but pleasant increase in sweetness of tone being just apparent.

Moving the loudspeakers to the 4 Ohm taps brought down upper treble level a tad and with tracks like Tom Petty's 'Refugee' (24/96) that has strong treble this offered an easier balance, one I preferred.

The big change came with turning feedback off. Suddenly the stage opened up and developed a sense of cavernous depth in which the performance was taking place. Bass strengthened with the Tannoys, lower electrical damping suiting their bass balance. I use my 300B amplifier without feedback for much the same reason; it makes transistor



amplifiers sound retentive in their delivery and the Stereo 60 MkIII does much the same, developing a sense of scale and freedom of dynamic expression that eludes conventional amplifiers.

This amplifier has so much power it idles along with loudspeakers like the Precision 6.4s, Marta Gomez sang 'Lucia' (24/96) centre stage with explicit clarity and a spacious acoustic, the accordion having a lovely rich tonality and an easy sweep of dynamic range, from gently held background chords to sudden moves into the foreground. A single block beat out a stream of percussive strikes that echoed in space.

Classical music fared especially well with feedback off. The Minnesota orchestra had a massive presence in the room, sudden crescendos being conveyed with easy power. A

kettle drum being struck at the back of the stage had a lovely resonant character that gave it solid presence in the Rimsky Korsakov's Snow Maiden, 'Dance of the Tumblers'. Strings were smooth but spaciouly represented as they danced in the background.

CONCLUSION

The Stereo 60 MkIII with KT150s is a big amplifier in every sense of the word. Producing more than 80 Watts per channel from new KT150 power valves, it has the output of transistor amplifiers and is more in line with buyers' expectations of what is normal and needed from a hi-fi amplifier. Adding to this, Icon Audio make it adjustable like few other amplifiers, with feedback switching and Ultralinear / Triode mode. Add in superb sound quality that, with feedback off, few other amplifiers can approach and you have a fabulous and almost unique amplifier. Cap all this with retro styling supported by the glow of valves and you have a KT150 amplifier that is difficult to beat.

MEASURED PERFORMANCE

The Icon Audio Stereo 60 MkIII with KT150s fitted produced 88 Watts into 8 Ohms and a trifle less, 82 Watts into 4 Ohms, using 1% distortion as the overload limit. Coupling of the 4 Ohm tapped section wasn't as good as expected: this should give the same power as the full secondary winding, and frequency response differed too. Otherwise, results from the 4 Ohm tap differed little. Triode mode produced 50 Watts, plenty enough to get very high volume from most loudspeakers.

The output transformers handled bass unusually well: full output was produced at 40Hz with just 0.15% distortion -1dB below full output, and switching out feedback didn't worsen the figures. The Stereo 60 MkIII also produced very little high frequency distortion, just 0.04%. It is remarkably linear with the KT150s, more so than any other valve amplifier we have tested by some margin. Switching from Ultra Linear to Triode did not change distortion level, but it did change its structure, Triode giving predominately second harmonic whilst Ultra Linear gave third harmonic. Triode mode should therefore give a slightly more neutral sound.

With feedback on (Low sensitivity) as suggested for normal operation, overall gain was very low, input sensitivity

measuring 1.1V. This suits silver disc players but not much else. Switching feedback off (High sensitivity) gave an input sensitivity of 370mV, a fairly normal value.

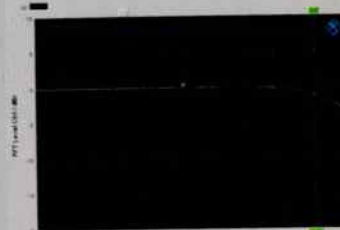
Feedback also affects frequency response, always widest with feedback on. The Stereo 60 rolled off slowly above 20kHz, measuring -1dB down at 32kHz. Switching feedback off reduced the upper -1dB limit to 20kHz. The 4 Ohm tap rolled off faster than the full winding and measured -1dB at 14kHz with feedback on or off. This will give the 4 Ohm output a warmer sound than the 8 Ohm output.

Damping factor (output impedance) is also affected by feedback, being highest with feedback on (Low sensitivity). It measured 5 with feedback on and 1.8 with it off. A DF of 5 will exert some useful electrical damping upon a loudspeaker, keeping bass sounding reasonably under control. Even 1.8 with feedback out isn't so bad and will suit loudspeakers that have strong acoustic damping.

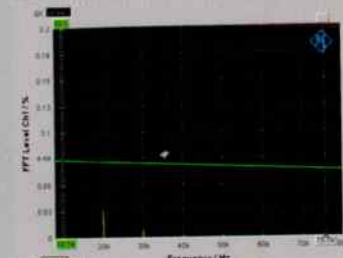
The Stereo 60 MkIII with KT150s produces a lot of power, with very low distortion. The 4 Ohm output will have a warmer balance than the 8 Ohm full secondary winding, the latter having extended treble. Overall, the Icon gave an impressive set of results with KT150s. **NK**

Power	88 Watts
Frequency response	2Hz-32kHz
Separation	82dB
Noise	-108dB
Distortion	0.03%
Sensitivity	1.1V

FREQUENCY RESPONSE



DISTORTION



**ICON AUDIO
STEREO 60 MKIII
KT150 £2599.95**



OUTSTANDING - amongst the best.

VERDICT

A lovely sound with plenty of power and adjustability. A well developed design.

FOR

- triode/ultralinear
- feedback switch
- big dynamics

AGAINST

- expensive power valves
- large
- heavy

Icon Audio
+44(0)116 2440593
www.iconaudio.com



The Xa-factor

The new Cyrus Xa streaming player brings extra factors into the sound quality equation, Martin Pipe finds.

March 2012 issue, we brought you a review of the Cyrus Stream X. This rather expensive network/USB player, finished in the long-established Cyrus half-width 'house-style', may have been worthwhile but needed to be partnered with a DAC (or amp with same built in) and rejected anything with sampling rates above 96kHz. Now we have the latest in the Stream range, the Xa.

The suffix informs us that an (a)nalogue output is offered. I got chatting to a pleasant gentleman at Cyrus, who told me that the Stream Xa was being used to add high-quality digital streaming playback to all-analogue systems – and not just elderly Cyrus ones. He explained how an ancient Quad setup had in

this way been brought screaming and kicking into the streaming era.

The Xa's analogue electronics can be externally-powered by a PSX-R – place them side by side, and cunningly the result has the same width of the average hi-fi component. Such an upgrade path was denied to the original Stream X, presumably because there was little point given the lack of analogue audio outputs.

Another key change is that 24/192 is now supported, currently the highest quality standard for digital audio. It's far less common than 24/96 digital, but with historic material such as that from the 'Stones available at 24.176.4, the ability to reach up to 192k sample rate is important.

Features common to both the X and Xa are Internet radio, audio streaming from DLNA-compliant servers like PCs and network-

attached storage (NAS) boxes, Wi-fi/Ethernet connectivity, a superb remote handset, USB, streaming from iPod and compatibility with a variety of audio codecs (notably FLAC, MP3 and AAC in addition to the uncompressed PCM of WAV and AIFF files).

Those onboard (Burr-Brown) DACs have given Cyrus an impetus to provide no fewer than five digital audio inputs, so that you can harness them to other sources. Two are optical and the rest are phono sockets, all gold plated; there are no balanced XLR outputs. In other words, you can use the Xa as a DAC with a CD transport, or as an upgrade for an existing CD player.

If you subsequently upgrade with an external DAC (or want to capture the unit's output to a digital recording device) you'll appreciate

the coaxial digital output.

In all, this is a pretty well thought-out collection – it's just a pity that the USB port, needed to play music stored on solid-state memory sticks or external hard-drives, lurks around the back. Still, you can get around this with a cheap USB extension cable.

So let's describe the Xa in more depth, for the benefit of those without a copy of the original Stream X review. The front-panel is rather nondescript, and although you can operate the Xa's features with its on-board controls, doing so isn't particularly easy. A coarse-resolution LCD panel might be fine for Cyrus CD players, but it doesn't lend itself to the display of text (song titles, available servers, input selection and

"when the song proper launches, all of that sheer hard-rock excitement – pounding drums and rhythmic guitar – is delivered in spades"

so on).

To remedy this, Cyrus includes with the Xa its n-remote handset. And this glossily-finished item is beautifully-designed – an example to all, I'd go as far as saying. Firstly, its controls are tactile in feel and sensibly laid-out. And because it relies on a wireless link rather than one-way infra-red pulse, it can feed information (like playback status and track lists) back to the user via its colour screen. It can communicate – subject to range – from another room, as opposed to infra-red's 'line of sight' is merely an added bonus.

The user interface it controls is intuitively laid-out. You can choose a server, digital input (amongst which is listed the USB port) or Internet radio station. The latter are managed by a concern known as TuneIn, and Cyrus claims that over 30,000 are available globally. It kinda does to short-wave radio, in terms of sound quality and availability, what Skype did to telephony! Stations can be located by a friendly search facility according to genre or geographic location.

Lovers of quality classical broadcasting will appreciate the availability of the German station BR-Klassik, albeit as a lousy 128kbps MP3

stream (typical for non-talk radio). BBC Radio 3 is also present – but the news is better here, as you get its 320kbps AAC stream! If classical isn't your bag, though, you'll find stations carrying classic rock, reggae, bhangra, country, indie, jazz, electronica and much else besides. It's a whole new way of discovering music.

PERFORMANCE

I partnered the Stream Xa with the Creek's superb new Evolution 50A (reviewed on page 52) and a pair of Acoustic Energy AE109 floorstanders. Although you can connect the Xa to your network wirelessly – it's supplied with an external aerial that can be positioned for best signal – wired Ethernet is the better option. The possible bitrates are much higher

(a moot point for hi-res streaming) and reliability is better.

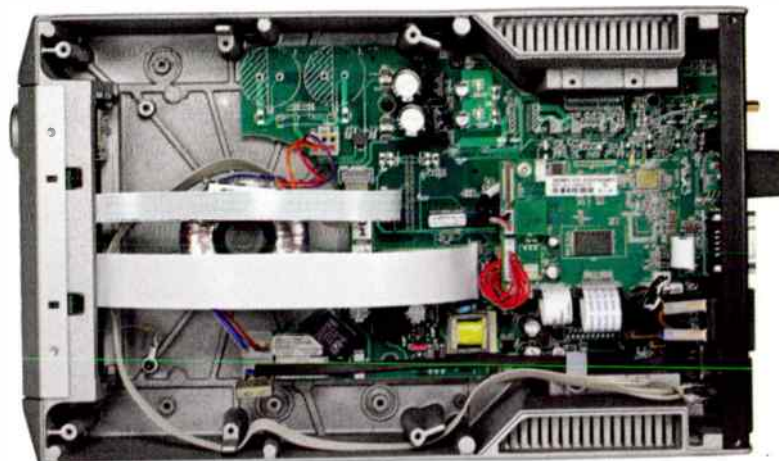
There's another issue here. The Stream Xa's wireless connection only supports the 2.4GHz band, which is very congested these days – especially if you live, as I do, in an urban area where numerous Wi-fi networks are competing for spectrum. This can lead to streaming glitches. The 5GHz band, supported by newer home wireless-routers, is much quieter. Cyrus, I was told, is considering 5GHz Wi-fi for future products.

So it was Ethernet for me.

Although streaming from an XP PC running Windows Media Player 11 (which includes a uPnP/DLNA server – alternatives, such as TwonkyMedia, are available for Macs and Linux as well as Windows) was reliable, I encountered problems when attempting to stream music from a Netgear ReadyNAS Ultra 4. It would begin playing the chosen track, but would stop at random intervals with a 'server disconnected' message. I noticed that a new firmware was available for the NAS. After installing this and rebooting the device, I had no further problems.

Radio playback was also entirely reliable (the advantage of high-speed broadband!) and the Xa worked happily with other playback equipment attached via the digital inputs. Among them were a PC with aftermarket soundcard, Squeezebox Touch and – for a laugh – a CDP-XE370 Sony CD player with optical output. This was a timely acquisition, being donated to me during the review period by a friend who was going to throw it away before he moved house!

And I have to say that the sound of this decade-old RVW-compatible £80 marvel was transformed by the Xa in DAC mode. Yes, it was a good (ultra?) budget player in its day – but technology moves on. The subtle improvements in dynamics and imaging terms imparted greater realism to both classical and rock/dance music, although the more



Tellurium Q[®]

Audio products designed to combat phase distortion

"In my system, the TelluriumQ's simply turned out to be in a class of their own"
Kai Ekholm, Inner-magazines.com 2012

"Whatever you do, don't audition the Ultra Black. As I said before, once you do, there's no going back."

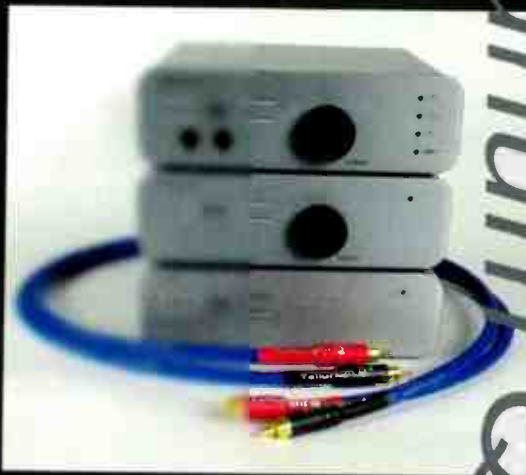
Steve Dickenson, Hi Fi Plus 2010

"The Iridium mines details other amplifiers only dream about"

Noel Keywood, Editor, HiFi World 2012

"A certain magic when it comes to absolute sound quality"

Jimmy Hughes, Hi Fi Choice 2012



"I've talked a lot about Tellurium Q of late. I've also sung its praises constantly. To be honest, I wish I had something to grump about, it would make a change but when a company gets a series of products "this right" it is difficult to say anything negative."

Paul Rigby, HiFi World 2012

Cable group test winner 2012

Cables, amplifiers and the unexpected!

Find out why more and more people are talking about Tellurium Q[®] products.

You do not have to believe all the incredible reviews, just test our products for yourself against anything else in the same price range and hear for yourself the tangible difference.

Find out how your music can really sound and talk to your nearest Tellurium Q[®] dealer now.

"something that I've never heard from any cable at this price point."

HiFi World 2012

Power amp Product of the Year 2012
Power cable Product of the Year 2012

hi-fi+ Products of the Year 2010

hi-finews
HIGHLY
COMMENDED
Jan 2010



Hi Fi World
Cable of the Year 2010

Hi Fi Choice
2012 ★★★★★

Jan 2011

2010
2011
2012

HI-FI WORLD
VERDICT ●●●●●

telluriumq.com

+44 (0)1458 251997

exacting former genre (notably a Colin Davis/LSO performance of Holst's Planet Suite) also revealed an airiness and intricacy that just weren't there before.

Given the right stations, Internet radio can sing too. I can imagine there will be some who'll buy the Xa just because it can receive that 'HD' Radio 3 stream. Traditional wisdom has it that a decent FM tuner is the only way of tuning into our revered highbrow broadcaster, as our mediocre DAB implementation fails to do it justice. And FM broadcasts (which, ironically, are distributed to the transmitters digitally) can indeed sound superb if you've got a properly-installed rooftop aerial.

Yet that 320kbps stream, heard via the Xa, trounces even the best Radio 3 FM I've heard. Dynamically, there's no comparison; yes, limiting is applied to the HD stream – but FM gets more. The orchestral soundstage is wider and more believable, more impact at frequency extremes (from the bottom notes of church-organs to the 'tings' of triangles) is heard and



A bright and clear remote control display can show computer music files.

there's a complete absence of hiss.

This was particularly evident during the summer's Proms broadcasts. When all went quiet following the applause, you could hear coughs from the back-rows of the audience – I could swear that at least one occasion I heard the orchestra's players turning over their sheet music for the next item in the programme! With FM, such delicate details tend to be lost in background 'mush'.

Then we have to consider file playback, which was equally good whether sourced from a USB device or networked-storage. A careful 24/96 FLAC 'rip' of Miles Davis' 'Kind of Blue' Columbia LP was conveyed



The Xa has analogue outputs and an array of digital inputs, plus ethernet RJ45 socket for network connection.

with a depth and presence that was hard to distinguish from the vinyl. Streamed rips of Kraftwerk tracks (from the Man-Machine and Trans-Europe Express CDs) were similarly difficult to tell apart, their innate rhythmic drive and tonal textures being evident in either case.

'You Think I Ain't Worth A Dollar, But I Feel Like A Millionaire', by Queens of the Stone Age (2002's outing 'Songs for the Deaf') kicks off with a satirical in-car radio broadcast. The bland instrumental that quietly plays under the announcer is distinct, demonstrating good resolution of detail. But when the song proper launches, all of that sheer hard-rock excitement – pounding drums and

rhythmic guitar – is delivered in spades.

CONCLUSION

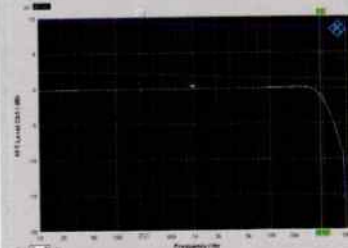
Allowing all your music to be stored on servers and USB devices, the Xa means that you won't have to physical artifacts like CDs or LPs again. Now with full high resolution digital right up to 192k sample rate, analogue transcriptions from historic master tapes and even LPs can be played and will sound good. What few drawbacks that remain may, depending on your point of view, be worth sacrificing in the name of utter convenience of its great remote control with full colour screen. That you get internet radio too is an added bonus...

MEASURED PERFORMANCE

Frequency response measured flat to 46kHz at 192kHz sample rate, as our analysis shows, through both the optical and electrical S/PDIF inputs. So there's plenty of analogue bandwidth available from high resolution digital that the Stream Xa exploits well.

Distortion levels were not quite as low as the best, with 24bit resolution test signals. Distortion at -60dB measured 0.1%, where 0.02% is possible, but this appeared to be mainly due to noise, possibly in the analogue output stages.

FREQUENCY RESPONSE 192k



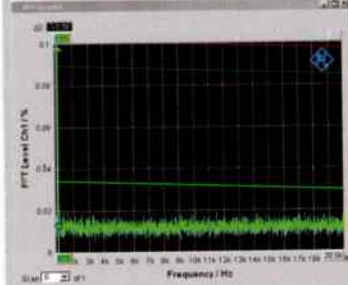
Directly linked to this, EIAJ Dynamic Range with 24bit was a mediocre 107dB, where up to 120dB is possible. EIAJ Dynamic Range with CD (i.e. 16bit) was good at 102dB however. Output measured a normal 2V.

Reading files from a USB stick gave the same bandwidth figures as S/PDIF but the presence of some extra noise lifted the 24bit distortion figure to 0.17% and lowered EIAJ Dynamic Range to 102dB, a disappointing figure for 24bit.

DISTORTION 24 bit, -60dB

THD at 100%	Level (dB)	Frequency
0.0948 %	2.0506 mV	597.00 Hz
OFF	OFF	OFF

The Stream Xa produced a tidy set of measured performance figures. However, dynamic range with 24bit was limited by the latest standards. **NK**



Frequency response (-1dB)

CD	4Hz - 46kHz
Distortion 0dB	CD / 24bit 0.002 / 0.002
-60dB	0.24 / 0.1
Separation (1kHz)	108dB
Noise (IEC A)	-106dB
Dynamic range (16/24)	102/107dB
Output	2V

CYRUS STREAM XA £1,250



EXCELLENT - extremely capable

VERDICT

The Xa is flexible and sounds superb with great ease of use from the excellent handset.

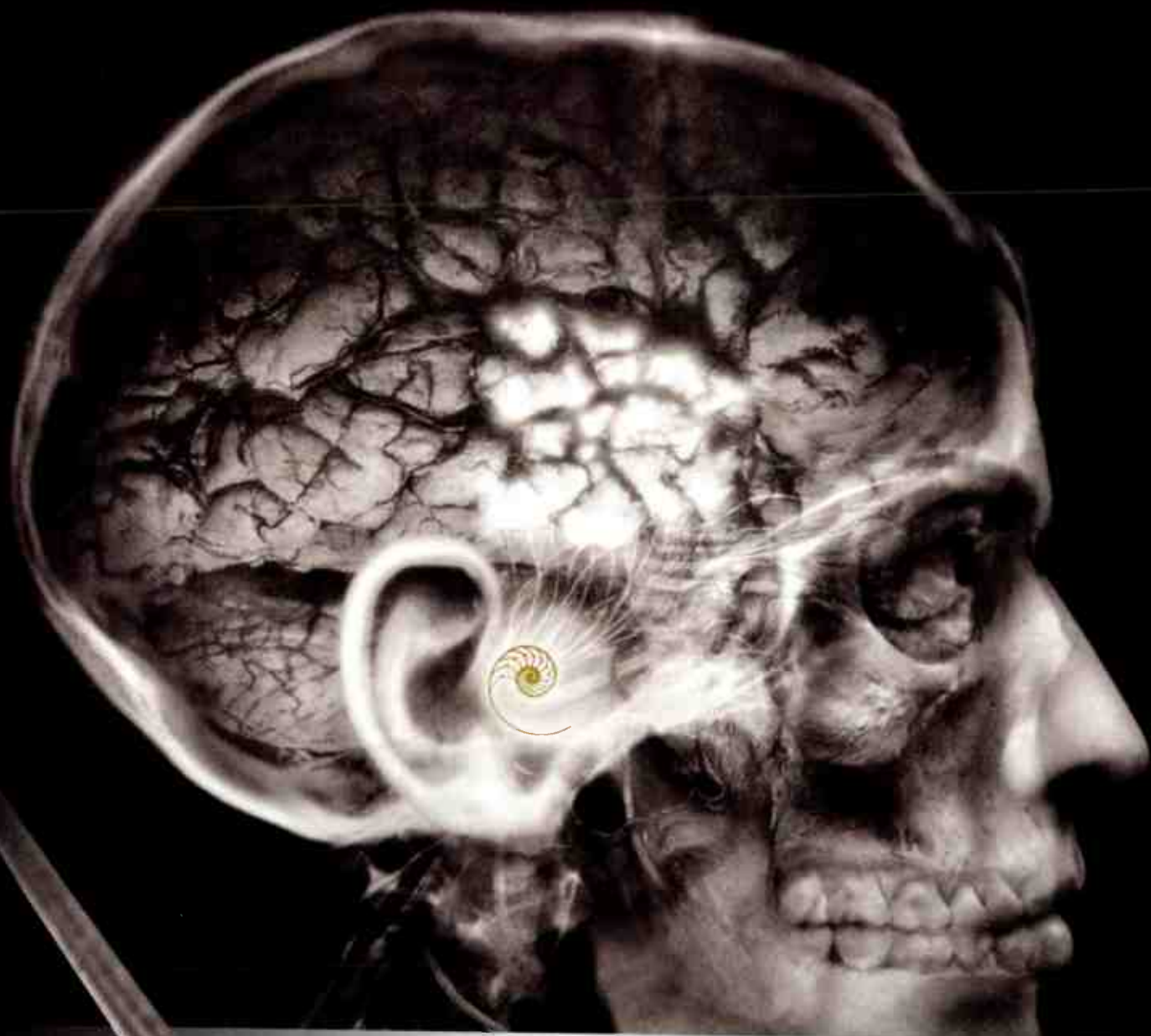
FOR

- fast, detailed sound
- internet radio
- plenty of source options

AGAINST

- only 2.4GHz Wi-Fi
- front-panel screen difficult to read
- can't define favourite radio stations via user interface (a website-only operation)

Cyrus
+44 (0)1480 410900
www.cyrusaudio.com



EM 5813
MODEL 1



Distributed Exclusively by Audiofreaks

AUDIOFREAKS

DISTRIBUTORS OF FINE AUDIO + HOME ENTERTAINMENT EQUIPMENT

tel: 020 8948 4153 fax: 020 8948 4250 • email: info1@audiofreaks.co.uk • www.audiofreaks.co.uk

Cardas • conrad-johnson • finite elemente • HiResTech • Karan Acoustics • Kuzma • Magnum Dynalab
McCormack • Muse Electronics • Rogue Audio • Running Springs Audio • Zanden Audio

World Radio History

mail



LETTER OF THE MONTH PRIZE



KEF Q100 LOUDSPEAKERS

Visit our website at www.hi-fiworld.co.uk or send your emails to letters@hi-fiworld.co.uk. Letter of the month wins a pair of KEF Q100 loudspeakers.

Answers by: **NK** - Noel Keywood; **PR** - Paul Rigby; **TB** - Tony Bolton; **MP** - Martin Pipe; **HB** - Haden Boardman; **RT** - Rafael Todes; **RA** - Rod Alexander; **JM** - Jon Myles.

For more advice see Letters from earlier issues at www.hi-fiworld.co.uk/letters

A pair of KEF Q100 loudspeakers are on their way to **GRAHAM GIGGS**, Letter of the Month winner in our October 2013 issue.

Letter of the Month

DIRECT ISSUES

I was delighted to find Martin Pipe's *Olde Worlde* feature on the Kenwood KD-600 Direct Drive turntable in the September 2013 issue. This was totally unexpected and very welcome!

I confess to being a bit of a turntable nut as well as a computer audio enthusiast. I have owned a fair number of players over the last 33 years. Despite being brainwashed in my youth (when HFW was still just a twinkle in Mr Keywood's eye) by British hi-fi magazines into believing that Direct Drive decks were sonically (and even technically) inferior to belt drive players with three-point suspended sub-chassis, I have come to love and respect the better Japanese Direct Drives of the mid 1970s to the mid-1980s.

In the mid-noughties I had a Trio KD-650 (the armed version of the KD-600) and ran it alongside several other vintage Direct Drive decks including a Sansui SR-838, Technics SL-150 + SME 3009 Series IIIs, Technics SL-1500, Technics SL-1500 Mk2, Technics SL-7, JVC QL-Y5F, Sony PS-X600 Biotracer plus a Linn Sondek LP12 (mid-eighties, Valhalla, Akito), Linn Axis and Rega Planar 3.

The KD-650 was the best of the lot. Not only was it classy looking, very well made and superbly engineered but it had the best sound overall too. The standard arm was a lovely object – it had an excellent standard of finish, looked fabulous and sounded far better



Gordon Hamilton's sadly departed Trio KD-650 Direct Drive. "It was classy looking, very well made and had the best sound overall too", he says.

than any other S-shaped arm from the 70s I have heard.

I foolishly sold the KD-650 after having used it for less than a year, to fund the acquisition of a new Technics SL-1200 Mk2 which I intended to modify. I never regretted buying the SL-1200 Mk2 and subsequently modifying it (it is still my main deck to this day) but I did still miss the lovely Trio. So, when the opportunity arose in the spring of this year to purchase a Kenwood KD-600 (the armless KD-650), via a certain well known auction website I jumped at the chance.

To my fortune, the seller of this

rare vintage deck was also located in the North of England and little more than an hour's drive away. This KD-600 is a Kenwood rather than a Trio, as the previous owner had purchased it new in 1979 in Singapore. It was in lovely condition and the only flaw that was apparent when I went to collect it was that the hinges could no longer hold up the (nicely made and heavy) lid in the open position.

I would have preferred a KD-650 complete with its underrated arm but I would have probably had to wait years to find another unless I was willing to take the risk of having one shipped

from North America. Anyway, I had a spare Rega RB250 with the Origin Live Structural Modification and I was curious to know how it would sound on the Kenwood.

After getting the deck home I gave it a clean and a thorough check over and found that it only locked onto speed properly at 33 and a third, the quartz lock light flickering erratically on the 45 rpm setting. I roughly checked the speed at the 45 setting and found to my disappointment that it was only doing about 35 revolutions per minute! I could have complained to the seller but I did not want to send it back and I had paid a fair price anyway.

I would now dearly love to bring this turntable back to full health and put it into service in my main system and I was wondering if Martin Pipe could recommend someone to do the necessary servicing at reasonable cost (alas funds are currently limited)?

Martin, you really should try a better arm on your KD-600. I never thought much of the SME IIIs, having used one on a Technics SL-150 (admittedly not in the same league as the KD-600 although the SL-150MK2 is much better). In fact my SL-150 + SME IIIs (with Ortofon VMS 20E MK2) was sonically no better than my SL-1500 (with stock Technics arm and the same cartridge). I bet the Kenwood would be superb with something like a SME 309 or SME V, funds permitting.

About the military version of the KD-600/KD-650 you refer to – my guess is that it would have been aimed at U.S. military personnel stationed overseas as they tended to get the opportunity to purchase hi-fi and other consumer electronics at discount prices (tax-free?) through the Army. The only difference would probably be a selectable voltage so it could be used anywhere in the world. I hope you like the two pictures attached of my long gone Trio KD-650 sniff, sniff!

Regards,

Gordon Hamilton

Glad that you enjoyed the article; your U.S. army explanation for the 'military version' mentioned in the instruction manual is interesting! Note that the manual is freely-downloadable from www.hifiengine.com; good news if your KD-600 wasn't supplied with one. Yes, the KD-600 – like many higher-end Japanese 'tables of the period – is under-rated. But interest in them is growing. A mint specimen of the Trio L-07D, the 'superdeck' that



The arm of the KD-650 was conventional enough, but well made.

replaced the KD-600/650, recently sold on eBay for nearly £4,000! I was lucky to acquire my deck (and other analogue gear) at a time when public interest in vinyl was at an all-time low, thanks to CD.

I would agree with your assertion that my KD-600 would benefit from a newer arm and cartridge. It would certainly make for an interesting article in Hi-Fi World, especially if the result of such experimentation is compared with a contemporary 'table!

As regards repairs, the fault that is affecting your unit could be down to any number of issues – all of which require professional attention. If you're lucky, a realignment might restore correct rotation at both speeds. A more likely cause is failing capacitors in the PLL speed-control circuit; if one of the chips has gone to Silicon Heaven then this, as mentioned in the article, need not be a disaster as NOS ('new old stock') supplies are still available. A full service would also be recommended. Thanks to the shamefully-disposable nature of modern consumer-electronics products, most of the service technicians that were at one time found in every British town have hung up their soldering irons for good. But a few are still around; one repairer that, in our long experience, should be able to help is Chatham-based David Tutt. He can be contacted on 07759105932 or via his website <http://www.tutt-technology.co.uk>. **MP**

BIG IN THE STATES

Being an American electronics consumer for the last 50 years I find it a welcome

relief to see the article about the Spendor SP 100 R2 loudspeakers. As a reader of your magazine for the last several years I have been waiting to see bookshelf speakers with 12 inch drivers!

Back in the late 1950s and 1960s and 1970s almost every American manufacturer of bookshelf speakers made it a point to begin their best model using a 12 inch woofer, or at least a 10 inch woofer. Bookshelf speakers weren't small and back in the 70s most of the models such as Advent, Acoustic Research, KLH, JBL, and many, many more could be realistically placed on a bookshelf or on stands for several reasons. One of the main reasons is that many of the speakers were acoustic suspension. Actually, back when those 'speakers were manufactured, bass reflex designs were considered inferior. I realize that the Spendor speakers and most of the speakers manufactured today are of the bass reflex design. I understand the reasoning in trying to make the speakers more efficient and also trying to increase the bottom end of the bass the speakers will reproduce, however I find it very ironic that the speakers of the past will blow away the speakers of today which have these tiny four an five and six inch bass drivers.

It also amazes me how these speakers with their tiny woofers are so high priced. Back in the days of the large Advents designed by Henry Kloss, almost anyone could purchase a full-sized bookshelf speaker that would produce a full-sized sound without using a sub-woofer.

I have owned almost every type of speaker imaginable. I've also owned many different brands of speakers

such as Klipschorn, Altec Lansing, JBL, Electro Voice, Advent, KLH, Polk audio, AR, Bose 901s, and on and on. All of these speakers had different sounds and all of them were made by great companies of the past with the exception of a few that are still in existence.

I find it very disheartening also that of those still manufacturing are having their products made in China.

So what is my point here? Let's start making our speakers back in Great Britain and America where we know that quality is going to be the norm. Let us all start making speakers that are reasonably priced and have great sound quality without using a sub-woofer. Don't get me wrong I do like sub-woofers if they are used properly. In fact today if you have a speaker system that has been made in the last 10 years and you don't use a sub-woofer you don't get the lower end of the audio spectrum.

My only gripe with the Spondor SP100 R2 is the price. I still own speakers that I purchased in the 1970s such as AR 11s that would blow the socks off the Spondor product! And they sure didn't cost \$6000!

Julian Hirsch of Stereo Review said it best. Give me good old 16 gauge lamp cord and that's all you need boys to get great sound from any speaker from any amplifier. This cable thing and speaker wire thing you "high-end" people seem to be hung up on reminds me of the story of the "King and his new clothes". Wire is wire boys! In a real blind test you couldn't tell the difference between 16 gauge lamp cord and \$20,000 six-foot cords. So cut yourself some slack, get real and speaker manufacturers start producing real speakers that sound great like the Spondor that has a real 12 inch woofer! My congratulations to Spondor for at least having the guts in re-creating a real speaker with real sound!

Sincerely,
Mr. Kim E. Kryder

Hi Kim. The big benefit of a 12in woofer was great bass, but the big drawback was a cabinet so wide it looked like a broom cupboard. Back in the 1970s this was acceptable and boy did we have loudspeakers – giants like the Goodmans Magnum K (12in bass unit) or Magister (15in bass unit) on this side of the pond. I ended up with Leak 2075s and they were delivered in a pantechicon (I love that word). In the States you had even bigger loudspeakers, JBL knowing no limit.

When one drive unit has half the diameter of another it has one



"I have been waiting to see bookshelf speakers with 12 inch drivers" says American reader Kim Kryder of the Spondor SP100 R2. Bookshelves must be a lot bigger in the States then!

quarter its area. So you need four 6in bass units to match one 12in bass unit when it comes to moving a volume of air. That shows just what a big difference exists between large and small bass units.

Our measurements also show that even at modest sound pressure levels of 90dB at 1m, a small 6in bass unit will produce around 5% distortion whilst a 12in will produce less than 1%. So whatever way you look at it, big bass units work well, it's just that they don't look nice.

Spondor recommend the use of a quality loudspeaker cable, as we do. Bear in mind that modern loudspeakers use computer designed drive units and computer optimised cabinets. It was the development of the Thiele-Small equation, and the need for Thiele-Small parameters to solve it, that lead to successful reflex design. Before science tamed them, reflex loudspeakers worked poorly. Times have changed, audio engineering has moved ahead and the reflex made to do a good job. Now bass quality and control has improved a decent pair of loudspeaker cables should be used. No point in spoiling the ship for a ha'porth of tar, otherwise the Mayflower wouldn't have made it!

NK

BRIGHT CABLE

My treasured system comprises a Trio KR9600, a 1978 150 Watt per channel receiver, an even earlier Pickering FA104 with the XV151625e, a comparatively recent Arcam CD73T CD player and my beloved KEF Chorale loudspeakers, homemade in 1973.

With ears suffering and very slowly deteriorating I realised it wasn't just me, the T27 tweeters also appeared to be declining. The woofers had been replaced around 15 years ago by Coles B2000s built, apparently, specifically to replace the KEF B200s.

I contacted Wilmslow Audio (original KEF unit suppliers!) and asked their advice. They responded promptly with a very helpful e-mail suggesting Morel replacements and a rebuild of the crossovers to enable a higher power rating. Close to taking this option, my brother persuaded me to audition modern alternatives. Grudgingly, I agreed and we listened to the KEFQ300. This was very interesting! I could not believe how the family sound was still there, plus fantastic staging. Still some reservations as turning down the level lost a lot of treble, a la Chorales, and there was still a little cuppiness.

Then cool Phil at Audio T Swindon persuaded us to listen to some Monitor Audio RX1s. I had heard MAs sometime before but found they were a bit clinical.



"Phil at Audio T Swindon persuaded us to listen to some Monitor Audio RX1s" says Andy Entwistle. "They were what I was missing".

Well! This was what I was missing. Sorry KEF and Wilmslow. Thanks Phil at Audio T. Extra and impressive oomph just where I needed it. OK the imaging wasn't quite as good and I'm not sure I'll ever prefer ported over sealed box, but I forgave all that just to hear the nuances I had been missing.

Some may find the Monitor Audio RX1s a little too bright or even overdone. However, as is always being said, listening is subjective and I have selected what may not be the ultimate best on paper, but they are best for my ears. The acid test was passed as I am eager to run through the whole collection to catch what I've been missing. It shows the benefit of shortlisting from reviews but then talking to the hi-fi shop experts, then just listening as much as possible. We also auditioned the Wharfedale Dentons – nice, but too polite, and Acoustic Energy 301s. The latter were great speakers, but finding the sweet spot proved very difficult. Positioning was not easy.

Now, ears the question (sorry); I am running QED Anniversary XT cable. It sounds fine. However, Audio T auditioned them with Chord Rumour and that sounded a bit better. Should I buy this, or your favourite, the slightly cheaper Black Rhodium Twirl? My brother uses QED Revelation with his KEF Q4s and they produce incredible clarity. How about those? Ironically, Peter Comeau also replied to a letter in the same magazine saying that, early results indicate that different amplifiers suit different cables and explaining that there is a fully documented technical background to the subject. Always ahead of the game!

Auditioning cable is not really an option and Twirl is too new to find comparison tests on the net. My preference is for full (euphonic?), open

and clear sound and music choice is very eclectic.

Many thanks
**Andy Entwistle
Swindon**

There is no doubt that the Chord Rumours are excellent cables and you wouldn't regret purchasing them, I'm sure. That said, if you are looking for 'that bit extra' then the Black Rhodium Twirl is highly recommended. Offering excellent low impedance figures (so long cable runs would be no problem) and low noise (so fine detail is never masked), I found the cable excelled in offering a well structured soundstage and in its ability to convey upper frequency detail over a wide variety of music types. This cable would be a fine addition to your system. **PR**

PURITY

Whilst vinyl has always been my format of choice, for all the reasons shared by your team, I have reached a point where my physical storage space is fast approaching its capacity, and will soon be unable to accommodate further expansion of my record collection. This,

combined with improving sound quality from digital has led me to believe that my future purchases are likely to be Hi-Res downloads.

Your recent reviews of the Astell&Kern AK100 and AK120 has planted a seed that I would like to explore further with you. I currently use a Shanling MC30 music centre as a pre-amp to drive 8m long interconnects to my Martin Logan Purity speakers, which as you know are fully active. The combination is nice and works quite synergistically.

The auxiliary input on the MC-30 is used by my vinyl front end. An advantage of the MC-30 is that it has an iPod type input suitable I believe to take the headphone output from the Astell&Kern products. Assuming this input is of sufficient quality then my foray into Hi-Res would be neat and minimalist!

So, to the crux of my letter and hopefully your sage advice: I think the pre-amp section of the MC-30 is actually pretty good, but would welcome your thoughts on this. I have searched the net and there are companies who offer quite expensive upgrades to the MC-30 through the use of selected replacement components, but they tend to be U.S. based. Is there anyone in the UK that you would recommend to undertake an upgrade to the MC-30? My goal here would be to maximise the transparency and neutrality of its pre-amp section. Budget would be circa £500. Would some tube rolling be the way to go?

The long interconnects currently used are an inexpensive Wireworld product. Again I would like to improve the transparency of these, and would value your opinion on suitable alternatives. Budget would be in the order of £50/m. They would need to be relatively thin and flexible to weave their way around skirtings and furniture. I have considered the DNM Reson cable, but there may be others you have reviewed which may be more suitable?



Black Rhodium Twirl loudspeaker cable is a fine choice, says Paul Rigby.

Letters On-Line!

You can now read our Letters on-line, from the last issue back to March 2010. That's a treasure trove of information and advice to our readers, as well as a fascinating catalogue of reader's systems and views. There's mountains of buying information, all just a click away on your computer or i-Pad. Have fun!

You can reply to Letters using the e-mail link at the top of the page -

World Mail June 2011 issue

Write to us! E-mail -> letters@hi-fiworld.co.uk
Letters are published first in the magazine, then here in our web archive. We cannot guarantee to answer all mail, but we do manage most!

Or comment in the Comment section at the bottom of each page.

Your experts are -
DP David Price, editor; NK Noel Keywood, publisher; PR Paul Rigby, reviewer; TB Tony Bolton, reviewer; RT Rafael Todes, reviewer (Allagi String Quartet); AS Adam Smith, reviewer; DC Dave Cawley, Sound Hi-Fi, World Design, etc.

...or the reply pane at the bottom of the page.
Replies will go on-line and in the magazine if suitable.

Add your comment

Your name:

Subject:

Comment:

Word verification:

Post Preview

The screenshot shows the HI-FI WORLD website interface. At the top, the 'HI-FI WORLD' logo is prominent. Below it, there's a 'Letters' section with a 'Magazine issue date' list. The list includes issues from September 2011 back to March 2010. A 'Display' dropdown menu is set to 'All'. On the right side, there are promotional banners for 'COMPETITION PRIZE' (August 2011 issue), 'SEVENOAKS' (available from SEVENOAKS & AUDIO T STORE), and 'audio-T'. At the bottom, there's a 'Contact' section and a 'SEE THE AWARD WINNING B3243 HERE! FIAT' advertisement.

Just go to www.hi-fiworld.co.uk and click on Letters in the left hand menu list, under the FEATURES category. This will take you to the individual months of issue. To see the full list set the 'Display' drop-down list to 'All'.



Martin Logan Purity loudspeaker can be driven direct from a portable player like an iPod or Astell&Kern AK100.

Any advice you can provide would be gratefully received.

Best Wishes

**Scobie Alvis
London SE1**

Hi Scobie. Both the AK100 and AK120 have enough output to drive Martin Logan Purity loudspeakers direct, through their line level input. They have a maximum output, adjustable using the volume control, of 1.6V. The Purity needs 0.1V for 95dB so you have a lot of leeway here. Also, both players will drive long signal lines, but the AK120 is better at this. Ideally then, you should bypass the MC30. I know this means another set of cables, which you may or may not find acceptable, but when it comes to 24bit resolution you will need to optimise the signal chain and this means bypassing unnecessary amplifiers, in this case the MC30.

Alternatively, run the AK100 straight into the MC30 using a 3.5mm jack lead. I would not get too involved in tweaking the MC30 because it will place a lower limit on resolution due to small amounts of noise in the output stage whatever you do – not serious but you may notice it. The MC30 has a lovely sound as I recall, although in your system it feeds Class D amplifiers in the Purities, meaning you have power amps driving power amps – not an

ideal situation. Martin Logan told us the loudspeaker inputs are attenuated down to the low level input that then feeds a Class D amplifier connected to a passive crossover unit. So the purest signal path is via the 'line level input' because it eliminates the need for a preceding power amplifier.

In place of the MC30 you may be able to use a passive pre-amp like the Creek OBH-22, and long interconnects, instead of loudspeaker cable. I say "may" because I do not know whether your phono stage has a low enough output impedance to drive the capacitance of a long line without suffering treble loss. It is easy

enough to check this however, by jury rigging a long phono cable from the phono stage to the loudspeakers. How to play CD in this setup? Don't! Rip them to digital files on a computer that you load onto your digital player.

You have a lot of options here; I hope they are not confusing. By driving the Purities direct via their line level input using phono cables up to 5m long or so will, I believe, give the best result. **NK**

WINE & VINYL

I was charmed by the story in the July Issue about Pie & Vinyl. It sounds an excellent mix and a fun place to visit. In this part of the world (New Zealand) where coffee is taken very seriously, it is increasingly common to have combined coffee-music bookstores. These seem to be working well in the age of Internet shopping. Presumably because they draw customers into a nice atmosphere where they want to spend time. But I recently was lucky enough to visit what must be one of the nicest hi-fi shops in existence. A combined Hi-Fi-Wine shop! Located in Parma, Italy any hi-fi shop is likely to be good here as it is a city that takes its music (especially Opera) very seriously. Parma also takes its food seriously as the home of Parmesan and Parma Ham. So Hi-Fi News Musica da Tavola (Which Trans-googles to Table Music) gracefully combines the two with wine! UK manufacturers (Naim & Funk) are well represented, as are a number of interesting Italian brands tucked amongst the bottles. As the picture shows, this is definitely a place for relaxed listening!

**Simon Brown
Design Build Listen Ltd
Dunedin
New Zealand**



In Parma, Italy, you can buy hi-fi alongside wine.



This Honda EM4500 generator will provide 4000 watts of power for 9.6 hours before requiring a re-fill. It is like the one used by Adam Mann in Australia. It's low output impedance/ high current delivery best suits amplifier power supplies.

A BUZZ IN OZ

I have a long standing issue with amplifier hum at my off-grid property in rural New South Wales, Australia. We use a number of power sources including solar, batteries and inverters, as well as generators of both the modified square and sine wave varieties. The issue is that when using a generator or inverter with a pure sine wave inverter, a horrible vibration and hum is produced from the transformers of my amplifiers. The sort of gear I'm using is as follows.

Power production is by solar panels going into deep cycle 12V batteries then to 240v via pure sine wave inverter. When it's grey and raining for a few days I use a Honda 1kva generator with pure sine wave inverter built in, producing 240v of tested pure sine wave power. A higher power system for washing machine/vacuum cleaner etc is a Honda 4kva generator with modified square wave inverter built in.

There's no internal circuits in the house, so the power just comes in via extension cord. I've tried earthing this system both at the power source end and the amp end but no improvement noticed. I've tried earthing one end, both ends or neither with no difference in hum.

Audio: I have a variety of turntables including Pro-ject, Lenco, heavily modified Sugden Connoisseur BD1 as well as various Luxman and Technics Direct Drives. These are fed into various pre/power amp combos by the likes of Amber, Vincent, Transcendent, Leak and Dynaco, then on to some ancient but fun speakers like the Leak Sandwich or Sonab omni-directionals

For the sake of brevity and

simplicity, a sample system that produces the fault would be a CD player going into a Dynaco Pat-4 preamp then Dynaco Stereo 120 transistor power amp, Leak Sandwich speakers. If this set up is fed by either my pure sine wave generator or older style pure sine wave inverter from the batteries, I get the horrible hum. Both these inverters have been bench tested by electricians and deemed to be spot on.

Interestingly this hum emanates exclusively from the transformer end of the power amp (not the signal from the speakers) and is so pronounced it would visibly shake a piece of paper sitting on top to the point of it blurring.

I don't get the hum when I use a much newer sine wave inverter or a much older style of modified square wave inverter either stand-alone or part of my big generator. Modified square wave does have its problems though and I do get a nasty pitch warble from my synchronous turntable motors.

Most people I've asked about this problem scratch their heads and mumble ground loop into their beards. They may be right but I've tested grounding various bits with no luck. I'm wondering if this is a switch-mode issue? Could it be that the older style of pure sine wave inverter might be fine for power tools but no good

for audio? Any advice would be greatly appreciated.

Warm Regards,
Adam Mann.

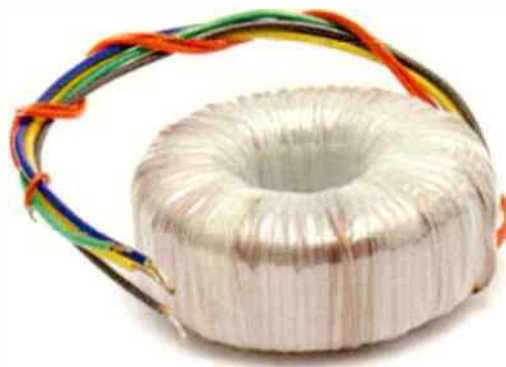
Jeez Adam, that's the strangest query we've ever received! Of all the hi-fi set ups I have come across yours vies with Michael's (as I knew him), a logger in Borneo who used World Audio Design valve amplifiers to drive Tannoy Westminster Royals, "somewhere in the jungle" he told me at the Kuala Lumpur AV Show.

Anyway, I strongly suspect that the sine wave from the "sine wave generator that causes buzz" is impure and the distortion harmonics are causing the windings and/or laminations to buzz. Transformers are impregnated to prevent this, but it happens all the same.

I do not know why your square wave inverter does not cause buzz, because a square wave is a very dirty signal, but this may be down to its harmonic content not resulting in an excitation that is in tune with loose windings or laminations, because they are not synchronous. As you suspect, earthing has nothing to do with it.

Your synchronous turntables wow because their speed is determined by mains frequency that, in your case, is varying.

You need a pure sine wave and this is not easy to guarantee. Connecting test equipment to the mains to assess purity is dangerous to the operator and the test equipment; a step-down transformer must be used. These are easy and cheap to get hold of though: 240V in/12V out is a common specification and will do. At least, the sine wave needs to be visually symmetrical on an oscilloscope (top bit same as bottom



Toroidal transformers are sensitive to DC in the mains. Try using an isolating transformer to block DC if this is a problem.



The Leak Stereo 60, famed for its lovely sound. "I am quite content with my Stereo 60 running TJ Full Music ECC83's and Electro Harmonix, CA7s," says Mark Gaudet.

bit), with no sign of a sawtooth shape either. I am assuming of course you have a repair man with such equipment; most can manage a 'scope and step down transformer.

You need a generator whose output is guaranteed pure and distortion free (less than a few percent). It should be tested when loaded I must add, because output impedance comes into this, due to the way amplifier power supplies consume current only over part of the mains duty cycle. A high output impedance generator (low power) will distort more than a low one when feeding the typical rectifier/capacitor power supply found inside most hi-fi amplifiers, suggesting your high power generator may be quieter than your low power one.

Alternatively, there are mains regenerators like the Pure Power 2000 and Isotek Evo 3 you could consider. These produce a very pure sine wave and will make you as happy as a Koala in a Eucalyptus. **NK**

Grant Armstrong, Amethyst Transformers, says –

Distorted sine waves will generate buzz in the transformer but when the modified "square wave inverter" used the problem goes away??

The square wave inverter by definition produces a very distorted sine wave and I am not surprised the turntable motor squeaks.

I assume that the mains transformer in the amplifier is a Toroid. Toroidal transformers are

very prone to DC saturation caused by small amounts of incoming DC voltage.

If incoming power supply is doubtful (earthing problems, DC bias, poor waveform etc) an additional mains isolation transformer always improves things. This transformer will definitely absorb any incoming DC. A filter on the output of the transformer will clean up the waveform.

Position inverter and the additional isolation transformer in a separate room to isolate any physical hum.

A friend of mine has a very nice audio system but being a transformer man I can definitely hear his "noisy" mains conditioning transformer (not one of mine I hasten to add). As with all transformers, the bigger the better (unfortunately bigger transformers cost more)

Grant Armstrong, Design Engineer, Amethyst transformers / Morite.

VINTAGE VIRTUES

As a vintage hi-fi man – Garrard 301 (with Kokomo bearing) + SME Series IV + Northwest Analogue modified Goldring G800, EAR 824P (modified), Leak Stereo 60 + AudioLimtis passive preamp, B & W DM2a's, Linn Karik + Musical Fidelity A3 DAC, I take a particular interest in the Olde Worlde articles you publish. One such article was the review of Haden Boardman's Heathkit MA12's published in the July 2012 edition of Hi-Fi World.

I was delighted hearing that another piece of vintage kit (of similar age to me) could hold its own against the more youthful and handsome amplifiers of today. Happy enough indeed, until I got to the second half of the penultimate paragraph. As a bit of a tweaker, I tried to figure out the modification Haden Boardman has been making to his Leak Stereo 20 and TL12+'s, and to the review subject Heathkit amplifier.

To my distress, I read in the following sentence that Haden believes the Stereo 50 and 60 to be beyond serious audio salvage, and therefore not worthy of the modification. Haden's views on the Stereo 50/60 seem to me to be a little at odds with the views I've previously read in the magazine, in particular recommendations made within the World Classics section of the magazine. I am quite content with my Stereo 60 running TJ Full Music ECC83's and Electro Harmonix, CA7s, despite Haden's comments.

To put things into perspective, I think it would be fascinating if you were to compare the relative merits of a number of commonly available vintage power amplifiers in one or two group tests based on EL84 type and EL34 type models. Perhaps, the use of alternative valves, capacitor replacements and simple modifications could be explored where these exhibit serious audio benefits.

Many thanks for a great magazine.

**Mark Gaudet
Maple Ridge,
British Columbia
Canada**

As far as I am aware most Leak Stereo 60 owners are happy with their lot. Leak amplifiers in good condition sound simply gorgeous, a world apart from the hard, one-dimensional battering so many transistor amps mete out. Even by valve amp standards they are especially gentle and euphonic. Everyone has their own opinion of course but I think you are not alone and can be happy to know that your Stereo 60 isn't easily surpassed. **NK**

PC SOUND CARDS

My current main system is centred on a Naim SuperUniti and Quad ESL57s with several sources, including Rega RPI and Quad 77CD and several PCs. Have you heard a SuperUniti with ESLs? Try it: it has transformed the Quads! (PS my second system is the Quad 77 amp with Mordaunt-Short Aviano 2s: they have transformed the old Quad amp!) Most of my listening is classical/folk/blues/soft rock on LP, CD and HD FLAC files stored on a ReadyNAS network hard drive.

My reason for writing is: please, please, sit down with all your test gear and golden ears and listen to and test some computer sound cards through expensive hi-fi equipment. I have three PCs with three different sound cards built over several years as I have spent hours working out the best

the Creative Titanium card uses a PCM 1794 DAC and a PCM 4220 ADC (Burr Brown) and has normal 'phono plug' connectors. I quote from the attached review:

The PCM 1794 Digital to Analog converter chip is easily one of the best converters available from any company. This chip boasts excellent measurements with a dynamic range of 127dB in this configuration and a THD+N of 0.0004% according to the available information. It should be noted that the PCM series of DACs are becoming more and more prevalent in modern soundcards. 'We were amazed to see this quality of an ADC on a consumer level sound card. This ADC is usually seen in very high end external converters used for recording. Lets go over the specifications and you will see why, as this chip offers a dynamic range of 123dB (A-Weighted) and a channel separation of 132dB. This type of input quality is very impressive indeed for a consumer level card at this price point.' Surely this is enough to tempt you to investigate and report? I look forward to reading a comparative test!

One question: Is there any benefit in going up to 192/24 sampling for LP? Can experienced reviewers with tens of thousands of pounds of equipment hear the difference over 96/24? I am sure others, like me, rip using a PC and then

And finally – if you want another reference quality CD for your collection I suggest Jon Boyes Hacienda: a truly brilliant recording on CD. The guitar playing is also brilliant. He is based in the West Country and my wife bought the CD from him when he was busking in Sidmouth! (<http://www.jonboyes.co.uk/index.html>)

Yours sincerely,

Mike Tartaglia-Kershaw

Hi Mike. You have an impressive system there and have obviously spent time on digital. The paper specs you quote sound impressive but they are derived by the manufacturer – Burr Brown in this case, part of Texas Instruments – and are the very best case result, so much so as to be barely believable – a dynamic range of 127dB we have never measured. With 24bit resolution 110dB – 115dB is common and 123dB the best we've measured to date, from a Teac UD-501 DAC with high quality on-board linear power supplies that are quiet. Computers are run from cheap, modular Switch-Mode Power Supplies (SMPS) that output a lot of noise on their many d.c. lines, not an ideal environment and one that would degrade these best-case figures.

Also, we are not a PC magazine and not equipped with the latest PC

"Naim's SuperUniti has transformed my Quads" says Mike Tartaglia-Kershaw.



way to rip LPs (and some tapes) in HD so I don't have to keep wearing out my favourite LPs. I am so old I have been buying LPs since the late 1960s and some are not on CD. Some are on CD but my HiD rips of the LPs are better than the CDs!

I attach an Apache Open Office file of a very thorough test report (off the web) of the Creative Sound Blaster X Fi Titanium HD internal PC sound card. This is one of the cards I use. I also use an M-Audio Audiophile 24/96 and an AsusXonar DX. I think all these cards are still available in PC World or Maplins. The attached test mentions that

listen on good quality 'streamers' like the Naim.

How do you rate these cards and by how much is the apparently hi-fi specification degraded when used inside a PC? How do internal sound cards compare to external sound cards such as the Terratec iVinyl usb phono pre-amp, which I also use but which has probably been overtaken by the chips in later internal PC cards?

My aim is to make the best HD FLAC files of my favourite LPs at an affordable price. Are there other ways of creating HD FLAC files from LP? If so please test and compare?

hardware in vanilla form that could act as a valid test mule. Running Windows and loading drivers is another world – a fading one.

To record LP get a Furutech Esprit preamp that has an excellent chip set, including Tenor USB chip, 24bit/192kHz WM8716 Wolfson DAC plus the 24bit/192kHz Cirrus Logic CS5361 ADC (Analogue-to-Digital Converter) chip. It records at 24/96 resolution and outputs digital audio via USB. To date, I am not sure I have heard any clear benefit in 192kHz sample rate, but I may learn otherwise in future. **NK**



Aktiv Life

Quadral's Orkan VIII aktiv loudspeakers have real life in them, Noel Keywood finds.

Active loudspeakers make a lot of sense – and still they're rare. With a power amplifier inside each loudspeaker and electronic equalisation used to make corrections and split the music into frequency bands for the drive units, technically they're a great idea. Quadral's new £6200 Orkan VIII aktivs don't even need a preamp: I fed them high resolution digital direct from a portable player. Active loudspeakers like the new Orkans make hi-fi simple and pure, so why do they remain rare?

Why indeed. I could almost declare

my conversion to the active faith after using the Orkans, they're so good, if you fancy the idea of an active (German 'aktiv' in this case) then the new Orkans are an active done well I found. They're an impressive piece of engineering, nicely judged, well executed and perfectly balanced.

When bass equalisation is used in an active to make bass 'perfect', as it is here, subtle problems the designers didn't consider can set in. Understanding this, Quadral have fitted plenty of adjustability to the Orkans so they can be tweaked to taste and the subtle problems avoided.

But first, here's why actives are great – and rare at the same time.

Packaging an amplifier into the loudspeaker makes quality dependent upon an unseen quantity – the hidden amplifier. At this price level – and most actives are necessarily expensive because of all the electronics they carry on-board – most buyers would rather decide for themselves what amplifier they use. With an active you get no choice – and usually Class D, because they are compact and run cool.

That's the case with the Orkan; it uses a Hypex 150 Watt Class D module for bass, 150 Watt Hypex for the midrange, but a 50 Watt Class A/B for the treble.

Happily, Hypex modules sound quite nice, I've found listening to Channel Islands amps and a 100 Watt Hypex prototype I built. They measure well too, lacking the high frequency distortion of so many rivals – and the resultant hard sound.

Electronic filtering is used in front of the amplifier modules so they can be connected direct to the drive units. I spoke to designer Sascha Reckert in Berlin and he told me they use equalisation sparingly so as not to over drive the loudspeaker.

The Orkan has a lovely ribbon tweeter, below which sits a 170mm (nominally 6in) Altima midrange unit taken from the Titan, plus two 170mm Altima bass units working in parallel. The tweeter crosses over at 2700Hz to the cone midrange unit and this runs down to 330Hz before handing over to the two bass units.

The Orkan is fairly heavy at 32.6kgs but not immovable by any means. It stands 1030 mm tall, 440 mm deep and 230 mm wide, proportions that are relatively room friendly. Each loudspeaker has an IEC mains input socket and a rocker

style power switch at rear. They are designed to be left on, powering off into standby mode after 15 minutes with no music input. As they consume a minuscule 0.2W in this mode they can be left switched on and in standby without affecting the electricity bill. When music starts they automatically switch on after a few seconds delay. There was no power-on warning light on either front or rear of our pre-production samples, but the handbook says there will be a light on the rear.

The amplifiers have a lot of gain and are working at full volume since there is no volume control either, so the Orkans must be treated with care – especially as they are totally silent when on and seem dormant.

The rear panel carries many adjustments to tune the loudspeaker to a room and to personal taste. A small three-way lever switch selects bass Roll-Off, Normal or Bass Boost, applying around +2.5dB of gain at 30Hz in Boost position. That's a modest amount – enough to be just audible but not so much

as to make a big difference. The idea here is to correct for room size and loudspeaker position, Roll-Off suiting a small room and near-wall placement, whilst Boost will suit a large room (8m long or more) that will have dry bass.

I was pleased to see that Quadral cut off lower bass because with actives this can gum the system up with sound coming out of the cabinet way after the music has stopped. Too many engineers try to get actives to rumble like a tube train but this over-drives the bass units, produces serious bass distortion and causes terrible bass overhang and an endlessly wallowy sound (unless the cabinet is huge). The Orkans avoid these problems.

Similarly, there is a treble lift / cut control that offers a subtle but useful 3dB of adjustment; I used this quite a lot.

Finally, to suppress room boom, or speed bass up a tad, a parametric equaliser has been fitted. It can provide 6dB boost or cut at any frequency from 30Hz up to 200Hz, a good working range.

Each loudspeaker has a normal phono socketed line input, plus a balanced XLR input. For long cable runs in particular XLR is the best option, as the signal is kept apart from both the screen and the earth. Phono and XLR inputs have the same sensitivity.

The Orkans are so sensitive they will work with any source having a volume control. This can be a conventional preamplifier, a phono stage with an output volume control (e.g. Icon Audio PS3) or a DAC with an output volume control (e.g. Audiolab M-DAC). I drove the Orkans direct from an Astell&Kern AK120 portable digital player, playing CD (16bit, 44.1kHz) as well as high resolution digital, some of it from analogue tapes. The point is that the Orkans can be driven by any source – only cabling and switching is an issue. This makes them flexible in what they can work with, unlike actives with low gain, low input sensitivity and the need for an external preamplifier with gain.

Rear panel carries an IEC mains power input with switch, balanced (XLR) and unbalanced (phono) audio inputs (at right) and an array of small switches and knobs for fine tuning. A large reflex port damps the bass units.





At top left is Band EQ, a parametric equaliser, with frequency and level (+/-6dB) adjustment knobs. Below, is a Bass level three-way switch. To its right is a Treble level adjustment knob.

SOUND QUALITY

There are so many ways to drive active loudspeakers, but I'm a minimalist – less is more as far as I am concerned – so I chose to drive the Orkan aktivs direct from my Astell&Kern AK120 high resolution player's headphone/line output, and also through a Music First Audio Passive Magnetic Preamplifier. The

"the Orkans were impressively grippy and expressive with bass lines like this, drums and bass striding along with enthusiasm"

latter was most convenient and gave utterly gorgeous results. I left the AK120 at full volume and used the big, firm stepped attenuator of the Music First preamp. Connection was via a short Chord Company balanced line cable to each loudspeaker.

The Orkans are so sensitive it is best to make all connections and not touch anything whilst they are switched on. If anything goes intermittent or a cable comes adrift they'll emit a big buzz as there's high

gain and no volume control. Switch on (and off) is silent though and with the Music First preamp there was absolutely no hiss or hum from the loudspeakers – they were eerily silent. Because there's no warning light at front it was difficult to know they were on.

The Orkan's are good enough for preamps to make a difference. A Furutech Esprit worked nicely, but there was too much gain and not the high level of transparency of the Music First preamp. They could be run from a valve preamp, creating an interesting hybrid system, but I did not try this.

Like other active loudspeakers I have heard, the Orkans came over immediately as dry, tightly controlled and character free. There's something very right about good actives but their tidy perfection does give them a Mary Poppins demeanour. As we also use a Wotan VIII, I know the composite polymer cones and ribbon tweeter have a neutral air about them in any case, but the presence of on-board amplifiers tightly coupled to drive units strengthens the sense of grip, neutrality and control.

Set to 0dB I felt the tweeters stood out a little, as they do on the Wotans, but this depends upon the source material. With bright CDs turning treble down fully to -3dB was best. When I moved back to clean, high resolution digital I found myself turning treble back up to 0dB. Making running adjustments like this wasn't easy though as the controls are small and fiddly. The ribbon tweeters are wonderfully clean and even, yet fast

and concise like any good ribbon, and they image sharply.

Playing Korsakov's Snow Maiden's 'Dance of the Tumblers' (24/96) showed how mightily powerful yet totally controlled the Orkans could be. The kettle drum had a massive presence, more power than I am used to, but it was kept under a tight grip – all this with bass set to Normal (2). Violins were silky smooth but well separated by the lovely ribbon tweeters (I am a fan of

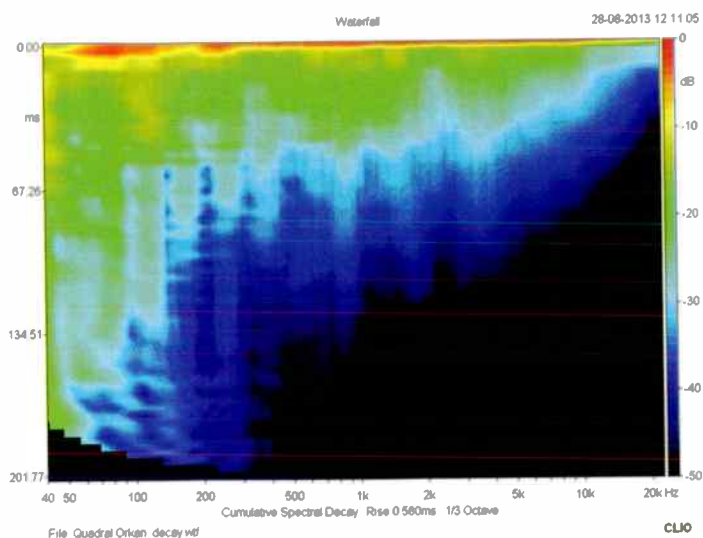
ribbons). This became more apparent with the Trondheim Soloists playing Mozart's Violin Concerto No3 (24/96) where the Orkans showed themselves to be as smooth, yet richly detailed and well separated as the Wotans.

The more classical I played the more I became hooked on the sheer smoothness and deep civility of these loudspeakers. They have none of the character of passive loudspeaker/ amplifier combos, instead coming over as free of every affliction. If you want to hear a 'correct' loudspeaker that delivers orchestral might, smooth strings with an utterly even portrayal, the Orkans take some beating.

Absence of character, except for the full bodied quality that comes from box loudspeakers rather than open panels, makes for a peculiarly detached sense of perfection, where the system starts to move out of the picture and there's seemingly less left

At top, a ribbon tweeter. Below, an Altima midrange unit, and below two Altima bass units.





We map the decay of loudspeakers under measurement, over 0.2secs (using Clio). Read areas are 'hot' and unwanted. The Orkan's bass output, at top left, is relatively cool – good for an active.

to say about it.

With Rebecca Pidgeon singing Spanish Harlem (24/176.4) plucked acoustic bass repeated an easily picked out background theme, whilst Pidgeon sang centre stage in a hard set position defined by the strong imaging of the ribbon tweeters. I realised here the Orkans have no sharpness or edginess to them at all. They are easy on the ear whatever is thrown at them, with the exception of old CD whose poor quality treble can be too explicit at 0dB.

With classic Rock from CD, the Eagles 'Busy Being Fabulous', there was more power and control in the bass line than usual. With heavier bass tracks like this I found switching bass down to Roll-Off (1) produced about the tightest bass I have ever heard from a box loudspeaker, big Tannoys excepted. The Orkans were impressively grippy and expressive with bass lines like this, drums and bass striding along with enthusiasm.

I suspect Quadral have used a little bass equalisation because occasionally low bass was unusually strong and sounded a tad too much for my tastes. Once you do this with active loudspeakers they start to sound a bit artificial, single kick drum strikes from Eleanor McEvoy's 'Isn't it a Little Late' exciting the cabinet so much they took on a box-like thrum, likely due to colouration from the rear port. Many listeners would gurgle in delight at the sheer power of the bass I suspect, because the drum had so much dynamic punch it

shook my rib cage. Here the Orkans were leveraging their potential, for this is what you can do with active working, but I had to switch bass to

Roll-Off to sit through this track; I am no fan of excessive bass, it overwhelms all else and for me isn't what high fidelity is all about. Bass EQ can be invoked to tone things down more, so the Orkans can be brought to heel.

CONCLUSION

Active loudspeakers are peculiar: they make every bit of sense in engineering terms but in practice they often don't work. Poor internal amplifiers and excessive bass equalisation that produces a boomy sound are common weaknesses. Quadral approach these issues with care and produce in the Orkan a loudspeaker that is impressively neutral in every sense, graced with superb treble quality from a ribbon tweeter. They have strong bass even with no bass boost switched in and excellent bass quality, sounding as tight as a drum. As actives go the Orkans are as well crafted and finely judged as it gets, offering an even handed neutrality accompanied by bass power that eludes passive loudspeakers.

MEASURED PERFORMANCE

Our frequency response for the Orkan VIII active shows the result that can be achieved using its tuning functions. Specifically, bass was set to roll down at subsonic frequencies by selecting bass Roll Off, in order to reduce a small +2dB subsonic peak at 24Hz caused by our measuring room, and the parametric equaliser used eliminate a small room height-mode dip at 180Hz, again with just a few dB correction applied. Treble was left flat. The result is flat frequency response within a few dB or so from 20Hz all the way up to 20kHz – an impressive achievement. Few loudspeakers can manage this.

The Orkan has been engineered to work well without correction – there is no crossover dip for example but useful amounts of correction can be applied. Treble can be lifted or cut by a few dB, deep bass can be lifted or cut and a parametric equaliser can be tuned from 30Hz to 200Hz and used to provide narrow band lift or cut.

FREQUENCY RESPONSE



Typically, this would be used to lessen room boom. Measurement showed it all worked well, making the Orkan usefully tuneable to match the room and personal preferences.

A 200mS decay analysis showed little coloration right across the audio band. Even at bass frequencies, where active working can increase bass level and therefore returned energy, the Orkan remained relatively clean in its output, with no major hot spots. This suggests bass will sound well controlled and lack 'bloat' or turgidity.

Both line and XLR inputs needed 77mV for 90dB Sound Pressure Level (loud) at one metre. Most preamps (with x3 gain) will deliver 1V, or 22dB more, so in theory at least the Orkan can deliver 112dB peaks from a standard preamp, even when using a low output phono stage as a source. It has plenty enough sensitivity to work from a CD player (2V output) either direct if the player has variable output, or through a unity gain preamp. It even has enough gain to work from the 300mV or so from a portable player, delivering loud 102dB SPL peaks.

The Orkan measured very well in all respects. It is fundamentally an accurate loudspeaker, but with useful corrections available to suit a room, position in a room and listening taste. Bass equalisation has not introduced overhang either. **NK**

**QUADRAL AURUM
ORKAN VIII AKTIV
£6,200**



OUTSTANDING - amongst the best

VERDICT

A well designed active loudspeaker with tight, powerful bass, good adjustability, perfect accuracy and highly detailed treble from a ribbon tweeter

FOR

- powerful bass
- modest size
- detailed treble

AGAINST

- fiddly controls
- no front power light
- appearance

Quadral
+44 (0)1785 748 446
www.quadralgb-ie.co.uk



icon Audio

2 of our magnificent amplifiers



"It knows few equals and in these value conscious days makes it a pearl almost beyond price" Roy Gregory



Designed by David Shaw

New Stereo 60 III KT150 our finest "modern" integrated amplifier



New Stereo 845pp Our finest retro integrated amplifier
(Probably the world's first)



Come and hear these and the rest of our excellent range in the Magny Cours suite at Whittlebury Hall. Or if you cannot make it email or ring for our new brochure. Printed on real paper!



WIN INSPIRE'S SUPERB BLACK MAGIC Si TURNTABLE IN THIS MONTH'S GREAT GIVEAWAY!

Here's your chance to win a gorgeous Inspire Black Magic Si turntable, finished in Nightfire red, complete with Rega RB202 arm and Ortofon 2M Blue cartridge, worth £690. Read the review excerpt below and answer the questions at right.

"Two new Inspire turntables, based around the same plinth, have recently come onto the market, the Black Magic and the Black Magic Si, priced at £540 and £690 respectively. They share the same minimalist circular MDF plinth, which is available in either black or Nightfire red, the same motor units and an inner platter that is specially made for Inspire from a block of 2 inch thick Acetyl.

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

The finish of the Black Magic Si is excellent, consisting of an undercoat and four layers of coloured lacquer which are then polished. All manufacturing and finishing of this deck is done locally in Derbyshire.

The physical differences between the two decks are many. The Black Magic's platter is made from 10mm thick clear acrylic, topped with an Aciri-mat, whilst there is a 20mm thick frosted acrylic platter on the Si model. The arms are bought in from Rega. The X1 arm on the cheaper deck is an OEM version of the Rega RB101, and the X2 on the Si is an OEM Rega RB202. Ortofon cartridges, a 2M Red (retailing separately for £85) on the Black Magic, and a 2M Blue (£170) on the Si, are pre-fitted and aligned, so all a purchaser has to do is fit the

counterweight, plug in, and play.

With the Si model I was greeted by a strong sonic family resemblance, except it sounded a more mature and grounded performer than the less expensive version. The Grieg was handled with a certain amount of gravitas that suited the music.

Moving over to the Motown tracks confirmed the Si's preference for more pop orientated sounds. Compared to the Black Magic, the Si model had a tighter grip on the beat, which gave the rhythm a little more punch and precision. The staging was also better described, the edges of the soundstage being better defined, the whole image having the sensation of being viewed through a clearer lens".

For a chance to win this great prize, just answer the four easy questions at right. Send your entries on a postcard only, by 8th November 2013 to:

**November 2013 Competition,
Hi-Fi World magazine,
Unit G4, Argo House,
Kilburn Park Road,
London NW6 5LF**

QUESTIONS

[1] What red is used -

- [a] scarlet
- [b] nightfire
- [c] vulgar
- [d] post box

[2] Inner platter is made of -

- [a] aluminium
- [b] glass
- [c] wood
- [d] Acetyl

[3] Where is it made -

- [a] China
- [b] Taiwan
- [c] Derbyshire
- [d] Mongolia

[4] The Si arm is -

- [a] Rega RB202
- [b] RX104
- [c] Yanquin 2X
- [d] Bent 2

November 2013
Competition
Hi-Fi World Magazine
Unit G4 Argo House
The Park Business Centre
Kilburn Park Rd.
London NW6 5LF

entries will be accepted on a postcard only

**AUGUST 2013 WINNER: ICON AUDIO HP8 MK II HEADPHONE AMPLIFIER
Alison Wood of Kingswell, Aberdeen**

Creek craft



Martin Pipe's verdict on Creek's modestly-priced 50A amplifier/tuner? It's a crafted cracker...

My first exposure to Creek audio products came in the form of the CAS3040 tuner. An original design intended to partner the CAS4040 integrated amplifier, mine still works perfectly – and even now it sounds better than some contemporary tuners that sold for considerably more. Not bad for a product that's 30 years old. And that's one of the great things about Creek gear. It's engineered to last.

Creek's latest amplifier, the solid-state Evolution 50A, looks certain to continue this trend. In its standard form, the 50A is an elegant and compact 50 Watt per channel integrated amplifier that weighs in at a substantial 7.5kg. But there's more to it than that. Your choice of the Sequel phono stage – versions are available for low-output MC carts, low-output MM/high-output MC carts and high-output MM carts – can be fitted internally. Our review sample was fitted with the Sequel 40, the high-output MM variant. They're the same modules sold for other recent Creek amplifiers, such as the Evolution 2 and the 50A's bigger brother (the 100A).

Not enough? An optional RDS-capable FM/AM tuner (the 'Ambit') or a forthcoming DAC (the 'Ruby') module can also be (retro) fitted. Luke Creek told me that the Ruby will also include an FM-only tuner with a performance equivalent to the Ambit's. Our particular unit was equipped with an Ambit, which seamlessly integrates with the 50A's operating software. So, our 50A can be seen as the 21st-century equivalent of those 'receivers' that beat at the heart of many a 1970s hi-fi system.

Needless to say, 21st-century tech is very much in evidence. The crackle-prone pots and switch-banks of old are gone, replaced by microprocessors and electronic switching. I'm impressed with the highly-intuitive control system, which relays information to the user via a bright and readable organic-LED panel centrally-located on the machined-aluminum front panel. On either side of this are the control knobs (which operate reliable digital shaft-encoders, rather than wear-prone pots and switches) and quartets of tactile backlit buttons for source selection, tuning, balance, configuration and so on. Creek have

thought all this out very well.

A comparatively nondescript-looking handset allows you to carry out all functions from the comfort of your listening chair. Indeed, some (like switching the tuner from stereo to mono to eliminate 'hiss' from weaker FM broadcasts) are remote-only operations. It will also operate recent Creek CD players. A nice attention to detail is that the front-panel remote sensor can be bypassed with an external 'trailing' one that plugs into the rear panel – an adjacent output socket sends remote data to other compatible gear. This can be useful if your amplifier is to be hidden in a cabinet. Personally, I think the 50A is so good-looking you'd want to keep it on show...

Also on the rear panel are the inputs. There are three standard phono types, one of which is augmented by balanced XLRs, a welcome touch considering the modest pricing. This particular input's phono and XLRs sockets should not be connected simultaneously. If you don't have the phono stage installed, the relevant input will be a line-level input instead. Yet another phono input is available if you don't have a tuner or DAC installed.

Then there's the 'AV Direct' input, which can be configured to bypass the preamp thereby feeding the power amp directly. This can be useful for multi-channel applications, or for driving the amplifier directly from a suitable source component.

Creek has also made available a pre-amp output. Although intended for subwoofers or beefier power amplification, it does have limited application for recording. If a tape deck is connected to one of the 50A's inputs and you accidentally select it whilst recording then a positive feedback-loop will be created! Be careful, in other words. What a pity that the 50A lacks a dedicated 'loop' with a tape-monitor button. Sign of the times, I guess.

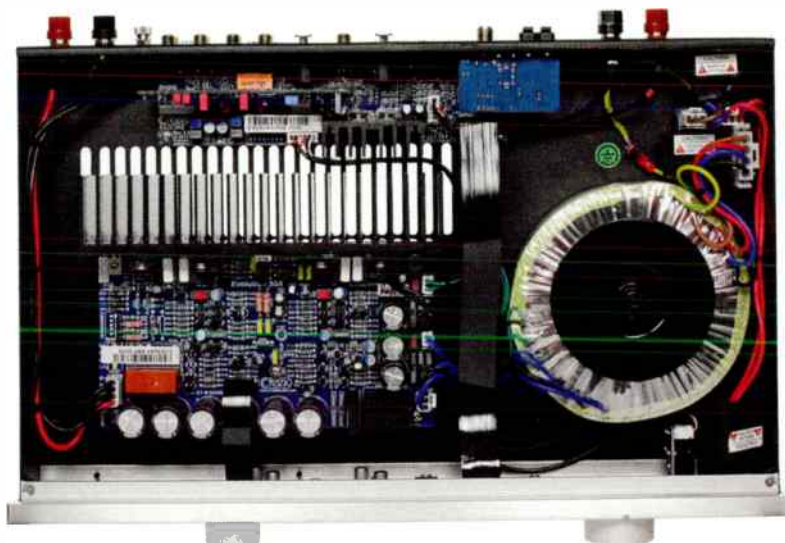
Minimalists, cover your eyes. Creek has made the heretical decision to implement bass/treble tone controls on the 50A. I don't personally think that's a bad idea, as you can to some degree correct over-bright or bass-shy recordings. Sensibly, though, you're given a choice. Holding down the 50A's 'tone' button disengages the tone controls completely. As they're taken out of circuit, internal relays can be heard to click; imposing (tone) defeat in this way gives you the best of both worlds. Equally welcome is the front-panel headphone socket, which happily drove a range of 'cans' including Onkyo ES-HF300s reviewed elsewhere in this issue.

The £125 Ambit tuner is of the 'software-defined' variety, rather than a bought-in screened module as fitted to many AV receivers. Basically, the radio signals are converted into digital form and processed in that domain before being transformed into analogue audio signals. We last saw this in the Sansui DR-201 a few months back. Creek's implementation is, however, far better. Tuning combines digital stability with analogue practicality; audio isn't muted while spinning the knob thereby ensuring that no stations are missed as you travel along the band. Numerous presets, and an indication of both signal strength and quality (the latter factors in nasties like multipath distortion) grace the spec too.

Moving to the juice behind the 50A, we have an enormous 200VA toroidal transformer with separate windings for the various stages and digital control circuitry, which work with well-smoothed power supplies. The power amplifier is a

complementary Class A-B design based around pairs of muscular Darlington output transistors bought in from Sanken, and connects to your speakers courtesy of robust binding-posts that will also accept standard 'banana' plugs. Internal construction is of a very high standard, employing glass-fibre printed circuit boards – many decent-quality components are evident.

of Goldfrapp's Supernature. Alison's seductive vocal has such presence here it seems as if she's in the room (if only...). The synth bassline that drives the song along was deep and well-controlled, compared to the Nait 3 I was using previously. I then switched to the second part of Jean Michel-Jarre's 1978 classic Equinoxe, its effects and scattershot rhythms panning around channels and creating an effective sonic envelope.



A busy interior with big toroidal mains transformer at right, heatsinks over base vents to keep the Sanken output transistors cool, and low level relay source switching.

SOUND QUALITY

The Naim Nait 3 that normally resides at the centre of my hi-fi system was replaced with the 50A; naturally, some connections needed to be remade as there are no DIN sockets here! I used my faithful Acoustic Energy AE109 speakers, while sources included a Valhalla-era Linn LP12/Basik Plus/Ortofon 540 MkII on a Russ Andrews Torlyte platform and a Cyrus Xa streamer – which was also used as a DAC with a Sony CD transport. The Cyrus, also reviewed in this month's Hi-Fi World, sells for almost twice as much as the 'base' 50A but is a very revealing component.

And so to the listening. This new Creek is a highly-revealing amplifier – it shows up poor recordings and any worn LPs in your collection. With decent material, though, it's thoroughly enjoyable to listen to yet tonally-neutral. It's fast, thereby doing justice to percussively-driven music, and is texturally-rich too. If you want 'warmth', though, you're probably advised to go elsewhere. Budget tubes, maybe?

Starting with CDs, we started off with the 21st-century glam synthpop of Ooh La La – the opening track

Moving to French music of a previous era, specifically the atmospheric fifth movement of Berlioz's *Symphonie Fantastique* (Ansermet/L'Orchestre de la Suisse Romande, Decca). This may have been an analogue-sourced recording from the late sixties, but is dynamic nevertheless – and the 50A rose to its challenge admirably, thanks in part to Creek's attention to power-supply matters. There's a sense of space coupled with strong detailing; the timbres of the prominent clarinets and tubular bells, for instance, are preserved.

It may be an integrated phono stage, but the optional Sequel turned in a sterling performance. The relatively-straight-forward pop recording of Luka, from Susanne Vega's *Solitude Standing*, retained its sad beauty and conveyed the emotion of the song's dark subject matter. Next came Music For Chameleons, from



ESL 2812 & ESL 2912

we just got closer...

These ESLs incorporate Quad's classic electrostatic speaker design philosophy which has fed its reputation since 1957. Born from our continuous aim to further improve the ESL range; ESL 2812 and ESL 2912 represent the pinnacle of Quad's achievements. The closest approach to the original sound, *just got closer...*

WHAT HI-FI?
SOUND AND VISION



Quad ESL-2812, April 2013

HI-FI WORLD



Quad ESL-2812, March 2013

hi-finews
HIGHLY
COMMENDED

Quad ESL-2912, January 2013

IAG House, 13/14 Glebe Road, Huntingdon, Cambridgeshire, PE29 7DL, UK
Tel: +44(0)1480 452561 Fax: +44(0)1480 413403 www.quad-hifi.co.uk

World Radio History

QUAD

the closest approach to the original sound



Balanced XLR inputs are provided for connection to high quality / distant sources. There are AM and FM aerial inputs too.

Gary Numan's I, Assassin LP. Here, Pino Palladino's prominent bassline is rendered in all its sinewy glory. I then spun David Bowie's Scary Monsters. The elegant art-rock of Fashion proved to be an engaging listen, thanks in no small part to the 50A's rhythmic ability.

Also worthy of bouquets is the Ambit tuner, which – out of interest – can be configured to reach all the way down to 76MHz (maybe Creek sees a ready export market in Japan,

which uses this slice of VHF spectrum for FM radio). It managed to get across the building excitement of the Last Night of the Proms carried by Radio 3, and nothing was shown to be lacking in the sound staging department when the BBC Symphony Orchestra played its (mostly) familiar repertoire. It's detailed without tending towards brightness, while a subsequently-broadcast Elgar organ sonata revealed the bottom-end to be deep yet controlled. Nice to see

that Creek still takes FM seriously.

CONCLUSION

There's little not to like here. I found a flexible, friendly and robust design with sonics that are marked by transparency and dynamism – and all for a very attractive price. If you're seeking integrated amplification – or a receiver – at the sub-£1000 end of the market, then take a trip down to your Creek dealer and arrange to audition the Evolution 50A.

MEASURED PERFORMANCE

Power output of the Evolution 50A measured 66 Watts into 8 Ohms and 110 Watts into 4 Ohms. Since most loudspeakers are 4 Ohms this is the power available in practice, and it is plenty enough for very high volume.

The distortion characteristic was unusually stable, harmonic structure changing not one little bit, from below one Watt of output, all the way up to full output, at 10kHz into a 4 Ohm load – a demanding test. The Creek will sound clean and easy in its sound as a result.

Sensitivity of the line inputs was low, 550mV being need for full power output. The balanced XLR inputs needed a high 1.1V so are purposed for an external source delivering 4V through XLR. A 2V XLR will still work, but volume will have to be high.

Frequency response was wide and did not change with volume control position. This was the case with the phono input too, due to accurate equalisation. However, the phono stage has a warp filter that lifts low frequencies slightly in the audio band but rolls output down below 20Hz, response being -5dB at 5Hz were warps most commonly occur. This will lessen cone flap but also add some fullness and warmth to low frequencies via the phono stage. Sensitivity, noise and overload values were all fine for MM cartridges.

The VHF tuner was accurately equalised and gave a similarly smooth responses right up to 13kHz, before a pilot tone filter rolled off output into a deep notch at 19kHz. The tuner will sound

smooth and evenly balanced tonally and possess natural treble. Full quieting (minimum hiss) occurred at a very low 430µV (p.d.) from the aerial. Above this level hiss measured a low -69dB, lower than that from most modern VHF tuners. The high sensitivity responsible for this also resulted in a very high stereo sensitivity value of just 4µV. The VHF tuner works very well with weak signals, keeping hiss better suppressed than that from most quality external tuners.

The signal strength meter was calibrated to show useful signal strength values. The first sector (of 6) illuminated at 4µV where signal was just strong enough for reasonably low hiss (-50dB) on stereo, whilst the top sector only illuminated when full quieting was attained (430µV). The VHF tuner measured very well, being a high quality unit rather than a budget add-on.

The Evolution 50A measured well in all respects. The VHF/FM tuner in particular offers better facilities and results than most available today. NK

Power	66watts
CD/tuner/aux.	
Frequency response	6Hz-70kHz
Separation	92dB
Noise	-105dB
Distortion	0.02%
Sensitivity	550mV
Damping factor	28
PHONO	
Frequency response	10Hz-20kHz
Separation	68dB

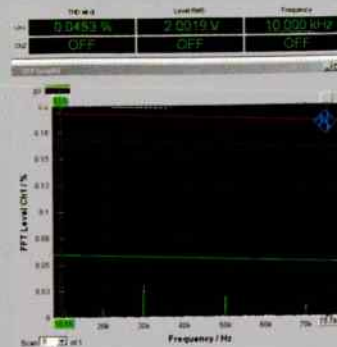
Noise	-81dB
Distortion	0.01%
Sensitivity	5mV
Overload	53mV

VHF/FM	
Frequency response	35Hz-13kHz
Stereo separation	47dB
Distortion (50% mod.)	0.05%
Hiss (CCIR)	-69dB
Signal for minimum hiss	0.43mV
Sensitivity (stereo, -50dB hiss)	4µV
signal strength meter:	
(µV)	4, 10, 30, 67, 170, 430

FREQUENCY RESPONSE



DISTORTION



CREEK EVOLUTION 50A £750



OUTSTANDING - amongst the best

VERDICT
A very strong performer with numerous features, the Evolution 50A sets new value-for-money standards

FOR
- beautifully designed and built
- dynamic and detailed sound with articulate bass
- superb phono-stage and tuner options

AGAINST
- warmth sacrificed for transparency
- remote handset
- no dedicated provision for analogue recorders

Creek
+44 (0)1442 260146
www.creekaudio.com

A LITTLE AUTUMN CHEER

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

UK SUBSCRIPTION SAVE UP TO

16.5%

SAVE UP TO 16.5% off the cover price when you subscribe to Hi-Fi World. That's an amazing £3.42 per issue, including postage.

FOR BACK ISSUES ENQUIRIES PLEASE CALL

01442 820580

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

+44 (0) 1442 820580



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

SUBSCRIPTION HOTLINE 01442 820 580

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

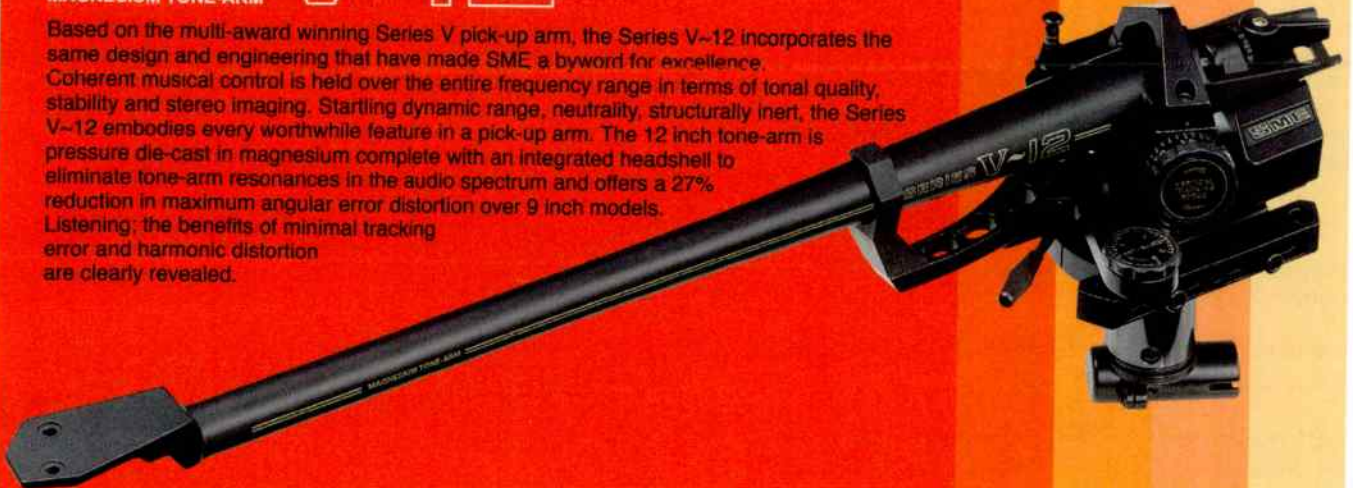
FOR OUR
ON-LINE MAGAZINE
GO TO WWW.HI-FIWORLD.CO.UK

email:
hifiworld@webscribe.co.uk

Fax No:
01442 827912

SERIES V-12 MAGNESIUM TONE-ARM

Based on the multi-award winning Series V pick-up arm, the Series V-12 incorporates the same design and engineering that have made SME a byword for excellence. Coherent musical control is held over the entire frequency range in terms of tonal quality, stability and stereo imaging. Startling dynamic range, neutrality, structurally inert, the Series V-12 embodies every worthwhile feature in a pick-up arm. The 12 inch tone-arm is pressure die-cast in magnesium complete with an integrated headshell to eliminate tone-arm resonances in the audio spectrum and offers a 27% reduction in maximum angular error distortion over 9 inch models. Listening; the benefits of minimal tracking error and harmonic distortion are clearly revealed.



SME

"The best pick-up arm in the world"

SME LIMITED • STEYNING • SUSSEX • BN44 3GY • ENGLAND • TEL +44 (0)1903 814321 • FAX +44 (0)1903 814269 • www.sme.ltd.uk • sales@sme.ltd.uk

 oyaide.com

MWA-RC Magnetic Wave Absorbers



"Dynamics in the music seem to be more refined with the Magnetic Wave Absorbers fitted and the music flows more smoothly. This is an excellent value accessory for your hi-fi system"

HI-FI Choice, October 2013



These simple yet effective products from Oyaide in Japan have been designed to add further improvements to the equipment and cabling in your system.

MWA-RC caps are manufactured from high quality polypropylene which act reduce the vibrations found on unused RCA contacts on your system.

The inclusion of a 1mm thick piece Oyaide's very own Magnetic Wave Absorption material also acts as a barrier from the noise generated from the unused RCA contacts on your equipment.

Additionally the caps act as a barrier to dust build up in your equipment, which combined with the above can taint the quality of the music you have come to love and enjoy!

TRY THEM FOR YOURSELF... WE GUARANTEE YOU WILL NOT BE DISAPPOINTED

Tel: 01332 342233

sales@blackrhodium.co.uk

www.blackrhodium.co.uk/oyaide

Media star

Martin Pipe examines the Cowon D20, a pocketable multimedia player that can handle music, video and far more besides...

Nearly a decade ago, a device known as the 'personal media player' was briefly-fashionable. This would play music, video or photos stored on a mini hard-disk (40GB or less). Most were pocketable but heavy, and flaws of one sort or another were common. Then along came the iPod, and PMPs (and for that matter most non-Apple music-only personals) disappeared. I thought the same fate had befallen Cowon, which produced one of the PMPs I group-tested for a now-defunct video magazine. It was an elegant and trendily-packaged white slab of a device, and did what was claimed of it.

But it turns out I was wrong. Cowon may have a low-key presence, certainly compared to the 'giants' of the CE industry, but it's still around – and continues to churn out PMPs and music players. Its latest is the D20, which is a curious blend of the new (some features, notably a 2.5in. touch-screen colour display) and old (a product-genre rooted in the mid-

noughties). Yes, it's a PMP – but oh, what a cute one! More functionality packed into fewer ASICs and the use of compact solid-state flash memory (32GB here – not so long ago the province of fragile HDDs) have enabled Cowon to redact a fully-functioned device into roughly the same volume as a boxed cassette tape.

It will play standard-def video (DivX/Xvid/WMV/ASF), photos (JPEG), and – most importantly – audio. Compared with previous-generation players, the range of codecs supported is impressive. In addition to MP3 (and its predecessor MP2, as used by DAB and digital TV), the D20 will play tracks encoded in AAC, WMA, OGG, FLAC and Monkey's Audio (APE – a lossless FLAC rival). Oh, and lossless PCM (WAV) can be handled too. A disappointment is that only CD quality, meaning 16-bit resolution, with sample rates of up to 48kHz, are supported. Try to play anything hi-res (e.g. a 24/96 FLAC) and the D20 will crash. Still, an ability to handle 'true'

CD-quality material – with gapless replay, to boot – isn't to be sniffed at. Refusal to play some CD-sourced FLAC content is, however, less easy to overlook.

The FAT32-formatted 32GB internal memory (there are also 8 and 16GB versions available) will fill up surprisingly quickly, especially if you're a music lover with eclectic tastes and an aversion to the aural compromises of lossy compression. Cowon realise this, and to this end have furnished the D20 with a SD/SDHC/MMC card slot – current maximum card size, 32GB. In use, this and the internal memory are treated as separate 'drives'. This also rings true when the player is connected to your PC via a supplied USB cable so that you can copy music to it, both memories being assigned independent drive letters.

PMPs were always gadget-laden, and the D20 is no exception. First and foremost is a stereo FM radio that relies on the headphone lead as an aerial – and you can record programmes if desired (albeit



The best manufactured and loveliest sounding valve amplifiers in the world

In the last century Western Electric produced the 212 valve a classic valve disappeared from the market and NOS is not affordable for audiophiles at USD 25000/pair.

In 2012, a Chinese valve factory reengineered and produced the Western Electric 212 which formed the basis for our circuit design.

Mingda proudly presents the newest development from our drawing board and workshop- a perfect and hand crafted class A amplifier based on a remake of the highly acclaimed Western Electric 212 tube, producing 40 watts in pure A mode and 150 watts in AB mode, an amplifier for the condensing music connoisseur.



The refined sound of the MC998-DW is highly acclaimed in the Franco-phone world and the appearance as well as the price/value ratio received six stars in the French HIFI magazine Haute Fidelite as well as the circuit and the hand picked components.

Appearance :	★★★★★★
Components :	★★★★★★
Bass :	★★★★★★
Midrange :	★★★★★★
Treble :	★★★★★★
Dynamics :	★★★★★★
Performance :	★★★★★★
Scene setting :	★★★★★★
Transparency :	★★★★★★
Quality/price :	good

MC998-DW Class A mono block amplifiers

Output Power: 40W

Frequency: 18Hz ~ 25KHz±1dB

Tubes: WE212 x1, (JJ)ECC83x1, (EH)6H30 x1

Net Dimension: 43W×43D×90H(cm)

Net weight: 60kg/one channel

Patent NO.201230601303.0



Made in China
Mei Xing Electronics Factory

Tel:0086-756-3315656
Fax:0086-756-3317676
Website: <http://www.meixingaudio.com>
Email: mingda@mei-xing.com

Exclusive UK distributor, showroom and service centre

Mark Manwaring-White Ming Da Valve Audio UK
Vision House 6 Davenham close Great Malvern Worcestershire WR14 2TY United Kingdom
The website is: www.mingda.co.uk
email: mark@mingda.co.uk phil@mingda.co.uk
WorldRadio Number 07831 197019 or 07831 200491

铭达
MING DA



In addition to its media playing abilities, the D20 can be used as a notepad, calculator and voice or lo-fi music recorder.

without timer, even though the D20 has a clock). The radio, which only yielded stereo from strong local stations, was rather disappointing with obvious sibilance. Recordings can, however, also be made from an inbuilt mono microphone, enabling the D20 to act as dictating machine (or low-fi bootlegger!). Radio and microphone are recorded using the WMA codec, at encoding rates of up to 256kbps. There are also a touchscreen-operated 'notepad', stopwatch, calculator and the ability to customise the attractive Flash-based user-interface with different 'themes'. A headphone-alternative is the tiny onboard 'squeaker', which is of limited value unless your environment is dead quiet.

SOUND QUALITY

The supplied in-the-ear headphones are better than most 'bundles', which isn't really saying much. There's little going on at either frequency extreme, and a coloured mid-band that impairs vocals in particular. Switch to better

volume wicked up. It seems to be a matter of insufficient output voltage; in order to achieve satisfactory listening after connecting the D20 to a hi-fi system's (high-impedance) line input, the amp's volume control had to be turned right up.

Closed headphones may be more cumbersome, but are thus a better bet here; for this reason, I stuck with the Onkyos. Initial impressions were of good resolution - but the presentation seemed to be artificially-exciting, and coupled with a soundstage that just seemed too wide. The reason is that, by default, one of the D20's 48 'JetEffect' DSP effects was engaged. Turning them off rewarded me with greater neutrality. Among those 48 modes are four 'user' settings that give you control over the tweaks - if you can figure out how to get the D20 to play ball.

And that's my biggest criticism of the D20. The touch-screen user interface may be pretty, but it's not particularly intuitive. Sometimes, I could manage those settings (among them a flexible graphic equaliser, stereo enhancement, compressed-music compensation, reverb and BBE

smartphones rely on the superior 'capacitive' variety). Give me physical buttons any day!

So I stuck with the tweak-free 'normal' setting. This is still good - and proved that the D20 was, with the same phones and music, a more adept music reproducer than my Samsung smartphone. The stereo image proved to be wider and more realistic, and there's less congestion. Joni Mitchell's voice in 'Don't Interrupt The Sorrow' (The Hissing of Summer Lawns, FLAC) was rather gritty with the Samsung; here it was natural.

I then turned to another iconic female singer, Kate Bush, and her 'Hounds of Love' album (played here in CD-ripped WAV). The big drums



The D20 can play music, video, FM radio, display pictures and read documents.

of the title track were given the headroom they needed, but not at the expense of Kate's vocal delivery. The rich tonality of the traditional Irish instrumentation underpinning 'Jig of Life' (from the same album) was much evident. It was noticed that the D20 handled MP3 music better than the Samsung, that encoded at lower bitrates being rendered marginally more listenable.

CONCLUSION

The D20 can perform well, turning in a performance audibly superior to that of a smartphone - the device that killed off the MP3 player as a mainstream choice. Battery life is several orders of magnitude better too. A smartphone might last for a day before recharging is necessary; the D20, in contrast, can run continuously for up to 90 hours - but is that lowish headphone output a price worth paying? However, a typical smartphone's operating system is friendlier and less quirky than the D20's. So I file this player under 'maybe'...



Volume up and down buttons and a microphone are placed on one face, plus a power switch.

phones, and the D20 gives a much better account of itself. This applied to those I tried - Sennheiser PX200s (a lightweight 'open' design), and Onkyo's 'closed' ES-HF300s. The problem with both is that sound-levels are rather low, even with the

psychoacoustics) but more often than not I was 'denied entry'. Part of the reason is that the touch-screen wouldn't always respond properly - even after calibration, and a check for the latest firmware. The D20 employs a older 'resistive' type (current

COWAN D20 £139

GOOD - worth auditioning

VERDICT
A nice music player with some added extras - and one hopes that replacement firmware can address some of the problems.

FOR

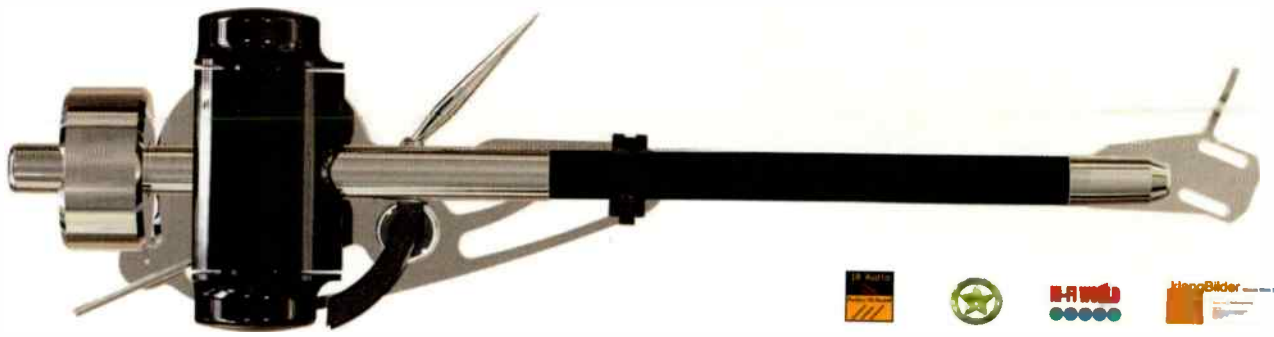
- packed with features
- handles all key audio codecs, including lossless
- musically adept compared to the average smartphone

AGAINST

- idiosyncratic touch-screen user-interface
- limited to 16-bit and maximum 48kHz sampling rate
- difficult to get realistic listening levels from some headphones

Distributed by UK by DAD
+44 (0)131 443 8464
www.dadaudio.co.uk

If you want a serious upgrade...



Conqueror MK3C Tonearm by Origin Live

Tonearm of the Year Award HI-FI WORLD

Most wanted component award STEREO TIMES (USA)

Best sound at the show award KLANGBILDER (Vienna)

Perfect 10 award "The most addictive product I've heard"
AUDIO 10 (USA)

"For me Origin Live in the analogue sector is the discovery of the year! ..."
IMAGE HI FI (Germany)

"The biggest improvement I've made in 25 years of listening to music and lots of exchanges of hi-fi stuff! ...breathtaking, big new level! It's like coming to Nirvana".

OWNER COMMENT- FERDINAND ROEHRIG



....have you considered the benefits of changing the tonearm in your system?

Changing an arm can be easy and much more influential on performance than changing a cartridge. Not to mention being more cost effective.

Origin Live arms are not just "good" or even "better" - they embody a refusal to be satisfied with anything but the best. For this reason they astonish users with breathtaking performance over market references.

Email: originlive@originlive.com

Website: www.originlive.com

Phone: +44(0)2380 578877



TEMPO

incorporating the best technology

The interconnect that beautifully communicates the artistry of the musicians through your own speakers.

"The Tempo is a top flight interconnect that provides a wealth of upper mid detail..."

HI-FI WORLD

"You can hear the scale of the venue in the reverb characteristics and there's no shortage of air."

HI-FI+

Introducing Tempo
the cable that reveals
the inner details in the music

Black Rhodium

+44 (0)1332 342 233

www.blackrhodium.co.uk

WORLD STANDARDS

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

TURNTABLES

REGA RPI 2010 £225

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

REGA P2 2008 £300

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

REGA P3-24 2008 £405

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

MICHELL TECNODEC 2003 £579

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

FUNK FIRM VECTOR II 2009 £860

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



MICHELL GYRODEC SE 2005 £1,138

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

MARANTZ TT-15S1 2005 £1,299

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

ROKSAN RADIUS 5.2 2011 £1,450

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



AVID DIVA II SP 2010 £2,000

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

INSPIRE ECLIPSE SEv2 12

2010 £2,349

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

NOTTINGHAM ANALOGUE

HYPERSPACE 2010 £2,390

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

MICHELL ORBE 1995 £2,500

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

DR FEICKERT WOODPECKER 2010

£3,445

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



LINN LP12SE 2010 £3,510

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

ACOUSTIC SIGNATURE

STORM 2011 £3,612

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

FLETCHER AUDIO OMEGA .5

2010 £3,699

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

PALMER 3 2010 £3,750

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



E.A.T. FORTE S EVO 12 2010 £4,750

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

ACOUSTIC SOLID

ONE 2007 £4,050

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

SME MODEL 10A 1995 £4,556

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

AVID VOLVERE

SEQUEL 2007 £4,600

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

BRINKMANN

BARDO 2010 £5,845

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



McINTOSH MT10 2008 £8,995

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

EAT FORTE 2009 £12,500

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

TONEARMS

REGA RB251 2009 £136

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

MICHELL TECNOARM A 2003 £442

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

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



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

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

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



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

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

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

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

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



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

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

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

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

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

CARTRIDGES

AUDIO TECHNICA AT-95E 1984 £25

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

AUDIO TECHNICA AT-F3/III 2010 £189

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

ORTOFON 2M RED/BLUE 2007 £60/£120

Modern, high resolution budget moving magnets that are always an engaging listen.



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

ORTOFON VIVO BLUE2011 £275
Super new budget moving coil cartridge from respected Danish manufacturer; a real step up from previous efforts.

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

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

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

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



AUDIO TECHNICA AT-OC9MLIII 2010 £399

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

ORTOFON RONDO BRONZE 2005 £500

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

LYRA DORIAN 2007 £649

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



BENZ MICRO GLIDER L2 2008 £650

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

ZYX R-100H 2005 £799

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

TRANSFIGURATION AXIA 2007 £890

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

BENZ MICRO WOOD SL 2010 £945

Highly finished Swiss moving coil that plays music with riflebolt precision.



ORTOFON CADENZA BLUE 2009 £1,000

Musical, out of the box sound, allied to real finesse, makes this a great do-it-all high end moving coil.

ORTOFON CADENZA BRONZE 2010 £1,350

Smooth and engaging high end MC with a slightly warmer and more relaxed presentation than its superb bigger brother.

ORTOFON CADENZA BLACK 2010 £1,650

Ultra incisive, transparent and dimensional moving coil with grip and punch aplenty.

ORTOFON MC WINDFELD 2008 £2,250

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

KOETSU RED K SIGNATURE 2007 £2,399

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



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

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

CAMBRIDGE AUDIO DACMAGIC 2010 £230

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

ARCAM rDAC 2010 £300

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

MUSICAL FIDELITY MI DAC 2010 £400

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

STELLO DAI100 SIGNATURE £750

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

**CAMBRIDGE AZUR 840C 2006 £800**

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

NAIM CD5I 2008 £895

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

ROKSAN KANDY K2 CD 2010 £900

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

BENCHMARK DAC-1S 2009 £930

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

MUSICAL FIDELITY M3 CD 2011 £995

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

ELECTROCOMPANIET PD-1 2011 £1,250

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

SIMAUDIO MOON 300D 2010 £1,290

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

**CYRUS CD8 SE 2008 £1,350**

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

DENON DCD2010AE 2010 £1,700

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

NAIM DAC 2010 £1,995

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

MERIDIAN G08.2 2011 £2,400

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

MARANTZ SA-KI PEARL CD 2010 £2,500

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

**LEEMA ANTILLA IIS ECO 2011 £2,995**

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

CHORD QBD64 2008 £3,000

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

ELECTROCOMPANIET EMC-1UP 2009 £3,450

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

**ACCUSTIC ARTS CDPIMK2 2007 £3,985**

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

ESOTERIC X-05 2010 £4,495

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

WEISS DAC202 2010 £4,600

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

ELECTROCOMPANIET EMP-1/S 2011 £4,650

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

NAIM CDX2-XPS2 2003 £4,950

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

NAIM CDS3 2003 £7,050

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

dCS DEBUSSY 2011 £7,500

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

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

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

DCS PAGANINI DAC £9,599

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

**NAIM CD555/555PS 2006 £14,000**

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

**NETWORK****NAIM HDX 2009 £4,405**

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

LINN KLIMAX DS 2007 £9,600

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

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

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

GRAHAM SLEE ERA GOLD V 2004 £370

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

ASTIN TREW AT8000 2010 £880

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

CHORD CHORDETTE DUAL 2010 £799

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

ICON AUDIO PS1.2 2007 £599
Excellent valve phono stage with good range of facilities and fine imaging abilities.



A.N.T. AUDIO KORA 3T LTD 2010 £995
Exceptionally musical and natural sounding all discrete transistor phono stage, with highly lucid, valve-like presentation.

AVID PULSUS 2010 £1,100
Powerful, propulsive, expansive sound puts this right at the top of the £1,000 phono stage tree.

QUAD QC24P 2007 £1,200
Dynamic performer that can be used on its own as a complete phono-level preamp.

ICON AUDIO PS3 2008 £1,500
Super sounding valve phono preamplifier, with an expansive, engaging and organic nature that makes vinyl sheer joy!

SUTHERLAND 20/20 2010 £1,999
Well engineered, smooth sounding solid-state phono stage with a charm of its own.

EMILLE ALLURE 2010 £2,495
Just as the name suggests, this is a lovely way to play LP with an exceptionally open and lucid sound.



AVID PULSARE 2010 £3,800
This superbly built, well specified phono stage has a powerful and authoritative sound that bristles with detail and energy.

WHEST PS.30 RDT SE2011 £4,500
The least solid-state sounding Whest we've heard, this builds on the family strengths of precision and grip but adds a welcome poise and fluidity.

NAT AUDIO SIGNATURE 2011 £5,633
Sophisticated sounding, unusually engineered MM and MC phono stage, but faces stiff competition at this lofty price.

AMPLIFIERS

ICON AUDIO STEREO 40/III 2010 £1,200
Excellent starter tube integrated, with plenty of detail and an expansively musical sound.



NAIM NAIT 5i 2007 £725
The italic 'i' version remains one of the most musically competent and dynamically engaging integrateds at the price.

AUDIOLAB 8000S 2006 £400
In another life, this sold for three times the price, making it a stand-out bargain now. Very clean, powerful and tidy sound but not the world's most beguiling.

CAMBRIDGE 840A V2 2007 £750
Version 2 addresses version 1's weaknesses to turn in a mightily accomplished performance, offering power, finesse and detail.

SUGDEN MYSTRO 2010 £1,225
Sugden's first Class AB integrated in a long time surprises; rollickingly good fun, it loses surprisingly little in smoothness to its Class AB siblings.

NAIM NAIT XS 2009 £1,250
With much of the sound of the Supernait at half the price, this is powerful, articulate and smooth beyond class expectations.

CREEK DESTINY 2 2010 £1,445
Beautifully voiced integrated amplifier with a distinctly seductive, tube like sound. A solid-state superstar!

SUGDEN A21A S2 2008 £1,469
Crystalline clarity, dizzying speed and forensic detailing makes this seminal design the most musical at the price, but power limited so needs sensitive speakers.



CYRUS 8XPD 2010 £1,500
A quality integrated that suits all genres of music providing insight and clarity in a compact but flexible package.

ANATEK A50R 2007 £1,600
Simple integrated amplifier with super bass grip and effortless dynamics.

VINCENT SA-236MK 2010 £1,749
Big, powerful and expansive sounding hybrid transistor amplifier, with a lively, musical nature.

NAIM SUPERNAIT 2007 £2,475
Integrated *tour de force* from Naim that combines impressive functionality and connectivity with super sound.

AUDIO RESEARCH VS160 2009 £3,298
Load of tube power allied to a strong bass and smooth open midband makes this a grin-inducing listen.

LEEMA TUCANA II 2010 £3,495
Polished high end integrated amp that combines power, detail and genuine musicality with a good range of facilities.



SUGDEN IA4 2007 £3,650
Goodly amount of Class A power, icy clarity and a breathtakingly fast, musical sound make this one of the very best super-integrateds.

QUAD II CLASSIC 2010 £4,500
Beautiful retro styled integrated amplifier with a subtle, supple sound - although needs matching to speakers that are easy loads.

QUAD II CLASSIC INTEGRATED 2010 £4,500
Thoroughly modern music maker with classic style and great pedigree, this amp sings with gentle music but is no headbanger!

SIM AUDIO MOON 6001 2010 £5,750
Sturdy build, useful facilities and a wonderfully relaxed, seamless and even-handed sound will win this many friends.

MUSICAL FIDELITY AMS351 2010 £6,000
One of the best high end integrateds we've come across, this combines hear-through transparency with musical get-up-and-go.

DARTZEEL CTH-8550 2010 £16,500
Charismatic and quirky high end solid-state integrated amplifier with superb sound and a charming visage.

HEADPHONE AMPLIFIERS

FIDELITY AUDIO HPA 100 2011 £350
Great little headphone amplifier with a lively yet refined and open sound.

MUSICAL FIDELITY X-CAN V8 2008 £350
Open and explicitly detailed sound plus serious bass wallop and the ability to drive anything to very high levels makes this a great partner for most mid-to-high end headphones.

PREAMPLIFIERS

MING DA MD7-SE 2012 £1520.00
A valve preamplifier with an open, effortless sound and big sound stage. It has plenty of gain so will accept any source and drive any power amp. A tuneful beauty.



CREEK OBH-22 2008 £350
Brilliant value budget passive, with remote control, mute and input switching, plus an easy, a neutral sound.

ICON AUDIO LA-4 2011 £800
Uses early 6SN7 triodes for liquid sound, has plenty of gain and remote control.

DPA CA-1 2010 £2,650
Excellent solid-state preamp with a meticulously detailed and propulsive sound, but a deep velvety tonality.

MELODY PURE BLACK 101D 2007 £3,295
The clarity and openness of valves plus firm grip and fine detail make this a preamplifier masterclass.

MUSICAL FIDELITY PRIMO 2009 £7,900
Seriously expensive, but one listen explains why. Wonderfully exuberant sound that can only come from a top quality tube design.

**MF AUDIO CLASSIC
CII SILVER****2010 £4,500**

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

**NUFORCE P-9****2007 £2,200**

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

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

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

QUAD 909**2001 £900**

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

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

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

**DPA SA-1****2010 £2,850**

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

QUAD II-40**2005 £3,230**

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

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

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

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

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

QUAD II-80**2005 £6,000**

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

MUSICAL FIDELITY AMS50**2010 £7,000**

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

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

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

ACOUSTIC ENERGY NEO I**2007 £199**

Tidy and well balanced standmounters with pleasing clarity and detail.

MISSION MX2**2011 £200**

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

ACOUSTIC ENERGY NEO I v2**2010 £225**

Civilised sounding speaker with fast and tuneful bass.

B&W 686**2007 £279**

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

WHARFEDALE DIAMOND 10.3**2010 £290**

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

MORDAUNT SHORT**AVIANO 2****2010 £300**

Classy sounding standmounter at a still affordable price.

KEF IQ30**2009 £330**

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

**USHER S-520****2006 £350**

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

MARTIN LOGAN SOURCE**2008 £1,600**

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

XTZ 99.25**2010 £640**

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

**ACOUSTIC ENERGY AEI CLASSIC****2006 £845**

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

SPENDOR S3/5E**2004 £950**

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

MY AUDIO DESIGN**MY1920****2011 £1350**

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

**ELAC BS243****2010 £1,000**

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

RRR FS100**2007 £1,055**

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

ONE THING AUDIO ESL57**2007 £1,450**

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

GURU QM-10P**2007 £1,595**

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

USHER BE-718**2007 £1,600**

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

ISOPHON GALILEO**2007 £2,100**

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

MY AUDIO DESIGN**MYCLAPTON SE****2010 £3,299**

Powerful, dynamic, musical yet refined, this unconventional point-source design yields dramatic sonic benefits.

SPENDOR S8E 2008 £1,895
 Generously large, silky smooth delivery, this dynamic sounding floorstander is an excellent all rounder.



MONITOR AUDIO PL100 2008 £2,300
 The flagship 'Platinum' series standmounter has a lovely warm and delicate sound with superlative treble.

PMC OB II 2008 £2,950
 Cleverly updated floorstanders give scale and solidity in slim and well finished package.

EMMINENT TECHNOLOGY LFT8B 2010 £2,300
 Brilliant ribbon/moving coil hybrid with seamless, delicate and expansive yet tremendously musical nature.

MAD MY CLAPTON GRAND MM 2010 £3,599

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

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



MOWGAN AUDIO MABON 2007 £3,995

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

B&O BEOLAB 9 2007 £5,000
 Technically impressive and visually striking loudspeakers with sound quality that more than matches their looks.

TANNOY DEFINITION DC10T 2010 £5,000
 Wonderfully wide and open, super fast and amazingly engaging to listen to.

ISOTEK AQUARIUS 2010 £795
 Highly accomplished premium priced mains conditioner that delivers the sonic goods, unlike so many others.

ECLIPSE TD712z/2 2011 £5,100
 Flawed genius, and wilfully so. These loudspeakers don't do everything well, but what they can do is profound and enthralling; rhythms, dynamics and soundstaging.

ARS AURES MI 2006 £5,995
 Sublime build and finish allied to an insightful, assured and even-handed musical performance makes these an essential high end audition.



QUAD ESL-2905 2006 £5,995
 The old 989 with all the bugs taken out, this gives a brilliantly neutral and open sound like only a top electrostatic can; still not a natural rock loudspeaker, though.

SPENDOR ST 2010 £5,995
 This classy sounding, superbly presented big floorstander will appeal to those seeking high end sonics with subtle looks.

REVOLVER CYGNIS 2006 £5,999
 Revolver pull out all the stops and show what they can do with this magnificent flagship loudspeaker. A superb monitor that is like a mini B&W 801D in many ways.

VIVID V1.5 2010 £6,000
 Breathtaking transparency, superlative coherence and dizzying speed make these one of the best standmounters ever made - providing you like their 'studio sound'.



GERMAN PHYSIKS LIMITED II 2011 £7,800

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

USHER BE-10 2009 £10,500
 Clever high end moving coil design with immense speed and dizzying clarity allied to epic punch. Needs the best ancillaries to fly, though...

REVOLVER CYGNIS GOLD 2010 £15,000

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

MARTIN LOGAN CLX LINEAR 2010 £15,990

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

B&W 801D 2006 £10,500
 In many respects, the ultimate studio monitor; dazzling clarity and speed with commanding scale and dynamics.



ISOPHON CASSIANO 2007 £12,900
 Drive units featuring exotic materials allied to superlative build quality result in an immensely capable loudspeaker. Not an easy load to drive, however.

ACCESSORIES WADIA 1701 2010 £349
 The first iPod dock to extract the music digitally, letting you hook your little Apple direct to a DAC for superior sound.

TOWNSHEND MAXIMUM 2003 £800

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

HEADPHONES JAYS V-JAYS 2010 £49

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



SENNHEISER MX-550 2005 £19
 Our unqualified recommendation for those seeking a serious sounding pair of in-ear phones. Smooth, detailed and musical.

SENNHEISER PX-100 2002 £29
 Cracking pair of lightweight open back cans ideal for personals, but good enough for real hi-fi use. Superb build allied to a smooth and engaging performance make them the spiritual successor to the HD400s.

GOLDRING DR150 2006 £70
 Excellent build and fine sound makes these budget cans superlative value for money.

SENNHEISER HD-590 1998 £199
 The company's best real-world cans to date. Open and smooth with plenty of detail. Brightly lit midband makes them an ideal partner for a valve headphone amp.

SENNHEISER HD-650 2004 £250
 A super all round reference design with crisp, detailed and even sound allied to superlative build and comfort. Cable upgrade yields great results.

SENNEISER HD800 2010 £1,000

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

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

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

INTERCONNECTS**TELLURIUM Q****BLACK 2010 £276/3m**

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

**TECHLINK WIRES XS 2007 £20**

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

WIREWORLD OASIS 5 2003 £99/M

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

CHORD COMPANY CHAMELEON 2 £90/M

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

**DNM RESON 2002 £40/M**

Neutral and transparent - a steal!

VDH ULTIMATE THE FIRST 2004 £260/0.6M

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

**TCI CONSTRICTOR****I3A-6 BLOCK 2003 £120**

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

MISSING LINK CRYO REFERENCE 2008 £375

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

TUNERS**DENON TU-1500AE 2006 £120**

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

CAMBRIDGE AUDIO 640T 2005 £250

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

ARCAM FMJ T32 2009 £550

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

CREEK CLASSIC TUNER 2006 £550

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

MICROMEGA FM-10 2010 £750

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

MYRYAD MXT-2000 2005 £800

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

MAGNUM DYNALAB MD-90T 2010 £1,295

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

MAGNUM DYNALAB MD-100T 2006 £1,895

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

**SYSTEMS****YAMAHA CRX-M170 2007 £200**

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

TEAC DR-H300DAB 2008 £329

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

**NAD C-715DAB 2008 £429**

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

ARCAM SOLO MINI 2008 £650

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

SHANLING MC-30 2007 £650

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

PEACHTREE AUDIO IDECCO £1,000

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

ARCAM SOLO 2005 £1,249

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

LINN CLASSIK MUSIC 2008 £1,250

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

NAIM UNITIQUE 2010 £1,350

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

MERIDIAN F80 2007 £1,500

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

**AURA NOTE MUSIC CENTRE 2007 £1,500**

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

NAIM UNITI 2009 £1,995

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

LINN CLASSIK MOVIE 2007 £2,250

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

**MERIDIAN SOOLOOS 2.1 2010 £6,990**

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

MARANTZ 'LEGEND' 2007 £22,000

The combination of SA-7S1 disc player, SC-7S2 preamp and MA-9S2 monoblocks delivers jaw-dropping performance.



Five alive!

Naim has breathed fresh life into its entry-level integrated amplifier – and the results are special, says Jon Myles

Full-system remote enables easy control from the listening chair.



Naim's Nait range of amplifiers has a long and rather gloried history. It was first launched in 1983 as a shoebox-sized integrated with the focus firmly on a beefy power supply and overall musicality, as opposed to quoted power specification. It quickly gained a reputation for punching well above its weight. Since then, the basic Nait has evolved into a 5-series iteration and also been joined by the SuperNait and Nait XS models to become a cornerstone of the Naim brand. Which, as you can imagine, is not something you mess with for no reason.

So it came as a surprise when the Hi-Fi World team were recently invited to Naim's Salisbury HQ to be briefed on the new range of Naim Nait5s – encompassing the Nait5si,

SuperNait 2 and Nait XS 2.

In short, Naim's engineers had decided to go back to the drawing board and upgrade the existing models through the use of better quality components, improved design techniques and the experience gained on the design of the company's range of streaming products.

So it was no wonder we were keen to get hold of the first fruits of their labours in the new Nait5si. Naim's Electronic Designer Manager Steve Sells describes this integrated as a "stripped down racer" – meaning its functions are to switch inputs and amplify the sound.

Getting down to technicalities, Naim have made a number of significant improvements from the Nait 5's predecessor. Power output is increased from 50 Watts to 60 Watts per channel due to the use of a larger transformer and improved

power supply. Components have also been upgraded in critical areas such as the power amp stage, and all signal capacitors changed to high-quality film types.

Inputs include four analogue phono sockets and two of Naim's familiar locking DIN sockets if you are connecting the company's own CD and tuner.

And, in a blessed nod to the year 2013, we no longer have an input marked Tape but now HDD (that in future may have to be marked SSD or, more likely, Plug In Anything here – but that's another story).

All this is housed in Naim's traditional black aluminium chassis and sleeve with matching zinc die-cast fascia – which is so iconic now to hi-fi buffs it would be stupid to alter.

It also means small features, such as the loose mains input socket



"the Nait 5si has a winning combination of superb musicality, dynamics that are hard to match at this price point"

aimed at isolating the circuit board from extraneous vibrations, are present and correct.

SOUND QUALITY

If you've ever heard Naim's entry-level integrated amplifier before, prepare to be surprised. The new Nait5si takes everything that was good about its predecessors and adds an extra element of definition and openness. As a long-term user and admirer of Naim amplification it took just a few minutes for me to realise that the changes under that traditional casing were more than just a subtle upgrade.

Even before a full run-in the sonic improvements were vividly apparent.

The renowned Naim vibrancy and rhythmic ability were still there in spades – but there's a new openness to the mid-band and treble that allows music more room to breathe.

Play John Coltrane's 'Giant Steps' and the saxophone sounds keenly-edged and simply soars from the speakers. So much so that it was impossible not to try Coltrane's torture-test 'Ascension' outing. This is one disc that can sound like an atonal cacophony on lesser amplifiers – but the Naim tamed it to enable the playing of the individual musicians to shine through as they weaved their magic around each other.

After a few days running in the results became even more impressive. The Nait did an admirable job of taming the noisy clanging and full-throttle electric bass on Julian Cope's 'Jehovahkill' – allowing the singer's baritone vocals to come across with full emotion.

What you are hearing is a big and forceful delivery with masses of bass – but allied to a sense of control that enables the listener to push the volume control higher than with some other amplifiers around this price level.

Interestingly, the 5si seemed to be able to go louder on volume than my first-generation Naim SuperNait before it became unbearable to listen to.

Which also provoked an

interesting test. The SuperNait had struggled with a pair of Sonus faber Venere 2.5s – the Naim's low damping factor provoking so much bass it swamped everything else in the mix.

Swapping to the 5si produced a more settled presentation. Now the rolling bass on Public Image Ltd's 'First Edition' wasn't simply a swathe of low-energy thump but a clearly defined backing.

Given the price disparity between the two amplifiers that really shouldn't happen. But, then again, this was the new 5si against an old SuperNait and I'd hazard a guess the SuperNait 2 would sound better still. And it's ample evidence that power supply improvements in the Nait range have been worthwhile.



Improved power supply and upgraded internal components within the Nait5si contribute to a class-leading sound.



JOIN US

Head to any one of our flagship Blade retailers below to celebrate everything KEF.

Don't miss a great week of dedicated KEF events including listening sessions, competitions, promotions and expert advice from KEF specialists.

We look forward to seeing you there!

For more information on National KEF Week please visit: www.kef.com/news



Frank Harvey HI-Fi Excellence
Coventry
Telephone: 02476 525200
sales@frankharvey.co.uk

Loud & Clear
Edinburgh
Telephone: 0131 555 3963
edinburgh@loud-clear.co.uk

Oxford Audio Consultants
Oxford
Telephone: 01865 790879
info@oxfordaudio.co.uk

Phase 3
Worthing
Telephone: 01903 245577
worthing@phase3.co

Sevenoaks Sound & Vision
Clifton, Bristol
Telephone: 0117 9743727
bristol@ssav.com

Sonority Design
Brierley Hill
Telephone: 01384 79965
info@sonoritydesign.co.uk

Unilet Sound & Vision Ltd
New Malden
Telephone: 0208 9429567
sales@unilet.net



Inputs include the usual Naim-preferred DIN sockets as well as RCA phono sockets.

Having said that, a Nait 5si and pair of Sonus faber Venere 2.5s are still not a match made in heaven. For whatever reason, they just do not seem to gel together.

Moving over to the recently-reviewed Martin Logan's Motion 15 standmounts with their Folded Motion tweeter, however, and things really do fall into place. Here the Naim 5si really began to sing.

Tom Petty's 'American Girl' via a 24/96 download had amazing resolution. Drums thumped centre between the speakers while Petty with his nasal vocals was strutting his stuff right before my eyes.

Keeping the match going with Eleanor McEvoy and the sublime 'Yola' on CD and you can tell there's a great bandwidth on offer here. The bass stays low, the guitar hangs in the mid and Eleanor's vocals are clear, distinct and oh-so-lovely.

You could be moving into the realms of an ideal system here. Naim Nait 5si at £925, Martin Logans for £795 and then provide your preferred front-end.

And if you want to go a little bit higher with the Nait 5si? Well, hooked up to Spondor's SP100R2 loudspeakers and playing Valery Gergiev's 'Shostakovich Number 5' the delicate strings on the opening were revealed with all the tonality you would want.

There's a precise note to the changes in keys, a real sense of space about the music – which is something not all Naim amplifiers at this price have had in the past. But when the full orchestra comes in it does so with a forceful impact that makes the hairs on the back of your neck bristle.

So, what's not to like about this new Naim Nait 5si? Well, very little. In absolute terms it doesn't have the rich, hear-through clarity of a single-ended valve amplifier. But few SEs have the sheer grunt of the Naim. It's also not the last word in definition – but then again moving up to the new SuperNait 2 or Nait XS 2 will probably give more in that

direction.

What it does do, though, and in a very satisfying way, is play music and make it alive and enjoyable. It also does it in a more even-handed way than the previous Naim entry-level integrated amplifiers – which, let's be fair, were no slouches in this respect to start with.

CONCLUSION

Naim's back-to-basics policy for its amplifiers has paid dividends here. Some people may hanker for more bells and whistles on a £925 amplifier but that would be missing the point.

The Nait 5si has a winning

combination of superb musicality, dynamics that are hard to match at this price point and an infectious way of playing music.

It also sounds a great deal more open and detailed than previous Naim Nait's.

The only caveat is that loudspeaker matching could be a key point – but that's no different to any other amplifier.

The clearest evidence of the Nait's ability is the fact that once you fire it up you just want to crank the volume up so enjoyable is the sound it produces. And, really, there can be no better recommendation for an amplifier.

MEASURED PERFORMANCE

The Naim Nait 5si produced 72 Watts into 8 Ohms and 120 Watts into 4 Ohms, plenty enough power to produce very high volume from most loudspeakers.

Distortion was low at all frequencies and powers, measuring 0.004% in the midband and 0.01% at high frequencies (10kHz), at low power into a 4 Ohm load, where crossover distortion is at its

highest.

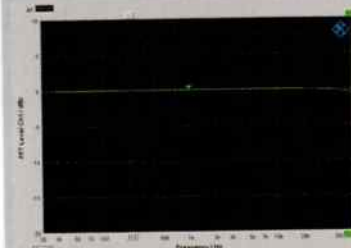
Naim's are always sensitive and the Nait 5si needed just 200mV for full output, allowing it to work with low gain external phono stages.

Surprisingly, frequency response was not rolled off above 20kHz as in most Naim amplifiers of the past and this may well affect sound quality, adding a subtly lighter hue to treble, instead of the dark 'an easy sound of earlier amps. Bass extended down to 5Hz so the Nait will reproduce subsonics.

A relatively low damping factor figure of 12 will help give more obvious bass than damping factors above 20, and in this respect the Nait is like other Naim's.

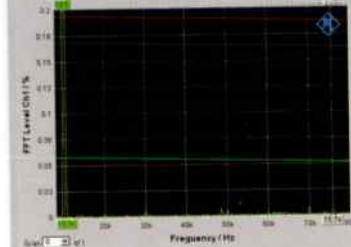
The Nait 5si continues Naim's tradition of delivering current into low loads, a low damping factor helping provide obvious bass power. What is very different about this Nait is its extended bandwidth, and this may well brighten its delivery. **NK**

FREQUENCY RESPONSE



DISTORTION, 10kHz, 1 Watt

THD (10%)	Level (dB)	Frequency
0.0141%	2.0189V	10.000 kHz
OFF	OFF	OFF



Power	72watts
CD/tuner/aux.	
Frequency response	5Hz-100kHz
Separation	83dB
Noise	-100dB
Distortion	0.01%
Sensitivity	200mV

NAIM NAIT 5SI £925



OUTSTANDING - amongst the best

VERDICT

A superb update to Naim's entry-level integrated amplifier. It retains the sheer musicality the brand is renowned for but adds a new openness and treble clarity.

FOR

- timing
- bass
- build quality

AGAINST

- needs careful speaker matching
- lack of features

Naim
+44(0)1722 426 600
www.naim.co.uk

Arcam rBlink

Arcam's clever rBlink module brings wireless capability to any hi-fi – and in fine style, Jon Myles discovers.

Fancy bringing some wireless connectivity to your existing hi-fi set-up? If so, there's no end of manufacturers competing for the pound in your pocket.

And it's easy to see why. Imagine arriving home after a hard day's work, pulling a mobile phone from your pocket and hitting the play button to immediately stream its stored tracks through the living room.

Which is exactly what Arcam's little rBlink unit is designed to do. In essence it is a Bluetooth-toting digital-to-analogue converter which connects to an existing hi-fi set-up via analogue out connections or digital coaxial.

To its credit it is genuinely compact but reassuringly solid and well put-together – more than enough to justify its £160 price tag. The bottom panel is constructed from a soft-touch material that won't scratch other components or your hi-fi rack and also stops it sliding around.

One end of the unit hosts the stereo RCA and S/PDIF outputs while the other contains the aerial,

power socket and Bluetooth pairing button which, thankfully, is easy to access.

Connect the rBlink and pair it with your device (be it phone, computer etc) and music should flow. The device itself utilises a Texas Industries PCM5102 DAC chip with a claimed frequency response of 10Hz-20kHz. Supported codecs are SBC, AAC and the highest-level Bluetooth aptX.

And that aptX support does shine through. Paired with a MacBook Pro, (all MacBooks with OSX 10.6.5

and above have aptX) the results are rather impressive.

The first thing you notice is that the rBlink seems to impose little of its own character on the music – always a good thing.

Streaming Nick Cave's 'The Curse Of Millhaven' through Naim's new Nait 5si (see review this issue) and the full character of the track came

through.

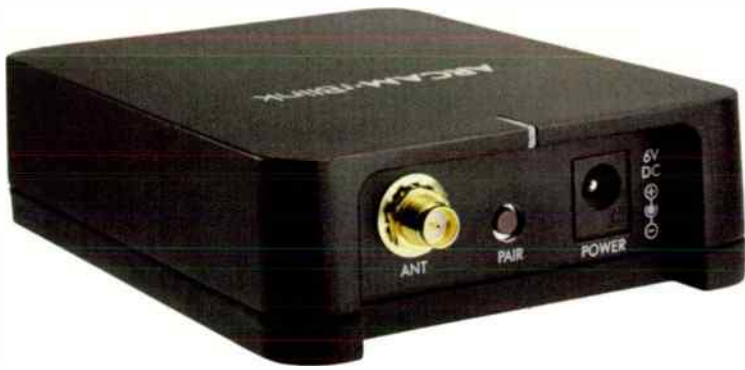
Bass was deep, detail level better than you might expect and you can hear Nick Cave smacking his lips as he rolls out the dark story.

Martin Alsop's rendering of Brahms' 'German Requiem' revealed rather good separation between the soprano and baritone.

Unfortunately, the same track through an iPhone 5 takes a small step backwards in terms of detail and resolution. At present Apple's iOS doesn't support aptX – and the technology does make a difference. A Sony Xperia sounded markedly superior streaming to the rBlink – with much more focussed bass, sharper treble and cleaner mid-band. But that's a factor of the front-end itself and not the fault of the rBlink.

A more appropriate comparison is with a CD player – which is where things get interesting. Considering the fact that the rBlink costs £160 it fared extremely well in a head-to-head with an – admittedly ageing – Marantz. The Marantz still had the edge in terms of overall detail, punch and resolution but the rBlink wasn't so far behind that you would think it was a poor relation.





Antenna socket, Bluetooth pairing button and power supply input occupy one side of the rBlink.

But where it does really come into its own is when paired with an Arcam amplifier.

Luckily, we had the Arcam FMJ A19 on hand for test purposes. Use this and you can discard the rBlink's wall-wart power supply and have it powered by a separate feed from the amplifier's toroidal transformer – the required lead comes bundled with the Arcam FMJ.

Does it make a difference? Absolutely. The rBlink and FMJ A19 together bring a whole new level of definition to listening.

There's a much greater subtlety to the sound with low-level dynamics taking on more strength and a rounding out of hard edges. The Pixies 'Debaser' came across with much more energy. The chiming guitars were clearly delineated over the plunging bass line and Frank

Arcam's proprietary circuit design pays dividends in terms of sound quality.



Black's vocal were replete with his familiar gruff tone. It's a perfect example of just how much difference a better power supply can make.

In fact, if you are already an Arcam FMJ A19 owner then the rBlink is the ideal way to add streaming capability. The two have a synergy that would be hard to better elsewhere. Streaming The Pet Shop Boys' take on Bruce Springsteen's 'The Last To Die' was a pure foot-to-the-floor experience with the vibrant beat positively thumping along – just as it should be.

If there's any criticism to be made it's the fact that some may not consider it the most exciting presen-

tation in the world. There's a small hint of a laid-back character at times that might not initially impress but does, actually, reward with fatigue-free listening in the long-term.

For evidence, the rBlink and FMJ combination stayed playing in the listening room for a good few hours before it made way for a different combination, so enjoyable was its sound.

CONCLUSION

The Arcam rBlink is a clever little device that does just what it says on the box. At £160 it's not the cheapest option available but the quality of build and ease of operation more than justify the price.

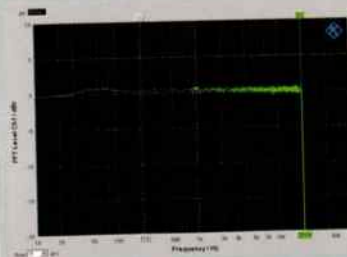
Pairing with a computer or mobile phone is quick and simple and the connection is commendably stable.

Sound quality will, inevitably, depend on the resolution of your stored music and if whatever device you are using supports the aptX technology. If, however, you already own – or are even considering – an Arcam FMJ A19 (a previous recipient of Hi-Fi World's five globe award) then the rBlink becomes a bit of a no-brainer. The natural synergy and elimination of the wall-wart power supply for a beefier feed makes a huge difference.

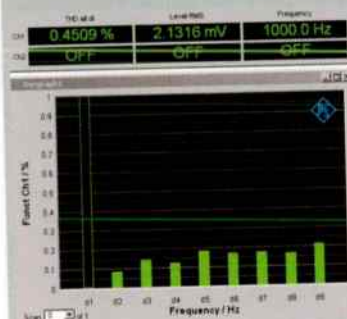
MEASURED PERFORMANCE

Frequency response measured flat to 20kHz at 44.1kHz sample rate, as our analysis shows, so the rBlink will not alter tonal balance and is accurate in this respect.

FREQUENCY RESPONSE



DISTORTION



Noise is commonly an issue with Bluetooth links and at -92dB (IEC A weighted) with 16bit some intruded into measurements here. This helped distortion at low levels to a mediocre 0.45% at -60dB with 16bit and 0.35% with 24bit. EIAJ Dynamic Range sums distortion and noise and suffers in such circumstances, measuring 93dB, against 99dB or so for CD. This is a small shortfall, but good as Bluetooth goes. Output was at CD level, measuring 2.1V.

The rBlink does a good job with Bluetooth. It doesn't match CD but it gets close enough to provide good sound quality and it has no serious weaknesses. **NK**

**Frequency response (-1dB)
CD 4Hz - 20kHz**

Distortion	CD / 24bit
0dB	0.02 / 0.02
-60dB	0.45 / 0.35
Separation (1kHz)	101dB
Noise (IEC A)	-92dB
Dynamic range	93/96dB
Output	2.1V

**ARCAM RBLINK
BLUETOOTH DAC
£160**

EXCELLENT - extremely capable

VERDICT
Clever, stable Bluetooth DAC that brings near-CD quality sound to streaming from mobile phones or computers.

FOR
- easy set-up
- good quality sound
- ideal partner for an Arcam amp

AGAINST
- not the cheapest option

Arcam
+44 (0)1223 203 200
www.arcam.co.uk

Box Design by Pro-Ject



DAC Box DS

The DAC Box DS allows you to bring your digital music to life. Whether you have a network streaming device, a CD Player or a computer loaded with your downloaded music; this innovative DAC can take it all and transport it to your hi-fi system with optimum fidelity. Now at a NEW PRICE!

£299.00 SRP

- Top-Grade D/A converter chip
- USB 'Type B', optical and coaxial inputs
- 24bit/192kHz asynchronous USB streaming
- Display readout shows incoming bit depth
- 8 times oversampling design
- 2 selectable filter settings
- Premium Components

Box Design

Whether you want to add an iPod or computer music library to your existing Hi-Fi setup, or you're starting a main or secondary system from scratch, Box Design by Pro-Ject Audio Systems is a fantastic way for all music lovers to bring more high-quality audio into their lives.

Every Box Design product combines premium build-quality and exceptional sound with a small size and an attractive price...

STREAMERS - DACS - AMPLIFIERS - IPOD DOCKS - HEADPHONE AMPLIFIERS - CD PLAYERS

Box Design by Pro-Ject Audio Systems
is distributed in the UK by Henley Designs Ltd.

Web: henleydesigns.co.uk | Telephone: 01235 511 166 | Email: sales@henleydesigns.co.uk

High Energy

Sub-£450 standmount speakers are not exactly thin on the ground – but Acoustic Energy's new 301s do enough to stand out from the crowd, says Jon Myles.

The entry-level standmount speaker market is probably one of the most fiercely-contested sectors of the hi-fi market.

There's no shortage of competent packages from the likes of KEF, Wharfedale, Q Acoustics and any number of other manufacturers to choose from. So any new entrant needs to stand out from the crowd to gain attention.

Which is just what Acoustic Energy hopes its new 301 speakers will manage to do.

Part of a new 3-series range which also incorporates a floorstander, centre speaker and sub, the 301 is a two-way ported design measuring 300x185x250mm (H/W/D)

and retailing at £425.

So far, so ordinary. But look a little closer and the 301s reveal some interesting design choices. For a start, instead of the usual rear-firing round port the Acoustic Energys use a front-mounted slot to augment bass response – potentially making them less fussy about room positioning relative to a rear wall.

Above this is an 11cm hard-anodised aluminium cone derived from Acoustic Energy's legendary AE1 model which is mated to a relatively large 28mm soft-dome tweeter, again of the company's own design.

A single pair of gold-plated speaker binding posts adorn the rear – so bi-wiring is out – and the grilles fix magnetically to the rubberised

front baffle to maintain the overall clean lines of the speaker.

Build quality is exceptionally good for the price. The cabinets feel reassuringly solid and are finished in a high gloss black or white which belies their entry-level status.

Placed on a suitable pair of stands the Acoustic Energys could easily be mistaken for a more expensive pair of speakers.

SOUND QUALITY

That same impression of quality extends to the sound. The 301s have an impressively even-handed and smooth presentation with no undue emphasis on any part of the frequency range.

Commendably the Acoustic





High End – Made in Germany



Master Innovation

The Clearaudio catalogue of high quality pressings inc. Deutsche Grammophon re-issues available now



For orders and information contact;
+44 (0)1276 501 392 info@soundfoundations.co.uk

sound foundations
www.soundfoundations.co.uk



A simple clean rear lacking the usual port. Just one pair of connection terminals obviate bi-wiring.

Energy engineers have resisted the temptation to dial-in any noticeable artificial bass hump or treble zing. Instead the 301s are clean and crisp with a good level of detail that makes all forms of music instantly enjoyable. Try New Order's 'Bizarre Love Triangle' and it's conveyed with all the requisite attack as well as a decent dose of low-end heft for a loudspeaker this size.

In fact, the bass digs much deeper than you'd expect – with a spin through Leftfield's 'Rhythm And Stealth' sounding positively thundering at the lower frequencies. That front-firing slot port means close-to-wall positioning is possible – but they sounded smoothest with a little room to breathe and pointed straight down the room. Get them too near the rear wall and the bass can start to sound a little thumpy. Get them set-up correctly, though, and they are a delight. Used on the end of Arcam's refined FMJ A19 amplifier, for example, the 301s displayed a pleasing authority while remaining lithe and nimble at all times.

The 28mm soft dome tweeter is Acoustic Energy's own design.



The dynamic shifts in John Rutter's 'Requiem' were accurately reproduced with excellent clarity to the vocals and a tightness to the overall sound that suited the music well.

Stereo images are also well-placed – the Acoustic Energys throwing out an expansive soundstage which has both width and depth. Instruments are locked firmly in place while female vocals float free of the plane of the speakers.

Play some well-recorded live jazz like Ornette Coleman's 'Sound Grammar' and it's easy to place the relevant position of the musicians on stage.

The tweeter and aluminium dome seem particularly well-matched, with little sense of any suck-out in the presence region. That quality adds to the sense of exceptional detail levels.

Instruments in complicated pieces such as John Coltrane's 'Ascension' are easy to track and the speakers shift between quiet and loud passages of the music with aplomb.

All this rewards long-term listening sessions. Instead of picking individual tracks you quickly find

you've spun through a whole CD without realising it so enjoyable is the performance.

CONCLUSION

The Acoustic Energy 301s face some stiff rivals at their price point – but they are more than good enough to hold their own against the competition.

They have a deliciously refined and detailed sound that doesn't favour any area of the frequency spectrum to the detriment of others.

Bass is also admirably deep and well-rounded while mid-range and treble stay crisp and clean.

Put together it means the 301s sound especially dynamic and authoritative with an overall performance that some more expensive loudspeakers would struggle to match. Put them with a decent amplifier and you have the makings of a very competent system.

Add to that a superb standard of build and finish and the little Acoustic Energys have to be an essential audition for anyone looking for a pair of standmount speakers at or anywhere near this price.

MEASURED PERFORMANCE

The Acoustic Energy 301 measured all but flat on on-axis, as our analysis here shows. There's little sign of crossover mis-match and the softness it can bring, so detail and clarity will be good. The tweeter peaks up slightly, by +3dB at 16kHz, just enough to ensure the 301 has a little treble presence. Listened to slightly off axis however, typically pointing down a room instead of directly at a listener, this peak flattens, and

then the 301 measures flat and is very accurate. Such smoothness in a response trace indicates low distortion too.

Bass rolls down smoothly below 60Hz, the port (red trace) extending output down to 30Hz. The port is tuned to 60Hz, works over a reasonably wide band and damps the bass unit well, our impedance curve shows. With the port +6dB up on the bass unit at 80Hz, a normal value, it will produce low bass.

A 200mS decay analysis shows the 301 is very clean down to 200Hz, with less overhang and coloration than most loudspeakers. There is a substantial delayed energy leaving the cabinet below 100Hz however, suggesting some heaviness, warmth or tubbiness in the bass.

Sensitivity was fair at 86dB, amplifiers of around 60 Watts or more being needed for high volume. Impedance measured 7 Ohms overall, a bass unit with a 5 Ohm DCR being used, plus a 4 Ohm tweeter, so these are the impedance minima.

The Acoustic Energy 301 should sound smooth, even and tonally balanced, with no treble sting. It has unusually low coloration too, except in the deep bass region where it may sound distinctive. **NK**

FREQUENCY RESPONSE

Green - driver output
Red - port output



IMPEDANCE



THE ACOUSTIC ENERGY £425
OUTSTANDING - amongst the best

VALUE - keenly priced

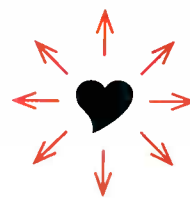
VERDICT
The 301s have a balanced, engaging and detailed sound, allied to a superb standard of build and finish. Highly recommended.

FOR
- smooth, balanced sound
- deep bass
- bags of detail
- build quality

AGAINST
- plenty of competition
- nothing else at the price

Acoustic Energy
+44 (0)1285 654432
www.acoustic-energy.co.uk

Love is all around...



First it was German efficiency.
Then came German automotive reliability.
Now it's German HiFi / Home Cinema excellence.

HI-FI WORLD



5 GLOBES
"Outstanding - simply the best"
Platinum M.50



Embrace the love we have for audio - from our
speakers to electronics, since 1981.

Tel 01785 748 446

E-Mail: info@quadralgb-ie.co.uk

www.quadralgb-ie.co.uk

www.quadral.com

quadral 
HiFi / Surround Speakers



Inspire Hi-Fi

eclipse SE V2 TURNTABLE eclipse SE V2 12 TURNTABLE


"Superb build and finish allied to an effortlessly musical sound makes the Inspire Eclipse highly impressive"

Hi-Fi World



"Simply the best turntable at the price"

UK MANUFACTURE AND DIRECT SALES OF AWARD WINNING TURNTABLES & UPGRADES

www.inspirehifi.co.uk 

Units 2 & 3 Prospect House Colliery Close
Staveley Chesterfield S43 3QE
T: 01246 472222 M: 07932 367555
E: robert@inspirehifi.co.uk

DEMONSTRATION ROOM
HOME DEMONSTRATION

 PART EXCHANGE
AVAILABLE



SEE US IN THE IMOLA SUITE
WHITTEBURY HALL
NATIONAL AUDIO SHOW 13'
21 - 22 SEPT

Titanium treat

Martin Pipe dons a pair of closed-back Onkyo ES-HF300 on-ear headphones.

Look gorgeous, don't they? That's one of the advantages of being new to the game; fresh thinking. Onkyo's ES-HF300 phones have detachable '6N' pure-copper cables, which lock securely to the bottoms of the large and rigid cups. The latter contain aluminium-encased 40mm titanium drivers of 32-ohm impedance, behind which lie carefully-tuned bass-enhancing chambers. They have a closed back to lessen sound leakage, so as not to disturb others, when travelling for example. Onkyo claim for the HF300s a frequency response that extends between 10Hz and a bat-worrying 27kHz.

Weighing in at 240gms, the HF300s are weighty, if not heavy. To ensure comfort, the top of the headband is padded; the replaceable soft leatherette earpads, meanwhile, manage to achieve a balance between a good acoustic seal and the avoidance of excessive fatigue. I could happily wear them continuously for sessions lasting for over an hour, after adjusting the headband correctly. As no 6.3mm-to-1/4in adaptor is supplied, though, you'll need to splash out on one if you want to partner the HF300s with conventional hi-fi rather than 6.3mm equipped portables...or you can replace the cable supplied with a 1/4in terminated option from Onkyo.

The lead has no 'bulges' containing iPhone remotes or hands-free mikes, as Onkyo has designed these phones solely for the unsullied reproduction of music.

And their endeavours are largely-successful. Lower frequencies were somewhat overblown to start

with, something that admittedly made bass-heavy and rhythm-driven dance music more exciting to listen

subtle nuance of Adderley's alto-sax and Miles Davis' trumpeting is there for the hearing. Drums, piano

and bass are bestowed with an 'in-the-room' vitality that complements rather than overpowers the horns; you're transported to the smoke-filled darkness of a jazz club. 'Is that what you wanted, Alfred?' One hopes so.

Also atmospheric is the eccentric genius of Kate Bush's 'The Dreaming', which the HF300s also do justice to. The piano and oddball rhythms of dramatic opener 'Sat In Your Lap' contribute to an enthralling listen that continues as the album proceeds – Irish folk, donkey impressions, Rolf Harris, string sections, Fairlight samples and of course one of rock's most distinguished voices.

Then there's classical, which shows off the stereo-imaging possibilities of headphones. With this previously-captured 320kbps stream of this summer's Stravinsky 'Rite of Spring' Prom, resolution was such you could easily-hear the differences between the modern solo bassoon of most recordings and the French one that was played here in an attempt to recreate the original riotous performance given a century earlier.

Yes, the ES-HF300 are great headphones. I think they amongst the best you'll buy for under £200.

to. Over a two-month period of using them, with personal players and various consumer and professional audio gear, the performance seems to have settled.

The first thing I noticed is how phenomenally revealing and crisp (possibly a little too bright!) they are. Playing the twelve-bar blues of 'One For Daddy-O' (from Cannonball Adderley's jazz classic 'Somethin' Else) demonstrated how good this (remastered) 1958 recording is. Every



ONKYO ES-HF300
£180



OUTSTANDING - amongst the best

VALUE - keenly priced

VERDICT

Onkyo have tried to come up with something a bit different – and have succeeded.

FOR

- very detailed and 'fast' sound
- presence without colouration
- look good and comfortable to wear

AGAINST

- a little too much bass and brightness for some
- no 6.3mm adaptor supplied
- no in-lead controls

Onkyo
+ 44 (0)1628 473350
www.uk.onkyo.com/en/



STEVIE WONDER

Fulfillingness' First Finale
Mobile Fidelity

Originally released in 1974 on the Motown label, this album appeared to take a deep breath from the social commentary that formed the central core of the previous year's album release, 'Innervisions'. With the release of 'Finale', that rage and anguish had largely disappeared, to be replaced with a more directed focus on relationships.

In fact, Wonder does so in a wholly heartfelt manner that reminds me a little of the album, 'Talking Book'. Just listen to the 'Finale' song, 'Creepin', which almost looks forward to love and then 'Too Shy To Say' which turns that idea fully on its head by being almost afraid of the immensity of the emotion. Hence, the cycle of love is examined in detail.

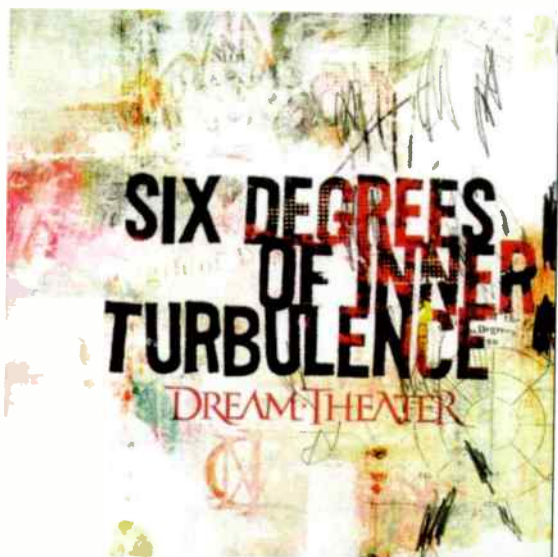
A further example is the track 'It Ain't No Use' where we hear Wonder sing about the ending of a relationship.

For all of his introspection,

however, Wonder can't help but add a political dig: 'You Haven't Done Nothin'' is an attack on President Nixon. A spill over from the previous album's cutting track, 'He's Misstra Know-It-All'. 'Nothin' is, in fact, one of the two major singles from the album, the other being 'Boogie On Reggae Woman'.

One aspect of the album that some may miss is the fact that Wonder is ably assisted by a featured array of major talent including, would you believe, Paul Anka, Minnie Ripperton, Deniece Williams and the Jackson 5 (who appear on that Nixon dig, 'You Haven't Done Nothin'). Not bad for backing singers!

The multiple stages of romance are the main focus, however. An excellent love compilation that is enhanced by Mobile Fidelity's treatment of the album that is quiet and structurally enhanced, arriving with a pleasing 3D soundstage. A wonderful love compilation that will please all audiophiles.



DREAM THEATER

Six Degrees of Inner Turbulence
Music On Vinyl

As any commercial product matures it tends to splinter into sub-parts. Everything from bikes to bags; the customer wants it tweaked to fit their lifestyle.

Music is no different. Not only has rock splintered into many forms but those forms have splintered into further sub-genres. Which is how we have arrived at progressive metal and Dream Theater. Formed in 1985 by guitarist John Petrucci, bassist John Myung and drummer Mike Portnoy, the group have quickly emerged as one of the most influential outfits currently active in rock. They exhibit elements of Iron Maiden, are fleet of foot, like Rush, with complex arrangements found in more sophisticated prog outfits such as early Genesis or Yes.

This newly reissued double album, originally released in 2002 on Elektra, well mastered by Music On Vinyl and the first time that this

album has ever been reissued on the black stuff, came as a bit of a shock to DT fans with the first disc seemingly indicating that the band were moving away from their prog direction.

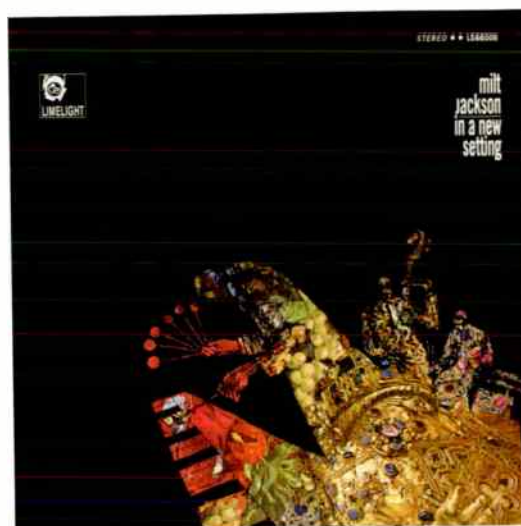
The problems begin with 'The Glass Prison'. Despite the intriguing, low-key opening, the track quickly enters into straight-ahead, high-octane rock. OK, but DT? Really? Then 'Blind Faith' follows and the experimentation of the first disc is realised. After an initial, uncomfortable, listen of the first disc, you tend to hang on to the eight-part title track that spans most of the second disc to retain a semblance of familiarity. It's only when you decide to listen to the first disc again, with an open mind, that the music starts to click into place.

As such, disc one is an admirable attempt at creative progress. After all, if we don't move forward, we stagnate.

Vibraphonists are a breed apart. Only a few make the grade to play jazz at the very highest level. Many will immediately think of the likes of Lionel Hampton or Red Norvo but Milt "Bags" Jackson (although starting on the guitar and piano) became, arguably, a more significant vibraphonist figure in jazz. Discovered by no less a figure than Dizzy Gillespie, Jackson was certainly a popular figure, turning his hand towards blues, bop and slower, more introspective ballads with equal skill and equanimity. After appearing with Gillespie's big band, he appeared with luminaires such as Charlie Parker, Thelonious Monk, Woody Herman and Howard McGhee. It was after a stint with John Coltrane that he met Percy Heath, John Lewis and Kenny Clarke to form the revered Modern Jazz Quartet, a staple in the jazz canon.

While Jackson was with the Modern Jazz Quartet, he also made a number of solo albums. This particular one has been hard to track down as an original, even in terms of a reissue, on vinyl or CD, so it is great to see German audiophile outfit, Speakers Corner, step up and release it again.

As an album, this eleven tracker is one of the best ever from Jackson in his position as leader. Jackson is ably assisted on this recording by a young McCoy Tyner on the piano and tenor saxophonist Jimmy Heath while the drums were occupied by Connie Kay with Bob Cranshaw present on bass. The song selection is notable for its depth in quality, beginning at a high tempo with 'Sonny's Blues' that sees Jackson's jazz swing chops come fully into play, interspersed by top notch solos from both Tyner and Heath. Jazz fans should grab this release – and pronto.



MILT JACKSON

In A New Setting
Speakers Corner

Sawhney is irritatingly talented. He's a record producer, songwriter, actor, writer and scriptwriter. His Asian-inspired electronica reflects trip-hop and jazz. This law student even co-created 'Secret Asians', a radio show and then an award-winning TV series. Collaborations have included the innovative electronic veteran, Talvin Singh, James Taylor, Paul McCartney and Sting.

Now Sawhney has released a limited edition box set of this, his ninth album, a career retrospective. Released by Metropolis Recordings, this eclectic and, above all, acoustic collection includes an entire live performance of the album, at Metropolis, performed before a live audience with his nine-piece band, across five vinyl LPs. In fact, the entire show was simultaneously mastered, recorded to tape and cut live to the vinyl itself: which is a boon to audiophiles as it brings the immediacy

of the performance direct to your hi-fi. There is no processing to get in the way, no digital mastering, no lifting of bass and lowering of treble, no veiling of dynamics and no falsity. It's been some time since such a commercial release was issued by a major record label (Thelma Houston's 'I've Got the Music In Me' in 1975?) and results are rather lovely. Included here are 'Nadia', 'Letting Go', 'Homelands' and 'Tides' from the classic 'Beyond Skin' album.

The box also features a CD version of the recordings, exclusive bonus session material across a further CD and on vinyl, a 24-page booklet from artist Paul Benney and a short film on DVD about the making of OneZero, along with three full-length performances from the session.

This album offers a batch of sonic cushions to relax on and within. Quite apart from 'One Zero', this supremely analogue recording is a thumbed nose at the digital ones and zeroes.



NITIN SAWHNEY

One Zero: Past, Present, Future
Unplugged
Cherry Red



REDEFINE THE POSSIBLE

An exclusive chance to enjoy
the music experience that
everyone will want to touch.



This Autumn, Meridian is offering an exclusive trade-in programme with participating UK partners. Trade in *any* CD or network player before October 23 and upgrade to a new Meridian streaming system.

UPGRADE NOW

Visit meridian-audio.com for more details.

World wireless

NAD's new USB wireless DAC promises hassle-free high-resolution music streaming from your computer – but does it deliver the sonic goods? Jon Myles investigates.

The world of wireless audio has expanded beyond all recognition in the past few years. Bluetooth, Apple's AirPlay and improved home wi-fi networks have all brought new sophistication to the process of sending digits through the ether.

But not all of these are necessarily that easy to set-up and use – and not everyone is confident of doing so.

So it's no surprise manufacturers are coming up with new and (hopefully) easier ways of allowing you to get your precious digitally-stored music collection from a hard disk or SSD drive to the hi-fi.

To its credit, NAD came up with an elegant and hassle-free solution with its original DAC 1. It consisted of a small transmitter plugged into a host computer's USB port and a DAC/receiver box which connects to the analogue inputs of a hi-fi. Operation was simple and stable and as well as digitally stored music it allowed users to stream services

such as Spotify, Pandora, Rdio, Slacker and Last.fm.

The drawback? File sample rates were limited to 16-bit/48kHz – which in the era of high resolution digital downloads is looking more out-dated by the day.

So enter the DAC 2, bringing 24-bit/98kHz replay to the party. Thankfully, despite that crucial upgrade, operation and installation of the unit remains as simple as before. Unpack the box and you're presented with a small transmitter, the compact DAC unit, a wall-wart power supply and all the leads needed for connection.

Simply connect the transmitter to a USB socket on the host computer, power on the DAC and then hook it up to your hi-fi via an analogue or digital cable. From there the LEDs on both units will flash between red and blue before locking onto the signal. There are no drivers to install or tricky set-up routines to be run.

The only extra effort may be to make sure the right device is

selected in your computer's sound preferences panel.

During an extended review period we tried the DAC 2 with both Mac and Windows laptops and experienced no connectivity problems. Pairing between the transmitter and DAC was always quick and easy and the connection remained rock solid throughout the listening period without a single drop out.

It's also worth noting that although there is no remote control facility supplied, most Macs and PCs now have smartphone apps available to allow users to dial in that feature.

SOUND QUALITY

NAD has built a well-deserved reputation over the years for producing excellent-sounding hi-fi components at real-world prices. Those years of expertise shine through in the DAC 2's performance. Feeding it from an iTunes library on a MacBook Pro the overall impression was of a sound that is clear, detailed and lively.



Award-winning range of Digital
Sources and Amplifiers

Stunning engineering

Beautifully balanced sound

Handmade in Japan

ESOTERIC



Award-winning range of Digital
& Analogue Sources, Amplifiers,
Speakers and Cables

Retro styling on the outside and
state-of-the art technology inside

Handmade in America

McIntosh

LEGENDARY PERFORMANCE



Build a complete naim system from the
source, right through to amplification,
speakers, cables and the stands the
components sit on

Award-winning. Popular with the press,
musicians and customers alike

Handmade in Salisbury, England



Note: Naim is only available at the bournemouth showroom



World Class Audio Systems

bournemouth showroom

t. 01202 911 886

9:00-5:00 Tue - Fri / 9.30-3.00 Sat

e-mail: bournemouth@jordanacoustics.co.uk

glenrothes showroom

t. 01592 744 779

9:00-5:00 Mon - Fri / Closed Saturday

e-mail: glenrothes@jordanacoustics.co.uk

www.jordanacoustics.co.uk



Bass was well pronounced with a decent amount of weight to the lower registers.

There's also a fair amount of instrumental separation which enables different musical elements to be tracked with relative ease.

The 20th anniversary remaster of Nirvana's 'Nevermind' sounded suitably grungy – with the NAD managing to impart the requisite slam to the sound.

Its sense of timing was particularly good with a rhythmic drive that handled the transitions between soft and loud passages with ease. Most impressively the upgrade does make a real difference when comparing standard Redbook and 24/96 files when well done. Massive Attack's 'Blue Lines' is hard to fault on CD. But listen to the high-resolution remaster and it sounds better still.

Through the NAD that difference is palpable. Shara Nelson's vocals soar just a little bit more and the bass – while not deeper – is clearly better defined.

Interestingly, playing a CD of Bruce Springsteen's 'Born To Run' through an old Sony player and comparing the same ripped file streamed via the NAD showed a clear difference. The latter won out in terms of musical coherence, depth and balance.

Moving on to Saint Etienne's 'London Conversations' collection and it's apparent that compared to more expensive DACs there's a slight electronic sheen to the top end which comes across as a reduction in detail on some tracks. To be fair, though, that's hardly unheard of in other DACs of around this price.

And indeed, using the NAD's electrical digital out into Naim's own new DAC-V1 gave a giant leap in sound quality – although this is such a mismatch as to be faintly ridiculous in practice.

Interestingly, the NAD seemed to perform better with a Mac than a similar Windows machine. Valery Gergiev and the Kirov Orchestra's rendition of 'The Rite Of Spring' had admirable weight and extension through the Apple machine – but at times veered into a muddled jumble through the PC. All the ingredients were present and correct but it was as though the NAD DAC was having trouble stitching them together properly.

My guess is this was due to the Mac's inherently better sound



The transmitter unit (left) alongside NAD's DAC box – offering both RCA and coaxial output. The combination proved rock-solid in everyday use.

processing capabilities but it was a clear and present difference on a number of tracks. Putting that quibble aside, there's no doubt the NAD is a lively performer and brings a great deal of convenience for the price.

It's surprising just how convenient and enjoyable it can be to stream music straight from your computer while you are working.

CONCLUSION

In an ideal world setting up a wireless computer audio system would be as

easy as popping a silver disc into a CD player.

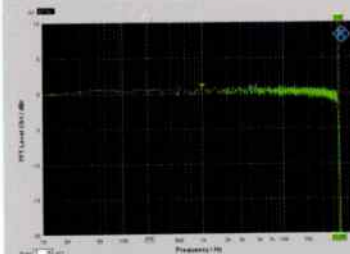
As we all know, things aren't always that simple. So congratulations to NAD for devising a simple, convenient and fuss-free way for getting high-resolution music from a computer to your hi-fi system. The DAC 2 takes just a few minutes to set-up and once running is totally stable.

You'd also be hard-pressed to find a CD player that offers the same sound quality at anywhere near this price.

MEASURED PERFORMANCE

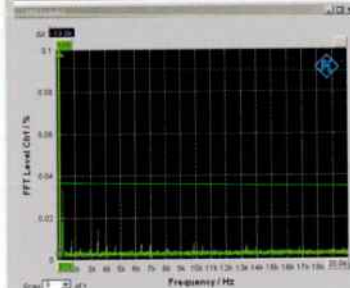
With 96kHz sample rate, frequency response was flat to 48kHz our analysis shows, so NAD's USB DAC 2 makes full use of higher sample rate with an extended analogue response. CD sample rate of 44.1kHz pulled the upper limit back down to the usual 21kHz.

FREQUENCY RESPONSE



DISTORTION

THD @ 10%	Linearity	Frequency
0.0254 %	2.3020 mV	996.99 Hz
OFF	OFF	OFF



Linearity was very good, measuring 0.0008% at maximum level (0dB) and an unexpectedly low 0.02% at -60dB with a 24bit signal. Even with 16bit from CD distortion was low at 0.18% at -60dB, so the USB DAC 2 manages well.

Noise levels were low, especially with 24bit, allowing a massive 119dB EIAJ Dynamic Range value to be attained, better than a lot of cable-connected DACs. This fell back to 99dB with 16bit but this is still comparable with CD players. Output measured a normal 2.3V.

The USB DAC 2 measured very well for a wireless device, low noise being a major advantage over Bluetooth devices. In conjunction with a good DAC this allowed the DAC 2 to produce exceptional figures under measurement. NK

Frequency response (-1dB)

CD 4Hz -48kHz

Distortion CD / 24bit
0dB 0.001 / 0.0008
-60dB 0.18 / 0.02

Separation (1kHz) 110dB
Noise (IEC A) -116dB
Dynamic range (16/24) 99/119dB
Output 2.3V

NAD WIRELESS USB DAC 2 £299



OUTSTANDING - amongst the best

VERDICT

A superb product from NAD. Makes streaming music from a home computer simple and accessible.

FOR

- simple set-up
- convenient to use
- excellent sonics

AGAINST:

- no remote control function
- nothing else at the price

Armour Home Electronics
+44 (0)1279 501111
www.nadelectronics.com

Bespoke Award Winning Turntable Upgrades



LINN . REGA . THORENS . TECHNICS AND MANY MORE

NEW ARMS, CARTRIDGES & PHONO STAGES FROM: REGA ORTOFON AUDIO ORIGAMI ORIGIN LIVE ROKSAN SME DECCALONDON HADCOCK ROTHWELL INSPIRE HI-FI X100 MK2 VANDEN HULL PROJECT AUDIO TECHNICA

TURNTABLE SERVICING & SETUP | LINN LP12 SPECIALIST . ORTOFON CENTRE OF EXCELLENCE

www.inspirehifi.co.uk 

Units 2 & 3 Prospect House Colliery Close
Staveley Chesterfield S43 3QE
T: 01246 472222 M: 07932 367555
E: robert@inspirehifi.co.uk

UPGRADE PACKAGES TAILORED
TO SUIT YOUR BUDGET

DEMONSTRATIONS AVAILABLE



SEE US IN THE IMOLA SUITE
WHITTLEBURY HALL
NATIONAL AUDIO SHOW '13'
21 - 22 SEPT



Audio
Cinema
Multi-Room
Network
Installation

Bryston
Chord Co.
Dynavector
Guru Audio
Heed
HiFi Racks
Isoblu
Lehmann
Linn
Naim
Neat
Okki Nokki
PMC
Rega
REL
Sennheiser
Wilson Benesch
Wireworld

Calveley Court, Reymerton, Norfolk, NR9 4QD

01362 820800

enquiries@basicallysound.co.uk
www.basicallysound.co.uk



Respecting The Past, Embracing The Future

**BASICALLY
SOUND**



Epiphany Acoustics

Headphone Amplifiers . DACs . Interconnects



Atratus RCA Interconnects



"Great realism... Tight and punchy bass...
Amazing value for money."

- Hi-Fi Choice

Find out what all the fuss is about at our
online shop and use discount code **MAG10**
for your exclusive 10% discount.

Prices start at under £40/pair

www.epiphany-acoustics.co.uk

"It's the music that originated from Memphis, Muscle Shoals and maybe Nashville"



Paul Rigby

One thing has always puzzled me about soul and that it, more than any other genre, tends to be defined by geographical location. Nothing is ever set in stone where music is concerned, of course, and there are always exceptions to every pronouncement upon the subject but, in broad terms, soul refers to a place. So you get Northern soul, Southern soul, Philly soul and the like. Why is that?

Rock can also be defined but it is more usually pigeon-holed by theme: hard rock, prog, metal, stoner, grunge and so on.

Jazz, on the other hand, tends to be grouped more by rhythm: bop, be-bop, modal, swing and the like.

The rock designations I can see and hear. After all, stoner rock sounds like people playing rock who, at least sound, 'stoned' out of their skull, playing bass-heavy music while walking through a mud-like reality.

Progressive rock is just that, moving beyond the traditional boundaries of rock to incorporate inventive time signatures and classical connotations.

Jazz designations I can also hear. With swing jazz, the music entices the body to move in exactly that same manner. Modal jazz is almost scientific. An advanced form that lifts jazz onto a new plane. The term sounds technical and the music has that air about it as well.

Can you hear the 'northern' in Northern soul or the 'southern' in Southern soul? Does it become even more absurd by trying to define 'Detroit' soul or 'Memphis' soul? After flailing about, trying to find an authoritative answer, I found an expert who could enlighten me. Ace Records soul professor, Dean Rudland,

'Actually, this is a question that

we ended up asking ourselves, when we put the Southern soul box set together. It's one of those things that you know exactly what it is but the definition can shift at the edges.'

So let's try and pin a definition and pick on one sub-genre. As Rudland brought it up, what is Southern Soul? "It's the music that originated from Memphis, Muscle Shoals and maybe Nashville and a couple of other places in the deep south," said Rudland. "There's a feel to Southern soul records. It's a kind of laid-back sound with more 'head' arrangements rather than scored arrangements. There's a kind of attitude to the house band, a kind of looseness."

It seems that, when searching for soul definitions, there are two principal areas of study. The first on the list is the environment. In the southern USA, you're not going to be rushing around too much in the heat of the summer while the country surroundings encourage a relaxed demeanour. "They built those places on swamps, after all," said Rudland.

"Musicians were also given time to improve. If they weren't playing behind a session, they were playing for each other. The more they played together, the better they got."

Soul is very different from, say, the Blues, which might have evolved in the south but the music tended to be exploited in the north. Practitioners moved up from the south and their poverty to search for a brighter future – not to become entertainers. Soul never really had that issue because centres of production, centres of excellence, places of attraction for music professionals, if you will, remained in the south.

It seems that the other main influence on the soul music style, apart from the general environment,

was economics.

"You set up a studio in Muscle Shoals, then you don't have the same restrictions on union play time. The nearest American Federation of Musicians office was in Birmingham, a 100 miles or so away," said Rudland.

The south tended to pay musicians by the session. Instead of by the track, that was more the way of the north, "So in New York or LA, you would have a prepared arrangement to make sure that you got your three tracks in the session," said Rudland.

"Also, the cost of studio time in New York was a lot more expensive than recording in an area where the price of land is a hundredth of the value. The associated costs in the north were far greater which meant that you created records in different ways." So, even if you were a band and didn't require the extra union musicians, you would still be restricted by studio time.

Also, in the south, there was fewer studios and a lot less competition for players so, "If you were a session player in LA, in the north, you might start in one studio at 10am, go over to another studio at 2pm and an evening session elsewhere. That meant that you wouldn't necessarily play with the same people every time."

Hence, the entire culture of soul was delineated and formed by economics and by the environment, producing different trademark personalities.

If you want to hear the difference for yourself, check out Ace Records' (acerecords.co.uk) prodigious soul catalogue including the new 'Songs By Dan Penn' from the Muscle Shoals' collective, 'Take Me To The River: A Southern Soul Story 1961-1977' and the multi-volumes of 'Northern Soul's Classic Rarities'. ●

DOUG BRADY HIFI

— SINCE 1960 —



SOUND ADVICE

TURNTABLES | LOUD SPEAKERS | AMPLIFIERS | CD PLAYERS | STREAMING DACs | HOME CINEMA | CABLES | IPHONE/PAD DOCKS | SERVICE & REPAIRS



TAILORED TO YOUR PERSONAL NEEDS & TASTE

B Over 50 years of experience

B Vast range of HiFi & Home Cinema Equipment

B Extraordinary levels of knowledge & expertise

B 2 Fabulous demonstration rooms

ARCAM | B&W | BELLES | CHORD | DENON | EPOS | EXPOSURE | FUNK FIRM | HARBETH | KUDOS | LFD
MAGNEPLANAR | MICHELL ENGINEERING | MONITOR AUDIO | MUSICAL FIDELITY | NAIM | NEAT | ORTOFON | PMC | PRIMARE
PROAC | PROJECT | REGA | RENAISSANCE | ROTHWELL | RUARK | SME | SONNETEER | UNISON RESEARCH | WILSON BENESCH

www.dougbradyhifi.com | 01925 828009 (Mon-Sat) | Kingsway Studios, Kingsway North, Warrington WA1 3NU

UK sales were limited, mostly I think, due to the cost



Tony Bolton

It is strange how one thing can lead to another. I recently came across an old radiogram from the mid 50's, which was, in its day, a high end machine, being competition to machines such as the Beau Decca. I am considering buying it, as it will be a substantial upgrade to my Ferguson that lives in the dining room and which has provided many hours of musical enjoyment playing through my old jazz 78s.

Apart from a very substantial amplifier and a multi-speaker arrangement that wouldn't look out of place in a loudspeaker cabinet some 15 years younger, this potential purchase also should be fitted with a Variable Reluctance cartridge, which at sometime has been replaced with a far inferior crystal type. This set me scratching my head, because when I was in my mid teens I purchased a Garrard 4HF that came with such a fitment. It was a mono Elac MST 2 that, for the brief time that I used it, sounded rather good. So I decided to do some investigating and the internet soon provided a few answers.

Variable Reluctance cartridges work in a not dissimilar way to Decca/London units. In this case the stylus is mounted on a very short ferrous cantilever, with pole pieces either side of the stylus. These are attached to coils mounted within the cartridge body. As the stylus moves from side to side, tracking the mono groove, the signal is generated, with the point of generation immediately above the point where the stylus is reading the groove.

The immediately obvious advantage would be the lack of signal loss through the long cantilever found on most modern cartridge designs, and the lack of a hinge mechanism which allows modern cantilevers to pivot, which is usually mounted between the stylus and the coils or magnets.

The first incarnation of this

design seems to have been in 1947 when General Electric in America introduced the RPX cartridge. It seems to have been a popular design both domestically and commercially, finding its way into the better class of radiogram (or consoles, as they are known across the Atlantic) as well as jukeboxes, where their durability came to the fore.

Following the introduction of microgroove records in 1948, the design was updated to become the RPX Triple Play. This had a button protruding through the top of the cartridge, which, when pressed and rotated, moved a stylus assembly through 180 degrees, so that either the standard or microgroove styli could be used. (The Triple Play name comes from the ability to play all three speeds of record.) This explains the large central hole fitted underneath the Garrard label on their detachable brown and cream headshells from the 50's and 60's. Garrards were popular decks on better class American equipment and the RPX / VR II cartridges seem to have been nearly a universal fitment.

Somewhere around 1953 the RPX was redesigned and became the VR II, with a tracking weight of 4g, as opposed to the RPX's 8g. At about the same time Goldring introduced the model 500 cartridge to the UK market and Elac, in Germany, produced the MST 2.

UK sales were limited, mostly I think, due to the cost. A Collaro crystal cartridge cost about £3 at this time, a Goldring was around £11 and as a comparison, Ortofon's SPU was in the region of £15. However, it was popular enough that in 1957 Goldring updated the 500 to become the muMetal bodied 580 (sapphire tipped) or the 600 (diamond tipped) and they continued to sell steadily into the early sixties. At the same time Tannoy got in on the act with

the Variluctance cartridge. All of these tracked at around 5 - 6g, with a frequency response reaching up to around 18kHz.

The design went out of favour when stereo records came onto the market. Tannoy stuck with it and created the stereo Varitwin, which got updated to Mark II specification in 1965, but disappeared soon afterwards. GE tried the stereo VR-22 that eventually became the VR-1000, which seems to have acquired something of a cult following in America.

While the reports that I have read seem to indicate that the mono versions worked very well, the stereo units were far less successful and more reliable Moving Magnet designs eventually pushed them off the market.

However, for mono LP and 78 reproduction the designs seem to have a lot going for them, and my memories of the Elac that I had, are of a very fast and dynamic sound, with quite punchy bass. A sound that would suit my jazz 78s perfectly. So I am now hunting around for reasonably priced examples of all of them. In the process I also discovered that Pickering (again in the USA) made a turnover Moving Magnet called the Fluxvalve 350.

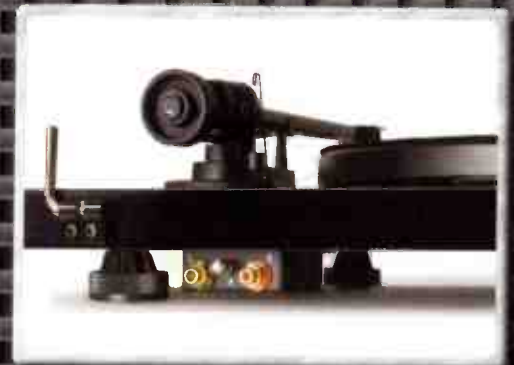
All of these are compatible with the pre-amp on the radiogram that I am looking at buying, and with output levels of 3.5mV for the Tannoy and 3mV for the Goldrings, they would actually work into most modern MM phonostages. So I am interested in experimenting with these units, to see how effective the design is on suitable period records. Styli are still available from various suppliers at under £15, so this is an affordable experiment.

I am curious to know if any readers have experience of these cartridges, or possibly examples languishing, long forgotten, in the backs of cupboards. If you have, then please contact me via Hi-Fi World. ●

The Carbon Age



Introducing the multi-award winning Debut Carbon from Pro-Ject Audio Systems. The Debut record player is an icon of the entry-level audiophile market, and this latest incarnation elevates the model to a new level of audio quality.



Debut Carbon

Brand new one-piece 8.6" Carbon Fibre tonearm - New motor isolation set-up - Upgraded 12" platter with higher mass - New mains supply method - Cable junction box - Ortofon 2m Red Pre-Fitted - Available in 7 high-gloss colours

Pro-Ject Audio Systems is distributed in the UK by
Henley Designs Ltd.
Telephone : 01235 511 166
Email : info@henleydesigns.co.uk
Web : www.henleydesigns.co.uk



"an active loudspeaker can produce great bass if the system is carefully managed"



Noel Keywood

The most intelligent thing I ever did was put my head in a box. It was a loudspeaker cabinet and I got my head into the bass driver cutout – and said "wooo". I should add it was a prototype World Audio Design KLS9 floor stander I was working on at the time, and an empty cabinet. Back came this lovely barrel-chested echo, that was full and warm in its balance – a sort of long, drawn out whoomph.

I had, with frightening simplicity, isolated the sound of a box loudspeaker. I now knew why they sound like they do and I knew that what we hear is artifice. It's a nice big warm back echo, the sound of the box, that gives weight and body to the sound.

Nearly every loudspeaker in the world is a box and we have all grown up with the sound and become used to it. All box loudspeakers carry this burden with them.

As you might suspect, long, long ago I heard a panel loudspeaker, one with no box and was left wondering about the peculiarly dry nature of the sound, lacking body or warmth. They were Braun electrostatics in fact, re-packaged Quad ESL-57s, and that was back in the '70s. I had to give them back to a friend and go back to my (cough) Goodmans Magnum Ks. Oh dear!

That's when I first heard the box in a box loudspeaker. I've been hearing 'em ever since and these days accept it. Having lived with and modified no end of panels since those mind altering Brauns I have learnt that panels have their problems too. But that isn't why I decided to write about boxes and their limitations this month. It was Quadral's Orkan loudspeakers that raised the issue.

Active loudspeakers appear to

offer a third way, and indeed some people swear by them. They are most definitely a box loudspeaker, but in theory at least, clever electronic trickery can overcome so many limitations of box loudspeakers that on paper they seem to have it all.

Which is why I started this column with my head in a box: this is the one thing active loudspeakers cannot cure, the fatal flaw that lies in wait for unsuspecting and naively over eager design engineers. It was the first issue I had to resolve with the Orkan and I found that Quadral engineers did understand the problem, had anticipated it and done their best to ensure the Orkan wouldn't trip itself up. Most listeners will love the bass of this loudspeaker, but first let me explain why active loudspeakers should have such good bass, but often don't.

Putting a power amplifier into a loudspeaker to drive it solves a myriad of difficulties. Each drive unit can have its own amplifier, so the amp is tightly coupled to the driver. The splitting of frequency bands is done electronically before the amplifiers where it is easier to get precise results without the limitations suffered within the coil and capacitor crossovers of conventional loudspeakers. Hulking great loudspeaker leads between amplifier and loudspeaker are eliminated and those on-board amplifiers can ensure the loudspeaker measures perfectly.

And that's the problem. Using electronics to force drive units in a box to do what they really do not want to do kicks the life out of them and causes the system to protest! There are two interconnected issues.

The on-board amplifiers are commonly equalised to extend bass downward, typically from 40Hz down to 20Hz or even lower. That places a massive extra load on the drive units;

their cones move big distances and flap around wildly. They get hot. They distort badly and so does any port, the whole system complains, our measurements show. One trouble here is that few manufacturers measure distortion, so they don't realise what is happening. It might seem like a great idea to equalise a loudspeaker so it produces ultra low bass able to shake a building; but it destroys bass quality.

The bigger issue though relates to that lovely big whoomph I heard from our KLS9 cabinet when I made a noise into it. Forcing more bass from the drive units sends more bass energy backward into the box from the rear of the cone. The box can't absorb this extra energy so it comes back out again through the bass cone, time delayed. The loudspeaker suffers what is termed bass overhang. Bass overhang is a big enough issue in a standard passive loudspeaker, our decay measurements show, but once it is given even more bass – subsonic bass – to lose, things get out of hand. The booming, wallowing bass this produces never ends.

An active loudspeaker can produce great bass but only if the system is carefully managed. Measurement showed us the Orkan does not overhang because it has been carefully equalised, rather than forced. A key feature here is a high pass filter in the electronic equalisation network to eliminate subsonic signals below 20Hz. Also a realisation that subsonic bass to most of us means plenty of oomph around 30Hz, which a loudspeaker can reproduce and a room can support.

Active loudspeakers are fascinating; they sound more balanced and concise than passives, but only if engineered well like the Orkan. Otherwise the box comes back to bite. ●



WORLD CLASSICS

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

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

DIGITAL

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

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

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

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



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



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

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



MUSICAL FIDELITY

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

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



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

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



SONY CDP-701ES 1984 £890
Sony's first ever bespoke high end audiophile machine used a 16x2 DAC to provide a clinically incisive sound; supreme build quality allied to the pure undiluted luxury of a paperbook-sized remote control.

TECHNICS SL-PI200 1987 £800
CD version of the Technics SL-1200 turntable. Massively built to withstand the rigours of 'pro' use and laden with facilities - a great eighties icon. Sonically, it's pure fun, with hefty bass that can still show weedy modern players a thing or two!

YAMAHA CD-X1 1983 £340
Nicely built 16x2 machine with a very sharp and detailed sound; sometimes too much so. Excellent ergonomics, unlike almost every other rival of the time.

COMPACT DISC TRANSPORTS

TEAC VRDS-T1 1994 £600
Warm and expansive sound made this a mid price hit. Well built, with a slick mech.



ESOTERIC P0 1997 £8,000
The best CD drive bar none; TEAC's Tokyo boys pushed the boat out in style. Brilliantly incisive, ridiculously over engineered.

KENWOOD 9010 1986 £600
The first discrete Jap transport was beautifully done and responds well to re-clocking even today.

DACS

CAMBRIDGE AUDIO DACMAGIC 1995 £99
Good value upgrade for budget CD players with extensive facilities and detailed sonics.



DCS ELGAR 1997 £8500
Extremely open and natural performer, albeit extremely pricey - superb.



DPA LITTLE BIT 3 1996 £299
Rich, clean, rhythmic and punchy sound transforms budget CD players.



PINK TRIANGLE DACAPO 1993 £ N/A
Exquisite; the warmest and most lyrical 16bit digital audio we have ever heard. Clever plug-in digital filter modules really worked!



QED DIGIT 1991 £90
Budget bitstream performer with tweaks aplenty. Positron PSU upgrade makes it smooth, but now past it.

TURNTABLES
ARISTON RDIIS 1972 £94
Modern evolution of Thorens' original belt drive paradigm, Scotland's original superdeck was warm and musical, albeit soft. Still capable of fine results today.

ADC ACCUTRAC 4000 1976 £300
Bonkers 1970s direct drive that uses an infra red beam to allow track selection and programming. More of a visual and operational delight than a sonic stunner.

PIONEER PL12D 1973 £36
The beginning of the end for the British turntable industry. When vinyl was the leading source, this bought new standards of noise performance and stability to the class, plus a low friction S-shaped tonearm. Later PL112D was off the pace compared to rivals



PIONEER PLC-590 1976 £600
Sturdy and competent motor unit that performs well with a wide range of tonearms. Check very thoroughly before buying due to electronic complexity and use of some now-obsolete ICs.

LINN SONDEK LP12 1973 £86
For many, the Brit superdeck; constant mods meant that early ones sound warmer and more lyrical than modern versions. Recent 'SE' mods have brought it into the 21st century, albeit at a price



DUAL CS505 1982 £75
Simple high quality engineering and a respectable low mass tonearm made for a brilliant budget buy. Polished, smooth and slightly bland sound.

GOLDRING LENCO GL75 1970 £15.65
Simple, well engineered motor unit with soft, sweet sound and reasonable tonearm. Good spares and servicing support even today from specialists. Eminently tweakable. Similar 88 and 99 motor units are budget 301/TD124 rivals.

LINN AXIS 1987 £253
Simplified cut-price version of the Sondek complete with LVX arm. Elegant and decently performing mid-price package. Later version with Akito tonearm better.

MARANTZ TT1000 1978 £ N/A
Beautiful seventies high end belt drive with sweet and clean sound. Rare in Europe, but big in Japan.



MICHELL GYRODEC 1981 £599
Thanks to its stunning visuals, this bold design wasn't accorded the respect it deserved until recently. Early examples sound cold and mechanical, but now right on the pace. Clean, solid and architectural sound.

TECHNICS SP10 1973 £400
Seminal Japanese engineering. Sonics depend on plinths, but a well mounted SP10/II will give any modern a hard time, especially in respect of bass power and midband accuracy.

REGA PLANAR 3 1978 £79
Brilliantly simple but clean and musical performer, complete with Acos-derived S-shaped tonearm. 1983 saw the arrival of the RB300, which added detail at the expense of warmth. Superb budget buy.

GARRARD 301/401 1953 £19
Heavy metal - tremendously strong and articulate with only a veiled treble to let it down. In many respects, better than the seventies 'superdecks' that succeeded it.



ROKSAN XERXES 1984 £550
Supposedly the first to 'better' the LP12. Super tight and clean sound, with excellent transients. Less musical than the Sondek, but more neutral. Sagging plinth top-plates make them a dubious used buy.

SONY PS-B80 1978 £800
First outing for Sony's impressive 'Biotracer' electronic tonearm. Built like a tank with a clean and tidy sound, albeit lacking involvement. Scarily complicated and with no spares support - buy with caution!

THORENS TD124 1959 £ N/A
The template for virtually every 1970s 'superdeck', this iconic design was the only real competition for Garrard's 301. It was sweeter and more lyrical, yet lighter and less impactful in the bass.



TOWNSHEND ROCK 1979 £ N/A
The product of academic research by the Cranfield Institute, this novel machine has an extremely clean and fluid sound. Substantially modified through the years, and capable of superb results even today.

TRIO LO-7D 1978 £600
The best 'all-in-one' turntable package ever made, Trio/Kenwood threw their 'engineering best practice' book at this one with startling results. Clean, powerful and three-dimensional sound, ultimately limited by the tonearm.

TONEARMS
ACOS LUSTRE GST-1 1975 £46
The archetypal S-shaped seventies arm; good, propulsive and involving sound in its day, but ragged and undynamic now.

AUDIO TECHNICA AT 1120 1978 £75
Fine finish can't compensate for this ultra low mass arm's limited sonics - a good starter arm if you've only got a few quid to spend.

ALPHASON HRI005 1981 £150
First class arm, practically up to present-day standards. Buy carefully, though, as there is no service available now. Totally under priced when new, exceptional.



SME 3009 1959 £18
Once state of the art, but long since bettered. Musical enough, but weak at frequency extremes and veiled in the midband. Legendary serviceability and stunning build has made it a cult, used prices unjustifiably high.

GRACE G707 1974 £58
This early Japanese example of the tonearm art has a smooth, lyrical sound. Imported by Linn, fitted to early LP12s. Sonically way off the pace now, though.

REGA RB300 1983 £88
Inspired budget esoterica. Detailed, tight, neutral sound but tonally grey sounding in absolute terms. Responds well to tweaking, and its cheaper RB250 brother better still.



SME SERIES III 1979 £113
Clever variable mass design complete with Titanium Nitride tube tried to be all things to all men, and failed. Charming nonetheless, with a warm and inoffensive sound.

LINN ITTOK LVII 1978 £253
Arguably the first 'superarm'; Japanese design to Linn specs made for a muscular, rhythmic sound with real dynamics. Now off the pace,

but the final LVIII version worth seeking out.
HADCOCK GH228 1976 £46
 Evergreen unipivot with lovely sweet, fluid sound. Excellent service backup.



NAIM ARO 1986 £875
 Truly endearing and charismatic performer - wonderfully engaging mid-band makes up for softened frequency extremes.



TECHNICS EPA-501 1979 £ N/A
 Popular partner for late seventies Technics motor units. Nice build and Titanium Nitride tube can't compensate for middling sound.

INTEGRATED AMPLIFIERS/COMBOS

DELTEC 1987 £1900
 Fast, dry and with excellent transients, this first DPA integrated is the real deal for eighties obsessives. Ridiculously punchy 80W per channel from a tiny, half-size box. Radical, cool and more than a little strange.

ROGERS A75 1978 £220
 The prototypical Audiolab 8000a - lots of sensible facilities, a goodly power output and nice sound in one box. The later A75II and A100 versions offered improved sonics and were seriously sweet and open to listen to.

EXPOSURE VII/VIII 1985 £625
 Seminal mid-eighties Exposure pre-power, offering most of what rival Naim amps did with just that little bit extra smoothness and sweetness. Still, it's by no means 'sweet' by today's standards, being lean, punchy, musical. It's also possessed of that quintessentially eighties look - frumpy black steel boxes with rough silk screened logos!



SUGDEN C51/P51 1976 £130
 Soft sounding early Sugden combo with a plethora of facilities and filters, complete with seventies-tastic DIN socketry. A sweet and endearing performer as you'd expect, but lacking in power and poor load driving ability, so partner carefully.

VTL MINIMAL/50W MONOBLOCK 1985 £1,300
 Vacuum Tube Logic was one of the Europe's biggest tube names in the eighties, and it shows. Rugged, professional build and finish allied to a lively and punchy sound (albeit with limited power) make them an excellent used buy.

A&R A60 1977 £115
 Sweet and musical feature-packed integrated; the Audiolab 8000A used its blueprint to great effect.



CREEK CAS4040 1983 £150
 More musical than any budget amp before it; CAS4140 loses tone controls, gains grip.

AUDIOLAB 8000A 1985 £495
 Smooth integrated with clean MM/MC phono stage and huge feature count. Extremely reliable, too. Post '93 versions a top used buy.



MCINTOSH MA6800 1995 £3735
 Effortlessly sweet, strong and powerful with seminal styling to match.

SUGDEN A21 1969 £ N/A
 Class A transistor integrated with an eminently likeable smoothness and musicality. Limited inputs via DIN sockets.

MISSION CYRUS 2 1984 £299
 Classic eighties minimalism combines arresting styling with clean, open, lively sound. Further upgradeable with PSX power supply.



MUSICAL FIDELITY A1 1985 £350
 Beguiling Class A integrated with exquisite styling. Questionable reliability.



NAIM NAIT 1984 £350
 Superb rhythms and dynamics make it truly musical, but tonally monochromatic. Fine phono stage, very low power.

CHAPMAN 305 1960 £40
 Smooth pre/power combo with a sweet and open sound. Not quite up to Leak/Quad standards but considerably cheaper secondhand.

NAD 3020 1979 £69
 Brilliantly smooth, sweet and punchy at the price and even has a better phono stage than you'd expect. The archetypal budget super-amp.



MYST TMA3 1983 £300
 Madcap eighties minimalism, but a strong and tight performer all the same.

ROGERS CADET III 1965 £34
 Sweet sounding valve integrated, uses ECL86 output valves, even has a half useable phono stage, sweet, warm a good introduction to valves



ROTEL RA-820BX 1983 £139
 Lively and clean budget integrated that arguably started the move to minimalism.

PREAMPLIFIERS

AUDIOLAB 8000C 1991 £499
 Tonally grey but fine phono input and great facilities make it an excellent general purpose tool.

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

AUDIO RESEARCH SP-8 1982 £1,400
 Beautifully designed and built high end tube preamplifier with deliciously sweet and smooth sound. Not the last word in incision or grip, but that didn't matter to those who aspired to it.

CONRAD JOHNSON MOTIV MC-8 1986 £2,500
 Minimalist FET-based preamplifier from the Yank valve specialists is brilliantly neutral and smooth with a spry, light balance in the mould of Sugden high end stuff. Something of a curio, but worthwhile nonetheless.

LEAK POINT ONE STEREO 1958 £ N/A
 Good for their time, but way off the pace these days. Use of EF86 pentode valve for high gain rules out ultra performance. Not the highest-fi!

LINN LK-1 1986 £499
 A brave attempt by the Glasgow boys to bring remote controlled user-friendliness to hair-shirt audiophile hi-fi. Didn't quite work, but not half bad for under £100.

QUAD 22 1958 £25
 The partner to the much vaunted Quad II monoblocks - cloudy and vague sound means it's for anacrophiles only.

QUAD 33 1968 £43
 Better than the 22, but Quad's first tranny pre isn't outstanding. Responds well to tweaking/ rebuilding though...

LECSON AC-1 1973 £ N/A

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

**NAIM NAC32.5 1978 £ N/A**

The Salisbury company came of age with this, their classic high end pre. Brilliantly fast and incisive sound that's a joy with vinyl but a tad forward for digital.

POWER AMPLIFIERS**HH ELECTRONICS TPA-50D AMPLIFIERS 1973 £110**

Simple design with easily available components, solid build quality and fine sound make for a surprisingly overlooked bargain. Not exactly stylish, however.

LEAK STEREO 20 1958 £31

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

**LEAK STEREO 60 1958 £N/A**

Leak's biggest valve power amp offers 35 Watts per channel and more low end welly than the smaller Stereo 20. Despite concerns over reliability their rarity means high prices are the order of the day.

LECSON API 1973 £ N/A

Madcap cylindrical styling alluded to its 'tower of power' pretensions, but it wasn't. Poor build, but decently clean sounding when working.

LEAK POINT ONE, TL10, TL12.1, TL/12 PLUS 1949 £28

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

**MARANTZ MODEL 9 1997 £8000**

Authentic reproduction monoblocks still more than cut the sonic mustard. Highly expensive and highly sought after.

MICHELL ALECTO 1997 £1989

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

MUSICAL FIDELITY XA200 1996 £1000PR

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

**QUAD II 1952 £22**

The all-time classic valve amplifier, with a deliciously fluid and lyrical voice. In other respects though, it sounds hopelessly dated. Low power and hard to partner properly

**QUAD 405 1978 £115**

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

QUAD 303 1968 £55

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

RADFORD STA25 RENAISSANCE 1986 £977

At the time, very possibly the least cool amplifier on the planet – and we're not talking heat dissipation here. This reworking of Radford's original late sixties design was possessed of a wonderfully rich, old school valve sound with enough power (25W) and lots of subtlety.

**KRELL KMA100 II 1987 £5,750**

Ludicrous monoblock version of the giant KSA-100 is one of the seminal eighties transistor power amplifiers. Massive wallop allied to a very clean and open Class A sound makes this one of the best amplifiers of its type, ever.

PIONEER M-73 1988 £1,200

Monster stomp from this seminal Japanese power amplifier, complete with switchable Class A and Class B operation. Clean, open and assured sounding, albeit a tad behind the pace on high speed dance music. Rosewood side cheeks and black brushed aluminium completes the eighties-tastic experience.

**PHONO STAGES****CREEK OBH-8 SE 1996 £180**

Punchy, rhythmic character with oodles of detail makes this a great budget audiophile classic. Partner with a Goldring G1042 for an unbeatable budget combination.

**LINN LINNK 1984 £149**

Naim-designed MC phono stage built to partner the original Naim NAIT - yes, really! Fine sound, although off the pace these days.

MICHELL ISO 1988 £ N/A

This Tom Evans-designed black box started the trend for high performance offboard phono stages. Charismatic, musical and punchy - if lacking in finesse.

TUNERS**MARANTZ ST-8 1978 £353**

Marantz's finest radio moment. Warm, organic sound plus an oscilloscope for checking the signal strength and multipath.

**CREEK CAS3140 1985 £199**

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

NAD 4040 1979 £79

Tremendously smooth and natural sound allied to low prices and good availability make this budget analogue esoterica. Needs a good antenna to work properly, however.

NAIM NAT03 1993 £595

The warm, atmospheric sound is further proof of Naim's proficiency with tuners.

PIONEER TX-9500 1976 £295

Another of the serious classic solid-staters. Boasts the usual high end Jap package of fine sound, brilliant sensitivity and superb build.

YAMAHA CT7000 1977 £444

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

NAD 4140 1995 £199

Brilliant affordable digital tuner has a smooth, detailed musical sound plus sensible real-world facilities.

LEAK TROUGHLINE 1956 £25

Series I an interesting ornament but limited to 88-100MHz only. II and III are arguably the best-sounding tuners ever. Adaptation for stereo easy via phono multiplex socket. Fed to a modern outboard decoder they're deliciously lucid with true dimensionality.



QUAD FM4 1983 £240

Supreme ergonomics and styling allied to a pleasingly lyrical sound with plenty of sweetness and detail made this one of the best tuners around upon its launch.



REVOX B760 1975 £520

More of a semi-pro machine than a domestic bit of kit, the Revox offers superlative measured performance although the sound isn't quite as staggering as the numbers. Fine nonetheless, and surely the most durable tuner here?

ROGERS T75 1977 £125

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

SANSUI TU-9900 1976 £300

A flagship Japanese tuner designed to steal sales from the likes of Accuphase and Revox, it boasts superlative RF performance and an extremely smooth and lucid sound, along with very fine build and finish.

SONY ST-5950 1977 £222

One of the first Dolby FM-equipped tuners, a format that came to nought. Still, it was Sony's most expensive tuner to date, and boasted a very good sound quality allied to brilliant ergonomics.

SEQUERRA MODEL I 1973 £1300

Possibly the ultimate FM tuner. Massive in terms of technology, size and features dedicated to extracting every ounce of performance from radio, including impressive multi-purpose oscilloscope display.



TECHNICS ST-8080 1976 £180

National Panasonic's specialist hi-fi brand was a big hitter back then, and this is no exception. Superb FM stage makes for a very clean and smooth listen with lots of detail and depth.



ANALOGUE RECORDERS

YAMAHA TC-800GL 1977 £179

Early classic with ski-slope styling courtesy of Mario Bellini. Middling sonics by modern standards, but cool nonetheless!



AIWA XD-009 1989 £600

Aiwa's Nak beater didn't, but it wasn't half bad nonetheless. Massive spec even included a 16x4 DAC!

NAKAMICHI CR-7E 1987 £800

The very best sounding Nakamichi ever – but lacks the visual drama of a Dragon.



PIONEER CTF-950 1978 £400

Not up to modern standards sonically, but a great symbol of the cassette deck art nonetheless.

REVOX A77 1968 £145

The first domestic open reel that the pros used at home. Superbly made, but sonically off the pace these days. B77 better, but couldn't match the Japanese.



SONY WM-D6C 1985 £290

Single capstan transport on a par with a Swiss watch, single rec/replay head better than most Naks. Result: sublime.



SONY TC-377 1972 £N/A

A competitor to the Akai 4000D open reel machine, the Sony offered better sound quality and is still no slouch by modern standards

DIGITAL RECORDERS

PIONEER PDR-555RW 1999 £480

For a moment, this was the CD recorder to have. Clean and detailed.

SONY MDS-JE555ES 2000 £900

The best sounding MD deck ever, thanks to awesome build and heroic ATRAC-DSP Type R coding.



MARANTZ DR-17 1999 £1100

Probably the best sounding CD recorder made; built like a brick outhouse with a true audiophile sound and HDCD compatibility.



KENWOOD DM-9090 1997 £500

Serious and sophisticated sound thanks to well implemented ATRAC 4.5; surprisingly musical MD recorder.

SONY TCD-8 DATMAN 1996 £599

Super clean sound makes this an amazing portable, but fragile.

LOUDSPEAKERS

ACOUSTIC RESEARCH

ARI8S 1978 £125

Yank designed, British built loudspeaker became a budget staple for many rock fans, thanks to the great speed from the paper drivers, although finesse was most definitely not their forte...

BBC LS3/5A 1972 £88

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

LOWTHER PM6A 1957 £18 EACH

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

HH ELECTRONICS TPA-50D AMPLIFIERS 1973 £110

Simple design with easily available components, solid build quality and fine sound make for a surprisingly overlooked bargain. Not exactly stylish, however.

JR 149 1977 £120

Infamous cylindrical speaker that was ignored for decades but now back in fashion! Based on classic KEF T27 / B110 combo as seen in the BBC LS3/5a. Doesn't play loud, needs a powerful transistor amplifier, but rewards with fine clarity and imaging.



TANNOY WESTMINSTER 1985 £4500
 Folded horn monsters which certainly sound good if you have the space. Not the last word in tautness but can drive large rooms and image like few others.

SPENDOR BCI 1976 £240
 Celestion HF1300 tweeter meets bespoke Spendor Bextrene mid-bass unit – and the result is a beautifully warm yet well focussed sound. A little bass bloom necessitates careful low-stand mounting, but these prove that the seventies did have some fine designs after all!

QUAD ESL57 1956 £45 EACH
 Wonderfully open and neutral sound puts box loudspeakers to shame. Properly serviced they give superb midband performance, although frequency extremes less impressive. Ideally, use in stacked pairs or with subwoofers and supertweeters.



MAGNEPLANAR SMGA 198X £800
 Technological loudspeaker with genuinely musical abilities; fast, smooth, open, dry.

KEF R105 1977 £785
 Three way Bextrene-based floorstander (complete with castors!) gave a truly wideband listen and massive (500WV) power handling. A very neutral, spacious and polite sounding design, but rhythmically well off the pace. The quintessential nineteen seventies loudspeaker.

IMF TLS80 1976 £550
 Warm and powerful nineteen seventies behemoth with transmission loading and a mixture of KEF and Celestion drive units. Impressively physical wideband sound but rhythms aren't its forte.

MISSION 770 1980 £375
 Back in its day, it was an innovative product and one of the first of the polypropylene designs. Warm, smooth, clean and powerful sound.

LEAK SANDWICH 1961 £39 EACH
 Warm sounding infinite baffle that, with a reasonably powerful amplifier can sound quite satisfying.

HEYBROOK HBI 1982 £130
 Peter Comeau-designed standmounters with an amazingly lyrical yet decently refined sound. Good enough to partner with very high end ancillaries, yet great with budget kit too. A classic

QUAD ESL63 1980 £1200
 An update of the ESL57, with stiffer cabinets. Until the 989, the best of the Quad electrostatics.

CELESTION SL6 1984 £350
 Smallish two way design complete with aluminium dome tweeter and plastic mid-bass unit set the blueprint for nineteen eighties loudspeakers. Very open and clean sounding, albeit course at high frequencies and limp in the bass. Speakers would never be the same again...

MISSION 752 1995 £495
 Cracking Henry Azima-designed floorstanders combined HDA drive units and metal dome tweeters with surprisingly warm results. Benign load characteristics makes them great for valves.

YAMAHA NSI000 1977 £532
 High tech Beryllium midband and tweeter domes and brutish 12" woofers in massive sealed mirror image cabs equals stunning transients, speed and wallop allied to superb transparency and ultra low distortion. Partner carefully!



MISSION X-SPACE 1999 £499
 The first mass production sub and sat system using NXT panels is a sure-fire future classic - not flawless, but a tantalisingly unboxy sound nevertheless!

CLASSIC CONTACTS

When a classic goes 'poof' your troubles have just started, but there may be a good ending. Replacing failing parts can improve the sound, so here is a short listing of all these companies who specialise in getting a classic up and running again after its deposited a small ring of soot on your ceiling!

GT AUDIO
 (Graham Tricker, Bucks)
 Leak Troughline specialists. Also Quad and most classic tuners, radios and amplifiers restored, repaired.
 Tel: 01895 833099
 Mob: 07960 962579
 www.gtaudio.com

TECHNICAL AND GENERAL
 (East Sussex)
 Turntable parts - wide range of spares and accessories, plus arms and cartridges.
 Tel: 01892 654534

CARTRIDGE MAN
 (Len Gregory, London)
 Specialist cartridge re-tipping service and repairs. High quality special cartridges.
 Tel: 020 8688 6565
 Email: thecartridgeman@talktalk.net
 www.thecartridgeman.com

QUAD ELECTROACOUSTICS
 (Cambs) Quad's service department, able to repair almost all Quad products, from the very first. (Also Audiolab, Mission & Wharfedale).
 Tel: 0845 458001 | www.quad-hifi.co.uk

Dr MARTIN BASTIN
 (Shropshire) Garrard 301/401 restoration, renovation and service. Special plinths; rumble cures, etc.
 Tel: 01584 823446

ARKLESS ELECTRONICS
 (Northumberland)
 Specialist in repairs, restoration and modifications to all amplifiers, valve or solid state, ancient and modern.
 Tel.: 01670 530674
 Email: info@arklesselectronics.com
 www.arklesselectronics.com

CLASSIQUE SOUNDS
 (Paul Greenfield, Leicester)
 ESL-57s restored, rebuilt, fully renovated or improved. Leak, Quad valves amps etc.
 Tel: 0845 123 5137/
 Mob: 0116 2835821
 Email: classique_sounds@yahoo.co.uk
 www.flashbacksales.co.uk/classique

WEMBLEY LOUDSPEAKER
 (Paul MacCallam, London)
 Comprehensive loudspeaker servicing.
 Tel: 020 8 743 4567
 Email: paul@wembleyloudspeaker.co.uk
 www.wembleyloudspeaker.com

CLASSIC NAKAMICHI
 (Paul Wilkins, Worthing, West Sussex).
 Restore, Repair & Service Nakamichi Cassette Decks.
 Tel: 01903 695695
 Email: paul@bowersandwilkins.co.uk
 www.bowersandwilkins.co.uk

ONE THING
 (Coventry) Specialist in electrostatic panel manufacture and repair. Can refurbish ESL 57s and 63s as well as Leak Troughlines and Quad IIs.
 Email: one.thing@ntlworld.com
 www.onethingaudio.com

LORICRAFT AUDIO
 (Terry O'Sullivan, Bucks)
 Garrard 301/401 and their own 501 repair, spares and service.:
 Tel: 01488 72267
 www.garrard501.com

EXPERT STYLUS COMPANY
 (Wyndham Hodgson, Surrey) Stylus replacement service for all types of cartridge. Including precise profiling for 78s. Tel: 01372 276604
 Email: w.hodgson@btclick.com

OCTAVE AUDIO WOODWORKING
 (Bristol) Unit 2, 16 Midland Street, St Phillips. Bristol. Tel: 0117 925 6015
 www.octave-aw.co.uk

REVOX
 (Brian Reeves, Cheshire)
 Revox tape recorder spares, service and repair. Accessories also available.
 Tel: 0161 499 2349
 Email: brian@revoxservice.co.uk
 www.revox.freeuk.com

SOWTER TRANSFORMERS
 (Brian Sowter, Ipswich)
 Large range of audio transformers for valve amps, cartridges, line drive, interstage plus all associated services.
 Tel: 01473 252794
 www.sowter.co.uk

LOCKWOOD AUDIO
 (London)
 Tannoy loudspeaker parts, restoration and repair. Also Epos and TDL loudspeakers.
 Tel: 020 8 864 8008
 www.lockwoodaudio.co.uk

ATV AUDIO
 (Henry Dulat, Surrey)
 Repairs, restorations and upgrades to valve and transistor amps and all analogue audio including Revox.
 Tel: 01372.456921 Mobile: 07730 134973

"The Truth, nothing more,
nothing less..."



"This level of performance,
convenience and style makes for
an award winning product."

Jeff Dorgay, Tone Audio Magazine, January 2013



"Oozes quality in both
construction and sound"

Paul Rigby, Hi Fi World, March 2013



Ingenium offers the same obsessive design philosophy of our more expensive designs, a ground-up construction engineered for pure audiophile performance.

The unique skeletal design offers unparalleled versatility with a huge choice of single or double arm options. Our prized sapphire bearing and platter system has been retained from the DIVA II, as has the option of using our unique clamping system, which efficiently channels unwanted vibrations away from both the record and platter.

Call today to arrange your private audition.

Analogue Seduction, 6 Manor View, Whittlesey,
Peterborough Tel: 01733 350 878

Fanthorpes, Hepworth Arcade, Silver St, Hull, East
Riding of Yorkshire HU1 1JU Tel: 01482 223096

O'Brien Hi-fi, 60 Durham Road, West Wimbledon,
London Tel: 020 8946 1528

Progressive Audio, 2 Maryland Court, Rainham, Kent,
Tel: 01634 389004

www.avidhifi.co.uk

AVID HIFI LIMITED, Bicton Industrial Park, Kimbolton, Huntingdon, Cambs. PE28 0LW
Tel: +44(0)1480 869 900 Fax: +44(0)1480 869 909 E-mail info@avidhifi.co.uk

WorldRadioHistory

NuForce Cube

Neat and positively entrancing – that's NuForce's little Cube portable speaker, says Jon Myles.

They say small is beautiful. Unfortunately, in the world of loudspeakers that maxim isn't true. Just ask anyone who has tried listening to music through their home computer's tiny 'speakers.

This is where NuForce's Cube comes into the equation. Measuring a mere 58.5mm x 58.5mm x 60 mm, NuForce have managed to pack a portable speaker, headphone amp and USB DAC into the one enclosure.

The Cube comes bundled with a 3.5mm to 3.5mm cable and USB to micro-USB cable all sealed in clear plastic packaging that suggests Apple influence.

And build quality is very much up there with Apple. The Cube is built from part aluminium, part plastic body and has a matching mesh speaker grille. There's also four colour options on offer to ensure it matches your desk/kitchen/pocket.

A built-in rechargeable battery offers a claimed eight-hours of life – which, in practice, was actually exceeded in our listening tests.

SOUND QUALITY

NuForce's range of amplifiers has a reputation for being clean, clear and rather marvellous to listen to. So, it's no surprise that the Cube displays some of the same traits.

OK, it's small – and it is not going to pin you against the wall with its output.

But it punches rather more than its diminutive size would suggest. It's major highlight is a rather lovely mid-band and treble for the size. Air's 'Kelly Watch The Stars' had an enticing quality which was truly infectious – so much so that the whole album quickly flew by.

You are not going to get much bass from a speaker of this size but NuForce have judged the tonal balance exceptionally well. Which was revealed by a rendition of New Order's 'Blue Monday' – where, to my surprise, new subtle shadings to the background instruments came to the fore. There was no low-end to speak of, but a rather nice sense of detail.

The Cube also has a rather good sense of timing – which was revealed by a blast of Led Zeppelin's 'Trampled Underfoot'. Foot-tamping, smile-inducing joy even while working away at the computer.

What it also has going for it is an enclosure that seems fairly resonant-free. Push the volume up a bit and there's no sense of rattle or shake around the driver. That, in itself, is a credit to the quality of build.

Switching to the Cube's headphone output and things remain

impressive. Comparisons between tracks via the Cube's headphone output and direct from a MacBook Pro showed a clear and very definite preference for the NuForce.

Through a pair of B&W P5 headphones bass performance was certainly improved via the NuForce. It also gave a much more finely etched mid-band.

Not a night and day difference but one that is worth bearing in mind.

Perhaps more importantly, with the NuForce Cube fully charged and tethered to an iPhone in the garden it provided a good few hours listening. Not ear-blasting, but certainly not unpleasant.

If there is one criticism it's the fact that the Cube doesn't offer any Bluetooth connectivity. So it's a purely wired device – and that may or may not be a dealer-breaker for you.

However, if that isn't a factor then it's well worth a listen.

CONCLUSION

It's small, it's cute and it delivers a rather lovable performance for the price. If you want a portable speaker – or if you just want to get better sound from your home computer or laptop – then the NuForce Cube hits the mark.



NUFORCE CUBE £80



OUTSTANDING - amongst the best

VERDICT

Beautiful form-factor allied to a rather beguiling sound. There's little to dislike about the NuForce Cube. Just plug it in and enjoy.

FOR

- great sound
- good battery life

AGAINST

- little bass

Robytone BV
The Netherlands
+31 (0)493 744020
www.robystone.com

vinyl section

contents

NOVEMBER 2013

www.hi-fiworld.co.uk

PROJECT ESSENTIAL II TURNTABLE 86
Tony Bolton reviews a great new budget turntable from Pro-Ject

LEEMA ELEMENTS ULTRA PHONOSTAGE 91
Leema's new budget phono stage intrigues Tony Bolton

SOUNDBITES 95
ACC-SEE 7" clear PVC record sleeves/Analogue Studio inner record sleeves/Glorious Record Box vinyl LP storage

news



AVANT!

Three LPs of a leftfield nature. US-based ROM's 'Foot Signal' offers a variety of electronic pieces of different tempos and moods. Sounds like they dumped a decade's worth of ideas onto one vinyl slab.

'The Falling Rocket of Stephen Mathieu' (Dekorder; www.dekorder.com) by the man himself slowly explores time and space within a voluminous, ambient, soundscape bubble.

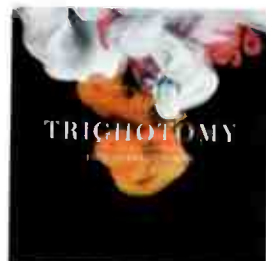
Okkyung Lee's 'Ghil' (Editions Mego; www.editionsmego.com) features a horror story: a screaming cello that sounds like it's being ripped to pieces. Organic industrial music that is deconstructed to the atomic level.

VIV'S BACK

Ex-guitarist of female punk outfit, The Slits, Viv Albertine's new album, 'The Vermilion Border' (Cadiz; www.vivalbertine.com) combines biting wit with ethereal guitar melodies over this double album slotted into a presentable gatefold. Albertine retains her seditious, quietly frustrated, tone. Recalling the punk ethos through a steely whisper.



GET THE BLESSING



MOV JAZZ AND MORE

You need to grab the new Blue Note Trip Jazzanova (Music On Vinyl; www.musiconvinyl.com) compilation pairing 'Lookin' Back', featuring the likes of Donald Byrd, Art Blakey and Herbie Hancock with 'Movin On' including Curtis Fuller, Charlie Rouse and Tina Brooks.

Also look out for the magnificent Miles Davis Quintet collection 'Live In Europe 1969: The Bootleg Series Vol.2' including three complete performances over four LPs plus a foldout poster, new liners and rare photos. Band members include Wayne Shorter, Chick Corea, Dave Holland and Jack DeJohnette.

Other LPs include Gary Moore's overlooked, multi-style debut 'Grinding Stone' (1973); Fleetwood Mac's disappointing retrograde second album, 'Mr Wonderful' (1968); Otis Redding's brilliant, posthumous, 'At the Whiskey A Go Go' (1968) showing the power of his live work; ex-Creed project, Alter Bridge's 'Blackbird' (2007), a heavier and more mature sound; Randy Newman's 'Little Criminals' (1977) features social commentary and the classic 'Short People' while Tim Buckley is back with two LPs – the excellent, experimental 'Starsailor' (1970) and the honkey tonk styled 'Greetings From L.A.' (1972).

NAIM ON BLACK

Three new releases from Naim's record label. The first, Neil Cowley Trio's 'The Face Of Mount Molehill' sees Cowley combine overly simplistic pub jazz (the title track) with lush, melodically complex ambience ('Sirens Last Look Back'). Trichotomy's 'Fact Finding Mission' touches on Vince Guraldi, Pat Matheny and avant-garde improv to provide a salad of jazz exploration.

Finally, Get the Blessing's 'OCDC' shows how jazz rock can retain beat and rhythm but also imaginative musical investigations. Brilliantly intuitive.

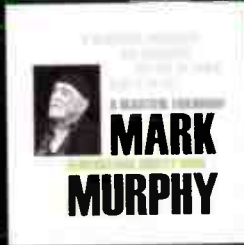
MO-FIVE

New releases from US-based Mobile Fidelity (www.mofi.com) include two from INXS. 'Listen Like Thieves' (1985) was never a great album but did feature a host of top-notch singles. A better outing is 'X' (1990) which features the hit singles 'Suicide Blonde' and 'Disappear'. There's no evolution since 'Kicks' but it's still full of fun.

As a contrast, from Weezer, comes 'Pinkerton' (1996), a dark, energetic LP with the presence of a live outing. Excellent songwriting combined with melodic hooks.

His Columbia debut, Miles Davis' 'Round About Midnight' (1957) offers a harmonic beauty with some simply gorgeous vibes and band interplay, featuring an early appearance from John Coltrane. One of Davis' best.

Finally, '4' from Foreigner (1981) hit the AOR heights with a career peak and successful singles such as 'Urgent', 'Juke Box Hero' and the soft rock smash, 'Waiting For A Girl Like You'.



GEARBOX EPS

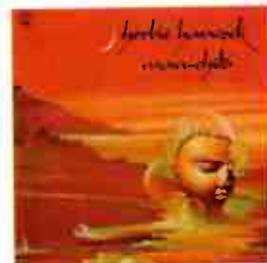
Two 12" EPs from jazz-centric Gearbox (www.gearboxrecords.com), the UK audiophile outfit. The first, 'Ronnie Scott Quintet Featuring Alan Skidmore' (1966) shows tenor sax man, Skidmore reflecting the mid-sixties style which seems to inspire, traditionalist, Scott to do the same!

Also look out for Mark Murphy's 'A Beautiful Friendship: Remembering Shirley Horn' who, at eighty-two, is singing incredibly well. I was stunned at his control of the song and his commanding delivery.

SPEAKERS CORNER

New from the German-based audiophile label, Speakers Corner (www.speakerscorner.de) is Herbie Hancock's 'Man-Child' (1975), his supremely funky jazz piece supplemented by the groovy presence of Wah Wah Watson's far-out guitar.

Carlos Santana & Buddy Miles' 'Live' (1972) rode on the back of the Santana group's success with this combined effort, combining extended jamming with revisited hits such as 'Evil Ways'.



...AND FINALLY

Eighties stars, Steve Strange's Visage are back with 'Hearts and Knives' (Pylon; www.visage.cc). Fans will love the vintage sound and familiar arrangements.

US-based Youngblood Hawke's 'Wake Up' (Republic) offers a pleasant, happy, Disney-friendly, indie pop sound that should go down well at parties.

Filter's new album, 'The Sun Comes Out Tonight' (Vertigo) provides admirable industrial rock, although it's lacking in originality and sounds like the band craves mainstream attention.

Joseph Childress' 'The Rebirths' (Empty Cellar) is a singer/songwriter, playing guitar like Donovan but with a modern, passionate, alt.folk delivery.

Emmett Kelly, colleague of Bonnie Prince Billy but also The Cairo Gang, has released the 6-track 'Tiny Rebels' which arrives in a die-cut sleeve. A dreamy psychedelic, drenched in complementary harmonies.

Finally, Cool Ghoul's self-titled album give us a sixties, beat group delivery, compressed to add immediacy. Sounds like they've just escaped the Reeperbahn.



Essential sounds

Tony Bolton tries out the latest incarnation of Pro-Ject Audio's popular budget vinyl spinner, the Essential 2.

Vienna based Pro-Ject Audio seem to be constantly updating a model somewhere in their impressively large range of turntables. This time it is the turn of the Essential turntable to be tweaked with what have turned out to be some very worthwhile improvements, bringing it to Essential 2 status.

The most visually obvious difference between the Essential and Essential 2 is the arm, changing from a unipivot to a conventional gimbal bearing assembly, by fitting the

8.6inch aluminium arm that used to grace the Pro-Ject Debut III (which now sports a carbon fibre arm).

Less obvious, but of equal importance is the fitting of Pro-Ject's DC motor which is to be found in various forms across the whole range of turntables.

This turntable is a straight-forward 'plug-in-and-play' unit that arrives from the factory with the cartridge fitted and aligned, so all the purchaser has to do is place the silicon drive belt around the outside of the MDF platter and the motor pulley which protrudes from the back

left of the plinth. A felt mat covers the platter, which can be upgraded to either the Leather-It (£50) or the Cork-It (£22) should you wish.

The counterweight has to be screwed onto the big stub at the back of the arm and calibrated by rotating it until the arm floats level. At this point a little care is needed to grasp the outside of the weight to stop it moving, while the scale ring is turned until the zero is aligned with the antiskate stub. The required 1.75g downforce for the Ortofon OM5E cartridge is then dialed in by rotating the counterweight until the

appropriate figures are displayed. The last job is to fit the antiskate weight to the stub and loop it through the support wire to the left of the arm bearing housing.

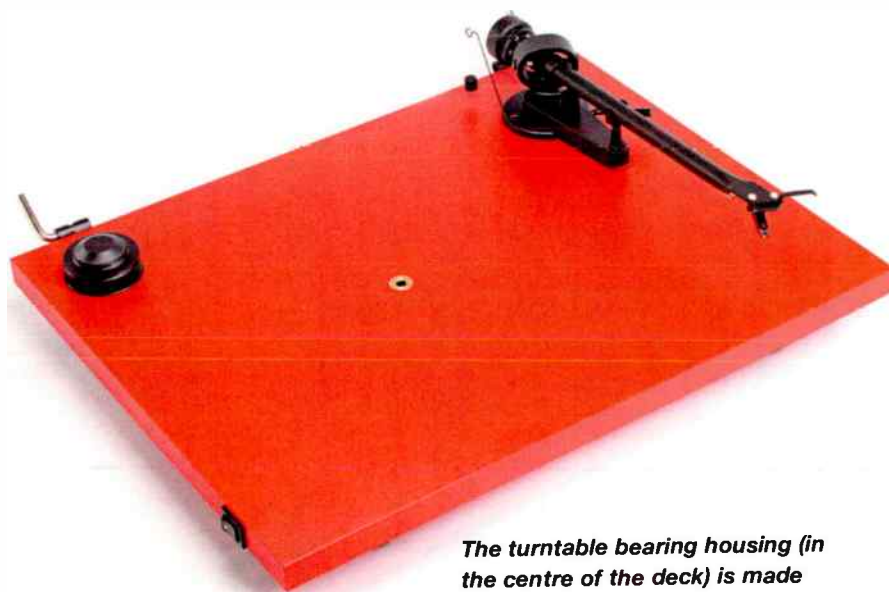
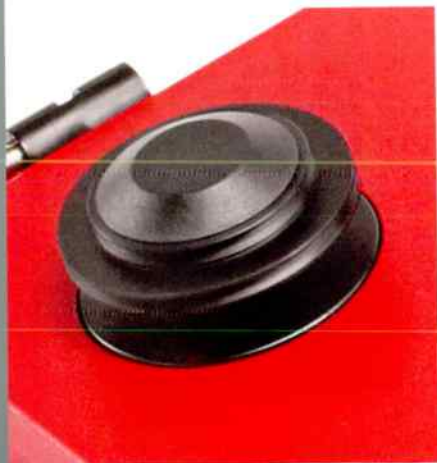
An acrylic lid is provided which slips onto the hinge mechanism very easily. I found that playing the deck with the lid removed gave a little more air and space to the sound, so all listening for this review was carried out without the lid in place.

The deck can be upgraded by fitting the Pro-Ject Speed Box S, costing £99. My experience with these quartz regenerative power supplies has been that they seem to add greater clarity to the sound, with a perceived increase in bandwidth and more sharply defined imaging, so this should be considered a worthwhile expenditure.

With the standard power supply the deck provided a smooth and reasonably detailed sound. After about 20 hours of use to break in the cartridge, I started listening through a range of jazz records. The Dutch Swing College Band playing live at the Sports Palast in Berlin proved a particularly enjoyable listen. The group were formed in 1945 and are still going strong (although with changes in members over the years). This recording showed them in good form, with the music being relayed in a very energising manner. I quickly realised that this deck had an ability to produce rhythms in a infectious way that got my feet tapping along. The beat was quite tightly described without being over-emphasised.

Individual instruments were clearly positioned on a fairly wide

The new DC motor. Speed change is accomplished by moving the belt manually between the two pulleys. The power switch is on the front left side of the plinth.



The turntable bearing housing (in the centre of the deck) is made of bronze with a Teflon bottom.

“The opening high hat and bassline of ‘Break on Through’ set the beat, and it came out of the speakers as a solid and punchy sound.”

soundstage and the character of the sounds was portrayed with a level of detail that surprised me for such a modestly priced record player. Group founder, Peter Schilperoot’s saxophone in ‘Royal Garden Blues’ had a good rasp to the sound which seemed tonally accurate, while the accompanying trumpet, drums, trombone, guitar and bass all seemed to share the spotlight equally and with a zest in the reproduction of the performance that made for very enjoyable listening. The only criticism that I could find was that the depth of the soundstage was a little lacking. It wasn’t two dimensional, but it didn’t reach back very far, so gave the impression that the band were lined up pretty much in a line abreast.

I moved onto classical music, starting with fairly simple arrangements of chamber music, where the Essential 2 gave a good account of itself, before straying into somewhat heavier sounds with the RCA Living Stereo recording of Van Cliburn playing the piano in Tchaikovsky’s 1st Piano Concerto. This performance came to prominence in 1958 when Van Cliburn was the first non-Russian to win the Tchaikovsky Piano Competition and it became a world-wide best seller.

Here the Essential 2 did a pretty

good job in reproducing the sound of the piano, with no undignified speed wobbles that I could detect on sustained notes, but it did get a little overwhelmed when the full orchestra got going. The sound didn’t compress, but seemed a little busy and crowded, and the detail of the string sound seemed softened so that the violins sounded more like a single homogenous mass, than a group of individual instruments. Otherwise I could find little to dislike about the way the music sounded. I have heard considerably more expensive decks have similar problems with the complexities of classical music.

The next day I explored the deck’s abilities with more rocking, guitar driven sounds and found it to be in its element playing the Doors eponymously named first LP. This is a 1967 mono UK first pressing that is in average condition. The deck coped pretty well with the odd bit of groove damage, leaving me aware of it, but without it interfering with the flow of the music. The rawness of Jim Morrison’s voice was accurately captured and displayed, surrounded by the band, on a stage that occupied about half of the space between the speakers. The opening high hat and bassline of ‘Break on Through’ set the beat, and it came out of the speakers as a solid and quite punchy sound.

WELCOME TO THE NORTH EAST

ANATEK RESEARCH
 APOLLO
 ATACAMA
 AUDIOLAB
HI-FI RESEARCH
 CHORD COMPANY
 CHORD ELECTRONICS
 CLEARAUDIO
 DYNAVECTOR
 EAR YOSHINO
 FOCAL JM LAB
 FUNK FIRM
 GOLDRING
 GRAHAM ENGINEERING
 GRAHAM SLEE
 ISOTEK
 KOETSU
 KUDOS AUDIO
 MARTIN LOGAN
 LYRA
 MAGNEPLANAR
 MICHELL ENGINEERING
 MONITOR AUDIO



NA
 NAIM AUDI
 NORDO
 NOTTINGHAM ANALOG
 OPER
 ORTOFO
 PATHOS ACOUSTI
 PROJ
 PS AUD
 PURESOUN
 RIG
 REVOLVE
 ROKSA
 SM
 STA
 SUGDEN AUD
 TEAC ESOTER
 TRANSFIGURATIO
 TRICHORD RESEAR
 UNISON RESEAR
 USHER AUD

HIFISOUND Castlegate mill, Quayside, Stockton on Tees. 01642 267012

2NDHANDHIFI.CO.UK

Guaranteed used and ex-demo audio equipment from HiFiSound - the UK's premier source

Call : 0845 6019390 Email : World@2ndhandhifi.co.uk

MASSIVE EX DEMO SALE NOW ON

Rokson Radius S, ex demo	849	Rokson Kandy K2 & Cospian M2 Integrateds, ex demo	7999	AMR CD777 ex demo	2499	Focal Elektro range, ex demo	Call
EAR 834P Deluxe ex demo	1299	Esoteric CD3/A03 Pre Power, ex demo	7999	Rokson Kandy K2 & Cospian M2 CD Players, ex demo	Call	Monitor Audio GX, RX and Platinum ranges ex demo	Call
Clearaudio Matrix RCM, ex demo, nr mint	Call	NAIM NAC152 and 282 Preamps ex demo	Call	NAIM CDSXS, CDX2, NDX, ex demo	Call	Martin Logan Summit X, ex demo	Call
Craft R1AA Phono Stage, ex demo	399	NAIM XS Amps ex demo	Call	TEAC Distinction CD1000 & CD3000 ex demo	Call	Usher Audio S520, X718 & Be718 ex demo	Call
Project Essential and Debut ex demo	Call	Unison Research Simply Italy	Call	Audiolab MDAC, 8200CD ex demo	Call	Magneplonar MG3.6, ex demo	2999
Rego RPI, ex demo	179	TEAC Distinction A1000 and A3000 Integrateds, ex demo	Call	Rego Apollo and DAC ex demo	Call	Focal Spirit One Headphones, ex demo	Call
Puresound P10 Phono stage ex demo	449	Audiolab 8200 Integrated, Pre and Power, ex demo	Call	Chord Qute HD and QBD76HD ex demo	Call	Stax Headphones, ex demo	Call
Also, huge ex demo cartridge sale	Call	Chord CPA3000, SPM1050, ex demo	Call	Esoteric K03 ex demo	Call	Grado Headphones, various ex demo	Call

Analogue	
Cambridge Audio 640P, excellent	99
Clearaudio Innovation Compact, good condition,	2499
Clearaudio Balance Phono stage, excellent	Due in
Denon DP3000, excellent	249
EAR 834P Deluxe ex demo	1299
Graham Slee Reflex, excellent boxed	349
Graham Slee Elevator, excellent boxed	399
Hadcock 242 Integrator, ex demo as new	799
Inspire Monarch Jr, original 1210 Platter, 12" arm...	1749
Kuzma Slobi Reference	Due in
Kuzma Stogi, excellent	449
Linn Itok LVII, in rare black, excellent	799
Linn Sodek LP12, Valhalla, Itok LVII	Due in
Linn Sodek LP12, Cirkus, Valhalla, front mount motor	599
Michell Orbe Se, silver, boxed	1399
Mission 774LC tonearm, excellent	149
Moth OEMRB250	119
NAIM Stageline S, excellent	179
Origin Live stub modified RB250	149
Ortofon 1A100, excellent boxed	449
Project Tube Box Phono Stage	Call
Project Xpression 1, vgc boxed	199
Project RPM4, with arm and cover	229
Rego Planor 3, vgc	199
SME IV, excellent boxed	999
SME 3012, early	1199
SME 3009ii Improved, superb boxed example	249
Thorens TD180mk2/SME Series 3s	179
Thorens ID124 c/w SME3012, vgc+	1399
Thorens ID170, Fully Automatic, excellent	249
Tom Evans Groove, excellent	899
Trichord Dino mk2, boxed	249
Trichord Dino/Dino+/HPPSU cable	399
Trilogy 906 Volve phono stage	999
Wilson Benesch Act 1 Tonearm, nr mint superb	799

Amplifiers	
Arcam A85, excellent remate	279
Arcam Alpha 8 excellent	119
Audiolab 8000A, vgc boxed	199
Audio Innovations S200 preamplifier	249
Audio Research LS26 Preamplifier, excellent boxed	2749
Audio Research Ref 610 Monoblocks, vgc boxed	16999
Audio Research Ref 210T Monoblocks, as new boxed	9749
Ayre Acoustics AX7e Integrated amplifier, ex boxed	1299
Ayre Acoustics V5xe Power boxed mint	1999
Beard P35mk2 Power Amplifier vgc	699
Chord Electronics Mezzo 140, excellent boxed	1999
Conrad Johnson ACT 2, excellent	3999
Copland CSA28, excellent boxed	699
CR Developments Romulus Integrated, boxed vgc	799
CR Developments Kalypto Integrated, boxed vgc+	599
Cyrus DACKP, excellent boxed	699
Cyrus Mono X, excellent boxed	1199
EC Finestra preamp, great phono stage	349
Graaf GM100 Power, boxed	2499
Iron Audio Stereo 40ise, excellent boxed	549
Krell S300i Integrated, excellent	1499
Krell FP8650M Monoblocks	5499
Lyngdorf SDAL 2175, excellent boxed	799
Morantz SC752, excellent boxed	2495
Meridian G57 Power Amplifier, excellent boxed	1199
Meridian 551 c/w remote, excellent boxed	499
McIntosh MA2275, excellent boxed	3599
NAIM NAPV145, vgc boxed	899
NAIM NAIT XS ex demo	999
NAIM NAC102, excellent	399
NAIM NAP32, excellent condition	399
NAIM NAP180, excellent boxed	499
NAIM NAP250/2, excellent boxed	1599
NAIM NAP150, excellent boxed	399
NAIM NAIT 3, excellent boxed	299
Nightingale Armonia, excellent boxed	1499
Primare I21 Integrated, mint boxed	499
Quad QC24 Preamp, excellent boxed	649
Quad 33/303 pre/power combo	249
Quad 34/405 pre/power combo	499
Radford STA25mk3, vgc	1499
Restek Extract Monoblocks, cool 70s look £4.5k new	1499
Unison Research Aria S2, excellent	499
Unison Research P70, excellent boxed	1999

Digital	
Accuphase DP100 excellent boxed	3999
Accuphase DP75V c/w option boards, excellent boxed	2799
AMR CD777 ex demo	Call
Arcam Alpha 8, excellent	149
Arcam CD92, excellent	279
Arcam CD192, excellent	399
Arcam Alpha 9 with DCS Ringdac	279
Audiolab MDAC, excellent boxed in black	399
Audiolab 8000CDM Transport and 8000DAC	399
Audio Analogue Crescendo CD, ex new	499
Bryston BCD1, excellent boxed	1249
Chord Index Streamer	599
Copland CSA28, excellent boxed	799
Cyrus CDX1se2, boxed	699
Esoteric X035E, excellent boxed	1199
Esoteric K03, ex new boxed	699
Electrocompaniet EMCLUP, near mint boxed	7499
Goldenote Koala, near mint boxed	1899
Lector 0.61, excellent boxed, due in	799
Linn Majik CD (lost version), excellent boxed	699
Leema Stream 3, nr mint boxed	799
Mark Levinson 360 DAC, excellent boxed	649
Morantz CD6002, excellent	1199
Morantz SA751, excellent boxed	99
Meridian 588, excellent boxed	2749
Moon CD1, excellent boxed, top rated player	899
NAD M55 Masters SACD Player, vgc boxed	749
NAIM CD5i, excellent boxed remote	449
NAIM CD5XS, excellent boxed	449
NAIM CD5i/2, excellent boxed remote	1199
Project Streambox DS, ex demo	549
Quad CDP99/2, excellent boxed	Call
Rego Plonel, excellent boxed	499
Shanling SCBT200C, excellent	229
Sony SCDT777ex, excellent boxed	799
Unison Research Unico CDE, excellent boxed	999

Loudspeakers	
B&W 685 c/w matching stands	349
B&W 805 Signature, Tiger eye finish	1499
B&W CM8, excellent boxed	849
Castle Stirling 3, vgc+	249
Dynaudio Contour 1.8mk2, excellent boxed	849
Focal Elektro range, ex demo	Call
Focal 806V, excellent boxed	349
Hyperion HPS938, excellent boxed	1599
Kudos C2, ex-demo boxed	999
Martin Logan Aeries I, excellent boxed	999
Martin Logan Cinema centre speaker	399
Martin Logan Quest, excellent, BIG bargain!	999
Magneplonar MG1.6, superb	999
Meridian M1 Active speakers, boxed	1199
Mission M50s Subwoofer, excellent	199
Monitor Audio PL300, vgc boxed	799
Monitor Audio PL300, mint croted	3999
Monitor Audio RX8, gloss black, ex demo	599
Monitor Audio Radius 90HD Cinema Pack, new sealed	749
Opera Secondo, excellent boxed	899
Quad ESL575, good working order boxed	799
Revel Ultima Studio, vgc	499
Revel Ultima Centre Channel	Call
Revel Ultima Subwoofer with matching amp	Call
Sonus Faber Concerto boxed with matching stands	749
Sonus Faber Cremona, boxed in graphite	2299
Sonus Faber Cremona M, excellent maple	Due in
Sonus Faber Cremona Auditor M, ex new with stands	2999
Spendor BC1, excellent	399
Thiel CS7.2, vgc, just refurbished...	2999
Triangle Comete ES, excellent	249
Usher BeLDDMD, ex demo boxed	8499
Usher S520 in birch, excellent boxed	279
Usher X616 centre speaker, excellent	399
Wilson Duette, croted with stands	5999

Telephone 01642 267012, Tue to Sat 10 til 5, or email world@2ndhandhifi.co.uk

TURNTABLEWORLD

The UK's best selection of vinyl replay products

www.turntableworld.co.uk - the analogue specialists - 01642 267012

World Radio History



The 8.6 inch aluminium arm replaces the unipivot design of the previous model. The Ortofon OM5E cartridge is supplied already installed and aligned.

The more down-beat 'The End' came across with a considered pacing and an emotional intensity that suited the song.

I finished up my listening with one of my favourite LPs, 'Big Calm'. This is a fusion of electronica and conventional instruments, overlaid with the smooth and velvety vocals of Skye Edwards. To my ear she has a similar tonality to Ella Fitzgerald and both artist's records can sometimes suffer from an over-richness to the vocals when played with some decks. In this case I felt the tonal balance, while quite full-bodied, stayed away from being too smooth, leaving the character of the voice intact.

The production values of this LP are quite big, and the Essential 2 rose to the occasion well, presenting me with a room filling sound that was very convincing. The weight of the bass was very good for a budget deck, and, as I had come to expect from this machine, was a powerful force in driving the music along in an effortless manner.

Overall, I found the Essential 2 to be a very well sorted deck for the price. It played less complex classical music well, only struggling a bit when coping with the sound of a full orchestra. Even then the sound was tolerable, but if I was looking for a turntable to play lots of fully

The arm bearings inside the curved housing are made of sapphire.



orchestrated classical music, I would be tempted to spend a bit more and try one of the Debut series. Fans of chamber music, on a budget, would find this turntable adequate for their needs.

Where it really shone was in playing any form of popular music that is beat driven, be it jazz, rock or electronica. The deck had a slightly euphoric nature that seemed suited to such sounds, and should make your records sound very enjoyable.

The pricing and performance of this deck make it a good choice either for those trying out vinyl for the first time, or those who are rediscovering their record

collections, and want something that is affordable and simple to set up and use. When viewed in that light this is an excellent performer, offering a convincingly large and reasonably detailed rendition of the music played through it. It left me with a feeling that although there were a few areas where, in ultimate terms, the performance was a little restricted, overall it was a pleasure to listen to. I am sure that this deck will be popular. It is keenly priced, simple in its construction, but effective in the use of

tried and tested components. I would certainly recommend auditioning it.

SYSTEM USED

Pro-Ject Phono Box DS+.
Leema Acoustics Agena phonostage/
Tucana II amplifier.
Chario Ursa Major loudspeakers.

MUSIC USED

Tchaikovsky, 'Piano Concerto No.1 in b-flat minor, Op.23.' Van Cliburn, piano. Symphony Orchestra conducted by Kiril Kondrashin. RAC Victor Records. LSC 2252. 1958.

The Dutch Swing College Band. 'The Dutch Swing College at the "Sport Palast" Berlin'. Philips Records. SBL7582. 1962.

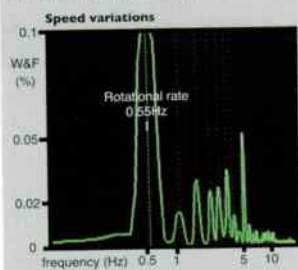
The Doors. 'The Doors'. Elektra Records. EKL-4007. 1967.

Morcheeba. 'Big Calm'. Indochina Records. ZEN017LP. 1998.

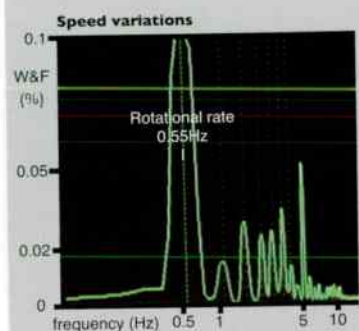
MEASURED PERFORMANCE

The Project's arm is very stiff, its first bending mode being low peak around 220Hz. However, tube damping is poor, and there's a lot of ringing around 700Hz and higher. The headshell is also little damped, shown by the high level of

ARM VIBRATION



SPEED VARIATION



modal products at right on the trace.

Speed accuracy was good, the turntable running a small +0.15% fast on average. Speed variations were low for a budget turntable, although I did notice the platter was running through a regular 10 second cycle of speeding up from 0% speed error to +0.3% fast, then back down again. This is a slow rate of change (0.1Hz) and probably difficult to detect. Total weighted Wow and Flutter measured 0.15%, a respectable if unexceptional value.

The Ortofon cartridge rolls down slowly at high frequencies measurement showed, so it will have a warm but smooth sound. At 2.2gms downforce tracking was satisfactory, with all test tracks at 300Hz negotiated, except the highest. In the midband (1kHz) 18cms/sec was a respectable maximum. Vertical tracking angle was close to correct at 24 degrees and channel separation good at 24dB. Output was normal, measuring 4.5mV. NK

Speed	+ 0.2%
W&F (total weighted)	0.15%
Wow	0.2%
Flutter	0.08%

PRO-JECT ESSENTIAL 2 TURNTABLE. FROM £199



OUTSTANDING - amongst the best

VALUE - keenly priced

VERDICT

A well sorted affordable turntable that is at its best with rock, pop and electronica.

FOR

- good rhythmic abilities
- fast and tuneful bass
- pretty good imaging

AGAINST

-can get a little overwhelmed with heavy classical sounds.

Henley Designs.
+44 (0) 1235 511166
www.henleydesigns.co.uk

Vinyl is black!



The Evo! What an evocative name and rightly so too! The SL-1200 evolved from a Hi Fi turntable into a DJ deck and now we turn it back into a Hi Fi turntable again! Fitted with the legendary SME 309 tonearm and the Audio Technica AT33EV your emotions will run wild. The AT33EV is itself an evolutionary cartridge hence its EV suffix and matches the SME 309 so well. We have worked with direct drive turntables and moving coil cartridges for over 30 years now and the EVO has evolved into a mature product that is quite simply a world beater. We can supply completely new units with 5 year guarantees, used ones with 2 year guarantees, or we can convert your own..



The T-01MC moving coil phono stage has been designed to work with every moving coil cartridge from a DL-103 to a Clearaudio Goldfinger Statement. We know that because we have tried them all and many, many others. The design comes from Dave Cawley who designed and built his first MC phono stage in 1981 and recently manufactured the award winning A.N.T. Kora phono stage. Building on his experience Dave has now produced a dual-mono phono stage with not a single integrated circuit or transistor in sight! No less than 16 FET's are used including a FET discrete power supply. The input FET's are laboriously hand tested and categorised before being inserted in blocks of 8 into the PCB. In stock now at £995.00

TIMESTEP T-01MC PHONO STAGE
£995



VERDICT

New minimalist phono stage, that sonically, punches well above its weight

FOR

- open and precise
- plenty of emotion
- plays old mono records well

AGAINST

- only available in black

SME - Benz & Denon cartridges - Audio Technica OC9 & AT33 - Clearaudio - SL-1200 mods

Oyaide - Furutech - Klipsch - Focal - Whest Audio - Puresound - 78rpm - Iso pods - Audiolab - Onkyo

All demonstrated in a relaxing setting with river views! Very high part exchanges & World wide mail order.

Sound Hi Fi Dartmouth Devon 01803 833366 web www.SoundHiFi.com



Densen Audio Technologies



www.densen.dk

Yes, it does sound as good as it looks...



B-475 CD Player

An ice cool, luxury design combined with sublime sound quality that results in the only CD player that a lot of people will ever need.

B-175 Integrated Amplifier

Immensely effective in how it extracts and processes musical information.... both revealing and informative.



Distributed by Kog Audio www.kogaudio.com info@kogaudio.com 024 7722 0650

New Element

Leema introduce their new Elements Ultra phonostage, a budget derivative that has Tony Bolton excited.



The Elements series from Leema Acoustics have provided a more affordable route into Leema ownership since their introduction in late 2011. The range has now been expanded to include the new Ultra phonostage, priced at £1195.

In common with the rest of the range, the Ultra is housed in a compact steel casework, with a brushed alloy fascia. The fascia has a power LED that lights when a switch on the rear panel, below the mains IEC input, is actuated.

This is a good point to mention that this particular example is the final pre-production model that was loaned to Hi-Fi World so that we could bring you the review as the Elements Ultra hits the shops. It is identical to the production models in all but one aspect. There will be a mono/stereo switch fitted to the front panel of the production models.

While on the subject of switches, there are a lot on the underside of the Ultra, controlling gain, capacitance, resistance and a bass filter. The latter is provided for users who notice cone flap, and gently rolls

off the bass at very low frequencies to avoid this. The variety of settings available make it essential to read the instruction manual, preferably with the specification of your cartridge also available. Once mastered, the options are laid out in a usable manner.

A little searching is needed to locate the recessed switch that selects between the MM and MC gain stages (see picture).

Inside, the Elements Ultra boasts totally separate gain stages for MM and MC, each being fed by a regulated power supply. The RIAA stage is also separate. Gain is provided by Texas Instruments op amps. The circuit is the same as the one fitted to the Agena phonostage, but the Agena uses computer controlled relays to set the

performance characteristics, and also has an onboard A-to-D convertor feeding a USB output. The Agena can also accommodate two arms. The other major difference between the two units is the more substantial power supply fitted to the Agena, although, as I discovered the one on the Elements is no slouch.

Having set everything up for the Benz Wood SL I started listening with the new Shponge LP. This has big production values and the Ultra displayed the convoluted stream of electronic sounds, real instruments and vocals very well. Since they share a circuit, I was unsurprised to find only small differences between the sound through the Agena and this unit. To my ears, the most noticeable change was the slightly deeper bass that the Agena could produce. There



The rear panel carries balanced (XLR) as well as unbalanced outputs. There is just one phono socket input, plus a hidden MC / MM push-button selector.

ortofon

Masters of High-End Sound

MC *Anna*

Xpression



The new MC Anna from Ortofon sits at the highest echelon of Moving Coil cartridges. This state-of-the-art product is representative of numerous design elements and ideals pioneered by one of the world-leaders in analogue technologies. As a result, the MC Anna is truly capable of the highest degree of performance possible, and will provide a sound which is literally unsurpassed. The MC Anna is named after and inspired by the world-renowned operatic soprano, Anna Netrebko.

The stylish Xpression cartridge from Ortofon bridges the gap between SPU-type designs and High-End models like the MC Windfeld and MC Anna, which are designed for headshell mounting. The result is a high-performance moving coil cartridge with the convenience of a standard headshell connector. By using some of the best technologies available to them, Ortofon have made the Xpression into not just a convenient and attractive design, but also one of the finest sounding cartridges available on the market.

Cadenza Series



The Cadenza series represents another example of Ortofon's constant push toward technological perfection. By taking various design characteristics acquired through market leaders, such as the MC Jubilee and Kontrapunkt series, Ortofon have developed Cadenza to elevate any decent Hi-Fi system to a whole new level. The range consists of 5 different models, including a Mono version, but they all adhere to Ortofon's core principles of accurate information retrieval and phenomenal sound performance.

Ortofon is distributed in the UK by Henley Designs Ltd.
W: www.henleydesigns.co.uk | T: 01235 511 166 | E: sales@henleydesigns.co.uk

wasn't that much in it, but I felt sure that the sub-cones on the Charios were not moving quite as much as they would do with the Agena in charge. In most other aspects the sound was very close. Considering that the Agena costs three times the amount of the Elements Ultra, this is pretty impressive stuff.

As a contrast to the effervescence of modern electronica, I played some Gregorian Chant. This 60 year old mono LP is in excellent condition, and demonstrates the depth of sound that mono records can produce. I felt very aware of the acoustic of the recording venue, and the detail in the decay of the sound of the voices was described beautifully.

When playing Simon and Garfunkel's 'Concert In Central Park' LP, I was again left with a

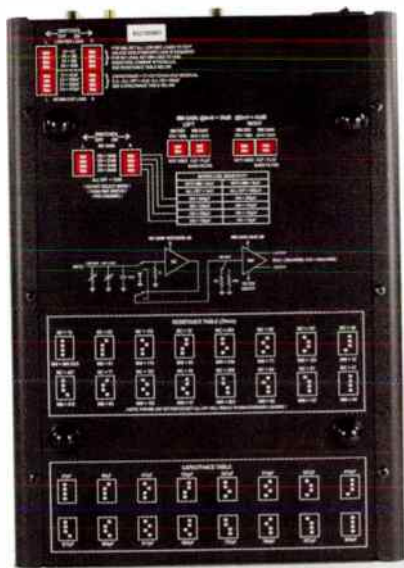
".. the detail in the decay of the sound of the voices was described beautifully."

feeling of the event and the space being well described. Through the Agena the space of Central Park seemed bigger, and there was a feeling of more power to the music and the audience response, but the Ultra came very close.

Rhythmic music, be it 'Mrs. Robinson', opening the concert, or later on, Cab Calloway telling me about 'Minnie The Moocher', was played with a great deal of energy and some sparkle. The compelling description of the beat made it impossible not to sashay across the sitting room to change to the next record.

CONCLUSION

I ended up really impressed with the Elements Ultra phono stage. In absolute terms it is not quite as good as the Agena, but it costs one third of the price, and has fewer facilities. If this is not a problem for you then I would urge you to audition this machine because it is excellent. It will also give a lot of the competition at this price a serious headache, with a winning combination of an open mid-band that offers spacious and detailed imaging, fast, deep and accurately timed bass, and a smooth top-end that balances very nicely on top



Instructions for operating the dip switches are silk screen printed onto the bottom of the cabinet. It is essential to refer to the manual before using these.

of these. The only drawback I can find is a slightly lower than normal level of gain for some MM cartridges, (although with the Goldring 1022GX, this was not a problem) but this is counterbalanced by an ability to work with virtually any MC currently available.

Otherwise it is built to Leema's usual bombproof (and Tony-proof) standards, looks good and sounds lovely, and as such is unequivocally recommended.

SYSTEM USED

Clearaudio Master Solution / Universal 12 inch/ Benz Wood SL.
Magnify 9 inch/ Goldring 1022GX
Leema Acoustics Agena phonostage and Tucana II amp.
Chario Ursa Major loudspeakers

MUSIC USED

- Choir of the Monks of the Benedictine Abbey of St. Martin, Beuron, Directed by Pater Dr. Maurus Pfaff O.S.B. 'Gregorian Chant Missa In Dominica Resurrectionis.' Deutsche Grammophon - Archive Production Records. APM 14017. 1953.
- Cab Calloway. 'Kicking the Gong Around.' ASV Living Era Records. AJA 5013. 1982.
- Simon and Garfunkel. 'The Concert In Central Park.' Geffen Records. GEF 96008. 1982.
- Shpongole 'Museum Of Consciousness'. Twisted Records. TWSLP45. 2013.

MEASURED PERFORMANCE

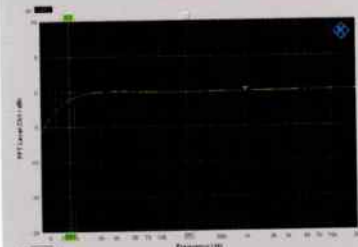
Gain on MM was limited to x120 maximum, or 42dB, which is on the low side. Amplifiers with low sensitivity will need volume turned right up to cope with the low output this will provide from many MMs. The MC stage cannot be used because it has 1k input maximum, too low for MM cartridges. Noise was low and equalisation accurate, with a tad of treble lift in the 75µS network.

The MC stage can be gain adjusted from x470 up to x3100 making it able to cope with all MC cartridges, even those with very low output. Input noise was very low too, just 0.07µV (equivalent input noise, IEC A weighted) which is as quiet as MC stages get, even with input transformers. The input load can be set from 47 Ohms up to 1k Ohms. With an output voltage swing of 7V (MM and MC) the Leema has good tolerance to overload, although the high gain MC setting is best not used except with very low output MCs.

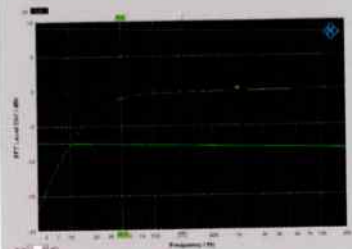
Equalisation was accurate and frequency response flat. The bass cut filter rolled off output below 42Hz (-1dB) to -14dB down at 5Hz (see WARP FILTER), sufficient to eliminate loudspeaker cone flap from warps.

The Leema Elements Ultra measured well, but its gain is limited with MM and the settings methodology inordinately complicated, making the manual essential. **NK**

FREQUENCY RESPONSE



WARP FILTER



Frequency response	9Hz-20kHz
Separation	68dB
Noise (MM/MC)	0.45µV / 0.07µV
Distortion	0.2%
Gain	x60 - x3100
Overload	7V

LEEMA ACOUSTICS ELEMENTS ULTRA PHONOSTAGE £1199



OUTSTANDING - amongst the best

VERDICT
Smooth and detailed sounding phonostage that will accommodate most modern cartridges

FOR
- elegant and detailed sound
- excellent imaging
- deep tightly timed bass

AGAINST
- low MM gain

Leema Acoustics
+44 (0)1938 559021
www.leema-acoustics.com



Mavros Interconnects & Speaker Cables

“ **MAVROS SPEAKER CABLE** : One of the truly great cables currently on the market. This is the best set of speaker cables that I've ever heard. Truly genre defining. ”

“ **MAVROS INTERCONNECT** : These are not cables that try too hard to impress. They just allow the music to flow naturally. ”

HiFi World, July 2013

ATLAS[®]
the performance connection

atlascables.com



ACC-SEES 7" CLEAR PVC RECORD SLEEVES £3.99/ ANALOGUE STUDIO INNER RECORD SLEEVES, PACK 50 £15.99

Often neglected in the after-care market, the 7" single is, in fact, in more need of care and attention than a standard LP. That at least arrives in a relatively thick gauge card outer sleeve with an inner to boot. The majority of 7" sleeves are found with

fragile paper sleeves or thin card if you are lucky. For those seeking out precious second-hand discs, then you are fortunate to have any sleeve at all! If you do have a half decent sleeve present on a 7" then protecting it is absolutely paramount.

The Acc-Sees PVC sleeves are hard wearing and durable and arrive with a thumb-shaped cut out at the top of the sleeve to provide easy access to the record within. They also

protect against stains and creases and will help to retain the value for your investment.

On a similar note, LP records also require protection but of a slightly different type. Many arrive in a sturdy outer sleeve, which is great but it's the inner sleeve that often causes problems. There are still far too many records out there whose parent label tries to cut financial corners by utilising a simple paper inner sleeve as so-called protection. It's quite the opposite, in fact, as the paper inner acts as a mild strain of sandpaper, abrading your record every time that you pull it out and pop it back in again. Made from 0.38mm anti-static material, these high density polyethylene, round bottomed inner sleeves are very gentle on your records and strongly resemble those more expensive models sold by Nagaoka. They provide a highly efficient storage medium and will extend the life of your records by many years. **PR**

[Contact: +44 (0) 1733 350878
www.analogueseduction.net]

SOUNDBITES

GLORIOUS RECORD BOX 110 VINYL LP STORAGE £30

Storing records is an issue that haunts me. I can spend time and good money producing fixed storage space for vinyl and, then faced with acres of ready space, gaze upon the shelving with a satisfied eye and a contented smile. It's only the next day that a grievous sense of unease slowly envelops me as I realise that this new-found space is not 'the solution'. It is merely a temporary alleviation of an on-going problem.

The Glorious Record Box is a way of keeping that grievous dread at bay because it allows you to add space, as an when you want or need it, and in any direction, podule by podule, box by box and in affordable slices instead of the major investment that permanent storage demands.

Available in two additional sizes that will take 55 or 230 LPs, this stackable collection of storage

options is made from standard MDF wood in a black or white finish. Open at one end, the box is a simple affair that is virtually impossible to build incorrectly (it arrives as a flat pack) but the instructions do their best to make things difficult. Faced with just five pieces of wood and a batch of screw-in bolts, I still managed to get the build order wrong. Mainly because the instructions are Gary Cooper-like in their essence: they don't talk much. Just a few sparsely annotated and rather dubious illustrations.

Once successfully negotiated, however, construction is speedy. Screw-in locking nuts provide fixation and strength. I was pleased to see that they were made from metal



instead of the commonly seen plastic varieties often found in low cost bookshelves.

This is a quick to build, easily transported, modular storage medium that is ideal for any concerned vinyl collector. **PR**

[Contact: +44 (0) 1733 350878
www.analogueseduction.net]

This is a comprehensive directory of Hi-Fi Dealers throughout the UK and Ireland.

BERKSHIRE

LORICRAFT AUDIO

Loricraft Audio is now open for visitors but please call to arrange for a visit. You can buy all our products directly from us or through your local dealer. Our internet shop site can take direct orders for our turntables and accessories! Loricraft Audio, The Piggery, Mile End Farm, Wantage Road Lambourn, Berkshire, RG17 8UE Office
Phone/Fax : +44 (0)1488-72267
Email: terry@garrard501.com
website: <http://garrard501.com>

STUDIOAV LTD

44 High Street, Eton, Berkshire SL4 6BL
Tel: 01753 631000
Email: sales@studioav.co.uk
www.studioav.co.uk
We are Berkshire's premier Linn dealer (complete range) and LP12 specialists. Naim, Focal, Totem, The Chord Company, Lyra, Dynavector, Benz Micro, with more to follow.

BRISTOL & BATH

THE RIGHT NOTE

Tel: 01225 874728
www.rightnote.co.uk
Happy with your system? Wonder why there's so much for sale secondhand? Avoid the frustration and expense of "upgrade-itis", never quite "there". With infinite patience we'll help you plan longer-term. Brands selection: Accustic Arts, Audio Physic, Aesthetix, Bel Canto, CAT, Clearaudio, dCS, Focal, Gamut, Graham, Halcro, Kawero, Magnum Dynalab, VertexAQ, VTL, Wadia.

V-AUDIO HI FI CONSULTANTS

36 Druid Hill, Stoke Bishop, Bristol. BS9 1EJ.
Tel: 0117 968 6005.
Website: www.v-audio.co.uk
Email: icvhifi@yahoo.co.uk
ATC, AVI, Nola, ALR Jordan, Audio Analogue, Avid, Black Rhodium, Electrocompaniet, Edge amps/cd, Harman Kardon, Infinity, Jamo, Lyra, Origin Live, Opera,

Ortofon, PS Audio, Michelle, REL, SME, Sugden, Townshend. Specialist in Video Projects by SIM2, Infocus, Sanyo, Power Plan. Screens by Stewart, smx and da-lite. Demos by appointment only. Home trial facilities.

CHESHIRE

ACOUSTICA

17 Hoole Rd, Chester CH2 3NH.
www.acoustica.co.uk
Tel: 01244 344227.
B&W 800 Diamond series dealer
Naim Audio specialist & 500 Series stockist. Other brands carried include Arcam, Audiovector, Audio Analogue, B&W, Classe, Piega, Rega & Spendor. Full demonstration facilities.
Open Tuesday to Saturday 10.00 to 5.30

ACTON GATE AUDIO

www.acton-gate-audio.co.uk
4 Ruabon Road, Wrexham, LL13 7PB,
Tel: (01978) 364500
Arcam, Atlas, Audiolab, Denon, Grado, Michell, Monitor Audio, Dali, Leema, Loewe, Musical Fidelity, Ortofon, Onkyo, Project, Sonos, QED, Quad, Rel, Roksan, van-den-Hul, Wharfedale, Yamaha.
Tuesday - Saturday 9.00 - 17.00
email: info@acton-gate.com

DOUG BRADY HI FI KINGSWAY

Studios, Kingsway North, Warrington, WA1 3NU
Tel: 01925 828009 Fax: 01925 825773.
Visa Mastercard, Specialist High-End Turntable, Loudspeaker, Streaming and Amplifier retailer. Extensive range online to buy and will ship worldwide Luxurious demonstration facilities. Dedicated workshop for service and repairs. Custom cables made Installations and home delivery available. Car park directly outside
Lowest price guaranteed.

CORNWALL

BIGEARS AUDIO

To find a system that will allow you to hear the music instead of the equipment

phone Bigears Audio, here you will find an interesting array of new and good quality used equipment! my intention is to have satisfied customers whatever their audio preferences. Naim dealer for the South West.

Email: chrisburchley@btinternet.com.
Tel: 01736-740421

ESSEX

ROCOCO SYSTEMS & DESIGN

Essex/London Linn Specialist
Tel: 01371 856 407 – 0207 454 1234
www.rococosystems.com
We have over 30 years in entertainment solutions, We can give you expert advice on your Linn Hi-Fi, Multi-room AV and Home Cinema systems. P/EX, ex-demo and used Linn available, Demos by appointment. Home Demos welcome. Authorised dealers for Arcam, Artcoustic, Chord, Denon, Linn, Lutron, Kaleidescape, Marantz, Opus, Runko, Systemline, Sonos, Sim2. Linn Service & Repairs

RADLETT AUDIO

Saffron Walden, NW Essex
Tel: 01799 599080
E-mail: radlettaudio@hotmail.co.uk
Website: www.radlettaudio.co.uk
Selling sensible Hi-Fi systems since 1973
ATC, Chord Co, Croft, EAR, Harbeth, Icon Audio, Kudos, LFD, London/Decca, Lyra, Michell, Naim, Neat, Nottingham Analogue, Ortofon, Puresound, PMC, Rega, SME, Something Solid, Sugden, Sumiko, Tellurium Q.
Turntable specialist - repair and set up.

LANCASHIRE

HOUSE OF LINN MANCHESTER

Telephone: 0161 766 4837
Email: Info@houseofinn.com
www.houseofinn.com
The Linn specialists. Independently owned by former Linn staff. Straightforward, professional expertise with demonstration, sales, installation and support for the Linn range of components and systems. The listening experience is so good that demonstrations can last for hours. Discover how we make music sound real in your home! Appointments only.

Dial A Dealer

LONDON**THE CARTRIDGE MAN LTD**

88 Southbridge road, Croydon
 CRO 1AF Telephone: 020 8688 6565
 www.thecartridgeman.com
 Email: thecartridgeman@talktalk.net
 UK Distributor: Hiaudio Distribution
 Makers of the prize-winning range of MusicMaker cartridges and other desirable audio accessories. We also have a cartridge refurbishing service and rebuild classic valve equipment to the highest standards. "It doesn't have to cost an arm and a leg - but there is no such thing a free lunch, either."

MY AUDIO DESIGN

35 Whitehall, London, SW1A 2BX
 Tel: 020 7839 8880 / 07782 137 868
 E-mail: sales@madengland.com
 Website: www.madengland.com
 E-Shop: www.shop.madengland.com
 We offer MAD, Benchmark Media, SONOS, WBT, Trichord Research, ATC, FatmanTube, Project, Lehmann, Ortofon, Vandenhul, QED, NAD, Goldring, Grado, Focal, Musical Fidelity, Ex-demo & second hand gears. Custom Installation, Servicing, Custom Design. Appointment Only. Short walk from Embankment, Charing-X & Westminster Tube.

MANCHESTER**AUDIO COUNSEL**

Audio Counsel, 29 Sam Road, Diggle, Manchester, OL3 5PU
 01457 875555
 www.audiocounsel.co.uk
 dave@audiocounsel.co.uk
 Hi Fi from, B&W Densen, Dynavector Cartridges, Dynavector Amplifiers, Isoblué, Naim, Neat Acoustics, Piega, Quadraspire, Rega, Revolver, Shahinian, Totem, Well Tempered Turntables, Zu Loudspeakers. Quality Hi Fi is not plug and play. We deliver and install all systems. Tuesday to Saturday 10.00am to 5.30pm Thursday till 8pm

MIDLANDS (WEST)**SOUND CINERGY**

37 high street, Aldridge, WS9 8NL
 Tel: 01922 457926
 www.soundcinergy.co.uk
 clive@soundcinergy.co.uk
 Quality hifi and home cinema from black rhodium, chord co, exposure, focal, linn,

marantz, michell, monitor audio, mordaunt short, nad, okki nokki, ortofon, project, rel, roksan, themescene, trichord, vdH. Check our website for ex dem and secondhand bargains. free car parking. tues - sat 10 - 5.30

SOMERSET**ALTERNATIVE AUDIO,**

Taunton, Somerset,
 Tel: 01984 624242
 Email: peter@alternativeaudio.co.uk
 www.alternativeaudio.co.uk
 We specialise in valve amplification and vinyl replay with the accent on high quality musical enjoyment, demonstration by appointment. Ex-Dem and used equipment for sale. AMG, Analysis Audio, Benz, Brinkmann, Definitive Technology, EAR /Yoshino, Graham Engineering, Lector, LFD Audio, Lyra, NAT Audio, Nottingham Analogue Studio, SME, Soundsmith, Transfiguration, Vandersteen Audio.

SUSSEX**15 AUDIO**

Churchward Court, 15 Western Road Lewes, BN7 1RL
 Tel: 08448 22 11 15
 Email: sales@15audio.co.uk
 www.15audio.co.uk
 Formerly Sounds of Music, new ownership - demonstration facilities in centre of Lewes. Friendly staff. Free parking. Ayon, Bladeliu, Boulder, Coda, Hansen, LSA, SoundLab, SME, WBT and more. Quad centre - 'Digital Clinic' - service centre. Home demo's, delivery and installation. Mon - Frid 10:00am - 6:00pm. Sat 10:00 - 2:00pm. Closed Wednesday.

YORKSHIRE**THE AUDIO ROOM**

Savile Street, Hull, HU1 3EF
 01482 891375
 www.theaudiroom.co.uk
 Authorised agents for Audiolab, Bowers and Wilkins including 800 series, Classe, Denon, Dynavector, Focal, Linn, Naim, ProAc, Quad, Rega, Rotel, Tellurium Q and more. Large open plan showroom with 2 dedicated demonstration rooms, part exchange welcome, friendly & knowledgeable staff. Yorkshire's streaming specialist.

AUDIO REPUBLIC

78 Otley Road, Leeds
 Tel: 0113 2177294
 www.audio-republic.co.uk
 For the best in quality hifi in West Yorkshire, representing Naim Audio, Rega, Sugden, Audio Research, VPI, Krell, Copland, Sonus Faber, Arcam, Nottingham Analogue, Roksan, Hutter, Martin Logan, Proac, PMC, M&K, Finite Elements, SME, Cardas, Kudos Loudspeakers and others. Open Tuesday-Saturday 9.30am to 5.30pm

FANTHORPES HI-FI, TV & CUSTOM INSTALLATION SPECIALISTS

HEPWORTH ARCADE, SILVER STREET, HULL, HU1 1JU
 Established over 60 years
 Tel: 01482 223096
 Web: www.fanthorpes.co.uk
 Email: shop@fanthorpes.co.uk
 Part exchange welcome. High-end Second Hand Equipment. Multi-room installations. Demonstration by appointment. Home trials welcome. Interest free credit available. Experienced staff. We stock Arcam, Cyrus, Dali, Denon, Dynaudio, Exposure, Kef, Loewe, Onkyo, Primare, Roksan, Spendor, Sugden and much more.

IRELAND**ARDHOWEN HIFI**

10 Menapien Way
 Enniskillen, Fermanagh, BT74 4GS
 Abbingdon Music Research, Acoustic Masterpiece, Airtight, Benz Micro, Croft, Acoustics, Custom Design, Deltac Precision Audio, Firestone Audio, Graham Slee, Hanns Acoustics, Harmonix, Luxman, My Audio Design, Opera Audio/Consonance, Origin Live, Project, Reference 3A, Reiyemo, Sugden Audio, True Colours Industries, Trafomatic, Usher, Verity Audio, WLM
 www.Ardhowenhifi.com
 07581 119913 Tom

To advertise in this space please call 01923 677 256 or 0771 542 1569 email: advertising@hi-fiworld.co.uk

SPEAKERS

Tannoy Stirling HE speakers, slight damage to back corner on one speaker hence only £1250
 YG Acoustics ANAT REFERENCE 11 speakers, MINT/WITH CRATES (new £43,000) offered for Tannoy Prestige range £19,995 please call

AMPLIFIERS

Wavac MD-805 monoblocks, brand new, sealed boxes £8995
 Mark Levinson ML 27.5 power amp, a true classic, boxed with book £1995
 Wavac (Ex demo) EC 300B power amp, MINT/BOXED (RRP £22600) £9995
 Boulder 1060 stereo power amp. MINT/BOXED £6995
 Rowland 201 monoblocks, £2500

PRE-AMPS

Wavac PR-X2 pre amp, brand new, sealed box £4995
 Mark Levinson ML32 pre amp WITH PHONO, superb/boxed £9495
 Toft pre amp, balanced and s/e on every input/output £295
 Wavac PR-T1 3 box pre amp (Ex demo) MINT/BOXED (RRP £25000) £11995
 Audio Note M-Zero R (remote controlled) pre amp £350
 Wavac PR-X2 pre amp, BRAND NEW, please call

CD PLAYERS & TRANSPORTS

Audio Note DAC 3.1X Balanced, superb value £2495
 CEC TL-0X CD transport (£15k) ex demo £7995
 Wadia 27 ix DAC, superb/boxed. £2995

Mark Levinson ML31.5 CD Transport £6995
 Mark Levinson ML30.6 DAC £6495
 Mark Levinson ML390S CD player, superb cond' boxed £2995
 Restek Concret CD player, boxed, ex' value £795

TURNABLES, CARTRIDGES & TONEARMS

Koetsu black, mint cond' £995
 TRIPLANAR MK7 arm, brand new. (5k) offered for £3250

MISCELLANEOUS

Yamaha TX-761 DAB/FM Tuner £195
 Okutsu Denko 1.5 metre mains cable (US plugs) £1195
 Townshend 3 tier S/Sink stand, ex cond. £395
 Audio Note Zero Tuner £299

ALL USED CARTRIDGES ARE CHECKED UNDER A MICROSCOPE BEFORE BEING OFFERED FOR SALE. WE TAKE PART EXCHANGE ON NEW & USED STOCK and buy in for Cash VISA SWITCH MASTER CARD AMEX DINERS CLUB WELCOME

Billy Vee
 SOUND SYSTEMS

Diamond studded Performance Promotions

CALL SALES: (020) 8318 5755 or 8852 1321 - 248 Lee High Road, London, SE13 5PL
 Web: www.billyvee.co.uk email: sales@billyvee.co.uk Full delivery and installation services.



Bowers & Wilkins
 Upgrade to Diamond

Check out our performance Upgrade promotions for Source, Amplifier & Speakers
 Renew part or your whole system this Autumn and get better for less.
 Please call in or visit billyvee.co.uk for full details of our exclusive new performance enhancing promotions



TO ADVERTISE HERE
 PLEASE CALL BRAD FRANCIS ON
 +44 (0) 1923 677 256
 +44 (0) 771 542 1569
 OR EMAIL:
 advertising@hi-fiworld.co.uk

- anthem
- audioplan
- dynavector
- chord cables
- >chord electronics
- kudos
- lehmann
- linn products
- lyra
- naim audio
- neat acoustics
- nottingham
- primare
- pmc (including fact)
- rega
- sennheiser
- stax
- sumiko
- trilogy
- tiger paw

opening
 chord



hi-fi for grown-ups

ipswich (01473) 655171
 www.signals.uk.com

THE FUTURE OF AUDIO STARTS NOW!

Introducing the NEW NAD D Series



ONE SIMPLE PACKAGE, the NAD D 7050

The stylish and compact D 7050 combines NAD's most advanced digital platform, Direct Digital technology with Apple AirPlay™ Wi-Fi streaming to create the ultimate plug 'n play solution for wireless music. The D 7050 can also stream any UPnP audio content on a home network along with optical, coaxial and asynchronous USB inputs allowing up to 24/192 signal transmission.

£799

MAGIC FROM A DAC, the NAD D 1050

The best way to add Computer Audio and HD Digital to your hi-fi system. Both the digital and the analogue circuits are highly optimized and based on techniques developed over 40 years. The SPDIF inputs support coaxial and optical connectors while the asynchronous USB input uses the D 1050's high precision clock to control the output of the connected USB device for lowest possible jitter allowing up to 24/192 signal transmission.

£399

REINVENTING AN ICON, the NAD D 3020

Takes the original NAD concept straight to the 21st century using the latest high speed digital technology. The D 3020 DAC/Amplifier includes coaxial and optical digital inputs along with an analogue input. It's asynchronous USB input ensures the lowest possible jitter from notoriously unstable computer audio outputs along with support for 24/96 HD studio master music files.

£399

FOR THE LATEST PRICES AND OFFERS VISIT WWW.SSAV.COM OR CONTACT YOUR LOCAL STORE



PRO-JECT • DEBUT CARBON • TURNTABLE
With its Carbon arm tube and supplied Ortofon 2m Red cartridge, the Debut Carbon sets new standards in its price range.



NAD • C 556 • TURNTABLE
Time to enjoy vinyl collections with extraordinary quality! With a minimalist design, the C 556 turntable offers accurate reproduction by using performance-focused parts and components that put music first.



PRO-JECT • ELEMENTAL • TURNTABLE
Entry-level 'plug n play' turntable with straight ultra low mass tonearm optimised for the supplied Ortofon OM cartridge.



CYRUS • STREAM Xa • MUSIC STREAMER
A pure streamer with analogue and digital outputs. Capable of fully exploiting 24-bit/192 kHz files along with Apple's lossless format. Cyrus Cadence remote control app for iPad/iPhone available free from the Apple App Store.



NAD • C 446 • MUSIC STREAMER
Powerful digital media player featuring Internet radio and a FM/AM/DAB+ tuner. The C 446 allows you to stream your music collection from multiple networked storage devices using DLNA and Universal Plug and Play (UPnP) standards.



NAD • M50 • DIGITAL MUSIC PLAYER
If you love digital music, the M50 will become the heart of your collection, managing and controlling all your music and eliminating the need for a computer. Decodes all the popular formats including Linear PCM up to 24-bit/192kHz and FLAC.



NAIM • UNITILITE ALL-IN-ONE STREAMING SYSTEM
Comprises a CD player, MP3/iPod and USB memory stick playback, digital to analogue converter, high resolution 32bit/192kHz capable network stream player and integrated 50W amplifier in one sleek enclosure.



PIONEER • N-50 • MUSIC STREAMER
Award-winning audiophile Network player supporting AirPlay and DLNA wireless technologies, allowing you to stream music wirelessly from your iTunes libraries or iOS devices. When connected to your home network, you can also enjoy a wide variety of online music services remotely.



ROTEL • RT-12 MUSIC STREAMER
The RT-12 is an FM and DAB+ preset radio tuner and much more besides. By incorporating network capabilities, the RT-12 can access thousands of internet radio broadcasts and play audio files stored on UPnP servers such as Windows computers.

PLEASE NOTE: SOME BRANDS/PRODUCTS ARE NOT AVAILABLE AT ALL STORES. SPECIAL/ADDED VALUE OFFERS ARE NOT IN CONJUNCTION WITH ANY OTHER OFFER (NICWAOO). ADVERT VALID UNTIL 17/10/2013. E&OE

www.SSAV.com

SEVENoaks
SOUND & VISION

World Radio History



ARCAM • FMJ CD17 / A19 • CD / AMPLIFIER
 Arcam's A19 integrated amplifier delivers 50W per channel and includes 7 analogue inputs, a MM phono input and is the perfect partner for the CD17 CD player.



AUDIOLAB • 8200CD / 8200A • CD / AMPLIFIER
 The award-winning 8200CD features a wealth of digital inputs that will keep it playing all your music regardless of how it may be stored.



ARCAM • irDAC
 Designed to be the heart of a digital system and connected to a host of different types of digital sources. Includes asynchronous USB and a direct iPod input to optimise sound quality. All inputs can be controlled through an IR remote that will also control iPods, iPhones, PC and Mac computers.



CYRUS • CD8 SE2 / 6A • CD PLAYER / AMPLIFIER
 With its impressive 40 Watts per channel and six analogue inputs, the 6a amplifier is a great partner for the award-winning CD8 SE2 CD player.



MARANTZ • CD6005 / PM6005 • CD / AMPLIFIER
 Replacing the 6004 models, the 6005 amp gains digital inputs using the same 24-bit/192kHz DAC as the CD player which now features enhanced USB playback and improved performance.



AUDIOLAB • M-DAC • DAC / PREAMP
 Award-winning DAC featuring a USB input with asynchronous data processing along with twin coaxial and optical digital inputs. High-res 24-bit/192kHz music files can be played via its coaxial input.



NAD • C 516BEE / C 316BEE • CD / AMPLIFIER
 Received an outstanding product award from Hi-Fi News magazine who described the C 316BEE as an "absolute barn-stormer of an amplifier". The C 516BEE is the perfect partner.



NAD • C 546BEE / C 356BEE DAC • CD / AMP / DAC
 Enjoy music from your computer without musical compromise via the DAC or listen to music from CD with the MP3 / WMA compatible CD player.



MERIDIAN • EXPLORER • USB DAC / HEADPHONE AMP
 Explorer replaces your computer's sound card with a USB-powered DAC featuring Meridian's high quality audio circuitry with up to 24-bit resolution and 192kHz sampling. Includes 76kHz optical and fixed or variable analogue outputs.



ROKSAN • CASPIAN M2 • CD / AMPLIFIER
 The M2 amp boasts 85wpc and five line inputs while the matching CD features a 24-bit DAC plus dedicated power supplies for the outputs.



ROTEL • RA-10 / RCD-12 • AMPLIFIER / CD
 Award-winning amplifier from Rotel. Delivers 40 Watts per channel and includes four line level inputs and a phono input. Ideal partner for the RCD-12 CD player.



MERIDIAN • DIRECTOR • DAC
 Featuring a range of connectivity, Director can be used with a wide selection of traditional components as well as high-resolution USB based sources. Director features technology drawn from Meridian's award-winning Reference 800 Series, offering up to 24-bit resolution and 192kHz sampling.



NAD • M51 • DAC
 This award-winning DAC / pre-amp features optical, coaxial, USB and HDMI inputs, all of which can handle files up to 24-bit/192kHz. The M51 will truly transform any system.



DENON • CEOL PICCOLO • STREAMING SYSTEM
 Connect Apple devices via the iPod dock, front USB or by AirPlay®. Stream music on your PC, NAS or from the internet. Or listen to online services such as Spotify and last.fm.



MARANTZ • M-CR610 • CD / NETWORK SYSTEM
 Enjoy great sounding music from diverse sources, including internet radio, music-streaming services, mobile devices, TV and digital audio sources.



PIONEER • XC-HM81 • CD / NETWORK SYSTEM
 Play audio from your Apple device, smartphone or external storage device via a USB connection or stream directly via AirPlay® and DLNA when connected to your home network.

Real Stores

Sevenoaks Sound & Vision have 26 stores nationwide with plans to open more during 2013. Each carries the best in home cinema and Hi-Fi equipment on display, ready for you to watch, listen to and compare in our dedicated demonstration rooms.

Real Products

A wide selection of products from the world's leading manufacturers is in stock and available for you to take home. We also offer a delivery and installation service as well as a convenient on-line click and reserve option for many of our products.

Real People

Our staff are friendly, knowledgeable and passionate about music and film and the equipment needed to get the most out of your collection. They will be delighted to assist you in making the right selection to ensure you enjoy your system for years to come.

Real Value

Fantastic value for money is our aim. Although we remain independent, you will be pleasantly surprised just how competitive we can be - with the added benefit of seeing, hearing and touching the product before you buy, and someone to help if things go wrong.

FOR THE LATEST PRICES AND OFFERS VISIT WWW.SSAV.COM OR CONTACT YOUR LOCAL STORE



BOWERS & WILKINS • CM10
Introducing the CM10, a new flagship for the CM series that combines technologies from the Reference ranges with innovative new construction techniques. The result is simply spectacular.

NEW
£2999
OR LESS



TANNOY • REVOLUTION DC6T SE
Award-winning compact, floorstanding speakers featuring Tannoy's unique Dual Concentric™ drive unit along with trapezoidal cabinets. Exclusively finished in luxury Espresso colour real wood veneer.

£999
OR LESS
WHAT HI-FI? SOUND AND VISION AWARDS 2012

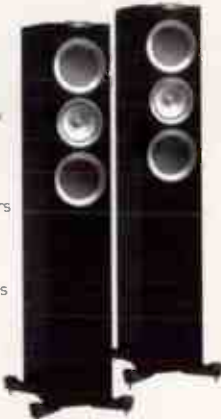


Q ACOUSTICS • CONCEPT 20
A truly remarkable new speaker which delivers a level of sonic performance previously only available to audiophiles able to invest in high-end models.

NEW
£350
OR LESS
PRICE EXCLUDES STANDS

KEF • R500
The smallest of the floorstanders in the R Series. Uses the latest generation Uni-Q driver array and two 5.25-inch aluminium bass drivers. Its slim proportions and sleek contemporary looks make it perfectly suited for any interior.

£1699
OR LESS



MONITOR AUDIO SILVER RX6
Elegant 2.5 way floorstander featuring separate chambers within the enclosure to provide differential tuning for the drivers, producing higher efficiency and exceptional low frequency extension.

£799
OR LESS



PMC • TWENTY-23
An open, engaging and communicative loudspeaker that defies its size both the depth of bass and scale of presentation by taking any music or film material in its stride. The sound is vivid and dynamic and delivered with authoritative bass.

£2300
OR LESS
WHAT HI-FI? SOUND AND VISION AWARDS 2012



KEF • LS50
An innovative concept derived from the legendary LS3/5a. Rarely the case in such a compact design, the LS50 monitor delivers a rich, multi-dimensional '50/105 stage experience' that is out of all proportion to its size.

£799
OR LESS
WHAT HI-FI? SOUND AND VISION AWARDS 2012



PSB IMAGINE MINI
Meet the newest and smallest member of the ultra-stylish Imagine Series. The deceptively small Imagine Mini makes a big impact on an already impressive range of award winning speakers.

NEW
£599
OR LESS



WHARFEDALE DIAMOND 122
Stand/bookshelf speakers featuring a 25mm soft dome tweeter and 165mm woven Kevlar mid/bass driver. The Wharfedale Diamond 122 offers high-performance and great value for money.

£279
OR LESS

WHAT HI-FI? SOUND AND VISION AWARDS 2012

SONOS • THE WIRELESS HI-FI SYSTEM

The award-winning Sonos lets you play your favourite tunes all over the house and control them from the palm of your hand. You can even play different songs in different rooms.

PLAYBAR NOW AVAILABLE

ESSAY.COM



NAD VISO HP50 HEADPHONES

Designed for long-wearing comfort and listening with ultra-soft noise-isolating earpads. The convenient three-button Apple remote offers full control of all Apple music and call functionality right at your fingertips, plus voice control with Siri-compatible devices.



NEW
£249
OR LESS

NEW

£949
OR LESS



BANG & OLUFSEN • BEOPLAY A8 WIRELESS MUSIC SYSTEM

The BeoPlay A8 brings a fresh new design twist to the iPod dock, adding wireless streaming through AirPlay™ to unleash all of your music with total clarity.

AirPlay

NEW

£499
OR LESS



NAD • VISO 1AP • WIRELESS MUSIC SYSTEM

Streaming system with both AirPlay™ and Bluetooth. Ideal for wirelessly playing music from your iPod, iPhone, iPad or any Bluetooth or AirPlay enabled smartphone, tablet or laptop.

AirPlay

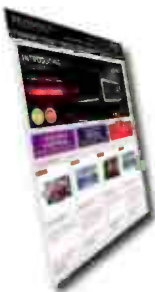
Bluetooth

BANG & OLUFSEN BEOPLAY H6 HEADPHONES

Finished in aluminium and leather, the Bang & Olufsen H6 on-ear headphones stand out with their luxury styling and extreme comfort. Matched twin 40mm drivers supply the sound and are tuned for balanced playback across their range.



NEW
£329
OR LESS



Stores Nationwide

We have a national network of stores and a hard-won reputation for outstanding customer service.

Website

Visit our new website for a streamlined on-line experience with a more clearly defined product section, more product choices and an improved search engine.

Aberdeen • 01224 252797

Bishop's Stortford • 01279 506576

Bristol • 0117 974 3727

Bromley 020 8290 1988

Cambridge • 01223 304770

Chelsea • 020 7352 9466

Cheltenham • 01242 241171

Chorleywood • 0845 5046364

Epsom • 01372 720720

Exeter • 01392 218895

Guildford 01483 536666

Holborn • 020 7837 7540

Kingston • 020 8547 0717

Leeds (Wetherby) 01937 586886

Loughton • 020 8532 0770

Maidstone 01622 686366

Norwich • 01603 767605

Oxford 01865 241773

Reading • 0118 959 7768

Sevenoaks 01732 459555

Sheffield • 0114 255 5861

Southampton • 023 8033 7770

Tunbridge Wells 01892 531543

Weybridge 01932 840859

Witham (Essex) 01376 501733

Yeovil • 01935 700078

* THESE STORES ARE FRANCHISED AND OPERATE UNDER A LICENCE AGREEMENT TO SEVENOAKS SOUND & VISION

ADVERT VALID UNTIL 17/10/2013. E&OE.

Please Note: Some brands/products are not available at all stores. Special/added value offers are not in conjunction with any other offer (NICWAOO).

SEVENOAKS
SOUND & VISION

World Radio History

Direct Drive



*Technics SL-1200 MkII
Timestep modified*

Dave Cawley of Timestep Electronics takes a close look at the Technics SL-1200 Direct Drive turntable.

Back in 1969 Matsushita released the National/Technics SP-10 Mk I Direct Drive turntable, the world's first Direct Drive (ignoring some early Garrards etc). In those days for most people, a vinyl LP was the only source of stereo music. Everyone had a record player and a lot of them were auto-changers. The idler drive Garrard 401 was available to the wealthy but it rumbled, like so many idler drives.

The first SP-10 turntable (Mk I) was basic and passed largely unnoticed in the UK. Then, three years later in 1972, Matsushita introduced the Technics SL-1200 Mk I Direct Drive turntable. Featuring a

smaller motor than the SP-10, the SL-1200 was affordable and as an option came with a removable, one piece, cast SME tonearm mount.

In 1975 Technics followed this up by releasing a ground breaking update of the first SP-10, the invincible SP-10 MkII – the first to use a properly designed Quartz Lock system. This went on to dominate radio broadcast studios worldwide until the very end of vinyl broadcasting only a few years ago.

What made the SP-10 MkII special was cog free drive and a massive bearing. Toshikazu Yosumi senior engineer of the Matsushita Electric Industrial Co. Ltd, documented the Technics Quartz PLL drive in his white paper "Designing

of Quartz-Lock Turntable" This documents precisely why Technics turntables, above all others, have the pitch stability that other manufacturers strived for but failed to achieve.

In 1979 this Quartz PLL technology was applied to a lot of Technics turntables including the SL-1200 MkII – a new star was born. This turntable became popular with DJs in particular, being sturdy and easy to use. A mediocre arm, lightweight platter, on-board power supply and solid plinth lacking suspension kept it off hi-fi buyers lists though.

In 2006 Adam Smith of Hi-Fi World asked me if I could make an external PSU for the SL-1200,

something the American company KAB had been manufacturing for a few years. Since then the SL-1200 has risen in popularity with the hi-fi fraternity and has been reviewed in several incarnations.

Direct Drive looked more attractive when an SME arm replaced the original and more recently entirely new platters have been added to reduce coloration.

All the same, the main market was DJs and they had largely moved to CD. As a result, in 2010 Technics advised that due to low demand and a major tool breakage they would cease production of the SL-1200 for ever. Several companies, including Timestep, bought up Transit loads of new ones, so new SL-1200s in unopened boxes are still available.

MODELS AND MODS.

The SL-1200 is silver and the SL-1210 is black, but that is only in the UK. European units have 110/240V switchable power supplies but the USA is just 110V and Japan only 100V. This isn't a problem as an external PSU will fix this if you have bought a foreign unit.

The Direct Drive motor of the '1200 was almost identical to that of the SP-10 and was as near perfect and as cog free as it could be. Both listening tests and measurements show the SL-1200 to be superior on timing and pitch stability than almost any other turntable at any price.

Modifiers discovered how easy it was to change the power supply, the tonearm, the bearing and the platter, with new higher quality items. This improved sound quality greatly, lifting what was a budget DJ turntable into the realms of high fidelity.

About 200 used SL-1200s are for sale on eBay at any one time. From my experience buying them, they break down into three types.

There are the ones transported in a Transit for DJ use; these have led a hard life and are to be avoided.

Then there are ones that have been used in a bedroom and have plenty of life left.

Finally, there are the ones only used in a bedroom, but available in the original packing that had been kept safely in the attic by a fastidious owner. These are the best.

People will be buying and modifying SL-1200s for at least the next 50 years!

The MkII is by far the best model to buy as it comes with a lid and removable hinges; the MkV does not. Many people change the PSU and arm so any other variants and options are nullified by the modifications anyway. All versions can be modified to play at 78rpm by the installation of an extra PCB.

The rare ones are the gold plated special editions, and the rarest of them all is the MkIV that has 78rpm, a better arm and cables as standard. The Mark IV was only ever officially available in Japan and is 100V only – I have one in my collection!

CLONES

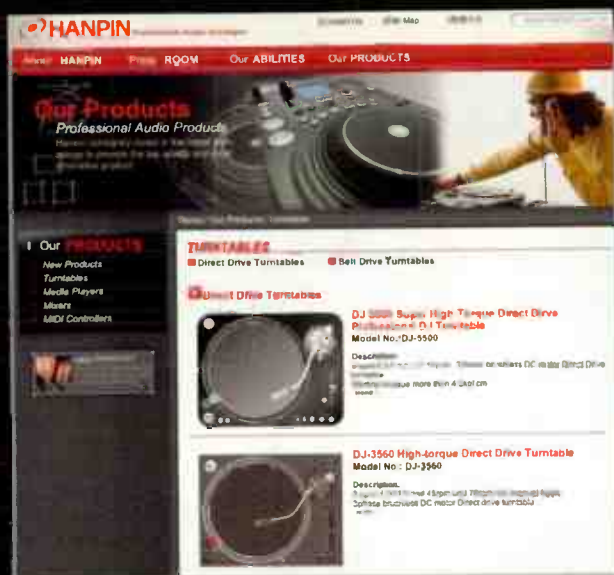
There are the SL-1200 clones of course. Audio Technica came out with the AT-PL120 that looked to all the world like an SL-1200. However, measurement showed its speed stability was poor. Worse still, I found inside a 1/4" thick plate of aluminium whose sole function was to make the unit heavier and feel more like a proper SL-1200.

Then there are clones made by Hanpin in Taiwan that appear under a dozen or so different labels. Hanpin make the DJ-5500 that looks identical to models from Stanton, Reeloo and

Audio Technica.

The motor is potentially superior but the real problem is that the bearing is poor and is an integral part of the PCB, so not easily replaceable; in fact not replaceable at all! Without putting the main chassis on a vertical mill it isn't possible to change the arm either. But why bother when the Technics SL-1200 is in such plentiful supply and is so easily modifiable?

Nearly 45 years after its introduction the Technics SL-1200 is now being elevated into a world beating state of the art turntable,



Direct Drives are made today by Hanpin of Taiwan, mostly for OEM supply to brand names.

but not by Technics who produced a wonderful design but never understood how to realise its full potential.

Part II of this article will examine control systems of Direct Drive turntables.



A Reeloo Direct Drive. It is identical in design to Hanpin DJ-5500 and is likely made by Hanpin.

RETRO

REPRODUCTION

QUALITY HIGH FIDELITY & VINTAGE

AMPLIFIERS

Audiolab kit1 300b amp massively modified	£995	MicHELL Orbe with VC power supply special order silver finish	£1495
Audiolab 8000A integrated amp mint condition	£345	MicHELL Gyrodec SE boxed mint	£995
Audiolab 8000Q british built mint boxed	£395	MicHELL HR PSU silver finish	
Anatek monoblocks £2400 new	£395	(this finish is no longer available)	£295
Anatek A50R	£795	MicHELL Gyro SE special order black finish brand new in a box sealed box	EPOA
Arcam A32 integrated amp	£495	Minimax MMC valve phono stage	£845
Cyrus original PSX great condition	£175	Naim superline phono stage	£1295
Cyrus 2	£225	Oring Live 1MC3 Encounter tonearm as new boxed	£995
EAR 834L	£695	Pioneer Tangential tracking PL L800	£295
EAR V20 valve amplifier	£2495	Pure Sound T10 moving coil transformer high and low settings 1 month old boxed	£275
EAR 802 classic valve with pre amp phono stage	£1195	Project Xpression 2 boxed mint	£175
Harmon Kardon PM665 top of the range integrated amp	£350	Rothwell Rossan phono stage mm	£295
Harmon Kardon HK560 receiver	£195	SME 10 with tonearm with V	£3295
Harmon Kardon HK1400 line amplifier	£195	SME series 3 tonearms various	from £175
Linn AV5125 5 channel power amp boxed as new	£795	SME series 4 with damping trough	£1095
Mark Levinson ML12A with phono stage & external PSU	£595	Sony PS6750 turntable	EPOA
Mark Levinson power amp	£895	Sony 1800A vintage turntable	£245
Mendian 100 series three box power amp	£295	Syrinx LE1 tonearm recently wired with cardas cable fitted and checked by Audio Ongam	£275
Mendian 518 digital audio processor	£445	Syrinx PU2 tonearm	£295
Mendian 201 MKIII pre amp remote	£195	Thorens TD125 MKII in plinth	£325
Mission 776/777 pre and power amplifier 100w cast case work a real classic	£795		
Musical Fidelity valve X-pre amp	£225		
Musical Fidelity A100 Class A integrated amp	£275		
Musical Fidelity Tri Vista integrated amp boxed	£1795		
Naim 112 remote control pre with box	£395	CD PLAYERS, DACS	
Naim NAP120	£225	Arcam CD33 cd player top of the range boxed	£545
Naim NAC12S	£150	Arcam CD73 24bit cd player black finish	£225
Naim NAC 82 pre with Teddy Pardo PSU	£1495	Audio Alchemy V1.0 DAC	£145
Naim 90 power amp boxed	£95	B&O 9000 cd player with floorstands and speakers	£2295
Naim Flatcap 2 boxed	£395	Cambridge Azur DAC Magic boxed	£145
Naim Flatcap boxed	£225	Harmon Kardon CD30 twin CD recorder HDCD top of the range	£345
Naim CD 5	£225	Leema Antilla CD player boxed mint	£1795
Naim CD S with power supply	£1395	Marantz CD52 MKII special edition	£145
Naim NACDS power supply new style front panel	£695	Marantz CD50 multibit dac	£95
Pioneer SA510 with fluorescent meters	£95	Marantz CD7 one of the world's finest player	£1495
Pioneer A400X integrated amp	£225	Mendian 506 20 bit CD player	£395
Pioneer M73 flagship power amp Class A operation boxed as new	£995	Mendian 208 and CD player with built in pre	£295
Phase Linear 700 power amp	£495	Mendian 200 transport	£245
Quad 520F power amp	£495	Mendian 518 digital audio processor	£345
Quad II Valve amp re-built and re-valved	£495	Musical Fidelity A3CD 24bit CD player boxed	£295
Quad 66 pre with remote serviced	£395	Musical Fidelity FCD valve CD player	£495
Quad 34 pre amp boxed	£295	Nakamichi CD player 2	£175
Quad 405 II	£295	Nakamichi MB10 5 disc music bank cd player	£175
Red Rose 5 integrated valve amp Mark Levinson design new £7000	£2995	Naim CDS3 with Teddy Pardo PSU	£2795
Roksan K2 integrated amp brand new unopened	£595	Naim CDS with PSU	£2995
Rotel PB971 power amp	£195	Pink Triangle Aural HDCD superb player	£595
Rotel RC972 remote pre amp	£125	Phillips CD610 16bit cd player	£95
Rotel RA840BX integrated amp	£125	Pioneer PD909 legato link	£145
Rotel RA350 70s vintage amp	£95	Pioneer PD9700 stable platter	£225
Sansui AU517 heavy weight integrated amp	£395	Primare 30.2 cd player boxed	£495
Sony F540E heavy weight integrated	£245	Rotel RA965 BX classic old school cd player boxed mint condition	£195
Wadia 151 DAC and amplifier	£495	Sony CDP X-B920E	£125
		Sony XE680 SACD player	£195
		TEAC UDH01 USB DAC	£275
		Technics SL PA10 reference transport	£245

SPEAKERS

Aurum Cantus black orchid speakers piano black	£495	TUNER	
Beaumont Virtuoso reference Lowther horn loaded spks with brand new DX4 drive units	£2995	Audiolab 8000T tuner boxed	£425
Boston VRM 50s Lynnfield series monitor speakers	£345	Cyrus AM/FM tuner (original version)	£95
Cabinet for 12" Tannoy with amplification built in model M508	£195	Mendian 204 tuner	£245
Castle Chester dark oak finish	£345	Naim NAT02 recently serviced	£650
Dyn Audio Audience 42 bookshelf speakers	£345	Pioneer F91 top of the range tuner	£245
Goodmans Axion 201 12" full range 15ohm speaker 1 pair	£295	Quad FM4	£175
Goodmans Magnum K's	£125	Rotel RT1082 DAB tuner	£225
Heybrook Duet speakers with Peizo gold dome tweeter	£345	Troughline tuner	from £95
KEF RDM Two monitor speakers	£395	Sony ST5100 FM/AM classic 70's tuner	£125
Linn Index	£125	Sony 700ES tuner	£75
Linn Sara active speakers	£145	Sony ST8900 QS DAB tuner	£145
Linn Kan early version Teak finish	£275	Technics STG90L top of the range tuner	£95
Lockwood Minor cabinet for Tannoy 10"	£195		
Mission 752 black finish	£295	MISCELLANEOUS	
Mission 773 beech finish	£245	Analysis Plus Silver Oval speaker cable	£345
Mono Pulse 32A 8 months old ex dem.	£495	Akai GX77 open reel with various tapes mint condition	£495
Mono Pulse 32S ex dem.	£645	Cardas golden ref. 8 5mtr balanced interconnect	£595
Monitor Audio Silver 8 cherry finish	£495	Cardas reference tonearm cable	£375
Monitor Audio 2 bookshelf speaker with rosenut finish	£245	Denon DRW585 a top of the range cassette deck	£125
Monitor Audio reference 700	£395	JPS super conductor 2 5mtr balanced interconnect	£495
Quad ESL-989 Electrostatics black finish boxed	£1995	Marantz super scope 3 head portable cassette deck just serviced	£295
Red Rose R3 Ribbon bookshelf speaker new £3000	£995	Nakamichi receiver 2	£195
Sentorian early 60s corner speaker pair	£295	Nakamichi CR2E cassette deck	£225
Snell K classic valve friendly speaker	£495	Nordost Blue Heaven speaker cable 5mtr	£295
Tannoy 12 inch silver	EPOA	Nordost Red Dawn speaker cable 5mtr	£295
Tannoy 12 inch monitor gold	EPOA	Technics RSB965 top of the line 3 head cassette deck	£195
TDL RTL3 black finish boxed	£275		

TURNTABLES/TONEARMS

Audio Synthesis moving coil with 2x PSU	£345	RECORDS	
Audio Ongami PU7	£995	(downsizing my collection excellent as new condition)	
Audiolab PPA phono stage British built new £995	£495	Pink Floyd Pulse Box Set	£295
Clearaudio Master Reference with parallel tracking tonearm	£4500	Led Zeppelin BBC Sessions 200g	£295
EAR 834P mm/mmc with volume	£795	Jimmi Hendrix Experience Box Set	£195
Garrard 401	£595	Blue Note Freddie Hubbard - Hub Tones '80g	£15
Graham Slee Era Gold with PSU1	£245	Blue Note Horace Parlan Moving & Growing Toshiba EMI	£20
Linn Baski turntable no arm or lid	£65	Blue Note Amazing Bud Powell Time Weight Toshiba EMI	£20
MicHELL Focus 1	£295	Blue Note Art Blakey and the Jazz Messengers	
MicHELL ISO/Hera phono stage	£375	At the jazz corner of the world Toshiba EMI	
		Various others:	
		Annette Coleman, Don Cherry, Lou Donaldson,	
		Joe Henderson, Bobby Hutcherson	
		Various other artists available please phone	

GENEROUS PART-EX. ON ALL EQUIPMENT NEW OR USED WILL BUY GOOD QUALITY EQUIPMENT AS ABOVE NEXT DAY MAIL ORDER A LIFT FACILITIES

Opening times: 10.30 - 5.30 Tues. to Sat.
28a Haddington Place, Edinburgh EH7 4AF
Tel/Fax: 0131 558 9989
Email: retro.reproduction@virgin.net
Website: www.retroproduction.co.uk

Music First Audio

"I've not heard a better preamp..."

- Sam Tellig, Stereophile - Oct '12



www.mfaudio.co.uk :: info@mfaudio.co.uk :: +44 (0) 1424 858260

IAN HARRISON HI-FI TEL: 01283 702875

HIFI AT DISCOUNT PRICES. FREE NATIONWIDE DELIVERY

SALE! UP TO 40% OFF!
Email: ian.harrison@mercian.myzen.co.uk

SPEND £2000 OR MORE ON ANY TURNTABLE, TONEARM OR TURNTABLE AND ARM AND GET A £500 CARTRIDGE FREE!

PHONO STAGES TRICHORD TOM EVANS GRAHAM SLEE LEHMANN HEED QUAD CLEARAUDIO ICON AUDIO PURE SOUND PRO-JECT EAR YOSHINO	CARTRIDGES ORTOFON DENON CLEARAUDIO TRANSFIGURATION KOETSU GRADO GOLDRING BENZ MICRO ROKSAN ZYX CARTRIDGE MAN	TURNTABLES MICHELL CLEARAUDIO PRO-JECT THORENS SRM TECH PALMER AUDIO EAR NAD AUDIO TECHNICA DENON INSPIRE	TONEARMS MICHELL CLEARAUDIO REGA SME* GRAHAM MOTH ORTOFON PRO-JECT ROKSAN
HEADPHONES SENNHEISER BEYER DENON AUDIO TECHNICA GRADO ERGO GOLDRING	AMPLIFIERS CREEK SUGDEN ICON AUDIO EAR/YOSHINO DENON QUAD TOM EVANS NAD	CABLES BLACK RHODIUM QED TRANSPARENT WIREWORLD IXOS SUPRA	HIFI FURNITURE APOLLO ALPHASON QUADRASPHIRE SOUNDSTYLE ATACAMA
SPEAKERS HARBETH OPERA QUAD P.S.B. Q. ACOUSTICS AUROUSAL	CD PLAYERS CREEK EAR/YOSHINO QUAD DENON NAD	HEADPHONE AMPS LEHMANN PRO-JECT GRAHAM SLEE CREEK FIDELITY AUDIO SUGDEN	TUNERS CREEK NAD DENON QUAD

ACCESSORIES
DIGITAL STYLUS GAUGES, RECORD CLEANING MACHINES, CLEANERS, AUDIO CASSETTES

* PHONE FOR TERMS. PLEASE PHONE TO CONFIRM PRICE & AVAILABILITY PRIOR TO ORDERING. ALL GOODS ARE BRAND NEW & BOXED WITH FULL U.K. GUARANTEES. NO EX. DEM OR EX DISPLAY GOODS. NO GREY IMPORTS. GOODS ARE NOT SUPPLIED ON APPROVAL. SORRY, NO GENERAL CATALOGUES. PLEASE PHONE OR WRITE FOR SPECIFIC REVIEWS, BROCHURES OR PRICES. SUPPLIER OF HIFI PRODUCTS & ACCESSORIES SINCE 1986 MAIL ORDER ONLY FROM: IAN HARRISON, 7 MILL HILL, REPTON, DERBY, DE65 6GQ. TEL: 01283 702875. 9am - 9pm INCLUDING SUNDAYS.

DCC taped



Martin Pipe revisits Philips' Digital Compact Cassette (DCC) courtesy of a Marantz DD82

By the late 1980s, Philips was working on bringing the ubiquitous compact cassette into the 'digital age'. In 1992 they launched the 'Digital Compact Cassette' - or DCC. Sony too realised that the analogue cassette was showing its age, but did not collaborate with Philips on its successor. Instead, they brought us Minidisc - also in 1992. Both formats relied on the then-new technology of lossy audio data compression to cram a CD's worth of music onto a compact medium.

DCC had immediately obvious drawbacks against its rival. Although early Minidisc hardware sounded demonstrably inferior to DCC it was easier to use, thanks to its comprehensive editing facilities and CD-like random track access. In contrast, you had to wait for DCC to spool to the desired track. Although a track-marking function enabled users to access a particular song at the touch of a button, a search delay was still involved. However, DCC had the significant advantage of being playback-compatible with your

existing analogue cassettes. To this end, some models were equipped with switchable Dolby B noise reduction; others added Dolby C to the spec. No DCC deck, alas, offered an analogue recording facility.

Some pretty nifty tech was involved. First of these was lossy audio compression. PASC (Precision Adaptive Sub-band Coding), which was essentially an MP3 predecessor known as MPEG-I Layer I ('MPI'), squeezed in real-time the 1.44Mbps of uncompressed 16-bit, 44.1kHz-sampled CD-quality audio into the 384kbps stream that the transport could - with error correction - comfortably manage. Philips, as a semiconductor manufacturer, developed complete chipsets to deal with this. A fascinating 1991 article in *Stereophile* magazine (online at <http://www.stereophile.com/asweeseit/491awsii/index.html>) reveals how Philips 'fine-tuned' PASC so that a listening panel could hear no difference relative to uncompressed media like CD and DAT.

DCC tapes were the same size and shape as conventional analogue cassettes, ran at the same speed

(4.75cm/s) and offered the same 'key' 1hr. and 90min. recording times. Some pre-recorded DCCs were available, covering a variety of musical tastes. These offered display of track/artist on the machine's display - something that wasn't possible with your own recordings, as no decks provided a means of entering text (in contrast, Minidisc offered this feature as standard).

Recording was on both sides of the cassette, but you didn't 'flip it over'; indeed, a metal shutter (which also protected the chromium-dioxide tape from dust and locked the cassette's reels) prevented that from happening. Instead, all DCC machines supported auto-reverse as standard.

Then there were the heads that employed thin-film magnetoresistive technology. The upper section of the head had nine tracks for digital recording, while the lower section had two tracks for analogue playback. This system was less complex (and more reliable) than VCR-style transport required by rotating-head DAT machines.

Amongst manufacturers there were only a handful of DCC loyalists,

Emporiumhifi

www.emporiumhifi.com

we now have 3 branches
 Head Office based on Suffolk/Norfolk border 01508 518542 01508 518468
 Kent and south East 01304 239419 - Wales and West 01554 750262
 emporiumhifi@yahoo.co.uk

LATEST USED EQUIPMENT

AMPLIFIERS, DACs, PHONO STAGES

AESTHETIX RHEA PHONO STAGE	Kent	£3,000
AFFORDABLE VALVE COMPANY KTT88 HIGH END INTEGRATED VALVE AMP	suffolk	£800
ALCHEMIST KRACKEN APD6 INTEGRATED AMPLIFIER	suffolk	£499
ALMARRO 5012S VALVE POWER AMP	suffolk	£1,500
ALMARRO 5012A VALVE INTEGRATED AMP	suffolk	£1,500
ARIAND PRO845 MK 1V SINGLE-ENDED INTEGRATED VALVE AMPLIFIER	Kent	£999
ATC SPA 2-150 POWER AMPLIFIER	suffolk	£1,800
AUDIO INNOVATIONS 2ND AUDIO VALVE MONOBLOCKS	suffolk	£995
AUDIO INNOVATIONS SERIES 800 VALVE POWER AMPLIFIER	suffolk	£500
AUDIO RESEARCH D115 POWER AMP	suffolk	£1,200
AUDIO RESEARCH SP8 PRE AMP	suffolk	£1,000
AUDIO RESEARCH CLASSIC 60 VALVE POWER AMPLIFIER	suffolk	£1,500
CALYX AUDIO 24/192 DAC	Wales	£1,200
CONRAD JOHNSON PV12 LINE VALVE PREAMPLIFIER	Kent	£800
COPLAND CTA 520 POWER AMPLIFIER	Kent	£800
EASTERN ELECTRIC M88 INTEGRATED VALVE AMP	Wales	£1,299
EASTERN ELECTRIC PREAMPLIFIER -WITH BORDER PATROL POWER SUPPLY	suffolk	£800
ELECTROCOMPANET AW400 MONOBLOCKS PAIR	Wales	£6,000
GAMMA AEON REFERENCE- ANNIVERSARY EDITION SINGLE ENDED VALVE AMPS	suffolk	£2,500
GAMMA ERA REFERENCE VALVE PREAMP	suffolk	£850
GAMMA SPACE REFERENCE VALVE AMP 300B	suffolk	£1,750
HEART BEAT 300B SINGLE ENDED VALVE MONOBLOCKS	suffolk	£1,000
HEART LINSTAGE VALVE PREAMP	suffolk	£1,000
HORNING SATI 520B VALVE AMPLIFIER WITH PSU	suffolk	£5,600
LECTOR DIGITUBE 24/96 VALVE DAC	Kent	£800
LECTOR VFI 70L HYBRID INTEGRATED AMPLIFIER	Kent	£800
LINDLEY TYSON MODIFIED QUAD II	suffolk	£1,750
LUMLEY REFERENCE 120 SIGNATURE VALVE MONOBLOCKS	suffolk	£1,600
LUXMAN L505 U INTEGRATED AMP	suffolk	£2,750
MARANTZ PM11 S3	suffolk	£1,995
MICHAELSON & AUSTIN TVA 10 POWER AMP	suffolk	£500
MUSIC FIRST COPPER PREAMPLIFIER	suffolk	£1,250
MUSICAL FIDELITY A1 FINAL EDITION INTEGRATED AMP BOXED, WITH BUILT IN MM/MC	suffolk	£750
MUSICAL FIDELITY A1001 CLASS A SUPER INTEGRATED AMPLIFIER	Wales	£1,399
NAIM NAC 202 PRE AMPLIFIER AND NAPSC PSU	suffolk	£1,200
NAIM NAP 200 POWER AMPLIFIER	suffolk	£1,200
NIGHTINGALE ARMONIA INTEGRATED VALVE AMPLIFIER	Kent	£1,600
NVO SPA ONE PHONOSTAGE	suffolk	£2,950
PURESOUND A30 VALVE INTEGRATED AMPLIFIER	suffolk	£799
RAYSONIC SP88 INTEGRATED VALVE AMP	suffolk	£1,000
RESTEK CHALLENGER INTEGRATED AMP	suffolk	£500
STELLO DA220 DAC	suffolk	£1,000
SUGDEN MASTERCLASS IA4 INTEGRATED AMP	suffolk	£2,250
SUMO ANDROMEDA POWER AMPLIFIER	suffolk	£500
TEN AUDIO TAD 1 DAC	suffolk	£2,500
TOWNSHEND AUDIO ALLEGTO TVC PRE AMP EX DEMO	suffolk	£1,580
TRAFOMATIC EXPERIENCE LINE ONE VALVE PREAMP	cumbria	£1,600
VERITAS P400 240WATT POWER AMP	suffolk	£700
WADIA DIGIMASTER X32 DAC	suffolk	£500
WHEST 20 PHONOSTAGE WITH PSU	suffolk	£700
YAQUIN MS 300B SINGLE ENDED INTEGRATED VALVE AMP	suffolk	£650

CD PLAYERS

AUDIO NOTE CD ZERO VALVE CD PLAYER	Kent	£999
EAD ULTRADISC 2000 CD PLAYER	suffolk	£650
EAR ACUTE VALVE CD PLAYER	suffolk	£2,995
JUNGSON HEDO CD PLAYER	suffolk	£550
LECTOR CDPO-6T VALVE CD PLAYER	Kent	£875
LINDEMANN D680 CD PLAYER	Kent	£3,000
MARANTZ SA11S3 SACD PLAYER	suffolk	£2,750
MICRO SEIKI CD PLAYER	suffolk	£980
MIMETISM 27 2 CD PLAYER	Wales	£2,100
MUSICAL FIDELITY CD PRE 24 (CD PLAYER WITH PREAMPLIFIER)	Kent	£800
MUSICAL FIDELITY X-RAY V8 CD PLAYER	suffolk	£800
NAIM CDX2 CD PLAYER	suffolk	£1,450
ROKSAN ROK-DP1 CD TRANSPORT	suffolk	£450

SPEAKERS

ACAPELLA FIDELIO SPEAKERS	suffolk	£1,200
ACOUSTIC ENERGY AE2 LOUDSPEAKERS	Kent	£850
ART SKIBO LOUDSPEAKERS	Kent	£450
ASPARA HL1 HORNS MK1	suffolk	£3,250
ATC SCM10-2 LOUDSPEAKERS	suffolk	£900
AUDIO NOTE ANE-SPE SIGNATURE LOUDSPEAKERS	suffolk	£1,500
HANSEN KNIGHT LOUDSPEAKERS	suffolk	£6,995
CAMBRIDGE R50 TRANSMISSION LINE SPEAKERS WITH KEF DRIVERS	suffolk	£400
EPOS M221 RED CHERRY LOUDSPEAKERS	suffolk	£720
FAL- HEIL AIRMOTION SUPER TWEETERS	suffolk	£1,500
GRADIENT SW63 SUBWOOFERS FOR QUAD ESL63 LOUDSPEAKERS	suffolk	£1,000
HANSEN ELIXIR LOUDSPEAKERS	suffolk	£4,995
HARBETH L55/12A BBC MONITOR LOUDSPEAKERS	Kent	£1,250
LOVINGTON HORN SPEAKERS WITH FOSTEX DRIVERS	suffolk	£725
MERIDIAN DSP 5500	suffolk	£2,500
NIGHTINGALE CONCENTUS CTR II LOUDSPEAKERS	Kent	£5,000
PMC FB11 LOUDSPEAKERS OAK	Wales	£1,599
PROAC RESPONSE 1S LOUDSPEAKERS	suffolk	£750
QUAD 22L LOUDSPEAKERS	suffolk	£475
QUAD 22L2 LOUDSPEAKERS	suffolk	£620
QUAD 57 ELECTROSTATIC SPEAKERS	Wales	£600
QUAD LITE SURROUND SPEAKER SYSTEM WITH SUB	suffolk	£740
REFERENCE 3A EPISODE SPEAKERS	Wales	£4,500
REFERENCE 3A MM DE CAPO LOUDSPEAKERS	Kent	£999
ROCKPORT MIRA GRAND SPEAKERS	suffolk	£8,950
SONUS FABER AUDITOR ELIPSA LOUDSPEAKER	Kent	£1,850
TANNOY CHEVIOT 12" DUAL CONCENTRIC HPD 315 WITH ALNICO MAGNETS	suffolk	£850
WLM LA SCALA SPEAKERS	suffolk	£1,950
WORDEN CORNER SPEAKERS PAIR- WITH TANNOY IILZ DRIVE UNITS	suffolk	£1,500

TURNTABLES, TONEARMS, CARTRIDGES

FUNK FIRM FXR-II TONEARM - WITH UPGRADED WIRING	suffolk	£950
GARRARD 301 IN GOOD WORKING ORDER	suffolk	£800
INSPIRE HIFI LINN LP12 VIVID UPGRADE	Wales	£999
INSPIRE HIFI UPGRADED LINN LP12 SONDEK & FUNK FIRM FXR/2 ARM	Wales	£2,500
LYRA HELIKON CARTRIDGE WITH BOXED- UPGRADED BY VAN DEN HUL	suffolk	£695
ROKSAN 1MS 3 tumbable WITH REFERENCE PSU	suffolk	£4,250
SME V TONEARM	suffolk	£1,495
TECHNICS SL1210 MK 2 TURNTABLE WITH MISSION 774 TONEARM AND KAB EXTERNAL PSU	suffolk	£600
TECHNICS SL1500, UPGRADED PSU, SUSPENSION, MAT & ORIGIN LIVE SILVER ARM	suffolk	£750
THORENS TD309 TURNTABLE	Wales	£725
VAN DEN HULL COLIBRI XGP MOVING COIL CARTRIDGE	suffolk	£1,750
VAN DEN HULL MC ONE SPECIAL MOVING COIL CARTRIDGE	suffolk	£425
WELL TEMPERED AMADEUS GT TURNTABLE	suffolk	£1,400

CABLES AND INTERCONNECTS

CARDAS CROSS 4 5M RCA INTERCONNECTS PAIR	suffolk	£600
CARDAS GOLDEN CROSS 3M PAIR SPEAKER CABLE	suffolk	£1,000
KHARMA KIC-SR 1A 1 METRE INTERCONNECTS PAIR	suffolk	£600
SYNERGISTIC RESEARCH RESOLUTION REFERENCE MK2 1M BALANCED XLR CABLES	suffolk	£600
TELLURIUM-Q GRAPHITE 1M RCA INTERCONNECT	Kent	£450
TRANSPARENT ULTRA BI CABLE PAIR SPEAKER CABLE	suffolk	£900

MISCELLANEOUS

FANFARE FT1 TUNER WITH REMOTE CONTROL	suffolk	£400
KRELL HTS HOME THEATRE STANDARD	suffolk	£1,200
MAGNUM DYNALAB MD108 TUBE TUNER	suffolk	£2,200
MERIDIAN SOOLOOS ENSEMBLE 1TB	Kent	£1,850
NAKAMICHI 700	suffolk	£700
QSONIX Q100 MUSIC SERVER UPGRADED TO Q110	suffolk	£1,500

WE WANT TO BUY YOUR OLD HIFI

We pay cash and can pick up from anywhere in the UK.
 We can even send you packing materials,

WE WANT TO BUY YOUR RECORD COLLECTION

CALL NOW FOR A QUOTE

including Philips, Marantz (then a Philips subsidiary) and Panasonic/Technics (Matsushita). Among the decks offered was the Marantz DD82 featured here. Grundig and Radio Shack/Tandy sold 'badged' DCC decks made by Philips.

Analogue recordings were sampled at CD's 44.1kHz. However, DCC also natively-supported 32kHz and 48kHz sampling rates from digital sources.

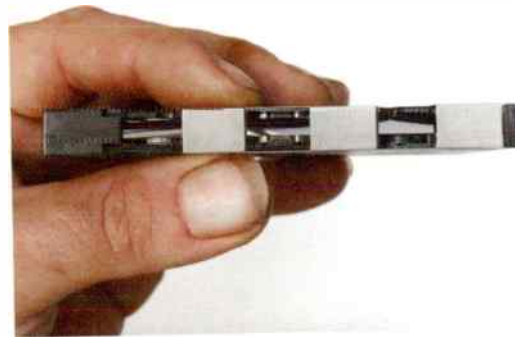
A DCC trick that's valid even now is that when you play analogue tapes, their audio is converted to 44.1kHz/16-bit digital and it appears on the optical and coaxial outputs. If you have a PC with a digital audio input, you can make decent transfers of your tapes using software like Audacity.

enabled high-quality 'field' recordings to be made.

Unfortunately, it was very noisy. To remedy this, I built an external battery-powered preamp for use with mine!

An advantage of the DCC170 - and some other DCC hardware, including the Marantz DD82 - was 18-bit recording from analogue sources (digital dubs from CD were of course 16-bit). The specs in the relevant manuals are noticeably better than 16-bit machines as far as dynamic range is concerned.

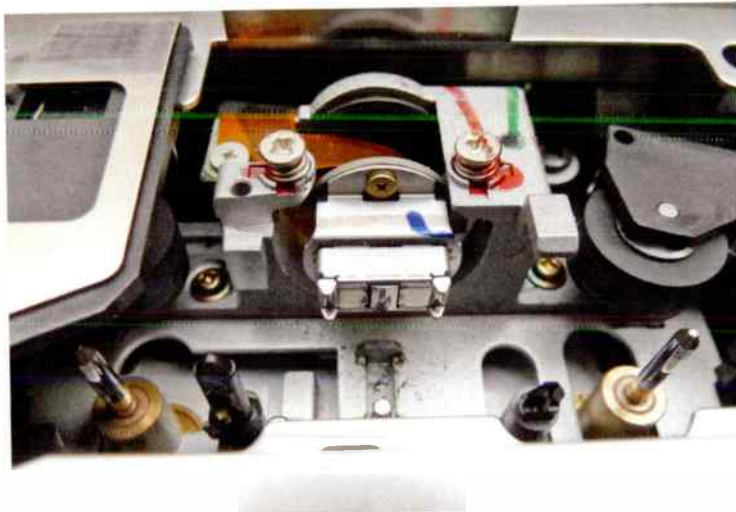
Poor old Philips. Its history of innovation throughout the years (the N1500, N1700 and 'flip-over' V2000 video formats, LaserVision, CD-i...) was compromised by poor marketing,



With DCC, Philips made practical changes to the design of the cassette - which can be inserted only one way (all DCC machines are auto-reverse). A shutter, seen here open, protects the (chrome) tape when it's not in the machine. Note also the improved pressure-pad.

which was bought in the pre-eBay era of 1997. An advert in Loot listed this machine, together with a DCC130 player and a large handful of cassettes, for £100. To put things into perspective the DD82 originally sold for over £600, although by the mid-90s it was being discounted to £200. Its previous owner, like many others, had decided to switch to Minidisc. At that time, I couldn't afford DAT and wanted to experiment with digital recording. I was impressed with the machine's sound quality, which retained all the space and dynamics of the original source and didn't suffer from analogue cassette's lack of high-end 'sparkle'.

It was used for a couple of years to timeshift radio broadcasts - something that was helped by the subsequent acquisition of two dirt-cheap boxes of Memorex DCC blanks from an amateur radio rally. Analogue cassette replay is another benefit. Clearly benefitting from Philips' thin-film heads, it yields an extended frequency response and steady soundstaging. Even today, I'm



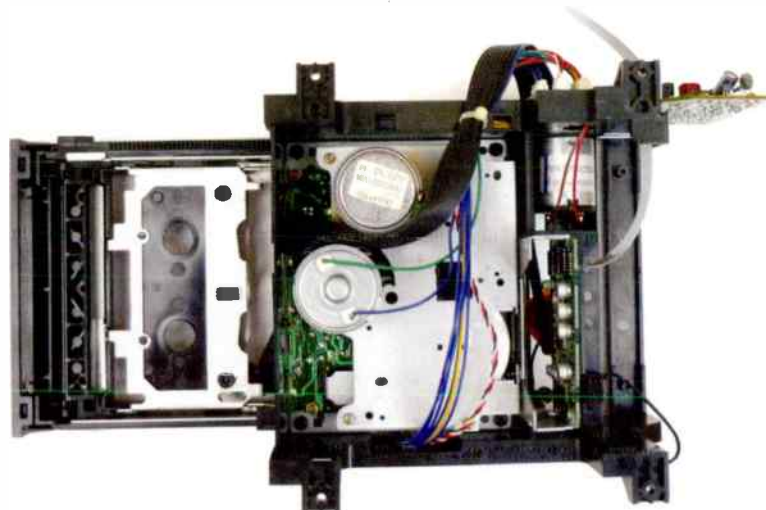
Here we can see another innovation - the DCC head, which was manufactured using then-revolutionary thin-film technology. Featuring nine tracks for digital recording/playback and two more for conventional analogue replay, it should never be demagnetised.

Portable machines (manufactured for Philips by Matsushita) were an obvious move. In 1992, the first-generation DCC130 player was frequently-bundled with the recorders by retailers, enabling users to play DCCs (and analogue cassettes) on their travels. Incredibly, this battleship of a personal had a conventional optical digital output for external DACs and the like.

In the mid-1990s came the excellent DCC170, a compact machine capable of recording and equipped with 3.5mm optical digital inputs and outputs, as well as analogue connections. There was even a microphone input that, certainly in theory,

DCC alas became its latest failure, the format being discontinued in late 1996.

And so to my Marantz DD82,



The DD82/DD92's three-motor mechanism is more robust than the ones built in later DCC decks. A pair of heavy flywheels contribute to low wow and flutter - hence the excellent analogue playback. Surface-mount capacitors on the head-amp circuit board (visible right) tend to fail, though.

Enjoy the Music.com®

Audiophile Equipment & Music Reviews
Your resource for high-end audio news & information!

Over 5,700 Web Pages

The most extensive high-end audio knowledge and news online!

Over 135 Audiophile Show Reports

No one has more worldwide show coverage on the Internet!

The Best Contests

Over \$150,000 in prizes offered to our readers!

Internet Partners With Leading Magazines

hifi+ the absolute sound HIFICRITIC HI-FI WORLD hifimedia

Media Partners With Major American Shows



AXIPONA
AUDIO EXPO NORTH AMERICA



www.EnjoyTheMusic.com



WORLD
DESIGNS

hear the music . . . not the equipment

WDKT88 32 watts per channel
ultralinear push pull stereo
amplifier. Single input power amp
or integrated with multi-input
relay switching

WDKEL84 15 watts per channel
ultralinear push pull stereo
amplifier. Single input power amp
or integrated with multi-input
relay switching

WDPhono3 All triode passive
equalization valve phono-stage.
Dual input option. MC step-up
transformers available.
Requires WOPSU3 power supply

WDPre3 Transformer coupled
single ended valve pre-amplifier.
Low output impedance. Multi-
inputs utilizing relay switching.
Requires WOPSU3 power supply

WDPSU3 High performance
choke power supply

WDHD3S Transformer coupled
single ended valve headphone
amplifier. Multiple settings for
headphone impedance matching.



Kits and Components for the Audiophile Community
07972 055492 sales@world-designs.co.uk

www.world-designs.co.uk



Here we have the neat internal construction of the Marantz DD82. To the left can be seen the tape transport; to the right the motorised analogue output-level potentiometer. Next to the latter are the vertically-mounted digital-audio and PASC compression boards.

surprised how close it gets close to 'reference' decks like my Nakamichi ZX7 and Sony WM-D6C. It helps that a pair of heavy flywheels keeps wow and flutter at bay; later decks 'went plastic', and the resultant effects on analogue pitch stability are obvious although DCC mode is unaffected.

As a Marantz machine, styled to match the brand's contemporary CD players, attention was paid to sonics and design. You got a fixed as well as a variable analogue audio output, the latter being controlled via a motor-driven potentiometer. It could thus drive a power amplifier directly, which proved useful if you wanted to use the machine with a CD transport (or a computer!) as a DAC - like some revered Marantz disc-spinners, the DD82 employed the SAA7350/TDA1547 ('DAC 7') Bitstream converter.

The DD82 was a solidly-built beast, weighing in at 8.3kg. But it wasn't the pinnacle of Marantz's DCC engineering. A 'tweaked' version with reinforced chassis, the gold-fronted DD92, topped the scales at a whopping 13kg.

Oddly enough, the same service manual covers both models - and therein lies a cautionary tale. Some years after my DD82 was placed into storage, I was asked to transfer some DCCs to CD (I can transfer many obscure audio formats to CDs or WAV files). The tape yielded numerous dropouts - and analogue replay was both low in level and characterised by a lifeless trebly sound. The Hi-Fi Engine website came

up with a free manual, and it was realised that the 'read-write' amp was common to both symptoms. This lives on a small circuit board mounted on the sizeable deck transport, and on removing it a nasty 'fishy' smell permeated my senses. For this, we can blame leakages from the tiny surface-mounted electrolytic capacitors - which can also corrode circuit-board tracks.

A problem with components of this era, such messiness has rendered useless domestic camcorders, portable DAT machines and professional VCRs. The capacitors were removed (not an easy or pleasant job), the boards cleaned and tracks checked for continuity. In their place

went sub-miniature 'through-hole' capacitors of the relevant values. I found more deteriorating capacitors on a plug-in board that handles PASC compression, and these were dealt with too.

Where can you buy tiny electrolytics? Since the once-great Maplin seems to be morphing into a toy-shop chain these days, the only reliable source of such components is the specialist e-shop (try eBay).

But be careful - this isn't a job for the faint-hearted! Replacing belts (capstan and tray-loading) is somewhat more straightforward - as is cleaning capstans, heads and pinchwheels. Do not under any circumstances, though, be tempted to apply a demagnetiser to a DCC deck's head assembly.

With the repairs and servicing completed, my DD82 was restored to full working order. After transferring those DCCs to CD, I hooked up the machine to my Naim Nait/Acoustic Energy system and slipped in one of my old tapes.

Those vintage Radio 2 concerts and Radio 1 Essential Mixes, recorded from FM radio, sounded as good as they ever did. A dub from CD also impressed, with very little to tell it apart from the original source other than a slight veiling of detail with complex orchestral pieces. Ignore the marketing idiosyncracies - Philips got the tech right, over two decades ago. Today, used machines tend to go for between £50 and £100 on eBay. I've seen blank tapes for £5 a piece, and so if possible ensure that some are 'thrown in' with any DCC deck that takes your fancy.



The compact Philips DCC170. Save for a Marantz professional machine, it was the only portable DCC recorder sold in the UK. An excellent playback device, it was limited as a field recorder by relatively-limited recording time and rather noisy microphone preamps.

free reader Classifieds

TERMS AND CONDITIONS: Only one advert per reader. No Trade adverts. This section is strictly for readers selling secondhand hi-fi equipment only. Maximum length per advert is 30 words, Adverts over 30 words will not be accepted. Telephone numbers and E-mail addresses are treated as one word. Model numbers are treated as one word i.e. Quad 303 = two words. Email your advert to; classifieds@hi-fiworld.co.uk or fill in the form on page 113 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.

EDISON TWELVE
(Hinchley transformers)
£325. Power amp (7868 valves) £295. Kelvin Labs integrated £340. Oracle Paris £395. Snell K's £195. Leak Troughline mono, offers. Tel: 0113 255 9475

TOTEM STTAF
floorstanders, immaculate, boxed, £725. Audiolab 8000A (upgraded) £150. Stax 303, Pro Energiser £175. Chord Rumour bi-wired, 3 metre £50. 4TC. 5 metre £90. £1025 for the lot. Demo. Tel: 020 7586 6254

TECHNICS SL5 turntable (HFV Jan 2012) £70. Marantz PM7001 amplifier, boxed, unused, £170. Carbon fibre record brush, sealed packet, £6. Mission 700-2 speakers, £40. Heybrook HBI speaker stands, £35. Tel: 01708 457 691

MUSICAL FIDELITY
E20/30 pre and power amps. E20 has MM/MC phono input. Excellent working order and condition. Manuals and boxes. £475 for both. Will not split. Tel: 012876 39179 (North Yorks)

HI-FI ENTHUSIAST
is looking to buy both vintage and modern audio equipment. Unfinished projects welcome. Will travel, cash waiting. 0117 946 7188 slkw@btinternet.com

BURSON HA-160
headphone amp. Hardly used, £300. Rogers LS4a speakers with metal open frame stand, £120. Tel: 020 8670 9634 (Dulwich, South London)

PANASONIC DMR-BWT-720 Blu-ray recorder with 1Tb hard drive and Freeview HD tuner. Great for storing CDs and photos as well and recording TV programmes. £300. Tel: 020 8684 1274

MAGNUM DYNALAB
107TR tuner with remote control and FT2 aerial. New, good reason for sale. Cost £3598. Will accept £2600. Tel: 07854 266 620 (Cornwall)

BRAND NEW Sony
BDVEF200 2.1 surround sound system, with BD Blu-ray player, FM tuner, CD player and two extra HDMI inputs for other media. £180. Tel: 020 8684 1274

CASTLE SEVERN 2
floorstanding speakers in cherrywood. One owner, never thrashed, good condition. £60. Tel: 078751 14913

SONY RDR-HXD970
DVD recorder with 250 Gb hard drive for storing CDs, photo's as well as TV programmes. In good clean condition. £150. Tel: 020 8684 1274

LATE VAN den Hul Frog Gold cartridge wanted. One requiring repair considered. White Beauty also considered. Tel: 01505 346 791 (Renfrewshire)

AUDIOLAB 8000T tuner in good condition and typical Audiolab sound, open and coherent. £180. Tel: 020 8684 1274

WANTED: SME 309, black finish if possible. South West area. Must try before purchase. Also wanted, Fidelity Research FR54. Tel: 01392 469 373

POWER SUPPLY for Class A amplifiers, self contained, suits John Linsley Hood's or any low power class A amplifier, £279. Pair of used SEAS 10 inch drivers, £99. Tel: 0207 499 8729.

WANTED: Standesign hi fi audio rack 5 shelves (Design 5) including floor spikes & top shelf turntable spikes, black MDFshelves must be in "Mint Condition" offering £300.00 Contact E-Mail fiskallen@aol.com

MUSICAL FIDELITY
A3cr pre and power amps. v.g.c. Well looked after with no marks. Excellent working order. £450 the pair. Happy to demonstrate Tel 0115 9328540 (mid Derbyshire)

SAMSUNG HTC-5800
2.1 surround sound system with 3D Blu-ray player, FM tuner, iPod Dock and CD player. Also has two extra HDMI inputs and USB. £160. Tel: 020 8684 1274

RADFORD STA25 series 3 valve power amplifier. It has been cherished by myself for the last 15 years. I am reluctantly downsizing hence £995 Silver High Breed Epitome 8 interconnects with phono's £50 davidhirst244@o2.co.uk Tel 02476 679165 (Midlands)

ARCAM A85 integrated P85 power amp in silver with oak finished PMC TB2's that have had the '+' tweeter upgrade. £600.00 or near offer. e-mail: reynolds853@hotmail.co.uk tel: 01795 522448

TRUE COLOURS
industries super constrictor mains cable 1.0 metre this £200.00 cable could be yours for £65.00 including postage check it out on the net, phone 0191-4171669.

ELECTRONICS
HOBBYIST requires for project faulty or non working Quad 44 preamps, later grey models with rca phono sockets. Contact Mike 01758 613790 with price

AVI S2000MM 150W monoblock amplifiers with S2000MP preamp (without remote). In perfect working order, boxed and unmarked they are reliable and give a spacious, rich sound. £1000. Tel: Clive 01474 872863.

MARANTZ CD63 Mk 2 KI/DP Signature Edition player. Copper plated (casework and chassis) Official modification at £1000 + donor player. Collectable. Reviews. Receipts. £650 Tel 07977042745

LEAK STEREO 20, refurbished and cosmetically excellent; £750.00. Other Leak equipment available if required together with a Garrard 301 which is currently being rebuilt. Contact Tim 07796 930305"

LINN SNEAKY Digital Streamer £500 (£1015); Chord Signature Plus 1 metre RCA Interconnect £300 (£765). All items are in excellent condition and come with manufacturer supplied boxes, packaging and manuals. Excludes postage costs. Phone 07910913525

EDDIE VAUGHN signature 2A3 DRD valve amplifier, can be used as a single input integrated or as a power amp. 4w channel, (J) 2A3), Magnequest transformers. Quality amp in excellent condition. £1,500 ovno. 01483 271669 (Surrey)

AVID DIVA2 turntable, boxed, 1 owner, excellent condition £750.00, Jelco SA750D tone-arm, boxed, pristine all packaging, £275.00, Nagaoka MP110 cartridge, boxed, roughly 50 hours use receipt £60.00., howard167@hotmail.co.uk, 07793 097521. SW London will post.

1966 REVOX A77 4track teak cable remote control full manual refurbished 2012 little used. Tandberg 64 4track 7" deck valve pre-amp original manuals. Leak Stereo 70, Stereophetic, teak. Details j_cornford@btinternet.com

KEF SPI053 floor standing speakers with oval bass radiator in rosewood with brown grill cloth. Superb sound, mint condition. £230. Tel: 01254 51295 (Blackburn)

PRE-LOVED JM Lab Micro Utopia with cherry side panels. Fast detailed and transparent. In great condition and boxed. Asking £1800. Tel: 020 8684 1274

ROKSAN PLATINUM Pre-Amp PR15B- black, remote, manual, boxed, excellent condition. 5 line ins including 2 XLR'S plus 1 tape in/out and 2 twin pair outputs (phono + xlr)!!! £1200 ovno. Tel: 07812 935242.

WANTED: HI-FI Choice Paperback booklets reviews Title- Turntables must review the Revox B291 and Title- Cassette decks and Tapes must review the Revox B215 and Nakamichi RX 505E offering £35.00 each contact fiskallen@aol.com

SPENDOR S8 speakers totally unmarked condition both drivers and cabinets .All original manufactures packaging Can e mail pictures on request . New £1650 sell for £650 Tel 01934 521621 or stemar1@tiscali.co.uk

MAGNUM DYNALAB 107TR tuner with remote control and FT2 aerial. New, good reason for sale. Cost £3598. Will accept £2600. Tel: 07854 266 620 (Cornwall)

EDISON TWELVE (Hinchley transformers) £325. Power amp (7868 valves) £295. Kelvin Labs integrated £340. Oracle Paris £395. Snell K's £195. Leak Troughline mono, offers. Tel: 0113 255 9475

TOTEM STTAF floorstanders, immaculate, boxed, £725. Audiolab 8000A (upgraded) £150. Stax 303, Pro Energiser £175. Chord Rumour bi-wired, 3 metre £50. 4TC. 5 metre £90. £1025 for the lot. Demo. Tel: 020 7586 6254

TECHNICS SL5 turntable (HFW Jan 2012) £70. Marantz PM7001 amplifier, boxed, unused, £170. Carbon fibre record brush, sealed packet, £6. Mission 700-2 speakers, £40. Heybrook HBI speaker stands, £35. Tel: 01708 457 691

MUSICAL FIDELITY E20/30 pre and power amps. E20 has MM/MC phono input. Excellent working order and condition. Manuals and boxes. £475 for both. Will not split. Tel: 012876 39179 (North Yorks)

HI-FI ENTHUSIAST is looking to buy both vintage and modern audio equipment. Unfinished projects welcome. Will travel, cash waiting. 0117 946 7188 slkw@btinternet.com

BURSON HA-160 headphone amp. Hardly used, £300. Rogers LS4a speakers with metal open frame stand, £120. Tel: 020 8670 9634 (Dulwich, South London)

PANASONIC DMR-BWT-720 Blu-ray recorder with 1Tb hard drive and Freeview HD tuner. Great for storing CDs and photos as well and recording TV programmes. £300. Tel: 020 8684 1274

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 not? Can it be repaired and if so is it worth it?
7. Has it been modified and, if so, have notes been kept?
8. Was it any good in the first place?
9. Don't send cash!
10. If you are in the slightest doubt, arrange an audition (see point 5) If it's too far, wait for another time.
11. Either buy it or don't: vendors are excusably impatient with 'consultation' exercises.

12. Don't send cash!

FOR THE SELLER

1. Not everyone is honest - Seller Beware!
2. Make no verbal guarantees.
3. Even 'nearly new' is still second-hand. If the manufacturer's guarantee is no longer in force, your price should reflect this.
4. There is very little intrinsic value in second-hand hi-fi; it's only worth what someone will pay for it.
5. The best guide to pricing is last month's Classifieds: that a 'classic' was worth £xxx a year or two ago is no guide. Values fall as well as rise.
6. Amateur second-hand dealing is not a big money game: you win some, you lose some.
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

DECEMBER 2013 ISSUE

Tannoy continue to develop their Dual-Concentric drive unit, seen at top on the new Precision 6.4, that we review next month. With point-source imaging and Tannoy-style bass power, all from just a few Watts from an amplifier, this is a loudspeaker worth knowing about. Catch our full review next month of this great new design.



LOUDSPEAKER

TANNOY PRECISION 6.4 LOUDSPEAKER

VINYL

VPI SCOUT 1.1. TURNTABLE

DIGITAL

TEAC PD501 HR CD PLAYER

TEAC A1501EA USB DAC

CHORD ELECTRONICS DSX1000 NETWORK MUSIC PLAYER

MERIDIAN DIRECTOR USB DAC

IBASSO DX50 PORTABLE PLAYER

AMPLIFICATION

PROJECT HEAD BOX DS HEADPHONE AMPLIFIER

HEADPHONE

YAMAHA HPH MT220 HEADPHONE

This is a selection of what we hope to bring you, not a complete list. Unfortunately, we regret that due to a wide range of issues such as failure under review, we cannot guarantee that all products listed above will appear.

PICK UP THE DECEMBER 2013 ISSUE OF HI-FI WORLD ON SALE 31ST OCTOBER 2013, OR SUBSCRIBE AND GET IT DELIVERED TO YOUR DOOR: p38

FREE READER CLASSIFIED ADS ORDER FORM

STOP PRESS

ADVERTISERS INDEX

2nd Hand HiFi	88
Absolute Sounds	OBC
Atlas	94
Audio Freaks	18
Avid	82
B&W	IFC
Basically Sound	70
Billy Vee	98
Black Rhodium	14,44
Doug Brady	72
Emporium HiFi	106
Enjoy The Music.Com	108
Epiphany	70
Heatherdale Audio	98
Henley Designs	58,74,92
HiFi Sound	88
IAG	36
Ian Harrison	104
Icon Audio	32
Inspire HiFi	62,70
Jordan Acoustics	68
KEF	54
Kog Audio	90
Meridian	66
Mingda	42
Music First	104
Origin Live	44
Quadral	62
Retro Reproduction	104
Sevenoaks	99,100,101
Signals	98
SME	14
Sound Fowndations	60
Sound Hi-Fi	90
TelluriumQ	16
Turntable World	88
Usher	IBC
World Design	108

TERMS AND CONDITIONS: Only one advert per reader. Maximum length per advert is 30 words, Adverts over 30 words will not be accepted. No Trade Adverts. This section is strictly for readers selling secondhand hi-fi equipment only. Telephone numbers and E-mail addresses are treated as one word. Model numbers are treated as one word i.e. Quad 303 = two words. Sorry, we cannot accept adverts over the telephone. The Publisher reserves the right to judge submissions.

You can email your advert to us at: classifieds@hi-fiworld.co.uk
or write or type your advertisement copy in block capitals with one word per box and post it to us at:

Hi-Fi World Free Readers Ads,
Unit G4, Argo House, Kilburn Park Road,
London, NW6 5LF.

**We cannot accept
adverts over the
telephone**

WE WILL ACCEPT PHOTOCOPIES OF THIS FORM

1	2
3	4
5	6
7	8
9	10
11	12
13	14
15	16
17	18
19	20
21	22
23	24
25	26
27	28
29	30

Name: _____
Address: _____
Post Code: _____
Daytime Tel: _____

FREE READER CLASSIFIED ADVERTS COPY DEADLINES

JANUARY 2014 - 4TH NOVEMBER

FEBRUARY 2014 - 2ND DECEMBER

10CC

HOW DARE YOU!
1976

"this sad lady in the foreground is a gin soaked housewife"

If you want to know about 10cc, then buy 'How Dare You!' It offers a band biography on a piece of vinyl: beautiful melodies, wit, an avant-garde slant to song writing and an essential, irreverent quality. The latter revealing a refreshing, down-to-earth nature of a band with no drug problems, no-one went to rehab, no one committed suicide and no drummers spontaneously combusted. Maybe that's because the group were pretty grounded as people.

Although band member, Graham Gouldman, did declare that 10cc were, "...pop, albeit an extreme version. That's because we had four pretty odd minds. Things can happen when you're free and easy with ideas and encouraged by the other lunatics around you."

Not many people realise that 10cc were the biggest Jewish band to come out of Britain. All, except Eric Stewart (brother in law to Lol Creme), were of the Jewish faith.

In fact, for a short time, during those early days, the band were going to be called 'Three Yids and a Yok', "It was a joke, really," explained Gouldman (who almost became a Rabbi). "We never would have done it. It would have been offensive to Eric and it would have been offensive to us! Eric was fine about it, though. We explained the derivation of the word and he knew that 'yid' was detrimental to a Jewish person."

Newly reissued by Music On Vinyl (www.musiconvinyl.co.uk), 'How Dare You!' was the band's fourth album release after 1975's 'The Original Soundtrack', famous for its inclusion of, 'I'm Not In Love'. 'How Dare You!' did strike feature two excellent singles of its own: 'I'm Mandy Fly Me' and 'Art For Arts Sake'.

For 'Mandy', despite the subsequent stories of drug references relating to LSD and Mandrax, band member Eric Stewart pointed at, "American Airlines," which displayed a poster of, "...this gorgeous stewardess inviting you onto the plane. I remember seeing, in Manchester, this beautiful poster and just below it was this tramp. I mean a serious tramp, quite a raggedy guy, looking up at this girl and I thought God, do you know, there's a song there."

So Eric took the idea back to the band in the studio...who hated it. Until drummer, Kevin Godley, decided to juggle with the song and its direction, "We changed the rhythm and put

two whacking great guitar solo's in there, in the middle of this quiet, soft, floaty song. Once we'd got that idea in, it just gelled into something else."

The other single, 'Art for Arts Sake' derived from an idea by Graham, whose father used to use the words as a personal saying. As a piece of 'art', the album itself is full of imagination, creativity and experimentation with arrangements that challenged the nature of song writing as well as the running order that was quite daring.

At that time, a vocal band starting an album with a complex instrumental, such as the title track, was unusual while 'I Wanna Rule the World', featuring a victim of bullying who plans revenge by taking over the planet, is sheer music hall. 'Don't Hang Up', meanwhile, proves that the band could address the complexities of human relationships.

The latter, in fact, is reflected in the iconic artwork, created by Hipgnosis. Co-founder, Storm Thorgerson commented, "It took a whole month before I was able to reduce 'How Dare You!' to some workable bottom line. In this case it was that there were a lot of connections in the lyrics involving puns and unlikely word associations. As soon as I said that to Peter (Christopherson – partner in the company) he suggested telephones, because they connect, of course, and we both immediately thought of that old film thing of split-screen phone conversations.

We chose characters and situations from the songs and then added a sub-plot involving the couple that appear in every shot, in the desk photo or behind the blonde lady where we see them getting out of the car. This sad lady in the foreground is a gin soaked housewife, wasting away in rich suburbia, whilst her smooth businessman husband works too hard and consequently neglects her. He is furious at being interrupted at work, again. How dare she!

The inner spread for the album is a paranoid nightmare about going to a crowded party and being totally unable to talk to anyone – better to be on the blower than face somebody directly."

Well mastered by Music On Vinyl, the new reissue includes the original gatefold and insert.

PR

USHER

The USHER Dancer Diamond Series features the world's first amorphous DLC (diamond-like carbon) diaphragm tweeter. This is a tweeter which is second to none in the current market. To find out more, visit www.usheraudio.com or your nearest USHER dealer...



"2012 Editor's Choice" Awards --- AUDIO ART

Mini-X Diamond

2-way system: 1.25" Diamond DMD dome tweeter, 7" midrange
Sensitivity: 87 dB @ 1 watt / 1m
Nominal impedance: 8 ohms
Frequency response (-3 dB): 41 Hz ~ 40 kHz
Power handling: 100 watts
Crossover frequencies: 2.3 kHz
Weight: 15.5 kgs/34.2 lbs. per piece
Dimensions (w x d x h): 26 cm x 37 cm x 43.5 cm;



Behind the scenes

Dr. Joseph D'Appolito a world renowned authority in audio and acoustics designs the crossover and performs prototype testing/final fine tuning for Usher Audio. Consulting to a couple of famous audio companies, Joe always finds the tremendous value Usher Audio products represent a delightful surprise in today's high end audio world.

Rueyma Electric Technology Co., Ltd.

No.29-2 Jhonghua Rd., Taipei City 100, Taiwan
Tel: 886 2 2314 3868, Fax: 886 2 2371 7253

Distributed in the UK by Decent Audio

T: 0560 2054669
W: www.decentaudio.co.uk E: info@decentaudio.co.uk

"I've got a feeling we're not in Kansas anymore..."

A voyage of musical discovery: Nuance. Emotion. Artistry. Over the decades, MartinLogan has produced loudspeakers with the sole purpose of getting you back to the music.

Having mastered electrostatic technology with the CLS, a skill now embodied in the hybrid Summit X and the full-range CLX Art, MartinLogan has re-imagined speaker technology. MartinLogan speakers address systems from purist two-channel to multi-channel home theatre, with a range including BalancedForce™ Dynamo™ subwoofers, surround-sound and centre channel speakers,

It is no exaggeration to say that MartinLogan speakers are as beautiful as speakers can be and bear aesthetics worthy of the sound they reproduce. They enhance your musical pleasure and your living space.

Because, as Dorothy learned, there's no place like home.



See us at
THE hi-fi SHOW
The ultimate high end hi-fi experience *Live*
25-26 OCTOBER
Beaumont House Estate
Old Windsor, West Berkshire

 **absolute sounds ltd.**

International Distributors & Consultants of Specialised Hi-End Audio & Video Systems
58 Durham Road, London, SW20 0TW T: +44 (0)20 89 71 39 09
W: www.absolutesounds.com E: info@absolutesounds.com

