3 PAGE VINYL SECTION - SEE PAGE 80

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Hand built in England by music lovers. Enjoyed by music lovers all over the world.

Now listen...
First — an aside. Last month at the end on my editorial intro I mentioned the Advertising Standards Authority's (ASA) ruling in favour of Russ Andrews with regard to claims made for his mains cables. This was spotted immediately by an eagle-eyed reader and caused him to write in — see Letters. Quite right too! Cables are controversial and What Hi-Fi? now avoid reviewing them, I think I am right in saying, as it has brought so much wrath onto their heads, mainly from the ASA.

How, for example, do you prove that digital cables — of all things — affect sound quality? They do and we can demonstrate it with our Rohde & Schwarz UPV audio analyser, but others cannot. So they get hit. Until more work is done on testing cables some will be understandably sceptical about their affect upon sound quality.

In the meantime it is best if everyone understands that cables are a hot topic, one in which definitive answers are hard to find.

Also a hot topic is the massive Icon Audio Stereo 845PP amplifier (see p10) we feature this month. Valve amps are just sexy, if you'll pardon me saying so, and a brace of massive 845s can't be beaten. Gorgeous!

Also gorgeous were Audeze's planar magnetic headphones I review on p44. Used with a high-resolution player, 'phones like this offer devastatingly good sound quality. Head for a demo if you can.

Although the headphone market has grown into a monster, dragged into the limelight by Dr Dre, loudspeakers have their place and Acoustic Energy's 10IS loudspeakers were little crackers that perfectly suit modern audio. Small, inexpensive but technologically deft, you can read about them on p23.

And we also have an exclusive with our feature on the new U.S. Beatles CD box set. What America got was a lot different to the U.K. — different tapes, different mixes and running orders. Beatles collectors and completists will love Paul Rigby's box set. What America got was a lot different to the U.K. — different tapes, different mixes and running orders. Beatles collectors and completists will love Paul Rigby's box set. Meanwhile the mono LPs are being cut at Abbey Road, near to our offices, and I'm off to have a chat about them soon too. I have much, much more to say about our involvement here, but it's all very hush, hush at the moment!

Noel Keywood, editor.
contents

ACOUSTIC ENERGY 101S LOUDSPEAKERS 23
A new budget standmount from Acoustic Energy impresses
Jon Myles

JBL STUDIO 230 LOUDSPEAKERS 56
Jon Myles has some fun with JBL's Studio 230 loudspeakers

FEATURES
DIGITAL BEATLES 50
Paul Rigby slots the latest Beatles CD remasters into his machine

ANNE BISSON 93
Jazz pianist and one-time dating show TV star. Paul Rigby meets
Anne Bisson

CABLES
TELLURIUM Q CABLES 35
Tony Bolton reviews the Tellurium Q range of cables

HEADPHONES
AUDEZE LCD-XC & LCD-03 HEADPHONES 44
Noel Keywood dons the latest headphones from Audeze

OLDE WORLDE
NAD 7020 RECEIVER 58
Martin Pipe looks back at the classic NAD 7020 receiver

ICON AUDIO STEREO 845 PP INTEGRATED AMPLIFIER
AMPLIFICATION

10 ICON AUDIO STEREO 845 PP INTEGRATED AMPLIFIER
Icon Audio’s latest integrated features massive 845 valves. Jon Myles lights it up.

15 FOSTEX HP-A8C DAC HEADPHONE AMPLIFIER
Martin Pipe discovers 32-bit audio with the Fostex HP-A8C DAC/headphone amplifier.

40 YBA iA3 AMPLIFIER
Martin Pipe takes a fancy to French company YBS’s latest amplifier.

DIGITAL

36 ANTELOPE AUDIO ZODIAC PLATINUM DAC
Antelope Audio brings DSD playback to its Zodiac Dac. Jon Myles takes a listen.

48 NAD D 3020 /AMPLIFIER DAC
NAD updates the classic 3020 for the digital age. Jon Myles says it could be another classic in the making.

PORTABLE

66 HARMAN KARDON ONYX
Jon Myles tries out a new up-market portable Bluetooth speaker.

REGULARS

7 NEWS
All the latest from the world of hi-fi.

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

21 COMPETITION
Your chance to win an Antelope Audio Zodiac Gold DAC worth £2,595

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

83 GEARBOX AUDIOPHILE VINYL FEATURE
Paul Rigby visits a decidedly audiophile London record label.

89 SCHEU TIMBRE TURNTABLE
Tony Bolton checks out a new turntable from Scheu.

86 AUDIOPHILE CD
Paul Rigby rounds up the latest audiophile CD releases.

69, 71, 73 OPINION
The team get to grips with matters music, hi-fi and life.

78 DIAL-A-DEALER
A comprehensive guide to UK hi-fi retailers.

94 CLASSIFIEDS
Two pages of second-hand bargains.

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

97 ADVERTISERS’ INDEX

98 CLASSIC CUTS
a worthy partner

World Radio History

www.qat-audio.com
ONKYO AV

Onkyo has announced two network AV receivers, the 5.2-channel TX-NR535 and 7.2-channel TX-NR636. Both feature HDMI specified for 4K/60 Hz video, built-in Wi-Fi and Bluetooth and universal support for gapless hi-res network audio, while the TX-NR636 adds HDCP 2.2 compatibility to support the latest DRM copy-protection standard.

The TX-NR636 is the first A/V receiver to support HDCP 2.2. This latest DRM copy-protection standard will be adopted for future premium 4K studio releases, 4K streaming via internet service providers, as well as for UHD terrestrial and satellite broadcasts. This content will be unplayable (or converted to standard definition) when passed through non-HDCP 2.2-compliant A/V receivers.

The free Onkyo remote app for iOS and Android devices locates and streams network-attached hi-res tracks via DLNA. Both receivers feature gapless playback of almost any high-resolution file format including 5.6 MHz DSD, Dolby TrueHD, 24bit/192kHz FLAC and WAV and ALAC to 24bit/96kHz.

Music stored on smartphone and tablet can be streamed via remote app and Wi-Fi to the home theatre, while users can browse and stream on Spotify, Deezer, AUPEO! and TuneIn from within the app. Support for Spotify Connect will be added later this year via a firmware update.

Onboard Bluetooth is also included (no extra charge for an adapter).

Price for the TX-NR636 is £500 with £400 for the TX-NR535.

Call 08712 001996 or click on www.onkyo.co.uk for more information.

DAC Box RS is a D/A converter featuring a linear solid state Class-A or selectable tube output stage. It serves as a USB audio interface for computer audio and features an I2S interface plus master clock output for use with the company's own CD Box RS. It also suits other digital sources with AES/EBU, optical and coaxial output. The box offers DSD capability (up to DSD128) over PCM. Price is £899.

Also look out for the Pre Box RS digital, balanced double mono design, with switchable DAC chips: two PCM1792 or PCM5102, nine digital inputs, a headphone amp and a Blue ALPs volume control.

Price is £1,199.

A final addendum, the £299-priced DAC Box DS, is now capable of handling pure DSD audio files over USB. A free upgrade is available to all existing DAC Box DS customers. Visit the support section of the following website for more information.

Click on www.henleydesigns.co.uk or call 01235 511166.

PURE CONTOUR DI

A DAB/FM, 20W radio dock with Bluetooth streaming that accommodates Apple models with both 30-pin and lightning connectors, the Contour D1 is priced at £150.

Users of smart devices with Bluetooth can stream audio wirelessly to the radio.

The Contour D1 is a companion to the free Pure Connect app which enables access to over 20,000 global internet radio stations, in excess of 200,000 free on-demand programmes and podcasts as well as millions of streamable music tracks via Pure’s subscription music service. All content from the Pure Connect app can be streamed wirelessly to Contour D1 via Bluetooth.

Click on www.pure.com or call 0845 1489001 for more information.

airDAC

Delayed since last year due to AirPlay component shortages, the airDAC has been relaunched with increased cross-platform functionality of UPnP streaming and a new free SongBook UPnP Control App.

Designed to connect to any Hi-Fi or Home Cinema system, this high-resolution (up to 24bit/192kHz) network/internet UPnP streamer includes a pair of SPDIF and optical digital inputs, analogue outputs plus an SPDIF output that can be connected to a DAC. Price is £400.

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

email: news@hi-fiworld.co.uk

World Radio History

JUNE 2014
**AESTHETIX ATLAS SIGNATURE**

The Aesthetix Atlas amplifier features a zero feedback, hybrid design incorporating a bipolar output stage, bipolar driver stage and vacuum tube input gain stage.

One 6SN7 tube per channel is used to provide all of the voltage gain for the entire amplifier. Its two transformers and three chokes are housed under a stainless steel cover to prevent magnetic fields from interfering with the audio circuitry. A 6dB/octave high-pass crossover can be set to sixteen different values between 40Hz and 200Hz, an unusual feature which is ideal for speakers featuring powered woofers or for audio and home cinema systems using outboard powered sub-woofers.

The Atlas Stereo Signature uses the same circuits as the standard Atlas Stereo but, while the standard Atlas uses Rel-Caps as inter-stage coupling capacitors, the Signature upgrades these to Peter Moncrieff's StealthCaps. In addition, high current output stage power supply capacitance is doubled. Binding-post wiring is upgraded to an audiophile 14awg. A further critical refinement is the replacement of all emitter resistors with a specialised metal foil low-inductance type.

Three editions of the Atlas are now available: the standard Atlas Stereo (£8,000), the new Atlas Stereo Signature (£10,000) and the existing Atlas Mono Signature (only available in the Signature version, £16,000).

Click on [www.aesthetix.net](http://www.aesthetix.net) for more information.

**LIMITED EDITION AUDIO-TECHNICAS**

The ATH-A900XLTD limited edition headphones boast a 'closed back' design with a Double Air Damping System and arrive with several enhancements over the original. A new voice coil complements the 53mm driver while a scarlet coloured surround includes a 3D Wing Support headband, which reduces weight.

Weighing just 340g and offering a 3.5mm gold plated plug and 3m cable, a detachable 6.3mm adaptor is also included.

The ATH-A900XLTD are on sale now priced £389. Click on [www.audiotechnicashop.com](http://www.audiotechnicashop.com) for more information.

**SVS SUBS**

Making their UK debut, the new, sealed, SB-2000 and ported PB-2000 designs are priced at £649 and £739 respectively and incorporate a new 500 Watt Sledge DSP amplifier driving a completely re-designed 12in SVS driver.

At the heart of each subwoofer is a newly engineered 12in 2000-series driver with dual high-grade ferrite magnets and FEA-optimised motor. A reinforced Nomex spider has been integrated for improved linearity and driver control. The driver also features a durable low-creep rubber long-throw surround and integrated tinsel leads to eliminate ‘tinsel slap’ and improve reliability.

Rated at 500W RMS continuous and 1100W peak dynamic, the Sledge STA-500D amplifier features a DSP which includes an array of filters and volume, gain and phase controls for fine-tuning performance. A frequency-dependent limiter/compressor algorithm with adjustable attack/release and compression parameters are included.

Call 01423 358846 or click on [www.karma-av.co.uk](http://www.karma-av.co.uk) for more information.

**CRANAGE HALL AUDIOSHOW**

A new hi-fi show is about to launch on 15 June 2014. Located just two miles from the M6 motorway on the A50 between Holmes Chapel and Knutsford, Cranage Hall is in the heart of Cheshire’s countryside. The hotel offers over thirty “good-sized” rooms suitable for demonstration of systems of many kinds.

Open from 10 am until 7pm, expect to see a range of products from: Acoustic Energy, AcousteFeet, Audio Note UK, Audiophile Base, Belles, Brodman, Creativ, deciBelle, M2Tech, Oracle, PAB, Palmer, Puresound, Scherer, Sonneteer, Soundcare Super Spikes, Supra Cables, TAD, Van Damme Cables, Wychwood Audionics, Clearaudio, Tune Audio and more.

Click on [www.audioshow.co.uk](http://www.audioshow.co.uk) or call 07561803670 for more information.
MARK LEVINSON'S REFERENCE NO.52
The Mark Levinson No.52 pre-amp is an all-analogue dual-monaural design arranged in a two-chassis system of discrete control and audio sections. Within the No.52's control section, mirror-imaged DC power supplies and AC regeneration circuits contribute power. Its audio section employs a mirrored left/right channel configuration, which includes isolated and independent circuit boards for the volume, main and auxiliary signal paths and extensive shielding for critical components.

Inputs include three balanced XLR, four unbalanced RCA line and a dedicated phono input, equipped with selectable Moving Coil (MC) or Moving Magnet (MM) operation. Twin sets of XLR and RCA stereo preamplifier outputs are joined by auxiliary pairs of XLR and RCA outputs with fixed or variable output levels and independent source selection. So resourced they may function either as a third pre-amp out, a full-range subwoofer output or a record output. In addition, a unity gain SSP (Surround Sound Processor) output provides for the integration of audio sources connected to the No.52 with a home theatre system.

The No.52 offers control and system interface connectivity via ethernet, Mark Levinson's proprietary ML Néét, I²C trigger and IR control ports. A USB port facilitates possible future software upgrades. Price is £ 28,000. Call 01423 358846 or click on www.karmo-av.co.uk for more information.

JERRY HARVEY ‘PHONES
Jerry Harvey’s latest earphone design is the new Sirens Series Roxanne with a universal fit. It is equipped with SoundrIVe technology: Quad low, Quad Mid and Quad High balanced armature drivers per side with an integrated 3-way crossover plus a variable bass output, adjustable from the cable. Frequency ranges from flat bass response up to +15db (10Hz to 100Hz.) The design offers a triple bore, noise isolation system and a 4-pin cable connection with a twist lock mechanism. Price is $ 1,599. Click on www.oloaudio.com/roxanne for more information.

BY ‘ECK IT'S GRIMM
From the Dutch company, Grimm Audio’s intriguing active speakers with integrated DSP technology have now been improved. All LS1i (USB Interfaces) that will be shipping from now can play DSD 64fs, DSD 128fs and DXD. For existing LS1 installations, Grimm is providing a simple software upgrade routine. Instructions can be found on the company website. The LS1 USB Interface now also runs on Windows 8 and Linux. Price for the speaker system is € 10,000.

POWERKORDS UPGRADES
Russ Andrews is upgrading its range of PowerKord mains cables with the new WattGate EVO Evolution range of IEC plugs. For a limited time, the PowerKords with WattGate EVO plugs will be available at no additional charge.

The new WattLock Terminals within the plug incorporate contact blades and teeth to provide a pressure contact on the wires, up to 8awg wire can be accommodated with an outer cable diameter of 19mm possible.

Three models of EVO plug have been created: the W320 EVO features brass terminals and is fitted as standard to the PowerKord-100 and PowerKord-300. The W350 AU EVO is a gold connector and is fitted as an option to the PowerKord-300 and as standard to the PowerKord-500. New to this series is a top of the range plug, the W350 RH EVO, which features Rhodium plated connectors. Both the 350 AU EVO and 350 RH EVO's terminals feature a multi-layer plating process, starting with oxygen-free copper; this is then plated with electroless nickel and finally a 24K gold plating. For the W350 RH EVO model a layer of pure Rhodium is applied on top of the 24K gold.

Price is PowerKord-100, £ 150, 1m; PowerKord-300, £ 230, 1m (£ 280 with W350 AU EVO and £ 295 with W350 RH EVO) and PowerKord-500, £ 440, (£ 455 with W350 RH EVO). Call 01539 797300 or click on www.russandrews.com for more information.

THE DIGITAL MUSIC BOX
Digital Music Box has two new products on offer. Utilising a fully-regulated linear power supply, the Kalliope USB cable ensures that your high-end DAC operates without connection to your computer’s power supply. It features a USB cable with independent power supply. Also look out for the Linus USB Cable, featuring a 99.99% pure silver data cable, helically wound with a silk thread and then encased in a PTFE tube, as well a gold-plated USB plugs, terminated using silver solder. Price is £ 995 for the Kalliope Power Supply & USB Cable and £ 495 for the Linus USB cable. Click on www.thedigitalmusicbox.com or call 01202 240 944 for more information.
REVIEW

Icon Audio's new Stereo 845 PP integrated amplifier is eye catching. Jon Myles dons his Ray Bans.

Light Fantastic

People often say there's nothing new in the world of hi-fi. Icon Audio's tube guru David Shaw is obviously out to prove those people wrong.

How else to explain his latest flagship integrated amplifier, with no fewer than four massive 845 tubes?

Over the years the Leicester-based company has established a well-deserved reputation for producing well-engineered, hand-built valve amplifiers at real-world prices, using mainly tried-and-tested circuit designs. But their latest product is said to be a world's first -- a pure triode stereo integrated amplifier using the mighty 845 tube.

These directly-heated triodes were originally designed by RCA in the 1930s and pressed into service in cinema amplifiers and AM transmitter modulators.

They're big, high-voltage and also operate at a high bulb temperature -- which is why you don't find them in many domestic products. And certainly not integrateds.

The inspiration for the design came from the success of Icon Audio's MB 845s -- a pair of monoblocks that, as the name suggests, similarly use the beefy 845 tube.

Icon Audio say they realised...
many customers loved the sound of the 845 valves but didn’t have the space for two large monoblocks and a pre-amp or, indeed, need the power on offer.

So whereas the mighty monoblocks push out some 110 Watts per channel, the valves in the Stereo 845 PP integrated operate in a more relaxed manner with a quoted power rating of 40 Watts. But as David Shaw points out, that should be enough to drive most loudspeakers to decent levels – the difference between 100 Watts and 40 Watts is only 4dB in terms of power.

The amplifier is a push-pull design utilising four matched 845 valves, a pair of 6SN7 first-stage valves, two 6SL7 output drivers and a GZ34 driver-stage rectifier. The valves all come packed separately but slide easily into the high-quality and well-labelled holders. A meter on the front panel allows for easy biasing of the four 845s, as well monitoring power output. Internally the amplifier is all hand-wired point-to-point with silver plated, pure copper PTFE covered audio cable and it uses an ALPS volume pot.

Four line-level inputs are fitted, as well as Tape in/out. A solidly built remote control alters volume and applies mute and a Plexiglas cover can be fitted to keep prying hands or errant pets away from those hot valves.

Additionally, a high/low input level switch on the back alters the amount of feedback and the amplifier’s gain. Sensitivities of 1V (low gain setting) and 400mV (high gain setting) are offered which should cover most needs. Low gain is the setting that applies feedback and this is the default, Icon say, because technically at least the amplifier performs best with feedback, as do all amplifiers. With feedback off you get not only higher gain, but a tad more bass and a slightly more open and airy sound.

Build quality and finish are exemplary in true Icon Audio fashion and, as you’d expect, once in situ there’s an undeniable satisfaction in switching on and seeing those big 845 tubes spread their glow around the room. This is a big amplifier though, weighing a hefty 35kgs, and there might not be quite the bass authority or overall grunt of a big, powerful transistor amp but the 845 tubes bring a palpable sense of realism to the vocals — Cave’s deep sonorous tones portrayed with just the right amount of menace.

Although smooth, there’s also a crispness about the presentation that means the Icon Audio never tips over into the realm of blandness. That quality brings a rhythmic snap to more up-tempo music such as New Order’s ‘Bizarre Love Triangle’. Here Bernard Sumner’s guitar had a clear edge to the leading notes while drums and bass pumped along with total conviction. There might not be quite the bass authority or overall grunt of a big, powerful transistor amp but the 854 makes up for that with a rather more musical and less mechanical sound.

All this was achieved with the speakers connected via the 8 Ohm taps. Moving over to the amplifier’s 4 Ohm connections and there seemed to be an ever-so-slight softening of the sound with the stereo image losing a little focus. It’s not a night and day difference but enough to make individual experimentation advisable.

The same goes for the feedback...
Audio products designed to combat phase distortion

“In short, I can honestly say the Tellurium Q Black Diamond interconnects and speaker cable are the very best leads that I have ever had in my system.”

Tony Bolton, Hi Fi World 2014

“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

“A certain magic when it comes to absolute sound quality”

Jimmy Hughes, Hi Fi Choice 2012

The return of the Claymore!

For more information or to audition one contact TQ directly

www.telluriumq.com +44 (0)1458 251997
setting. Personally, I preferred the high setting — but yet again this will be very much a matter of personal taste and, in some cases, partnering equipment.

Speaking of which, the Icon Audio has more than enough resolving power to delineate between high-definition tracks and Red Book CD.

Feed it some source recordings of the highest quality and the 845 throws out a holographic soundstage that wouldn't fail to bring a smile to any music lover, I feel.

Playing a 24-bit/96kHz recording of organist Iver Kleive's 'Bridge Over Troubled Water' recorded in Bergen Cathedral was breathtaking. All the power and texture of the organ were captured vibrantly within a wonderful sense of the cathedral's acoustic space. Call it a cliché — but, yes, you could close your eyes and imagine yourself being there.

And that's the beauty of the 845 PP. It can transport you to an organ recital in a far-off cathedral or, if you prefer, recreate the ambience of a smoky jazz club with John Coltrane blowing away on stage or it can get down and dirty with the likes of Led Zeppelin.

So much so that at times I found myself abandoning critical listening and just enjoying the music. It's that kind of an amplifier.

**CONCLUSION**

Make no mistake, the Icon Audio 845 PP is a truly exceptional amplifier. The big 845 tubes are not easy to implement or work with (see Noel Keywood's box-out) but they do have a seamless, fluid and eminently musical sound.

And that's exactly what you get with the this new integrated. Whether you prefer jazz, rock or classical the Icon Audio will make it sound vivid, alive and thoroughly realistic.

Yes, it'll set you back a penny short of £6,000 — but if you are a true music lover you'll find it's money well spent.

Just turn off the lights, bask in the glow of those jumbo-sized tubes and then lose yourself in the music.

---

**FREQUENCY RESPONSE**

The Stereo 845 produced 40 Watts into 8 Ohms and 36 Watts into 4 Ohms, so it has been load matched for 8 Ohm speakers. It was fairly linear, producing around 0.1% distortion at a few Watts output into an 8 Ohm load. Into 4 Ohms distortion measured around 0.2% but since harmonics were mainly second and third order this is no big issue. Distortion levels were at their lowest with feedback on, meaning Low Gain on the rear panel sensitivity switch (that alters feedback) and results were good all round.

Frequency response extended to 34kHz (-1dB) with feedback on and altered little with feedback off, higher frequencies due to the wide open-loop response of the transformer.

With feedback on (Low) sensitivity measured 1V, a low value but adequate for silver disc players. With feedback off (Hi) sensitivity rose to 400mV for full output.

Feedback also affects output impedance and damping factor, and with feedback on (sensitivity at Hi) damping factor measured 5.6. With feedback off this fell to 2.

The Stereo 845 gave a neat set of figures under measurement. Building amplifiers like this is difficult and results were good against what is expected from 845s and against other valve amplifiers in general. NK

**VERDICT**

Gorgeous, liquid valve sound with decent power and a holographic soundstage. Demands to be heard.

**FOR**

- flowing musical sound
- superb stereo imaging
- easy biasing
- looks superb

**AGAINST**

- runs hot
- large and heavy

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

---

**NOEL SAYS**

The bright glow of big 845 valves is an arresting sight — and this amplifier has four of them. 845s glow brightly because they consume a lot of heater power — 30 Watts each. Run valve heaters like this from an ordinary transformer and it will overheat, so an independent heater transformer is needed. The Stereo 845 has two mains transformers as result and the heater transformer has no fewer than six windings, four of them for the 845s because each one must have its own 10V@3A winding.

The big 845 anodes run from a 750V line, rectified by diodes, and the preamp valves run from a 280V line rectified by a GZ34 valve. In all, both transformers feed no less than nine individual power lines. Big valve amplifiers like this one invoke power station engineering! Happily, the Stereo 845 doesn't just look good, it also sounds good. Big 845s are beasts to use in a design, but when driven properly they are a sonic delight, as well as rugged and inexpensive.

---

**MEASURED PERFORMANCE**

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<th>Power</th>
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<td>Frequency response</td>
<td>3Hz-30kHz</td>
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**ICON AUDIO STEREO 845 PP**

£5,999

OUTSTANDING - amongst the best

**VERDICT**

Gorgeous, liquid valve sound with decent power and a holographic soundstage. Demands to be heard.

**FOR**

- flowing musical sound
- superb stereo imaging
- easy biasing
- looks superb

**AGAINST**

- runs hot
- large and heavy

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Unleash your music

Some portable speakers are small. Others sound great. Then there’s the Jongo S3...

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Resolution revolution

Martin Pipe discovers 32-bit audio with the Fostex HP-A8C DAC/headphone amplifier

For 20 years, 16-bit PCM digital audio was considered to be capable of satisfying all professional and domestic audio needs.

Over the past fifteen years or so, though, it has been eclipsed by hi-res formats like 24-bit PCM and DSD.

Now it appears that the once-mighty 24-bit resolution is no longer enough! 32-bit resolution audio files are supported by the beautifully-styled and substantially-built Fostex HP-A8C headphone DAC featured here. It's not just fancy upsampling, or internal processing of 16-bit or 24-bit audio at 32-bit resolution with DSP before conversion to analogue. The mid-sized HP-A8C can however do that too.

But first, some background. Professional audio software like Adobe Audition has carried out processing internally at 32-bit resolution for some time. Yes, until very recently all 'outside world' audio (anything that came via an analogue-to-digital converter, basically) started its digital life in 16-bit or 24-bit form. The only material that could have been 32-bit to start off with was digitally-generated via virtual synths and the like. However, doing all the processing — mixing, volume changes, pitch-shifts, reverb, phasing etc — at a higher resolution helps to keep at bay the cumulative errors that could impair sound quality as a song or other complex audio production takes shape.

You can admittedly export the result to a 32-bit audio file with such software, but until now nothing (affordable, at any rate) has been capable of playing it...

The HP-A8C will actually accept these 32-bit audio files, via SDHC flash memory cards. They have to be in integer format, as opposed to floating-point or they won't play. Older pro audio editing software (such as Cool Edit Pro) only gave you the floating option when exporting audio; newer programs (including Adobe Creative Suite's Audition — derived from Cool Edit) have the necessary integer option in their save settings. I generated a 30-second 110Hz tone and saved it in 32-bit/192kHz PCM form. The resulting 43.9MB file was copied to a SDHC card and fed into the HP-A8C's rear-panel slot. No joy; my 'Class 6' card — the only one I had to hand — just wasn't fast enough ('SD SPEED ERR'). I resampled to a more manageable 44.1kHz, yielding a 10MB file, and tried again. Lo, the HP-A8C subsequently played it, confirming the 32-bit resolution on its scrolling front panel display.

What improvements will we hear if we switch to 32-bit? You won't, sadly, find out in this review as I have absolutely no musical content in this form to try. That 440Hz tone did sound remarkably pure, though...

Until the HP-A8C (with latest 3.00 firmware) came my way, I only knew Fostex for multi-track analogue tape recorders like the Model 80. Interestingly the HP-A8C's 32-bit digital-to-analogue converter (DAC), the AK4399, comes from Asahi Kasei Microdevices Corporation of Japan. This chip natively supports 16/24-bit (although as previously mentioned the HP-A8C is equipped with upsampling and digital filtering.
SUGDEN AUDIO launched the first 'Solid State Pure Class A' integrated amplifier to the Hi Fi market in 1967


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options, which work at 32-bit ('under the bonnet') as well as DSD.

You also get plenty of ways of getting audio into the unit. In addition to the card slot are a balanced AES-EBU input, two optical inputs and a coaxial input. Then there's a USB port for computer audio. Currently, this doesn't support DSD via USB although I have heard rumours of a software solution.

For now, PC users can go all the way to 192/24 with the Fostex 'sound card' driver. 32-bit USB playback may be possible but it is, for now at any rate, exclusive to Apple Macs. Furthermore, users of these computers don't even need to install a driver themselves!

All I have, though, is a PC running Windows Vista Ultimate. As with other systems of this type, the resolution and sampling rate are 'fixed' in Windows — although you can change them to match what you're playing. If you want to play DSD files stored on your computer, you could install Foobar with the DSD plug-in; the proviso is that DSD will be converted into PCM prior to streaming across USB to the HP-ABC. A better option is to copy them to a SD card, and play them (natively) from there. Note that only DSD files with a .dsf extension are supported.

Via SD the HP-ABC will also play PCM (WAV and AIFF) files of all sample rates and resolutions up to 32/192. FLAC, ALAC and APE files, sadly, are ignored — as inevitably are lossily-compressed ones (MP3, AAC, etc.).

Selecting tracks to play from memory cards — which have to be organised into folders — isn't particularly easy, thanks to the small front-panel screen.

The busy but neat internal construction of the Fostex. Interestingly, some of the op-amp chips are socketed, meaning owners can experiment with other pin-compatible types.

To start playing the highlighted track the handset's 'play' button must be used instead. Choosing tracks for playback, input-selection, output amplifier gain, configuration, volume adjustment and switching between headphones and line output (you can't have both) are also permitted from the front-panel controls.

On the handset lurks a 'REC' button. Given that the rear panel is equipped with analogue as well as digital inputs, does this mean that the HP-ABC can act as an analogue-to-digital converter (a la Furutech Esprit) or even a SD card recorder?

The line-level analogue inputs are provided solely so that the unit can be used as a switching centre/preamp with your headphones (up to two pairs, with a common listening level!) or any (power) amplifier you attach to its outputs.

On which subject, Fostex doesn't use the AK4399's 'digital attenuator' to regulate volume (with all that implies for low-level listening). Instead, an audiophile JRC MUSES 72320 chip does the job in the analogue domain. The HP-ABC has optical and coaxial digital outputs, but they're fixed in level.

**SOUND QUALITY**

Even with 16-bit material, the HP-ABC gave a strong account of itself — whether through headphones or loudspeakers.

Among my 16-bit material (CD rips played with a Squeezebox Touch via coaxial digital feed) was the sheer energy of North Mississippi Allstars' uptempo 'World Boogie Is Coming'. The presentation is smooth yet detailed, with taut basslines and all of the verve and attack that believable reproduction of such music demands.

'Goat Meat' features harmonica contributions from Robert Plant, which are delivered with the necessary musical insight and upper-register bite.

It also did justice to the Hambone Willie Newbern 'Rollin' n' Tumbin', here reworked into a dense and rhythmic track permeated by some distinctive stringwork and a deliciously analogue warmth.

Play this through the HP-ABC and it engages you from the outset. That's with my Acoustic Energy AE109s driven by a YBA Genesis IA3; the key qualities were retained after substituting the IA3 for a Linn LK280 power amplifier. Here, the HP-ABC was the sole adjuster of volume.

For headphones, I tried Sony MDR-1Rs and Onkyo ES-HF300s. For my 16-bit material (CD rips played with a Squeezebox Touch via coaxial digital feed) the sheer energy of North Mississippi Allstars' uptempo 'World Boogie Is Coming'. The presentation is smooth yet detailed, with taut basslines and all of the verve and attack that believable reproduction of such music demands.

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For headphones, I tried Sony MDR-1Rs and Onkyo ES-HF300s although I guess Fostex would rather you went for its own TH1900s.

These have a price tag not dissimilar to that of the HP-ABC itself; I'd love to hear accurately-recorded 32-bit music through that coupling!

Both Sony and Onkyo phones sell for around the £200 mark and the HP-ABC drove them at good listening levels with no signs of strain.

The Sonys probably gave a fuller sonic picture here than the Onkyos.
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"the presentation is smooth yet detailed with taut basslines and all the verve and attack that believable reproduction of such music demands"

admit to not hearing an awful lot of difference here, although another option – which engages a high-precision reclocking facility – did perceptibly improve imaging and timing, especially after I connected the HP-A8C's optical input to a budget Sony CD player and started playing a Colin Davis performance of Holst's 'Planets'.

A final digital 'tweak' is the filtering which can be changed between a conventional sharp roll-off and 'minimum delay' (said to eliminate 'pre-echo').

The latter setting did make a slight difference with the high-frequency percussive sounds of Internet radio stations and MP3 tracks played via USB from a PC. With hi-res music, though (notably 2.8MHz DSF files played via SD cards), we're into true audiophile territory.

Various tracks from the Blue Coast catalogue astounded with their detail, vivaciousness and ambience. On Keith Greeninger and Dayan Ka's 'Looking For A Home' every vocal nuance and string-scape could be picked out.

The original recording of this track was laid down on 2in. analogue tape. One hopes that if we ever get 32-bit audio, it will be as good as this!
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Jitter management is also handled by the company's proprietary Acoustically Focused Clocking technology (AFC) as implemented in all its professional master clocks.

As befits Antelope's pro-audio background the unit itself is sturdily built and reassuringly hefty despite its relatively compact 165mm/112mm/190mm (H/V/D) dimensions.

That compact size means almost every inch of the rear panel is taken up by the various connection options. The six digital inputs consist of USB, one AES/EBU, two coaxial S/PDIF and two Toslink. In addition there are both balanced and RCA analogue inputs which by-pass the digital circuitry to be fed directly to the preamp's volume control.

Output options consist of both balanced and unbalanced analogue as well as both AES and S/PDIF digital.

Inputs are selected by toggling through the options via the source button on the front – and intelligently the Antelope's circuitry auto-senses what connections are in use and ignores redundant inputs.

The fascia also features a pair of full-sized headphone outputs with their own dedicated volume control as well as power, mute, mono and standby buttons".

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The small standmount/bookshelf loudspeaker sector is the most fiercely-contested market in the hi-fi industry. The reasons are fairly obvious when you think about it: small speakers are inexpensive, domestically acceptable, and an ideal fit for often-crammed British living spaces.

Consequently there's no end of choice available to the consumer at various price-points - from both long-established companies to relative newcomers. Acoustic Energy belongs firmly to the former category. Indeed, its iconic concrete-lined AEIs virtually redefined the higher end of the market on their launch in 1987. So successful were they with both critics and consumers alike they are still on sale today in the shape of the AEI Classic - although at £1,250 a pair they're not for everyone.

So for those with less deep pockets Acoustic Energy has a range of lower-priced models - ones which it has spent a good deal of time and effort revising recently.

We were mightily impressed with the £475 AE 301s we reviewed in our November 2013 edition noting their strong bass, refined mid-range and crisp, clean treble.

Now Acoustic Energy has introduced a new entry-level model in the AE 101 and selling at the wallet-friendly price of £275.
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.

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Not surprisingly, it borrows much from its bigger brother in terms of design and styling — just in a smaller package.

So what you get is a two-way reflex-loaded loudspeaker in a 300x185x250mm (H/W/D) cabinet. Mid/bass duties are handled by a 110mm anodised aluminium cone derived from the aforementioned AE1 coupled to a relatively large 28mm soft-dome tweeter of Acoustic Energy's own design.

Port duties are handled by a slim front-mounted slot beneath the mid/bass unit — potentially making them less fussy about positioning close to rear walls.

There's a single pair of gold-plated speaker binding posts at the rear so bi-wiring or bi-amping is out — although at this price it's unlikely that would be a serious consideration in any case.

The grilles fix magnetically to the fascia, helping maintain the 101s clean lines. Black ash, walnut or high-gloss white finishes are available.

Overall it's a tidy-looking loudspeaker and fit and finish are exemplary for the price.

**SOUND QUALITY**

They may be classed as a bookshelf/standmount — but like most loudspeakers of this kind they undeniably sound better on a good pair of sturdy stands.

Once done, the soundstage of the 101s belies their relatively compact dimensions. These 'speakers have all the attributes of the larger 301s, except slightly scaled down.

That means you get a clean, crisp performance with a good level of detail with no undue emphasis on any part of the sonic spectrum.

Ornette Coleman's 'Sound Grammar' had air and atmosphere, the 101s handling the dynamic contrasts with ease.

Some small loudspeakers can make this concert performance sound slightly shut-in or struggle to keep up when the tempo increases. But the Acoustic Energys managed to capture the ambience admirably — as well as hanging on to the rhythm tenaciously when the pace moved up a pace.

Mid-range detail is also very good, the anodised metal driver staying clean and clear without adding any undue zing to the overall sound as some do. Add to that the smoothness of the soft-dome tweeter and this is an impressive package.

Bass-wise they don't go quite as low as the 301s (which was a bit of a star in this area) but they're no slouches either considering their size.

New Order's 'Brotherhood' collection had a good dose of wallop and impact — Peter Hook's bass lines have all the attributes of the larger 101s belies their relatively compact dimensions.

Of the 101s, close to wall placement will help augment bass for anyone looking for more thwack, without losing the 101s inherent cohesive sound.

OK, push them really hard and the AEs start to show their limitations with the drive units struggling with big orchestral crescendos. But ease off the volume and they settle back into their comfort zone.

The AEs compact size also means stereo imaging is superb. Female vocals float free and clear of the speakers with the overall sound having both width and depth.

**CONCLUSION**

Entry-level they may be, but the Acoustic Energy 101s are an admirably refined and beguiling speaker.

Unlike some rivals, they have a natural, even tonal balance with a detailed mid-range and decent levels of bass for their size.

Add to that a superb build quality and you have one very tempting package.

Anyone looking for a sub-£300 loudspeaker that both looks and sounds a lot more expensive really has to take these loudspeakers.

---

**MEASURED PERFORMANCE**

Frequency response of Acoustic Energy's 101 was impressively flat, our pink noise analysis shows. A more detailed stepped sine wave response confirmed this result, showing even output from the drive units, suggesting low coloration. There is a slight lift in the treble but this flattened off-axis. Pointed at listeners treble will be obvious but not excessive; pointed down a room the 101 is supremely accurate in terms of tonal balance.

Bass output is smooth down to 60Hz, with no emphasis to make bass obvious. The slot port is tuned to 55Hz and it applies good acoustic damping to the bass unit, our broad port trace shows. The impedance trace confirms this. The 101 can be used close to a wall, where strong port output down to 40Hz will strengthen bass down a room. This is not a boomy loudspeaker, but inevitably there is a little cabinet overhang around 100Hz. Otherwise, its 260mS decay spectrum was very clean, meaning there's little coloration.

The 101 uses a 5.2 Ohm D.C. resistance bass unit and this keeps impedance at or above 5 Ohms in the bass. Treble sinks to 4 Ohms, but is resistive. Sensitivity was fair at 86dB Sound Pressure Level from one nominal Watt (2.8V) of input, meaning amplifiers of 60 Watts or more will make the 101 go loud.

This is a neatly engineered loudspeaker. It measured well in all areas and will give fine results in use. NK

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**ACOUSTIC ENERGY**

**101S £275**

OUTSTANDING - amongst the best

**VALUE** - keenly priced

**VERDICT**

The 101s have a smooth, engaging sound with detail and refinement rare at their price. Definitely recommended.

**FOR**

- price
- even tonal balance
- detail
- build quality

**AGAINST**

- nothing at the price

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LETTER OF THE MONTH

LAPTOP LOVE

There has been lots of correspondence lately about using a PC or a Laptop as a source of digital music and I get the feeling that many people are prepared, eager even, to try computerised or streamed music, but are afraid of the technicalities and give up.

Using a laptop computer to stream audio is just a little bit more complicated than using a TV, so why not try it? You have nothing to lose except some time learning about how to use computer audio and some experimentation. You can even use your existing equipment if you invest in an external DAC.

I use an Audiolab 8200CD which has the ESS Sabre DAC that Noel has recently reviewed. The sound quality from this is exceptionally good. My laptop is connected to it by a USB cable. The drivers are loaded from the DAC to the laptop automatically and it is literally plug and play. It will also play a CD as it has a built in transport.

I also have a miniature Cambridge USB DacMagic XS. This little marvel weighs 25 grams and is no bigger than a box of matches. It draws power from the laptop so there is no mains cable. It is also a headphone amplifier which means I can listen to hi-fi quality music on the road. It is plug and play and I can also connect it to a mini-system via a 3.5mm double ended stereo jack and cable. It cost me £99.95. Why not try it? The sound quality is almost as good as the much more expensive ESS Sabre.

Here is what you can do with a laptop and an internet connection – Stream thousands of internet radio stations, with some of them in hi-fi quality; try BBC Radio 3 HD for classical, Radio LINN for classical, jazz and pop; Radio Cro-Dur for classical music, it is from the Czech Republic and even streams in lossless codecs which are of CD standard. Try http://radio.cesnet.cz:8000/cro-d-dur.flac on your browser.

You can listen to Spotify which has 1.5 million LP tracks of jazz, classic and popular music.

You can access www.archive.org which has a fabulous library of open source music.

You can rip all your digital CDs using Windows Media Player, dBpoweramp, or XLD and convert them to lossless WAV and FLAC files or lossy MP3. It is easy to catalogue them so that the music can be found readily.

You can make playlists for the music that you want to play uninterrupted at a party. Do you remember the compilation cassette and how much time you spent? The digital equivalent is a doddle. You can playback your stereo albums in mono at the touch of the button.

You can also buy and download music from a number of sources: HD tracks, Amazon, Spotify and Linn to name but a few. This is not as difficult as it seems. The downloaded music can then be burnt to an audio CD if you must – including HIRES and MP3!
Audacity is a free music editor, for PC and Mac. "With Audacity, I converted a stereo album to mono whilst increasing the pitch of one of its tracks by a semi-tone to match the original mono LP" says Trevor Morgan.

You do not have to stream downloaded music to replay it. Best of all, for me, you can edit the source using Audacity. Audacity is free software and it is wonderful. I have digitally archived about 40 precious LPs, singles and audio-cassettes whilst removing the snap, crackle and pop and tape hiss at the same time; and without a noticeable deterioration in sound quality. You can record digitally using Audacity directly from the line outputs of a phonestage or cassette deck by connecting the equipment to the line input on the back of a PC (this is usually a block blue coloured 3.5 mm mini-jack stereo socket). Alternatively, for a laptop, you can use a line to USB interface stage; these are cheap.

During my experiments with Audacity, I converted a stereo album to mono whilst increasing the pitch of one of its tracks by a semi-tone to match the original mono LP. In the 1950s when I was a lad making my own crystal set and then in the 1960s listening to a Dansette, I would never have dreamt that this would be possible to do at home. To me this was something out of a science fiction laboratory. Since those far off days the improvements in audio quality and the versatility of computers have led us into a new golden age of hi-fi and the enjoyment of music. With a little time and patience and not much money we can embrace all this. There is only one problem and that is the possibility that you could lose all your good work; so just make sure that anything you download or rip from CDs or archive from analogue sources is backed up twice. The pain and expense of doing it all again is too much to bear.

Trevor Morgan

Hello. You might be interested in the software Audacity, which can be downloaded at no cost and used to convert stereo tracks to mono. I use Audacity to remove noise, change the pitch of tracks, and edit my CDs. You can also use it to improve the sound of your audio equipment.

Hi David. The official way to seal a film canister top is to close it with a film canister top to close the base. I immediately picked out the high-resolution version. I immediately picked out the high-resolution version. I could clearly hear the difference between the sound of CD and "High Res" recordings. I have been loath to accept this idea, especially as I cannot afford to play around with the latest equipment and gizmos to avail myself of such recordings.

What has brought about this change of heart? Well, I have just 'caught' the end of Radio Four’s "You and Yours" item about "High Res" on my little Tivoli Henry Koss Model One... I could clearly hear the difference between the different samples played. In fact I did better than those in the studio. I immediately picked out the high resolution version.

David Mills

I have the Tivoli Model One from all sorts of sources, including the TV installer the other week. This latest experience just highlights the quality of the design. The only flaw has been the slightly boomy bass that occurs where I am forced to sit the Radio. Easily combated by using a film canister top to close the port on the base.

Best Regards,

David Mills

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Best Regards,

David Mills
"I immediately picked out the high res version* on this radio, says David Mills.

Go to the address Mike gives and you can still likely hear this interesting discussion and test. I listened intently and the blind listening test was fascinating. Differences were audible, although against all the odds. As they explained, the radio broadcast process degrades quality and — worse — they unfortunately used the one hi-res player that is arguably not hi-res, a “Sony hi-res Walkman costing £260” we were told, which means the Sony NWZ-F886. I reviewed this player in our April 2014 issue, p51. I presume they connected the headphone output into the mixing desk, but this output runs through a poor headphone amplifier that restricts dynamic range to a meagre 96dB, where CD offers 100dB and true hi-res 110-120dB. The Sony plays hi-res files, but it doesn’t give hi-res performance, having a headphone output amp suitable for MP3 and such like. What a pity! If they’d used a decent player like an Astell&Kern AK100 those differences would have been so much greater.

So if you can, David, try and get a better demo and give yourself a pleasant surprise. Sadly, at present there’s very little appreciation of hi-res playback in the U.K. hi-fi market, even amongst manufacturers who are glued to CD. I am finding. But you will get a demo of 24/96 or 24/192 at any dealer that stocks Astell&Kern portable players, I feel sure. Or just phone around your local dealers and see if they have a hi-res demo running that you can pop in to hear. For this they just need a £150 FiIO X3 (or similar) hi-res player plugged into a decent DAC.

The letter in your March edition from a fellow confused by digital formats certainly struck a chord with me also. I am simply seeking a one-box or transport+DAC source to replay CD and SACD that will be the best sound quality for my money. This will be for a second system — my primary one uses FM radio and vinyl, with occasional use of my Cambridge Audio 840c. My intention is to feed the signal via either an Musical Fidelity or Townsend / Bent Audio passive preamp.

I have read the glowing reports of the Cambridge and Oppo universal players, but am confused about how their output is then fed to a conventional amplifier. If I were to make a cautious uninformed purchase I would simply buy an ex-demonstration Marantz Pearl (my budget is about £1500), but would this be the best sound for the money in your view? I have no requirement for extra facilities over the need to play the two disc formats. Your advice would be very much appreciated.

Regards,
Richard

The Cambridge and Oppo universal players output surround-sound primarily via HDMI and are purposed for use with AV receivers. They do, however, have analogue stereo outputs that give reasonable results and you can connect this up to your second system. A cheaper alternative is a Sony Blu-ray player like the BDP-54100 that costs around £100 and plays SACD as well as CD. It too has analogue audio outputs. The Marantz will do the job better of course, if you don’t mind the cost. Generally you cannot use a transport and DAC because SACD (DSD) cannot be transmitted over S/PDIF. NK

A FiIO X3 high resolution portable player costs just £150 and can be used as a cheap hi-res transport feeding an external DAC.

The BBC's iPlayer version of Radio Four's 'Your and Yours' programme, available on their website. discussing hi-res audio.
Hi George. CD sales are in steep decline and have been for many years now. Sales fell 11% in 2012 to 70 million according to the BPI and will now be around 60 million I estimate, down from a peak of 174 million in the UK at 2004, according to IFPI figures.

There’s been a steep rise in downloads, mainly of single songs, from iTunes and - now - music streaming is gaining popularity, with Spotify leading the way and Deezer challenging it. This is the future of music delivery.

CD is still around and your jazz CDs are unlikely to stop arriving anytime soon, but CD is probably the last physical delivery format we will ever use. This decline in popularity has resulted in Tower Records, Virgin and HMV all shutting up shop, although HMV has been re-repurposed. CDs may arrive through your letterbox, but they are disappearing from the High Street.

The decline of CD has affected hardware manufacturers too. The demand for new players just isn’t there any more. The CD player market has now split into standardised budget designs, and super high-end one box players that handle SACD as well as CD and have a USB input too. The world of digital moves on.

DEAD DUCK
I was astonished by Noel Keywood’s comments in the March 2014 issue of Hi-Fi World to the effect that CDs are a dead duck and manufacturers have stopped production of CD players. I do reviews of CDs for the magazine Jazz Journal. The editor of that magazine sends the magazine’s review panel, a monthly list of CDs that are available for review. Every list has well over 100 newly released CDs: that’s hardly a sign of a dead duck. I also review for a second jazz magazine which send me what the editor thinks are within my sphere of expertise. I do not know how many CDs that magazine gets to review but each month it has a large number of reviews many of which are not duplicated by those in Jazz Journal.

George Hulme
Hants

A Sony Blu-ray player like the BDP-S4100 that costs around £100 plays SACD as well as CD - plus Blu-rays of course.

DISJOINTED LISTENING
Music is now only being listened to in a disjointed fashion. A lead track may be the only song a person knows from an album, and then moves on to another hit song from another download - and so it goes on. The suggestion is that music fans no longer want or have any interest in the full length LP, and that a sporadic and mobile listening experience is preferred at the same time as the majority of music fans have not really changed at all and that the very visible earphone attired individual may in fact be a red herring.

When I was at school, hardly anyone claimed to have an interest in music. Football, yes, music, not so much. The people interested in music now are approximately the same in number as they were thirty or forty years ago and still listen to it and get rewarded by it in mostly traditional-ish ways. The young man or woman in the street, with the latest earphones or headphones, are not really fans of music at all, but instead are fans of technology.

Let us look at Strictly Come Dancing from the BBC. Nice enough show I guess, but it is not really about dancing. It is about all of the histrionics from the judges, all of the chit and the chat from anyone with an opinion and oh yes a little bit of dancing thrown in for good measure.

Let us look at Top Gear from the BBC. A fine enough piece of entertainment, but in what universe is it about motor cars? It is about having a massive lark about, and while there is nothing wrong with that, you won’t learn how to change your spark plugs.

Let us consider Dancing on Ice, from ITV. A bit of a laugh, but not about ice skating in any technical or real sense. Add to that same cookery shows that purport to be about cooking only to really be about judges and voting, the winner and the tears and the trophy.

These shows make it easy for people who have no interest in dancing or cars or skating to have some cursory involvement in something that posses the time until a more interesting diversion comes along.

Modern technology like Apple’s iPod in its many guises, similar offerings from Sony et al, and of course mobile phone technology, allow people who would never in a million years buy a turntable or an amplifier or a CD player or a pair of floor standing speakers to dabble in the world of music without really ever needing to genuinely be interested in it.

There will be folk out there on a pavement near you, ear phoned up, who have a genuine love of music, but they will be in a strict minority compared

Tower Records at Piccadilly Circus. The decline of CD forced it to close many years ago.
At the Sound & Vision Show, Bristol, this year Astell&Kern were next door to Hi-Fi World and were demo'ing Audeze planar magnetic headphones.

to the millions for whom it is a passing phase that will stop at getting married and/or having children or some other responsibility/distraction. Yours Faithfully,

Neil Porter

Hi Neil. I’ve seen commuters on my local tube line transition fairly quickly from iPod ear-buds to full size headphones, in the pursuit of quality, so quality is still an issue, but then so is price as always. Since high quality ‘phones start at around £200 – think Dr Dre’s Beats – and an iPod around £100, that’s just £300 for good sounds. It makes sense all round, providing you like using headphones – not everyone does. Headphone listening is it’s own world, literally. But as you say young listeners on ‘phones are just as likely to appreciate what quality brings to musical enjoyment as users of ‘old skool’ hi-fi.

At this year’s Bristol Show our stand was next to Astell&Kern’s, so I got to hear their new AK240 portable digital player, being urged by Stephan of Computers Unlimited to include a good quality power supply so I got to hear their new AK240 stand was next to Astell&Kern’s, so I got to hear their new AK240 portable digital player, being urged by Stephan of Computers Unlimited to include a good quality power supply to doink the iPod to music purchase by download. NK

MAINS CABLES

The editorial introduction on page 3 of your May 2014 issue states that the ASA told Russ Andrews not to imply that RFI from mains electricity was a perceptible problem or that their products could reduce mains-borne RFI unless they held robust substantiation to show that was the case.

If the persistent complainant was actually an engineer of the fundamental sort, I doubt if he / she would have asked those questions or at least, not in the way that the ASA worded the challenge. RFI has been known about for a very long time, as has reducing it with ferrite beads, cores and chokes. It would be very easy for Russ Andrews, by the use of a scope, to irrevocably demonstrate that his cables do reduce RFI or any other high frequency noise on the mains.

Demonstrating the impact of that reduced RFI at the mains input to the overall sound quality of audio equipment would be a very different matter. I would be prepared to accept that supplying mains power to a cheap table top radio via an RFI suppressed mains cable could provide an improvement in sound quality over a standard mains cable (our little Pure kitchen radio has what looks very much like a ferrite bead in the cable from the plug type power supply to the radio).

The readers of this magazine however would not be using cheap table top radios (except maybe in the kitchen) but will have spent hundreds if not thousands of pounds on individual pieces of quality audio equipment. Such equipment should be expected to include a good quality power supply capable of delivering a clean DC output irrespective of what noise is present on the mains input side.

Many years ago I bought a Trichord NC power supply unit for my recently acquired Delphini Mk 2 phono stage. I was very pleased with them both at the time and certainly still am, but shortly after buying the units, a friend asked me to try one of his super-duper mains leads to compare it with my standard one. I did and guess what, it didn’t make a scrap of difference to what I or anyone else could hear coming out of the speakers. If the lead had made any perceivable difference to the sound, I’d have checked the DC output from the power supply with a scope, comparing both mains leads. If I could have measured any difference, the PSU would have gone back to Trichord with a demand for a full refund on the grounds that the product didn’t perform in accordance with the manufacturers claims.

So, whilst I agree that mains cables can be constructed to reduce RFI, the more impact this has on end sound quality, the more questions it raises over the design and quality of the equipment’s power supply.

Any thoughts?

Regards,

Chas Underhay

Hi Chas. What the complainant said is not known; those were the ASA’s words.

You cannot assume hi-fi products will be internally protected against mains noise or voltage variations. Designers hold a wide range of views on mains and power supplies
and some choose not to put filter inductors in series with the mains supply to suppress noise, because they degrade regulation.

Like you, I would have thought capacitor smoothing (and voltage regulators) of most linear supplies would eliminate mains borne noise, but perhaps this is simplistic; noise could be entering the system through other paths.

Whether you can hear the effects that noise shielded mains cables combat, depends upon your system and your auditory acuity. Concert violinist and Hi-Fi World reviewer Rafael Todes (Allegri String Quartet) won't listen to any system in our office without first ensuring all products are connected through a decent RF suppressed mains cable. He runs a very sophisticated system at home and is adamant that a good mains cable is a primary requirement.

I can hear the removal of a sense of a slight fuzzy haze when he changes cables; it's as if the camera lens has been cleaned.

The mechanism by which RF noise can affect sound quality isn't obvious — especially to sceptical engineers, and this includes me! On this here are a few observations.

First, the mechanism by which frame buzz infected hi-fi systems close to London's powerful Crystal Palace TV transmitter wasn't obvious either. Loudspeaker leads acted as aerials, RF was fed to the input of an amplifier through the feedback loop, and it was rectified at the first transistor junction (that was overloaded and acted as a diode). The resultant audio then made its way back out to the speakers, causing a buzz. How's that for a roundabout and obscure mechanism?

A similarly obscure mechanism may well channel RF noise into a hi-fi; try measuring the current going to mains ground from an amplifier and you will see how high it is off ground, allowing mains RF to have influence.

Big power supply electrolytic capacitors are inductive; they should be bypassed by a low value ceramic to ground RF, but are they?

So in all, this is a complex and difficult subject, where conditions cannot be fixed; every amplifier and every setup is different. So are external conditions, meaning the RF environment as well as circuit conditions.

And that's not to mention Rafael and his acute hearing (which others may well enjoy).

Russ Andrews say -

I think it's important to be clear about the subject of the ASA complaint referred to in the Editorial from May 2014. The statement "the ASA told Russ Andrews not to imply that RFI from mains electricity was a perceptible problem or that their products could reduce mains-borne RFI unless they held robust substantiation to show that was the case" referred to a previous ASA complaint from 2011, in which the ASA's expert at the time did not believe the in-house measurements we had submitted showing RF rejection of our mains cables.

We were subject to a new complaint last year from an individual who took exception to more recent measurements we made and subsequently published following the development of our range of our SuperKord mains cables. The article subject to the complaint was published in our literature and on our website here: http://www.russandrews.com/downloads/SKtest.pdf.

The complaint was that the complainant didn't believe that our published research could support the noise reduction claims we made when we compared our PowerKords and SuperKords against a standard IEC lead.

Previously, the ASA's expert had recommended that we use measurements from an accredited EMC test house as robust evidence for the RF-rejecting capabilities of our mains cables, which is precisely what we did on this occasion.

Interestingly, the results from the EMC test house supported the previous measurements we'd made! The ASA did not uphold this recent complaint, stating the evidence we supplied was "sufficient to
LETTERS & EMAILS

At first glance the cabinet and front items which have simply “died”, even having to discard any clean and tidy panel looks identical to one I treated Mark Manwaring White of MingDa UK. Performs in their own system; this is chasing decision based on how a cable customers the chance to listen to what own system at home and return them for a full refund if they are not happy with a cable’s performance. It gives our customers the chance to listen to what they experience, and make their purchasing decision based on how a cable performs in their own system; this is important because each person’s set-up, as you have acknowledged, is unique.

John Armer, Managing Director.

The Welsh farmer led me into the cow-sheds to demo the PRO-12!” says Brian Sandall.

SHOW STOPPER
I was scanning through the Bristol Show feature in the May issue of Hi-Fi World when on page 55 I saw something which more than “struck a chord!” It was the reincarnation of a 1970s Technics amplifier, as interpreted by Mark Manwaring White of MingDa UK. At first glance the cabinet and front panel looks identical to one I treated in not too dissimilar a manner and I thought other readers may be interested in the logic behind my creation. To explain, in retirement I spend a fair bit of time servicing vintage hi-fi separates and receivers for local charity shops and this has given me the opportunity to evaluate many of the quality brands from the 1970s onwards, often without the need to own the items on the workbench. During ten years of this voluntary work I also decided to collect my own little museum of one particular brand and I chose Technics, from the early 1970s to the demise of the brand around 2005. Being stubborn, I hate having to discard any clean and tidy items which have simply “died”, even though pure economics dictate the need plus, of course, items for which essential spares are no longer available. In the case of my Technics 1 amplifier, it was donated by a lady saying she “could not keep up with its appetite for speakers”. The originals had blown “and now the new Missions!”

Powered up on my bench, I found that a blown output amplifier was feeding some 35v to the speaker terminals. To check that this wasn’t just leakage offset, I shorted the terminals and promptly blew the internal fuses. This was where the mental dilemma began. It was a simple enough job to disconnect the faulty output stages and feeding the original preamp.

Overall, a pretty box and chassis which may have ended in the trash bin now has a new lease of life, providing a delightful 8 Watts per channel. Oh yes, and the original internal phono stage is as quiet and distortion free as some stand-alone models costing £300+. I made this conversion in 2009 and only had it for a few months before a friend wheedled it out of me, but making it was fun and — yes, I’d probably do something similar again. At least, using spare components off the bench, never two models the same!

Most months I seem to find something in your Opinions, Oldes-Worlde, Letters etc. to jog the grey matter. Just a few unconnected comments….

Re: Martin Pipe and his PRO12 tape deck.
Open reel tape was my staple diet from 1953. One of my amateur radio friends was a school metalwork master and set his 5th form making tape decks. I built the record/playback amplifiers for them, keeping to minimal costs by using ex-TV valves and parts.

I then decided to make a deck myself and when I mentioned this to a local radio dealer, he said he could help. Those were the days before fully built tape recorders were affordable and fishing under his counter he struggled out with a Wearite IIIA tape deck — just the deck, no case or electronics. He said a customer had given up on building a recorder and returned the deck — “I could have it!” That made me one elated Saturday shopping trip. Not only did I build the amplifiers and a cabinet, but I scaled the mechanism and built a copy deck in the school’s workshops.

The Wearite deck had a neoprene capstan and brass pinch wheel, i.e. opposite to modern practice, claimed to have better grip but the capstan did wear and wow was a problem. I didn’t see any easy way of restoring a smooth capstan so made mine with non-magnetic stainless steel capstan and neoprene pinch wheel.

My own creation stayed until 1967 when the Revox A77 appeared in Nottingham and shortly after buying one I noticed ads for the PRO12 described by Martin. As he says, it was expensive and around 1972/3 I thought I was on to a bargain when one appeared in Exchange & Mart. At around 4 or 5 years old, I thought it should be well kept. At least petrol wasn’t expensive in those days so I drove out into the Welsh mountains about 100 miles to see it. A memorable day! There was
blue sky and hot sun as I met the Welsh farmer and he led me into the cow-sheds to demo the PRO-12! I was staggered by its weight, also by the noisy mechanism and a strong hum emanating from its connected amplifier. Having by that time fully realised that the deck only took 7" reebs, I looked no further and said goodbye! As I said, that was only 4 years from new, so Martin's has done well to survive (or is it the same deck?) Was that farmer a radio amateur too? I am, G3LGK, and noted Martin's mention of our Radio Mobile Rallies. I used to run a stand at some of them).

My Revox A77 only satisfied me for a few years before the heads wore very noticeably but I bought a TEAC-A7030 ex-studio mastering stereo deck. This is the 2 track 7.5 and 15 "Isec. version with ferrite heads. I ran through the full calibration and then found that I could use just single track for recording FM stereo. At 15 "Isec. it went flat to about 34 kHz and at 7.5 there was still enough pilot tone to fire my valve stereo decoder (a-la Leak Troughline 1). Much of the Japanese gear from 1970s/1980s is a problem, but with a bit of ingenuity (and the original service manual - often freely available on the Internet, courtesy of excellent enthusiast websites like hiengineering and vinylengine) you can often work wonders.

Access to such information also invites modification: I like your idea of replacing solid-state power amps with low-power valve ones. It's just as well you had a large case to play with - the mains transformer needed to provide HT and heater current to the valves had to be accommodated, and on top of that are the output transformers needed for each channel.

It's also amazing how kind time has been to Japanese electrolytic capacitors. However, a sizeable proportion of these '70s gems has vanished; 40 years or so has passed, after all. Three decades ago, it was all very different. Receivers, amplifiers, tape equipment and turntables from the early- to mid-70s frequently came my way thanks to ads in Exchange and Mart or local papers, second-hand shops and jumble/boot sales.

As an impecunious '80s teenager, I managed to assemble a reasonable-sounding system from '70s separates (and a pair of Wharfedale Linton 2 speakers acquired for £2 from the local market!). It is interesting that second-hand hi-fi was so common back then, as in real terms it would have been very expensive originally (build quality had its price). I guess that those wooden side-panels, large knobs, chunky heavy-touch buttons, top-loading cassette compartments, manual radio tuning and so on just weren't fashionable during that consumerism-driven and credit-fuelled go-getting' decade.

Cast aside the cosmetics, though, and you would find that it was made so much better than new gear!

The point is that you seldom come across equipment of this era any more, unless you take time to attend an Audiojumble-type event (like the ones in Tonbridge). It is sad to think how much 1970s gear has ended up in landfill or whatever, either working or condemned by faults that could have been repairable. Its scarcity now means this decade collectable. Original spare parts are a problem, but with a bit of ingenuity (and the original service manual - often freely available on the Internet, courtesy of excellent enthusiast websites like hiengineering and vinylengine) you can often work wonders.

Much of the Japanese gear from this era (Technics included) was beautifully-built and finished; manufacturers drew on some fantastic engineering talent. Front-panel controls were designed for long-term reliability, and unless maltreated can be revived with a squirt of Servisol into their innards and a few swipes forwards and backwards. That usually kills the crackles and 'random' intermittency. Their mainstream modern equivalents are nowhere near as resilient, although high-quality components (ALPS, etc.) are still available for the best gear.

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More internal space helps air circulation - helping to address the issue of what to do with all that heat!

As you suggest, the preamps of such integrals usually incorporate decent-quality phono stages, as vinyl was the primary 'quality' listening medium back then.

In this issue's Olde Worlde, I find that the phono stage of the NAD 7020 (the receiver version of the famous 3020) is pretty good even by today's standards. OK, that was late '70s/early '80s - but you get my point. You were very lucky to have obtained that Wearite deck (the basis of the aforementioned Ferrograph recorder) for nothing. It would have cost its original purchaser several month's wages! By the mid-sixties, tape recording had become more affordable and entered the mainstream - most reasonably-affluent homes bought a machine (usually supplied with a cheap microphone, stowed away in a cabinet compartment) to capture family events, speeches, dictation, musical recitals and so on. These were often mono machines with a quarter-track configuration to maximise the storage potential of tape that was expensive, albeit at the expense of a worse signal-to-noise ratio and a greater susceptibility to "drop-out". They were far from hi-fi, owing more than anything to awful internal speakers. MP

Philips Pro12 open reel recorder.

Compare the range of features. Then compare the price.
Black and Blue

Tony Bolton finds that computer-based music need not be a bruising experience when he listens to two USB cables from Tellurium Q.

Although I use vinyl as my main music source I also have a reasonably large collection of music stored on my computer. Normally I play this via a USB lead connected to the Teddy Pardo Teddy DAC (see Hi-Fi World Sept and Oct 2011) which upsamples S/PDIF signals to 24/192kHz but runs at 48kHz sampling rate for USB input signals.

I have already discovered that different USB leads, even budget ones, offer different tonal takes on the sound. So I was curious to try two leads from Tellurium Q from the opposite price points of their range of cables.

I am unable to tell you much about the materials used or the construction of the cables since Tellurium Q are very tight-lipped about such things, not wishing to make their understanding of the technology public.

So all I can say is that the cheaper lead is covered in a blue dielectric while the stiffer Black Diamond cable has a woven material covering it. There are differences between the plugs, the latter feeling a bit more substantial.

One thing that I do know about Tellurium Q leads is that they take a very, very long time to run in. At the time of writing this, each lead has over 150 hours usage and I am still noticing subtle improvements in the detailing and shape of sounds, although most of the major changes took place within the first 50 hours of use.

Comparing the Blue lead with the best cables that I have in the house was an eye-opener. I found that I was getting a smoother and more detailed treble response, a very fast delivery of the bass and an open soundstage that displayed a certain amount of depth that I am not used to hearing from a USB connected source.

The smoothness of the treble was tested when playing some of the less well presented recordings available on youtube.com. Music that had been nearly reduced to a raucous noise with ordinary USB leads, became somewhat disentangled and listenable to.

Playing the same pieces through the Black Diamond lead produced a sound that surprised me. There was really deep bass, a mid band with enough projection to display singers somewhat forward of the mass of instruments, with a treble sound that was grain free and that seemed to reach stratospherically high.

The speed of the attack of notes at all points of the frequency range was superb. Drums in particular had a solidity to the sound that was quite impactful, and which travelled through the granite slabs that my speakers sit on, and then through the floorboards towards me. This is something that I have never experienced from laptop sourced music before.

Neither of these cables are cheap, but they do offer performance that is commensurate with their pricing.

The Blue offers particularly good sound-per-pound, but if you want the ultimate in performance then it is worth spending the extra cash for the Black Diamond.

It is simply the best USB cable that I have ever heard.
Antelope Audio has added DSD playback to its well-regarded range of DACs. Jon Myles says it makes for a compelling product.

Antelope Audio's Zodiac Gold DAC came as a pleasant surprise earlier this year. Not every company with a formidable reputation in pro-audio equipment manages to translate that into successful consumer hi-fi products.

But the Gold DAC/preamp/headphone amp and associated Voltikus power supply unit garnered a five-globe review in our February issue.

Indeed, our measured performance tests rated it among the best designs currently available — as did extended listening sessions with both CD and hi-res files. So much so that I've been using it as a bit of a reference point ever since.

Obviously, Antelope is not content to rest on its laurels. So now we have the Zodiac Platinum — promising even better performance than its counterpart. Obvious differences include the name, the colour (platinum instead of gold) and, er, the price — £4,250 for the Platinum/Voltikus combination compared to £3,095 for its counterpart.

The not-so-obvious differences go a bit deeper and are more interesting but undeniably rather more complicated.

Chief among them is that Antelope has added support for the Direct Stream Digital (DSD) file format (both 64 and 128) together with the ability to up-sample to DSD 256.
Now, DSD files are rather thin on the ground at the moment. After all, you won’t be buying them on Amazon or iTunes any time soon.

But there is a growing catalogue of material from labels such as Blue Coast Records — and the format does have an air, separation and grace which is a world away from CD.

With the Zodiac Platinum Antelope utilises two Texas Instrument DAC chips but has its own Field Programmable Gate Array system to handle the up-sampling duties.

The Voltikus power supply unit has also been upgraded and the attached umbilical cord which connects it to the main DAC is of a new design which is said to enhance sound quality.

Apart from those improvements the Platinum replicates the Gold’s specifications — with full 24bit/384kHz file capability utilising Antelope’s proprietary "Oven Control" technology which houses the clock in a shielded container where the temperature is kept constant.

Jitter management is also handled by the company’s proprietary Acoustically Focused Clocking technology.

The main unit is relatively compact at 165mm/112mm/190mm (H/W/D) dimensions and its six digital inputs consist of USB, one AES/EBU, two coaxial S/PDIF and two Toslink. In addition there are both balanced and RCA analogue inputs as well as both AES and S/PDIF digital.

Outputs are selected by toggling through the options via the source button on the front — and intelligently the Antelope’s circuitry auto-senses what connections are in use and ignores redundant inputs.

The fascia also features full-sized

"Michael Tilson Thomas and the San Francisco Symphony’s DSD file of Mahler’s ‘Symphony No 1’ comes across with a flow that only the best analogue can match"
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

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headphone outputs (i.e. 1/4in) with a dedicated volume control, as well as power, mute, mono and standby buttons.

Also supplied is a sturdy remote control — and Antelope supplies a Mac/Windows/Linux driver on its website to handle DSD playback.

Luckily, there’s also control panel software available for download, which is useful because the basic unit’s front panel controls are far from Intuitive. Suffice to say a thorough read-through of the instruction manual is a must to fully understand all of the Zodiac Platinum’s features. But, then again, this is a sophisticated DAC from a pro-audio manufacturer so it’s only to be expected.

**SOUND QUALITY**

Suffice to say, the Zodiac Platinum follows on from the Gold in having a thoroughly refined, smooth and authoritative sound.

Its detail retrieval, soundstaging and overall musicality are among the best we have heard from any DAC.

Play a 24/96 file of, say Diana Krall, and the detail the Platinum brings is as good as the Zodiac Gold.

But its real trick is the DSD upsampling. Play Art Lande’s ‘Kiss In A Shadow’ with the unit set to up-sample and the piano has a body, tonality and depth that is simply magical.

Michael Tilson Thomas and the San Francisco Symphony’s DSD file of Mahler’s ‘Symphony No 1’ also comes across with a flow that only the best analogue can match.

Here instruments are placed precisely, all elements of the orchestra being placed in the correct space.

Compare the same recording via CD and the music takes a slight step back with a noticeably harder edge and less atmosphere. It’s not unpleasant — but enough for you to know that DSD through the Zodiac Platinum is a step forward.

As such, it’s obvious Antelope Audio have pushed the boundaries again with this latest DAC.

The only caveat is the fact that DSD files are still relatively few and far between — and unless they become more common then the excellent Zodiac Gold is still a stellar performer.

**CONCLUSION**

The Antelope Zodiac Platinum is one of the best DACs available at any price. The addition of DSD playback and up-sampling means it is virtually future-proof.
Martin Pipe is quite taken with YBA’s Bluetooth-enabled integrated amplifier

Objet d’art

Born in France, YBA likes to do things rather differently. Its name is derived from the initials of its founder and designer Yves-Bernard André, who retains an interest (its majority shareholder is now Shenzhen-based Shanling, one of China’s pioneering hi-fi manufacturers).

Fresh out of the factory is the IA3, the integrated amplifier of YBA’s mid-point ‘Genesis’ range. According to the blurb, Genesis was built specifically to exploit the potential of Bluetooth audio — compression, smartphones and all. People have large music collections on their phones; this amplifier can play them.

Superbly-built, the IS3 oozes quality. It’s large and at 12kg it’s heavy. In addition to Bluetooth (which requires a supplied aerial to be screwed into the rear panel socket) are provision for USB PC playback and a coaxial digital S/PDIF input. There’s also a corresponding digital output for DACs and recording devices.

There are two line-level analogue phono inputs marked ‘CD’ and ‘Video’ — no integrated phono stage here, sadly — are they are joined by balanced-line XLRs. I was pleased with the latter, which allowed me to hook up my professional Preco reel-to-reel tape deck. A preamp output, downstream of the volume control, is provided for external amplification or active speakers.

Speaker terminals are also solid, and won’t give you any trouble with decent cables.

Inside, build quality is praiseworthy. YBA has opted for a conventional U-1 mains transformer in its power supply instead of a toroid. This enormous component is rated at 300VA, as well it might be with the magnitudes of power output claimed of the IA3 — well over 100 Watts per channel, into eight ohms. Next to it is a smaller transformer for the ‘standby’ supply; this amp is microprocessor-controlled.

The Bluetooth radio module is constructed around British-designed (CSR) silicon. Either this, the USB interface (a CMedia chip) or the digital input goes into a Burr-Brown sample-rate converter.

This in turn then feeds a Cirrus CS4398 DAC, a 24-bit/192kHz-capable delta-sigma device that you’ll find in a number of other audio products.

Analogue audio signals, including the DAC’s output, are switched via relays and passed to an electronic volume-control; YBA hasn’t used a motorised pot here. The power amplifier is a push-pull Class AB design, built around pairs of meaty bipolar output transistors. Little pieces of wood have been glued to matched small-signal transistor pairs and the volume-control chip, presumably to damp unwanted vibrations. Good solid stuff, then, although the IA3 does get rather warm in use. Ensuring adequate ventilation should therefore be a priority.

The IA3 is easy to use — you even get a solidly-built remote. On its understated front-panel are two pairs of front-panel switches. The left pair sequentially-select inputs, while those on the right raise or lower volume. Displays above provide visual
confirmation. I cannot see why two switches are necessary for volume, as the types specified can be pushed up or down. In my view the firmware should be revised, if at all possible, so that the two volume controls provide independent adjustment of the left or right channels. It won't affect sound quality, and can be a useful feature for balancing imperfect recordings or compensating for less-than-ideal speaker placement.

Bluetooth is a cinch. Select the relevant input on the IA3, search for Bluetooth devices to pair with on your phone, iPad etc, confirm and you're in business. You can then start streaming your music collection, or even radio stations if a suitable 'app' has been installed on your device (Wi-fi is useful here).

The USB connection was also trouble-free with my Vista Ultimate PC. It was recognised, and the 'virtual soundcard' driver supplied on CD-ROM installed without a glitch. The connection supports linear PCM, at sample rates of up to 192kHz and resolutions of up to 24-bit.

Although the exact setting can be changed through a Windows control-panel, it is 'fixed' and won't automatically-change to match the source being played. In other words, the PC might be upsampling CD-sourced material — or even downsampling hi-res music, if you're not careful!

Macs will work with the IA3 and don't need a driver. Interestingly, PC or Bluetooth audio is available on the digital output; useful if you want to record to Minidisc or something similar. The IA3 won't convert analogue sources to digital, though.

Our measurements showed frequency response has been tailored with a +1dB lift below 1kHz; this is not a 'flat' amplifier — see YBA's explanation at the end of my review.

**SOUND QUALITY**

As YBA is so keen to promote Bluetooth as a music source, let's start with that. Remember that when you're listening to an MP3 or AAC file, it's being decoded into PCM by the playback app, passed through the phone's processing schemes (volume control, equalisation etc.) and thence to the Bluetooth transmitter. It's then recompressed using a codec chosen for compatibility with both ends of the chain (typically apt-X nowadays). All of this stuff can potentially impact sound quality.

In spite of this, in terms of sonics, the IA3 is the most satisfying Bluetooth audio solution I've yet to try. Take the dense garage-rock soundscape of The Black Keys' Go-Getter, recorded in the world-famous Muscle Shoals studios in Alabama. I felt as well as heard the kick drum through my Acoustic Energy AE109 speakers; so warm is the bass that you could swear a tube or two was hidden away somewhere. The fuzz-drenched electric guitar is here given the necessary bite, yet it doesn't dominate over its acoustic counterpart or the ethereal keyboard lines that bubble away in the background. Not bad, considering that it was sourced from a 320kbps MP3 CD-rip (albeit a careful one).

Music encoded at lower bitrates (e.g. 128kbps) does suffer when heard through a revealing audio system like this; a kind of 'phashiness' is evident, in addition to a masking of musical detail. If you want to take Bluetooth seriously, it's worth switching to FLAC and eliminating a quality-sapping lossy-compression stage — even if your storage takes a hit. That's how I heard faithfully relayed despite the audio compression added by the Bluetooth link. That killer bassline emerges intact, as do the brighter elements of the percussion (these can sound brash with lesser hardware). This amp loves to boogie!

The analogue inputs work well, although they do need some drive. I enjoyed listening to some old vintage BBC avant-garde jazz recordings dating back to the early 1970s courtesy of my XLR-interfaced tape deck. Anyone for a live performance of Don Banks' Meeting Place Suite for chamber ensemble, jazz group and synthesiser? The varied instrumentation demonstrated the IA3's ability to cope with a myriad of tonal colours; a believable sketch of the atmosphere was conveyed too.

Radio 4, sourced from a vintage Revox A76 tuner (the subject of a previous Olde World) revealed that speech is given depth and presence. This
Acoustic Energy have always been associated with audio excellence. Since the original AE-1 monitor speaker was launched in 1988, their products have represented the best audio performance and product reliability available for the price. These principles continue with the new 1-Series. Consisting of a floor-standing speaker with angled front, compact bookshelf speakers, a centre speaker and a powered subwoofer. The 1-Series from Acoustic Energy offers unrivalled performance at a price you would not believe.

Stunning Hi-Fi speakers from £199.00
CONCLUSION
What we have here is an amplifier that has a character of its own — thankfully a very musical one — instead of steering towards neutrality. Although our measurements show it is response-shaped "to give more fluidity to the sound", subjectively this did no harm at all I feel; it's capable of a taut and well-controlled bass performance.

The IA3 is also careful with its delivery; I found it produced high listening levels with no hint of fatigue. The Bluetooth feature is exceptionally worthwhile, offering a musically-viable yet hassle-free source alternative.

Well made and finished, with quality parts inside, the IA3 is a good all-rounder with a fine - albeit distinctive - sound.

MEASURED PERFORMANCE
The Genesis IA3 has plenty of power on tap, output measuring 120 Watts into 8 Ohms and 196 Watts into 4 Ohms. It becomes quite hot after a while idling, so it appears to be biased well into Class A.

Distortion was low at low levels, primarily second and third harmonics. As level rises past 10V higher order harmonics appear but the IA3 still returns less than 0.1%. Distortion via S/PDIF was low too, measuring 0.07% at -60dB with a 24 bit signal.

A peculiarity of the IA3 is a distinctive sound. It will sound different as a result. NK

Yves-Bernard André

Can YBA explain why there is a +1dB frequency response lift in the IA3, below 1kHz?

"The purpose of this frequency response design is to give more fluidity to the sound quality. My thinking is to correct the phase shift of the original recording and then to give a more three-dimensional sound. When we implement this modification, we listen and hear quite easily the difference. Everything seems more flat".

Yves-Bernard André
Audeze's latest headphones employ planar magnetic drivers for a distinctive, original sound. Noel Keywood is suitably impressed.

At Audio T's 'Sound & Vision Show' this year (Bristol, Feb 14) Astell & Kern had a stand next to Hi-Fi World's. Being a fan, I spent time listening to their new AK240 high-resolution digital portable player through the Audeze headphones they were using. I had heard about the Audezes but not actually heard them — but immediately I put them on my head I was impressed.

They sounded natural, uncoloured and very cohesive; there was no top end spit and treble wasn’t tinselly as it so often can be with headphones. At the same time there was a nice sense of sound stage depth, a richness to the lower midband and weighty bass too. We had to get them for review!

The Audezes are different: they are magnetic planar headphones, meaning they use magnetic planar drivers (see our box out), unlike most other headphones currently available.

Mention 'magnetic planar' to me and I’m a moth to the flame! I once owned Leak 3090 loudspeakers with Isodynamic (i.e. magnetic planar) tweeters and their treble was smooth as silk — gorgeous. Wharfedale's ID1 Isodynamic headphones, introduced 1972, used the same drive unit, I believe, and they were the first planar dynamic headphones produced.

But enough of the background, onto 'our' Audezes. We were sent an open backed LCD-3, price £1700, and a closed back LCD-XC, price £1600. These sit at the top of Audeze's range (Audeze is pronounced like Odyssey, by the way). So they are truly high-end designs, since good 'phones top out at around £1,000 unless you are talking Stax Electrostatics.

The LCD-3s are an open-backed design weighing a substantial 548gms and the LCD-XCs are closed back and a tad heavier at 650gms, so both models are for domestic listening, being too heavy and bulky for travelling — unless your first name is Arnold and your second Schwarzenegger.

Both headphones were very well presented, and beautifully finished. Our LCD-3s came in a large (334x258x160mm) black lacquered case that is an optional extra whilst our closed-back LCD-XCs came in a tough plastic carrying case (272x250x180mm): neither were small enough to be called portable but they are transportable.

The LCD-3s were supplied purposeful. The mini-XLRs are uncommon and one is used on each earpiece, so the lead splits into a Y. The flat flexible cable uses four separate high-quality conductors. Also supplied is a 25mm long 1/4in-to-3.5mm jack adaptor lead. For the soft lambskin ear pads Audeze also package a small leather treatment kit comprising a plastic bottle containing a mixture of beeswax, carnuba wax and orange oil, plus an application cloth.

For reasons unknown to me the less expensive closed back LCD-XCs additionally have a 2.5m headphone lead terminated in a 4-pin XLR socket: I suspect this is for connection to an amplifier purposed to feed its low 22 Ohm load (the LCD-3 is a normal 40 Ohm load). Both headphones are sturdy with a 2.5m (8.2ft) long coiled lead terminated at the headphone end with 4-pin mini-XLR plugs (sockets), rather than the usual 3.5mm mini jack plug, and at the other with a 1/4in jack plug. This is all heavy-duty stuff, adding to weight; the leads alone weighed 109gms.

But they make for a bullet-proof assembly that feels solid and built and well finished, the Zebrano wood of the LCD-3s and the Bubinga wood cups of the LCD-XCs giving them a visually appealing organic look enhanced by deep lacquering to give a finish more lustrous than the usual black/silver livery of other ‘phones.

Audeze have fluently crafted the ear pads so they are soft, don't make your ears hot yet provide a good soundstage...
sound seal at the same time in order to support deep bass whilst keeping external sound out.

And this brings me to the differences between these headphones. Initially, I assumed they used the same magnetic planar drive unit — but they don’t.

The less expensive of the two, the closed-back LCD-XC, is a development of the LCD-3 using what Audeze term Fazor technology.

These internal elements help “guide and manage the flow of sound in the headphone” for “improved phase response, greater frequency extension, smoother frequency response and remarkable 3D holographic imaging”.

At this point you might wonder: why buy the open-backed LCD-3? Open-backed ‘phones usually give the most spacious and colour-free sound because what is termed the ‘back wave’ in headphone parlance is allowed to escape unhindered so there are no delayed reflections back through the drive unit to the ear to add coloration.

Nor are there internal chamber resonances. Result: a clearer sound. Trouble is, the open back also lets in outside sound as well as radiating it, so this ‘phone is for quiet environments where there’s no one to annoy! Most outdoor headphones are closed-back to shut out external noise and avoid annoying others.

Now to the lovely planar magnetic drive units and a few observations. Just as Audeze say, the micron-thick conductor on a Mylar film both drives it evenly and controls it too, making for great sound quality.

A major problem, however, is that powerful magnets in the stator must sit on both sides of the film and these obstruct sound flow, especially high frequencies. Hence the use of Fazor technology in the LCD-XC drivers to improve sound flow — and indeed our measurements showed the XCs do have more treble than the 3s, as Audeze claim.

However, generally — due to their construction — magnetic planars do not have prominent treble and can be expected to have a warm balance. But there’s more to it than just basic tonal balance of course. So we have two quite different phones here — the XCs not being just a closed version of the 3s but with a brighter sound too.

Another point to note is that headphones are usually either a flat 40 Ohm load, or they are much above this, around 300 Ohms. Whilst the LCD-3s are 40 Ohms, the XCs sink to a low 20 Ohms, so they demand twice as much current and this may influence the behaviour of battery driven headphone amps in particular. Lower impedance and higher current draw does however lift quoted sensitivity from 91dB/mW for the LCD-3s to 95dB/mW for the XCs.

**SOUND QUALITY**

I drove these phones direct from my battery-powered Astell&Kern AK120 portable player, and from a mains-powered Audiolab M-DAC fed digitally by the AK120 to see if the low impedance of the XCs in particular raised any issues.

As I said in the introduction, Audeze’s magnetic planars are superbly smooth and cohesive and both the 3 and the XC were all of this.

They both have a silky, dark quality to their sound, free from spiky treble and also free from apparent coloration. It’s a simple
REVIEW

The open back Audeze LCD-3 headphones

and immediate quality that is aurally attractive.

The LCD-3 in particular has a wide, open soundstage that spread Otis Redding and the Muscle Shoals horns (24/192) wide across my head and outward. With Otis singing straight into an analogue mic. (this is a 1967 recording) the LCD-3s captured both the strength and expressiveness of his delivery whilst the horns rasped fruitily around him, sounding strong yet tonally rich. When Beethoven’s ‘Moonlight Sonata’ (16/44.1kHz) gently slid past me I appreciated the strength and scale of the piano, as well as the way each note was laconically conveyed to me: here the LCD-3s were luscious, helped not only by their deep insight but also by their strong low-frequency performance. Unlike the Philips Fidelio X1s I commonly use they do not have emphasised bass — just a firm and expressive low end. Deep organ notes supported Mozart’s ‘Ave Verum’ (24/192) with impressive authority and had me more than impressed.

Moving onto a faster pace, Tom Petty’s ‘Refugee’ (24/96) showed me how better damped and just cleaner these ‘phones are than anything else I have heard. This track sounds a tad bright and fizzy on most ‘phones but the LCD-3s showed this is the headphones rather than the recording (I listen to these tracks on Martin Logan Electromotion electrostatic loudspeakers as a reference). ‘Refugee’ sounded fast, punchy and clean; it was an exciting listen and perfect for hard rock.

With Herbie Hancock’s ‘The Eye of the Hurricane’ (24/192) the LCD-XCs were clearly brighter and more forward than the LCD-3s. If less laconic and relaxing. The image was slightly more curtailed in its width too, extending to left and right earpieces but no further.

But with Otis and Carla singing ‘Tramp’ (24/192), the LCD-XCs were faster and more dynamic than the 3s, the bass line in particular coming over with supple strength that defies ordinary headphones and was a step up on the 3s too.

But although they conveyed more detail and had greater insight they also made analogue tape hiss horribly obvious as the track ended! But whilst kick drum in Roberta Flack’s ‘Killing Me Softly’ had more impact through the LCD-XCs, it was a tad better described by the LCD-3s. I liked the concise delivery of the LCD-XCs, but the wide soundstaging of the LCD-3s.

With both phones the AK120’s volume control was set high, between 60 -70 where 75 is maximum, meaning portables using ordinary headphone chips that deliver 0.3V won’t go loud. I tried a Samsung Galaxy III ‘phone (0.3V) and an Apple iPad Mini (1V) and they worked OK but the Samsung was on full volume with the LCD-3s; the iPad coped more easily. The extra insight of the LCD-XCs did not flatter the Samsung phone; the LCD-3s had a civilising affect.

PERFORMANCE WITH M-DAC

Running both ‘phones from the Audiolab M-DAC enormously improved clarity and insight, and also strengthened dynamic contrasts, but then the M-DAC is an ESS Sabre32 properly implemented and with a good (i.e. linear!) mains power supply, so it can be expected to be a big step up on even the best portable; I used the Optimal Transient XD filter. With its extra force and clarity the M-DAC did change things; the LCD-3s became more forceful,
ceasing to be laconic. The LCD-XCs had all their strengths amplified, bass becoming even stronger whilst their mid-range insight — aided by some peaking — was even greater.

At the same time, even with the strings of the Allegri String Quartet they did not shriek although a violinist might say there was a tad too much emphasis here.

With classic rock, though, like the Eagles 'Somebody' (a CD rip) Glen Frey's vocals were a tad on the soft side, reminding me of a loudspeaker with a crossover dip between its bass/mid-range unit and tweeter: nice but not quite right.

The LCD-XCs were a lot brighter and more illuminating on this track, cymbals rang out and Mr Frey was right there — right in my head! — shouting into the mic; the XCs rocked. But with Diana Krall's 'Narrow Daylight' (24/96) I preferred the greater insight and revelation of the LCD-3s.

Crudely speaking, the LCD-XCs suit rock and the expectations of its fans whilst the LCD-3s paint an altogether more subtly rendered picture that suits classical especially.

But this isn’t a hard distinction; either can do the other!

CONCLUSION
Both the LCD-3 and LCD-XC sound utterly superb, having a quality significantly ahead of ordinary dynamic headphones. I found them smooth, deeply informative and subtle in the way they revealed what lay in a track.

They are at the same time technically impressive and emotionally expressive; tracks I thought I knew like Diana Krall's 'Narrow Daylight' were transformed by both models, lifted way above what I have heard before. These are monitor quality headphones and a beautiful musical experience that shade all else.

Which to choose? The LCD-3s are laconic but deeply satisfying. The LCD-XCs are faster and have a grip on pace that you’ll not find anywhere else.

The XCs are fast and dynamic, the 3s are more laid back and have broader soundstaging. Perhaps the LCD-X I heard at the Bristol Show is the one for me: it has the updated driver of the LCD-XC, but the open back of the LCD-3 — sounds just right!

Whatever, if you want to hear extraordinary sound quality that makes music of all types sound simply exciting and enjoyable, without artifice, listen to a pair of magnetic planar Audezes.

Hi-fi wise I found them not only a great experience, but also an education about sound quality.

MEASURED PERFORMANCE
Frequency response of the LCD-3 shows falling treble even in this raw (no HRTF correction) response, measured on a baffie with our Clio system. Most headphones have considerably more treble so the LCD-3s will have a less bright balance than usual and may sound a tad warm or soft.

The LCD-XCs address this issue, having +5dB more treble above 4kHz — a substantial lift. The LCD-3s put more emphasis on lower frequencies in general, but both 'phones lack the strong treble of their conventional rivals.

Impedance of the LCD-3s measured 42 Ohms resistive and sensitivity is quoted as 91dB/mW. The LCD-XC is a development with lower impedance of 22 Ohms resistive, and a commensurately higher quoted sensitivity of 95dB/mW.

Headphone amps are expected to feed 40-300 Ohms, so 22 Ohms is very low. The LCD-03 will have an 'easy' balance, whilst the LCD-XC will be altogether more mid-band forward, and with stronger treble. The LCD-XC will also sound louder than the LCD-3 at any one volume setting. NK

MAGNETIC PLANAR
Magnetic planar drive units use a thin, ultra-light Mylar diaphragm to move air, much like an electrostatic loudspeaker. The film has a thin ribbon conductor etched onto its surface through which the audio signal is passed, generating a varying magnetic field. This interacts with the static field from magnets either side of the film, driving it backwards and forwards.

The film has a low moving mass, so it macts quickly and stores little energy, making for a fast, clean sound. Drive is applied across the film's surface, and this helps control both radiating behaviour and damping.

The load is resistive but it can also be low. Sensitivity is low too; ordinary portable players will not drive them loud. Audeze use powerful Neodymium magnets to counter this, as well as low resistance to draw current. The presence of large magnets in front of the film obstructs the sound and this is a significant design problem with all planar magnetic drivers.

The magnetic structure must be acoustically transparent across the audio band — not easy to achieve at high frequencies where wavelengths are short. Audeze use a 'Fazor' stator assembly in an attempt to counter this.

OUTSTANDING - amongst the best
VERDICT
Fabulous sound quality, a world ahead of most other headphones. But expensive.

FOR
- sound quality
- appearance and finish
- build quality

AGAINST
- heavy
- insensitive
- expensive

Decent Audio
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World Radio History
WorldRadioHistory.co.uk

JUNE 2014
New Age NAD

NAD has reinvented its iconic 3020 amplifier for the digital age with Class D amplification and an in-built DAC. Jon Myles declares it a hit.

For hi-fi aficionados of a certain age the name NAD 3020 resonates. It was an amplifier that seemed to come out of nowhere, was reasonably priced and yet had a sound that could easily mix it with rivals costing much, much more. So successful was it that more than 1 million were sold — with many still in use today.

It would be a bit unfair to say the success of NAD is all down to the legendary 3020 amplifier. After all, the now Canada-based company has produced no end of other reasonably-priced and great-sounding products in the 35 years since then.

But there's no doubt NAD is hoping to capture the same spirit of the original ground-breaking design with its new D 3020.

Except in this case times have moved on — and so the new NAD is purposed seriously towards computer audio/USB sources.

The addition of the D in the title stands for either digital (because it incorporates a DAC) or the amplification mode (which is class D).

Or, maybe, design. Because the D 3020 looks very different from most other amplifiers.

As our pictures show, it's a slim, almost shoebox size unit with a rounded fascia featuring just one rotary volume control.

The shaping means the D 3020 can be used either standing up in a desktop system or laid flat on a hi-fi rack.

Discrete touch-sensitive buttons on the top operate on/off and source selection. In practice these take a little getting used to — with multiple finger stabbing the board at first. But once mastered they worked flawlessly.

Inside the amplifier utilises a switch-mode power supply (hence the small cabinet) and two Hypex Class D modules to give some 66 Watts output into 8 Ohms — rising to 100 Watts into 4 Ohms.

It's fair to say both Class D and switch-mode power supplies are still a subject of some debate in hi-fi circles — but done well there's no doubt they can produce good results.

The NAD's built-in DAC is also docently specified — able to accept data streams of up to 24-bit/96kHz through its asynchronous USB, and 192kHz via coaxial and twin optical inputs.

Any Apple MacBook Pro will work straight into the USB inputs without issue while driver software is available on the NAD website for other operating systems.

The back panel features a trio of digital inputs which include USB, S/PDIF and Tos-Link plus a subwoofer output and a single analogue input. In addition there's a bass-equalisation toggle and a multi-purpose auxiliary input that can be used either as a headphone jack or as an extra optical input. A neat remote control makes armchair operation fairly simple.

"Small in size but rather big in sound may be the best way to describe the NAD D 3020"
SOUND QUALITY

Small in size but rather big in sound may be the best way to describe the NAD D 3020.

In true NAD fashion it is rich in the mid-range with plenty of detail without sounding unduly shrill or flabby.

Plugged into a MacBook Pro via USB and playing a 24/96 file of Public Image Ltd's 'AnnaLisa' it showed a fine balance and presence.

Bass is remarkably strong and firm while there's a palpable sense of realism to the sound.

Part of this comes from the fact that the D 3020 throws out a wide soundstage.

Coupled with a pair of Acoustic Energy's £275 101 bookshelf speakers (see reviews this issue) there was an obvious synergy.

Neither products over-exaggerate either end of the frequency spectrum but the NAD brings a presence to music.

Listening to Charles Mingus's 'Mingus Ah Um' there's a solid grip to the mid-bass with a lively presentation that suits the music well.

Switch to something a little bit more hard-charging like Metallica and there's a slight softening of the sound - a sense that the NAD isn't quite at home here.

But it is nothing that other sub-£400 hybrid amplifiers don't exhibit. And where the NAD D 3020 wins out is with its DAC stage and a smooth top end. Of all Class D amplifiers, Hypex modules have a very good reputation for sound quality and the D 3020 enjoyed this advantage, very little "digitalness" being obvious.

Using a Cyrus CD transport via the optical input and Keith Jarrett's legendary 'Köln Concert' had a speed and transparent openness that was truly enthralling.

Indeed the NAD managed to resolve elements of the acoustics that stand-alone DACs costing the same price sometimes leave a trifle veiled.

Utilising the NAD's aptX Bluetooth capability via an Android mobile phone the overall tonal quality remained the same - smooth, rich and punchy.

No, it's not quite as detailed as a wired connection but the convenience is an undeniable bonus - and one I can imagine many people taking advantage of.

CONCLUSION

The original NAD 3020 amplifier was a truly ground-breaking product - and its D-prefix successor may just have the ability to match it.

As a £400 amplifier alone, it would merit a strong recommendation. But when you add in the strong DAC stage and Bluetooth connectivity it becomes a veritable bargain.

For anyone looking to mix traditional CD playback with a mix of computer-based files and Bluetooth streaming the new NAD D 3020 could be just what they are looking for.

MEASURED PERFORMANCE

The NAD D 3020 produces 66 Watts into 8 Ohms and 100 Watts into 4 Ohms, so it will go loud with most loudspeakers, if not shatteringly loud with less sensitive, high impedance types. Damping factor was 19, lower than usual likely because of a Class D output network, but this puts it on par with Naim and it may well have obvious bass as a result.

Class D amplifiers are usually load sensitive, bandwidth falling into low loads, but the Hypex modules of the D 3020 barely changed response at all between 8 Ohm and 4 Ohm loads, reaching 24kHz into the latter from the analogue Aux 1 input through to loudspeaker output.

Class D is usually brightened by distortion but again Hypex modules avoid this problem spectacularly well. Distortion was very low, even at high frequencies, measuring a very low 0.01% at 10kHz, into a low 4 Ohm load, a situation where Class D often reaches 0.5% or so. The very worst case figure from this amplifier, full output at 10kHz into a 4 Ohm load - a severe test - resulted in just 0.1% distortion. Better still, the distortion residual has no high order components in it, such as those produced by crossover, so the sound should be very smooth.

The S/PDIF input works up to 192kHz sample rate through both electrical and optical inputs, and bandwidth measured 30kHz (-1dB), with a smooth roll off above this frequency to the 96kHz upper limit. With distortion a low 0.035% at -60dB and the EIAJ Dynamic Range value measuring a high 116dB the digital side of the D 3020 measured very well.

The D 3020 measured very well in all areas. It runs quite warm, unusual for Class D, but in some areas like distortion it measured better than almost all else.

NK

VERDICT

A NAD 3020 for the digital age. Superb sound and excellent connectivity make the D 3020 a tempting proposition.

FOR - price - smooth, rich sound - connectivity options - bluetooth capability

AGAINST - nothing at the price

NAD nadelectronics.com
The Beatles: US Albums Pt.1

Following the release of The Beatles' 'US albums' box set, Paul Rigby talks to the mastering engineers and Universal UK.

The story of The Beatles' musical output in the USA, is long and complex but it comes down to this: when Capitol finally decided to import The Beatles to the USA it found itself a couple of albums and several singles behind the UK market.

Catching up meant creating new albums that looked completely different to the UK originals. Running orders were changed, track listings were different and, in some cases, the American market would receive unique mixes of familiar tracks.

Whatever your view of the final album array, this body of work has great significance, not just to Beatles fanatics but to American Beatles' fans. This was their Fab Four education, after all.

It is this body of work — with a few tweaks here and there — that can now be bought as a single box set. Entitled 'The U.S. Albums', you receive: 'Meet the Beatles!' (1964), 'The Beatles' Second Album' (1964); 'A Hard Day's Night' (1964), 'Something New' (1964), 'The Beatles' Story' (1964; a non-musical, documentary piece), 'Beatles '65' (1964), 'The Early Beatles' (1965), 'Beatles VI' (1965), 'Help!' (1965), 'Rubber Soul' (1965; first time on CD), 'Yesterday And Today' (1966; first time on CD), 'Revolver' (1966; first time on CD) and 'Hey Jude' (1970).

What you don't get, because they were identical to the UK editions, are 'Sgt. Pepper's Lonely Hearts Club Band', 'Magical Mystery Tour', 'The Beatles' (the 'White Album'), 'Yellow Submarine', 'Abbey Road' and 'Let It Be'.

Each CD pack is beautifully presented, arriving with replica artwork including inner sleeves; they are of a standard and finish only matched by the 'Beatles In Mono' UK box set. 'The U.S. Albums' box set also features a 64-page booklet, including a new essay by Bill Flanagan that is, I would imagine to many US readers, strangely negative about the American oeuvre in general.

That's the broad overview of 'The U.S. Albums' box set but, as ever, we in Hi-Fi World are never satisfied unless we deliver the full story. And it is quite a story, which is why I was eager to talk to three important individuals who were critical in the creation of this box set: Universal UK's Project Manager for the release Guy Haden and the US mastering outfit responsible for the final box set sound, Sterling Sound's mastering engineer Greg Calbi and co-ordinator and audio supervisor Steve Berkowitz.
In order to achieve the best sound quality while still trying to obtain the 'feel' of the original Capitol issues, the team visited Capitol and obtained the finest possible 1A album pressings, tracked them with a good cartridge and pre-amp onto a high resolution file and then into Pro Tools. Directly above that, in parallel, they then tracked the tapes that allegedly made those records into another file.

In addition to the versions now to hand, they added the 2009 mixes. They utilised this A-B-C-D-E process, going back and forth to hear each of the versions. What did they sound like on the American record? What did the original tape that made it sound like? Then the team tried to figure out what the original engineers did to each track.

“We also listened to the 2004 CDs, to see what they did with them” said Berkowitz.

“We had five or six examples of every single song as they appeared on the US albums and then put them together from what we thought were the right sources and the approved sources according to Universal and Apple. When we had all of the sources in play, in consideration of the US record, then an EQ would be created to produce a new version. You’re talking about a whole bunch of different sources, trying to end up in some cohesive way that is not going to be the same as the original because we weren’t replicating the original other than the sequence and the idea of the record”.

The Sterling team were meticulous about the sources that they utilised. For example, there were eight songs that were received and not the best grade that they could have been. They weren’t perfunctory but not the best representation. It was also timely because it was the 50th anniversary of The Beatles in the USA. We felt that, if we were ever going to do the US packages, then this is the time when they would be most culturally relevant.

Some fans have issues with the new box set, though. They don’t necessarily relate to the box set’s removal of excessive reverb, fake stereo and fake mono tracks from the original recordings (although some fans have complained about this too), but that the majority of the music is not exclusively derived from the original Capitol master tapes. Except for 23 tracks, which represent the exclusive and unique US mixes and are present in this set, the majority of the stereo and mono Set reissue!

“The goal was to replicate what the artist intention was in the confines of the shape of the US albums” said Berkowitz. “Not to go back to use the wrong masters or the other masters that had been used for some purpose or other when the records had been compiled in the sixties in America. Furthermore Apple, the controlling entity, said that they wanted the best audio and they have deemed the 2009 masters the best audio. It’s not the current producers and engineers decision. My opinion and your opinion don’t matter that much. The Beatles opinion and George Martin’s actions control everything here”.

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The quality of 'The Beatles Story', in its original format, is not a thing of great beauty," said audio supervisor Steve Berkowitz. "The edits are clunky and noisy and levels go up and down. It took many hours to improve. It was a humbling endeavour to go about this process and an honour to be asked. Our only intention was for The Beatles music to live as envisioned".

Then came a casual comment that made me sit bolt upright. I reviewed the original Beatles In Stereo CD box set, released in 2009, and remembered Abbey Road mastering engineer Steve Rooke saying that he used a Junger D01 limiter/compressor to increase the general levels by 3-4dB. Despite the team applying level correction after the Junger was employed, I have always felt that the stereo set sounds rather cold with an essential splash of emotion removed, as a result.

Audio supervisor Steve Berkowitz (left) with mastering engineer Greg Calbi together in the studio.

American albums were just the opposite - they were dirty because of the late generation tapes - we elected to make the thing sound a little bit smoother. It's a slight difference, though".

Both eyebrows began to rise. They continued as Calbi further described how he handled the 2009 masters for the 'U.S. Albums' box set.

"I added a neutral gain structure to the stereo files. I wouldn't even call it compression but the result is a hair louder than the original non-compressed files. I didn't push the files through any multi-band compression or maximiser".

Frankly, I could have hugged the guy. The chance of hearing the stereo masters, without any limiting applied, would be worth the price of the box set alone. "They've been put through a subtle analogue-to-digital re-write back to the same sampling rate in order to move into a direction of, I would say, smoother and a little bit more bass clarity, but both are very subtle" said Calbi.

"To keep the spirit of the 2009 masters, two things had to be done. Firstly, taking the songs that were not on the same record and putting them into a new record so the consistency of the listen had to be taken into consideration. But anyone who listens to the 2009 masters and this set will hear a subtle difference. I wanted to make this box set a more musical listen without putting a mark on it in any way or change the balances or the relationship between the instruments".

Calbi's challenge was to take the UK 2009 masters and move them into the direction of the original American albums while retaining top-quality sound.

A tough job as the original Capitol tapes were two, three and even four generations removed from the original tapes back in England, not to mention played back on different machines, which were all aligned differently.

So what sort of job has Sterling done? Have they achieved their goal of combining top quality sound with that desired American tone? How do the uncompressed 2009 tracks sound and how do they compare with the UK originals?

What about the George Martin 1987 mixes and those unique American masters? Do they all come up to scratch?

Tune in to next month's issue of Hi-Fi World and find out as we undergo a thorough 'U.S. Albums' sound test.
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Any company that has been making loudspeakers for almost 70 years must have a pretty good idea of what it's doing. JBL's history stretches back to 1946—and it has been at the forefront of some impressive innovations in the audio market. Yet, for some reason, this US company has never quite 'cracked' the UK market.

Perhaps it's the fact that the brand is seen as quintessentially American—with a big, bold sound designed to fill relatively large US rooms as opposed to the slightly more reserved sonics of traditional British loudspeaker makers.

Or maybe it comes down to the perception of their products as suiting rock music above all other genres—much in the way Naim once had a reputation for being the amplifiers for up-tempo tracks as opposed to jazz or classical.

Despite all that, the brand does have a loyal following in the UK—one it is looking to expand with its latest Studio 2 line.

It's a range that's nothing if not extensive, with a total of 10 different loudspeakers including three floorstanding models, two powered subwoofers, centre channels for A/V use and a pair of standmounters. The largest of the latter is the Studio 230 featured here—costing a relatively modest £299.

It's a traditional two-way standmounter featuring a 6.5 inch mid/bass PolyPlas driver in a rear-ported cabinet. Allied to this is a one-inch dome tweeter housed in a proprietary horn enclosure which JBL says optimises high-frequency detail, sound imaging, and overall balance.

A pair of decent gold-plated speaker terminals at the rear complete the package while the top plate has a lacquer finish which adds an air of quality to the whole package.

Overall fit and finish is good for the price with rounded edges to the cabinet adding to the purposeful look.

SOUND QUALITY

At the risk of reinforcing the JBL reputation of loudspeakers for rock lovers, let me say that anyone who
does enjoy up-tempo tracks will have a big, fat grin on their face the first time they fire up the Studio 230s.

Slotting Led Zeppelin’s ‘Mothership’ remastered collection into our Cyrus CD player and selecting ‘Trampled Underfoot’ immediately revealed a big, bold and eminently enjoyable sound.

Jimmy Page’s repeating guitar riff had edge and verve while the backing drums and bass pounded along.

The JBLs also had an uncanny ability to fill the listening room with sound.

They have a wide soundstage which brings an expansive sense to the listening experience. Massive Attack’s ‘Unfinished Sympathy’ was high, wide and compelling — the speakers locking on to the rhythm with a tigerish ferocity.

There’s not a lot of low-end bass on offer — but nor is there any sense of the port chuffing or the speaker trying to achieve something its physical size makes impossible. Instead it’s taut, tight and musical.

There’s a bounce to the bass and an overall joie de vivre that really does seem want to bring you into the musical experience. But neither is the sound all attack at the expense of subtlety, though.

Scale back a bit with the likes of Arvo Part’s ‘Spiegel im Spiegel’ and the JBLs show a refinement that enables the air and atmosphere of the piece to shine through.

Here the tweeter sounds remarkably clean and clear — indeed, it has an imaging and clarity that is rare at this price point.

If anything, it’s slightly forward — but this does give tracks with female vocals a rather haunting quality.

Listening to Sinead O’Connor’s ‘Sean-Nos Nua’ through the JBLs showed they have a smoothness and clarity which manages to project without sounding too harsh.

The only caveat would be careful amplifier matching — as they do need some power to produce decent volume levels.

Put on the end of a NAD D3020 (see review this issue) the JBLs seemed to thrive — and were capable of some serious volume.

Switching to Sugden’s Masterclass FPA-4 — a much more expensive amplifier yet with lower Class A output — they weren’t so happy.

Having said that, Icon Audio’s valve-powered 845 helped bring out the expansive soundstage to a rather remarkable degree.

But, in the final analysis, that might be being rather fussy for what after all is a £299 loudspeaker.

Mainly because, in the final analysis, what the JBLs do they do extremely well — which is project a living, enlivening musical experience.

OK, they are not the most accurate loudspeaker in the world — but they are immense fun and impart a real sense of enthusiasm and liveliness to whatever music you play through them.

They also manage a stereo image that few loudspeakers at this price can come close to matching.

Give them some suitable power and I defy anyone not to enjoy listening to the Studio 230s.

CONCLUSION

The Studio 230 is a well-designed budget speaker from JBL. It has a liveliness and sense of verve that will delight rock fans — but it also has sufficient sophistication and innate smoothness to handle other genres.

Pair it with the right amplifier and it will reward you with a supremely satisfying, room-filling and totally musical performance. What more could you ask for £299!

MEASURED PERFORMANCE

Frequency response of the JBL Studio 230 was smooth, our pink noise analysis shows, but tweeter output is raised above that of the bass mid-range unit.

FREQUENCY RESPONSE

The bass/midrange unit reaches 200Hz. Otherwise, the Studio 230 is quite clean and colouration free. With an impedance curve that hits 5 Ohms minimum and rises above this value often, the 230 had a high measured sensitivity of 87dB from one nominal Watt (2.8V) of input, amplifiers of 60 Watts or more are needed to go loud.

The Studio 230 is a fairly conventional two-way under measurement, that will have a bright balance, but also a clean sound with lively bass. NK
Well over thirty years ago, then-British hi-fi brand New Acoustic Dimension (NAD) dropped a bomb under the budget amplifier market by launching the iconic 3020—a modest £80 unit that was audibly superior to some amps selling for several times the price.

A practical design, it offered a sensible range of inputs and features, including a five-LED power-meter above the volume control.

The 3020 became the biggest-selling amplifier in hi-fi history, well over a million finding their way into the homes of music lovers worldwide. In the late 1970s and early 1980s, the NAD 3020 was a phenomenon.

It is estimated that over 500,000 3020s were sold in the UK alone—not bad for an amplifier with such modest goals; Bjørn Erik Edvardsen, NAD’s engineer, set out merely to create an inexpensive amplifier that was “capable of driving the very best loudspeakers”.

Cynics claimed that the NAD 3020’s success was undeserved, and could be laid at the door of gullible hi-fi journalists.

They cited that the 3020 was unreliable. This wasn’t so; when large quantities are sold then of course failures will be more common.

They claimed its sound severely lacked weight, said the build was cheap and that sockets would break off the rear panel/circuit board and buttons fly across the room.

Well, maybe the cynics had a point here; cost savings had to be made somewhere. But if the 3020 was treated properly, it lasted well.

Also taking their place in the NAD canon were source products styled to match the range. Among these was the 4020 tuner with no digital frequency displays, signal strength meters or other refinements—just a trio of LEDs to provide an effective ‘centre’ tuning system and a further LED that flagged-up stereo broadcasts. This traditional ‘scale and pointer’ tuner only catered for VHF/FM and MW/AM; in particular, cricket enthusiasts mourned the lack of a long-wave facility for Radio 4. But like the amp, it sounded good and did justice to off-air transmissions.

Inevitably, NAD made the decision to combine the 3020 and 4020 into a single box circa 1980—and the result was the £160 (in 1981) NAD 7020 ‘receiver’ featured here. With the exception of the power-meter, all amp and tuner features made it into NAD’s ‘single-box solution’. You even got the muting switch (here labelled ‘low-level’) which attenuated the audio with immediate effect and a ‘mono’ button that summed the left and right channels. The latter is particularly useful when playing mono vinyl records and listening to weak stereo FM broadcasts.

All of the connectivity the average listener could ask for was included, sources being selected via a rotary knob. The front-panel real-estate occupied by the radio’s tuning.
Inside the 7020. Compared to modern computer-designed gear, the layout is a bit of a rat's nest. Just think - all that wiring had to be soldered in place with human hands! It also makes servicing more difficult and so it's just as well that the 7020 is fairly reliable.

dial and controls, not to mention the task of squeezing in the extra circuitry and connectivity into a box not much bigger, must have presented challenges to the 7020's design team. They succeeded, though.

The input sockets were mounted directly on the chassis metalwork so they were more resistant to abuse than the 3020's.

At this time, vinyl was the primary listening medium and so NAD paid attention to getting the phono pre-amp right. The 7020 has exactly the same electronics here as the amplifier from which it was derived. To this day some budget enthusiasts and occasional vinyl listeners use the 3020 as a phono pre-amp, feeding their systems from the tape 'record' output. The 7020 also has the 3020's ability to electronically separate the tuner-pre-amp from the power-amp.

Thanks to this piece of NAD foresight, you can easily connect active speakers or more substantial power amplifiers — or drive the unit's power amp from other gear (such as a CD player with adjustable output level). On which subject, the 7020 went one better than the 3020 insofar as it made provision for two sets of speakers — a common feature of the era's receivers.

A front-panel knob enables you to select either or both; it provided a useful 'multi-room' facility. Naturally, if both sets were active (during parties, for example) the amplifier's comparatively-limited power was divided between them. Speakers (and for that matter radio aerials) were connected via spring-clip terminals, which were difficult to mate with high-quality cables (even the QED 79-strand that was popular then).

At least you got a female Belling-Lee socket alternative for the FM aerial and a switch that adjusted the de-emphasis characteristic of the FM tuner. This should be set to 50μS in the UK but the other two positions were useful for taming 'bright' or 'dull' broadcasts or even attempting to compensate for the slight reduction in treble experienced when taping radio programmes!

Also making the transition to the 7020 were some of the 3020's 'oddities'. The first was a 'lab' input that bypassed the power amp's input-filtering enabling a wide frequency-response to be attained.

The amplifier controls have a good, positive feel — as does the fly wheeled tuning knob. There's a fair-sized mains transformer and comparing the circuit diagrams of the 3020 and 7020 demonstrate that, tuner apart, they're pretty much identical. Not a single integrated circuit can be found in the amplifier and all key components are fairly standard and still available to day. The output stage is a standard Class A/B design, making use of the classic 2N3055/2N2955 complementary
Since 1948 Ortofon have introduced nearly 100 different moving coil pick-up cartridges to the hi-fi market. Their latest models in this long and proud heritage are the Quintet Series.

All Quintet cartridges use the same ABS thermoplastic bodies and neodymium magnets, but each model in the range has its own sonic expression that reflects its status. From the well-rounded Quintet Red, through the smooth Quintet Blue and spacious yet dynamic Quintet Bronze up to the pure audio excellence of the Quintet Black, this series offers something for every discerning listener at a very attractive price.

The Quintet Series also includes a true-mono cartridge, for accurate reproduction of older mono recordings.
transistor pair. These large TO-3 encased power transistors date back to the 1960s and the NPN variant (the 2N3055) was a common sight in hi-fi gear.

Similar comments apply to the FM/AM tuner, the design of which is based around a set of Japanese chips (IF amplifier, FM demodulator, AM section and stereo decoder) that were found in many tuners of the period. In short, if a 3020 or 7020 goes wrong then there’s a good chance it can be revived. If yours has a ‘duff’ tuner, that’s not such a great loss as analogue broadcasting’s future is uncertain. Remember that what you’re left with is essentially a 3020.

I paid £7 for my 7020 (which was fully-operational, and in fair condition) at a local boot sale. On eBay, I have seen them going for as little £10. A 3020, in contrast, can sell for £50 or more.

As with the 3020, the 7020 is reliable – if it has been looked after. If you plan to use a 7020 or 3020 regularly, if only as part of a second system, it’s worth replacing the electrolytic capacitors. These components have limited shelf-life, and I’m amazed that my own 32 year old 7020 works so well. The four big power supply ones are rated 2200uF/35V – inexpensive and commonly-available. I would also recommend replacing electrolytics in the signal path. Panasonic FC types are inexpensive and audiobly-superior to the now-tired ones fitted to vintage budget audio gear. Noisy pots, meanwhile, can be treated with Servisol spray.

When compared to the 3020, the 7020 receiver is rare – but examples surface regularly. This model was replaced in the mid-80s by the 7020e, a slimline unit that retained the 3020-type amplifier but replaced the scale-and-pointer tuner with a digital one.

So how does it sound? Surprisingly good, even by today’s standards. There’s a tendency towards warmth but that’s mostly because treble impact is somewhat restricted. Whether listening to the onboard tuner or vinyl (using an unmodified Technics SL1200 MkIII with Phillips GP401 cartridge) I found the ‘tingles’ of triangles in orchestral music or the electronic hi-hats of dance music to be rather subdued. This system is in my bedroom, so where the 7020 drives a 1978-vintage pair of B+W DM7 floorstanders. To restore an even tonal balance, then, the receiver’s treble control had to be advanced slightly. Bass delivery is firm, and hints towards the sheer scale that a good modern design can offer.

Musical detail can easily be picked out, as I discovered through playing a wide variety of vinyl, from the art-rock of 10cc’s ‘Deceptive Bends’, through Arlo Guthrie’s ‘Running Down The Road’ to a recording of von Karajan conducting the Berlin Philharmonic from a performance of Chopin’s ‘Les Sylphides’.

Switching to modern electronic dance music reveals that the 7020 tends more towards smoothness than speed.

As with the 3020 that forms its basis, the 7020 could produce remarkably high listening-levels (symphonic crescendos, for example) before descending into harshness. The analogue tuner is also a goody. It’s reasonably sensitive, discriminated well between closely spaced broadcasts and proved to be free from drift. A believable stereo spread from Radio 3 concert material was created between my two speakers. Although not hi-fi by any means, the AM section is sonically superior to what you’ll get from many more modern synthesised tuners. With appropriate adjustment of the ferrite ‘stick’ aerial that is ball-and-socketed to the rear panel, it actually rendered medium-wave stations listenable.

If you come across a NAD 7020 receiver for next to nothing, grab it before somebody else does! This competent little receiver can sound very good with a decent set of speakers.
In 1992 Columbia, Bob Dylan's record label, decided to throw him an almighty 30th anniversary bash. A stellar array of artists was invited to perform on 16 October at New York's Madison Square Garden featuring Neil Young, George Harrison (his final public performance), Johnny Cash, Lou Reed, The Band, Eric, Clapton, Stevie Wonder, Pearl Jam, Willie Nelson, Roger McGuinn and many more.

A fascinating document, it's intriguing to see how they tackle the Dylan oeuvre that can be a tough call at the best of times. It's easy to fail when tackling Dylan numbers. Even Dylan has stumbled once or twice, so asking Stevie Wonder to sing 'Blowin' In The Wind' is just cruel, while The O'Jays version of 'Emotionally Yours' fairly drips with syrup and sugar that had me booking a check-up with the dentist.

Kris Kristofferson, meanwhile, obviously just surfaced from his bed collectors will love this twin CD pack. It features 'Tamla Special' (actually, 'Tamla Special No.1'), Motown's first collection of different artists. It's a brief album, that's true, but it remains a record that Motown fans have always desired because of three scarce recordings: Singin' Sammy Ward and Sherri Taylor's only published single as a pair, 'Oh Lover'/'That's Why I Love You So Much'. This was the only release from Taylor while Ward saw a few published pieces but no hits. The B-side of Barrett Strong's 'Money', seen here, is 'Oh I Apologize'. This is a real rarity from the coarse tenor. 'Apologize' is a ballad but in a blues fashion that was written by Smokey Robinson and Berry Gordy that suited Strong's rough tenor. 'Motown Special' (again, actually 'Motown Special No.1') repeats the A- and B-sides from featured artists. Again, there are desirable tracks on this for the collector such as Eddie Holland's 'Jamie' and 'Take A Chance On Me' plus The Valladiers' 'Greetings (This Is Uncle Sam)' and 'Take A Chance'.

The rest of the album is packed with 36 additional tracks and chart hits from the likes of Marvin Gaye, The Supremes, The Temptations, Martha & The Vandellas plus The Contours and The Marvelettes.

Other CDs issued by the label include one that relates to this Detroit issue. The Supremes & The Evolution Of The Girl Group Sound includes The Supremes' album, 'Meet The Supremes' plus eleven tracks from The Shirelles along with ditties from The Crystals and Goffin & King's, Little Eva & The Cookies.

Also look out for the Four Seasons' '1962 The Incredible First Year' and 'The Female Elvis', Janis Martin's 'My Boy Elvis', a rock'n'roll and rockabilly gem.
Cast your mind back to 1958. It was a weird time in the USA and pop in general because Elvis Presley had been drafted into the Army and wouldn’t be out for another two years; even then, he was a changed man.

Yet, Elvis had imprinted his soul onto music, spawning a host of Elvis-a-like singers who wanted to be ‘just like him’. Trouble is, the industry didn’t want another Elvis (witness the 1957 Elvis TV appearance in which he was filmed from the waist up to prevent the morally pure audience having to witness Elvis’ ‘spawn of the devil’ hip wiggles).

So what you were given, in 1958, were Elvis clones acceptable to the Eisenhower-lead, commie-bashing, bible-quoting masses. People like the suitably coiffured Bobby Vee singing ‘Rubber Ball’, Johnny Burnette’s ‘You’re Sixteen’, Frankie Avalon and ‘Ask Your Heart’ and Bobby Rydell and ‘Swingin’ School’.

It was a weird, Twilight Zone, era which was epitomised by Fabian who was plucked from obscurity by the music industry because of his good looks, shoved in front of a camera, spent half the time lip-syncing to his own hits and other half having his voice electronically doctored to improve its quality (sound familiar?), while all the time succumbing to the evils of drink and dreaming of becoming an actor (which he did, eventually).

All of these artists are featured on this two-disc compilation (including Fabian’s ‘About This Thing Called Love’ and ‘You Know You Belong To Someone Else’) along with early material from future stars such as Gene Pitney, part of the duo, Jamie & Jane, singing a song called ‘Snuggle Up Baby’ that remained unreleased until London Records issued it in 1978.

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A portable loudspeaker offering Bluetooth, luxury finish and great sound? That’ll be the new Onyx says Jon Myles

Wireless speakers are all the rage at the moment – and it’s not hard to see why. With millions of people using mobile devices to play music on their daily journeys there’s a compelling attraction in being able to walk through the door at home and stream those self-same files to a loudspeaker.
Of course, in the real world theory and practice don't always go together - which is why some wireless speakers have been bedeviled by poor connectivity issues and rather tinny sound.

The Harman Kardon organisation say they are aiming to avoid those issues with their new Onyx portable speaker. It's certainly an impressive-looking device with a style and specification which does justice to the £429.95 asking price.

The main round housing features two three-inch mid/bass drivers with a pair of three-quarter inch tweeters. That's surrounded by a stainless steel handle which makes moving the unit from room to room simple.

Inside, the electronics allow for over music Bluetooth, Apple AirPlay and DLNA duties for the connectivity. In addition, a USB port at the rear allows for the charging of mobile devices, while there's also a set of 3.5mm stereo inputs.

And on the subject of the back of the unit, it has a lavish leather finish that adds an air of quality to the unit.

An optional Harman Kardon remote app allows control over the audio settings, while the built-in rechargeable battery gives a claimed six hours of music playback.

SOUND QUALITY

For its size the Onyx produces an impressive soundstage. It also has some fine definition.

Mid-band and highs on New Order's 'Bizarre Love Triangle' were kept under good control while the bass was sufficiently deep and tuneful.

The Onyx also does not suffer the cabinet rattle that can mar some rivals when you push the volume up. Indeed, it seems to thrive on an extra dose of power, becoming more expansive with a better leading edge to guitars and more thump to bass notes and kettle drums.

What's more, it has enough sonic separation to delineate between different file formats. If your mobile device is stuffed full of low bit-rate files the Onyx will soon let you know about it.

Feed it some Apple lossless files, however, and it thrives. Placed in my kitchen and streaming 'The Rite Of Spring' from an iPhone the sound was full and rich.

It also had punch and power enough to render the rapid beats of the techno classic 'No UFO' with depth and vibrancy. The Onyx is startlingly good for its size.

Move it into the garden and this little 'speaker has enough volume to easily take over music duties for the likes of summer barbecues or enjoying the sunshine on the patio.

It seems to be one of those rare products where you end up wondering how the designers managed to squeeze so much from its relatively small size.

Added to that its connectivity also remained rock-solid throughout - whether on Bluetooth, Apple AirPlay or via DLNA - and that's not something that always happens.

CONCLUSION

The Harman Kardon isn't the cheapest portable wireless speaker on the market - but it is easily one of the most impressive. Superbly finished, it produces a big, rich, satisfying sound and works seamlessly with all devices.

This one is definitely worth seeking out if you're in the market for a portable, battery powered loudspeaker with wireless connectivity.
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"there was more to Elvis Presley's celluloid output than bubblegum trash"

Musical artists fascinate me, principally because of their life narrative. Especially those with long careers whose working life changes and evolves, moving from roller coaster-like peak to trough. There are several icons of this type: Paul McCartney, Frank Sinatra and The Rolling Stones are just three examples. I'm currently reading the biography of Frank Zappa who is another. I've also just received Sinatra and The Rolling Stones are of this type: Paul McCartney, Frank...
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"for a headphone to measure flat, it must not measure flat!"

My most memorable experiences in high fidelity have often been delivered by wacky technologies, the slightly left-field stuff everyone says has promise, but "needs just a little development"! Their most manufacturers list an impressive array of benefits, whilst failing to mention the drawbacks.

Perhaps the most radical was the ion plasma tweeter: benefit -- it had no moving mass; drawback -- it could kill you. Best not to mention the latter then! You'd at least die happy, but not many people might see it that way.

Always memorable are panel loudspeakers, of all types. Perhaps most memorable were huge Podium panels I heard at a Taiwan audio show some years back now. Wandering down a wide corridor in Chiang Kai-shek's old palace -- now the Grand Hotel used for audio shows -- I was drawn to a fabulous sound in an open foyer area, listened to by a rapt audience. The big Podiums were flat panels supported by a vestigial frame, with almost no sign of how they worked. Around at the rear was -- a flat panel! No drive units, power supplies or any other sign of a mechanical device that could be powering them -- weird! Small groups of enthusiasts stood behind discussing how this could be.

The Podiums used a very clever panel drive system (a form of NXT), but their magic came not from the drive mechanism, but from the purities of sound that a panel can deliver. Sure there are big difficulties, but there are also big benefits and sound quality comes top of the list.

And that's the thought that struck me about Audeze's planar drive mechanism, but from the rear was -- a flat panel! No drive mechanism, but from the magnetic headphones I review deliver. Sure there are big difficulties, but there are also big benefits and sound purities of sound that a panel can deliver. Some of their smoothness is due to suppressed high-frequency output that, on headphones, subjectively has a subtly different impact to that of loudspeakers.

This brings me to the curious issue of headphone measured performance versus sound quality. For a headphone to measure flat, it must not measure flat! It must have raised treble, then an equalisation curve is applied to derive a net-flat response. The curve is known as the Head Related Transfer Function, or HRTF, and it raises some awkward issues. It varies between individuals and I find 'phones like the Fidelio X1s I use, that measure flat when equalised by the HRTF, a tad bright.

But which HRTF? There are at least three of them that apply to dummy heads. Looks like I'll be using a generalised curve that is independent of direction, known as an ID curve, in conjunction with our Rohde&Schwarz UPV audio analyser, although at present we do not have a dummy head, just a measuring microphone on a flat baffle.

Trying to measure headphone frequency response is an imperfect and somewhat approximate science, because we all respond differently to 'phones, according to our physiology -- namely shoulders and ear dimensions/shape. Clamping headphones over our ears eliminates these response shaping factors that serve to accentuate treble. So what we hear from 'phones will never be right for us unless the sound is tailored to account for our body shape. What a weird problem this is!

It makes headphone tonal balance a bit hit-or-miss and this is one reason why phones often sound wrong to us -- and never quite right either! I have never settled on a pair of headphones as 'right', they just have varying tonal imbalances.

But the Audezes raise more issues than just tonal balance. The company provide options in the LCD-3 and LCD-XC generators, in acknowledgement of the problem. Also important was that when moving the phones around on my ears they were very even in their output, where other phones vary a lot with position because they beam at the ear from a dome radiator rather than a flat panel.

And then there's the fact that the Audezes are, for me, something of a history blast. I well remember Wharfedale's planar magnetic ID1 headphones released in 1972. They were something of an oddity even back then but had a good sound. Where the ID1s had very high impedance and needed lots of drive volts. Audeze have tailored their motor system to have exactly the same impedance -- 40 Ohms -- as other headphones (40-300 Ohms), in order to suit portable players, phones, tablets and what have you.

The LCD-3s still need a lot of drive volts, however, and although they go reasonably loud with the average mobile phone and portable player (that deliver 0.3V) they really need much more -- up to 2V. But then these are not really for outdoor portable use and you'd probably get mugged for them in some places.

I thought the Audezes were startlingly good all the same, and an entrant into my list of 'memorable listeners'!
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Vinyl News

Vinyl section

Contents

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Gearbox Records 83
Paul Rigby visits a decidedly audiophile London record label

Sheu Analog Timbre Turntable 89
Tony Bolton spins up a new turntable from Sheu

Anne Bission 93
Paul Rigby talks to Anne Bission about music and how she became an audiophile

News

Thirty Tigers
Ex-Drive By Truckers’ singer, Jason Isbell’s best album to date, “Southeastern” (2013: www.thirtytigers.com) is a revealing portrait of a man who wants to confess his addictive sins. A cracker of an album.

Garland Jeffreys, compatriot to Lou Reed and John Cale, contemplated life struggles in 2013’s ‘Truth Serum’ via edgy rock with reggae and blues adornments. A wholly worthwhile piece.

Wah-Wah!

Released on the Pirate label in 1970, Mad Curry was a progressive jazz outfit from Belgium with a blues-like female lead vocal. Arriving with a bonus 7” and six-panel, fold-out sleeve, this Curved Air/Soft Machine-like outfit offers complex time signatures and innovative song structures.

Also look out for Seesselberg’s ‘Sytheikt 1’, modular synth experiments from 1970, the first time ever on vinyl.

GOT THE BLUES?
New from Music On Vinyl (www.musiconvinyl.com) is Robert Johnson’s ‘King Of The Blues’ from the original 1961, Columbia issue, the record that started the entire blues resurgence. It brings his music alive.

Muddy Waters’ ‘King Bee’ was a Johnny Winter-produced LP from 1981. Not an entry point to Waters’ work but great for fans.


Finally, from Pure Pleasure (www.purepleasurerecords.com), is Louisiana Red’s ‘Lowdown Back Porch Blues’, his debut and his best with a bare production and compelling guitar presentation.

Frohmader
Via Vinyl On Demand (www.vinyl-on-demand.com), Peter Frohmader’s “Nekropolis I-IV” is a four-tape compilation on vinyl, an advanced suite of dark, apocalyptic and highly complex electronica that takes a freeform, almost jazz improv, style. An angry sea of electronic noise that threatens your central nervous system.
LET THEM EAT VINYL

Three brilliant cuts (www.letthemeatvinyl.com) include Bob Dylan's 'Finjan Club: Montreal Canada, July 2nd 1962'. Dylan was already in the midst of recording 'Freewheelin' Bob Dylan'. 'Blowin' In The Wind', sung here, would be recorded just a week later while Robert Johnson's 'Ramblin' On My Mind' is, we think, his first public performance.

Dr John's 'At the Ultrasonic Studios: the Lost Broadcast New York 1973' is a rare glimpse of his working band from this period.

Steely Dan's 'Going Mobile: Classic 1974 Live Radio Broadcast' is a period rarity due to Donald Fagen's initial lack of confidence as a 'live' singer, including songs from the first three albums plus rarities.

FEMALE FREQUENCIES

Lyn Stanley (www.lynstanley.com) offers 'Romance', a new selection of classic jazz standards from my Sinatra favourite, 'One For My Baby' to the highly accomplished 'My Foolish Heart'. Available on vinyl but also 24bit/96kHz, 24bit/192kHz and DSD! Go on...treat your Astell&Kern to some classy standards.

From Music On Vinyl is Ilse DeLange's 'World Of Hurt' (1998), a country-pop outing that topped the Dutch charts while Alanis Morissette's 'MTV Unplugged' (1999; coloured, numbered vinyl) concentrates on the rather elusive songs from 'Supposed Former Infatuation Junkie'.

From Sundazed (www.sundazed.com), Wendy & Bonnie's self-titled debut infused jazz and folk into light rock, from 1969. Impressive, considering their young (seventeen and thirteen) ages.

Finally, 'Glory Days' from Sarah Gillespie (Those Old Records; www.thoseoldrecords.co.uk) features stylistic touches of Joni Mitchell and Bob Dylan from this instinctive song-writer.

MUSIC ON VINYL

New from this busy label is Stone Temple Pilots 'Tiny Music...Songs From The Vatican Gift Shop' (1998), adding multi-textural guitar to the mix plus cross-genre touches to keep things fresh.

Hole's 'Celebrity Skin' (1998) didn't quite have the punch of 'Live Through This' (1998) but this Billy Corgan produced and partly written LP offers many highlights: issued on numbered, coloured vinyl.

Next is Jimi Hendrix's 'Miami Pop Festival', complete with an eight-page booklet. This 18 May, 1968 performance took place right after his breakthrough Monterey Festival performance. This outing is highly professional but lacks an edge.

Also look out for Prong's 'Beg To Differ' (1990) providing dense harmonies with a thrash metal beat.

...AND FINALLY

Oberman Knocks' 12” single, 'Dlianex' (Apeture; www.aperturererecords.com) is a powerful, layered slice of electronica. It's backed by Autechre's 'remix'... which isn't. Unless you call Frankenstein a 'man' remix. The latter is a frenetic, paranoid, neurotic cut, crying out for Prozac.

Hallock Hill's 'Kosloff Mansion (Hundred Acre Recordings; www.hundredacrecordings.com) drops sparse piano, gentle synth bombs and ambient washes in a meditative haze.

Merchandise's 'Begging For Your Life/In The City Light' is a clear, numbered, 12” from 4AD (www.4ad.com). A hedonistic, all too knowing yet tired vocal, this is a swaying, off balanced rock outing dragging you to the next party.

Mode Moderne's 'Occult Delight' (Light Organ; lightorganrecords.com) has a sparse, Joy Division/Smiths, post punk feel. Delight indeed.

New from Ninja Tune (www.ninjatune.net), Bonobo's 'The North Borders' offers uplifting, up-tempo, circulatory rhythms balanced by sparse, emotional vocal fare. Meaty stuff.

Finally, check out Nathaniel Rateliff's 'Falling Faster Than You Can Run' (www.nathanielrateliff.com). A powerful, folk-ish sing-songwriter, this new album offers a troubadour's take on the personal.
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A former commodities options trader and founder of a maritime tracking and security company, Gearbox Records owner Darrel Sheinman, sees 'live recording' as the poor relation of studio work, in audiophile terms.

His wish to provide quality live recordings lead to the creation of Gearbox Records, sporting its own mastering and recording studio in Kings Cross, London.

Recording live bands proved to be a problem due to the interminable web of legal clearances, so instead Sheinman decided to investigate radio station archives, in particular the BBC. Initial research was done at the British Library, which retains a lot of the BBC's session references.

"There is no secret in attaining clearances" said Sheinman. "It was difficult. It took lots of persistence and hard work. I eventually found the guy in charge of licensing at the BBC Worldwide".

"Eventually, we developed a trust and he offered me a price to license the masters".

Sheinman has found that the initial hard work has paid off because, now that he is known and trusted, musicians come to him, often with clearances primed and master tapes ready to roll.

"Regarding sources, at the beginning I was vicious in their vetting. If it wasn't good enough, then I wasn't going to release it.

There might be lots of dropouts or the musicians weren't playing very well on the recording. It also had to be something that grabbed me."

That changed later. So, for example, we did a Jazz
I've not heard a better preamp...
An original (1959) RCA KU3A ribbon microphone. It’s rarity falls into the hen’s teeth category.

Couriers in Morecambe’ release where the quality wasn’t that great but the recording was historically significant because there is so few live Jazz Couriers material out there and you can really feel the room, the atmosphere is excellent”.

Building his studio, Sheinman quickly decided that it would be vinyl-only and purist at that.

“Why full analogue! The sound quality is better and I enjoy the ritual of putting vinyl on a turntable. With vinyl I found myself listening to the music. With CD, the music is merely background”.

The Audio Note monitoring equipment.

“Audio Note boss Peter Qvortrup loaned me various Audio Note gear for me to use in mastering and monitoring in return for allowing him to send either his distributors or customers to us for demo playback” said Sheinman. “I find it also provides a more ‘real world’ monitoring experience. In fact, I told the acoustic engineer, who built our studio, to keep a bit of life in the back of the studio so it wasn’t as dead as most monitoring studios”.

Philips’ only ‘Pro’ reel-to-reel: the EL-3501.

“Why analogue? Sound quality is better and I enjoy the ritual of putting vinyl on a turntable. With vinyl I found myself listening to the music. With CD, the music is merely background”.

The purist mission started with the Scully lathe, discovered in the basement of Audio Note boss Peter Qvortrup, which, unlike most common lathes, does not have a digital preview built-in.

The latter tells the cutter what sort of signal to expect, preparing it to cut a groove to suit. Problem is, pass an analogue signal through a digital preview and it turns it into a digital signal.

Sheinman’s pure analogue lathe demands a more manual, yet purist, approach that means that his is one of just a handful of studios in the world offering pure analogue mastering alongside the likes of Abbey Road and Air.

“For my tape sources, I have a Studer C-37. I bought it from Andreas Kuhn, from Switzerland, the world authority on Studer. It was also apparent that the C-37 was the Holy Grail of Studer machines.

Either that or the J-37 which is the bigger machine but it is 4-track and I don’t need that. The best 2-track is the C-37. And it’s valve

listen to this live music, I thought. Put it out there properly, with good sound and in a way that makes people listen, then that’ll work”.

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The Audioworks, 14 Stockport Road, Cheadle, Cheshire, SK8 2AA Tel: 0161 428 7887
Purchased via the recent BBC, Bush House, auction, an EMT 948 turntable.

"We also have another turntable, the EMT 948, that's the one with the plug-in-circuit boards under the platter, which we got from the Bush House auctions. It was in top condition and even came with a trolley. EMTs were totally over-engineered, the best turntable ever made. They are hard to get, stable and quiet with XLR outs so, if we ever have to master direct from a transcription source, then we use the EMT, our reference deck."

Gearbox also has a back-up reel-to-reel machine, the only Pro machine Philips ever produced, the EL-350I. It is an ex-Decca model from 1965, and almost as good as the C-37, but it's not valve-driven.

"It's based on relatively gentle, germanium transistors. A third machine, a Studer A67, was the professional incarnation of the domestic Revox A77. We grabbed this because it has a kinder tape transport if we ever get the old fragile cine-reels, those little domestic reels.

A lot of our sources come in from that. Broadcast houses used to use them as duplicate or archive tapes."

But is this devotion to analogue worth it?

"Yes" Sheinman attests. "Vinyl, actually, is getting so popular that all the pressing plants are in a state of over-capacity.

The legendary Studer C-37 reel-to-reel.

A Scully lathe with Westrex cutting heads and amps – truly analogue.

They are all creaking at the seams, which is a slight sorry. If vinyl keeps growing like this, we will have to see new plants, new lathes and more. The vinyl industry has been increasing from 15%-18% per annum since 2008. You can't depend on existing capacity."

Growth is also happening at the other end too. Turntable sales have shot through the roof.

"We sell the Rega RP1 Performance Pack with the mini phono stage, just to get people on the road" said Sheinman.

"But Rega's order book is full. As a wholesaler, even we have to wait three to four months for stock. That's how popular turntables have become. Other manufacturers are saying the same thing."

CHORD CONNECTIONS
The only commercial cable used in the Gearbox studio is provided via Chord. Sarum connects the Studer.

"We did tests and put the cables at various points in the chain but they are best near the source. We also use the Chameleon cable for patching into the compressor and mastering desk and the smaller A67 into the desk.

We can also patch from Mark Ronson's room next door. He wanted to master straight to vinyl so our rooms are tied together with Chord. He can use his space for a direct-to-vinyl cut, which he did for Emily Barker."

The legendary Studer C-37 reel-to-reel.
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- and more...
This German vinyl spinner, with an unusual design of arm, wins Tony Bolton's approval.

Solid slate technology

Scheu Analog (pronounced sho) are a German turntable manufacturer based in Berlin. The company has been producing decks for twenty years and have a range that is divided into five sections. The Timbre, under review here, is the top model in the Cello Classic Line.

The deck retails for £1995 minus the arm. It is normally partnered with the Scheu Cantus 9-inch arm — £795. A twelve-inch version of this arm was reviewed by Adam Smith in the September 2008 edition of Hi-Fi World.

Scheu also offer their own-brand cartridges, are made for them by Benz Micro of Switzerland. The Scheu MC (£695) is wound with silver coils inside but is otherwise very similar to my Benz Micro Ace so I used my own well run-in Ace L cartridge for this review.

On taking the deck out of the box I was immediately impressed with the looks and quality of finish to the plinth. The slate top plate had an almost wood-grain like surface which sat very neatly above the veneered cabinetry. This is supported by three pointed metal coned feet. No spike shoes were supplied so I used Blue Horizon Spike Shoes to stop the very sharp points marking my equipment support.

Assembly is fairly straightforward. The arm mounting fits into an acrylic mounting board that has a slot cut in it similar to the design of SME mountings. A usefully large hole is underneath the arm mounting to allow a hand to fit inside the mounting to lock it into position.

The arm is an unusual acrylic gantry design that is mounted on a fine spike that forms the unipivot bearing. The counterweight (sporting a dull metal finish in contrast to the polished chrome of all other metal fitments) fits underneath the back of the arm. The mounting is offset and needs to be rotated to get the arm laterally balanced.

Since the arm and the Ace cartridge are both quite lightweight only very small movements were needed to affect quite a large change in tracking force or for arm leveling. The inverted ceramic platter bearing sits in a bronze housing.
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The arm is balanced on the spike in the centre of this image.

design is unusual in having no anti-skate mechanism. The manufacturers claim that the design obviates the need for it. There is also no arm rest, which I did not like.

The frosted acrylic platter sits on an inverted ceramic bearing and is driven via a nylon thread by the free-standing DC motor. This, along with its electronic power supply, is housed in a metal casing that is topped by a power and speed selector switch and two chrome knobs to fine tune the 33 and 45 rpm speeds that this deck is capable of.

The motor can be placed either to the left of the deck or behind it. In either situation a fair amount of room is required on the equipment rack since the motor unit is quite big (the base measures 146mm in diameter) while the deck, measuring 450 wide by 350mm deep, will comfortably fill most hi-fi shelving. There also needs to be a bit of space between the two to tension the drive thread.

Having got it all set up I settled down to listen to Oscar Peterson and Milt Jackson swinging a version of the traditional song 'John Brown's Body'. I have spent a lot of time listening to unipivot arms so was expecting the quite airy and spacious sound that greeted my ears. The wide and deep soundstage was no surprise at all but the amount of weight behind the quite snappily presented bass sound was not what I expected. Unipivots usually provide a very tuneful bass sound but often it lacks sheer mass. The Cantus seemed to deliver bass that not only moved fast and freely but also had some real weight behind it.

It was not in the SME class, but I have heard several conventionally-pivoted arms that would have struggled to match it. Peterson's piano and Jackson's vibes were well displayed. The former's harmonics and percussive nature came through, contrasting very well with the slow vibrato of the latter; Jackson tended to set the vibraphone oscillator to a speed of 3.3rpm.

I then kept the tempo fairly upbeat by putting on Banco De Gaia's 'Heliopolis'. EP. The opening track (Eedupolis Dog Mix) starts with an arpeggiated synthesizer sound that is joined by a deep bass drum thud to set the basic rhythm. A snare and bass line are then introduced before a melodic synth line takes centre stage. I found myself analysing these sounds of Matt Monro easing me into the quite spacious sound that greeted my ears.

Throughout my listening I felt that there was a very slight tendency to a little brightness in the upper mid-band which would account for the excellent presentation of vocalists and solo instruments. I didn't find it intrusive and I felt that the overall tonal balance of the sound was correct. I liked the zesty presentation of rhythms and the fact that this deck seemed to deal with every genre of music that I played through it in an even-handed manner.

I would not describe it as having a warm sound, but neither was it cold or sterile. However owners of emotional sounding systems who wish to richen up the sound of their hi-fis might find this deck less suited to their needs than other models. I would call it a cool-headed presentation of music that was respectful of thoughtful sounds and had an ability to transmit the energy behind rhythms accurately.

In a way it sounds rather like it looks; striking but slightly understated, as a lot of good quality designs are. Definitely one for the audition list.

**THATSLAST**

The DC motor and electronic power supply are housed in a metal casework.

**MUSIC USED**

Stravinsky, 'Stravinsky Conducts Stravinsky/ The Firebird'. Columbia Symphony Orchestra, Columbia Masterworks. ML 5728. 1962

The Oscar Peterson Trio with Milt Jackson. 'Very Tall.' Verve Records. VLP 9002. 1961.

Quincy Jones/ Various Artists. 'The Italian Job Soundtrack.' Paramount Records. SPFL 256. 1969.


**SYSTEM USED**


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**VERDICT**

Soldily built, well finished and with good looks, offering a slightly cool headed presentation of music.

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Jazz Colours

Coming from classical roots with added jazz and pop flavourings, Paul Rigby talks to Anne Bisson about music and how she became an audiophile.

How many classically trained pianists and singers have hosted a top TV dating game? Tough one, isn’t it? You’ll have to go as far as Canada to find one. Montreal-based Anne Bisson’s childhood was soaked in classical music. Mozart, Bach, Beethoven and various shades of opera were the daily diet until a boarding school regime saw Bisson take to the piano.

“I discovered jazz around seventeen or eighteen when I entered Montreal University” said Bisson, talking from her home in Montreal. “I was playing Debussy, Ravel, Prokofiev and so on, but jazz was so different. I hardly finished my degree in classical piano because I already had one foot in jazz.”

Writing songs with a jazz twist, Bisson hit success after winning a talent contest at the age of twenty-two, run by the national TV broadcasting station CBC.

“I then had a chance to sing my songs on national television. That was the kick. I said to myself that I wanted to write music. I wanted to tell stories through my lyrics. I love communication so that was a perfect combination”. But the demanding practice routines of classical proved too much for Bisson.

“I got lost a little bit, musically speaking” she said “because I was chosen to be a TV host for a huge TV show here in Montreal, in French. It was a sort of dating game show. I became a big star. It pulled me from my musical priorities. I was twenty-five or twenty-six. Then I moved onto a children’s show but I was allowed to write the music for it, which was great. Yet, it wasn’t enough. I wanted to make a record, Music is my first love”.

In 2001, Bisson returned to University to take a course in classical singing. “I wanted my voice to be as strong as it could be. It might not be very powerful but it’s precise. It also provided confidence for me. After all, it had been twenty years since I was heavily involved in music.”

In 2005, Bisson began a busy period of songwriting that lead her to track down the right producer for her upcoming LP ‘Blue Mind’. A chap named Guy St-Onge, who had previously produced David Bowie, Celine Dion and Michael LeGrand, encouraged Bisson to bring her songs to the studio where she would meet both bass player (Normand Guilbeault) and drummer (Paul Brochu, noted as one of the ten best drummers in the world). There and then, they would record. No previous meetings. No rehearsals.

“I panicked!” declared Bisson. “I said that I needed to rehearse with these people but Guy refused and we recorded ‘Blue Mind’ in just two days”.

This album reinforced Bisson’s evolving, eclectic style that was moving towards a combination of jazz, pop and folk.

A three year project, ‘Blue Mind’ was initially released on Fidelio, a small audiophile company, in 2008, although the ‘audiophile’ term meant nothing to Bisson. Until that, is the label invited Bisson to a hi-fi show in Montreal during that same year. The experience was a good one, encouraging her to attend the following year when she began talking to turntable outfit Oracle.

“They offered to take me to the Toronto show and encouraged me to bring some records. Oracle started to play my albums on their turntables, which prompted queries from their audience. I subsequently sold quite a few records on that weekend. Since then, I have visited many hi-fi shows plus CES. Now, I have been invited to the Munich show, which I hope to attend. I like to appear at the shows. I’m not doing this to be famous – I’ve already been that – but to meet the people. I’ve been lucky to receive support for my albums from the industry too. Sim Audio were major sponsors for both of my albums, ‘Portraits & Perfumes’ and ‘Blue Mind’. Without Moon, I wouldn’t be there. Sennheiser also provided equipment for the album production”.

The album itself has a beautifully quiet backdrop, while Bisson’s considered and emotional delivery will have fans of Diana Krall rushing to their wallets.
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WANTED: VINTAGE Armstrong 621 amp, 623/624 tuner or receiver 628/626. What have you. Tel: Gareth 01938 553 559 (Wellspool)

A PAIR of Tannoy I25T CD, remote, £70. Aiwa SX-6310X 200watts, mln. £800.Tel: Phil 07793 426 291

YAMAHA DSP AX 863SE AV amplifier. Good working order. Hardly used, Best offer over £250. Tel: 020 7138 9900.

ONE PAIR Aerial Acoustics 10T loudspeakers in rosewood. Price new £8000. Good condition. £2200. Tel: 01223 456 789 or Email: pamelasines@hotmail.com

AUDIO TECHNICA AT32EB MC cartridge. Very good condition, light use. £90. Nakamichi BX1 cassette, recent full service, £70. Quad 405 upgraded, £160. Will demonstrate each item. Tel: 01277 219 639 (Brentwood, Essex)

SUGDEN CD21SE high end CD player excellent condition £750 4m pair Nordost Blue Heaven Revision 2 speaker cables excellent condition £300. As new Cambridge Audio 640C CD Player. £125 07809 408774
WANTED: GOOD quality speaker cable (~2x4m) to upgrade from my QED Silver anniversary. Anything considered but nothing too expensive. Will pay reasonable costs, postage etc. Please email grant.cameron3@gmail.com

ARCAM A38 integrated amplifier £775; Arcam CD37 CD player £775; Arcam T32 FM/DAB tuner £399. All units are in a black finish and in excellent unmarked condition and perfect working order. Each unit has its own remote control, manual and original box. Also Roksan Kandy K2 integrated amplifier £550 and K2 CD player £550. Both units are as new and with latest remote control RMX-111 (these cost £131 each), manuals and original boxes. Please Tel: 023 8073 8935 or Email golfj385@hotmail.co.uk

REGA BRIO 3 stereo amplifier in silver. Boxed. Very good condition and working order. £150. Email: pspendley.ps@gmail.com

EXPOSURE DR 4 newer logo serviced 2 years ago. 2.9m loudspeaker cable £850 Tannoy 12" silver monitors c/w tone controls black rectangular cabinets smaller than Lancasters £2,500. Email: brance.williams@virgin.net

ORTOFON KONTRAPUNKT 'b' with broken cantilever. Still has £200.00 trade in value or possibly, repairable £100.00 ono. Have acquired a NOS 'b' so not needed. Tel: 07813 141455 Email: chas@crudenhay.co.uk.


CHAMPAGNE MARANTZ PM 7200 K1 Amplifier in Mint fully working order. C/W K1 certificate, remote, manual & packing carton. £300. Tel 07505920373 Warrington area.

TANNONY REVOLUTION RV3 floor standing speakers. Cherry finish these are in excellent condition. £140.00 Boxed. Upgrade forces sale. Pick up preferred. All reasonable offers will be considered. Contact details: Tel: 07917221033. Email: nigel5achs42@tiscali.co.uk

MUSICAL FIDELITY A308CR Pre-amplifier £695: Extremely well reviewed. Attractive all silver appearance and was excellent value even when new at £1500. Owned by me from new, less than 100 hours use, still pristine, unmarked (kept covered by a dust sheet) as new, with original box, remote and instructions. Protected in an audio rack in my smoke and pet free home. Very happy to demonstrate. Mike (Cheshire) 07500 804700 michael.yates7@ntlworld.com

REGA P7 Turntable with Rega RB700 arm Rega power supply and Reson Mica cartridge. Original packaging £675.00. Telephone Mark 01392 420316 (Exeter)

3 RUSS ANDREWS Signature Powerkords, 1 m length, Wextgate 350 plugs, Mint condition, RRP £600. £285 each or £495 for all 3, cheaper if collected. Tel: 01902 884694 Email: jukey39@yahoo.co.uk

CABLES CHORD Indigo Plus Digital 2M RCA too RCA £300 and 3M of same £350 excellent condition can demo. Upgraded to tuned array. Tel 02380470107 Email: lesliestubbs@tiscali.co.uk

MUSICAL FIDELITY A308CR CD Player £695: Attractive all silver appearance. These were £2000 when new. Owned by me from new, less than 100 hours use, still pristine, unmarked (kept covered by a dust sheet) as new, with original box, remote and instructions. Protected in an audio rack in my smoke and pet free home. Very happy to demonstrate. Mike (Cheshire) 07500 804700 michael.yates7@ntlworld.com

POWER SUPPLY FOR Class A amplifiers, self contained, suits John Linsloe Hood's or any low power Class A amplifier, £279. Pair of used SEAS 10 inch drivers, £99. Tel: 0207 499 8729.

CLASSICAL LP's FOR SALE - private collection. Over 2000. Many highly rated performances. All in really excellent condition. £2 each; reduction for quantities. View Maidenhead. Please contact Colin 07804782950 Email: hope.colin@yahoo.co.uk

PROAC Studio 140 Mk1 floor stand speakers in Maple. Due to weight, buyer collects. Unmarked A1 condition. £750 Tel: 07597 499299 Hampshire

AMERICAN CLASSICS McIntosh S100 amplifier. McIntosh MR77 tuner Dahlquist DQ10 speakers. Sota Star Sapphire vacuum turntable. Fidelity Research 64X arm. Brir carrier. Infinity Reference Standard 4.5 speakers. London John 01923 824501 herrning@aol.com

RAY SAMUELS F17 Nighthawk battery powered phonostage £300 no offers North London (07930878582) after 6pm

CUSTOM DESIGN wall mounted turntable support black steel frame toughened glass shelf complete with all fixings in as new condition offers please 01293 524587 West Sussex

MUSICAL FIDELITY A3.2 RDS Tuner £295: Attractive all silver appearance. Owned by me from new, less than 100 hours use, still pristine, unmarked (kept covered by a dust sheet) as new, with original box, remote and instructions. Protected in an audio rack in my smoke and pet free home. Very happy to demonstrate. Mike (Cheshire) 07500 804700 michael.yates7@ntlworld.com

HI-FI ENTHUSIAST is looking to buy both vintage and modern audio equipment. Unfinished projects welcome. Will travel, cash waiting. 0117 946 7188 silkw@btinternet.com

BRACKNELL 2014 Hi-Fi sales event. Now its fifth year held here. Bracknell Leisure Center, Bracknell, Bucks, RG12 9SE. On Sunday 1st of June 2014. A good mix of vintage, and modern hi-fi. £2.00 admission between 10 am - 2.30 pm. For more details phone 07846-002164.

ROGERS LS3/5A speakers, black ash, boxed, booklet. £950. Tel: 07846 401 566
This is a selection of what we hope to bring you, not a complete list. 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.

Also, we hope to bring you —

ASTELL&KERN AK240 HI RES DIGITAL PORTABLE PLAYER
OPPO PM-1 PLANAR MAGNETIC HEADPHONES
SONY HAP-Z1ES HIGH RES DIGITAL PLAYER
MAGNAPLANAR 1.7 LOUDSPEAKERS
CAMBRIDGE AUDIO XS USB/DAC
ROTH OLI RA2 LOUDSPEAKERS
EAT E-GLO PHONOSTAGE
ARCAM iRDAC
BEATLES FEATURE - 2ND PART
REEL-TO-REEL TAPE FEATURE
...and much more.

This mighty American amplifier — a two-man lift — aims to drive loudspeakers with the brute force of a Mac truck. It looks the part and we are finding it sounds the part as we audition it at Hi-Fi World towers. Not only is the MA8000 a transistor amplifier with massive muscle, it is also has digital inputs — and output transformers. Yikes! Read all about it in our next issue.

PICK UP THE JULY 2014 ISSUE OF HI-FI WORLD ON SALE MAY 30TH 2014, OR SUBSCRIBE AND GET IT DELIVERED TO YOUR DOOR: SEE PAGE 54
**ADVERTISERS INDEX**

<table>
<thead>
<tr>
<th>Name</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>2nd Hand HiFi</td>
<td>70</td>
</tr>
<tr>
<td>Absolute Sound</td>
<td>OBC</td>
</tr>
<tr>
<td>Avid HiFi</td>
<td>86</td>
</tr>
<tr>
<td>Basically Sound</td>
<td>82</td>
</tr>
<tr>
<td>Billy Vee</td>
<td>82</td>
</tr>
<tr>
<td>Black Rhodium</td>
<td>24, 38</td>
</tr>
<tr>
<td>Chord Company</td>
<td>IFC</td>
</tr>
<tr>
<td>Clarity</td>
<td>72</td>
</tr>
<tr>
<td>Emporium</td>
<td>92</td>
</tr>
<tr>
<td>Enjoy The Music.Com</td>
<td>90</td>
</tr>
<tr>
<td>Epiphany Acoustics</td>
<td>82</td>
</tr>
<tr>
<td>Graham Slee</td>
<td>68</td>
</tr>
<tr>
<td>Heathedale Audio</td>
<td>82</td>
</tr>
<tr>
<td>Henley Designs</td>
<td>20,42,60,74</td>
</tr>
<tr>
<td>HiFi Sound</td>
<td>70</td>
</tr>
<tr>
<td>Ian Harrison</td>
<td>84</td>
</tr>
<tr>
<td>Icon Audio</td>
<td>22</td>
</tr>
<tr>
<td>Inspire Hi-Fi</td>
<td>68</td>
</tr>
<tr>
<td>Jordan Acoustics</td>
<td>64,65</td>
</tr>
<tr>
<td>KEF</td>
<td>18</td>
</tr>
<tr>
<td>KJ West One</td>
<td>88</td>
</tr>
<tr>
<td>Mains Cables R Us</td>
<td>38</td>
</tr>
<tr>
<td>Music First</td>
<td>84</td>
</tr>
<tr>
<td>Pure</td>
<td>14</td>
</tr>
<tr>
<td>Q.A.T</td>
<td>6</td>
</tr>
<tr>
<td>Retro Reproduction</td>
<td>84</td>
</tr>
<tr>
<td>Robson Acoustics</td>
<td>26</td>
</tr>
<tr>
<td>Sevenoaks</td>
<td>75,76,77</td>
</tr>
<tr>
<td>SME</td>
<td>24</td>
</tr>
<tr>
<td>Sounds Founations</td>
<td>52</td>
</tr>
<tr>
<td>Sugden</td>
<td>16</td>
</tr>
<tr>
<td>Tellurium Q</td>
<td>12</td>
</tr>
<tr>
<td>The Funk Firm</td>
<td>90</td>
</tr>
<tr>
<td>Turntable World</td>
<td>70</td>
</tr>
<tr>
<td>Usher</td>
<td>IBC</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>6</td>
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<tr>
<td>7</td>
<td>8</td>
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<td>10</td>
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<tr>
<td>27</td>
<td>28</td>
</tr>
<tr>
<td>29</td>
<td>30</td>
</tr>
</tbody>
</table>

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JULY 2014 ISSUE - 6TH MAY
AUGUST 2014 ISSUE - 4TH JUNE
Ann Peebles continues to make an impact on the music scene: due both to her strong soul musical legacy and her attitude. She was the epitome of girl power. Although this ‘girl power’ was more Aretha Franklin than Spice Girls.

The best female singer on the Hi Records label, she came from a gospel background. With her father a minister and her mother a singer, Ann Peebles sang, at a young age, in her father’s church choir and on the gospel circuit with her father’s group the Peebles Choir.

Ann Peebles will always be associated firstly with this album and the title track from the same by music fans...and professionals. For example, former Free, Bad Company and now Queen frontman, Paul Rodgers covers the song on his new album, ‘The Royal Sessions’. “The reason we recorded that song was because I saw the master in the studio and I asked about it. Charles Hodges [Peebles’ organist] said “Oh, yeah. She recorded that song right here in this studio and we were the band.” I said, “Oh my gosh, can we try that one?” and he said “Absolutely”. So, we did our own version and it made it onto the album”.

John Lennon famously quoted the song as one of his favourites. In fact, he was in the audience for an Ann Peebles gig, in the early seventies, with Harry Nilsson at the Troubadour Club, during his infamous Lost Weekend of drink and drug jaunts. The pair were witnessed singing the song in barbershop quartet harmony fashion.

Released in 1974 on the Memphis-based Hi Records label, much of the album was co-written by Peebles, mostly with her husband, Don Bryant.

In fact, seven of the ten tracks on this album have Ann Peebles’ name down as a song credit.

The music itself was based upon a sparse, laid-back funk with the characteristic high rhythm section that integrated both the brass and string sections to their best effect. Peebles’ own vocal combined bubbling emotion, suppressed to a steaming potential. After all, this is a song and an album that examines the dark side of love.

‘I Can’t Stand The Rain’ may have been the stand-out song and most popular single from the album but three more singles were taken from the LP. Joe Simon’s ‘(You Keep Me) Hangin’ On’ which was the only cover on the entire LP, had been a hit for Joe Simon in 1968. It was followed by ‘Do I Need You’, which went to No 57 in the R&B charts.

The third single release was a ballad supported by a string section, ‘Until You Came Into My Life’ didn’t chart and was written by Ann and Don Bryant.

The rest of the album was just as effective and as effective and was recorded at the Hi studios, an old converted cinema filled with basic studio equipment.

Until 1973, that was, when a new gadget arrived in town that set minds wondering, “That was an electric timbale”, said Peebles. This would be the machine that would create those raindrop effects on the title track. “We were the first people to use it, at least in that order. When we were recording something, we usually played the tape back and maybe we’d take something off, like the first bars, and listen to it. Then we’d take the bass off and listen to it and so on. Sometimes we’d take off everything and just listen to the voice to see if we had every note that we wanted. At first, we had the timbales all the way through the song but as we played the tape, Willie Mitchell (producer and engineer) said “What about if the timbales were in front before anything else comes in?” So we did that and when we listened back I said “I love it, let’s do that”.

The result is a classic soul album full of dark, vivacious yet gorgeous soul.

For those looking to grab a well mastered and pressed digital edition then look no further than the US-based Fat Possum record label. Known for their hardcore blues recordings and reissues, Fat Possum has released five Ann Peebles albums, previously on the Hi record label. ’I Can’t Stand The Rain’ is joined by; ‘Part Time Love’ (1971); ‘Tellin It’ (1976); ‘If This Is Heaven’ (1978), ‘The Handwriting Is On The Wall’ (1979). All CDs are released with their original artwork and track listings.

PR
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...

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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!

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When Herman van de Dungen founded PrimaLuna, his mission was to create affordable valve amplifiers and CD players that not only harnessed the sheer, sensual musicality of valve technology, but also defied the issues of reliability that sometimes accompany it.

PrimaLuna's Prologue and Dialogue ranges continue to expand, featuring ground-breaking advances such as the unique Adaptive AutoBias™ circuit that allows easy switching between valve types and the jitter-reducing SuperTubeClock™, exclusively incorporated into PrimaLuna's CD players. These innovations help create a benchmark-setting suite of products that builds on the marque's past triumphs, combining excellent sonic definition with a beautifully balanced tonality.

Aesthetically stunning to look at, with a hand-polished black or silver faceplate, PrimaLuna consistently fulfils Herman's original promise of creating the best you can get for the least you can pay.