

IS THE TECHNICS SL-1000R THE BEST EVER?

hi-fi+

REPRODUCING THE RECORDED ARTS
www.hifiplus.com

OCTOBER 2019 • 176



£5.99

ISSN 1465-5950



AUDIOVECTOR R1

ARRETÉ BRINGS HOME THE DANISH BACON

OUR
EXCLUSIVE
REVIEW
OF THE R1
ARRETÉ!



EXCLUSIVE: FLYING THE FLAG
WITH WARWICK'S NEW APERIO



EMM LABS DV2

FINK TEAM BORG

MARK LEVINSON 5805

DARTZEEL NHB-18NS/NHB-108
MODEL TWO

NORDOST QPOINTS AND QSOURCE

bel canto

for music that's e.ngaging

Bel Canto Music Streamer e.One STREAM



New Product

The e.One Stream provides easy access to 1000's of albums by connecting your preamp or DAC to Tidal, Qobuz, Vtuner or your personal NAS library. Download the excellent free iOS 'Seek' app to organise your playlists, favourite tunes and internet radio stations so they are readily accessible from your iOS tablet or phone. All that's left is to choose from either the black or silver finish.

"... the e.One Stream has a great deal to commend it." HiFi News (April 2019)



e.One PHONO
Preamplifier



C5i
Integrated amplifier and DAC



DAC2.7
DAC/Preamplifier



REF500S
Stereo Power Amplifier

Distributed in the UK by



For your nearest UK dealer please call Padood
on +44 (0) 1223 653199 or visit www.padood.com

EDITOR

Alan Sircom
Email: editor@hifiplus.com

**CONTRIBUTORS THIS
ISSUE INCLUDE:**

Dennis D Davis, Steve Dickinson,
Sean Hannam, Jimmy Hughes,
Jason Kennedy, Simon Lucas,
Chris Martens, Chris Thomas

GRAPHIC DESIGNER

Jenny Watson
Fonthill Creative, Salisbury

ADVERTISING MANAGER

Tom Hackforth
Tel: +44 (0)1425 655255
Email: tom@hifiplus.com

PUBLISHER

Pete Collingwood-Trewin
Tel: +44 (0)1425 655699
Email: pete@hifiplus.com

EDITORIAL DIRECTOR

Chris Martens
Tel: +1 (512) 419-1513
Email: cmartens@nextscreen.com

**THE EDITORIAL OFFICE
CAN BE CONTACTED AT:**

Hi-Fi+ Editorial
Absolute Multimedia (UK) Ltd
Unit 3, Sandheath Industrial Estate,
Sandheath, Hampshire
SP6 1PA
United Kingdom
Tel: +44 (0)1425 655255
URL: hifiplus.com

Absolute Multimedia (UK) Ltd is a
subsidiary of TMM Holdings LLC,
2500 McHale Court, Suite 100
Austin, TX 78758, USA

CHAIRMAN AND CEO

Thomas B. Martin, Jr.

All Rights Reserved.

Not one word of Hi-Fi+ may be
reproduced without the written consent
of the Editor. We are perfectly happy
to co-operate, but we don't want
quotations to appear out of context.

Printed By
Pensord Press, Caerphilly

Hi-Fi+ is published twelve times a
year by: Absolute Multimedia (UK) Ltd

ISSN 1465 5950



hifiplus.com

editorial

The changing face of audio was brought home to me recently. I met with a friend who got into audio in the 1980s and then stopped. His system – still very well maintained and working correctly – reminded me of my first ‘real’ audio system in the late 1980s; a Linn LP12, a small ‘chrome bumper’ Naim pre/power amplifier, and a pair of Linn Kan loudspeakers. While such systems still sound good, what’s interesting is how far we’ve gone in other directions since.

Such a system is increasingly looking out of place in today’s world. The intervening 30+ years of developments in electronics engineering, circuit design, materials science, test and measurement equipment, and the ever-increasingly ‘tech-savvy’ nature of audio enthusiasts and the public at large has meant this sort of pared-back, ‘one-source-fits-all’ system is no longer as viable as it once was. Audio is a broad church, and there is room for almost everything as a result, but ‘ultra-minimalist’ systems are seemingly inevitably becoming the exception rather than the norm.

This change in technology can meet with some inertia from traditional enthusiasts. The owner of the system mentioned above viewed the rise of streaming, reliance on more net-connected amplifiers and loudspeakers, and the rise of digital audio to be an encroachment on good sound. He’s taken this to somewhat odd extremes; if he can’t get a piece of music on LP, he’ll download the file on his computer, then output it through a DAC into a reel-to-reel recorder. He then disconnects computer and DAC from the system, so they don’t pollute the sound. In fairness, many an MP3 file sounds great this way!

This kind of stance is admirable but ‘somewhat’ unworkable in the real world. However, the same applies to a 1980s minimalist’s approach to hi-fi for many people today, too. The notion of the Internet of Things was late coming to the audio system (it was more about one or two networked components on the periphery of a system, rather than the core of the system itself), that’s changing fast whether that’s the move from ‘active speaker’ to ‘network-connected loudspeaker’ or the move from ‘amplifier’ to ‘streaming nerve centre’, what was once little more than a footnote in good audio is increasingly commonplace.

The joy of good audio, however, is that while you can go down this route, you don’t have to. There are still many devices that have not materially changed their place in the audio world. However, even here, we have seen significant changes take place recently. Whichever path you choose to take down the hi-fi road, it now does the job brilliantly!

Alan Sircom
editor@hifiplus.com

ISSUE 177 ON SALE OCT 31, 2019 (UK), DEC 5, 2019 (US)

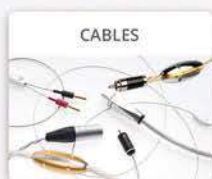


15 years

FUTURE DREAM: Limited edition power, speaker, interconnect and phono cables with Crystal Cable's new and unique **hybrid technology**.



To find out more about Crystal Cable's products and special activities during this anniversary year visit:
www.crystalcable.com and www.crystalcable.com/futuredreamfundraising



Distributed in the UK and Ireland by Padood
www.padood.com | info@padood.com
+44 (0)1223 653199 | 20 Station Road, Cambridge CB1 2JD

contents ISSUE 176 EQUIPMENT+

COMMENT

- 4** **INCOMING!**
Your views on all things audio
- 9** **2019 HONG KONG HIGH-END AUDIO VIDEO SHOW**
One of the most important shows in audio today
- 87** **MEET YOUR MAKER**
Classical streaming company Primephonic
- 92** **MEET YOUR DEALER**
Audio Exotics, Hong Kong

MUSIC

- 100** **THE RAILS**
English husband-and-wife duo James Walbourne and Kami Thompson
- 106** **CONTEMPORARY AND AUDIOPHILE MUSIC**
- +**
- 96** **SUBSCRIPTIONS**
- 105** **ADVERTISER INDEX**
- 128** **NEXT MONTH**
Find out what's happening next month!

REVIEWS

- 15** **FINK TEAM BORG**
floorstanding loudspeaker
- 25** **DARTZEEL NHB-18NS/NHB-108 MODEL TWO**
preamplifier and stereo power amp
- 31** **MARK LEVINSON NO. 5805**
integrated amplifier
- 39** **FYNE AUDIO F702**
floorstanding loudspeaker
- 45** **TECHNICS SL-1000R**
direct drive turntable and arm
- 51** **EMM LABS DV2**
digital-to-analogue converter
- 57** **BOWERS & WILKINS FORMATION DUO**
networked active loudspeakers
- 63** **PATHOS ACOUSTICS KRATOS**
integrated amplifier
- 69** **AUDIOVECTOR R1 ARRETÉ**
stand-mount loudspeaker
- 75** **NAIM AUDIO MU-SO GENERATION 2**
networked active loudspeaker
- 81** **NORDOST QPOINT/QCORE**
harmoniser/linear power supply
- 84** **GUTWIRE IRIS³, PURE³, X³**
power cords

- 111** **Hi-Fi+'s Ultimate Headphone Guide**
- 113 Incoming: We answer your personal audio questions
- 116 Show Report: Personal Audio discoveries from CanJam London 2019
- 120 conrad-johnson HVA-1 valve headphone amplifier
- 122 Warwick Acoustics APERIO electrostatic headphone system
- 126 Auris Audio Euterpe valve headphone amplifier/DAC

Please send your letters to Hi-Fi+, Unit 3, Sandleheath Industrial Estate, Sandleheath, Hampshire, SP6 1PA, United Kingdom.
Or email them to editor@hifiplus.com

incoming!

in association with **audioquest**

LETTER OF THE MONTH WINS A DRAGONFLY BLACK

Both AudioQuest and *Hi-Fi+* are passionate about music and the sound it makes. We know what makes a good audio experience, and we know what makes it better. Most modern audio equipment is good, but with the right attitude, right advice, and the right components, the sound it delivers can move from 'good' to 'great' to 'fantastic'. AudioQuest has to deal with a lot of queries regarding audio systems, because almost everything in an audio system is connected with a cable. The company has amassed a wealth of information on a range of topics in audio, both in general terms and with a team comprising keen, specialist audio experts willing to impart their expertise.

Which is why we've teamed up with the good folks at AudioQuest to award the letter of the month a free AudioQuest Dragonfly Black headphone amp/DAC.

Threadlock holiday

I read somewhere that loudspeaker drive units should be tightened every few years. Is that still the case? If so, I think a better course of action would be to use threadlock compound to make sure they don't shake loose. That way, you don't risk damaging driver or cabinet.

Baz Evans, via email

Yes, periodically tightening the screws on loudspeaker drivers is a good idea. They do shake loose (for understandable reasons... think what kind of forces the drive unit is exerting on its mountings, and unless that screw is a nut-bolt, and washer arrangement, it will shake loose over time. The trick is to tighten it without either overtightening the screws (and thereby potentially damaging the mounting plate and especially the cabinet). If you find you have ended up threading the wood or MDF behind the screw, a few blobs of wood glue in the hole makes an effective repair.

I'd hold off on threadlocking compounds, though. First, they are not that useful when used on wood or MDF anyway, as the fibres in the wood or MDF will likely just shear away and you just end up with a furry screw! It's really only designed for metal-on-metal thread-locking. In addition, there might be times when that drive unit needs to be removed and replaced, and threadlock compound will just get in the way. If you are determined to Loctite things shut and have a metal-on-metal connection that can take thread lock materials, I recommend going with the purple or at most the blue thread lock, as in most audio systems you'll be trying to lock screws to aluminium. Also, red threadlock is so strong, you'd need to melt the loudspeaker driver to loosen the screw!

Robert Hay – AudioQuest



The call of the mild

I have noticed a distinct change in audio presentations over the years, and it is a trend that I do not approve of. I have been attending audio shows for several decades, and have observed several changes in the way such events are conducted to the point where I question their efficacy.

The two main culprits to bad sound in my opinion are pop music and high volumes. I pulled out my copy of *Hi-Fi In The Home* (4th Edition, 1973, published by Blandford Press Ltd) by the late John Crabbe recently. In that august tome, he lists 100 recordings that would make a good library, and only three of them were pop and just two were jazz. All the rest were classical recordings, many of which I now own. I have attended many UK audio shows over the years, and with the exception of Harbeth's fine demonstrations, they have been almost exclusively loud and raucous pop and or jazz recordings. These are now praised as fine in their own right, erroneously.

Bowers & Wilkins



Trade up to 700 Series

Receive up to £600 for your old speakers regardless of their age, condition or brand when you trade up to Bowers & Wilkins 700 Series*



702 S2

703 S2

704 S2

705 S2

706 S2

707 S2

Visit our store locator on bowers-wilkins.co.uk to find your nearest Bowers & Wilkins dealer

*£600 applies to upgrading to Bowers & Wilkins 702 loudspeakers

▶ While I believe the only true benchmark is measurement, the only musical benchmarks its possible to make require recordings of classical music made in a live and natural acoustic space. We have no way of knowing how an electric guitar actually sounds, especially how it sounds in a studio, so any music featuring electric guitars cannot be used to assess audio equipment. It's unnatural!

I have asked manufacturers why they no longer play classical music at demonstrations and they claim it isn't popular with listeners. However, when they used to play classical music, there were lots more listeners attending such shows, so I think that argument doesn't hold water.

C. Ashley, via email

Sadly, from experience, I have to agree with the demonstrators here. We haven't run a demonstration in several years, but the last time we did, playing almost any kind of classical music emptied the room in minutes. There were exceptions, of course, but they are rare. While I would love to see a return to playing classical at shows, I doubt it will happen any time soon in the UK, save for a few 'audiophile approved' recordings.

I do agree and sympathise about the volume levels used at shows, however. They also increase over the show, so where things are played at reasonable levels on the first morning, everyone is in competition and the levels just keep on rising until every room is 10dB louder than it was a day earlier. It gets deeply frustrating.

If you want to listen to acoustic instruments, unamplified, and recorded in a natural acoustic, you might want to try listening to some more jazz. They play a lot of it at hi-fi shows now! – Ed

Jitter ye not!

When CD was still very popular, the big problem affecting every player was jitter. Now it seems to be less of an issue. What's changed?

Nick Hayes, via email

Several things changed. First, digital engineers began to recognise jitter as a legitimate problem, and find solutions for that problem. Second, the technology needed to limit the problem of jitter became more widely available to designers. Third, some of the technologies in modern digital audio (such as streaming) are not quite as prone to timing-induced problems (or, perhaps more accurately, are prone to different problems). The problem of jitter has not gone away and will not go away so long as we have digital audio systems, but the issue is more under control today than ever before. – Ed

Moving on

Having enjoyed audio as a hobby, then a passion, and finally an obsession, I feel I have come to the end of the line. My time with good audio is past, and I am not that troubled by that.

In part, the end began not when audio got really expensive, but when music took a turn for the worse. I am from that lucky generation that were old enough to be there for Sgt. Pepper and Pet Sounds. I saw all the good bands, too! I got into audio about the time I got into music from bands like Pink Floyd and Fleetwood Mac, and yet despite that I enjoyed the energy of Punk and New Wave. My passion lasted, and my system grew. By the mid-1990s though, something was wrong; I wasn't getting into new bands the way I always used to, and I even stopped going to gigs (I saw bands like the Rolling Stones before they got all creaky, anyway). I realised the last real musician I got into was Amy Winehouse, and with her passing, the muse just left me. I can't get worked up by Ed Sheeran, and I'm too set in my ways to learn to love classical music. And I have tried and failed to like jazz.

The move away from audio happened just as gradually. I found I wasn't switching my system on as often as I used to. Getting a DAB radio in the car meant I spent all my commuting time listening to BBC Radio Two and Six Music, and that was all I needed. I kept reading the magazines in the hope that something would spark my enthusiasm, but nothing did. Yes, much of the equipment today is completely beyond my price range, but if you aren't listening to any system, that doesn't really matter at all.

Where I am now is at the jumping off point. The equipment I have is worth a little, and I thought of hanging on to it, but it's taking up too much space and the record collection is being slowly moved to the attic. I bought a Sonos One recently. It might be all I need...

name withheld, via email



LIMITED TIME ONLY

£299 SRP*

PREVIOUSLY ~~£399~~

*UK PRICE ONLY



Mojo is light years ahead

The DAC & headphone amplifier with +100 5 star reviews

Entirely designed, engineered and built in Britain, Mojo contains the most advanced DAC technology in the world, putting its performance far beyond the reach of rivals, permanently. Our very own super-mini, Mojo delivers the undisputed musicality of Chord Electronics' class-leading DACs to an unbeatable pocket-size device. Mobile music has never sounded this good.

CHORDELECTRONICS.CO.UK



CHORD

Chord Electronics Ltd.



Burmester

B18 Loudspeaker

The new B18 loudspeaker is a universal sound talent: space-saving, yet at the same time extremely musical and dynamically thrilling. The high-frequency reproduction benefits from the ring radiator which is custom-made for Burmester and guarantees optimum clarity and resolution. The drivers for the mid and low frequencies complement the tweeter perfectly, resulting in an impressive sound performance.

2019 Hong Kong High-End Audio Visual Show

by Alan Sircom



CD is still an important source of music in Asia, and the fabled glass CD is the ultimate in CD content delivery. These are prized possessions as they cost up to £1,500 a piece!

This was a show that nearly didn't happen! The on-going protest in Hong Kong meant that the Hong Kong Convention and Exhibition Centre, in Wan Chai on Hong Kong Island, expressed safety concerns for the two exhibitions scheduled to run that weekend. They ultimately ran both a wedding show for young engaged couples and the 2019 Hong Kong High-End Audio Visual Show across the weekend of August 9–11, but visitor numbers for both were affected by the ongoing problems on the streets of Hong Kong.

Nevertheless, it's still a buzzing, vibrant show, held over three floors of the vast centre with a breathtaking view of Kowloon across the bay. The show is divided between an open-plan exhibition space, which is encircled by custom built (but surprisingly effectively isolated) rooms, with two floors of medium to large meeting rooms, many of which showcase some of the larger distributor's wares. Some are so large, manufacturers take it in turns to demonstrate their product, and the visitors simply stay in one distributor's room for several hours.

This is a market that combines the well-established brands with a strong local flavour of Hong Kong and mainland Chinese companies who make products that are seldom seen outside of these markets. There are also products made specifically for this market from international manufacturers. And, while this show might not have the sheer scale of Munich, that should not undermine its global significance. Many companies recognise that importance and choose to launch their products in Hong Kong. +



Gryphon launched its new, more attainable Essence amplifier range of preamp, stereo, and mono power amps.



VPI finally launched its Voyager phono stage, but also turned in a very pretty version of the Prime turntable, finished in highly polished wood veneer in place of the regular black finish.



Siltech's €500k Symphony speaker was shown at Munich, but demonstrated for the first time in Hong Kong. With options for high-frequency replay, it was dubbed a 'points source' by some!



Not seen elsewhere on the planet, the MCD70 is a part of McIntosh's 70th Anniversary celebrations; a strictly limited version of the MCD600 CD/SACD player from the brand.



Cambridge Audio has joined the True Wireless revolution with the new £120 Melomania 1 in-ear monitors.



While many remember the brand for its cassette tapes, Maxell is also a personal audio maker of note, especially in Asia, where you can buy these MXH-GD2000 graphene Bluetooth in-ears.



They say Magnepan loudspeakers need lots of power to be driven correctly. Even Magnepan says this. HK distributor Excel begs to differ, driving a pair of large 30.7 flagship loudspeakers with TRX-M845 mono valve power amplifiers from the Japanese Triode company.



Luxman had a slew of new products on display at the show, including this lovely little vacuum tube integrated amplifier called the SQ-N150, a part of the brand's NeoClassical II series.



Naim Audio's £749 Mu-so Qb Generation 2 was launched to coincide with the Hong Kong show.



VPI Prime Turntable £4,450

"VPI has hit the sweetspot with Prime.
It's easy to set-up, comes complete with an
excellent arm and outperforms everything
I've heard at this price point so far.
The Prime is pure New Jersey magic."
-Jay Garrett, Stereonet UK

+44(0)131 555 3922
www.renaissanceaudio.co.uk



CH Precision showed its new M10 power amp, but played the current top M1.1 mono amps to great effect.



Despite being miles from an Alp, it was possible for the Swiss contingent to create a one-nation audio line-up, featuring darTZeel amps (tested in this issue) and Stenheim Alumine speakers.



Avalon Acoustics new range of loudspeakers look and sound excellent, if this 475,000HK\$ Precision Monitor 4 – played through Jeff Rowland and a top EAT turntable – is anything to go by.



Harking back to the classic Thorens TD 160, the new suspended TD 1601 turntable features the TP 92 tonearm, with semi-Automatic lift and auto-shut-off. Or, there's a TD-1600 without the extras.



Sugden, along with Harbeth and Sendor, are extremely popular in Hong Kong, and not just with the ex-pat British!



Audio Research's latest Reference 160S stereo valve power amplifier is picking up a lot of friends. This red-and-black custom finished example was the talk of the show.



One of the most exciting dealer demonstrations was by Marvel Music. No, Iron Man didn't show up, but instead this sublime combination of HK-made server, Wadax DAC, Synästec Audio amps from Germany, Tripoint, and Cessaro horns was a true superhero!



AVM launched its first ever loudspeaker, the Ovation AM 6.3, as well as a new phono stage, upgrades to the power amps, a new distributor, and making chrome standard in China!



The new 41kg, £20,000 Montana from Acoustic Signature features a clever DSP-controlled three-motor system to drive its 14kg platter to great precision. It can take up to two arms.



Although the trade war with the US is cutting into sales, Wilson Audio is still a popular choice among HK high-enders.

innuos

BREATHE NEW LIFE INTO YOUR DAC

Reclock and Regenerate the USB signal from any source



P H O E N I X U S B

R E C L O C K E R



Gakuoh II
Monaural Power Amplifier

Ongaku
Stereo Power Amplifier



Souga
Stereo Power Amplifier



Audio Note Co., Ltd.

242 Shimohirama Saiwai-ku Kawasaki Kanagawa Japan

www.audionote.co.jp



Fink Team Borg floorstanding loudspeaker

by Jason Kennedy

There are two types of loudspeaker designer: those that come up with a loudspeaker design and create a whole company around it, and those who take a more 'hired gun' approach. Often, the skill set of the founder limits the scale of the operation – not many can design an excellent loudspeaker, market it, sell it, and run a company simultaneously – so the canny ones employ a managing director to run the business side. The 'hired gun' speaker designer is usually employed by different brands over a career span or works as a consultant to different brands; the latter is the rarest variety in my experience. Examples include Robin Marshall (who founded Epos but went on to work for several British and American companies) and Andrew Jones (who started at KEF but has gone on to design for TAD and ELAC among others). Karl-Heinz Fink is perhaps unique in that he has feet in both camps; his design consultancy has designed great loudspeakers for many manufacturers (often hidden under the cloak of a Non-Disclosure Agreement), but Fink is also running a fast-growing loudspeaker-making business in its own right.

The first Fink Team product unveiled to the world was the WM-4, which appeared in Ken Ishiwata's Marantz demonstration room at the Munich High End a couple of years ago. That was the second incarnation of a WM-3 made specifically for Ken – he and Karl-Heinz seem to get along rather well. The WM-4 is a huge loudspeaker with a 15-inch paper bass driver in the bottom half and two BMR midrange units flanking a ribbon tweeter in the top section. It is naturally costly as well and such is Fink's reputation that its appearance prompted requests for a more affordable and easily accommodated alternative.

The Fink Team Borg was the response; this shares the stealth styling of the WM-4 in a cabinet that while still in the large class is far more manageable. The Borg was launched at the 2018 High-End show but had only recently reached these shores. Mine came in a highly distinctive and beautiful finish with the two-tone combination of matt black baffle and dark Zebrano veneered rear section. The driver unit choice is pretty radical, combining a 10.25-inch paper bass driver with a massive Air Motion Transformer (AMT) tweeter, which is not something you see every day; the last speaker I saw that had anything like this combination appeared decades ago. A bass driver of this size has minimal midrange capability, so the tweeter is more of a mid-cum-HF unit; the crossover point is down at 1.6kHz which is crazy low for a two-way. However, it's also below (most of) the midband where the ear is most sensitive. ▶



“A 10.25-inch paper bass driver with a massive Air Motion Transformer (AMT) tweeter, which is not something you see every day.”



[master]

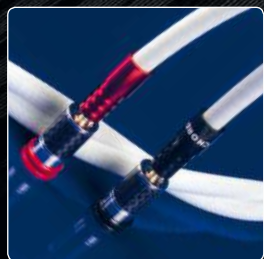
The definitive version. Ultimate performance, bespoke audiophile cable collection

Chord Company Signature, Sarum and ChordMusic form the vanguard of our cable ranges. A master collection that features our latest conductor, insulation and connector technology.

High-end audiophile quality at a realistic price and each one built to **your** specific requirements. Book a demonstration and hear the difference for yourself.

Designed and hand-built in England since 1985 by a dedicated team of music-lovers. Arrange a demonstration at your nearest Chord Company retailer. Find out more: www.chord.co.uk

See us at
THE UKhi-fi SHOW *Live*
26-27th October
#HiFiShowLive



CHORDTM

COMPANY



“The speaker has a nice off-axis behaviour, and that makes it easy (sort of) to place in different rooms.”

► I asked Karl-Heinz why he had gone for such an extreme driver combination and got the following response: “A multiway speaker is always a compromise because no crossover path is perfect. Best phase integration means a slight loss of acoustic power around the crossover region; perfect acoustic power can give you some strange behaviour on or off-axis. The theoretical best crossover with a 6dB slope does not work in real life, because the total behaviour of the electrical filter and acoustical filter have to be combined *and* as a driver is already a 2nd order bandpass on its own; you cannot win with first-order crossovers. Best solution: no crossover, but that has other problems. Which brings us back to two-way and that is what we did. It was a challenge. The tweeter only decided to work with the woofer after we added a passive all-pass filter to the crossover. The speaker has nice off-axis behaviour, and that makes it easy (sort of) to place in different rooms.”

With all this attention to detail it's not surprising that the Fink Team has gone to some lengths to keep cabinet resonance to a minimum, Karl-Heinz refers to audible resonances undermining signal to noise ratio, and he's not wrong. The approach with Borg has been to push resonances down with localised bracing and damp them to reduce audibility, and it also has reinforcement in the weakest parts such as the large opening for the bass driver. It's worth mentioning that both design and execution are of an exceptionally high standard, I particularly like the faceting on the front baffle and the dome feet that are spike alternatives.

British designer Kieron Dunk, who worked with Karl-Heinz at Q Acoustics, developed the overall appearance. I like his style. Even the packaging is of unusually high quality and consists of plywood cases

that have threaded bolts to hold them together and straps to aid the 'shifting about' process. The Borg is not a colossal speaker, but its 52-kilo mass commands respect.

The drive units are naturally not off the shelf types, even the tweeter which is made by Mundorf (the capacitor people) required a bit of tweaking by the Fink Team to iron out a resonance. It uses pleated Kapton with an aluminium strip, a combination of materials chosen for excellent internal damping and “particularly low distortion”, it's also plentiful for the type, the oval opening being 118mm high. The in-house built bass driver is purpose-built for this loudspeaker; it has a sizeable three-inch voice coil (75mm) and an aluminium shorting ring on the pole piece to reduce voice coil inductance variations and to reduce flux variations. The paper cone looks old fashioned with its pleated surround, but if you don't need a lot of driver excursion, this approach often results in excellent sound. Fink has gone to town on the Borg's port which aims to minimise resonance in the three forms that afflict these ducts, that is material, length, and airmass resonance. The cutaway shows that it's far from being a regular tube but is shaped and damped to control these resonances, it is also quite big, yet you don't need to place the Borg very far from the wall given its size.

The driver combo is radical enough, but that's not all, there are also control knobs on the rear above the four-way cable terminals. These are not marked bass and treble, but ‘damping’, ‘mid’, ‘presence’, and ‘high’ and are designed to adapt the speaker to different rooms and partnering amplifiers. Damping does the latter, with three settings to suit transistor, tube, and low damping factor amps that struggle to control the bass in some rooms. The mid setting can be used to compensate for room issues but also adjusts the position of the image, moving it back or forwards. Presence, on the other hand, is for tuning the speaker to different characteristics in the source and amplifier, balancing out elements that are a little bit soft or too bright. High adjusts tweeter output to suit different rooms or to balance the response. All of these filters only make small changes, but that is usually all you need so long as there is some flexibility in positioning, but I wouldn't put the Borg up against the wall; it might get a bit fighty.

The load the Borg presents to partnering amplifiers is an average 87dB with a high 10 Ohm average impedance (that goes down to 6.5 Ohms at 20kHz), so it looks like a relatively easy beast to drive, especially when you consider the damping options. I used an ATC P2 power amp for the majority of the listening but started off the new Naim Supernait 3 integrated as it happened to be in the system. What first strikes you about the character of this speaker is just how gorgeous the bass is, it's juicy, deep and when required can sound like ‘rolling glue’ as Yello put it. There is something about a large paper cone driver that sounds so real and natural, and it's a sturdy material to ►

VISIT OUR NEW WEBSITE

BUY • SELL • EXCHANGE

GREAT VALUE NEW & PRE-OWNED HIGH END HI-FI

Huge range of high end brands • Expert system matching advice • Used High end hi-fi bought and sold Part exchange available • All items checked and guaranteed • Major credit cards accepted

INTEGRATED AMPLIFIERS

Symphonic Line RG10 mk4 Reference HD Master Integrated Amp	£7,990
B.M.C. Audio CS2 Integrated/Power Amp	£2,990
Audio Note Ongaku	£39,990
Analog Domain Audio M75D mkII (X-Demo)	£11,990

POWER AMPLIFIERS

VTL ST150 Stereo Power Amp	£3,490
VTL S200 Signature Stereo Amplifier	£8,990
VTL MB-450 Series III Monoblock Amplifiers	£12,500
Symphonic Line Kraft 300 Power Amp	£8,250
Sunfire 600 Signature	£1,200
NAT Audio Magma SE Limited Edition	£19,900
NAT AUDIO MAGMA Limited Edition	£11,900
MBL Model 9011 Stereo/Mono-Block Power Amp (Price each)	£18,700
Mark Levinson Monaural Reference Amplifier No 33	£17,900
Luxman MQ88 Power Amplifier	£4,990

Linn Klimax Chakra 500 Twin (x4 Available)	£2,650
Linn C4200 Chakra	£1,990
Jeff Rowland Model 2 Power & Synergy III Pre	£3,990
Gryphon Antileon Signature Monoblocks	£22,990
Gryphon Antileon	£5,990
Boulder Amplifiers 2060 Stereo Power Amplifier	£16,990
Bel Canto EVO 6 Gen III	£1,990
Bel Canto Black- Ultimate Amplification System	£27,500
B.M.C. Audio M3 Monoblocks	£7,990
B.M.C. Audio CS2 Integrated/Power Amp	£2,990

Audio Research Reference 250SE Monoblocks	£17,950
Analog Domain Audio M75P MkII Stereo power (X-Demo)	£9,900

VTL TL-7.5 Series III Reference Line Pre-Amplifier	£12,990
Tom Evans The Vibe & Pulse SE mkII	£3,500
Symphonic Line RG3 mk4 Pre-Amp (Chrome)	£7,350
Plinius CD LAD	£1,290

NAT Audio Magnetostat SE Absolute Reference	£13,500
Linn Kisto System Controller	£2,990

Jeff Rowland Model 2 Power & Synergy III Pre	£3,990
Classe SSP 600	£1,490
Boulder Amplifiers 1008 Phono Pre-amplifier	£9,900
Bel Canto Black- Ultimate Amplification System	£27,500
B.M.C. Audio DAC1PreHR	£2,250
B.M.C. Audio DAC1PreHR	£3,250
Audio Research Reference 10B Pre-Amplifier	£17,990

PRE & POWER COMBINATIONS

Orpheus Laboratories System (see details)	£7,990
Jeff Rowland Model 2 Power & Synergy III Pre	£3,990
Bel Canto Black- Ultimate Amplification System	£27,500

PHONO STAGE

Whest PS.30RDT Special Edition	£1,990
Whest MC RefV mkIV	£8,500
Tom Evans The Groove Plus SRX mkII psu	£2,990
Plinius M14 MM/MC Phono Stage	£1,390
McCormack Audio Micro Phono Drive	£390
LFD MC1 phono	£490
Boulder Amplifiers 1008 Phono Pre-amplifier	£9,900
B.M.C. Audio MCII Phono Stage	£1,990

Jeff Rowland Model 2 Power & Synergy III Pre	£3,990
Gryphon Antileon Signature Monoblocks	£22,990
Gryphon Antileon	£5,990
Boulder Amplifiers 2060 Stereo Power Amplifier	£16,990
Bel Canto EVO 6 Gen III	£1,990
Bel Canto Black- Ultimate Amplification System	£27,500
B.M.C. Audio M3 Monoblocks	£7,990
B.M.C. Audio CS2 Integrated/Power Amp	£2,990

Audio Research Reference 250SE Monoblocks	£17,950
Analog Domain Audio M75P MkII Stereo power (X-Demo)	£9,900

VTL TL-7.5 Series III Reference Line Pre-Amplifier	£12,990
Tom Evans The Vibe & Pulse SE mkII	£3,500
Symphonic Line RG3 mk4 Pre-Amp (Chrome)	£7,350
Plinius CD LAD	£1,290

NAT Audio Magnetostat SE Absolute Reference	£13,500
Linn Kisto System Controller	£2,990

Jeff Rowland Model 2 Power & Synergy III Pre	£3,990
Classe SSP 600	£1,490
Boulder Amplifiers 1008 Phono Pre-amplifier	£9,900
Bel Canto Black- Ultimate Amplification System	£27,500
B.M.C. Audio DAC1PreHR	£2,250
B.M.C. Audio DAC1PreHR	£3,250
Audio Research Reference 10B Pre-Amplifier	£17,990

Orpheus Laboratories System (see details)	£7,990
Jeff Rowland Model 2 Power & Synergy III Pre	£3,990
Bel Canto Black- Ultimate Amplification System	£27,500

Whest PS.30RDT Special Edition	£1,990
Whest MC RefV mkIV	£8,500
Tom Evans The Groove Plus SRX mkII psu	£2,990
Plinius M14 MM/MC Phono Stage	£1,390
McCormack Audio Micro Phono Drive	£390
LFD MC1 phono	£490
Boulder Amplifiers 1008 Phono Pre-amplifier	£9,900
B.M.C. Audio MCII Phono Stage	£1,990

Jeff Rowland Model 2 Power & Synergy III Pre	£3,990
Classe SSP 600	£1,490
Boulder Amplifiers 1008 Phono Pre-amplifier	£9,900
Bel Canto Black- Ultimate Amplification System	£27,500
B.M.C. Audio DAC1PreHR	£2,250
B.M.C. Audio DAC1PreHR	£3,250
Audio Research Reference 10B Pre-Amplifier	£17,990

Orpheus Laboratories System (see details)	£7,990
Jeff Rowland Model 2 Power & Synergy III Pre	£3,990
Bel Canto Black- Ultimate Amplification System	£27,500

Van den Hul Colibri XGW	£2,490
Koetsu Black K	£1,090
Heed Audio Zene MC Cartridge	£450
Clearaudio Titanium V2 Cartridge	£2,490

CABLES- SPEAKER & INTERCONNECTS

Wireworld Platinum Eclipse 7 XLR/XLR Audio Cable	£1,490
Wireworld Platinum Eclipse 7 RCA/SME DIN	£790
Transparent Audio Reference 8ft Bi-Wire (MM technology)	£2,990
Transparent Audio Reference (MM) 20ft RCA Interconnect	£1,600
Transparent Audio MusicLink Super MM2 XLR	£850
Transparent Audio Music Wave Plus 25ft Bi-Wire	£900
Transparent Audio Music Link Ultra XLR 15ft Pair	£1,490
Townshend Audio Isolda DCT300 RCA 1m	£290
Townshend Audio Isolda DCT 8m Pair Speaker Cable Banana/Banana	£1,800
Townshend Audio Isolda DCT 5m Pair Speaker Cable Banana/Banana	£1,490
Townshend Audio Fractal 1m RCA Interconnect	£790
TelluriumQ Ultra Black 2x2m Spade/Spade	£750
Tara Labs The One Balanced 1m XLR + FGS	£990
Synergistic Research Atmosphere UEF Level 4	£3,050
Siltech Tripple Crown XLR/XLR Interconnect	£13,990
Nordost Valhalla 1m RCA/RCA	£1,490
Naim Audio Hi-Line	£425
Graditech Kide 3 (1m RCA Interconnects)	£490
Entreq Challenger 3V Speaker Cable (3.7m pair)	£2,490
Entreq Challenger 3V Interconnect XLR	£1,650
Entreq Atlantis XLR Interconnect (1.65m)	£4,500
Entreq Atlantis Speaker Cable (3.7m pair)	£7,500
Entreq Atlantis Speaker Cable (2.5m pair)	£6,500
Entreq Atlantis Speaker Cable (1.65m Pair)	£5,900
Entreq Apollo XLR 2012	£2,990
Entreq Apollo USB Cable	£550

Wireworld Platinum Eclipse 7 XLR/XLR Audio Cable	£1,490
Wireworld Platinum Eclipse 7 RCA/SME DIN	£790
Transparent Audio Reference 8ft Bi-Wire (MM technology)	£2,990
Transparent Audio Reference (MM) 20ft RCA Interconnect	£1,600
Transparent Audio MusicLink Super MM2 XLR	£850
Transparent Audio Music Wave Plus 25ft Bi-Wire	£900
Transparent Audio Music Link Ultra XLR 15ft Pair	£1,490
Townshend Audio Isolda DCT300 RCA 1m	£290
Townshend Audio Isolda DCT 8m Pair Speaker Cable Banana/Banana	£1,800
Townshend Audio Isolda DCT 5m Pair Speaker Cable Banana/Banana	£1,490
Townshend Audio Fractal 1m RCA Interconnect	£790
TelluriumQ Ultra Black 2x2m Spade/Spade	£750
Tara Labs The One Balanced 1m XLR + FGS	£990
Synergistic Research Atmosphere UEF Level 4	£3,050
Siltech Tripple Crown XLR/XLR Interconnect	£13,990
Nordost Valhalla 1m RCA/RCA	£1,490
Naim Audio Hi-Line	£425
Graditech Kide 3 (1m RCA Interconnects)	£490
Entreq Challenger 3V Speaker Cable (3.7m pair)	£2,490
Entreq Challenger 3V Interconnect XLR	£1,650
Entreq Atlantis XLR Interconnect (1.65m)	£4,500
Entreq Atlantis Speaker Cable (3.7m pair)	£7,500
Entreq Atlantis Speaker Cable (2.5m pair)	£6,500
Entreq Atlantis Speaker Cable (1.65m Pair)	£5,900
Entreq Apollo XLR 2012	£2,990
Entreq Apollo USB Cable	£550

Wireworld Platinum Eclipse 7 XLR/XLR Audio Cable	£1,490
Wireworld Platinum Eclipse 7 RCA/SME DIN	£790
Transparent Audio Reference 8ft Bi-Wire (MM technology)	£2,990
Transparent Audio Reference (MM) 20ft RCA Interconnect	£1,600
Transparent Audio MusicLink Super MM2 XLR	£850
Transparent Audio Music Wave Plus 25ft Bi-Wire	£900
Transparent Audio Music Link Ultra XLR 15ft Pair	£1,490
Townshend Audio Isolda DCT300 RCA 1m	£290
Townshend Audio Isolda DCT 8m Pair Speaker Cable Banana/Banana	£1,800
Townshend Audio Isolda DCT 5m Pair Speaker Cable Banana/Banana	£1,490
Townshend Audio Fractal 1m RCA Interconnect	£790
TelluriumQ Ultra Black 2x2m Spade/Spade	£750
Tara Labs The One Balanced 1m XLR + FGS	£990
Synergistic Research Atmosphere UEF Level 4	£3,050
Siltech Tripple Crown XLR/XLR Interconnect	£13,990
Nordost Valhalla 1m RCA/RCA	£1,490
Naim Audio Hi-Line	£425
Graditech Kide 3 (1m RCA Interconnects)	£490
Entreq Challenger 3V Speaker Cable (3.7m pair)	£2,490
Entreq Challenger 3V Interconnect XLR	£1,650
Entreq Atlantis XLR Interconnect (1.65m)	£4,500
Entreq Atlantis Speaker Cable (3.7m pair)	£7,500
Entreq Atlantis Speaker Cable (2.5m pair)	£6,500
Entreq Atlantis Speaker Cable (1.65m Pair)	£5,900
Entreq Apollo XLR 2012	£2,990
Entreq Apollo USB Cable	£550

Wireworld Platinum Eclipse 7 XLR/XLR Audio Cable	£1,490
Wireworld Platinum Eclipse 7 RCA/SME DIN	£790
Transparent Audio Reference 8ft Bi-Wire (MM technology)	£2,990
Transparent Audio Reference (MM) 20ft RCA Interconnect	£1,600
Transparent Audio MusicLink Super MM2 XLR	£850
Transparent Audio Music Wave Plus 25ft Bi-Wire	£900
Transparent Audio Music Link Ultra XLR 15ft Pair	£1,490
Townshend Audio Isolda DCT300 RCA 1m	£290
Townshend Audio Isolda DCT 8m Pair Speaker Cable Banana/Banana	£1,800
Townshend Audio Isolda DCT 5m Pair Speaker Cable Banana/Banana	£1,490
Townshend Audio Fractal 1m RCA Interconnect	£790
TelluriumQ Ultra Black 2x2m Spade/Spade	£750
Tara Labs The One Balanced 1m XLR + FGS	£990
Synergistic Research Atmosphere UEF Level 4	£3,050
Siltech Tripple Crown XLR/XLR Interconnect	£13,990
Nordost Valhalla 1m RCA/RCA	£1,490
Naim Audio Hi-Line	£425
Graditech Kide 3 (1m RCA Interconnects)	£490
Entreq Challenger 3V Speaker Cable (3.7m pair)	£2,490
Entreq Challenger 3V Interconnect XLR	£1,650
Entreq Atlantis XLR Interconnect (1.65m)	£4,500
Entreq Atlantis Speaker Cable (3.7m pair)	£7,500
Entreq Atlantis Speaker Cable (2.5m pair)	£6,500
Entreq Atlantis Speaker Cable (1.65m Pair)	£5,900
Entreq Apollo XLR 2012	£2,990
Entreq Apollo USB Cable	£550

Wireworld Platinum Eclipse 7 XLR/XLR Audio Cable	£1,490
Wireworld Platinum Eclipse 7 RCA/SME DIN	£790
Transparent Audio Reference 8ft Bi-Wire (MM technology)	£2,990
Transparent Audio Reference (MM) 20ft RCA Interconnect	£1,600
Transparent Audio MusicLink Super MM2 XLR	£850
Transparent Audio Music Wave Plus 25ft Bi-Wire	£900
Transparent Audio Music Link Ultra XLR 15ft Pair	£1,490
Townshend Audio Isolda DCT300 RCA 1m	£290
Townshend Audio Isolda DCT 8m Pair Speaker Cable Banana/Banana	£1,800
Townshend Audio Isolda DCT 5m Pair Speaker Cable Banana/Banana	£1,490
Townshend Audio Fractal 1m RCA Interconnect	£790
TelluriumQ Ultra Black 2x2m Spade/Spade	£750
Tara Labs The One Balanced 1m XLR + FGS	£990
Synergistic Research Atmosphere UEF Level 4	£3,050
Siltech Tripple Crown XLR/XLR Interconnect	£13,990
Nordost Valhalla 1m RCA/RCA	£1,490
Naim Audio Hi-Line	£425
Graditech Kide 3 (1m RCA Interconnects)	£490
Entreq Challenger 3V Speaker Cable (3.7m pair)	£2,490
Entreq Challenger 3V Interconnect XLR	£1,650
Entreq Atlantis XLR Interconnect (1.65m)	£4,500
Entreq Atlantis Speaker Cable (3.7m pair)	£7,500
Entreq Atlantis Speaker Cable (2.5m pair)	£6,500
Entreq Atlantis Speaker Cable (1.65m Pair)	£5,900
Entreq Apollo XLR 2012	£2,990
Entreq Apollo USB Cable	£550

Wireworld Platinum Eclipse 7 XLR/XLR Audio Cable	£1,490
Wireworld Platinum Eclipse 7 RCA/SME DIN	£790
Transparent Audio Reference 8ft Bi-Wire (MM technology)	£2,990
Transparent Audio Reference (MM) 20ft RCA Interconnect	£1,600
Transparent Audio MusicLink Super MM2 XLR	£850
Transparent Audio Music Wave Plus 25ft Bi-Wire	£900
Transparent Audio Music Link Ultra XLR 15ft Pair	£1,490
Townshend Audio Isolda DCT300 RCA 1m	£290
Townshend Audio Isolda DCT 8m Pair Speaker Cable Banana/Banana	£1,800
Townshend Audio Isolda DCT 5m Pair Speaker Cable Banana/Banana	£1,490
Townshend Audio Fractal 1m RCA Interconnect	£790
TelluriumQ Ultra Black 2x2m Spade/Spade	£750
Tara Labs The One Balanced 1m XLR + FGS	£990
Synergistic Research Atmosphere UEF Level 4	£3,050
Siltech Tripple Crown XLR/XLR Interconnect	£13,990
Nordost Valhalla 1m RCA/RCA	£1,490
Naim Audio Hi-Line	£425
Graditech Kide 3 (1m RCA Interconnects)	£490
Entreq Challenger 3V Speaker Cable (3.7m pair)	£2,490
Entreq Challenger 3V Interconnect XLR	£1,650
Entreq Atlantis XLR Interconnect (1.65m)	£4,500
Entreq Atlantis Speaker Cable (3.7m pair)	£7,500
Entreq Atlantis Speaker Cable (2.5m pair)	£6,500
Entreq Atlantis Speaker Cable (1.65m Pair)	£5,900
Entreq Apollo XLR 2012	£2,990
Entreq Apollo USB Cable	£550

Wireworld Platinum Eclipse 7 XLR/XLR Audio Cable	£1,490
Wireworld Platinum Eclipse 7 RCA/SME DIN	£790
Transparent Audio Reference 8ft Bi-Wire (MM technology)	£2,990
Transparent Audio Reference (MM) 20ft RCA Interconnect	£1,600
Transparent Audio MusicLink Super MM2 XLR	£850
Transparent Audio Music Wave Plus 25ft Bi-Wire	£900
Transparent Audio Music Link Ultra XLR 15ft Pair	£1,490
Townshend Audio Isolda DCT300 RCA 1m	£290
Townshend Audio Isolda DCT 8m Pair Speaker Cable Banana/Banana	£1,800
Townshend Audio Isolda DCT 5m Pair Speaker Cable Banana/Banana	£1,490
Townshend Audio Fractal 1m RCA Interconnect	£790
TelluriumQ Ultra Black 2x2m Spade/Spade	£750
Tara Labs The One Balanced 1m XLR + FGS	£990
Synergistic Research Atmosphere UEF Level 4	£3,050
Siltech Tripple Crown XLR/XLR Interconnect	£13,990
Nordost Valhalla 1m RCA/RCA	£1,490
Naim Audio Hi-Line	£425
Graditech Kide 3 (1m RCA Interconnects)	£490
Entreq Challenger 3V Speaker Cable (3.7m pair)	£2,490
Entreq Challenger 3V Interconnect XLR	£1,650
Entreq Atlantis XLR Interconnect (1.65m)	£4,500
Entreq Atlantis Speaker Cable (3.7m pair)	£7,500
Entreq Atlantis Speaker Cable (2.5m pair)	£6,500
Entreq Atlantis Speaker Cable (1.65m Pair)	£5,900
Entreq Apollo XLR 2012	£2,990
Entreq Apollo USB Cable	£550

Wireworld Platinum Eclipse 7 XLR/XLR Audio Cable	£1,490
Wireworld Platinum Eclipse 7 RCA/SME DIN	£790
Transparent Audio Reference 8ft Bi-Wire (MM technology)	£2,990
Transparent Audio Reference (MM) 20ft RCA Interconnect	£1,600
Transparent Audio MusicLink Super MM2 XLR	£850
Transparent Audio Music Wave Plus 25ft Bi-Wire	£900
Transparent Audio Music Link Ultra XLR 15ft Pair	£1,490
Townshend Audio Isolda DCT300 RCA 1m	£290
Townshend Audio Isolda DCT 8m Pair Speaker Cable Banana/Banana	£1,800
Townshend Audio Isolda DCT 5m Pair Speaker Cable Banana/Banana	£1,490
Townshend Audio Fractal 1m RCA Interconnect	£790
TelluriumQ Ultra Black 2x2m Spade/Spade	£750
Tara Labs The One Balanced 1m XLR + FGS	£990
Synergistic Research Atmosphere UEF Level 4	£3,050
Siltech Tripple Crown XLR/XLR Interconnect	£13,990
Nordost Valhalla 1m RCA/RCA	£1,490
Naim Audio Hi-Line	£425
Graditech Kide 3 (1m RCA Interconnects)	£490
Entreq Challenger 3V Speaker Cable (3.7m pair)	£2,490
Entreq Challenger 3V Interconnect XLR	£1,650
Entreq Atlantis XLR Interconnect (1.65m)	£4,500
Entreq Atlantis Speaker Cable (3.7m pair)	£7,500
Entreq Atlantis Speaker Cable (2.5m pair)	£6,500
Entreq Atlantis Speaker Cable (1.65m Pair)	£5,900
Entreq Apollo XLR 2012	£2,990
Entreq Apollo USB Cable	£550

Wireworld Platinum Eclipse 7 XLR/XLR Audio Cable	£1,490
Wireworld Platinum Eclipse 7 RCA/SME DIN	£790
Transparent Audio Reference 8ft Bi-Wire (MM technology)	£2,990
Transparent Audio Reference (MM) 20ft RCA Interconnect	£1,600
Transparent Audio MusicLink Super MM2 XLR	£850
Transparent Audio Music Wave Plus 25ft Bi-Wire	£900
Transparent Audio Music Link Ultra XLR 15ft Pair	£1,490
Townshend Audio Isolda DCT300 RCA 1m	£290
Townshend Audio Isolda DCT 8m Pair Speaker Cable Banana/Banana	£1,800
Townshend Audio Isolda DCT 5m Pair Speaker Cable Banana/Banana	£1,490
Townshend Audio Fractal 1m RCA Interconnect	£790
TelluriumQ Ultra Black 2x2m Spade/Spade	£750
Tara Labs The One Balanced 1m XLR + FGS	£990
Synergistic Research Atmosphere UEF Level 4	£3,050
Siltech Tripple Crown XLR/XLR Interconnect	£13,990
Nordost Valhalla 1m RCA/RCA	£1,490
Naim Audio Hi-Line	£425
Graditech Kide 3 (1m RCA Interconnects)	£490
Entreq Challenger 3V Speaker Cable (3.7m pair)	£2,490
Entreq Challenger 3V Interconnect XLR	£1,650
Entreq Atlantis XLR Interconnect (1.65m)	£4,500
Entreq Atlantis Speaker Cable (3.7m pair)	£7,500
Entreq Atlantis Speaker Cable (2.5m pair)	£6,500
Entreq Atlantis Speaker Cable (1.65m Pair)	£5,900
Entreq Apollo XLR 2012	£2

“There is no sense of hurry because the definition of the leading and trailing edges is so clearly defined.”

- beat if you want the full gamut from nuance to muscle in the low frequencies. Conjure’s ‘Dualism’ [*Music for the Texts of Ishmael Reed*, American Clave] sounds beautiful, the music rolling out in totally unfettered form into the room. The Borg’s mids and highs are as natural sounding as its bass, while its single driver gives rare coherence from a wide-bandwidth design. It’s powerful on immediacy, which makes everything sound more real and alive but is also excellent when it comes to the tonal depth, which enhances the palpability of the experience. Listening to the Borg is a very high-resolution experience.

One illustration of this is that it seems to have all the time in the world to unfold the music, there is no sense of hurry because the leading and trailing edges of notes are so clearly defined. There’s no blurring of the subtle differences between notes, instruments, and voices; everything is clearly separated yet presented as a coherent whole, which is much fun whatever your musical tastes.

With my usual amplification combo of Townshend Allegri+ pre and ATC P2 power amp the bass gets more fabulous still. The low pulse on ‘Rymden – The Odyssey’ [*Rymden*, Wesseltoft Berglund Öström, Jazzland] is both controlled and open leaving plenty of space for the speed of the drumkit to bring occupancy to the experience. The Borg are also very good at creating a sense of space, the sculpting of the deep front baffle allowing the sound to expand out into the room both upwards and sideways, and that includes the bass which on one track sounded like distant thunder; a good result methinks. However, more important is that once a track starts, it’s difficult to stop it; the Borg’s musical communication skills are in the premier league thanks to the qualities of the AMT driver in particular.

I tried some of the adjustments on the back and got the sort of results that are predicted in the manual; increasing Presence makes the balance a bit fruity and increasing the Mid setting makes the midrange a little bit exposed for my room/system/ears. However, it’s great to have these options which can be used like sophisticated image and tone controls, albeit without bass adjustment, which is often necessary to compensate for room vagaries. I preferred them flat especially where drums are involved, here the dynamics and speed of the bass, in particular, comes into its own — revealing everything that’s going on in the mix with phenomenal timing accuracy.

With a favourite tune, the Borg become mesmerising, it can’t disguise the limitations of lesser quality recordings such as Van Morrison’s ‘The Way Young Lovers Do’ [*Astral Weeks*, Warner Bros] but doesn’t allow this to get in the way of the music. The vitality of the acoustic guitar piece ‘Requiem for John Fahey’ [Gwenifer Raymond, *You Never Were Much of a Dancer*, Tompkins Square] makes a sharp contrast with the Van classic, but there have been nearly fifty years of recording technology advances since then. You’d hope that they would count for something.

TECHNICAL SPECIFICATIONS

Type: Two-way floorstanding speaker with output and damping controls

Driver complement: One Mundorf

Air Motion Transformer tweeter

with 6464mm² surface area; one

10.25inch high-power mid/bass driver

Crossover frequency: 1.6kHz

Frequency response: 41Hz–30kHz (–6dB)

Impedance average/minimum:

10/6.5 Ohms

Sensitivity: 87dB/W/m

Dimensions (H×W×D): 1050 × 300 × 400mm

Weight: 52kg/each

Finishes: Choice of standard finish or any finish to special order

Price: €25,000/pair

Manufacturer: FinkTeam

URL: finkteam.com

Distributed in the UK by: Kog Audio

URL: kogaudio.com

Tel: +44(0)24 7722 0650

I also hooked up a valve amp in the form of the Quad VA-One, an EL-84 push-pull integrated that’s somewhat on the affordable side for these speakers. However, it was interesting to hear how setting the Damping control to ‘3’ made the sound more involving and alive with inner detail. It didn’t produce a large image, but I daresay that tweaking some of the other controls might have helped here. More important is that it produced musically rewarding and engaging results. The Borg warrant a more sophisticated amplifier than I had to hand, but it didn’t highlight the limitations of the amps I did have. Rather, it brought out the best in them.

Fink Team’s Borg is a very revealing loudspeaker but not a ‘warts n all’ critic of partnering equipment; instead, it is a low distortion, high-resolution design that takes a unique approach and comes out smiling. At least that’s the result it provokes in anyone listening. +



Stillpoints™

LPI

In fact, I've found no music that fails to benefit from the LPI and it has become an essential piece of the turntable setup.

— Roy Gregory, *The Audio Beat*,

Stillpoints™

Ultra 2



The NEW ULTRA 2 from Stillpoints is their latest isolation device, designed to bring significant musical improvements to your system at an attainable price. Featuring the 'direct contact' benefits of the flagship Ultra 6, the Ultra 2 will bring the performance of your electronics much closer to reality.

"Stillpoints Apertures produced a truly dramatic and positive change in the sound. Your dealer should let you take some home to try out. If your experience with them is like mine, you won't return them."

— Michael Fremer, *Stereophile*

Stillpoints™

Aperture™



Stillpoints™

Zero-compromise isolation technology
A necessity — not an accessory.



To try Stillpoints for yourself, please contact your local stockist.

Analogue Seduction	Peterborough	01733 350878
Audio Destination	Tiverton	01884 243584
Audio Therapy	Newcastle	07976 496218
Castle Sound & Vision	Nottingham	0115 958 4404
Choice Hifi	Richmond	020 8392 1959
Homesound	Edinburgh	0131 662 1327
KJ West One	Marylebone	020 7486 8262

Lotus Hifi	Walton-on-Thames	07887 852513
Lintone Audio	Newcastle	0191 477 4167
Martins Hifi	Norwich	01603 627010
Nintronics	Welwyn	01707 320788
Oxford Audio	Oxford	01865 790879
Rayleigh Hifi	Rayleigh	01268 779762
Studio AV	Chobham	01753 863300



Distributed by
KOG AUDIO

www.kogaudio.com

info@kogaudio.com

024 7722 0650



ODIN 2 TRANSCENDING SONIC BOUNDARIES

Total Signal Control

HOLO:PLUG® Technology

Dual Mono-Filament



NØRDOST
MAKING THE CONNECTION

Distributed in the UK and Ireland by  Renaissance

0131 555 3922

info@renaissanceaudio.co.uk

www.nordost.com

Made in USA 

darTZeel NHB-18NS preamplifier and NHB-108 Model Two power amplifier

by Chris Thomas



Regardless of how much high-end audio you have heard, when you experience something exceptional, the music lets you know all about it. It might all start with a small spark of revelation. But it will grow, and I've read many people say that it is like hearing a piece of music for the first time. I get that entirely and have been lucky enough to experience that same feeling several times (but not many more) over a long period of listening and writing about audio equipment. When it happens, it typically leaves a hunger for more and more of whatever a particular system is dishing up. This awakening and re-alignment of musical perspectives are truly wonderfully addictive.

Hervé Delétraz is the man, and he designs and manufactures the small darTZeel range high in the Swiss Alps. He runs a CNC facility, making custom metalwork for specialised applications and companies who need components of the very highest quality and precision. Music is his passion and darTZeel is his expression of that love. Listening to his amplifiers, I think he hears music in the same way that I do. As a name in the audio world, the company has always seemed somewhat elusive to me. It's one of those products that I have heard much about but have only managed to hear for a very brief listen over the years. So, you can imagine how quickly I jumped at the chance to review this darTZeel pre/power in its latest form; I didn't need asking twice. Two months down the line and I am still genuinely staggered at how good it is.

Hervé's expensive machinery comes in handy here. The construction of both the pre and power amplifiers is exacting and distinctive, right down to the red casing with gold front and rear panels. Internally, things are just as impressive and beautiful. On the subject of the darTZeel aesthetic I have to say ►

“They are unusual and undoubtedly bold. I love the look, not least because it is backed up by such a memorable performance.”



► that some visitors found the pair somewhat ‘bling’, but I think that is because they are unusual and undoubtedly bold. I love the look, not least because it is backed up by such a memorable performance.

The front panel of the NHB-18NS preamplifier is simplicity itself. A pair of lightly-weighted knobs fitted with rubber O-rings control both the inputs and the volume level settings. The latter is referred to as a Pleasure Control while the input choice becomes the Enjoyment Source and on the darTZeel one does not select an input but rather ‘enables’ it. NS stands for ‘No Switch’, as the preamp doesn’t use switches or relays. There are over 1,200 electronic parts in the preamplifier, and the signal path has come in for exceptional attention. There are merely seven transistors from input to output to keep the signal pure. The optional phono stage – not supplied in the test unit – has just six transistors: this is purist circuit design *par excellence*.

The volume dial is a continually-rotating design, and though details of its operation are scant, it seems clear that it works through the cunning and contactless use of light. It exudes a quality feel, supported by the wonderfully uncomplicated remote. Finished

in matching red, it feels hewn from a solid billet of aluminium and can turn the volume up and down or mute it, and that’s about it. It is however very slippery, and I couldn’t find any rubbery ‘blobs’ in the box to prevent the remote from disappearing down the edge of the sofa. I would add discrete micro feet to keep it in place.

Power up the pre and the word ‘Foreplay’ appears in the window on the top right of the fascia and when you switch it off, ‘Climaxed’ appears. Yes, it is a bit cheesy at first, but you don’t notice it after a couple of times, and it’s just a touch of light-heartedness from Hervé. Somehow it sits rather well with the colour and other design details of the amplifiers. It didn’t bother me in the slightest when listening to the darTZeel duo, and it adds much-needed character in an increasingly corporate audio landscape.

Most importantly, the NHB-18NS is battery-powered. The separate box through which that battery connects to the mains is a recharging unit that maintains power to the preamplifier and sets it into recharge mode when the batteries are running low. A fully charged NHB-18NS will run for eight hours before the cells need recharging and then it will run direct from the mains while this takes place. Twin modes are available. ‘Auto’ is battery mode, and this is how the unit should be powered when listening. ‘BTM’ is Battery Through Mode which kicks in when the charge gets too low and before full battery mode restores. Detailed monitoring of battery condition ensures that you will always get the best available sound quality, dependent on battery condition. When the pre is running from the mains, there is a slight drop in class, but the low impedance nature of the full battery condition is always preferable. The state of the battery is verifiable through the LEDs on the front panel. If this sounds in any way complicated, it isn’t. In use, you plug it in and go as everything is completely automatic and silent. The batteries themselves are Lithium Ion Phosphate and underwent a full three years of testing before Hervé ►



SILTECH

EST. 1983

Years of excellence is no accident.



Products of sound engineering



EXPLORER
SERIES



CLASSIC
ANNIVERSARY
SERIES



ROYAL
SIGNATURE
SERIES



35th ANNIVERSARY
CROWN PRINCE
& PRINCESS



TRIPLE CROWN
SERIES

www.siltechcables.com



Distributed in the UK and Ireland by Padood

www.padood.com | info@padood.com

+44 (0)1223 653199 | 20 Station Road, Cambridge CB1 2JD

► was happy to include them in his preamplifier. I have used battery-powered preamplifiers before over the years, and my memory is that they were a bit of a pain for debatable gain. Not here though, as their implementation is superb, though they do need some running-in to achieve their full duration and lowest output impedance. In its manual, darTZeel suggests fifty to one hundred cycles.

Preamplifier inputs are fascinating due to the unique inclusion of BNC alongside the conventional RCA types. Each has a small toggle switch beneath it to select various gain levels. These are named as Zeel inputs while line outputs are mirrored by BNC's and named DarT. There are a single pair of balanced XLR sockets as inputs and a single pair of XLR inputs. I am struggling to

think of components with BNC outputs that might suit the darTZeel but, in the fullness of time, there will be products from the company that use this connection. However, there are a set of BNC cables included which can be used to connect both units.

The NHB-108 stereo power amplifier – in its latest Model Two guise – has an output of 150 watts per channel into 8 ohms. It is built to the same incredibly high standards as the NHB-18NS preamplifier. It's dual-mono and offers the expected RCA or XLR inputs plus of course a Zeel 50 ohm BNC option. The circuitry is I am informed somewhat unique and is the subject of several patents. The mineral glass top plate of the power amplifier reinforces the fact that this is indeed something different. The sculpted gold bus-bars that link each channel's six large capacitors are beautiful.

Beautiful as they are to behold, the magic kicks into high gear when you sit down to hear how they behave when confronted with some music. In a word, they are magical and to my ears incredibly special. Where many high-end amps might have their speciality performance areas, the darTZeel is magnificent from top to bottom. They are enormously robust and extended in the bass and almost ethereal through the astonishing midband. At high frequencies,

ALLN/C
HEAR IT ALL



ALLNIC AUDIO CABLES

TEL: +1.250.826.6872

www.hammertoneaudio.com



where many amplifiers show limitations, they are as dynamic, textural, subtle, and revealing as I have heard. Very, very seldom have I experienced such an intense, joined-up, and compelling view of the music.

Listening began when I took delivery of the amplifier during an unprecedented and breathless heatwave in London earlier in the summer. I had left the preamplifier charging overnight and found myself up at 5 am due to the sweltering conditions. At that time the body is enormously susceptible to musical influence, and I decided to use the still air for an early venture in darTZeel land. I was feeling in strictly non-reviewer mode, so I scrolled through the new MQA titles on Tidal and stumbled upon *Gateways* [DG 4836606] and the Shanghai Symphony Orchestra. The opening pieces are musical representations of five elements, and I was instead hoping to be gently introduced to the new day rather than kicked into it. The world was so calm and the sounds so precious that it gave me a whole new level of respect for the way the amplifier controlled the music. The palette of tonal colours and the endless range of textures swirled together, and the system and I shared some precious moments as the musical poetry unravelled. The darTzeel bought me entirely under its spell. Speed is at the heart of much of what it does. Not

that great amplifiers ever sound particularly fast from beat to beat. It's all to do with the way they control every nuance by utilising their power with such musical precision. The five elements, so wondrously formed and excellently recorded, let me ride that musical wave into the day. This amplifier can change character in a heartbeat and from its seemingly bottomless well of possibilities, can shock you or make you cry. Its emotionally engaging capabilities seem endless.

After that, every listening session would become an eagerly anticipated event in itself. I learned quickly that the darTzeel sound is so deep and its overall resolution so intense, that it doesn't so much 'play' the music as 'grows' it. Listen to Billy Cobham's *Drum' N' Voice Vol 1 + 2* [Sony] if you want to hear ►

MAKE THE CONNECTION!



*True High End Sound,
Superbly Priced!*

“They delivered such musical joy and involvement that it has indeed been a rare pleasure to have them at home.”



TECHNICAL SPECIFICATIONS

NHB-18NS Preamplifier

Type: Battery powered line stage
 Inputs: 5 plus optional phono stage
 Outputs: RCA, XLR, BNC
 Analog Input Impedances:
 RCA line – 30 ohms
 XLR Line – 15 ohms
 Zeel BNC – 50 Ohms
 Freq. Response: 5 Hz–500 kHz
 Signal to Noise ratio: >92dB
 Remote: Yes
 Size: 170 × 440 × 335 mm (H×W×D)
 Weight: 24kg + PS – 3kg
 Price: £39,995

NHB – 108 model two

Type: Dual mono power amplifier
 Power output: 150 watts RMS @ 8 ohms;
 250 watts RMS @ 4 ohms
 Analog Input Impedance:
 BNC Zeel – 50 ohms
 RCA line – 30 ohms
 XLR 30 ohms
 Size: 170 × 440 × 350mm (H×W×D)
 Weight: 30kg
 Finish: Red with gold facia and backplates
 Price: £39,995
 Manufacturer: dartZeel Audio,
 URL: dartzeel.com
 UK Distributor: Absolute Sounds
 URL: absolutesounds.com
 Tel: +44(0)208 971 3909

► what the amplifier can do with a solid rhythm section. It is enormously focussed, extraordinarily potent and utterly relentless in its drive. Cobham plays like a monster! The sound of his snare drum – with its delicate, shuffling little rolls – adds just the right amount of relief to the bass drum that forms the root of so much of the music. The dartZeel shows it to be imposing and metronomic where the tempo is concerned. It drives the speakers with a satisfying weight and a very plain view of the width of the kit, and it adds layer upon layer with unstressed ease that is remarkable.

As a huge devotee of the acoustic guitar and the luthiers who build the very finest on the planet, I was able to obtain some hi-def recordings of various high-end instruments. The art of constructing beautiful objects like these is largely about the control of tensions. With a string pull well above 150 lbs on metal-strung instruments, structural integrity is critical. The top (the bit with the hole) of the guitar does most of the resonance, and the bridge acts as an air pump, not unlike a cone speaker. The top must, therefore, be braced to resist the immense stress of the string tension from tearing the whole thing apart. Mass is the enemy of resonance, and the art is in balancing the two opposing requirements. I've gone into detail about guitar-making simply because the dartZeel does the same to the audio signal. As a result, I have never heard the differences in these instruments, drawn in the air, with such incredibly articulate precision and charm. It's almost cinematic and certainly in full Technicolour. The guitar energises all these different resonances. The resultant tone, note shape, and expression that each musician can extract allow them to create a different kind of tension – this time in the listener. Each instrument drowned the room in dripping colour. The way the daRTzeel shows the differences in reverb speed, dynamics, and the layers of harmonic bloom that swirl around as the art of the luthier joins the circle is fascinating. If you think an acoustic guitar is a simple thing, then I assure you it is endlessly complex in both scale, speed, and tonality. When it comes to the sheer resolving power of the amplifier, then it goes way down to the sub-note level, and it does it effortlessly.

I loved my time with the daRTzeel amps as much as I have with any product over the years. The pair are not in any way 'cheap', but they are

primarily so involving and musically enlivening that price becomes a secondary concern. They delivered such musical joy and involvement that it has indeed been a rare privilege to have them at home, and I was extremely sorry to see them leave. They are truly exceptional and a huge testament to Hérve Delétraz and his audio art. +



Artistry in Craftsmanship NEW Gold Series

If the best possible sound from a beautiful loudspeaker is your desire, our pedigree is incomparable. To see, feel and hear the NEW Gold Series is to understand our passion, and to enjoy an undiluted audiophile experience.

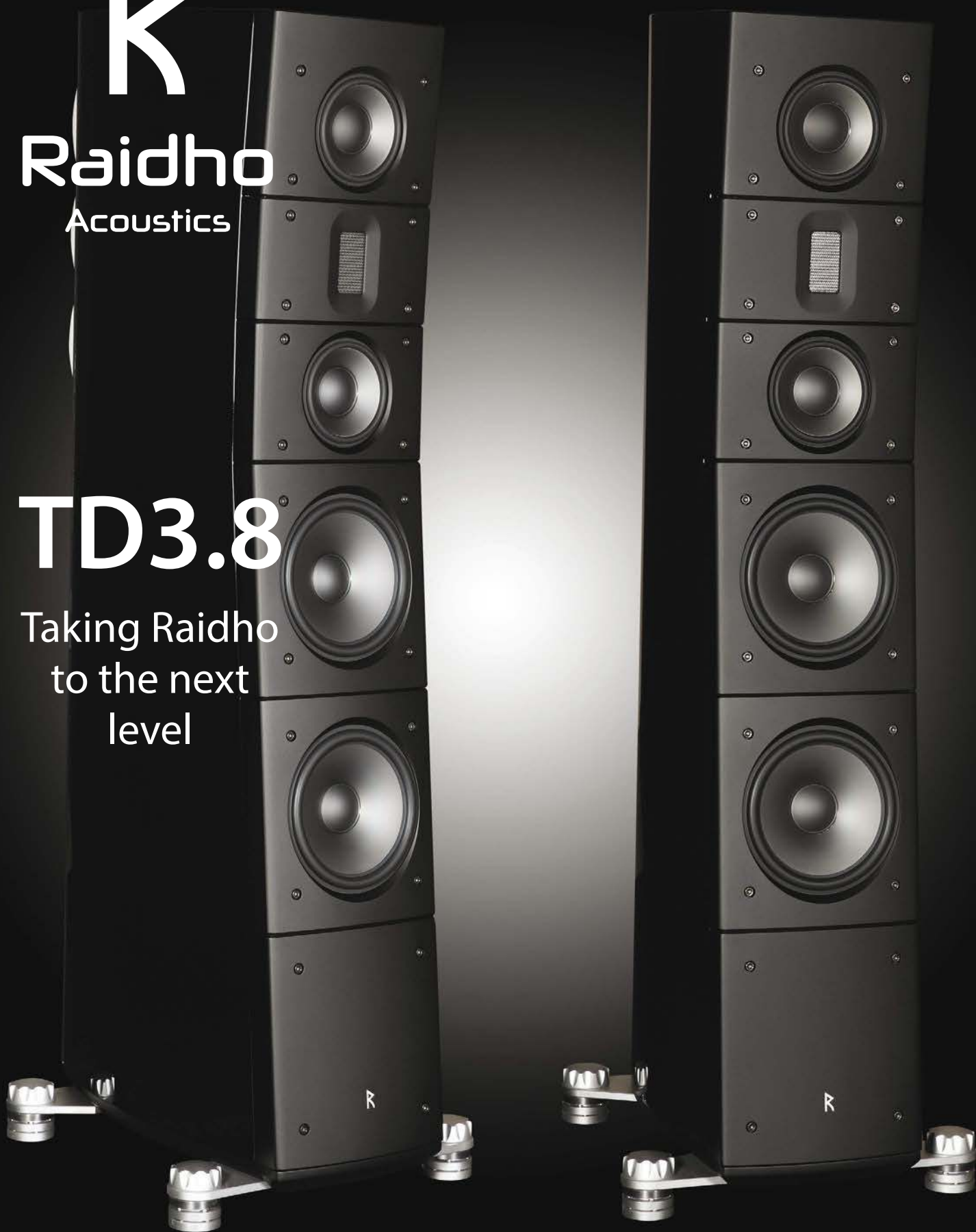


monitoraudio.com/gold

R
Raidho
Acoustics

TD3.8

Taking Raidho
to the next
level



Meet us on facebook · uk distribution: www.decentaudio.co.uk

Mark Levinson No. 5805 integrated amplifier

by Alan Sircom



Here is one of the true survivor brands. Mark Levinson Audio Systems began life in the early 1970s, from the outset as the highest of high-end companies. The company separated from Levinson himself, went out of business, then became part of the Madrigal Group, which became a part of the Harman Group, which itself became part of Samsung relatively recently. The brand had some fallow periods (this is the polite version; the real deal got real nasty), as well as winding up becoming the in-car upgrade for Lexus. At the core, however, is a brand name that bespeaks of the best in high-end audio. And that has never changed.

All of which made the company's most recent 5000 line stand out from the norm. While not built for economy, the line represents a new entry-point for a brand that frequently pushed the envelope of high-end price structure. As a result, it would be understandable if Mark Levinson 5000 models were in some way 'Mark Levinson Lite'. That's not what happens

in the No. 5805 tested here. Instead, the No. 5805 and its all-digital No. 5802 baby brother represent a deeper change in the way audio happens. It also speaks to a design that needs deep pockets to realise.

At first glance, the No. 5805 is simply another conventional integrated amplifier. It bears a familial resemblance to the more up-scale 500 series, specifically the No. 508.2 integrated. It has many of the same elements inside, too; most notably the phono stages, although the difference between the two is the No. 508.2's phono stage is fully discreet, where the No. 5805 bristles with chips. The biggest change is a move from essentially an amp with a DAC to a full digital hub. That might seem like a minor change – it's not.

Plug the No. 5805 into the Ethernet and it has its own IP address with set-up screens you can access via a web browser. Or, you can configure the amplifier in the more conventional way using the front panel and the remote. Either way, you are presented with a host of options for the ►

“This is Mark Levinson rebooted, with a sound more in line with what the modern audiophile wants from their equipment.”

- ▶ user, including full input trim settings (so you can control both the starting volume levels and the maximum volume of each source, the speed of the volume level, whether ‘mute’ means ‘shut up!’ or ‘be quiet!’), there’s even options to put it into different types of standby, whether you want to be fully biodegradable and wait an hour for it to come on song, or burn through a few polar bears and have it run on a more juicy standby. You can name sources too, of course, and the loading options of that phono section are far more flexible than usual thanks to the web browser, and you can troubleshoot your system.

This also means the No. 5805 is comprehensively input-ready. It’s got eight inputs in total; four analogue (one XLR, two RCA, one MM/MC phono) and four digital (one coaxial and two optical S/PDIF, USB). Bluetooth is included too. One of the more clever features on the No. 5805 is that you can assign one of seven different reconstruction filters independently to each digital input; so if you think the first coaxial is a bit ‘Fast Linear’, the optical sounds very ‘Brickwall’ and the USB is ‘Apodizing Fast’, you can set these up in that way. Usually, the filter applies globally, so this is a step in the right direction for audio obsessiveness.

There is also an Ethernet port, but it’s for control (along with RS232 and USB-A) rather than streaming, which is a shame given its flexibility elsewhere. It has a home-theatre bypass though, which with the absence of Ethernet streaming does suggest it’s targeting a very traditional audio buyer with a more non-traditional design. Streaming aside, I think that its range of inputs and outputs (there’s a 1/4” headphone jack on the front panel) give the No. 5805 decent flexibility.

The amplifier delivers 125W per channel, in a direct-coupled, Class AB design. For all its modernity in installation, the amplifier itself is relatively conventional and relies on an internal preamp/power amp architecture that shares a common power input with a 500VA transformer. Even the headphone stage is a feed from a preamp rather than its own amplifier. The circuit features a voltage-gain layout that connects to an eight-transistor output stage, with two out of the eight running in pure Class A. The bias of this output stage varies according to temperature. Mark Levinson suggests that this power amplifier architecture is derived (‘descended’ according to Levinson) from the company’s No. 534 power

amplifier, in a trickle-down manner. This is not a bad starting place for an amplifier.

I used the Mark Levinson No. 5805 with a range of components fore and aft. The amp more than delivered the good when used with the Audiovector R1 Arreté tested in this issue, as well as the outgoing Magico A3 and the resident Wilson Audio Duette Series 2. It was fed by the USB output of a Melco N10 and the RCA sockets of the Innous ZENmini III tested next issue. I also used it with my Kuzma Stabi S/4Point9/CAR 40 vinyl front end. Cables were cycled between Cardas Clear, Ansuz D2, and Nordost Odin 2 (although with each cable costing more than the amp, this was taking things a little too far!). The amp arrived with some miles on the clock so running in wasn’t an experience to have, but on EU-friendly standby levels, it definitely improved from a cold start after half an hour or so. The amplifier rarely got above comfortably warm, save for the times when it was sweltering in 30°C heat during the UK’s mid-summer heatwave.

I’ve had some experience of Mark Levinson products in the past, but the accent is on the past. Although I’ve spent time listening to the latest iterations, they are more passing acquaintances than close friends. Even so, that classic Levinson dark, rich, and powerful sound continues to run through modern Mark Levinson devices.

But not here.

This is Mark Levinson rebooted, with a sound more in line with what the modern audiophile wants from their equipment. The almost brooding sound of the more upmarket models is replaced with a more immediate and forward presentation. It still retains that large and powerful sound that characterises Mark Levinson’s soundstaging properties, but where once Mark Levinson passed majestically between musical themes, on the No. 5805 it bounds more vigorously. It’s a ‘younger’ sound than I expected too; more forgiving of signal compression, more energetic on rock and dance music, and perhaps ultimately more Little Simz than Little Feat.

I don’t think added pep in its step is a bad thing, although Mark Levinson purists might not agree. Where the traditional Mark Levinson sound is ideal for accompanying long late-night sessions, the No. 5805 is great for plenty of quick-fire listening. I don’t want to overstate this; it’s not that the existing ▶

DYNAUDIO



This is performance
This is Confidence

View all four models at
dynaudio.com/confidence



► equipment can't use party as a verb, or the newer models are too excitable to work in a late-night all-of-Yessongs [Atlantic] playing session, just that the No. 5805 plays to different strengths. And that really is a good thing.

The central aspect of the No. 5805's performance that shines through on analogue, digital, and LP sources is its infectious, boppy sense of rhythm. OK, not quite in the manner of something like a similarly priced Naim rig, but the Mark Levinson keeps time well, and in an upbeat rather than a measured way. This makes the tribal, Iran-meets-Cuba in a London basement rhythms of Ariwo's 'Alafin' [Ariwo, Manana, CD] have more drive and energy. You can't help but tap your foot to the track. Move this over to bigger sounding systems and it sounds bigger, but slower. You are perhaps less likely to notice they are playing kitchen utensils, though!

That said, the No. 5805 is extremely detailed, and given the chance to show off with impressively recorded music, it does just that. Rachmaninov's Symphonic Dances [Zinman, Baltimore SO, Telarc] is played with gusto and verve, and the Mark Levinson amp reproduces that and the dynamic range exceptionally well. It also creates a good stereo soundfield, albeit one that is more about width than depth. However, the detail and spatial aspects don't tend to lay poor recordings bare, either. It just brings out the best in a track.

Where the No. 5805 comes up short next to the best is in vocal articulation and coherence. It's not that voices are indistinct, but my go-to track for determining such things – 'Animales hambrientos' by Bebe [Cambio de Piel, Warner Spain] – is telling. When it's good, I think I know Spanish. Here, I thought "I wish I knew Spanish". ►



SPENDOR

REVEALING EVERY DETAIL

Spendor D-Line loudspeakers reveal every nuance of the performance with absolute clarity and realism. With their transparent, superbly natural sound and extraordinary resolution, they create an airy, spacious soundscape, then invite you in to explore it, uncovering new depths, textures and definition in your music

MADE FOR MUSIC. DESIGNED FOR YOU.

spendoraudio.com



Beautiful hand-matched, real wood veneers.
A choice of four classic finishes: Cherry, Oak, Rosewood or Ebony

Clarity by Design

Transparent Uncolored Accurate.

This is what made the sound of the original British Broadcasting Corporation monitors legendary. Graham Audio has made it their mission to continue this legacy, and to bring the Chartwell LS3/5 and LS3/5A, the Chartwell LS6, the LS5/8 and LS5/9 to a broader global audience.

Drawn from many years of BBC research, and through the engineering genius of Derek Hughes, these speakers have been recreated using state of the art materials and technology under license from the BBC. A new addition to this series is the Chartwell Sub 3, a bespoke compact, passive sub-woofer designed to be used in conjunction with the LS3/5 monitors.

Graham Audio are also proud to announce the VOTU, their flagship 1000 watts per channel, high-end monitor for large studios and listening rooms. Effortless dynamics and vast detail come as standard.

...hear the difference



www.grahamaudio.co.uk



CHARTWELL
A DIVISION OF
GRAHAM AUDIO

“Loud and enjoyable enough to shout down ‘The Knights Tippler’ and nothing went ‘bang!’”

► Overall, though, the amplifier delivers a very fine performance. It’s crisply dynamic and presents sounds in a soundstage with excellent solidity. It’s a very much ‘turn it up’ amplifier, too; not simply a party animal and it can play well at low levels, but when you play something fun, it makes you want to turn it up.

Perhaps the acid test of the No. 5805 came when casually listening to a series of YouTube clips through the optical input, being fed from my TV. I had a few friends come round, and I’m not ashamed to say we all got a bit ‘refreshed’ and had given up on regular music and video entertainment and engaged in a spot of random YouTube clip watching instead. Over the course of the evening, we churned through everything from Frankie Boyle insulting his audience, through the ‘let’s play the most obscure piece of music you can find’ game, and eventually to essentially giggling at silly memes and Mitchell & Webb clips. Eventually, we gave up when trying to count just how many SS soldiers Clint Eastwood shot up in each clip of *Where Eagles Dare*, and carriages (well, Ubers) awaited the revellers. Then it struck me. I had managed to turn on, use, enjoy, and turn off, a high-end audio system - while drunk and in the company of fellow members of the ‘inebriati’ – switch it to play from TOSlink, play it loud and enjoyable enough to shout down ‘The Knights Tippler’ and nothing went ‘bang!’, nothing required adult supervision, and fun was had. In contrast, had I been using a more conventional high-end system, I’d have never even thrown the first switch!

Finally, how you rank the headphone socket largely depends on just how much of a headphone enthusiast you consider yourself. If you use headphones on an occasional basis, and use a pair of moderately demanding headphones, it’s perfectly fine, and has the same detailed, fast, and engaging properties of the amplifier itself (primarily because it is the amplifier itself!). If you consider yourself a headphonista and spend most of your listening sessions under a headband, then the No. 5805’s headphone socket is about average; good for a ‘built-in’, but no match for a dedicated headphone amplifier. In this context, and with more demanding headphones, the headphone socket is a little grey and undynamic. I think for most users of the No. 5805, they won’t ever go for a separate headphone amp and they will use the amp with mid-range AKGs or similar and really enjoy what they hear.

TECHNICAL SPECIFICATIONS

Type: Integrated amplifier with built in DAC and phono stage

Power output: 2 × 125 W into 8 Ohms

Minimum load: 2 Ohms

Analogue inputs: 1 pair balanced, 2 pairs unbalanced.

Phono: separate MM and MC (only one can be connected)

Digital inputs: 1 asynchronous USB 2.0 B Audio, 2 optical, 1 coax (S/PDIF)

Sample rates/Bit depth: PCM up to 384kHz up to 32 bits.

DSD: native of DOP, single, double, or quad speed.

Full MQA decoding

Control inputs: Ethernet, RS232, and USB A

Input Impedance: 20k ohms (balanced) 10k ohms (single-ended)

Phono: MM: Input resistance 47k ohm. Input capacitance: selectable. Gain: 39dB. MC: Input resistance: Selectable. Gain: 69dB

Weight: 28.1kg

Price: £7,999

Manufactured by: Mark Levinson Music Systems

URL: marklevinson.com

Distributed in the UK by: Arcam

URL: arcam.co.uk

Tel: +44(0)1223 203200

Is it possible to build a set of components that do what the No. 5805 does for less? Of course, but that’s not the point. People who buy the No. 5805 would never countenance buying separates in this fashion, and neither would they go for a separates system that featured Mark Levinson’s more upmarket models. I first thought of the No. 5805 as ‘training wheels’ for the bigger stuff, but that’s not how this amp’s story arc plays out. Instead, this is a product designed for people who will likely never go for the bigger stuff. This is all the Levinson you need today!

The No. 5805 is Levinson reborn, after all. It’s not Mark Levinson for the rest of us, it’s Mark Levinson for a new generation; a generation that appreciates good things, but is time-poor, space-poor, and therefore unwilling to accept the plethora of different boxes that makes up a traditional audio system. In other words, it’s Mark Levinson for right now! +

Quality Digital Streaming



Clockwise from top left: Innuos Statement, AVM Evolution MP 5.2 Media Player, AVM Inspiration CS 2.2 4T Streaming CD Receiver, Innuos Zenith

After auditioning many of the best brands in this arena, two stood out to us on sound quality, **AVM** and **Innuos**. Both offer excellent sound quality from physical sources as well as offering highly commendable streaming from subscription services. Most importantly, both brands offer a more natural sound than other streaming products as they are solely audio-focussed in their design and build.

Innuos has its history in computer based equipment but has focussed on audiophile components and quality power supplies in their designs. Their models, with their striking chassis designed to reduce resonances, have the ability to quickly rip CDs to an internal storage and then serve this data direct to the audio system, or to a separate DAC, or to the network, along with streaming services such as TIDAL, QOBUZ, Deezer. Because they start from a physical CD basis, and have focused on audiophile qualities, they have achieved a similar sound from streaming to that with a CD, from their entry model ZENmini to the impressive Statement.

AVM is a true high-end audio company manufacturing since 1986. All models are handcrafted to the highest standards in Germany. By using simple, logical design principals to achieve optimal performance levels, the sound quality achieved is amongst the best in the industry. Their products offer a wide variety of options due to the modular design and have a more classic audiophile appearance. Their Media Players and All-In-One CD Receivers include a real TEAC CD Drive integrated into their streaming units which fully support TIDAL, QOBUZ, UPnP, Webradio.

Fyne Audio F702 loudspeakers

by Steve Dickinson

Fyne Audio is a relatively new kid on the hi-fi block, formed in 2017 by several former Tannoy staff, following the takeover of Tannoy by a conglomerate a couple of years earlier. They've not wasted any time, and for such a young company, Fyne Audio now has an impressive portfolio of products. However, that's what you can do when your team includes five former directors and senior managers, including the former director of engineering, the manager of mechanical design, and the factory manager. Not to mention the former managing director and the sales manager. As Fyne itself puts it, it's like they've got the band back together.

Conceptually, they remain committed to the traditional Tannoy-style co-axial arrangement of a tweeter mounted centrally within the bass/mid cone. Termed 'IsoFlare' this point source system is claimed to provide outstanding stereo imaging, even off-axis, because energy is radiated isotropically, following the flare of the driver cone. The drivers have undergone considerable technical development, including computer-designed beading around the outer rim, dubbed 'FyneFlute', to better manage the interface between the edge of the driver cone and the mounting point to reduce reflection effects. Finally, the porting via a tractrix profile vent in the foot of the speaker, which helps create a spherical wavefront from the port output, the better to couple the output to the room and aid overall coherence.

The F700 series sits one rung below the top-end F1 series, and the £6,000 F702 is a substantial two-and-a-half-way floorstander, sitting in the middle, between the F701 stand mounter, and the F703, a large floorstander configured like the F702, but with 250mm drivers in place of the 702's 200mm units. The bi-wirable crossovers benefit from high-end components and have been deep cryogenically treated. Boat-backed cabinets and a slight downward slope to the top plate help manage internal acoustics but also reduce the sense of mass, and make for a singularly modern and elegant design. However, the 702's are not a small loudspeaker, being more significant in all dimensions than my old Focal 1028s. There's a passing resemblance to Tannoy's much-admired 'Definition' ►





► series, but the F700 range has benefited from considerable development, which is apparent in the way it performs.

Given their size, and the generous proportions of the bass and bass/mid drivers, I was slightly concerned that they'd not work well in my modest domestic setting, but I'd also heard them absolutely singing their heart out in a small dealer dem room, so I wasn't unduly worried, and Fyne themselves explain that one advantage of the tractrix port arrangement is less susceptibility to room placement issues. That said, they still amply rewarded a little bit of experimentation with placement; an inch or two this way or that and they quickly made themselves very much at home.

First impressions, then, and it's pretty clear that the F702s are a very free and expressive loudspeaker. Don't mistake 'free' for 'loose' here, either; there's no sense of flabbiness, nor any lack of control, it's just that control is being very judiciously applied. Dynamics are natural, unconstrained, and unforced, timbres have a real sense of texture and shape, and timing is right on the money. Andy Sheppard's 'Peshwari' from *Learning to Wave* [Provocateur] shows his mastery of phrasing and textures; his lines follow a natural arc, and through the F702s it is easy to hear why he plays that way, and how essential those lines are to the musical experience.

The way the loudspeaker shows you the inner harmonies within the music is instructive too. As with timbre, pitch information is also exquisitely resolved; the music is just that little bit more fully-formed because the harmonies reveal

themselves so limpidly. The F702 isn't about bombarding the listener with impressive but ultimately meaningless detail either, everything in the music has its place and part to play — the F702s show you why, and throw in the quality of the musicianship for good measure. Coherence is critical here, and the top-to-bottom integration of the drivers is well sorted; there is no cause for concern about any disconnect or disjointedness between the frequency ranges. The detail is meaningless without context, and in this case, the context is the timing: unless the detail is delivered coherently, in a way which immediately locks it into place within the music, then it would be better if it weren't there at all.

The speakers were in my system during the 50th-anniversary commemorations of the moon landings, so I dug out my copy of Brian Eno's *Apollo* [Virgin] and had my little private celebration. Ambient music is sometimes a tricky reviewer's tool, all that vagueness being a wee bit unhelpful, so I wasn't expecting to get much by way of insight into the speakers; I was planning to wallow in Eno's lush and evocative textures. However, the Fynes lit up the beautiful harmonic structures within those shimmering soundscapes, the bass and mid-bass tunefulness being a particular source of surprise and delight. Also, 'Deep blue day' has some compelling but understated work by the rhythm guitars; the Fynes found it and made sense of it where lesser speakers blend it in.

Time and again, they rewarded me with new insights into familiar music. Dhafer Youssef treads a line between jazz ►

Bring all your *music* to *life*

VEGA G1 STREAMING DAC

'The Vega G1 is a hard act to beat - put it with a decent server and it will deliver results that will revise your opinion of what can be done with digital audio.'

JASON KENNEDY, THE EAR

'Bloody hell ... this thing's good!'

ALAN SIRCOM, HIFI +



Built around the idea that true hifi should be accessible to everyone, **AURALiC** today enjoys a worldwide reputation for producing innovative digital and analogue components of the highest quality.

We build devices which further the exploration of digital streaming and discovery of new music. Combining progressive technologies that deliver on the promise of modern digital formats with premium analogue circuitry and hardware rooted in classic designs, **AURALiC** is always creating new ways to bring all your music to life.

For your nearest authorised dealer please visit auralic.com

AURALIC PRESS AWARDS



“Now the subtle rhythmic changes fit so well and made much more sense of the whole recording.”

► and world music and ‘Miel et ciendres’ from *Divine Shadows* [Jazzland] is an example where I usually wish the jazzman had come to the fore. The piece starts subtly, building and raising the energy to a critical point, then gently fades back from whence it came. I usually find myself slightly disappointed, because it starts to fade just at the point where the likes of EST would have stepped up a gear and taken us on a rollicking ride. This time, though, the trajectory of the piece felt so natural there was no sense of anti-climax at all. Graham Fitkin’s *Kaplan* [Black Box] is a dive into electronic music and initially feels somewhat different to much of his complex, rhythm-driven work. At 15 minutes long, ‘K1’ pays off in the last climactic few minutes, but the build has often felt a little diffuse and formless. Not through the F702s, though, which brought out the inner rhythmic structure and rendered the whole thing compelling and propulsive. Now all the subtle rhythmic changes fit so well and made much more sense of the whole recording.

Pulling out my copy of the Tord Gustavsen Trio’s first album, *The Ground* [ECM], I found ‘Tears Transforming’ is full of his trademark subtlety, but through the F702s the degree of interplay, the way thematic and rhythmic fragments passed between the musicians, was shown in ways I’d either totally forgotten or, more likely, never consciously appreciated before. Energy and detail on a micro- and a macro-scale is very much the F702’s forté (and piano), from small inflexions and gestures to large scale grandiosity, or merely pinning you in your seat (thanks, Return to Forever). All is achieved with considerable aplomb - you perceive the results, but don’t notice the work.

That goes, too, for large scale orchestral works, for which Rachmaninov’s *Symphonic Dances* surely measures up. In this case, Vasily Petrenko’s account, with the Royal Liverpool Philharmonic [AVIE], and in particular the ‘Non allegro’ first movement. The scale and weight of the musical forces in play was never in doubt, nor the size of the acoustic space offered by Liverpool’s iconic Philharmonic Hall. However, despite that, there was a clear dance-like quality to many sections, particularly in the way the upper strings tripped along over the solid brass, percussion, and woodwind underpinnings. By contrast, Brahms’ *German Requiem* and the London Symphony Orchestra under Previn [LSO Live], felt almost intimate; the orchestra and choir occupied their own definite

TECHNICAL SPECIFICATIONS

Type: 2½ way, reflex-loaded floorstanding loudspeaker with downwards firing port with tractrix diffuser; twin cavity loading system

Driver complement: 1 × 200mm point source driver, multi-fibre bass/midrange cone with coaxially mounted 25mm magnesium dome compression tweeter, neodymium magnet system. 1 × 200mm multi-fibre bass/midrange cone

Crossover frequency: 250Hz & 1.7kHz

Crossover type: Bi-wired passive low loss, 2nd order low pass, 1st order high pass, cryogenically treated

Frequency response: (in-room, typical) 30Hz–34kHz

Impedance: 8 Ohms nominal (minimum: 5 Ohms, from 150-250Hz)

Sensitivity: 92dB for 1 Watt (2.83V) at 1 Metre

Dimensions (H×W×D): 1111 × 384 × 440mm

Weight: 30.5 Kg each

Finishes: Piano Gloss Walnut / Piano Gloss Black / Piano Gloss White

Price: £5,999.99/pair

Manufacturer: Fyne Audio Limited

Bellshill, Lanarkshire, Scotland ML4 3NQ

Tel: +44 (0)141 428 4008

Email: enquiries@fyneaudio.com

URL: fyneaudio.com

spaces, but spaces somehow smaller than I’d expected. Having reflected on this, I’ve concluded that the sense of intimacy was more about the ambience; in a live performance there is that sense of shared space, even in a large hall, and here it was possible to feel oneself closer to the event.

The Fyne Audio F702s are all about insight; it seems. That view into the music-making which we almost take for granted at live events, but often struggle to recreate in our own homes. Yes, it’s about detail and resolving power, timing, and the ability to scale from intimate to expansive, subtle to bombastic; but above all, it’s the ability to do it in a way which doesn’t draw attention to itself. The music speaks, and a fine (pun intended) system does its best to get out of the way. The F702 is a tremendously accomplished loudspeaker, and given that Fyne Audio is such a young company, this is a truly remarkable achievement. It just shows what years of collective experience can do when given their head. +

Connoisseurs of Sound



The High-End Show That Never Ends

Our Central London showroom is constantly kept refreshed with the latest creations from the world's finest audio brands. We are proud to offer a sanctuary for audiophiles to try combinations impossible to find anywhere else in the UK.

Latest additions to the collection

Magico M2 Loudspeakers (USA)

Dan D'Agostino Momentum S250 Stereo Amplifier (USA)

Naim Supernait 3 / Nait XS 3 Integrated Amplifiers (UK)

Vertere DG-1 Dynamic Groove Record Player (UK)

Focal Arche Headphone Amplifier (FRA)



KJ West One

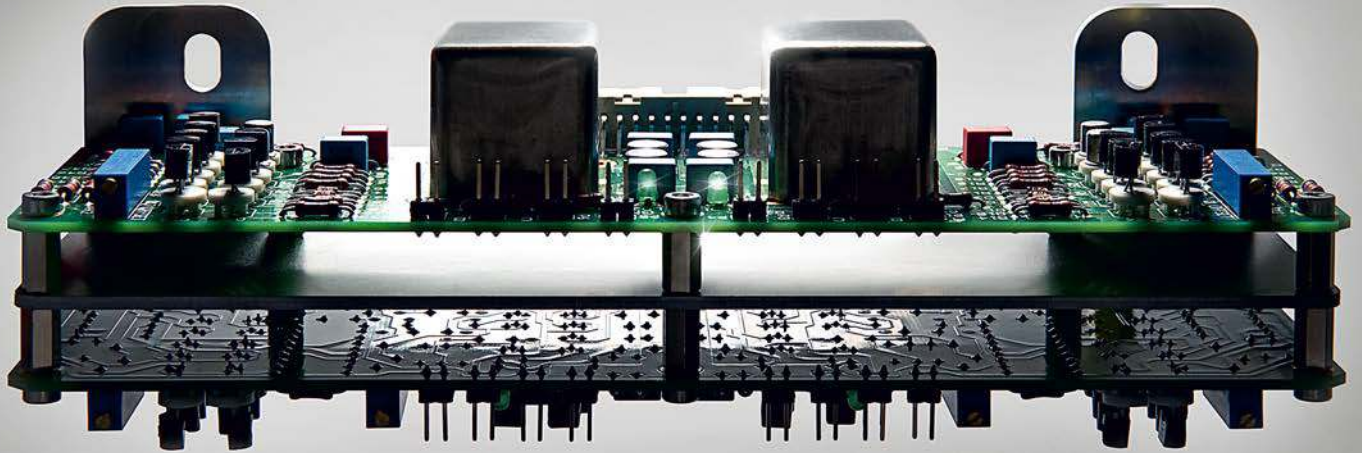
26 New Cavendish St, London W1G 8TY

T: +44 (0)20 7486 8262 E: info@kjwestone.co.uk

kjwestone.co.uk



New level of sonic performance
Master-quality sound.



Formula xHD | new upgrade
analog module rev. 2



EQUIPMENT REVIEW

Technics SL-1000R turntable

by Alan Sircom



For all the talk about the wonderful return of the Technics SL-1200 turntables, the tale masks aspects of the bigger story. The tale highlights the significance of the DJ's delight, skipping somewhat over the fact the turntable was originally one of a range of direct drive turntables for home use. The really big guns were the awesome SP-10 motor unit, and the SL-1000; the same motor unit with a housing and tonearm. Amid all the shouting about the SL-1200 models, this far more expensive, built like a tank turntable, is the real one to watch. It just might be the best product ever to carry that Technics brand name.

First though, the impact statement. This is a big turntable in a very big flight-case. The packing weight for the flight-case is 50kg, and is the size of a V8 (the engine, not the juice). The deck itself brings that down to a 'more manageable' 40kg, and – like the SP-10 it's based upon – comes with an external power supply. A large part of that all-up weight is the hefty platter. ▶

“At this level, even the rigidity of the motor housing become functionally non-issues. Such are the advantage of mass and money!”

► The main plinth is an impressive half metre wide, and it is all beautifully brushed 25mm thick aluminium. It comes with a lid (no hinges, but little rubber feet on all four corners; you lift this off with ceremony), but you'll want to spend your time just staring into that flawless finish. The lower section of the plinth is black bulk moulding compound over a cast aluminium frame.

The plinth sits on four feet that provide both some levelling and a degree of isolation from the environment. They are made up of silicon rubber and microcell polymer elements in a die cast zinc casing. The silicon rubber part faces the equipment support, and this makes an already heavy turntable even harder to remove.

The other most visible part of the turntable is the platter; a triple-layer composite of rubber, brass, and die-cast aluminium, which is balanced with the addition of a dozen tungsten weights around the perimeter, all weighing in at almost 8kg in and of itself. The term 'balanced' in audio is often taken to mean slightly better than 'good enough', but this is an indicator of the obsessiveness of the manufacturing, in a good way; they use the same wheel-balancing machinery used to make sure the wheels of the Shinkansen trains in Japan run smoothly... at more than 200mph.

Below the bullet-train platter, is that direct-drive motor unit. It's a twin-coil, iron-coreless (and thus cogging free), twin-rotor design, with the sort of torque that could make it tow an Airbus. However, despite that high-torque motor (which helps to bring that platter up to speed and stop it almost instantly), it is not simply brute force, and is claimed to help contribute to the turntable's extremely low 0.015% wow and flutter

measurement. That's impressive by direct drive standards; by belt drive, it's off the charts good, to the point where comparisons of this rubric are almost cruel. Technics engineers have also worked to minimise motor noise, which was a legitimate concern in early direct drive designs.

The combination of advanced CAD/CAM design techniques, advanced measurement facilities, and improvements to engineering practices means, when it comes to direct drive motors, we aren't in the 1970s any more. Modern design means issues like spindle-bearing precision and intra-motor vibration (which made some direct drive motors sound great, and some sound like your LP was in the midst of a tank battle) are resolved, and at this level, even the rigidity of the motor housing become functionally non-issues. Such are the advantage of mass and money!

In the past, the speed controller box was a bit of a weak spot, truth be told. This wasn't a design flaw in and of itself, but once again a function of the limitations of engineering and technology from 40 years ago. While optical sensor systems are relatively unchanged (light has not got faster in the intervening decades) the best servo mechanisms of the 1970s and early 1980s are no match for modern digital servo systems, and that relates directly to speed precision. The outboard supply offers 33.3, 45 and 78rpm speeds and allows subtle adjustments down to 0.01 of a revolution per minute. As in the first generation of products, this controller is not destined for wild changes in speed; think 'subtle tuning'. In fact, speed control is so accurate, these adjustments become almost redundant unless you have a collection of 78s, which were rarely recorded at 78rpm!

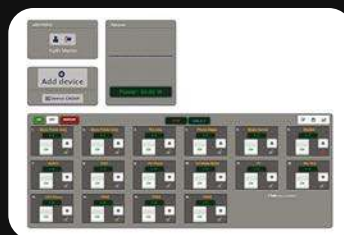
If the SL-1000R motor and speed control hark back to the glory days of record players, the arm revels in them. It's a classic S-shaped 10" gimballed arm, albeit now with a magnesium arm tube and ruby bearings, with a locking collar for headshell mounting. If you start searching through the box for a headshell, you are going to come away disappointed. Panasonic UK recommends the DS Audio HS-001 Duralumin headshell, and Sound Foundations stepped up and provided one for review. While we are on that subject, while the arm comes with cables, the phono plugs and earth terminals built into the turntable itself suggest the ones in the box are not quite up to snuff, and in this case, AudioQuest stepped in with a set of its excellent Leopard tonearm cables (again recommended). The turntable also needs a cartridge of sufficient quality to match its performance, and here we went with a Lyra Atlas SL (which is once again a popular choice, and goes some way to show how good the deck and arm are in real terms, in that they can more than handle a cartridge of this gravitas). This makes for one heck of a turntable front end, one that demands a great system with an excellent phono stage, and we went with the excellent Aavik U-150's input. ►

IsoTek® SMART Power

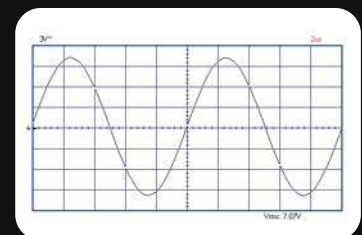


"The new Alpha, Delta and Theta models offer full system control (and monitoring) of connected electronics through RS232, LAN and over WiFi, all via a custom application. The demo was mighty impressive!"

Hi-Fi News



Intuitive easy to use interface



Delivering clean power



Supporting the UK's finest home cinema installers

To learn more on about IsoTek products, please contact Pulse Cinemas:
Unit 4, M11 Business Link, Parsonage Lane, Forest Hall Road,
Stansted Mountfitchet, Essex CM24 8GF

Email: info@pulsecinemas.com
Phone: 01279 647039
Web: www.pulsecinemas.com

“When you hear the SL-1000R in full throat, you discover just how rare that precision is in record replay.”

► From the outset, this turntable was something beyond the pale. Here was a precision and snap to the sound that is more akin to really well-done digital, making many a well-loved record player sound a little too 'louche' in presentation. A singer steps up to the mic, opens their mouth, and they sit front and centre in the mix; no wavering, no imprecision. Until you hear this first hand, you might think that applies universally. When you hear the SL-1000R in full throat, you discover just how rare that precision is in record replay. OK, maybe you expect this with the audiophile approved recordings, but it did it on Van Morrison's *Astral Weeks* [Warner]!

Then there is the dynamic range, which makes you wonder whether the whole digital audio thing was a decades long experiment in flat sound. I put on *An Historic Return of Horowitz at Carnegie Hall* [Columbia], and his 1965 assault on the pianoforte as he played the Schumann Fantasy in C Maj, was powerful, bold, and nothing like I've heard it on other formats. This was music played wild and not tamed but kept in place by the Technics.

Actually, it didn't matter what disc I put on the platter, absolutely nothing phased the Technics, and it delivered everything with gusto and energy. The overall soundfield has an almost architectural physicality to it, and does so whether you are playing a delicate violin recital or the fully syrupy synth swirls of The Orb. The deck toes a delicate balance between being precise and sounding 'tightly wound', but its ability to play music 'red in tooth and claw' wins out. Other decks are more mellifluous, and a few bring that to the same kind of overall performance as the Technics, but there's no mistaking it; this is world-class vinyl performance.

Perhaps more importantly though, it's an enjoyable experience as much as it's a physical and a cerebral one. You understand the intent of the musicians and composer fairly quickly, and the combination of first-rate detail, an articulate and expressive vocal, wide and deep soundstage when needed, good dynamics, fine coherence, and lots and lots of bass depth coming out of a background noise that falls to almost nothing, helps bring that intent to life, but not in a po-faced or dry manner. The odd part in this is surface noise; the Technics combo doesn't shy away from noise or mask it in any way. It's just that surface noise comes and goes so fast, it barely registers. Leading edges do the same and the sound of percussion is, as a result, almost eerily 'right', but it's that handling of surface noise that really highlights just how good this turntable system really is.

Technics pulled out all the stops with the SL-1000R. It's built to a standard that few can hope to match, it's made to last for decades, and it returns a sound quality that shows just what happens to vinyl when it gets really focused and played with equal amounts of gusto and finesse. I just wish it were heavier and in a far larger flight-case because then it might have been too big for Technics to pick up and take away! +

TECHNICAL SPECIFICATIONS

Type: Direct Drive turntable with arm

Motor: Brushless, iron-coreless, DD

Platter: 7.9kg brass and aluminium diecast combined, 323 mm diameter, with mat

Terminals: 2x RCA, earth connector (cable supplied)

Turntable Speeds: 33 1/3, 45, 78 rpm

Adjustment Range: ±16 %

Starting Torque: 0.39 N/m / 4.0 kg/cm

Wow And Flutter: 0.015 % W.R.M.S.

Diameter: 323 mm

Tonearm type: Universal Static Balance

Effective Length: From the tonearm pivot to the stylus, 254mm. From the tonearm pivot to the spindle, 239mm

Overhang: 15 mm

Tracking Error Angle:

Within 1° 48' (at the outer groove of 30 cm (12") record)

Within 0° 30' (at the inner groove of 30 cm (12") record)

Offset Angle: 21°

Arm Height Adjustment Range:

0–15 mm

Stylus Pressure Adjustment Range:

0–4 g (Direct Reading)

Applicable Cartridge Weight Range (including Headshell):

15.9–19.7 g (without auxiliary weight)

18.8–23.6 g (with small auxiliary weight)

22.5–26.3 g (with middle auxiliary weight)

26.0–31.0 g (with large auxiliary weight)

Dimensions (W×H×D):

Main Unit 531 × 188 × 399 mm

Control Unit 110 × 84 × 350 mm

Weight: Main Unit Approx. 40.2 kg

Control Unit Approx. 2.1 kg

Price: £13,999

Manufactured by: Panasonic

URL: technics.com

Tel (UK only): 0333 222 8777

ETHOS

More Than a CD Player



THE
GRYPHON



www.gryphon-audio.com



Tellurium Q® Statement

New - The Statement DIN to Phono lead for tonearms. Contact us for details



A coherent sonic profile and ultimate performance across the range - this is the **Tellurium Q Statement**.

"The Statements rewrite the book for cables and, at this very moment, as I write this review, completely stand alone in the market. In sonic terms, the Statement cables are breathtaking and fully deserve the maximum marks"
Paul Rigby - theaudiophileman.com



Audition the new Statement range at these exclusive dealers -

Analogue Seduction
Peterborough
01733 350878

Futureshop
Borehamwood
0208 905 1555

MCRU
Huddersfield
01484 538438

Studio AV
Chobham
01753 863300



UK Distribution by
KOG AUDIO

www.kogaudio.com

info@kogaudio.com

024 7722 0650

EMM Labs DV2 digital converter

by Alan Sircom



There are few people in the audio world with a reputation like Ed Meitner's. He made turntables without platters, he made digital converters that were used by recording engineers for Sony, Philips, and Telarc. He pioneered and championed the Direct Stream Digital format, and he was the engineer that identified jitter as a fundamental problem in digital audio. So, it's little wonder that the company that carries his flag in domestic audio – EMM Labs – makes some of the best digital audio equipment in the business. Meitner's most recent technological boost was the world's first 16xDSD digital converter, which first appeared on the company's DA2 converter, and now on the latest flagship DAC from the brand, the DV2. Were it just a converter, that alone would mark it out as something special, but the DV2 also adds things to the mix to take it to another level.

In a way, we are living in a time of great digital wonders. A portable, low-cost decoder today is capable of playing with precision files the likes of which would require a monumental decoding engine when this century was new. That can make people complacent, make them dismissive, and spark an audio arms race of bigger and better specifications, without necessarily caring as to how those specifications end up performing in the real world. Fortunately for EMM Labs, the idea of 'specs without performance' has never been on the list of priorities; instead, the company has developed a commanding reputation for building high-performance products in sound and specification alike. Naturally with that link to DSD, Meitner and EMM Labs alike are in a way forever associated with SACD and DSD related formats, but deep down this is the kind of DAC you could use with practically any file type and get good sound. ▶



► However, while most brands are just about coming to terms with 4xDSD or at best 8xDSD, EMM Labs already has that covered and has upped the ante to a 16xDSD decoder first seen in the DA2 processor. While many will point out the almost total absence of anything apart from a few test-tones that reach to 1024fs, that's not the point. The point is all recorded music is well below peak cruising altitude for the DV2. It can take digits in its stride; almost all the digits you can think of in the real world; 24bit, 192kHz PCM? A walk in the park, 384kHz DXD? The DV2 can do it standing on its, er, head. MQA? It can do that while balancing plates and juggling kittens. OK, so the addition of 32bit, 384kHz PCM is missing from the line-up, but, like 16xDSD, the format itself is all but unavailable in the real world.

Of course, the first to produce a 16xDSD playback option means you can't fall back on the standard-issue chipsets, and instead EMM Labs has gone fully discrete, and dual-differential, with its MDAC2 single-bit D/A converter block, and its matching MDAT2 (short for Meitner Digital Audio Translator) custom DSP. When it comes to digital, 'rolling your own' does have distinct advantages in reducing non-linearities and the processing power of up-conversion. In particular, EMM Labs claim the custom DSP delivers ground-breaking "real-time transient detection."

Staying with the acronyms, the USB input features the latest iteration of the company's MFAST (Meitner Frequency Acquisition System Technology, possibly a bit of a backronym there), which combines hardware galvanic isolation and high-speed asynchronous jitter removal. It also features MCLK2

(OK, less 'acronym', more 'shorthand'), which is a master clock to further attenuate jitter. While there are no filter options open to the user, the MDAT2 algorithm adaptively switches filtering methods in real time according to the type of sounds being played-back, acting to preserve clean analogue-style transients without pre-ringing or post-ringing. Polarity inversion is available and is performed in the digital domain.

There are a range of digital inputs, including coaxial, Toslink, AES/EBU, and EMM's own Optilink to connect to disc-playing transports in the EMM line-up. However, USB is the most flexible of the inputs on the DV2, as the Type B input can support PCM conversion up to DXD (352.8 and 384kHz sampling rates), DSD up to DSDx2 (DSD128), and full MQA unfolding and rendering via USB 2.0. The others are only capable of DSD64 and 24 bit, 192kHz PCM replay. There is also a separate USB port for upgrades.

At a quick glance, the DV2's VControl is not that big a deal, until you scratch deeper. Most volume controls on DACs are either some kind of volume control in the analogue domain or have used re-quantisation ('bit-chopping') to attenuate the signal in the digital domain. Somehow, and EMM Labs is not telling, its VControl attenuates the signal in the digital domain without re-quantisation, thereby making it possibly one of the least sonically deleterious and "completely transparent at any volume setting and has wide attenuation range", according to EMM's literature.

As you might expect from a high-performance, high-cost converter, the DV2 is built to a very high standard. The case looks more like a high-end integrated amplifier (with its display ►



MADE TO ASTOUND.

THE MARK LEVINSON Nº5000 SERIES



The Mark Levinson Nº 5000 Series harnesses decades of superlative audio engineering and the latest advancements to deliver unmatched performance and value. With a bold new industrial design and a wealth of features engineered to excite your inner audiophile, the Nº 5000 Series delivers luxurious fidelity with premium features and flexibility. Prepare to be astounded.

See it for yourself at www.marklevinson.com.

©2019 HARMAN International Industries, Incorporated. All rights reserved. Mark Levinson is a trademark of HARMAN International Industries, Incorporated, registered in the United States and/or other countries. Features, specifications and appearance are subject to change without notice.

“Strangely, I think this is digital that sounds most like reel-to-reel, in all the right ways.”

- screen) and the electronic components – all of a suitably high grade – all sit on aerospace-grade, ceramic circuit boards. It has both balanced and single-ended analogue outputs.

A product built to this standard must set itself a high bar, and the EMM Labs DV2 doesn't disappoint! Unlike almost every high-end digital product I've encountered irrespective of cost, the EMM Labs DV2 is one of the most 'tuneful' and 'soulful' digital devices I've heard to date. Music isn't deconstructed and exposed as it can be on top-end digital replay; it's played with calm authority, and a sense of smooth and satisfying coherence. Strangely, I think this is digital that sounds most like reel-to-reel, in all the right ways; that effortless sense of 'air' and 'rightness' a good open-reel can do so well is reproduced here in digital form.

The unfatiguing nature of this DAC makes writing about it difficult in the extreme, as you start with good intentions and find yourself taken by the music. Again. So, you play a track on an album – the opening title track from Public Service Broadcasting's *The Race For Space* [Test Card] and the next thing you know, you've just played three PSB albums in a row and made absolutely no notes. Then you do the same thing with Tasmin Little playing the Elgar Violin Concerto [Chandos SACD]; pretty soon you find yourself working your way through to Bax and Finzi and you're lost in music again.

Eventually, you begin to force yourself away from enjoying the music and start to focus on the performance. It has some of the best bass in the business but doesn't shout about it. My torture Trentemøller track 'Chameleon' [*The Last Resort*, Poker Flat] serves up gut-pummelling bass lines at times, and the DV2 played them with speed, precision, and majestic depth. Where this becomes most noticeable is when the music gets complex, as it can tend to shut down the sound; you get good bass or good stereo; rarely get both at the same time to the same extent. The DV2 ticks this box perfectly. In fact, soundstage space – which should be a function of other parts of the system if conventions are to be believed – was the most highlighted improvement it brings to a system. There was a sense of true three-dimensionality to the sound even of the Rolling Stones [*Stripped*, Polydor], which is often just a tight bolus of sound. Of course, you need a good system to show just how much the DV2 is giving you!

TECHNICAL SPECIFICATIONS

Digital inputs: EMM Optilink (CD/SACD), AES/EBU, 2x S/PDIF Coax, 2x S/PDIF, TOSlink, USB

Stereo analogue outputs: XLR and RCA

Output Impedance: 300 ohms balanced (XLR), 150 ohms unbalanced (RCA)

Output Levels (High/Low): XLR outputs: 7.0/5.0V (+19.1/16.2dBu), RCA outputs: 3.5/2.5V (+13.1/10.2dBu)

Formats supported: PCM up to 24bit/192kHz and DSD, USB also supports 2xDSF, DXD (352/384kHz), and MQA

Dimensions (WxDxH): 438 × 400 × 161mm

Weight: 17.2kg

Price: £28,000

Manufactured by: EMM Labs

URL: emmlabs.com

Distributed by: Midland Audio Xchange

URL: midlandaudiox-change.co.uk

Tel: +44(0)1562 731100

One of the things I have most come to dislike about high-end digital replay is how musically uncompromising it has become. Anything with compression, or anything not beautifully manicured and massaged, tends to be highlighted through many top-end digital systems. While this is mostly a good thing – we want to know what's on our recordings – the DV2 shows that musical insight need not come with a 'bad recording' filter. The EMM Labs DV2 is notionally no more or less uncompromising than its top-end rivals, and it doesn't sugar-coat bad discs. However, it makes those angular, hard-edged, and overly compressed recordings that make up a lot of modern musical output a lot more palatable.

It's tough to say this given the price tag, but what the EMM Labs DV2 represents is the least-expensive way into top-tier high-end audio. Its rivals aren't those excellent players and DACs in the £20,000-£30,000 range; it's a £50,000 DAC that forgot to uprate its price tag. And, as many current DACs go for a sound that seems 'etched' next to the EMM Labs, its rival group gets smaller year-on-year. The DV2 is more than just another clever DAC; it's one of the easiest sounding digital devices you'll ever hear. It should be on the shopping list of all high-enders! +



New power distribution for your music system!

The NEW Ansuz Mainz8 A2/C2/D2 power distributors will become the heart of your music system, providing a steady flow of current to even the most demanding High End systems. With a massive capacity to ground through star grounding technology, these three new models holds the same principles as the Ansuz Mainz8 D-TC line, and delivers the perfect groundwork for High End performance.



Ansuz Mainz8

The NEW Ansuz Mainz8 A2/C2/D2 units exploits two different ways of conditioning the mains current, a passive and an active mechanism. The passive coil-based mechanism rounds of noise transients, so your HiFi-equipment better deals with transient current noise. The active mechanism samples the noise spike. A counter noise transient spike is added to further condition the current to an even lower noise floor for unmatched clarity and spatial focus.

The new Ansuz Mainz8 power distributors comes in three versions; A2, C2 and D2. All three models distributes mains power in 8 dedicated power outlets and an effective ground connection. Starting with the A2 version, you will experience that performance is way better than our previous Mainz8 D model. Moving up to C2 and D2 you will get more of the technology and experience significantly improved performance, gained from creating the Ansuz D-TC series and from the new Ansuz 2-series.

D2
C2
A2



Wherever you want to listen, Focal has a headphone that delivers your music with precision and purity. Our 40 years of innovation, development and manufacturing of high-end drivers and loudspeakers are distilled into the range



ELEAR

CLEAR

UTOPIA

ELEGIA

STELLIA

Comprised of three open-back models, two closed-back models, and our newly released 'Arche' DAC and headphone amplifier, Focal now offer a personal audio system to cater for all levels of serious listening.



ARCHE

Experience the full range at the following retailers

AV Online - Rochdale | **Hifonix** - Sutton Coldfield | **Audio Affair** - Birmingham
Hifi Lounge - Bedford | **The Audiobarn** - Harlow | **KJ West One** - Marylebone
Audio Sanctuary - New Malden | **Hifi Headphones** - Shoreham-by-sea

Distributed in the UK and Ireland by SCV Distribution | www.scvdistribution.co.uk | 03301 222500

Bowers & Wilkins Formation Duo

by Jason Kennedy



It's been over two years now since the Munich High End Show when the audio world discovered that Bowers & Wilkins had changed hands. Long-time owner Joe Atkins had sold to a Californian entrepreneur with a much more forward-thinking outlook. Of course, the nay-sayers sprang into life, although it can't have been an easy time for them when the company expanded its R&D team and moved to a new

facility last year. This wasn't the plan; what happened to "Bowers & Wilkins will be a footnote in audio, and making Internet radios within a year"? I guess the torches and pitchforks will have to wait.

While *nu*-Bowers retains and continues to improve all three of its classic lines, a few months back, word got out that the 'forward-thinking' bit was starting to bear fruit, and the Formation suite is the result. Formation is the first wireless system that the company has produced entirely from first principles, and it's said to be only the beginning. Formation launched with five products: the Wedge, which effectively replaces the Zeppelin portable; the Bar (as in sound-); the Bass subwoofer, and Duo stereo system. The fifth element is called



“Formation doesn’t rely on the integrity of the existing network for all-important aspects like synchronisation.”

- ▶ Audio, an analogue interface that allows you to connect regular audio sources to a Formation system. Various things differentiate these products from others of the same ilk; for a start where more than one Formation device is used, and it’s heavily geared toward multi-room applications, a mesh wireless network is created to tie them together and transmit/receive signals at up to 24/96. As such, Formation doesn’t rely on the integrity of the existing network for all-important aspects like synchronisation; room to room this is one millisecond and between stereo speakers it’s a microsecond, which is fast. This is because the devices talk to one another directly rather than via a router as is the case with regular Wi-Fi. To achieve this degree of channel matching Formation speakers incorporate multiple ‘radios’ to talk to one another and to the access point (router) at different frequencies. They also have one for Bluetooth.

The Duo is the most ‘B&W’ of the Formation products in appearance at least, with a tweeter on top in its own enclosure and a curved front baffle, from which the mid/bass driver protrudes. However, there are significant differences between the Duo and the 705/805 models it looks like. For a start, this is the first infinite baffle (sealed box) active stereo loudspeaker from the company. The presence of two 125 Watt digital amplifiers and DSP means that bass tuning can be done without a port. This gives Duo a more contemporary appearance and allows closer to wall positioning – there is a basic bass and treble tone control in the Formation app, too. The cabinet is made from Formi, a hybrid of polypropylene and wood fibre; the latter provides strength and damping, says B&W, and of course allows for freedom of form. They chose this over more typical speaker cabinet materials because of the need for wireless communication, which can be blocked by wood alone. There is a matrix structure within the cabinet to provide stiffness, very much in the spirit of classic Bowers & Wilkins designs.

The drivers were taken from the two models previously mentioned. The tweeter is a carbon dome from the 700 series and the mid/bass has a Continuum cone from the 800 series – or essentially from the 805D, as it’s the only two-way in that range.

Duo is a particularly attractive speaker even before you consider that you don’t need any other equipment to be visible in the room, and the finish doesn’t have any sense of the plastic about it despite its constituents. The amplifier and DAC are in the base, where there are controls for play/pause and volume up/down on the front, alongside a status light that remains off once the system is set up. There’s no on/off switch; power switching is done automatically, with the only indication of status being the temperature of the metal base.

You can connect to Formation speakers via Bluetooth, Airplay, and even Ethernet alongside its own mesh system. This last allows you to pull data from locally stored or cloud based services. The only operational consideration is that at present you need Roon in order to use the latter two sources. The ▶

HANDCRAFTED SINCE 1967
SUGDEN
AUDIO

THE MASTERCLASS ANV-50

Rescuing Music From Technology



SUGDENAUDIO.COM

“They have remarkable bass extension and an articulate and revealing presentation that remains coherent even at high levels.”

- Formation app is currently only designed for set up. I suspect that Bowers will incorporate playback control into their own app in due course.

Set up was not without its hiccups. Getting the system to a point where I could tell it which channel was which required a bit of patience and it took a few reboots of Formation units, router, and the Roon core in an Innuos ZENith server to get things running smoothly. The Audio box was originally set up as the controller but the system worked more smoothly when control was handed over to the Duos. However, Audio does sounds rather good; I got excellent results with vinyl, possibly because with this source there is a direct connection to the Audio box, which is part of the mesh network. You can make a direct Ethernet connection to both Audio and Duo though, and that brought about a small but worthwhile improvement in timing.

Most of my listening was done conventionally, with the only wires involved being the power leads that are neatly routed through attractively sculpted optional stands. No speaker is truly wireless of course and you could argue that a slimline speaker cable is just as discrete as a power lead. What that discounts however is that with Formation products you don't need any other hardware; the speaker contains the wireless streamer/DAC, amplifier, and drive units. A regular system requires at least one other piece of electronics.

The Duo's sound quality is quite unlike any other Bowers & Wilkins speaker I have tried. This is presumably as much to do with the sealed nature of the cabinet and the on-board electronics as it is with the wireless connection. They have remarkable bass extension and an articulate and revealing presentation that remains coherent even at high levels. There is also a solidity to the sound, which makes them sound a little 'shut in' at times. However, Bowers & Wilkins creates a loudspeaker of great detail and resolution, even if they are not as open sounding as its other lines. Regardless, the lower frequencies are remarkably articulate and extremely well extended. Some familiar tracks revealed far deeper bass than usual, and a lot deeper than a regular speaker of this size can usually manage. This bass depth is extremely attractive and presumably reflects the extra control afforded by active operation. I recall asking Bowers & Wilkins for an active 802 many years back and got the answer that such things were not commercial; perhaps now that they have done the work this dream might be realised.

The Duo is an engaging and enjoyable loudspeaker. It doesn't 'time' as well as a good conventional streaming system of the same price but it goes deeper and plays at higher levels with less distortion than most. But that isn't the point of Formation, which in Duo/Audio form is a serious sound system with the benefits of wireless operation that offers great flexibility of input and, with Roon availability, ease of control. I think it will be more universally appealing when the Formation app can be used for all streaming operations, but even as it stands, this is a very attractive proposition for the modern music lover. +

TECHNICAL SPECIFICATIONS

Formation Duo

Type: wireless, active, streaming 2-way, two-driver stand-mount monitor with infinite baffle enclosure

Driver complement: One 25mm carbon dome tweeter, one 165mm Continuum cone mid-bass driver

Frequency response: 25Hz–33kHz

Crossover frequency: Not specified

Power output: 2 × 125W digital amplifier

Features: Airplay 2, Spotify Connect, Roon Ready, Bluetooth aptX HD (AAC, SBC), DSP crossover

User Interface: Formation app

Dimensions (HxWxD): 395 × 197 × 305mm

Weight: 10.6kg/each

Finishes: black or white

Price: £3,499

Formation Audio

Type: Wireless audio hub

Analogue Inputs: One stereo unbalanced (via RCA jacks)

Digital Inputs: One TOSLink, one ethernet (via RJ45), WiFi

DAC Resolution/Supported Digital

Formats: 32-bit/192kHz, FLAC/WAV/MP3, etc.

Music services/Wi-Fi inputs: Airplay 2, Spotify Connect, Roon Ready, Bluetooth aptX HD (AAC, SBC)

Analogue Outputs: One stereo unbalanced (via RCA jacks)

Digital Outputs: One coaxial S/PDIF (via RCA jack)

Frequency Response: Not specified

Distortion (THD + Noise): Not specified

User Interface: Formation application software

Dimensions (HxWxD): 44 × 215 × 263mm

Weight: 1kg

Price: £599

Manufacturer: Bowers & Wilkins

Telephone: 0800 232 1513

URL: bowers-wilkins.co.uk



Robin Hood



The H390 is a **REBEL**. A **REBEL** by offering so much of the sound performance and features from our Reference products, but at a lower price. A **REBEL** that offers in one integrated product what others do in two or

three. A **REBEL** that provides world class sound, jaw dropping power, and services such as Apple AirPlay, Spotify, Roon. All in a single chassis. All at a price you can afford.



SoundEngine2

Black Rhodium



All cables obey the
Laws of Physics.
Some just sound
infinitely better.

Bespoke high end audio cables hand made in the U.K
www.BlackRhodium.co.uk

Pathos Acoustics Kratos integrated amplifier

by Alan Sircom



The Italian firm Pathos Acoustics is well-known for several things. First, it makes some beautiful-looking electronics, all chrome and wood and shiny metal. Second, it uses hybrid circuits in many of its best-known designs. Also, third is the fact that they sound outstanding; often out-performing many considerably more expensive designs.

Pathos is also well known for its InPol amplifier circuit, which effectively creates a hybrid, pure Class A amplifier, but this tends to appear on the company's smaller products (and, paradoxically, its heavyweight flagship InPower Mk2 amp). To retain a degree of financial sanity (and not require a physiotherapist on speed-dial), the company's big integrated is a non-InPol hybrid design, meaning the input section and preamplifier stage is pure Class A (and uses a set of Tung-Sol ECC803 valves), while the 200W per channel MOSFET-based

solid-state power amplifier is a Class AB design. It also comes with a headphone amplifier that's capable of delivering a very healthy 2W at 32Ω. In short, it's little wonder Pathos Acoustics named this big shiny beast after the Greek god of strength; this thing could arm-wrestle a tree!

Don't view its lack of InPol circuit as some form of compromise, however. Under the hood, the Kratos hides some innovative new design concepts, put in place to significantly close the gap between conventional hybrid designs and InPol. Pathos couldn't and wouldn't have made Kratos a few years ago, as the company would not sacrifice sound quality for added power, but recent advances mean you can have your cake and eat it.

With great power comes great connectivity (hopefully) and the Kratos as standard comes with five line inputs and two balanced XLR inputs. There are options for a built-in DAC and ►

“The hybrid path is a road well-travelled by Pathos, and for a good reason; it sounds great.”

- ▶ phono stage too, although we went with the standard line-level option.

The manual is comprehensive, and in fairness, it needs to be. The basic functionality of the Kratos isn't that minimal, but many operations are handed over to unlabelled and identical buttons on both the front panel and the remote. It's not entirely counter-intuitive, but familiarity comes after many days of head-scratching and flipping through the manual to see whether a specific button changes channels, puts the Kratos in standby, or mutes the volume. Eventually, you get to understanding the layout though, and the manual helps a lot at first.

The hybrid path is a road well-travelled by Pathos, and for a good reason; it sounds great. I started with Andreas Schiff playing the 'Appassionata' [Beethoven's Sonata No 23 in F-minor, from Volume VI of the 2008 recordings by ECM]. This recording is useful in several ways; it should be extremely detailed, the piano tone exposes any weaknesses in the system, it should 'flow' musically, and make you want to listen to more of the Sonatas in the cycle. An amplifier that is too slow, too focused on one performance aspect, or just too coloured in any way would be laid bare, but the Pathos Kratos worked wonders with this recording.

The Kratos isn't a 'dip into music' amplifier; Pathos forces you to drink deep from the musical well. Kratos is not for track skippers and you stay a while as you play an album in its own right. That might lead you away from some modern albums that are little more than a badly-curated collection of an artist's hits with a few fillers, but when you get something glorious like Nils Frahm's *All Melody* recording [Erased Tapes], you start at 'The Whole Universe Wants To Be Touched' and don't come up for air until at least 'Fundamental Values'. That's 10 tracks into a 12 track album; great for listening, terrible for writing notes for a review! In fairness, each track unveils a little more about the amplifier in its own right, from the percussive breaks in 'Sunson' (showing just how well the Kratos copes with a



rhythmically confounding work and its outstanding transient performance), through the very fine three-dimensional space around the performance and the excellent little microdynamic cues in 'My Friend the Forest', to the Tangerine Dreamish and almost Mogwai-like build-up of the title track, and on.

I'm not big on audiophile recordings, but there are a few exceptions. Depending on your viewpoint 'Angel of Harlem' by the acapella group The Persuasions [*The Persuasions Sing U2*, Chesky] is either the gospel/doo-wop version of a U2 song you never wanted, or a welcome alternative to St. Bonio's off-the-chart pretentiousness (Bonio is a brand of dog-biscuit in the UK). This track shows up the dimensionality of the Kratos, in a right way; each singer in the group has his own three-dimensional space, thrown wide of the loudspeakers, with considerable depth and even some height. There is perhaps a touch of lightness to the bass singer's voice, in part because he is to the extreme of the soundstage to the point where some phaseiness might occur, but the energy of the singers and the sheer quality of the recording shines through nevertheless.

In terms of pop-music performances, it's hard to beat 'Animales Hambrientos' by Bebe [*Cambio De Piel*, Warner Music Spain]. My Spanish is pretty much limited to "Mi aerodeslizador está lleno de anguilas", but I can recognise an excellent recording in any language. In fact, not being able ▶



BRACE YOURSELF.

TUK

130 Watts RMS • AMT Tweeter • 5.25" Aluminum Concave Cone • Class D Amp • Bluetooth® with Qualcomm® aptX™ HD
RCA Line • RCA Phono • USB DAC • Optical TOSLINK • Sub-Out • USB Charge • Headphone-Out

kanto 
kantoaudio.com

“A listless performance was never on the cards, and Pathos doesn’t disappoint.”

- ▶ to understand the language has benefits in listening for vocal articulation (it disengages your in-built word assembler, and you can hear the ‘shape’ of the vocals without automatically filling in the blanks), and that articulation is excellent.

This clarity also came through in listening to the title track from Public Service Broadcasting’s *Inform Educate Entertain* CD [Test Card Records]. The track is a very live-sounding recording played over a series of samples from the last 80 years of British movies, TV, and radio. This recording has everything from a Christmas speech by The Queen, to samples from *The First of the Few* (used extensively in the next track ‘Spitfire’), to the pips from Radio 4 news broadcasts. These samples were very ‘front and centre’ yet didn’t detract from the intensity and rhythm of the recording.

With a name like Kratos, a listless performance was never on the cards, and Pathos doesn’t disappoint. It’s full of energy and intensity, on almost everything. Also, it stays the right side of exuberant when needed. There’s a sharp tang of the very high-end here; perhaps it doesn’t have quite the top-end sheen that comes with monumental amounts of money spent on amplification, but instead, it goes for the natural and refreshing. There is a touch of forwardness, which might make some equally forward-sounding designs a little too forward, but it’s also just on the right side of exciting.

There’s one last sound quality point to note, and that’s the headphone socket. In many amps, this is an afterthought, but here this is a real powerhouse. It can drive almost any headphone you could think of and has that combination of refinement and sheer oomph that the Kratos does so well with loudspeakers. The headphone socket’s most significant limitation is it isn’t immediately visible!

The downsides are that sometimes the Kratos is a champion of style over substance. Those lovely-looking heatsinks give the amp an elegant almost Art Deco graphical appeal. However, try to pick the amp up, or somehow rap your knuckles against them, and the language is less Art Deco, more Modern Primitive. Also, as mentioned before, buttons with no information and an elegant silver remote with not a hint of a legend anywhere make the amp less user-friendly than many. Finally, the headphone socket that lives under the main front fascia (just a knob and a ¼” jack socket) could even do with balanced output for more up-scale headphones,

TECHNICAL SPECIFICATIONS

Type: Hybrid stereo amplifier, fully balanced

Analogue inputs: 2 Balanced XLR line, 5 unbalanced

RCA line, 1 balanced XLR direct to the power amp

Optional inputs: HiDac MK2, Phono stage RIAA for MM/MC

Output: 1 Pre out stereo Unbalanced RCA, 1 Pre out stereo Balanced XLR

Preamplification stage: valve, class A, 2 × TungSol ECC803S

Final stage: MOSFET, bridge configuration, class AB

Output power: 2 × 200WRMS @ 8 Ω, 2 × 350WRMS @ 4 Ω

Max. input voltage: 5VRMS

Input sensitivity: 0.7VRMS

Input impedance: 47k

Output impedance: 0.1 Ohm

Pre out gain: 6dB

Gain: 36dB

Headphone amplifier

Output power: 3.3 W @ 16 Ω, 2 W @ 32 Ω

Max. output level: 10V RMS

Dimensions (W×D×H): 430mm × 530mm × 195mm

Net weight: 40Kg

Price: £7,099

Manufactured by: Pathos Acoustics s.r.l.

URL: pathosacoustics.com

Distributed by: UKD

URL: ukd.co.uk

Tel: +44(0)1425 460760

and without it almost hides its light under a bushel. None of these aspects of performance is what you might call a ‘deal-breaker’, though, and that elegant look and sound are oh so very beguiling in the flesh.

It’s hard not to be drawn in by the Pathos Kratos. It’s powerful, yet can sound as refined and as elegant as any tiny valve amplifier. It’s warm, yet not soft and soggy sounding. It fills the room with sound, driving ‘difficult’ speakers with ease and making it more natural to drive loudspeakers to seem like they just got a bit bigger and more powerful. It more than looks the part too. So long as you are willing to put in a bit of button-fu at first, the Kratos might strong-arm its way into your home. +



TRIANGLE

MANUFACTURE ELECTROACOUSTIQUE

AUSTRALE EZ

AT THE DAWN OF AUDIO REVOLUTION



WWW.TRIANGLEHIFI.COM

hi-fi+

BACK ISSUES!



£6
PER ISSUE

**Complete your
collection**

Read previous reviews
of the UK's best loved
audio magazine

POSTAGE & PACKING

UK: £1/Magazine

Europe: £3/Magazine

Rest of World: £5/Magazine

UK orders are sent by Parcel Post,
please allow 2 weeks for delivery.

Overseas orders are sent by air mail.

ORDER TODAY!

www.hifiplus.com

Audiovector R1 Arreté stand-mount loudspeaker

by Alan Sircom



Audiovector's popular core SR range has been with us for some time, but things move on. Although upgradable, the SR models had reached a point where the next generation of technology developed in top-end models like the R8 and R11 simply couldn't filter down into the more practical and affordable models in the range, so the 'SR' series has morphed into the 'R' range.

A surface reading of the R1 might make you think it's identical to the SR1 that precedes it. Appearances can be deceptive, however, as the cabinet and baffles are both redesigned to be 25% stronger, with a deeper and more solid rear baffle in particular. This means lower cabinet coloration.

The deeper you dig, the more you realise there is a lot new in this loudspeaker. For example, the carbon-fibre sandwich cone mid-bass driver is more than just a refinement over old models, it features trickle-down technology from the lighter, stiffer, and more acoustically 'dead' materials found in the cross-woven Sandwich Carbon Driver developed for the R9 Arreté, and the result is a bass driver that delivers more detail and better soundstaging than its predecessor.



Primer from £260

A Revolution in Musical Performance ! 

Digital and analogue cables that will redefine your expectations. 



Primer Stockist

Audio Destination  (Devon) ... www.audiodeestination.co.uk ... 01884 243584 

Audio Therapy  (Newcastle upon Tyne) ... www.audiotherapyuk.com ... 07976 496218 

Choice HiFi  (Richmond) ... www.choice-hifi.com ... 07768 720456 

Future Shop  (Hertfordshire) ... www.futureshop.co.uk ... 0208 9051555 

HiFi Corner  (Falkirk) ... www.hificorner.co.uk ... 01324 629011 

HiFi Corner  (Edinburgh) ... www.hificorner.co.uk ... 0131 5567901 

Homesound  (Edinburgh) ... www.hsound.co.uk ... 0131 6621327 

Martins HiFi  (Norfolk) ... www.martinshifi.co.uk ... 01603 627010 

Rayleigh HiFi  (Essex) ... www.rayleighhifi.com ... 01268 779762 

Studio AV  (Chobham) ... www.studioav.co.uk ... 01753 863300 



Demand to hear Primer cables at your nearest dealer before you make your next cable purchase ! 

“Freedom routes motion-induced distortion away from the magnesium driver baskets.”

► As ever, there is an upgrade path on Audiovector's R Series. You can start with the good (Signature), and upgrade over time to better (Avantgarde) or best (Arreté, tested here). Each step features changes to the tweeter, with concomitant changes to the crossover. The step up to Arreté also introduces cryogenic (NCS Freeze technology) and internal shock absorption, alongside the move to the Arreté version of the hand-made, open-backed AMT tweeter designed specifically for the R series. These changes combine to extend the frequency response of the R1 concept considerably, from 42Hz–28kHz in the Signature version up to 38Hz–53kHz in the top Arreté design, all the while retaining the same 87dB, eight-ohm load.

The other headline change that comes with stepping up to the Arreté plate (on all R Series models, not just the R1) is it ‘unlocks’ the option for what Audiovector calls ‘Freedom Grounding’. Freedom routes motion-induced distortion away from the magnesium driver baskets, taking a grounding feed from the loudspeakers into a spare socket of a power conditioner. You won't need to change your loudspeaker cables, as it plugs into a separate 4mm connector on the rear panel of the loudspeakers, leaving a set of single-wired terminals for the loudspeaker signals. The Freedom cable has no live or neutral conductors, just the earth terminal and conductor are connected. This was first seen on the R8 Arreté floorstander that we tested in issue 165.

Larger models like the R8 Arreté act as technology ‘pumps’, meaning the technologies underlying their designs need to be put under the magnifying glass, but the R1 reaches an audience that expect those technologies to have already been ‘sorted’ and have trickled down into the stand-mount model. Endless and forensic descriptions of the innovations are therefore secondary to the ‘yes, but how does it sound?’ part of the test.

First up, the Audiovector R1 Arreté is extremely ‘amp-chummy’. Audiovector has had long-standing bromances with Naim Audio and more recently Gryphon and Hegel (as in, models from all of these brands have been used during listening tests of Audiovector's speakers), but realistically, you could use the R1 Arreté with almost any amp on the market and get a good performance. OK, so I'd temper that by saying the loudspeaker seems to work best with the sort of damping factor found in most solid-state designs, and no-one is actually going to use an up-market stand-mount loudspeaker like this with a clapped out 45 year old receiver that looks like it lost an argument with a flight of stairs, are they? Used in a proportionally designed system, the R1 Arreté plays nice with its peers.

I've long been a fan of Audiovector's sound, as it's consistent, precise, and refreshingly free from nonsense. So, core changes to the brand could be a worry in case the company ‘throws the baby out with the bathwater’. But the R8 Arreté showed just how the new direction would be mapped out, producing a sound far larger than you expect from the given size of the loudspeaker, but ►



“The R1 Arreté has excellent imaging properties. It creates a soundstage that runs very wide of the speakers and deep too.”

- with all the adroit timing and coherence we have come to expect from the brand. And that's what we get with the R1 Arreté, only more so.

I've always liked the precision and stereo focus of a fine two-way standmount, but usually wish they had the bass drive and energy of a decent floorstander. There are a few designs that hit both goals, but often in trying to cover both bases, they make a hash of the overall performance somewhere. You end up with a loudspeaker that delivers more bass, but sounds boomy, or uneven, or bland, or any one of a dozen different ways to go wrong. The R1 Arreté is one of the few stand-mounts that successfully straddles that gulf between stand and tower.

The R1 Arreté has excellent imaging properties. It creates a soundstage that runs very wide of the loudspeakers and deep too. It's not 'electrostatic-like' (partly because the R1 has more dynamics than most electrostatics) but it is 'holographic' and recordings with good stereo such as Rachmaninov's *Symphonic Dances* [Zinman, Baltimore SO, Telarc] present the sound of an orchestra in layers. This track also highlights its excellent dynamic range, and it bops along at a fair pace, too. The kings of rhythm, who judge every piece of audio by its ability to 'time' will find much to like here. That is hardly surprising, as the previous SR range was popular with 'Pace Rhythm and Timing' fans, but the R1 Arreté makes toe-tapping mandatory with everything this side of listening to news broadcasts.

The R1's ability to resolve fine detail is outstanding. The maelstrom of sounds and samples within Public Service Broadcasting's 'Theme From PSB' [*Inform, Educate, Entertain, Test Card*] can just become a wall of sound, but each individual theme, the detail of picking, playing, and beating those instruments against a diverse set of samples is perfectly teased out here. Add to this a greater sense of musical engagement, a spot of warmth compared to previous Audiovectors, and an ever-agile sound, and the R1 Arreté shines.

The Freedom grounding system is worth a mention here. By helping make the loudspeaker a quieter environment, it makes those innate characteristics of the big speaker in a small box shine through even brighter. It seems to work especially well in the lower registers. It adds authority to the bass, though not in terms of adding extra energy or depth to the sound; instead, just by giving notes the space and air they require, they take on a sense of purpose not commonly associated with stand-mount speakers. People have been experimenting with star-earthing loudspeakers for years; this is the reality.

We are becoming a space-poor species. The pull of the big cities, the limits imposed by new buildings, and the ever-increasing costs of real estate often mean the most expensive part of even the most exotic audio systems is the room in which it resides. Rather than dismiss and disenfranchise those who cannot accommodate a full-size listening room, I prefer to think of this as

TECHNICAL SPECIFICATIONS

Type: Two-way, bass-reflex stand-mount loudspeaker

Drive units: 1x Audivector-produced 4th generation AMT folded ribbon tweeter with acoustic lens, 1 165mm Audiovector Carbon Sandwich mid-woofers

Frequency Response: 38Hz–53kHz (–6dB)

Sensitivity: 87dB/W

Nominal impedance: 8Ω

Crossover point: 2.9kHz

Audiovector Freedom Grounding (cable optional)

Dimensions (W×H×D): 29 × 37 × 19.6cm

Weight: 10kg

Price: €5,800 per pair

Manufactured by: Audiovector

URL: audiovector.com

Tel: +45 3539 6060

the 'Small Room Problem'. There are many ways to overcome this problem, but my preferred solution is to use a pair of bloody good small loudspeakers that deliver the kind of low-end needed for such rooms, so they neither sacrifice performance in the mids nor the highs, and don't swamp the lows. The R1 Arreté is one of the best solutions to the Small Room Problem and have the advantage that they don't cost as much as a new BMW.

Audiovector has successfully filtered the technologies used in the R8 Arreté into models that fit into a wider range of rooms and budgets, and yet has done so without any compromise. In fact, the biggest hurdle faced by the R1 Arreté is its price... it's too low to be taken seriously by the high-end cognoscenti. If you listen with your ears and not your wallet, the Audiovector R1 Arreté is the one of the best stand-mounts available today and has become one of my benchmarks. +

ELEMENT 118 Monoblocks

"Very Highest Recommendations,
with great enthusiasm."
Given the Brutus Award.

Editor in Chief, Dr. David Robinson, Positive-Feedback.com



MERRILL  AUDIO



FLORIDA 2019: The Best of The Show



www.MerrillAudio.net



▶ The Colorado Symphony Orchestra

The United States full-time professional orchestra, the Colorado Symphony embraces a tradition of musical excellence by presenting a diverse array of symphonic performances throughout the year. Originally established in 1989 as the successor to the Denver Symphony, the Colorado Symphony performs in Boettcher Concert Hall and throughout the Front Range, presenting outstanding education and outreach programs, as well as Masterworks, Pops, Holiday, Family, and the exciting new Inside the Score and Symphony on the Rocks series that have attracted a historic level of first-time concertgoers. By presenting music that is both timeless and inspiring, while taking risks with new musical collaborations and interactive concerts, the Colorado Symphony is attracting more diverse and younger audiences than ever before. The increasing popularity of Colorado Symphony concerts as well as a strong fund-raising base not only re-affirms the artistic excellence of the orchestra, but also reflects the Symphony's relevance to its Colorado community and deep-rooted enthusiasm for symphonic music felt by so many individuals across the region.

▶ From the producers point of view

The idea of this CD production is to use an entire microphone set-up of digital state-of-the-art microphones for a classical stereo orchestra recording. All microphones which we have used for this music production are regular products from the new digital product lines of Neumann.Berlin, (Solution-D) and Sennheiser (MKH digital).

The selection of these classical pieces of music are a variety of emotional streams from world famous composers such as Mozart, Brahms, Bach, Beethoven and many more. This series of recordings has been made during some rehearsal days of the Colorado Symphony. It is mainly made for technical demo purposes in terms of practical usability of our digital microphone technology in the field of recording and arts.

My special thanks go to the Colorado Symphony Orchestra consisting of such wonderful musicians; their Resident Conductor Scott O'Neill, to my entire team in the control room and in administration of this project – and to my friend and main mixing engineer, Mr. Mike Pappas, who was and is a highly professional help and technical advisor for all digital recordings.

I also want to thank my friends Tim Schwieger and my Grammy Award winning sound engineer Duke Markos for their contribution to my recording project in Denver, Colorado.



Wolfgang Fraissinet

▶ Neumann & Sennheiser: Two audio pioneers

About Neumann

Georg Neumann GmbH, with its headquarters in Berlin, Germany, is well known as one of the world's leading manufacturers of microphones. The company, which was established in 1928, has a long track record of world-leading product designs and has been recognized with a string of international awards for its technology innovations.

The basis for this success is an uncompromising quality-oriented approach to both product development and manufacture. This ensures that with their unparalleled sound quality, reliability and enduring value, Neumann microphones represent an investment which often outlasts several generations of audio engineers.

In recent years, Neumann.Berlin has been working intensively on the development of the world's first digital microphone system. This has involved basic research regarding a completely new technology. The so called Solution-D family includes a series of large and small-diaphragm microphones. Many of these microphones have been used for this recording.

Since 2010, Neumann offers its expertise in electro-acoustic transducer technologies to the studio monitoring market, and will provide optimum solutions to its customers in the areas of TV and radio broadcasting, recording, and audio production.

Neumann has manufacturing facilities in Germany (microphones) and Ireland (audio monitors), and is represented in most countries worldwide by Sennheiser subsidiaries, as well as by long-term trading partners. Georg Neumann GmbH is a Sennheiser Group company.

www.neumann.com



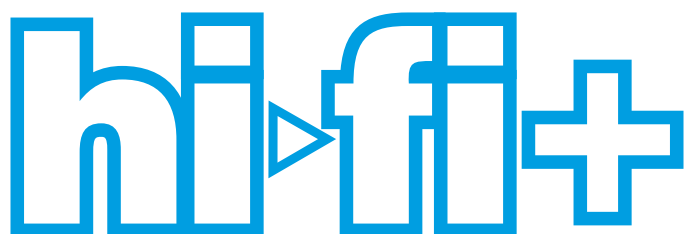
- 2010: KM 130 The first Neumann Studio Workhorse
- 2009: D 91 The first digital microphone
- 2007: U 87 The world's favorite vocal microphone
- 2005: U 47 The first switchable condenser microphone

▶ Digital Neumann mics

Solution-D
The digital workflow goes live.



AVAILABLE EXCLUSIVELY FROM



We at Hi-Fi+ are proud and excited to bring you the new *True Classics* double CD, priced at £17.99 +p&p.

This deluxe recording features 18 of the best known classical works, beautifully played by the Colorado Symphony and conducted by Scott O'Neill. They have also been recorded to highlight the best sound quality, thanks to the work of producer Wolfgang Fraissinet, who – being CEO

of audio engineering experts Neumann – probably knows more about microphones than almost anyone else in the business. This must have double CD in its exclusive presentation case is perfect for any music lover or audiophile.

To purchase please visit www.hifiusplusstore.com

Naim Mu-so Generation 2 Wireless loudspeaker

by Simon Lucas



In good audio design, like in politics and theatre, 'Talent' is giving the people what they want. 'Genius' is giving them what they want before they even know they want it.

That's why Naim's original Mu-so was a genius product. Before Mu-so came along, wireless speakers were somewhere between a frippery and an irrelevancy – they most certainly were not a viable source of high-quality audio entertainment. However, Mu-so, with its blocky good looks, its exquisite control wheel, and the glow of 'authentic hi-fi' that comes from being produced by a company with a global reputation and decades of experience, was that rarest of things: a game-changer.

New ground can only be broken once, of course. Fast-forward five years to today and every brand who thinks they have some

cachet wants to relieve you of big money for a wireless speaker. So Naim is back with a refreshed and revitalised Mu-so, ready to put the pretenders back in their boxes.

That's the theory, anyhow.

It's mightily tricky to tell Mu-so Gen 2 apart from the product it replaces. At a glance, they're nigh-on identical – only if you put them side-by-side will you notice the marginally more significant cabinet (13% bigger by internal volume) and the marginally smaller heat-sinks. Either Naim has unshakeable faith in the piece of industrial design it originated five years ago, or there has been a collective crisis of design confidence in Salisbury.

There's no marketing crisis at Naim, however. Mu-so 2 is a significant 30% more expensive than the outgoing Mu-so – and Naim is prepared to relieve you of an additional £50 if you fancy a grille covered in anything other than grey/black. Naim spent a long time researching acoustic cloth to cover the grille, and the grille itself is a new design. Surely the fact it looks just like the old one is pure coincidence.

Mu-so picking up where the old model left off in terms of build quality is no bad thing, though. The burnished aluminium wrapping looks and feels a treat, and while the control wheel has gained some additional proximity controls, it remains the same smooth-gliding and all-around tactile delight it's always been. ►

“It turns out that 450 well-engineered watts of Class D power is more than enough to generate feral output levels.”



Behind the expensive grille is a forward-facing six-driver array – from the outside edges in, you’ll find two doped-paper midrange drivers (with tuned mass damper technology courtesy of sister company Focal), two silk-dome tweeters and a pair of ‘racetrack’ bass drivers that improve upon those in the original Mu-so. Each driver receives a useful 75 watts of Class D power – and, let’s face it, a total of 450 watts of power is seldom to be sniffed at, particularly when it’s packed into such a relatively small speaker. However, for those who fear these numbers may read as a little tentative, there’s a bass reflex port venting at the bottom of the Naim’s cabinet, just to the rear of the transparent Perspex plinth on which it sits.

Inside the ‘bigger-than-before, honestly’ cabinet (which has had its internal bracing and baffle moulding reengineered in the name of improved rigidity and internal vibration rejection), Naim has embedded all digital-to-analogue conversion circuitry within the amplification module. The company calls this ‘direct digital amplification’ – a native resolution of 24bit/88.2kHz seems a bit meagre, though, even if Mu-so 2 is capable of downscaling from 24bit/384kHz (via UPnP, wired or wireless) and 24bit/96kHz (via digital optical). If Mu-so 2 is meant to represent

the state of the ‘wireless convenience’ art, a genuinely high-resolution native resolution of at least 24bit/96kHz would seem to be preferable, if only in terms of credibility. There’s no facility with Tidal’s MQA-derived ‘Masters’ tier, either, which is a pity – because everyone knows this is one of the better-sounding streaming services.

As well as Ethernet, Wi-Fi, and digital optical connectivity, the Naim has Bluetooth 4.2 (another sadly suboptimal number), a USB type-A socket, a 3.5mm analogue input, and an ARC-capable HDMI socket – so TV sound is suddenly firmly on the Mu-so menu too. Other options are accessible via Apple AirPlay 2, Spotify Connect, Chromecast Built-in, Tidal, and vTuner internet radio. Mu-so 2 can even join in with your multi-room system using either Apple Home, Google Home, or the (mostly stable, mostly not frustrating) Naim app.

A brand-new digital signal processor oversees the whole shebang. Naim claims it can process two thousand million instructions per second (2,000 MIPS in chip-maker parlance), against which the original Mu-so (150 MIPS) suddenly looks like a bit of a mouth-breather.

When the discussion turns to the Naim Mu-so Generation 2’s sound quality, it’s probably easiest (in the first instance) to ignore the ‘quality’ aspect and focus instead on ‘quantity’. It turns out that 450 well-engineered watts of Class D power is more than enough to generate feral output levels of the sort that can take you off all your neighbours’ Christmas card lists and placed instead on some kind of national register.

Recordings such as Sonic Youth’s *Sugar Kane* [DGC] – that thrive on total volume, on dynamic variances great and small, and well-marshalled drive and attack – positively vault from the Mu-so 2. The harmonic subtleties of each guitar, the slurred bass, and the shining percussion are all given due prominence. Better still, the band are all integrated into a convincing whole, and this acts to propel the song forward remorselessly. No area of the frequency range sounds overstated or underplayed, and timing is adept enough to make the recording sound like a performance rather than a collage.



Cardas Audio

Established 1987

Clear Cygnus Speaker

*Cardas Grade 1 Ultra Pure Copper • Matched Propagation,
Golden Ratio Scaled Multi-Stranded Litz Conductors • Cable
& Conductor Geometries Based On The Legendary Clear
Speaker Cable • Machined Billet Copper Connectors Plated
With Rhodium Over Silver • Solder-less, Two Stage, 10,000 PSI
Compression Die Forged Terminations • Made in USA*



**Cygnus
Power**



**Cygnus
Interconnect**

Cardas Audio • Bandon, Oregon • 541-347-2484 • support@cardas.com • www.cardas.com

“The burbling electronica decays with real precision. Not even gimpy, club-footed rhythms can throw the Naim.”



TECHNICAL SPECIFICATIONS

Type: 3-way, six-driver, desktop wireless speaker with bass reflex port

Driver complement: Two 25mm soft dome tweeters; two paper midrange drivers; two 'racetrack' bass drivers

Frequency response: 30Hz–20kHz

DAC resolution: 24bit/88.2kHz

Audio formats supported: WAV, FLAC, AIFF, ALAC up to 24bit/384kHz; MP3, AAC, OGG, WMA up to 16bit/48kHz; DSD 64, 128; Bluetooth SBC, AAC

Internet radio: vTuner Premium 5

Streaming: Apple AirPlay 2, Chromecast Built-in, UPnP, Spotify Connect, Tidal, Roon Ready, Bluetooth 4.2

Dimensions (HxWxD, cm):
12.2 × 62.8 × 26.4

Weight: 11.2kg

Finishes: burnished/anodised aluminium with grey/black grille (olive, peacock or terracotta grilles as cost option)

Price: £1,299

Manufacturer: Naim Audio

Tel: +44 (0) 333 3219923

URL: naimaudio.com

► Detail levels are high too, and that's especially welcome down on the subatomic level – tiny variations in Lee Ranaldo's guitar playing are observed but not made a big deal. Moreover, the Naim's facility for handing over the most delicate details shines during a 24bit/96kHz (downscaled, of course) stream of Keith Jarrett's *The Köln Concert* [ECM]. The marginal nature of the Bösendorfer baby grand that was foisted on Jarrett at the last moment, the wild nature of his playing, and his outright immediacy, are all described in a fuller, and more convincing manner than any other wireless speaker can muster. There's a visceral quality to this recording, thanks in parts to Jarrett's vocal punctuations, that the Naim seems to understand entirely.

Trading down (in file quality terms, at least) to a bog-standard Spotify stream of Joan As Police Woman's divine *Anyone* [Reveal] allows the Mu-so 2 to demonstrate its sound-staging credentials and its remarkably even-handed tonality. There's a strong suggestion of the microwave-style 'cooking without heat' about this recording, but as it gently builds to a voice(s)/bass/drums/electric piano/horn section crescendo, the Naim organises the stage with real authority. It allows elbow-room for each performer without spoiling the apparent unity of their performance, even as it makes the fact that the mic on the drummer's hi-hat is mere millimetres from the cymbal itself plain.

Some of this composure and control deserts the Naim if one takes real advantage of its prodigious volume levels – an ear-splitting pass through Stereolab's *Jenny Ondioline* [Duophonic] shows the iron grip loosening somewhat. Some high-end sounds, in particular, a singer's plosives, can start to draw more attention to themselves than they really ought. However, while the three-dimensionality of the Mu-so 2's sound-stage is compromised, the Naim stops well short of getting coarse or shouty. It's almost defiant in the way it just gets louder.

It's pretty accomplished on a rhythmic level too. The antiquated modernity of Perrey & Kingsley's *Kaleidoscopic Vibrations: Electronic Pop Music From Way Out* [Vanguard] snaps along nicely, and the burbling electronica decays with real precision. Not even gimpy, club-footed rhythms can throw the Naim.

The Naim Mu-so Generation 2 is, in and of itself, quite an accomplishment. Just like the original Mu-so, it advances the idea of what a wireless speaker can be capable of (both in terms of flexibility and sheer fidelity) while advancing the upper limit of how much a wireless speaker might realistically cost.

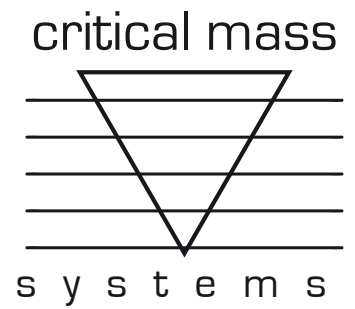
Anyone hoping for a design upheaval, or those who feel high-resolution audio starts at 24bit/96kHz, or folks who know a stable and entirely reliable control app when they use one may be mildly disappointed. The rest of us should simply get on with enjoying the music the Mu-so 2 is making. +

it just sounds right



CONRAD-JOHNSON

GAT S2 preamplifier



Introducing **Center Stage²**

I can't help thinking that this is the best of the best.

– Alan Sircom, Editor, *Hi-Fi+*



ACCESSORY OF THE YEAR



DISTRIBUTED IN THE UK BY

Select Audio

Ross House, Flimby, Maryport, Cumbria CA15 8RX

Tel. 01900 601954

www.selectaudio.co.uk

REVOLUTIONARY AUDIO FEET | MADE IN THE USA | TOTAL IMMERSION EFFECT

WWW.CRITICALMASSSYSTEMS.COM

Nordost QPoint harmonisers and QSource power supply

by Alan Sircom

Although several cable brands have branched out into other fields in audio, Nordost was the first to extend its coherent cable ethos out to products that work throughout a good audio system. These have included QRT power purifiers, distribution, cones, feet, and risers, treatments, discs, and more recently grounding devices. QPoint resonance harmonisers and the QSource linear power supply that feeds them (and other devices) take things a stage further.

QPoint addresses the problem that every powered component has an electromagnetic resonance; in essence, it hums along with the juice. The significance and intensity of that resonance varies from part to part, but it's always a non-zero figure, and when you think of the number of elements in a single audio device all quietly humming different tunes, it's not hard to imagine just how much that gets in the way of the sound of your system. You can't eliminate that resonance so, as the name suggests, QPoint acts to harmonise or synchronise that resonance, by placing a thin puck-shaped device in line with the most component-rich part of an audio device. If you are unwilling to pop open the lid and take a look inside, Google is your friend here; look at an internal photograph of your product, find the bit of the circuit board that has the most components and place the QPoint there. QPoints emit what Nordost coyly calls 'a subtle field' that brings the resonance of each element in line. Before you start guffawing at the back, think of it this way; get a dozen mechanical metronomes, set them to the same tempo, wind them up, and set them off, but not all at once. You start with discord, but the metronomes quickly synchronise; one dominant metronome defines the beat, and the more submissive ones follow along, like some bizarre rhythmic BDSM session. The QPoint produces the dominant resonance, and its field brings all those components within a device into lock-step. There are two different field effects that you should experiment with to see which works best in your system. Typically, a system responds to 'all Type I' or 'all Type II' (the LED at the front of the QPoint indicates which of the two field types is operating, and there's a toggle switch to move between them). However, in some larger pre/power systems, the sources and preamp respond best to Type I and the power amps Type II. You should aim to use one QPoint per device eventually.



As standard, the QPoints come with 5V 'wall-wart' switch-mode power supplies and Lemo connectors. However, Nordost also designed the QSource linear power supply to give the system a bit of a boost. QSource features six Lemo connectors, with a high-performance transformer, and QRT treatment that delivers smoother, cleaner DC to those six outputs. While this might seem like gilding the lily for the QPoints, two of the six outputs can be configured to deliver power to other devices that rely on switch-mode supplies. The most obvious candidate at this price point is Roon's Nucleus, but those who use ►

“In a similar manner, QPoints bring exactness and focus to the sound.”



PRICES AND CONTACT DETAILS

Nordost QPoints: £690 each

Nordost QSource: £2,300

Manufactured by: Nordost

URL: nordost.com

Distributed by: Renaissance Audio

URL: renaissanceaudio.co.uk

Tel: +44(0)131 555 3922

- ▶ smaller phono stages, DACs, or headphone amps can also apply. The QSource requires a proper power cord (naturally) and has a grounding connector to attach into a QKore system.

Predictably, I got QPoints dead wrong at first; placing the QPoint under a power supply of a device does lower the noise floor of that device, but that's only a fraction of what it can do. Fortunately, I made the bold, emasculating step of reading the instructions and tried again. The sense of bringing the whole system production together is palpable. It's like 'blueprinting' and 'balancing' an engine, where an engineer re-builds an engine to the tightest possible tolerances, using components made as produced, only more optimally. In a similar manner, QPoints bring exactness and focus to the sound.

In most cases, the first and most immediately identifiable change to the sound is its coherence; the music sounds more 'right' and musicians sound more like they are playing together with QPoints in place. After that, you tend to notice an increased sense of dynamic freedom to the sound, a little like your amp and loudspeakers increased in size and power handling. This isn't 'wayward', but more precisely controlled, with more broad, dynamic force.

The more integrated and complex the unit, the more significant the change; I used it to excellent effect with a Melco M10 and the Mark Levinson No 5805 integrated amp also tested in this issue. In any setting (including those mentioned above), the change is quick and easy to hear – a minute of the title track from Nils Frahm's *All Melody* [Erased Tapes] or the Sibelius Piano Trio playing the first movement of the Korpo [Yarlung Records] should do it.

Adding the QSource was impressive in its own right. The wall-wart power supply for the QPoint was sufficiently isolated from the central system AC distribution block, so its influence should have been minimal, especially as we are talking about subtle fields working on resonance harmonisation. Moreover, it helped clarify the differences between the two settings on the QSource,

making one pop into focus more. Just as significantly, using the separate power feed had a significant effect when using a wall-powered hard disk drive.

However, QPoints and QSource are probably not for the neophyte. They are the kind of products that fit into an already relatively 'Nordosted' system, somewhere around the Tyr level of performance, and I am also reasonably sure that most QPoints go into systems that go beyond the simple integrated amp solution. The cynic in me imagines the listener is already 'softened up' for QPoints, but I also suspect QPoints requires an already pretty well 'sorted' system and this brings its ducks in a row (or more accurately, a more orderly, harmonised, and synchronised row). QPoints is more about 'quality' than 'quantity'; however, so don't just let price be your guide.

There is a sense of drilling deeper into system performance with QPoint, and deeper still with QSource. Equipment that is already singing sings a lot better with QPoint and QSource in place. The acid test here is removing them; in a well put together system, taking them out of the system is an immediate and undeniable step in the wrong direction. If the audio components are the cake, proper cabling and physical and electrical grounding are the icing, then QPoint and QSource is the cherry on top. Ultimately, that means tastier cake! +

brianandtrevors



relaxandlisten

www.brianandtrevors.com www.houseoflinn.com www.booplinth.com

ATC . booplinth . Chord Cables . Entreq . Graham Audio . Innuos . Kudos Audio . Linn . Melco . Naim Audio . Puritan Audio . Quadraspire . REL . Roon . Sugden Audio . Vitus Audio

MAGNEPAN
INCORPORATED

“The 30.7s deliver sound quality competitive with (and in some respects superior to) loudspeakers ranging from two to nearly ten times their price.”

- Chris Martens, HiFi+



Life's just better with a
DECENT AUDIO System

t: +44 (0) 56 0205 4669
e: info@decentaudio.co.uk
www.decentaudio.co.uk

DECENT AUDIO
sound distribution
OFFICIAL UK DISTRIBUTOR

Gutwire Cube Series power cords

by Alan Sircom

Gutwire's six-strong Cube series of power cords is core to the brand and one of the most underrated groups of cables in the business. We are looking at three models in the range; the £950 entry-level Iris³ and the £2,499 Pure³ (the remaining Clear³, Air³, and Power³ are all nestled between these two price-points), and the top-of-the-tree X³ at £4,900.

All Cube cables have very similar characteristics and feature a couple of 'firsts' for the brand. Cube is the first set of power cords to use Germanium in their construction (in RF and EMI rejection) and is the first to use a hybrid of solid core and stranded cable throughout. Gutwire uses highest-grade copper throughout its lines, preferring to cold weld terminations rather than use solder for the optimum connection. Everything from the wire-weave to the outer connector shell is both custom-made and made for the task. It's hand-built all the way too.

Our trio of Cube cables came finished in the same fetching shade of light grey (although the cords are colour-coded in the Asian market). It also sports a white floating grounding wire wrapped around the complete cable. This ground attaches to the product to which the cord connects and includes a bulldog clip. Not all products benefit from this floating earth connection, so Gutwire recommends experimenting with and without the cable on a per-product basis.

The three Cube cables use individually shielded conductors with a braided copper shield and a Teflon/Polyethylene insulation. Iris³ uses Wattgate's 320i 15A IEC connector at present, but this should change to Furutech's FI-38R soon. The UK-sold Cube all feature Furutech FI-1363 R UK plug, and many feel Furutech sounds better than their Wattgate equivalents. Pure³ and X³ feature the top-of-the-range Furutech FI-50 carbon fibre/steel variant.

The main difference between Pure³ and X³ is the degree of Electron Rectification Processing (ERP), with the Pure³ making it to Level 2 and X³ to Level 3. ERP is a passive filtering process developed by Gutwire that is suggested to compensate for the instability of Alternating Current. ERP is also distinct from a power conditioner in that it doesn't

have any form of transformer coil. As a result, it also doesn't have any lag or dynamic limiting associated with power conditioners.

Musically speaking, Gutwire signed the Hippocratic Oath years ago. "First, do no harm" runs like a red thread through Gutwire's cable designs and primarily through its power cords, and this is mainly the case in the Cube designs. It might not be the most alluring 'sell' in cable, but high-quality cables are an attempt to limit the adverse effects of wire on a signal. Meaning the best ones do the least. Or at least, they should, and that's what Gutwire does so well. That absence of brash leading-edges might come as a shock to those of us used to more upfront and zingy sounding cables. Gutwire takes the more civilised and mature path of presenting the sound as is, instead of confusing brightness and forwardness as detail and excitement. The reason why that is a road less well-travelled is it exposes downstream limitations, be they in the electronics, the transducers, or even the recording itself. However, while this might typically mean the cheapest cable is the most user-friendly (as it helps mask those limitations), that's not the case with Cube. Arguably, X³ is the most accessible of the three, possibly because its 'ERP' system helps feed more needy electronics with more refined power delivery. That it's also the best of the three in all respects helps!

Starting from Iris³, the sound is typified by an extraordinarily lucid coherence across the board, with a soundstage wide and deep, and just this excellent sense of order to the music. The recording needs to be good, as do the musicians – even that modern staple of audiophile demos, Malia, is prone to a spot of mild signal compression in the upper registers to give her voice added body ['Celestial Echo', Malia and Boris Blank, *Convergence*, Boutique]. This compression is not troubling and does not detract, but the truth is out with Iris³, so imagine what it might do with Oasis!

Moving up to Pure³, that coherence and soundstaging are improved, but what comes to the fore is a sense of unforced detail rising out of nothingness. Pure³ is a window on your system's soul, and if that system isn't civilised enough to cope with such naturalness, Pure³ will tell you. Get it right, however,

“Music at its best is a visceral experience, but with X³, it’s real head-meets-heart stuff.”

and the system begins to fly and soar. This sound is music unconstrained by audio; music deserving of such transport sounds like the equipment is just moving out of the way to let the notes shine through. Andreas Schiff playing Beethoven’s Appassionata piano sonata [ECM] is an excellent example.

When used in a system built with honesty, naturalness, and musical integrity in mind, X³ gives the feeling of getting under the skin of music, and the experience becomes all the more pivotal and exciting. Music at its best is a visceral experience, but with X³, it’s real head-meets-heart stuff. Beethoven’s sonatas again; they expose both the passion of the composer and musician, but also Beethoven’s almost Kantian moral idealism frozen in note-form. Yes, that’s about as pretentious as it gets, but there is something about this level of audio transparency that transcends our standard vocabulary. Its performance places X³ in the company of the absolute best power cords on the market, irrespective of cost.

There’s an apparent intra-Gutwire comparison here, between models in the Cube range and those in the SV series we tested in Issue 170, especially as SV-16 and SV-22 are similar in price to Pure³ and X³, respectively. What strikes you at first is their consistency. The two SV cables have much in common with the two Cube cables; both pairings are broadly similar in performance, and the step between SV-16 and SV-22 is on a par between Pure³ and X³. In both cases, SV has

PRICE AND CONTACT DETAILS

X³ Power Cord: 6 ft (1.85m) £4,900

Pure³ Power Cord: 6 ft (1.85m) £2,499

Iris³ Power Cord: 6 ft (1.85m) £950

Manufactured by: Gutwire

URL: gutwire.com

Distributed by: Epicurean Audio

Email: simply_better@yahoo.com

Tel: +44(0)780 556 7630

a slight upper-mid edge compared to the ultra-neutral Cube, but I can see that many might find that alluring.

It’s Gutwire Cube’s absolute honesty that counts here. Iris³’s neutrality helps you resolve system unbalances. Pure³ is the next step and shifts that system’s naturalness into a higher gear. Finally, X³ is the reward for making a system of the most exceptional levels of maturity and refinement. If you built the best in audio, it deserves X³! +





Redefining audio components and systems, unique low resonance audio structures, 'Direct Contact Points', energy grounding paths, combining to produce outstanding performance.

Full stand price range £575-£2,500

HiFi+ Issue 173 July 2019 Alan Sircom
LAS-4 Integral & LAS-4 Concert review



Select partners & where to buy...

Audiophilia Edinburgh
The Music Room Glasgow
Definitive Audio Nottingham
Strictly Stereo Stockport
Audio Destination Tiverton Devon
Midland Audio Xchange West Midlands
Guildford Audio Guildford
Oxford Audio Consultants Oxford
Signals Audio Ipswich

MADE IN GREAT BRITAIN

LAS-4 Concert | LAS-4 Integral PLUS | LAS-4 Integral | LAS-4 AV | LAS-9 Discovery

For further information visit www.lateralaudiostands.co.uk

"ONE OF THE BEST TURNTABLES IN THE WORLD"

Long Live Vinyl Magazine

Helping you recreate the original sound

Origin Live's range of analogue products have consistently won awards for their exceptional performance, innovative design and outstanding musicality.

"A new benchmark for musical communication" **STEREO TIMES**

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

"One of the best turntables in the world the sound is stunning. An incredible design with amazing insight in sonic terms" **LONG LIVE VINYL**

"The best tonearm I've heard" **HI FI WORLD**

"The singularly most addicting piece of gear I have ever heard" **10 AUDIO**

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



Sovereign Turntable with Enterprise-C Tonearm

What Makes the Best Turntable?

Our success comes from better design.

- Light Speed Controller ensures your records spin at absolutely constant speed.
- Multi-Layer Platter absorbs vibration from your playback.
- Superior Materials bring you the best performance.

"Our turntables leave one wondering how such massive differences can possibly exist, when to all outward appearances things look the same" - Mark Baker M.D 1986-present

Read the full article "What makes the best turntable?" online at: www.originlive.com

Origin Live Tel: +44 02380 578877 E-mail: originlive@originlive.com

For full information see: www.originlive.com



MEET YOUR MAKER

Primephonic

by Alan Sircom



Primephonic does things differently. Frustrated at the idea of there being no legitimate streaming service for classical music (one that addresses the needs of classical listeners and provides a valid pay model for recording artists), a European team created one. And, while that first team fell by the wayside, the concept has been picked up by new CEO Thomas Steffens, and Primephonic's new model is proving so successful, it has quickly gone global.

We spoke to Steffens about the state of classical music streaming, why there is a need for Primephonic in the classical realm, how the company differs from the Spotify-shaped elephant in the room, and whether there's a Primephonic for jazz in the pipeline.

How did the service come about?

The company started in 2015. But those founders already they are not around anymore. Basically, we restarted the company in 2017 and I joined in the Fall of 2017. We quickly started redeveloping our product at the end of 2017 and eventually went live in September of 2018. We then rolled Primephonic out in three countries (including the UK) to see who buys it, who likes it, and what changes we should make.

This was more than just a beta test; it's the full system software, but provided to three countries before the full global launch. That said, we saw what you liked and what you didn't like about it. And in general we focused on what you did like. So, in the Summer of 2019, we went for a fully global launch, based on the feedback from those first three countries. ▶



► **How big is the team now?**

I think we are at about 30 people, most in Amsterdam, a few in London, and a few in New York. Of that, about 12 are coders, there are three full-time curators, a support team of four, a marketing team of five, myself, and that's about it!

And how many subscribers do you have?

I am not at liberty to say at the moment, but, we are getting the app downloaded more than 2,000 times a day!

What classical labels work with Primephonic?

Almost all of them! There are so many Classical labels, we can't get the lot, but we think we are getting 95 per cent or more. There are a couple of big hitters who categorically refuse to release anything apart from CD, but that's the exception, not the norm anymore.

Why do you think classical music metadata is so poor?

It's poor because streaming from the beginning has been designed for pop music. The early adopters here were typically listening to pop and hip-hop, and the metadata construction for those types of music are very straightforward. After that, they opened out the metadata to all genres only to find out it doesn't work as well with classical music.

The same happened right back when the metadata for CD was developed. Classical music has always been too

small to matter. As a result, the algorithms used by services like Spotify are designed for pop and hip-hop, too. They all have a 'one technology fits all genres' approach, and decided they were not going to change their metadata and algorithms for one small genre like Classical music.

Is this really a big problem?

Yes, because it means consumers probably won't get introduced to anything like classical music now. And streaming services are replacing radio for many young people.

What about older buyers. Do they stream classical?

Yes! Our research shows the average classical music buyer is 46 years old. They are usually of above average income and are more tech-savvy than average. Yes, there are a core of Classical lovers who own a lot of music, but Primephonic gives you access to the 50+ classical albums launched each week, and a streaming service costs you less than a single CD per month. And that's why Apple announced the demise of iTunes; downloading will not be around in three years!

Of course there are people who still only play CDs, but we remain worried for them. CD drives and their circuitry is becoming ever harder to get hold of, and we could face a time where there will be no new CD hardware available to anyone. That could happen sooner than anyone thinks. We're moving to a streaming world, whether we like it or not. ►



WBT-PlasmaProtect™
 A leap in quality for audio connectors
 For further information visit wbt.de



MidlandAudioexchange

emmLabs

DV2 Integrated Converter.
 Advancing the State of the Art.

emmLabs

“We have better recommendations because we don’t use algorithms, or ‘artificial unintelligence’ as we like to call them.”

► How is Primephonic different?

We think we are different in four important ways. We have a better search engine, based on Classical-specific metadata. We have better recommendations, because we don’t use algorithms or ‘artificial unintelligence’ as we like to call them, We have higher audio quality than most streaming services. Finally, we have more album information.

Most search engines are compromised for classical music listeners. If you go to Spotify or Apple Music and type in ‘Mozart Symphony 5’, you get Mozart Symphony 39 because its K (for Köchel catalogue) number starts with ‘5’. If I type ‘Mozart Piano Concerto 12’ I do get Mozart’s Piano Concerto 12, but I get the second movement instead of the full version. If you know PRECISELY what you are looking for in something like Spotify, you’ll definitely find it, but if you don’t have that knowledge to hand, you probably won’t.

Human recommendations are different from algorithm-based recommendations because algorithms include popularity indices, and what was popular six months ago isn’t popular today. That might be the case with the latest Ed Sheeran single, but not with Chopin. Classical listeners don’t want to get introduced to ‘What’s Trending Now’; they might want to be introduced to a piece of music that has been around for a very long time, but still want to hear it.

Of course, the classical music canon is so large, nobody’s heard all of it. So, the advantage of recommendations is you get the expert – lots of experts - not the algorithm. This is why we call it ‘artificial unintelligence’; if you type Classical into Spotify, you’ll get Classical Moods, or Classical Chill-Outs... not the kind of things someone who wants to learn about classical music wants to hear, and not the sort of recordings that will be recommended by our team of experts.

We hire experts to make new recommendations every week, which is why we have sections such as ‘Composers Undiscovered’, or ‘Unfamous Works of Beethoven.’ This is not simply quirky; it’s how you expand and deepen your classical music knowledge.

Then there’s audio quality. Spotify is only available in a format comparable to MP3, which we think works well for most pop music fans. But for classical, they hear the difference when they hear the soprano going for the high note, or when an orchestra is playing Mahler. The subtle nuances get lost in

compression. We make sure the listener gets the best sound quality from their streaming service.

Finally, there’s album information. If you go to Spotify and look up a classical track, it’s hard to find the name of the conductor, the orchestra, even the soloists. When you think about it, if you have a Mozart symphony conducted by Simon Rattle, and performed by the LSO, Spotify cannot work out whether ‘Mozart’, ‘Rattle’, or ‘The LSO’ is the artist, for example. We define these fields by ‘Composer’, ‘Conductor’, ‘Orchestra’ and so on.

How important is good curation?

We have human curation, not curation by algorithm. So we have people listening to all new classical releases, they select the most iconic versions of a piece, based on their own findings and those of other experts. This is useful, because if you list something like Beethoven’s Fifth symphony, there are literally 550 versions to explore. That’s curation by expert and it is not metadata based.

You can ‘drill down’ into a composer’s works. So, for example, you can listen only to Bach’s orchestral works, you can sort them by date of composition, age of the recording, and more. Or, you could just go to the Baroque period and filter your search from there. It leaves your options open.

In the Netherlands, there was a survey that showed interest in classical music is stable across all ages, but younger people didn’t have access to the same information their parents had. They rely on their streaming services to provide music, but those services don’t do classical any more. We’re trying to redress the balance. But if we don’t help them develop the latent interest in classical music that they demonstrably have, we’re all lost!

Is there a Primephonic Jazz on the way...

To make a service like Primephonic you have to be passionate about the genre, you have to know the right people to approach to make the curation work, know the artists, the recordings, and the labels. While the coding is similar, the expertise is simply not there. That’s not to say there won’t be something like Primephonic in the jazz world, but it probably won’t be Primephonic who make it. We’d be happy to advise those who have the same passion in jazz, however. +

CLONEY

AUDIO
HOME ENTERTAINMENT

Harbeth 

A World of Natural Sound

For 40 years Harbeth has refined the BBC loudspeaker legacy, creating loudspeakers in worldwide demand for their unbeatable clarity and resolution.

www.harbeth.co.uk



Photo by Harbeth customer: @consideredthings

ARCAM - AUDIO RESEARCH - B&W - CAYIN
CLASSE CLEARAUDIO - COPLAND - DEVIALET - LAVARDIN
LEBEN - MARTIN LOGAN - MERIDIAN - NAIM - PRIMALUNA
QUAD - REGA - SME - SONUS FABER AND MANY MORE



THE BEST ADVICE, HOME INSTALLATION AND
AFTER SALES SERVICE IN IRELAND - SINCE 1966.

55 Main Street, Blackrock, Co. Dublin, Ireland.
T: +353 1 28 88 477 www.cloneyaudio.com

SPEAKERS CORNER



25 YEARS
PURE ANALOGUE

Audiophile treasures with superb, entirely analogue mastering on 180g virgin vinyl - for more than 25 years.



Ry Cooder
Jazz

Brahms
Symphony No. 1



Elvin Jones
Midnight Walk

Boz Scaggs
Boz Scaggs



The Charles Lloyd
Quartet
The Flowering

www.speakerscornerrecords.com

MEET YOUR DEALER

Audio Exotics, Hong Kong: a new approach

by Alan Sircom



was going to make this feature a fairly normal 'Meet Your Maker' with a few pithy interview questions fired out at CEO/Founder Chris Leung (above left) and Managing Director J Lam (above right) of Audio Exotics. OK, so it would have the Hong Kong angle, but it would be going over the same pathways. But then I went to both studios just after the Hong Kong show and quickly realised this wasn't going to be anything like 'normal'. In fact, it's the start of a series of features about the nature of audio retail in today's world.

The company has three separate and very different audio experiences, all on Hong Kong Island. The first is the CK Music record store in the Central district. Unlike most record stores world-wide, this is run along audiophile lines. The LPs are curated to find the best sounding albums, including many records from the late Harry Pearson's Super LP list. These are also able to be played on

one of two extremely good Audio Exotics systems. These had been stripped down for the show at the time of visiting the store, but this was clearly Not Your Average Record Shop.

From here, it's a short jump and a 30HK\$ cab ride to Audio Exotics in Sheung Wan. This is where the 'unlike most stores' aspect begins. Most Hong Kong audio stores (and there are still a lot of them) are like bazaars; packed to the ceiling with every product you could wish for (and more than a few you wouldn't wish for, ever). The idea isn't 'the customer is always right', but 'the customer's money is always right in our pocket!'. Audio Exotics is not like that; if anything, it's more like a listening room of a Hong Kong high-end. There are not a plethora of components, just a system... a very good system, but just the one system. You are not met by a corridor of

boxes or a wall of loudspeakers. Granted that system changes over time and things are assessed and inserted, but there are also core constants, such as Cessaro Firebird horns, Da Vinci and Vertere turntables, Wadax digital audio, and so on. Products that feature regularly (such as a Robert Koda K15EX preamp and the excellent Engstrom ARNE 300B amp) get pride of place in this system, too. The core component in this system, however, is the Tripoint passive EM/RF passive filtration system. This revolutionised Audio Exotics and the direction it took several years ago; "No Tripoint..." says Chris Leung, "...no Audio Exotics. It's as simple as that!". Because of his close relationship with the American company, he had the latest version of the Troy NG from Tripoint, and Chris and J Lam are only too keen to demonstrate it, in and out of a system. The enthusiasm alone for the product would almost be enough, but the upgrade it brings to the sound, and how fast that upgrade dissipates when the Troy is removed, is absolutely palpable.

The systems generated here are perfectly attuned to the demands and musical choices of their marketplace. Hong Kong audiophiles take their music very seriously, and there is scant rock and jazz played. This is a world of classical music, both Western and Chinese, and the systems play to those strengths, by sounding dynamic, expressive, and focused, especially at medium levels. These are not systems designed for earth-moving bass played at 130beats per minute, because they will never be played that way. Instead, they are fine tuned to the tonality of the orchestra and the piano.



Where things really start to take off is when you take the 30 minute journey across the Island and get to the Divin Labs store. This is a far larger space, designed without constraint. Again more like a home than a shop, Divin Labs is set up as the best system money can buy. And we do mean 'set-up'. In order to make the system sound good, Chris Leung calls on the skills of international audio installation expert Stirling Trayle of Audio Systems Optimised. Normally, Stirling only attends systems in customer's homes, and spends days with them in order to get their system sounding perfect. Such an installation would never work in most dealers. Chris, instead, plays the long game, knowing that his customers aren't 'pick 'n' mixers'. This system comprises a top Hartvig analogue front end, Wadax Atlantis Reference digital audio replay, Zanden Jinpu phono stage, Chukoh preamp, and Kaun mono amplifiers, and Divin Majestic loudspeakers by Göbel. That is a monumental system unmatched anywhere.



“The big clue to Audio Exotics’ significance is in the name of the Göbel loudspeakers, built to Chris Leung’s exacting specifications.”

► However, the big clue to Audio Exotics’ significance is in the name of the Göbel loudspeakers, built to Chris Leung’s exacting specifications. If that were the only bespoke product in the line-up, that too would be enough to make this something special, but the Zanden amplifiers are custom designs too; they are built to order and sold exclusively through Audio Exotics. You don’t get to them unless you go through Chris Leung. Not that he’s overly-protective of his brands, but that he has entered into agreement with like-minded audiophiles with passion to make their best-of-the-best only available in the best-of-the-best.

This is more than just bragging rights; it’s the way forward for many good dealers the world over. As the world becomes more standardised and boringly consistent, there will be those who kick against that as a form of mediocrity. If an audio dealer sells the same products as 20 other audio dealers within a 10 mile radius, you aren’t providing a service; you are acting as a reseller of products. While not everyone can walk this line, by going for bespoke products that only Audio Exotics provides, they automatically have a captive audience of those who want the best.

The audio world often seems to be retreating from thinking for itself; instead of trying to walk their own path, many dealers simply see the product portfolio of a nearby successful dealer and try to replicate it, forgetting that there isn’t enough room for two almost identical dealers in the same catchment area. Chris Leung is one of the few to think beyond these narrow guidelines, and that is aided to no small amount by working with good people, like that seemingly inexhaustible supply of energy that is the company’s Managing Director, J Lam. Good people bring in good people!



Chris is certainly convinced of his way of building audio stores, as he’s thinking of opening a similar scheme in several parts of the world. Naturally, those parts of the world require a clientele with both interest in the best of high-end audio and the wherewithal to reach those highest of high-end branches, but such places do exist around the world. Granted this is dealing with the most exclusive of exclusive clientele, and that might be a big ask if you are not in one of those chic venues. But I feel the concept can be ported down to more real-world levels.

The typical dealer moves products around their studio frequently. They have passing relationships with brands and products, rather than spending weeks getting the best out of a device. That’s understandable if you have a fast moving market and a lot of foot-traffic, but that isn’t the modern day audio dealer’s lot. They could take time, and build better systems for better clients! +

Audio Exotics: audioexotics.com

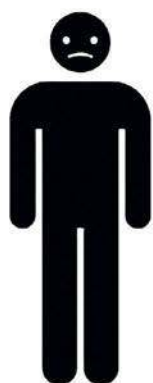
Enjoy the Music.com[®]

Reviews

News

Show Reports

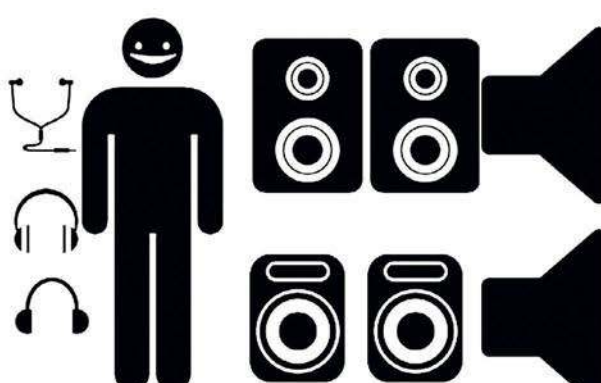
And More...



Single



In A Relationship



It's Complicated



TRIANGLE ART

Artisan Crafted Analogue



Experience the award winning sound.

839 S. Parkglen Place, Anaheim, CA 92808
Visit us online at: triangleart.net
Email us at: info@triangleart.net
714.553.6474



SUBSCRIBE

hi-fi+



1 YEAR
SUBSCRIPTION

Save
16%

2 YEAR
SUBSCRIPTION

Save
25%

In order to ensure prompt arrival of your copy of hi-fi+, it is best to take out a subscription. This lasts for a year (12 issues) and means that your magazine is delivered to your doorstep as soon as it is published. You never miss an issue again!



www.hifiplus.com

SUBSCRIPTION RATES

UK, Western Europe & Rest of the World

ONE YEAR SUBSCRIPTION /12 ISSUES

Within the UK	£50
Western Europe, USA & Canada	£60
Rest of the World	£80

TWO YEAR SUBSCRIPTION/24 ISSUES

Within the UK	£90
Western Europe, USA & Canada	£105
Rest of the World	£140

SPECIAL OFFER

Save 16% (1 year subscription)

Save 25% (2 year subscription)



TO SUBSCRIBE COMPLETE THIS FORM BELOW AND RETURN TO:

HI-FI+ SUBSCRIPTIONS

Unit 4, College Road Business Park, College Road North, Aston Clinton, HP22 5EZ, UK

or call: +44 (0) 1442 820580
or email: hifiplus@webscribe.co.uk
via the web: www.hifiplus.com

I would like my subscription to start from **current** issue/**next** issue (please delete as appropriate)

One year ☐ Two years ☐

ABOUT YOU:

Title _____

Forename _____

Surname _____

Address _____

Country _____

Post code/Zip code _____

Daytime Tel _____

PAYMENT:

UK ☐ Europe, USA & Canada ☐ Rest of World ☐

Cheques made payable to Absolute Multimedia UK Ltd.

Visa ☐ Mastercard ☐

Card no

Expiry date

3 digit security number

Switch ☐

Card no

Expiry date

3 digit security number

Direct Debit ☐



Originators Identification No

Instruction to your Bank or Building Society to pay Direct Debits

Name(s) of account holder(s) _____

Bank/Building Society account number

Branch sort code

Name and full postal address of your Bank or Building Society branch.

To: The Manager _____ Bank/Building Society

Address _____

Country _____

Post code/Zip code _____

Instruction to your Bank or Building Society. Please pay Webscribe Ltd Direct Debits from the account detailed in this instruction subject to the safeguards assured by the Direct Debit Guarantee. I understand that the instruction may remain with Webscribe Ltd and, if so details will be passed electronically to my Bank/Building Society.

Signed _____

Date _____

Bank and Building Societies may not accept Direct Debit instructions for some types of account

The Direct Debit Guarantee



This Guarantee is offered by all Banks and Building Societies that take part in the Direct Debit scheme. The efficiency and security of the Scheme is monitored and protected by your own bank or Building Society • If there are any changes to the amount, date or frequency of your Direct Debit Webscribe Ltd will notify you 10 working days in advance of your account being debited or as otherwise agreed. If you request Webscribe Ltd to collect a payment, confirmation of the amount and date will be given to you at the time of the request • If an error is made in the payment of your Direct Debit, by Webscribe Ltd or your bank or building society you are entitled to a full and immediate refund of the amount paid from your bank or building society. • If you receive a refund you are not entitled to, you must pay it back when Webscribe Ltd asks you to. • You can cancel a Direct Debit at any time by simply contacting your bank or building society. Written confirmation may be required. Please also notify us.

DEALER DIRECTORY



⑥

We are the only UK retailer where you can audition and compare the complete Vivid Audio speaker range.

WWW.SIXAUDIO.CO.UK

01403 713125



Audio Oasis
Beautiful Styling & Real Musical Enjoyment

sales@audiooasis.co.uk

T:01722 322215

www.audiooasis.co.uk

HAMPSHIRE WILTSHIRE DORSET

booplenth

"Finally, a new and advanced plinth upgrade reveals more recorded detail from any Linn LP12 and a transformational musical performance."



booplenth

booplenth LP12 performance upgrades and installation

www.brianandtrevors.com

info@brianandtrevors.com +44 (0) 161 766 4837



BROOKAUDIO

PURVEYORS OF
FINE AUDIO EQUIPMENT,
VINYL RECORDS
AND AUDIO ACCESSORIES.

VISIT
BROOKAUDIO.CO.UK

Choice hi-fi "where dreams meet reality"

The HiFi Exchange
New and Used HiFi

www.choicehifi.co.uk

Email info@choice-hifi.com
Telephone 020 8392 1959 / 07768 720456

VISIT OUR NEW WEBSITE

The Finest Hi-Fi & Home Cinema
Come and treat your senses!



Ceritech AUDIO

Drake House
1 Pavilion Business Park
Forest Vale
Industrial Estate
Cinderford GL14 2YD

www.ceritech-audio.co.uk 01594 540268

DB HIFI

SUFFOLK

01379 873451
WWW.DBHIFI.CO.UK

criterion audio



Criterion Audio is a premium hi-fi dealer in Cambridge.

From vinyl and valves to the latest in streaming and headphones, we can help you find the perfect system to suit your budget and needs.

www.criterionaudio.com
info@criterionaudio.com
01223 233730

DECO AUDIO



Kempson Close, Aylesbury, HP19 8UQ

www.decoaudio.com

01296 422 224

divine audio

AnalogueWorks
Creek Audio
Croft Acoustics
Graham Audio
Jelco Tonearms
Neat Acoustics
Omega Loudspeakers
Rogue Audio
Supra Cables

www.divineaudio.co.uk
07918 728860 tim@divineaudio.co.uk

hifi lounge here to listen...

Visit us in the Beautiful Bedfordshire Countryside for all your Hi-Fi needs

www.hifilounge.co.uk

01767 448121

With 5 Relaxing Listening Rooms




**Your ad
could be
here!**

Tel: **+44 (0) 1425 655255**
Mobile: **+44 (0) 7900 252975**
Email: **tom@hifiplus.com**

Infidelity
MUSIC & CINEMA SYSTEMS

020 8943 3530

www.infidelity.co.uk
info@infidelity.co.uk

9 High Street, Hampton Wick
Kingston upon Thames
Surrey KT1 4DA

Tuesday to Saturday 10-6

CEDIA MEMBER

clarity

hifisound

Stockton on Tees...the North's
hotbed of audio delights

- | | | |
|---------------|------------------|-------------------|
| • Anatek | • Koetsu | • Sonus Faber |
| • Audeze | • Kronos Audio | • Stax |
| • Chord | • Lyra | • Sugden |
| • Clearaudio | • Michell | • Transfiguration |
| • Dynavector | • Magneplanar | • Unison Research |
| • EAR | • Naim | • Usher Audio |
| • Esoteric | • Nordost | & many more |
| • Focal JMLab | • Notts Analogue | |
| • Funk | • Pathos | |
| • Grado | • SME | |

t: 01642 267012 w: hifisound.co.uk
e: simon@hifisound.co.uk

**MonoPulse
loudspeakers**

**NEW
active models**
built-in streaming
@ full hi-fi quality

midlandhifistudio

co.uk Wolverhampton
01902 380083

audioelevation

co.uk Doncaster
0800 035 1620

zouchaudio

co.uk Ashby
01530 414128

audiooasis

co.uk Southampton
01722 322215

Refreshingly different



01865 790 879
www.oxfordaudio.co.uk

Cantay House, Park End Street, Oxford, OX1 1JD

rayleigh... sound & vision
Smart home technology

Superb range of world-class hi-fi
on demonstration.

Rayleigh, Essex SS6 7EA
01268 779762

rayleigh@rayleighhifi.com
www.rayleighhifi.com

Stores also at Chelmsford and Southend

studio **AV**

**SEE, HEAR AND
FEEL THE
DIFFERENCE**



Get in touch to arrange your
personal audition of some of the
world's most highly respected
Hi-Fi and Home Cinema products.

WWW.STUDIOAV.CO.UK
01753 863300
sales@studioav.co.uk

**SUBSCRIBE
AND SAVE!**

Get your copy delivered to your
door as soon as it is published



www.hifiplus.com

SONATA
high-fidelity

APPLAUSE

west hampstead london
0330 111 5653 www.sonatahifi.com

The Rails – ‘This record is definitely more us...’

by Sean Hannam

English husband and wife duo The Rails – James Walbourne and Kami Thompson – have just made their best album yet.

Recorded in London at the start of 2019, *Cancel The Sun* – their third record – was produced by Stephen Street (The Smiths, Morrissey, Blur) and sees them moving further away from their folk-rock roots – Kami is the daughter of Richard and Linda Thompson – cranking up the electric guitars and embracing power-pop and New Wave, ('Call Me When It All Goes Wrong', 'Ball and Chain', 'Waiting On Something'); '60s-tinged country-soul ('Something Is Slipping My Mind'), and Beatlesy psychedelia (the title track).

Their gorgeous trademark harmonies are still in place and there are some folky ballads ('Mossy Well' and 'Leave Here Alone'), but this time around, James, whose other job is as the guitarist in The Pretenders – has really cut loose and pushed his extraordinary playing to the fore. "We felt ready to make a big record – we've got the bit between our teeth," they say...

"I was writing in a different way – the shackles came off and I didn't have to write folk songs" I wanted it to be different, new, and exciting.

SH: Congratulations on the new album – it's brilliant. It's very instant and direct – it doesn't mess around. It has a harder, poppier feel than your last two records...

KT: If it was up to me, I'd have it in the old Pop/Rock section of Our Price, but that doesn't exist anymore... This time, we didn't rule anything out – we just wanted to make a bigger record. We'd always wanted to do that, but time and financial constraints often means you can't. Our sights were set a little higher this time and we were more comfortable being at home [in London] – it all came together. This record is definitely more us.

Why did you choose Stephen Street to produce it?

JW: We wanted someone a bit different – who would take it forward – and who had perhaps more of a rock edge.

We were thinking of the sound of Graham Coxon's [Blur guitarist] solo records – in-your-face guitar.

How was it working with Stephen?

KT: It was perfect – there was never a moment when we didn't trust something he said. He's so experienced and talented, so we could relax, take our hands off the reins and just play.

It was a really quick record to make. Ironically, we set out to do it over a couple of months, but we ended up doing it in a couple of weeks.

JW: He was a joy to work with – I wanted to let him really go for it – he made it happen and he made the guitars sound brilliant.

For this album, you took a different approach – for the first time, you wrote the songs together, rather than separately. Why?

KT: We set out to do it quite purposely – the way we'd gone with the last record wasn't sustainable. We weren't working well together and it was causing tension and friction. This time, we sat down and decided we were going to do it differently – because we co-wrote everything, the result is that we're both fully invested and it's made it much more personal. I think the songs are better – they're different anyway. We're definitely working well together and it's made the whole experience significantly more pleasurable. We both feel very attached to these songs.

JW: We found a way to work where Kami would sit in the pub and write lyrics and I'd go and write tunes up in my little room. It was great – if I'm presented with lyrics, I can hear songs and, weirdly, a tune comes pretty instantly.



James – you stopped drinking a year and a half ago. How has that affected you and how did it influence the new album?

JW: I got into a real work ethic when it came to songwriting. I was doing it every day – suddenly it was my job. I didn't f*** about! There wasn't much procrastination – I just got it done and it was easy.

KT: The last record was pretty dark – we would both get into some dark places – but our outlook has now changed and it's affected our relationship in a positive way. We're a bit more confident and we're more settled – we really felt ready to make a big record and we really want to push it. We've got the bit between our teeth.

Let's talk about some of the songs on the album.

The first single, 'Mossy Well', lures us in with that dark folk music sound that you're known for – it's a song about drinking yourself to death – but the follow-up, 'Call Me When It All Goes Wrong' is a radio-friendly, power-pop

song – albeit with a wry, cutting lyric about a relationship...

KT: 'Call Me When It All Goes Wrong' is an outsider's view of someone else's situation – they're thinking they're doing really well, but they're flailing. You know that things are going to go tits up... We've tricked Radio 2 into playing it with a peppy tune.

'Save The Planet', the third single, has a cynical lyric about ecological issues and people's hypocrisy – "save the planet, kill yourself."

It suggests that the best way to end humankind's destruction of the world would be to end humankind... ▶

“The way we worked on the last record wasn’t sustainable – it caused tension and friction. This time, we sat down and decided we were going to do it differently...”



► **KT:** It’s my effort to try and shake people into thinking about it a bit more. Everyone’s trying to do their bit, but we’re all incredibly self-interested and there’s tokenism – everyone thinks if they just recycle a bit more, everything will be fine. I obviously don’t want anyone to kill themselves, although, if Trump killed himself, that would go some way to saving the planet, but he’ll probably never hear it...

The title track has a Beatles feel to it and some great guitar

KT: I love the guitar on that song – the wig out pleases me no end.

JW: I wanted to end it with a big, whacked-out solo with a bit of psychedelic stuff going on.

‘Ball and Chain’ – a song about addiction – is my favourite track

JW: That was one of those songs that came straight out of the sky, fully formed, in 15 minutes. Like some of the other tracks on the album, it has a New Wave / power-pop feel...

JW: Yep – that’s just part of my upbringing, what I listen to and people I’ve been influenced by. I love all that stuff, like Matthew Sweet. I was writing in a different way – the shackles came off and I didn’t have to write folk songs. I wanted it to be different, new, and exciting and to have fun playing the songs live, rather than us just having to take two acoustic guitars out with us.

I started using Logic Pro [music software] as a platform to write – I experimented with drums. I’d make a beat, put headphones on and then sing

along with an electric guitar, so it sounded like I was in a band. It was really refreshing and instant – it opened up a whole new world for me. I wasn’t toiling away on lyrics and chords on an acoustic guitar for weeks on end...

You’ve been labelled as a folk-rock act. Do you think this album will surprise people who hear it and open you up to a wider audience?

KT: I hope so – when you make records, all you want is for people to hear them. We’re feeling good about it and we hope it gets out there a little more.

I think it’s your best album yet...

JW: That’s very kind of you – I appreciate that. After you make a record, there comes a point when just you don’t have a f***ing clue about what you’ve just done. This record is a truer reflection of what we listen to. +

Cancel The Sun by The Rails is out now on Thirty Tigers.



ORANGES & LEMONS

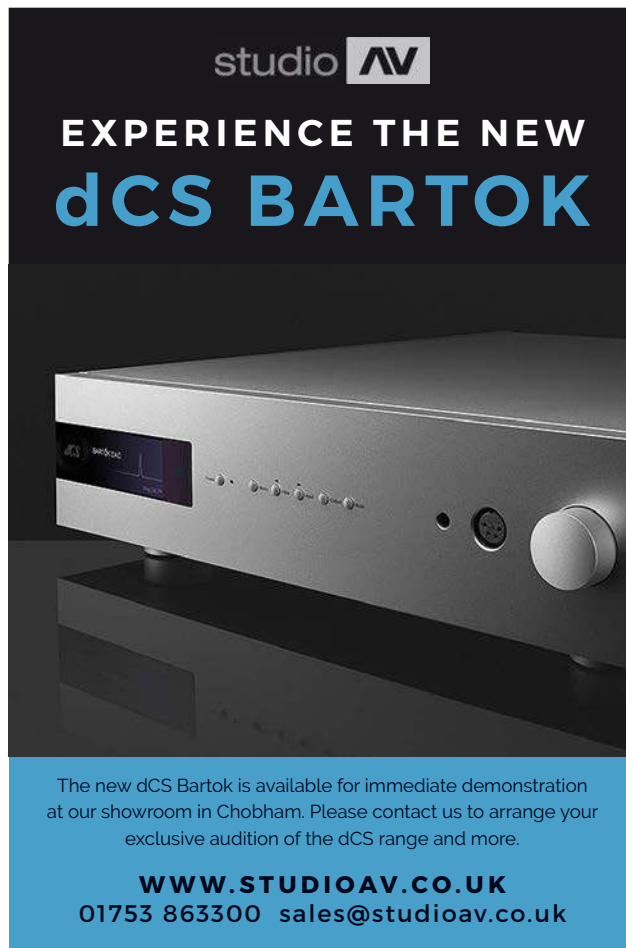


oandlhifi.co.uk
 02079242040 - London SW11

bowers & wilkins rega sonos linn naim atc pmc arcam tellurium q
 chord co neat dynaudio rotel rel sennheiser chord electronics

studio **AV**

**EXPERIENCE THE NEW
dCS BARTOK**



The new dCS Bartok is available for immediate demonstration at our showroom in Chobham. Please contact us to arrange your exclusive audition of the dCS range and more.

WWW.STUDIOAV.CO.UK
 01753 863300 sales@studioav.co.uk

Less noise. More music.

"The difference that the Ground Controls make is so profound... they have become indispensable"
 — HiFi+



Introducing a stunning innovation in high frequency noise reduction: the CAD GC1 and GC3 Ground Controls. Designed to help any audio system sound better.
Contact CAD for a dealer near you: +44 (0) 203 397 0334
www.computeraudiodesign.com



CAD
 COMPUTER AUDIO DESIGN

“They wanted a record with more edge and indie attitude – I guess that’s what I’m known for”

Producer Stephen Street has worked his magic on classic indie guitar albums by The Smiths, Morrissey, Blur, Kaiser Chiefs, and The Cranberries. We ask him what it was like making *Cancel The Sun* with The Rails, what he brought to the record, and how he listens to music at home?

SH: How did you come to work with The Rails and had you heard any of their music before you started on the album?

SS: They approached me through their manager – I had no previous knowledge of their music, but I was vaguely aware of James’s reputation as a seriously good guitarist in certain musical circles.

When we first met, James mentioned to me that he wanted a ‘more direct’ record, with perhaps a bit more edge and ‘indie’ attitude, with the guitars being a bit more to the fore. I guess that’s what I’m known for. So, I just did what came naturally.

It all went so smoothly – everything we tried seemed to work well. We had a good working relationship. The sessions were fast and highly productive.

As you said, James’s electric guitar has been pushed to the fore on this record – particularly on heavier tracks, like ‘Call Me When It All Goes Wrong’, ‘Ball and Chain’, the title track, and ‘Waiting On Something’. How did you approach recording those songs?

James is a seriously good guitarist – unleash him and let him play! Rehearsals were important; making sure the rhythm section was playing the right parts and the groove to support James’s guitar parts. James and I would experiment with different guitar and amp combinations to get the tones we wanted.

James has a technique he has developed that is fantastic to watch and listen to. I loved working with him.

Cancel The Sun [the title track] was always going to make the cut. It stood out on the initial demos that I heard. Kami’s singing is superb – I loved the slightly Beatlesque feel that the song naturally seemed to lean towards, so we just went with that vibe. James’s solo at the end is scorching – so much feeling!

There are some quieter, more stripped-down songs on the album, too...

I particularly love ‘Something Is Slipping My Mind’. Kami’s melody is beautiful. Rather than the whole band just strumming it, I came up with the idea of an electronic ‘heart beat’ pulse, which we added to the sound of James slapping the back of an acoustic guitar, while holding the chords, to get a slight overtone of the musical note, while being percussive at the same time. After that, we just had the chords played simply, but put through a tremolo setting on the amp, to give it a slightly shifting, liquid atmosphere, against which to set their beautiful vocal harmonies.

How have current audio trends such as the return of vinyl and the rise of streaming, as well as the emergence of hi-res audio, affected your approach to producing records? Has it made your job harder? Is it something you think about when you’re making a record – ‘how will people be listening to this?’

One of the good things about the vinyl revival is that artists are once again conscious of fitting an album onto that format – i.e., not making it too long and editing their work to fit. There was a time just after CDs became popular when acts were recording far too much music for an album just because the format could take it.

This album [*Cancel The Sun*] is a case in point. Ten songs, 34 minutes – bang, thank you very much, goodnight!

What’s your preferred way of listening to music at home?

I listen to music on all formats at home – CD, vinyl, and streaming. Streaming is convenient if I’m sitting at the computer, but I do love to play a CD or vinyl album through my hi-fi system, too. I have an Arcam amp and a NAD CD player.

Any new projects in the pipeline you can tell us about? And who would be your dream collaboration?

I’m currently working on a new Pretenders album, which is shaping up really well. Hopefully it will be out early next year. Obviously I would love to work with Blur again in the future, but I’m not holding my breath!

WE'VE GOT THE PROS COVERED.

PRO Look.
PRO Build.
PRO Results.



"The wide selection of colours, sizes and modularity of their panels were a major factor in our decision to use GIK products."

LUCA BARASSI, ABBEY ROAD INSTITUTE

FREE ACOUSTIC ADVICE

GET HELP WITH ROOM SETUP



GIK Acoustics
Solutions. Innovations. Quality.

ORDER DIRECT

GIKACOUSTICS.CO.UK +44 (0) 20 3815 8608 (UK)



Award winning Pre Amplifiers



Call now for a home demonstration

01424 858260 info@mfaudio.co.uk www.mfaudio.co.uk

hi-fi+ ADVERTISING INDEX

6 Audio	98	Decent Audio	83	Monopulse	99
Absolute Sounds	OBC	Deco Audio	98	Music First Audio	105
Allnic Audio	26 & 27	Divine Audio	98	Naim	IBC
Ansuz Acoustics	55	Dynaudio International GmbH	33	Oranges and Lemons	103
Aqua HiFi	44	Enjoythemusic.com	95	Origin Live	86
Arcam	53	Entreq	70	Oxford Audio Consultants Ltd	99
Audio Oasis	98	GIK Acoustics	105	Padood	IFC
Auralic	41	Graham Audio	36	Raidho Acoustics	30
B & W Group Ltd	5	Gryphon Audio	49	Rayleigh Hi-Fi	99
Black Rhodium	63	Hegel	61	Renaissance Audio	11 & 22
Brian & Trevor's	83 & 98	Highend Headphone Shop/		SCV London	56
Brook Audio	98	HiFi Lounge	98	Select Audio	14
Burmester	8	HiFi Sounds	99	Siltech	25
Cardas Audio Ltd	77 & 112	iFi	115	Sonata Hi-Fi	99
Ceritech Ltd	98	Infidelity	99	Speakers Corner Records	91
Choice HiFi	19 & 98	Innuos	13	Spendor Audio Systems Ltd	35
Chord Electronics	7	Isotek	47	studioAV Ltd	99 & 103
Cleer	110	Kanto Living	65	Sugden Audio	59
Cloney Audio	91	KJ West One	43	The Audio Consultants	38
Computer Audio Design	103	Kog Audio	21 & 50	The Chord Company	17
Conrad-Johnson	79	Lateral Audio Designs	86	Triangle Art	95
Criterion Audio	98	Merrill Audio Advanced		Triangle Industries	67
Critical Mass Systems	80	Technology Labs	73	UKD	83
Crystal Cable BV	2	Midland Audio Xchange	89 & 99	WBT-Distribution GmbH	89
DB HiFi	98	Monitor Audio	29		

record reviews

How To Read Them

The information contained in the record reviews is presented in the following way. Albums are identified by label and – where possible – serial number. Beneath this you will find one or more icons that denote the available formats for the recording. The first icon refers to the format reviewed.

The ratings at the bottom of each review reflect the reviewer's opinion of the recording quality, and musical merits of the album. You'll soon realise that a great many musically significant albums offer less than wonderful sound. Don't let it put you off! For your information, the scale rates a standard, good quality pop recording as slightly below average.

This issue's featured reviewers are:

DD – Dennis Davis

SH – Sean Hannam

JMH – Jimmy Hughes

JK – Jason Kennedy

	CD		120g LP
	Gold CD		150g LP
	HD CD		180g LP
	XR CD		200g LP
	Double Disc		10" LP
	DVD		Availability As S/H LP
	SACD		Vinyl Double Album
	Hybrid SACD		45 RPM
	Multi-Channel		Download
	Blu-ray		High-Res Download



Master of the Waltz

(CD) x50 (DVD)

The Complete Decca Recordings of Willi Boskovsky

Decca 483 2517

50CDs? I'd forgotten just how prolific Willi Boskovsky (1909–1991) was as a recording artist. His association with Decca started in the late 1940s, and ended in 1979 with a live digital recording of the New Year's Day concert.

Boskovsky joined the Vienna Philharmonic as a second violin in 1933, and eventually became Concertmaster. His transition to conductor came on Jan 1st 1955 when – following the sudden death of New Year's Day founder Clemens Krauss – he led the VPO in a NYD concert for the first time.

This box brings together all Boskovsky's recordings for Decca, starting with chamber music sessions that included Beethoven's Septet and Mendelssohn's Octet recorded in 1948 on shellac 78s. Despite certain limitations, all the mono recordings sound surprisingly clear and detailed.

Excellent sound is a hallmark of virtually every disc Boskovsky had a major hand in. Indeed, in the stereo era, one reason his Decca LPs sold so well is that they represented the 'state-of-the-art' so far as recording quality was concerned – the wonderful *Overtures of Old Vienna*, for example...

In the late 1950s, with the advent of stereo, Boskovsky began his series of recordings featuring music by the

Strauss family (and contemporaries) with a 1957 LP entitled *Johann Strauss Concert*. This was followed by a series of similar Strauss family LPs that proved hugely popular.

Aside from the music of the Strauss family, Boskovsky's other great love seems to have been Mozart. His stylish recording of Mozart's *Complete Dances and Marches*, and nearly all the *Serenades and Divertimenti*, remain touchstones of how to play Mozart with style and vivacity.

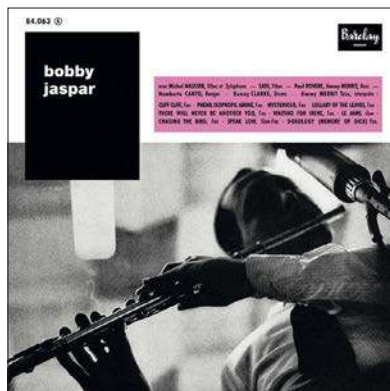
The new CD remasters by Paschal Byrne and Craig Thompson are highly successful, and (where I've made comparisons) seem to offer greater focus and immediacy. Tape hiss is very low throughout, though there is a bit of pressing swish and hiss in the works remastered from 78s. However, even here the sound is very acceptable. I was amazed by how clear and well-balanced the 1948 Mendelssohn Octet sounded.

It's nice to have the recordings presented in 'original LP jacket' form, though the 10LP Mozart Dances and Marches set has been done in a 7-CD set with small facsimile covers, and with the original sleeves inside. The *Serenades and Divertimenti* (10CDs) are treated similarly.

A wonderful set, then, with many marvellous performances and great Decca sound. Buy it before it disappears! **JMH**

RECORDING
MUSIC





Bobby Jaspar

Bobby Jaspar

Barclay/Sam Records 84.063 S

180g

What was your gateway drug to jazz addiction? I confess that the first encounter of jazz that rendered me powerless to its charms came at the movie theatre. In the 1968 movie *Bullitt*, Steve McQueen joins some friends for drinks at the San Francisco restaurant Coffee Cantata and a jazz quartet is playing light jazz in the background. For a brief few moments, the camera pulls tight on flautist Julie Iger Roseman during a solo. Apparently, McQueen had heard the group Meridian West playing at one of his favourite hangouts in nearby Sausalito and gave them a cameo in the movie. The music did not make it onto the movie soundtrack but the combination of San Francisco, Steve McQueen, and flute has remained burnt into my consciousness as the epitome of cool.

Despite the fact that flute is a bit of an outlier in jazz instrumentation, many outstanding players have featured the instrument, including Eric Dolphy, Rahsaan Roland Kirk, and Charles Lloyd. But nothing comes closer to making me feel like I've walked into the Coffee Cantata in the late 1960s and spied Steve McQueen seated nearby than Bobby Jaspar's 1959 eponymous release on the small French label Barclay. Jaspar was a Belgian born sax and flute player. Born in 1926, he moved to Paris in 1950 where he built his reputation before going to New York

in 1956, dying there of a heart attack at the age of 37. He played with the best on both sides of the Atlantic and returned with some frequency to Europe after moving to the US, including this session recorded in Paris in December 1958. Like his fellow countryman guitarist René Thomas, he was a fixture of the 1950's Paris jazz scene and epitomized European cool jazz. Jaspar plays flute on this session and is joined by drummer Kenny Clark, Sadi Lallemand or Michel Hausser (who doubles on sax) on vibes, either Paul Rovere or Jymie Merritt on bass, and percussionist Humberto Canto. The band plays half a dozen standards plus four Jaspar compositions. Recorded at a time when the height of entertainment sophistication was the TV Western and space age bachelor pad music, the album's occasional combination of flute, vibes, and bongo drums walks a knife-edge of slipping into Henry Mancini territory. Jaspar brilliantly circumvents this fate, only hinting at this genre in the unique interpretation of Monk's *Mysteriosa* where the mix of instruments substitutes for Monk's unorthodox way with the piano.

Throughout, cool jazz trumps space age, and results in an album of slow to moderate tunes that hold your interest during repeat listening—all pleasure unadulterated by guilt. In another outstanding cut, Jaspar substitutes flute for Ella Fitzgerald's voice, and *Lullaby Of The Leaves* becomes a much perkier version of Joe Young's 1932 Broadway tune, and like most of the songs played here

invites you away from your whiskies and ashtrays mooning over Ella on to the dance floor.

Barclay is a French record label founded in 1953 by Eddie Barclay that remained independent until 1978 when Polygram purchased it. Shortly after its founding, the label set up its own recording studio variously referred to as Studio Barclay or Studio Hoche (after its street address) in Paris, where this album was recorded. The original album was released in mono only, but the studio also ran a stereo tape, and for this release the stereo master tape was used. The stereo imaging is near perfect with nice centre fill and depth. Each instrument is well balanced in the mix, with the only nit to pick being a slight dryness of room sound.

Like all of Sam Records' releases, the packaging is exquisite, reproducing the cover photos from original stock (where not lost) on a high-gloss flip-back album jacket and including a large fold-out photo insert. The 180-gram vinyl was pressed by Pallas in Germany and is limited to 1000 copies. This is Sam Record's second Bobby Jaspar release, after the equally compelling *Bobby Jaspar All Stars Band*. If all you know is the Fresh Sounds reissue (good luck finding an original) you are in for a treat as this reissue will be a revelation. An exceptional reissue for a thousand lucky jazz fans. **DD**

**RECORDING
MUSIC**





The New Adventures of... PP Arnold

PP Arnold
(earMUSIC)



There's a stirring and uplifting gospel-soul song on the latest PP Arnold record called 'I Finally Found My Way Back Home' – the title is very appropriate, as, unbelievably, this is her first new album for more than 50 years. Her last studio LP, *Kafunta*, came out in 1968.

In the '60s, American soul singer and mod icon Arnold was signed to Rolling Stones manager Andrew Loog Oldham's Immediate label and scored hits including 'The First Cut Is The Deepest' and 'Angel of the Morning'.

Her CV is impressive and varied – she's worked with Ike and Tina Turner, Mick Jagger, The Small Faces, Rod Stewart, Primal Scream, Nick Drake, Billy Ocean, Peter Gabriel, the KLF, and Roger Waters.

Recorded and produced by Cradock at his Kundalini Studio in Devon, *The New Adventures of... PP Arnold* was well worth waiting at least half a century for.

From the opening song – and first single – 'Baby Blue', it's like she's never been away. Composed by Cradock and songwriter Steve Grizzell, it's classy retro pop soul that sounds like it should be blaring from a transistor radio in a Carnaby Street or King's Road fashion boutique circa '67/'68.

Similarly, 'The Magic Hour', penned by Cradock, has

wonderfully dramatic, Phil Spector-esque orchestration, while Arnold's take on 'Different Drum' – a 1965 song by Mike Nesmith of The Monkees – adds some soaring strings and Wall of Sound-a-like effects. There's also a tender and faithful version of British folk singer Sandy Denny's sumptuous ballad, 'I'm A Dreamer'.

Paul Weller has composed two songs on the album – the pretty, pastoral, psychedelic-tinged 'When I Was Part of Your Picture', which recalls late '60s, British singer-songwriter and Immediate artist Billy Nicholls, and the anthemic plea for peace that is 'Shoot The Dove'. He plays electric guitar and bass and contributes backing vocals to one track.

Arnold's voice is in fine form throughout, but full credit must also go to Cradock for his superb, rich production and brilliant arrangements that are steeped in the past, but sound authentic and inspired, rather than pastiches. The dynamic and lush strings – provided by the Cairn String Quartet and Q Strings – and the punchy brass by trombonist Tim Smart (The Specials) and trumpeter Sam Massey are integral to many of these songs.

If there's one track on the album that will divide listeners it's the epic, 10-minute, spoken word rendition of 'The Last Thoughts On Woody Guthrie' – a poem by Bob Dylan. Arnold recites it over a far out and groovy, funky, free-jazz backing, but, surprisingly, it works. As this is her first proper album in over five decades, we

can allow her a little self-indulgence. However, it's balanced by the elegiac finale 'I'll Always Remember You... (Debbie's Song)', which was written about her daughter, who died in a car crash in 1977.

The only misstep on the record is 'Hold On To Your Dreams'. It's a hands-in-the-air, house music track, which nods to Arnold's '80s dance music past.

More convincing is the moody and edgy, '70s spiritual disco of 'I Believe', which Arnold co-wrote with her son, Kodzo (Kojo) Samuel, who has worked with contemporary acts including drum and bass outfit Rudimental, hip-hop artist Plan B, and singer Rita Ora.

The album artwork features some great photographs of Arnold by Gered Mankowitz who, rather neatly, took the striking pictures for her original studio albums in the '60s – the 180 gram, double vinyl version, with a gatefold sleeve, is a nice package.

Talking about her new release, Arnold says: "It's great that I'm coming back with this record. Even now, I'm still finding my way because the industry changes every decade, and you're sometimes out of the loop. For me, it's all about faith, meditating, love and praying... try to be ready and don't give up the fight. That's the message."

On the strength of this album, she truly is a soul survivor. **SH**

RECORDING
MUSIC





The Much Much How How and I

Cosmo Sheldrake

Transgressive



Jimmy Hughes, the reviewing fraternity's very own Peter Pan, was once rather taken with the unusual tweaks of the late Peter Belt. These were all a bit odd and included placing small stickers on light switches, putting a piece of paper under one foot on a piece of equipment, and so on. Another character that Jimmy wrote about (but not because of left-field ideas about sound improvements) was Rupert Sheldrake whose name I was reminded of when seeing this album on its release last year. It turns out that Cosmo Sheldrake is his son and if this music is anything to go by having a 'para-biologist' with some 'out there' ideas for a dad did him no harm whatsoever.

Sheldrake junior is a multi-instrumentalist whose song 'Come Along' was used by Apple for its iPhone XR advertising in the US, garnering him a place in the digital chart's top 50 in January this year. It's easy to hear why Apple would choose any of the tracks from this remarkably original album; they have a charm and freshness that eludes most contemporary music, however wide eyed and feckless the artist manages to look in the publicity shots. *The Much Much How How and I* does not feature a picture of the artist, just 'many fish' for some reason. There is a generally bucolic and outward bound theme to the music but no

particularly aquatic lyrics unless you count 'Axolotl'; which is not a fish, of course.

Sheldrake plays keyboards, double bass, drums, guitar, banjo, clarinet, percussion, sousaphone, and sings, and all of these plus a few more are to be heard throughout the album, and sometimes all together. His style is hard to define; on the one hand it's distinctively English with roots going back to folk, XTC, Elgar, Peter Greenaway, and even a bit of Beatles mixed in. His use of woodwind and brass borders on the classical, but the lyrics are pure escapism, exuberant and devoid of guile. Many of the 14 songs rely on melody and counterpoint alone, which, when they are played on acoustic instruments, sound excellent. The recording is rich and ripe, with decent depth of image and width of band. A degree of compression is used to elbow all the instruments in, and the multi-track nature of the construction stops it from being free and open: it would be fabulous to hear a live version with small orchestra.

The album starts very quietly with a slow ramp up to 'Linger Longer' with distant drums, woodwind, and brass working up a lilting tempo for Cosmo to play out his dream-like lyrics, "life has a passion for living" after all. 'Wriggle' counterpoints woodwind and brass over weighty bass of unclear origin while the lyrics encourage the listener to have fun in a peculiarly idiosyncratic yet appealing fashion: "And wriggle on, have a sing-along, Put some pickles on, and

play the Mellotron?". The sound of a bass clarinet on 'Birthday Suit' is gorgeously thick and treacly; here we find the first example of a percussive theme, albeit not with drums and not in a dominant fashion. 'Come Along' is pure romantic idyll; Sheldrake is probably incurable in this respect and long may he remain so. The song is ultimately about making the most of time, with lines like "There's no such thing as time to kill or time to throw away", so despite the surfeit of whimsy he knows where it's at.

'Solar Waltz' is as the name suggests a waltz about the wonderful work of bees and the loss of wine, cider, and mead should they "shrug their little shoulders" and not go about the fruit-sustaining business that we all benefit from. 'Mind of Rocks' seems out of place not merely by virtue of its featured singer, Bunty, but the absence of the rich instrumentation heard elsewhere. This perhaps was an attempt to make something a bit more familiar that the less open-minded might be able to connect with; the backing is largely electronica and one feels the hand of additional producer Matthew Herbert rather obviously. But it's a minor blip in a cornucopia of fabulous songs that you have to keep playing. Those inclined to purchase the download should look for the deluxe edition which includes instrumental version for the same price. **JK**

RECORDING
MUSIC



cleer®



FLOW

Wireless Hybrid Noise
Cancelling Headphone

Available now at cleeraudio.com
Follow us on    @cleersound

OWN THE
MOMENT

PERSONAL AUDIO SPECIAL!

Our exclusive section dedicated to the best in Personal Audio

Warwick Acoustics APERIO State. Of. The. Art.



conrad-johnson HVA-1
The first-ever headphone
amplifier from the legendary
valve-master



Auris Audio Euterpe
This value-priced Serbian
amp/DAC does the Goddess
of Music proud

Personal Audio discoveries from CanJam London 2019



Cardas Audio

Established 1987



High Performance
Cables



Golden Section
Litz Conductors



Ultra Pure
Copper & Silver



Premium
Connectors



Bulk Cables
& Chassis Wire



Quad Eutectic
Solder & Flux

Cardas Audio • Bandon, Oregon • 541-347-2484 • support@cardas.com • www.cardas.com

Please send your letters to Hi-Fi+, Unit 3, Sandleheath Industrial Estate, Sandleheath, Hampshire, SP6 1PA, United Kingdom.
Or email them to editor@hifiplus.com

Incoming!

Never mind the quality, feel the width...

Which is more important – the size, the weight, or the material used in a diaphragm? Does the importance change relative to the technology used in the headphone itself? I'm not that concerned as to whether one technology is inherently better or worse than another, just how the physical characteristics of the diaphragm shape the sound and whether they change relative to different types of technology.

Seb Piggott, via email

Seb, my personal experience has been that diaphragm size, weight, and materials all have important roles to play. Diaphragm size is usually related to dynamic capabilities; generally speaking larger-area diaphragms can move more air with less fore-and-aft travel, but are subject to the constraint that larger size entails more weight. Weight is related to transient response; lower weight (or more accurately, lower mass) allows quicker, more agile, and nuanced response to transient sounds. Materials must always be chosen for suitability to the application. In dynamic drivers, low-mass diaphragm materials with excellent stiffness and good internal damping are desirable (e.g., Beryllium). In planar drivers, whether electrostatic or planar magnetic types, low mass film-like materials with excellent flexibility, good internal damping, and long term physical stability are what's needed.

Chris Martens, Editor, Ultimate Headphone Guide

Ding-a-dongle

Now that few phones have a headphone socket, which way do I turn? Is it better to use a high-quality Bluetooth dongle, add a good USB converter that can work with my phone, go for a separate Digital Audio Player, or start again with dedicated Bluetooth wireless headphones? I want good audio quality on the move, but I don't want to carry a lot of excess baggage, so I am more inclined toward the first and last options, but I'm open to the other ideas if they really pay off sonically. What do you recommend?

Gregory Balcombe, via email

Gregory, if you make careful choices based on careful listening any of the options you mention can work well.

While there may be some performance trade-offs vis-à-vis wired solutions, I have recently been enjoying my Ultimate Headphone Guide research into wireless Bluetooth earphones, while also looking into very high quality Bluetooth headphones (there are some excellent new options on the cusp of release to the marketplace). Check out our recent and also upcoming reviews of Bluetooth models from 1MORE, beyerdynamic, RHA, HiFiMAN, and more.

Chris Martens, Editor, Ultimate Headphone Guide

To DAC, or not to DAC. That is the question

I have a good desktop DAC (first generation Chord Hugo), but it's time to upgrade. I can either keep the Hugo and add a dedicated headphone amplifier or sell the Hugo and buy an all-in-one desktop DAC with amp. I am tempted by the Questyle models but have not listened to them seriously as yet and I am still exploring the options. Which way should I go and what do you recommend?

Allan Kirkwood, via email

Allan, this isn't the one and only 'right answer', but if I were in your position I would consider upgrading to the superb Chord Electronics Hugo TT2 (basically the next-gen version of your original Hugo TT). From personal experience I can also say the Questyle desktop amp/DACs are excellent, though different in sonic presentation to Chord's Hugo-family products. For sheer value, Questyle's CMA-400i is hard to beat, but for maximum performance and flexibility I would suggest the CMA Twelve Master, which essentially is a CMA Twelve Standard that has been upgraded with Rogers ceramic circuit boards.

Chris Martens, Editor, Ultimate Headphone Guide

Bringing it all back home

I use custom in-ear monitors with my band, but I am wondering if having a set made for personal listening is over the top. They save my hearing when I am playing in a bar, but I don't need the same degree of sound isolation when I am listening at home. Is there any advantage in having in-ear monitors custom made for the home, or have universal-fit earphones achieved the same level of performance?

Mike Ashley, via email ►

- Mike, for all practical purposes today's top universal-fit earphones have achieved sonic parity with their CIEM counterparts, save for the related matters of sound isolation and custom fit.

Those last two benefits, though, are not to be discounted. CIEMs can and do cut out damaging levels of stage noise for working musicians, but it is important to understand that they also provide quieter backgrounds for listening at home. Even in "quiet" homes there is more ambient noise than you might think, and CIEMs can help make a lot of that noise disappear, leaving you more closely in touch with your music.

Chris Martens, Editor, Ultimate Headphone Guide

Float, float on...

I have been bequeathed a pair of Jecklin Float Model 2 Electrostatic headphones. They appear to be in very good condition, but the amplifier is designed to accept the loudspeaker level output of a stereo amplifier, and not a line-level output from a DAC. I do not have anything with loudspeaker outputs. Can I use a Stax electrostatic amplifier or similar?

Chris Slater, via email

Chris, to the best of my recollection the Float 'amplifier' you mention is more of an adaptor and bias voltage supply for the Floats, meaning that—as you said—it requires a loudspeaker-level signal from an external amplifier. I do not know if the Floats could be powered from a traditional Stax "energiser", but I think that for your purposes the path of least resistance might be to acquire a high-quality but not terribly expensive integrated amplifier to use with the Floats. Some examples that come to mind would be the solid-state NAD D3020 V2 or D3045, or the valve-powered Jolida FX10. In the US these are all comfortably priced below \$700. As an added note, one individual that specialises in refurbishment of Jecklin Float electrostatic headphones is Manfred Stein of Quad Musikweidergabe (www.quad-musik.de). Herr Stein might be able to supply more detailed answers for you.

Chris Martens, Editor, Ultimate Headphone Guide

The search is over!

I just wanted to add to the discussion from the August 2019 issue about cost effective personal audio systems. I have spent far too much time searching for the ideal portable headphone then finally I stumbled over a pair while I wasn't looking!

It is the new(ish) Audio-Technica ATH MSR7b (balanced). They sound excellent with a lean but tight bass, neutral mid, and extended treble—all wrapped up in a well-defined soundstage better than their closed backs should allow. They even fold and have a natty carry pouch, which holds extra cables or balanced connectors and such.

If you like a sound as portrayed by the HD800S as opposed to sound as portrayed by an LCD2 then you should like these. If not and you prefer that planar type sound then maybe consider the Meze 99s.

Anyway coupling the MSR7b with a Cayin N5ii is quite astonishing on Tidal HiFi or hi res from micro SD and very cost effective.

Ian Melville, via email

Ian, I think you've made an excellent choice, but then perhaps I am biased. I, too, have a somewhat earlier pair of Audio-Technica ATH MSR7's and I enjoy and appreciate them for exactly the same reasons that you do.

Chris Martens, Editor, Ultimate Headphone Guide

The game is afoot!

I have been using a simple set of gaming headphones for some time, but they are wearing out. I am passionate about sci-fi and warbird flight sims and I've spent far too much money on projectors, HOTAS systems, and an absolutely kick-ass PC to drive everything!

I know of people who use just a microphone and earphone for their gaming, and pass the rest of the sound on to surround speakers, and others who use a really good pair of headphones. Which is better and why?

name and callsign withheld on request

Flight sim gaming is not my strong point, I must confess, however, I do understand how passionate people can get about flight sims, and I've met more than one headphonista who secretly confided in me they while away the hours as a virtual 'stick and rudder' guy. I even know one who has a complete tractor simulator.

My take on this is there is no easy answer. My gut reaction would be to invest in a great headset (Audeze's LCD-GX springs to mind) as it will put you in the midst of the action and keep you talking to teammates. On the other hand, if you are using a projector instead of a screen, you might need to look around a lot, and unless you have some kind of infra-red detector on the headband, the sound will stay locked to the front.

Chris Martens, Editor, Ultimate Headphone Guide

ifi

Play like a Pro

Pro iCAN

Analogue headphone amp can be used on its own with an analogue source or combined with the Pro iDSD to upgrade the amp stage. Your favourite headphones have never sounded so good, as you drift away in your own personal sonic universe.

Pro iESL

Team this headphone energiser with the Pro iCAN and a pair of electrostatic headphones – such as those from Stax – for the ultimate in musical realism, or use it to ‘transformer-couple’ a pair of high-end dynamic headphones for enhanced performance.



Pro iRack

Designed specifically for the Pro Series, this compact, modular support system features marble pillars, stainless steel supports and a special resonance-damping sandwich construction.

Pro iDSD

Hi-res DAC, Wi-Fi streamer, preamp and headphone amp combines sophisticated digital and analogue circuitry to deliver exceptional sound, with a unique array of sonic tailoring facilities including DSD1024 upsampling and a switchable valve/solid-state output stage.



www.ifi-audio.com

SHOW REPORT

CanJam London 2019 show report

by Chris Martens and Alan Sircom



CanJam London 2019, held in the Park Plaza Westminster Bridge Hotel in late July, proved as always to be a significant attraction for UK and European personal audio enthusiast. This year's event showed slight rollback in the number of exhibitors relative to past years, but the good news—and the consensus among the manufacturers present—was that attendee traffic was up and that the levels of serious interest amongst attendees was higher than ever before. *Hi-Fi+* Editor Alan Sircom and Ultimate Headphone Guide Editor Chris Martens each took on half of the CanJam show floor and went in search of sonic wonders. This is their report. +



Legendary British pro audio designer Rupert Neve now offers three new Fidelice-series components: a serious \$4,000 high-end DAC, this \$1,000 phono stage, and a \$1,000 headphone amp.



OBravo's \$6,600 RA-W use aluminium/acacia wood earpieces, a 8mm AMT tweeter, and a 16mm dynamic driver.



It was only a matter of time until the valve specialists at conrad-johnson created a headphone amplifier (see review in this issue), and the £7,900 HVA-1 is certainly hot!



Industry veteran Alexander Rosson offers his sonically and visually impressive \$2,600 RAD-0 planar magnetic headphones, which have improved greatly en route to production.



64 Audio's £3,799 Fourné Noir is essentially an enhanced (but limited production) version of the firm's critically acclaimed tia Fourné earphones. Act fast before they're gone.



HiFiMAN's \$200 TWS 600 charging case is good for 38.5 hours. The earphones offer superb Bluetooth range.



The clever \$250 Topaz integration case lets users combine the superb Woo WA11 Topaz portable amp/DAC with a smartphone to create their own "DAP of the gods".



The €2,900 Elysium is Vision Ears first hybrid earphone featuring balanced armature bass drivers, dynamic midrange drivers, and dual electrostatic tweeters. The custom in-ear design takes full advantage of Vision Ear's range of exotic finishes, as well as the company's years of making customs for on-stage users.



Effect Audio is best known for extremely exotic personal audio cables, but the firm's new Vogue-series (starting at \$99) offers a more accessible way to enjoy the Effect experience.



IYARA \$2,450 cables are unashamedly exotic and seek to combine advanced technologies with the beauty of Thai culture.



FiiO's £450 FH7 uses a 13.6mm dynamic driver and four Knowles-sourced balanced drivers, plus sound tuning filters.



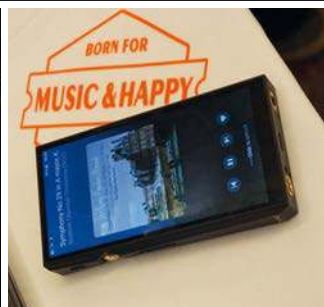
Noble's \$599 M3 aims to deliver high-end sound at a sensible price. To this end, the M3 incorporates a hybrid dynamic and "active balanced magnetic" coaxial driver array,



We first heard the €1,700 HEDDphone in Munich, but it seems to have come a long way since then. At present, this is the world's only full-range AMT driver headphone.



Nova Fidelity, known elsewhere in the world as Cocktail Audio, now offers its £4,889 X45 Pro as an extremely capable audiophile-grade streamer with built-in DAC.



The £700 FiiO M11 Pro is a fully balanced, dual DAC-equipped, Wi-Fi and BT enabled digital audio player.



The £849 Audeze LCD-GX is targeted toward both serious audiophiles and purist, high-end gamers who want the best gaming sound quality possible. A headset mic is optional.



RAAL showed SRS1a prototypes a year ago and now it is in production. As the world's only ribbon dipole headphone, the \$3,500 SR1a offers remarkable purity and transparency.



The next big (er, little) thing from Meze is the beautifully balanced €1,100/\$1,100 Rai Penta earphone with a hybrid balanced armature/dynamic driver array.



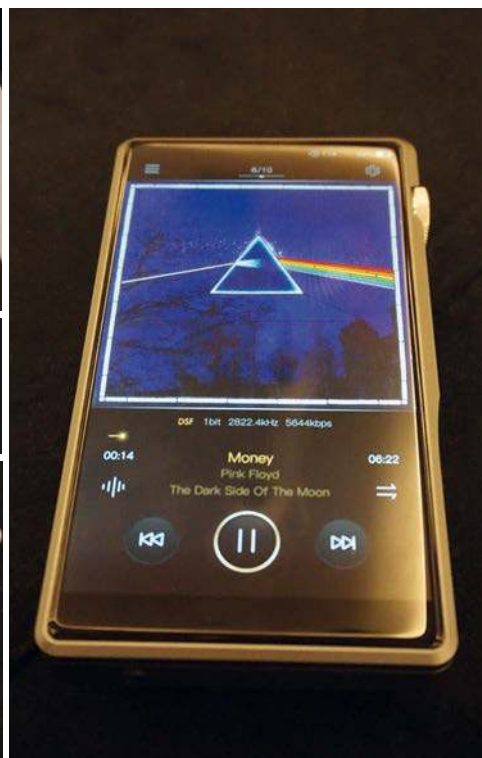
Acoustitune believes earpiece materials have significant impact on sound quality as these dynamics demonstrate.



The ZMF Verité Closed headphone offers potent but unexaggerated bass, and excellent “snap and weight”.



oBravo's £249 Cupid earphone is an amazingly accomplished hybrid planar magnetic/dynamic earphone that sounds as if somebody forgot a digit in its price tag.



The £799/\$979 DX220 is iBasso's best DAP yet, with dual ESS ES9028PRO DACs, Bluetooth 5.0 with LDAC/aptX features, MQA decoding, and interchangeable amp modules.



Noble Audio's flagship \$2,399 Khan—offered either in earphone or CIEM format—uses a highly unorthodox dynamic/balanced-armature/piezo driver array.



Vision Ears' €4,200 Erlkönig is a five-way, 13 driver universal-fit earphone that offers four switch selectable voicing profiles.



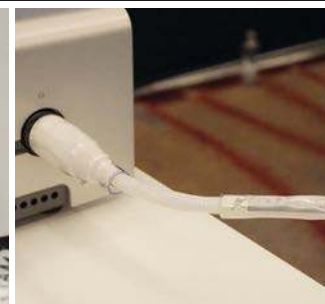
The £359 beyerdynamic Lagoon Travellers/ Explorers (same headphone, different colours) offer fine sound quality with and without ANC engaged, plus MOSAYC sound personalisation.



One of RHA's best-loved products has been its evergreen T20 earphones with DualCoil™ dynamic drivers and tuning filters. Now, the T20 is available as a wireless/ BT model, priced aggressively at £199 or \$249. True Wireless designs such as the latest RHA model are fast becoming all the range for personal audio users.



The clever Fostex TM2 is a two-piece (one for each ear) universal Bluetooth dongle duo with MMCX-type connects. The \$299 TM2 ships with a modest set of earphones, too.



Foundation is Synergistic's first headphone cable. It features pure silver conductors, and the firm's UEF Matrix Shielding.

EQUIPMENT REVIEW

conrad-johnson HVA-1 headphone amplifier

by Alan Sircom



The name 'conrad-johnson' is no stranger to traditional audiophiles, but the HVA-1 is the brand's first venture into the personal audio world. It's clearly a product derived from the high-end audio line, with styling cues and circuit design alike hailing from the brand's decades of high-performance audio.

The HVA-1 is a bare-bones design, simply putting its money where it matters; in the design, execution, and build of a very good circuit. It's a valve design, with 6922 double-triodes for each channel, coupled to a high-current FET buffer stage/source follower that delivers a healthy 3W of pure single-ended Class A power per channel into a 20 Ω load. This circuit layout is derived from the company's top GAT preamplifier. Components on that circuit are top-notch,

with the company's own Teflon capacitors nestling alongside Vishay metal film resistors. Vishays are also used in place of a conventional volume control potentiometer, in a custom-made stepped attenuator behind the volume dial. Both channels of the HVA-1 are also fully and independently DC regulated. The amplifier has two RCA line inputs (a button with two yellow LEDs on the front panel switches between the two), and a single pro-grade 6.35mm headphone jack socket. The circuit is profoundly single-ended from stem-to-stern.

Someone reading the aforementioned specifications thoroughly might point out that a pair of 6922 valves in Class A means the HVA-1 will run hot, that a stepped attenuator has more noticeable jumps in volume than a conventional potentiometer, and that the single-ended nature of the amplifier precludes any kind of balanced headphone. All of

"If you listen to this amplifier honestly and seriously, any such objections just melt away."

that is fair comment. Someone well used to c-j electronics will also note that the company's own Teflon caps are notorious for taking weeks to bed in, and that is a fair comment too.

On paper, these are deal-breakers. However, we don't tend to listen to paper, and if you listen to this amplifier honestly and seriously, any such objections just melt away. The deceptive thing about the HVA-1 is just how powerful it sounds – not just in a 'make more noise' sense, but in the way it grips hold of the headphones and lets them do their best work. This shouldn't be understated; while headphones tend not to 'flop around' like a loudspeaker/amplifier damping factor mismatch, some of the more demanding headphone loads do benefit from an amplifier with some 'grip'. What makes this fascinating (from an intellectual, if perhaps not strictly practical sense) is just how much this also influences the sound of more humble and easy loads; my workmanlike Sennheiser HD-25s are designed to monitor from the least competent amplifier (their ENG use implies they will be used running from the output of a camera), and yet took on about half an octave of depth and control that was a delight to hear. The deep bass tones of Nils Frahm's *All Melody* [Erased Tapes] shone through with greater precision and definition, even on such low-impact headphones.

It's a very ordered and beautiful sound, which might not bond it to those who equate bright and thin with 'better'; this is a full, rich, and satisfying presentation and to many, it will be like trying good chocolate after years of cheap candy bars. That sense of naturalness comes across as an expansive, dynamic, and detailed sound that makes you listen deeper. Oddly, I found myself less bothered by itchy ear cups, as I sat in front of entire movements or whole opera acts. No, it doesn't come with built-in anti-histamines; instead the HVA-1's performance is so musically honest, it takes you longer to reach your listening limits.

But perhaps the biggest part to the c-j sound is that it just keeps on going. Your headphones sound as if this was where they always wanted to be, music seems to be an effortless element that you hear without any form of electronicky hash or harshness, and all's right in the sonic world. The traditional audio world has its share of very expensive products that go for ultimate sound quality above the traditional roll-out of

Summary

Voicing: Fundamentally neutral with very mild hint of upper midrange warmth



(All ratings relative to comparably priced headphones.)

Resolution/Focus:



Sound staging/Imaging:



Dynamics/Expression:



Value:



Pros

- Extremely natural sound.
- Very neutral performance
- Excellent dynamics and soundstage
- Effortless detail

Cons

- Runs warm
- Stepped attenuator has big steps
- Single-ended only

SPECS & PRICING

Type: Valve, single-ended headphone amplifier

Inputs: 2x RCA line level

Frequency response: 20Hz–20kHz +0dB/-0.3dB

Power: 3 watts per channel RMS into 20 Ohms

Gain: 14dB

Sensitivity: 1.4Vrms to rated power

Hum and Noise: <200 UV below 100mw

Input Impedance: 12k Ohms

Output Impedance: 20–47 Ohms

Dimensions (W×H×D): 26 × 10.6 × 45cm

Weight: 8.6kg

Price: £7,490 incl VAT

MANUFACTURER INFORMATION

conrad-johnson design, Inc.

URL: conradjohnson.com

DISTRIBUTOR INFORMATION

Audiofreaks.

URL: audiofreaks.co.uk

Tel: +44(0)208 948 4153

specifications, and now that happens in the personal audio world, too. Some will be infuriated by the sheer existence of this product, others will just hear it and buy it! +

Warwick Acoustics APERIO electrostatic headphone

by Chris Martens

It seems as if it was just yesterday that I received a review sample of Warwick Acoustics' Sonoma Model One (M1) electrostatic headphone system (£4,995, or \$4,995 US). I reviewed the system favourably for *Hi-Fi+*, while my colleague Steven Stone praised it in our sister publication, *The Absolute Sound*. Steven's and my comments closely paralleled one another; we both appreciated the Sonoma system for its accurate, natural, and uncoloured tonal balance, its uncommonly fast transient speeds, its overall subtlety and nuance, its wide-range frequency response, and for its versatility.

Given how good the Sonoma M1 system was and is, the last thing I expected was Warwick Acoustics' decision to create an even *higher performance* electrostatic headphone system—one whose capabilities promise to surpass those of the Sonoma system in every way. That super-system is here and is called the APERIO electrostatic headphone system (APERIO, says Warwick Acoustics, derives from a Latin word that means to “uncover, open, or reveal”). Naturally, such an all-out attempt to redefine the state-of-the-art in headphone performance does not come cheaply and accordingly Warwick Acoustics will be selling the APERIO system at £20,000 (or

\$24,000 US). However, the APERIO system aims to deliver sound quality rivalling (or surpassing) that of loudspeaker-based systems selling in the six- and even seven-figure range.

As a declaration of its intent, Warwick Acoustics states, “The APERIO is designed for the demanding professional audio market, as a reference studio monitor headphone system for High-Resolution Audio production, mastering, mixing, and recording applications,” but also for “ultra-high-end home consumer applications.” With these ends in mind, Warwick Acoustics has followed what it terms a 'Complete System Design' approach, meaning that the system's analogue and digital front ends, its powerful electrostatic amplifier, and its intensely revealing headphones were designed from the ground up to complement one another in every way.

The first indication of how different the APERIO system is to the Sonoma M1 system comes when the system arrives in a beefy watertight, crushproof, and dustproof polypropylene travel case. The next comes when you first see the APERIO's preamp/amp/DAC and realise that it is roughly three times wider than the Sonoma M1's amp/DAC. The reason for the size increase is that the APERIO preamp/amp/DAC supports a much wider range of digital and analogue inputs than the Sonoma amp/DAC did and features circuitry specifically optimised for each input type. Further, the APERIO amp also provides considerably more power output and a more elaborate and robust power supply than the Sonoma M1 amp/DAC did, and it is fully capable of serving as a preamplifier in high-end audio systems.

In the analogue domain the APERIO provides single-ended and balanced analogue inputs and outputs, with High/Low gain switches for both analogue inputs. Digitally, the APERIO offers a very flexible set of inputs including USB, coaxial S/PDIF, AES3, and a fully DLNA compliant Ethernet interface. In turn, the APERIO DAC section, which is based on dual 32-bit, 8-channel DACs arranged in a dual mono configuration, can decode PCM files with sample rates to 384kHz and DSD files (native or DoP) up to DSD256. One crucial point, says Warwick Acoustics, is that, “all audio signals are kept in their native domain and format: analogue always





remains analogue; DSD stays DSD until its final conversion to analogue; PCM samples are never converted."

Warwick Acoustics uses the highest quality parts throughout the APERIO, leading to some impressive performance specifications. The APERIO's costly clocking circuitry, for example, provides very low jitter (82 fSec RMS @ 100 MHz) and an extremely low noise floor (-168 dBc/Hz). Warwick Acoustics notes that any DSP performed on PCM audio data is "double precision, 64-bit, fixed point, at native sample rates—equal to the best Digital Audio Workstations (DAWs)." The APERIO's dual DAC/dual mono architecture yields a signal-to-noise ratio of 131 dB. Separate EMI-shielded chambers enclose the DAC sections for each channel and are fed by quiet, noise-isolated power regulators.

The APERIO amp/DAC uses separate, domain-specific volume level controls. A fully differential, analogue attenuator, based on parallel, laser-trimmed, resistance ladder networks, is used for analogue and DSD signals. In turn, a DSP-based digital attenuator is used for PCM signals. Warwick Acoustics claims the attenuators are "calibrated and closely matched".

The APERIO's amplifier section uses eight discrete 1000V MOSFET devices per channel in a fully balanced configuration that is based on "a proprietary topology based on single-ended Class A operation." The upshot is an amplifier that delivers a noise-free 1800 V DC bias voltage for "charging the (APERIO's) BD-HPEL transducers" and serves up 15 Wpc of power output with very low distortion and noise.

Finally, Warwick Acoustics has gone to great lengths to maximize the performance of the APERIO's power supply and power regulation sections, its PCB layout and construction, the design and construction of its noise-isolating chassis, and its heat management system, which features four very low-noise cooling fans. In short, Warwick Acoustics has explored virtually every design and construction detail to give the system state-of-the-art performance.

At the same time, the APERIO electrostatic headphone offers plenty of innovations of its own. The original Sonoma M1 headphone used a proprietary, single-ended electrostatic driver featuring the firm's patented HPEL (High-Precision Electrostatic Laminate) technology. In contrast, Warwick Acoustics has used Multi-Physics Finite Element Analysis modelling to create all-new BD-HPEL (Balanced Drive High-Precision Electrostatic Laminate) drivers for the APERIO headphone. The BD-HPEL drivers are a symmetrically-driven (not single-ended) variation on the drivers used in the original Sonoma headphone.

Much has changed, though, in the course of driver development. First, the APERIO diaphragm now uses a complex multilayer film comprised of outer layers of 7µm-thick BOPP (bi-axially oriented polypropylene) that enclose and protect a thin 24 Kt gold inner layer held in place by an acrylic adhesive. Next, the new double-sided driver uses a fascinating sandwich-like structure featuring extremely rigid glass-filled polypropylene sulfide outer frames. Working from the outside in, the next layers in the 'sandwich' include outer gaskets, ►

"The APERIO is the finest headphone system I have ever had in my home, and also the finest I have ever heard (including some that cost far more than the APERIO does)."



- ▶ followed by gold-plated OFHC stators, polypropylene spacers, and—at the centre of the structure—the multilayer gold diaphragm. Warwick Acoustics has created an automated, high-precision diaphragm tensioning system that ensures tensioning consistency to “within a fraction of a Newton” and that, says Warwick Acoustics, ensures diaphragm tension is “differentially equalized in all axes across the film surface.”

The APERIO headphone ear cups are, as in the Sonoma M1, made of light, rigid injection-moulded magnesium, while ear cushions feature a combination of open and closed-cell foam interiors with smooth Cabretta leather outer surfaces, perforated Cabretta leather touch surfaces, and an open-weave fabric on the inner ring surrounding the ear. The headphone’s weight is a very reasonable 405 grams and Warwick Acoustics has lavished great care on its overall fit, finish, electrical integrity, and especially on ergonomics (most notably, on clamping pressures).

I ran the APERIO system with an AURALiC ARIES wireless bridge linked to a music library containing a mix of CD-quality, and high-res PCM, DSD, and DXD music material. The simple result was one of the most breath-taking headphone listening experiences I have ever enjoyed—one that in some respects was like listening to a Sonoma M1 system that had been working out in a gym, taken martial art classes, and worked to earn advanced degrees in particle physics and music philosophy. In other words, the APERIO can do everything the Sonoma M1 system could do and more, and do it with competence, sonic athleticism, depth, and refinement.

The system’s voicing comes as close to the ideal of neutrality as anything I have ever heard (including some exceedingly expensive speaker-based systems). Extension at high and low frequency extremes is exemplary, with the APERIO showing much stronger capabilities than the Sonoma M1 system on loud, low frequency passages and on fast-rising bass transient sounds. For example, I noted that the APERIO handled the mysterious, evocative, and high-amplitude low frequency sections of Nils Frahm’s ‘Chant’ [*Solo*, Erased Tapes, 16/44.1] with equal parts of power, clarity, and grace.

Resolution, transient accuracy, and almost blinding tonal purity are three of the APERIO’s strengths. On Hilary Hahn’s performance on the first movement from the Meyer Violin Concerto [DGG, 16/44.1] the APERIO beautifully revealed Hahn’s amazing fingering dexterity and bowing technique along and her distinctive string tone, which combines elements of sweetness, incisiveness, and—above all—clarity of musical intent. And there it is: the APERIO is about more than sound quality, per se, but about uncovering the very human emotions and communicative intentions underlying the sound.

Dynamic swagger and agility? Most definitely. Put on ‘Tom Sawyer’ from Rush’s *Moving Pictures* [Mercury, 16/44.1] and note how the APERIO renders the ultra-crisp and super-punchy attack of Neil Peart’s drums, the aggressive yet well-controlled and richly textured snarl of Geddy Lee’s bass, or the live-wire intensity of Alex Lifeson’s guitar lines. There is vigour and energy everywhere, but also subtlety and—after a fashion—delicacy shown in the masterful way the musicians modulate dynamics to create dramatic mini-crescendos and decrescendos throughout the song. The APERIO can handle high-energy rock music and other forms of power music with a dynamic athleticism that the Sonoma system could never have matched. Quite honestly the APERIO system can play (much) louder than I personally can bear to listen—meaning one will never complain of the APERIO ‘running out of steam’.

Spaciousness and soundstaging? Oh my, yes. I got a glimpse of what APERIO could do when I put on an old and well-loved audio chestnut: namely, the title track from Andreas Vollenweider’s *Caverna Magica* [Savoy, 16/44.1]. ‘Caverna Magica’ has long been famous for the way it produces enchanting 3D soundstages through most audio systems, but through the APERIO system I found there was suddenly

Summary

Voicing: Neutral



(All ratings relative to comparably priced electrostatic headphone systems.)

Resolution/Focus:



Dynamics/Expression:



Sound staging/Imaging:



Freedom of noise:



Features and versatility:



Value:



Pros

- Neutral, uncoloured voicing
- Incredible resolution, detail, and focus
- Dynamic expression, agility, and athleticism; this is one electrostatic that can really boogie or reveal the majesty of large-scale orchestral works
- Amazingly spacious, 3D sound as recordings permit
- Amp/DAC module can serve as a preamplifier, too.

Cons

- Price: Though reasonable for the quality on offer, the price will put the APERIO system beyond reach for many music lovers
- What "Cons"?

not just a little but a lot more magic in the 'Magica'. In fact, the APERIO took the song's 3D presentation to a whole new level, creating a huge, resonant, cave-like environment, which Vollenwieder's sumptuous-sounding harp filled beautifully. My point in this observation is to say that whenever there are useful spatial cues in music, the APERIO will find them and put them to great use.

I like to try to offer critical commentary where appropriate, but there really is nothing I can fault in the APERIO's sonic performance. The only drawback I encountered—and it is one common to most electrostatic headphone systems I have heard—is that if I moved my head suddenly while listening, pressure levels within the ear cups would change momentarily, causing a soft 'clicking sound' from the diaphragms. That aside, the APERIO listening experience was an unalloyed joy.

The APERIO is the finest headphone system I have ever had in my home, and also the finest I have ever heard (including some that cost far more than the APERIO does). If you seek a highly capable and profoundly revealing music exploration tool, the APERIO is the system for you. +

TECHNICAL SPECIFICATIONS

The APERIO headphone

Type: Circumaural, open-back, electrostatic headphone

Drivers: Full-range, low mass, balanced-drive high-precision electrostatic laminate (BD-HPEL) electrostatic drivers

Effective driver area: 3570 mm²

Frequency response: 10 Hz–60 kHz

Weight: 405 grams (excluding cables)

The APERIO preamp/amp/DAC module

Type: Class A solid-state, balanced output electrostatic headphone amplifier, preamplifier, and DAC

Analogue Inputs: One balanced stereo input (via XLR jacks), one single-ended stereo input (via RCA jack), with High/Low gain switches for both inputs

Analogue Outputs: One balanced stereo output (via XLR jacks), one single-ended stereo output (via RCA jacks). Both outputs deliver high current and switch-selectable +5 dB gain

Digital Inputs: USB digital input, one coaxial S/PDIF digital input, one AES3 input (via XLR jack), and one Network/Ethernet input (via RJ45 jack)

Outputs: One electrostatic/bias voltage output jack

DAC: Dual mono, 32-bit/384 kHz DACs with balanced outputs for PCM and DSD

DSP: For PCM only, 64-bit (double-precision) fixed-point processing at native sample rates

Digital audio formats supported:

USB: All PCM inputs up to 32-bit/384 kHz and DSD native or DoP inputs up to DSD256

Coaxial S/PDIF: All PCM inputs up to 24-bit/192 kHz

AES3: All PCM inputs up to 24-bit/192 kHz

Network/Ethernet: All PCM inputs up to 32-bit/384 kHz and DSD native or DoP inputs up to DSD256.

Frequency response: Bandwidth > 65 kHz

Distortion + Noise: < 0.001%

Dimensions (H×W×D): 68 × 413 × 351mm

Weight: 7.4 kg (not including power supply)

System Price: £20,000 (UK), \$24,000 (US)

MANUFACTURER:

Warwick Acoustics Ltd

Mira Technology Park Suite 1.02, NW05, Watling Street, Nuneaton, United Kingdom CV10 0UT

Tel: +44 (0) 24 7722 0377

URL: warwickacoustics.com

Auris Audio Euterpe headphone DAC/amplifier

by Alan Sircom



The concept of an audio Swiss Army Knife is overused and often incorrectly so. A Swiss Army Knife is a multi-function tool that is – in fairness – at best relatively OK at doing all the tasks it's meant to achieve (unless you are MacGyver, in which case you can build whole satellite communications systems with your trusty red penknife). The Auris Euterpe doesn't quite fit the 'Swiss Army Knife' bill, as it does three related things very well indeed; it's a DAC, it's a valve headphone amplifier, and it's an elegant wooden headphone stand. In other words, it's a one-stop shop containing all the bits from the end of your computer to the start of your headphones.

Teasing apart the separate sections here is not as worthy an exercise as usual, as the chances are it will be used in 'triumvirate' mode; you aren't going to use the Euterpe purely as a headphone stand (it's good, but it's a little 'spendy' in that context), and you probably won't break out either DAC or amp because of that form factor. So, where a DAC owner might paw over its ability to play DSD128 and PCM to 32bit, 384kHz precision, its XMOS USB section, and its use of a ESS Sabre DAC, and the amplifier owner might run through its ECC81 input tube and its pair of seven-pin PL95 beam power tubes to deliver just under a Watt to a 32Ω or 150Ω load in single-ended configuration, most will just roll this into one big good headphone amp/DAC sitting in a well-finished wooden headphone stand. The power supply is a separate box about the size of an external hard disk from about a decade ago. There is a spot of tube rolling allowed, as you can switch between PL95 and EL95 pentodes (there's a toggle switch on the top plate).

I was mildly concerned that the trio of tubes on the top plate of the electronics would slowly cook the headband of the headphones resting on

"I find myself being - unexpectedly - in the target audience for the Auris Audio Euterpe."

the Euterpe, but after extensive not listening with the juice connected, it barely raises them above room temperature.

The Euterpe's connectivity is rudimentary, but useful. There is a single USB-B input and a pair of line inputs (switchable from the front panel). There are also a pair of line outputs to connect to a conventional stereo system. At the front there is a A/D toggle switch to flip between the two inputs, as well as a matching toggle to flip between low and high impedance headphones. The volume potentiometer doubles as a power on/off switch, and there is a single ¼" stereo single-ended jack (balanced operation – in or out – is not on the Euterpe's radar). The controls are minimalist and reflect the product's destination and intent. There are no fancy displays to denote sampling frequency, no filter options, not even a LED to tell you the power is on (there are glowing filaments on the valves to act as a guide there), but none of these are needed. What's needed is something that sounds good without adding inconvenience.

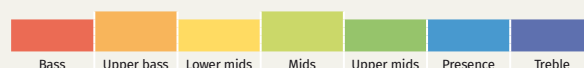
In truth, I wasn't expecting much from what is, in essence, a headphone stand with ideas above its station. Then I listened to it and came away extremely pleased with its performance. Both DAC and amp are well-matched and very easy on the ear; there's a warmth and even-handedness to the sound that doesn't throw detail at the listener, but is extremely detailed all the same. It's rich and satisfying sounding, and if you find yourself rejecting a lot of modern personal audio electronics for being 'stark' or 'etched', the Euterpe's balance will be perfect for you. There is a lot of dynamic range and mid-range detail on offer, and these extend up and down into the bass and treble, but at no time does the Euterpe shout or draw attention to itself.

Of the two sections, I think the amp is the real star. The DAC is good in and of itself, but plugging the line input into some extremely high-grade DAC outputs show just what the amp can deliver. Also, it isn't MQA compatible, which might be a problem for some. Euterpe is not constrained by the on-board DAC, just that it shows what the amp is capable of.

Perhaps most of all, I find myself being – unsuspectingly – in the target audience for the Auris Audio Euterpe. I spend a lot of time at the keyboard and some of it listening to music while I work. I've found the Euterpe is becoming something of

Summary

Voicing: Fundamentally neutral with slight warmth to mids and upper bass



(All ratings relative to comparably priced headphone amp/DACs.)

Resolution/Focus:



Sound staging/Imaging:



Dynamics/Expression:



Value:



Pros

- The most effective all-in-one there is!
- Very neutral performance
- Great dynamics and soundstage
- Plenty of detail

Cons

- Separates can sound better
- Single-ended only
- No MQA support

SPECS & PRICING

Type: Valve, single-ended headphone amplifier, DAC, and headphone stand

Inputs: 2x RCA line level, USB-type B

Outputs: ¼" headphone jack, 2x RCA line level

Digital formats supported: PCM to 32bit, 384kHz, DSD64, DSD128

Power: 0.9 watts per channel (32 Ohms/150 Ohms)

Valves: 2 x PL95, 1 x ECC81

Output Impedance: Low 32-80 Ohm / High > 150 Ohm

Dimensions (WxHxD): 27x21x23cm, PSU 9.5 x 18.5 x 5.5

Weight: 4.1kg, PSU 1.1kg

Price: £1,499/€1,499

MANUFACTURER INFORMATION

Auris Audio

URL: aurisaudio.rs

Distributed in the UK by Elite Audio

URL: eliteaudiouk.com

Tel: +44(0)1334 570666

a constant companion, in a way a separate DAC, amp, and headphone stand never could. But the fact it's a companion without compromise makes this one i's a keeper! +

hi-fi+

Next issue

High-value high-end audio from PrimaLuna

PrimaLuna is a brand dedicated to making great high-end valve sound without it costing great high-end valve amplifier money! The brand rarely changes its product line, so the new Evo range is an exciting addition to the audio line up. We have the new Evo 300 preamp and power amp warming up for next month!



Plus:

Innuos ZENMini III and Linear Power Supply upgrade, Wharfedale's Linton loudspeakers to mark the company's 85th Anniversary, VPI's wonderful 40th Anniversary turntable, oBravo fires Cupid's arrow at our ears... and more!

HI-FI+ ISSUE 177 ON SALE OCT 31 2019 (UK), DEC 5, 2019 (US)



&



EXCLUSIVE DEAL!

Hear more from your music, for less

Enjoy the perfectly matched system of Focal Aria 906 speakers* and Naim Uniti Atom compact all-in-one player for just £2750**

See participating stores: <https://store.focal.com>

*Gloss Black, Prime Walnut or Noyer Walnut finish. **Suggested retail price; a saving of £398 off the combined SRP of both products. Offer is available at participating retailers until October 31st 2019, subject to stock availability. Cables are not included

THERE'S SO MUCH YOU HAVEN'T HEARD YET

THE NEXT GENERATION MAGICO S SERIES



"The Magico S1 MkII is, quite simply, outstanding. Very highly recommended!"

S1 Mk II, Alan Sircom - Hi-Fi+

"I feel I'd be hard-pressed to come up with a better performing speaker at their price point."

S3 Mk II, Josh Givorshner - soundstageaustralia.com

"..it has power and majesty, excellent resolution, natural timbres, deep, dynamic, authoritative and very well timed bass, combined with huge well focused stereo images."

S5 Mk II, Martin Colloms - HiFi Critic

"...a true, all out attack on the state-of-the-art in music reproduction."

S7, Myles B. Astor - Positive Feedback

 **absolute sounds ltd.**

International Distributors & Consultants of Specialised Hi-End Audio & Video Systems

58 Durham Road, London, SW20 0TW T: +44 (0)20 89 71 39 09

W: www.absolutesounds.com E: info@absolutesounds.com

For Your Nearest Dealer Please Visit The [Absolute Sounds](http://www.absolutesounds.com) Website

M
MAGICO