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## & Record Review

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REVIEWS  
SEPARATES,  
VINTAGE  
& MUSIC**



**188  
pages!**

# ULTIMATE HI-FI 2020

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**Equipment**  
70 standout  
separates tested

**Vintage**  
Audio icons  
of yesteryear

**Music**  
The best Vinyl,  
CDs & Downloads

**Opinion**  
Our columnists'  
hi-fi high points

• **VINYL/PHONO STAGES** AVID to Thorens • **DISC/NETWORK PLAYERS/DACS** Aqua to Simaudio  
• **TRANSISTOR & TUBE AMPLIFIERS** Arcam to Yamaha • **HEADPHONES/PREAMPS** Audeze to T+A  
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*Hi-Fi News, September 2019*

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# SME

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**EISA HOME THEATRE SUBWOOFER 2020-2021**



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# PRIME PINNACLE

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In practice the Prime Pinnacles are svelte enough to slip into all but the smallest rooms, so if you crave a warm and a full-bodied sound, these towers will have your system glowing.”

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**Discover more at: [nadelectronics.com/m33](http://nadelectronics.com/m33)**



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Hi-Fi News Review - August 2020



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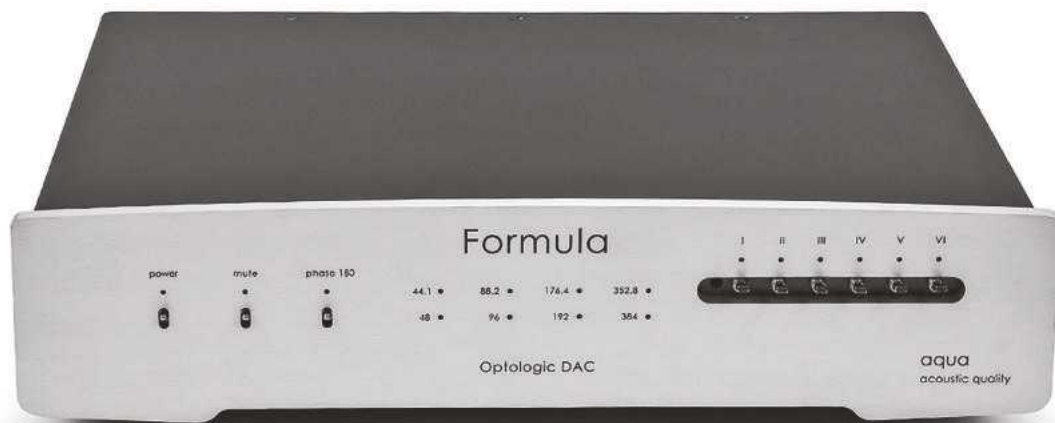


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aqua  
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Paul Miller, HiFiNews



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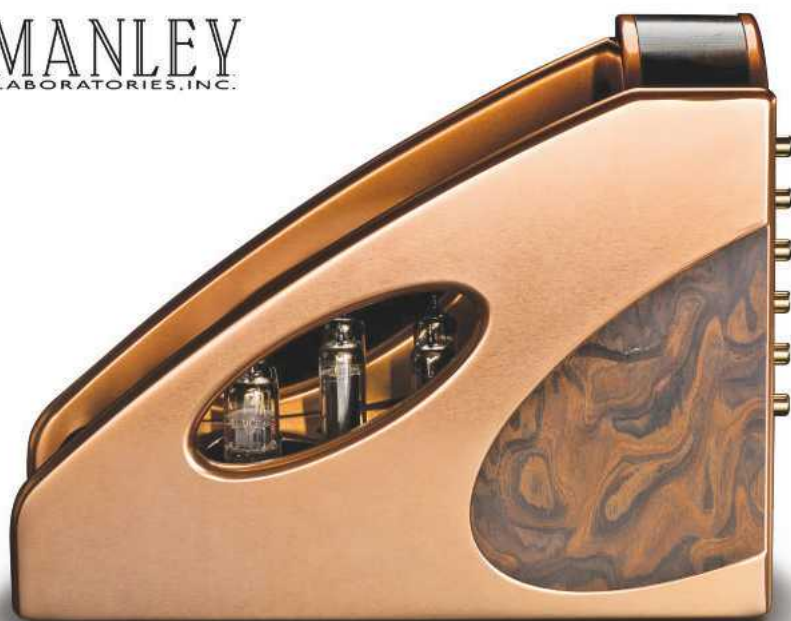


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Ken Kessler, HiFiNews

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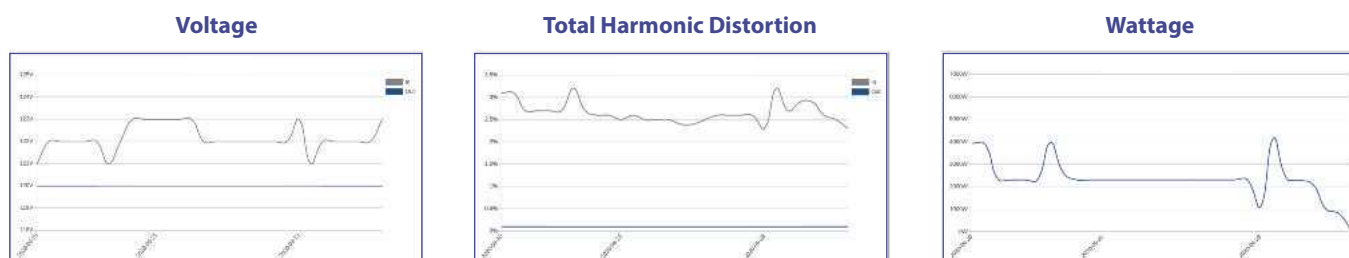
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Note in the first two graphs, Voltage and then Total Harmonic Distortion, how the wiggly top line represents the incoming AC wall voltage while the lower straight line shows you how the Power Plant Regenerator corrects what's wrong. You will be able to see the history of your home's incoming power quality and how the Power Plant straightens everything out.



**P12** Normal price ~~£5,250~~

**PowerPlay Promotion £4,300**

**P15** Normal price ~~£7,875~~

**PowerPlay Promotion £6,400**



If you would like to learn more about our regeneration and PowerPlay please use this link

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# YEARBOOK/20



**ABOVE:** Under new management – Thorens returns with a modern classic in the form of the suspended-subchassis TD 1601, (p39)



**ABOVE:** Comprehensive digital access, including network streaming, meets Purifi's top-flight Eigentakt Class D amp in NAD's M33, (p83)



**MUSIC:** 50 years on and this remastered double LP of The Kinks' *Decline And Fall...* is our choicest slab of vinyl (p154) while Handel's *Concerti Grossi* hits the top of our high-resolution downloads (p158)

**RIGHT:** *Hi-Fi News & RR* is the UK's representative of EISA's Hi-Fi Expert Group. Editor Paul Miller took over as EISA's President in June 2016

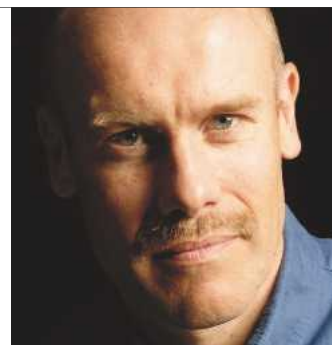


If there was ever a year to celebrate the positive things in our lives, then 2020, the global *annus horribilis*, is that year. So stay home, spin up your favourite tunes and immerse yourselves in our annual Yearbook as *Hi-Fi News & Record Review* celebrates the hardware that inspired our senses and the music that sustained our souls throughout 2020.

And what a treat we have in store, as our cover parade of issues from this year – published on schedule and uninterrupted throughout the health crisis – provides some expectation of the jewels of high-end audio featured in this bumper-sized 188-page collection.

I can promise this year's annual is a festival of the most awe-inspiring vinyl-playing hardware, amplifiers, loudspeakers and increasingly versatile *digital* gear launched across the globe. It's also an occasion to pause and reflect on the technologies and innovations that continue to drive the evolution of our shared passion.

Everything from traditional artisanship – purist tube amps and hand-assembled pick-ups – to the near-ubiquitous adoption of network connectivity is illustrated by the top-flight products in these pages. Equally, it's just as important to look back at some vintage audio heroes



and remind ourselves of hi-fi's impressive pedigree – including the first British amplifier to feature silicon transistors [p129]

We've come a long way since then, but through the entire lifetime of stereo audio one magazine has explored and catalogued every step along hi-fi's journey. Launched in 1956, *Hi-Fi News* has stood the

**'Now, more than ever, is a time to celebrate all that brings us joy'**

test of time as the audiophile's reference as, every month, we independently research, lab test and audition the newest high-end hi-fi products from established brands as well as the new kids on audio's block.

So if you want to read the first in-depth tests of the world's finest hi-fi then why not join us on the voyage. Who knows – next month you may discover that once-in-a-lifetime upgrade you have always dreamed of!

**PAUL MILLER GROUP EDITOR**

**HI-FI NEWS' EXPERT LINE UP: THE FINEST MINDS IN AUDIO JOURNALISM BRING THEIR EXPERIENCE TO BEAR ON ALL AREAS OF HI-FI & MUSIC**



**BARRY FOX**  
Investigative journalist supreme, Barry is the first with news of the latest developments in hi-fi and music technologies



**DAVID PRICE**  
An avid collector of audio treasures, and life-long hi-fi addict, DP lends his ears and experience from analogue to digital



**KEN KESSLER**  
is a long-serving contributor, luxury goods writer and champion for the renaissance in valves and 'vintage hi-fi'



**MARK CRAVEN**  
Editor of our sister title *Home Cinema Choice*, Mark's passion for music extends from stereo to multichannel and Dolby Atmos



**STEVE HARRIS**  
Former Editor of this very title from 1986 through to 2005. A lifetime in audio and a love of jazz makes Steve a goldmine



**ANDREW EVERARD**  
has reviewed hi-fi for over 30 years and is still effortlessly enthusiastic about new technology, kit and discovering new music



**STEVE SUTHERLAND**  
worked on *Melody Maker* and then edited *NME* from 1992-2000, the Britpop years. Steve brings a unique slant to our Vinyl Release pages



# The UK Hi-Fi Show *Live*



One of the advantages of being the oldest hi-fi magazine in the world is that over the years *HFN* has had time to station its journalists in audiophile hot-spots across the globe to bring you coverage of the biggest shows. From Germany's vast High End Show in Munich through to the annual exhibitions in

Hong Kong, Warsaw, Prague and Athens – not to mention our own UK Hi-Fi Show *Live*! which celebrated its seventh year in 2019 by moving from Windsor to the vast but elegant settings of Ascot's Grandstand – we keep you in touch with the latest kit releases. Here's our pick of the top events that impressed us over the last 12 months!



Clearaudio put the amp into campervan, its VW vehicle housing its Concept Active turntable and KEF's LS50 Wireless speakers [*HFN* Oct '17]. [www.clearaudio.de](http://www.clearaudio.de)



The Frankel Bar offered the chance to check out cables from Atlas and the Chord Company, browse LPs in the racks of Theme One Records and Diverse Vinyl [pictured], enjoy hi-res audio courtesy of Qobuz and Highresaudio, and grab a bargain at Puritan Audio Lab's display of its mains treatment products. Harry Jay-Steele of Naim Records played guitar live.

Signature Systems ran multiple rooms, a show highlight being a SOTA Escape turntable hooked up to amps from PS Audio, including a Stellar phono stage [see p47], driving Duevel Venus speakers [see p97]. [www.signaturesystems.co.uk](http://www.signaturesystems.co.uk)



A gold-leaf Sonus faber Lilium and Clearaudio Statement deck were just two world-class components to greet visitors, alongside three examples of brands' forays into car audio: a Mark Levinson-equipped Lexus RX [pictured], BMW 8-series Coupé with Harman Kardon system and the JBL Lamborghini.





## SHOWBLOG Sights and sounds from around the globe

Karma AV's stereo room saw Falcon Acoustic GC6500R floorstanders [HFN Feb '20] driven by BAT's VK-P12 phono stage, REX DAC [see p51], a

REX II preamp and VK-655SE monoblocks. Turntable was MoFi's EISA Award-winning Ultradeck+M [HFN Jul '19]. [www.karma-av.co.uk](http://www.karma-av.co.uk)



A superb-sounding match courtesy of Luxman's PD-151 deck [HFN Oct '19], EQ-500 phono stage, D-05u SACD player and L-590AXII amp [HFN Apr '16] with DALI's Epicon 8 speakers [HFN Sep '12]. [www.luxman.com](http://www.luxman.com); [www.dali-speakers.com](http://www.dali-speakers.com)



SCV Distribution used Vertere's MG-1 deck and a NovaFidelity X45 streamer/DAC into a Bricasti M12 Source Controller and M25 [HFN Nov '20] amp. IsoAcoustics showed its Gaia isolation products [inset] with Focal's Sopra N°2 [HFN Sep '15] speakers. [www.scvdistribution.co.uk](http://www.scvdistribution.co.uk)



Absolute Sounds arrived with a dazzling range of products from its portfolio, including components from Constellation, Continuum, Magico, EAT, Krell, Franco Serblin and PrimaLuna [above left] while not forgetting the TechDAS AirForce One

Premium turntable [above right]. Two rooms offered ticketed demos, the larger with the all-new Wilson Alexx loudspeakers driven by Audio Research Reference 160S [see p69] and D'Agostino Relentless [p73] amps [top]. [www.absolutesounds.com](http://www.absolutesounds.com)



Vertere made its mark once again in this set-up put together by Stone Audio which saw a SG-1 Super Groove turntable with Audio-Technica AT-ART1000 cartridge feeding Aesthetix Rhea, Calypso and Atlas amplification driving a pair of GamuT RS5i floorstanding loudspeakers. [www.stoneaudio.co.uk](http://www.stoneaudio.co.uk)

# 33 Revelations Per Minute



## ULTRADECK+M

“ Here the UltraDeck+M again belied its price / heft category, like a boxer knocking out a contender in the next weight class... ”

HiFi News, July 2019



## ULTRAPHONO

“ The MoFi UltraPhono redefines what you get for £500, even if you don't factor in what is a mighty fine headphone section. ”

HiFi News, March 2020

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### Bacup

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### Truro

Senso Systems  
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Doug Brady Hi Fi  
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Midland Hi Fi Studios  
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### York

Wall of Sound  
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audio - visual

01423 358 846 [karma-av.co.uk](http://karma-av.co.uk)

# MoFi



## SHOWBLOG Sights and sounds from around the globe

In one of the larger rooms, Raidho's new £95,000 TD3.8 loudspeakers let rip on the end of an Esoteric set-up based around components from the Grandioso Series [inset]. These included the Grandioso K1X SACD player, C1 preamplifier and M1 monoblocks. [www.raidho.dk](http://www.raidho.dk); [www.esoteric-highend.eu](http://www.esoteric-highend.eu)



Reel-to-Reel Rambler played a selection of music through a system comprising Aesthetix amplifiers, Raidho loudspeakers and open-reel machines from Revox, Pioneer, Akai and Ballfinger. There were also talks from

industry luminaries including Ken Kessler, Ed Pong of UltraAnalogue recordings and Michael Fremer [below left], and singer Lyn Stanley [below right]. [www.thereeltoreelrambler.com](http://www.thereeltoreelrambler.com)



This Kudos and Exposure pairing was set up in the AudioQuest/Kudos room, where Titan 707 [see p102] loudspeakers were driven by

Exposure 5010 monoblocks. The system also used AQ's Niagara power conditioners. [www.kudosaudio.com](http://www.kudosaudio.com); [www.audioquest.com](http://www.audioquest.com)



Melco treated visitors to an extensive display of its digital storage products plus a system fronted by its N10 digital music library [HFN Jun '19] playing through a Norma REVO IPA-140 integrated amp into Russell K's flagship Red 150se loudspeakers. Also on display was Melco's S100 network switch [see p116]. [www.melco-audio.com](http://www.melco-audio.com); [www.russellk.co.uk](http://www.russellk.co.uk)



This Cadence Audio/Padood demo was centred around Avantgarde Duo Primo XD [see p94] speakers driven by electronics from Nagra's HD range with a Garrard 301/SME/Ortofon front-end. Other

demos featured components from the SME range, Spendor, Plinius Audio, YG Acoustics and Boulder, with a lid-off look at the Boulder 2160 stereo power amp on static display. [www.padood.com](http://www.padood.com)



# Audio Video Show, Warsaw



This show just gets better and better – and there is no more vivid indication that it is becoming a destination event than the number of ‘civilian’ audiophile visitors I recognised from the UK. The rooms of the Radisson Blu Sobieski hotel were filled with high-end demos while across the road the Golden Tulip offered massive conference rooms, and the National Stadium contained everything from high-end imports to vinyl vendors to headphone halls.



Probably the largest amps I've ever seen – not counting the 6ft-tall behemoths from Opera Only that appeared at the Munich show back in 2013 – these are prototypes

of the Kooba mono amp from Pracownia Wzmacniaczy Lampowych (no website...). They use GM-130 valves and SiC MOSFET drivers. Power is rated at a full 250W/8ohm.



This gorgeous beastie comes from SoulNote. The A2 is a differential amp with assorted output modes, three balanced and three single-ended inputs, operation as pre- or power-amp-only and is rated at 100W/8ohm. Controls include on/off, source select and level – purism to the nth degree! Oh, and the build quality is breathtaking. [www.nipponhifi.com](http://www.nipponhifi.com)

Holophony's Number 2 is a two-box floorstander with 4in tweeter, 8in mid and 12in woofer offering, says the company, a rather useful sensitivity of 97dB/1W/1m. Meanwhile, its frequency response is a claimed 25Hz-25kHz. Price is €9480 per pair. The Number 1 model has an identical spec. but a more luxurious enclosure for €3000 extra. [www.avatar-audio.com](http://www.avatar-audio.com)



Freaky record decks are a Warsaw speciality, and I was simply mesmerised by the imposing Ad Fontes Gramofony. Effectively built to order – price is on application – it features a gorgeous laminated plinth made of various materials glued together under pressure, 14in tonearm, 12kg platter and DC motor. Dimensions are 550x400x250mm (wdh). [www.adfontes.pl](http://www.adfontes.pl)



The Egg-shell Tanq integrated amp with three line inputs uses two KT88s per channel to deliver a claimed 20W per side in single-ended (Class A)

mode. The curvy chassis is made from aluminium and it sits on anti-vibration feet. A nice touch is the Nixie tube display. [www.encore7.com](http://www.encore7.com)





# Hong Kong AV Show

Southeast Asia's largest audio event, the Hong Kong High End AV Show, took place over three days in 2019 at the Conference & Exhibition Centre in Wan Chai District, and was a roaring success.

With exhibitors from around the globe – many appearing for the first time – plus live performances from local singers, AV demos and dragon drum displays, there was something for everyone.



Local importer Fung Ning Audio showed the Alecra loudspeakers from Italian company Albedo. These leather-clad floorstanders stand 1.7m tall, each cabinet sporting a 1in tweeter, 5in midrange driver and twin 8in woofers from Accuton's CELL

range. Electronics comprised Manley's Neo-Classic 300B preamp and Neo-Classic all-tube monoblocks while the floorstanding turntable was the mighty Clearaudio Statement with TT1 parallel-tracking tonearm [HFN Apr '16]. [www.albedoaudio.it](http://www.albedoaudio.it)



With the Air Force Zero, the project to produce the ultimate reference turntable is now complete. Hideaki Nishikawa of TechDAS, the deck's designer, has been accompanying the 330kg system on a limited world tour and at the Hong Kong event posed for this shot as he lifted a cover that was protecting the motor pulley. [www.techdas.jp](http://www.techdas.jp)



Hong Kong hosted the world premiere of the Plural Evo speakers from German manufacturer ZellaTon, which are said to operate over a 100Hz-8kHz bandwidth without a crossover. Kondo's H6 Melius EL34 power amplifier and M7 Heritage preamp were also on show. [www.zellaton.de](http://www.zellaton.de)



The Wadax Atlantis Transport reads CD, SACD, DVD-Audio and Blu-ray 'Pure Audio' discs. Beneath the sliding lid on the top of the player lies Thor, a proprietary motorised loader that lowers a disc vertically into the machine. Other

features include a vibration monitor and the ability to rip SACDs – though, as this is contrary to SACD licencing, the company points out that this is for the purpose of academic research only! [www.wadax.eu](http://www.wadax.eu)



Seven years in development, Burmester's 159 Mono Power Amplifier has now been added to its Signature Line. Hand-made at the German company's factory in Berlin, the Class A/B monoblock measures 523x415x660mm (whd) and is rated at 1200W into 4ohm. The control unit is hidden under the aluminium top cover when not in use. [www.burmester.de](http://www.burmester.de)



# Audio Video Show, Prague



For the sixth year, the Prague Audio Video Show was held at the Hotel Don Giovanni, just five minutes by metro from the city's historic centre. Taking place over the weekend of the 28th and 29th of February this year, there was no shortage of showstopping kit, from both international and local brands alike. Whether it was cutting-edge streamers, Kronzilla tubes or big-ticket speakers made from slate, you could be sure of sounds to suit all music lovers.

Czech company KR Audio has certainly built itself an enviable reputation over the years when it comes to producing vacuum tubes and used the event to show off single-ended amplifiers from its Kronzilla series. The integrated design pictured sports a brace of its T-1610 tubes and is said to deliver 22W-50W in Class A. [www.kraudio.com](http://www.kraudio.com)



T+A certainly knows how to put on a spectacle, its room dominated by a pair of the striking Solitaire CWT 1000 loudspeakers, with four bass drivers, eight midrange units, and an electrostatic tweeter per side. No less impressive

was the brace of M 40 HV monoblocks [HFN Dec '18] that flanked them. The rest of the system also featured electronics from its flagship HV series, plus a G 2000 R turntable [HFN Jul '16]. [www.taelektroakustik.de](http://www.taelektroakustik.de)



Sroll is named after the company's founder Luděk Šroll who makes his own hi-fi electronics, speakers and cables. Luděk demonstrated a system made up of his Muse DAC hooked up to an Epigram integrated amplifier, said to kick out 230W/4ohm per side. The speakers are the Sound Garden, which boast no fewer than 14 drivers per enclosure. [www.sroll.com](http://www.sroll.com)



'Sound without voodoo' is one of RD Acoustic's mission statements, which used the event to show its full-range Evolution loudspeakers and the smaller Euphoria, which

boasts a 38cm woofer. The electronics included the company's monoblocks fed by a PrimaLuna preamplifier [bottom of equipment rack]. [www.rdacoustic.cz](http://www.rdacoustic.cz)



This is Fischer & Fischer's SN/SL 670 speaker. The top cabinet sports a Mundorf AMT tweeter between two 180mm midrange drivers while the lower one houses twin 220mm woofers. Both enclosures are made from slate. Electronics are from T+A's flagship HV series. [www.fischer-fischer.de](http://www.fischer-fischer.de)



# Athens High-end Show



Now in its seventh year, the Athens Sound & Vision Show – also known as the Hxos Eikona Show – took place at the Hotel Stratos Vassilikos in the centre of the city. Organised by Greek technology and hi-fi magazine *HXOS+* with online audio site *hiendnews.gr*, this medium-sized event still managed to attract many thousands of eager visitors.

Among the products exhibited were components from stalwart specialists such as Wilson Audio and dCS while local distributors showed a variety of exotic products, including designs from AKU Audio. There was no shortage of vinyl too, with turntables from EAT and Clearaudio while amplifiers with glowing valves lit up many a room.

This novel-looking design is from the pen of George Kazantzis, founder of AKU Audio. The 1400mm-tall Talos speaker comprises four drivers – a 305mm woofer, two 178mm midrange units and a 34mm tweeter – each housed in its own chamber. The company describes the enclosure as being of 'multi-layered proprietary body construction' while the stand is made out of 6mm high-strength steel. Class D Ncore amps and active on-board DSP complete the package. [www.aku-audio.com](http://www.aku-audio.com)



These eye-catching speakers are the Virtuoso M from Audio Solutions, driven by a pair of M350 monoblocks and C1800 preamp from Canary Audio. The system used two turntables – an Origin Live Resolution and a

Reed Muse 1C with 5T arm – both playing via a Canary Audio MC10 phono stage. Digital sources comprised a SotM sMS-200ultra network player and Spring 'Level 2' DAC from Holo Audio. [www.audiosolutions.it](http://www.audiosolutions.it)



Local company Nexus Acoustics introduced a new reference digital-to-analogue converter that it calls the Xaitas RD-500. The DAC employs 2A3 triode tubes from JJ Electronics and is a Class A design. It comes in an attractive wooden case and offers a USB 2.0 input up to 384kHz/24-bit alongside an S/PDIF input up to 192kHz/24-bit. [www.nexusacoustics.com](http://www.nexusacoustics.com)



A real treat for the ears were Wilson Audio's Sasha DAW [HFN Mar '19] loudspeakers driven by Burmester 911 monoblocks. Vinyl source was a Clearaudio Innovation turntable [HFN Sep '09] with two arms – the TT2 equipped

with a Goldfinger Statement cartridge and the pivoted Universal 9 with a DaVinci V2 pick-up. Digital front-end comprised the dCS Vivaldi Transport, Vivaldi DAC and Vivaldi Master Clock. [www.wilsonaudio.com](http://www.wilsonaudio.com)



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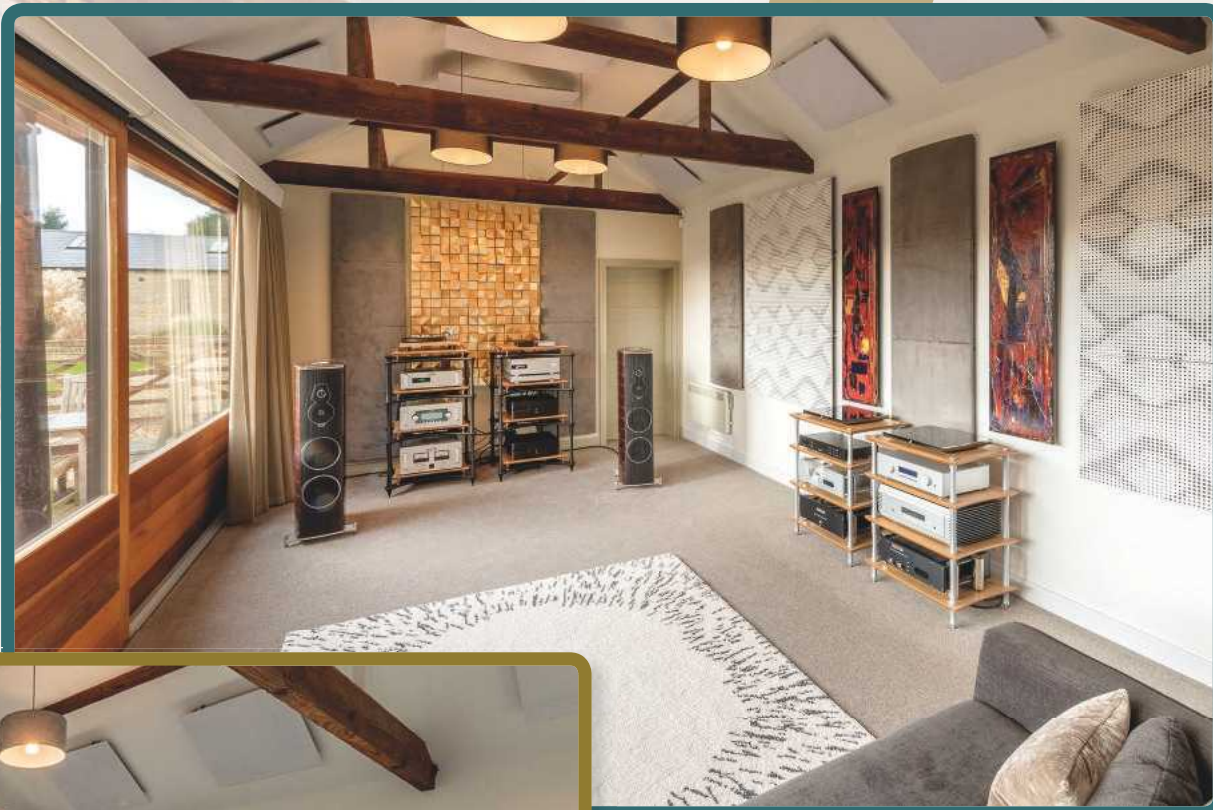
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 Supplied by: AVID Hi-Fi Ltd  
 Telephone: 01480 869900  
 Web: www.avidhifi.co.uk  
 Price: £5500 (£5990 with arm)

AUDIO  
FILE



# AVID Volvere SP

With pretty much every AVID component still in production, it's clear that company owner Conrad Mas does not chop and change designs on a whim. Here, AVID has largely stuck with

'Bass notes were fruity and sinuous, carrying the track along'

the thinking behind its very first turntable, the 1999 Acutus.

The same philosophy of high-mass platter, suspended subchassis and torque motor can be seen in the £5500 Volvere SP. Available in either silver or black, the deck features a cast alloy subchassis with carefully machined ridges to minimise vibration. This subchassis sports a trio of legs, each sitting in separate springs located on the lower base. Elastic O-rings locate around each of these suspension turrets via pegs on the subchassis, limiting lateral movement.

The subchassis contains the bearing and an outrigger for a tonearm. This comes pre-drilled for a standard 9in SME fitting but adapters that allow arms with

standard Linn or Rega mounts to fit this are readily available from AVID.

An inverted bearing has a central spindle on which sits a ball in a small dimple. This makes contact with a sapphire thrust pad, while the bearing shaft is sintered bronze and is self-lubricating.

Meanwhile, the outboard PSU has a high-quality internal toroidal transformer and generates a stable supply for the Crouzet-made AC motor. The PSU not only allows push-

button speed change between 33.3 and 45rpm but the supply can be altered in frequency to enable the fine tuning of each speed.

Platter drive is via two precision circular cross-section belts, and besides a fixed cork mat AVID supplies a screw-down record clamp. For this review, the Volvere SP was fitted with the company's TA-3 tonearm, which to all intents and purposes is a Rega RB330.

## THRILL SEEKER

We equipped the TA-3 arm with an Audio-Technica AT-OC9MLII cartridge and it didn't take long to discover just how good a really first-class belt-drive deck can sound. There was a magnificent sense of focus and stability, rhythms were

locked down tightly, performers were pinpointed accurately in the soundstage and detail was glorious.

Yet it was the low end that kept us coming back for more. The picked bass notes that introduce Chris Rea's 'Loving You' [*One Fine Day*; Magnet remix] were deep, fruity and sinuous, carrying the track along with precision. When Rea's vocals came in, the Volvere SP ensured his voice sounded emotive and lifelike before his trademark vocals became appropriately gruff.

Spin something densely recorded and the Volvere SP rises to the challenge. The jangling guitar, mandolin and kick-drum on the intro to Steve Earle's 'Copperhead Road' [MCA] can sometimes fight each other for supremacy in the mix, but the Volvere SP slapped them confidently into line.

With the TA-3 and AT-OC9MLII, the overall combination balanced out gracefully. There was no artificial sheen to the treble, and if a recording was turbid, the turntable let you know. That said, cymbal strikes were dynamic and clean, hi-hats crisp and snappy, and subtle background effects, such as the gentlest tap on an orchestral triangle, were clear to hear.

As a footnote, we whipped off the TA-3 arm and replaced it with an SME 309. The results were absolutely sublime, suggesting that this turntable has even more to give, funds permitting.

## VERDICT

AVID's Volvere SP deck has an inherent 'rightness' about the way it makes music, with a dynamic, detailed and confident presentation that delivers all the thrills buried within the grooves of your records without the spills. ☺

**ABOVE: A triangular cast alloy subchassis 'sits' on a three-point sprung suspension. An outrigger provides a reinforced platform for the fitted TA-3 tonearm. Records may be secured to the cork mat via a clamp**

## HI-FI NEWS SPECIFICATIONS

Turntable speed error at 33.33rpm	33.29rpm (-0.13%)
Time to audible stabilisation	2-3sec
Wow/Flutter (Peak wtd)	0.04% / 0.04%
Rumble (silent groove, DIN B wtd)	-70.9dB (-71.0dB with clamp)
Rumble (through bearing, DIN B wtd)	-69.0dB
Hum & Noise (unwtd, rel. to 5cm/sec)	-52.8dB
Power Consumption	13W
Dimensions (WHD) / Weight	460x210x480mm / 12.5kg

AUDIO  
FILE

Medium output moving-coil pick-up cartridge  
 Made by: European Audio Team, Austria  
 Supplied by: Absolute Sounds Ltd  
 Telephone: 0208 971 3909  
 Web: [www.europeanaudioteam.com](http://www.europeanaudioteam.com); [www.absolutesounds.com](http://www.absolutesounds.com)  
 Price: £2290



## EAT Jo N°8

EAT stunned us with its Jo N°5 [*HFN* Dec '18], selling at a sane £799 – a moving-coil head-and-shoulders above the pack. Responding to customer demand, company boss Jozefina Lichtenegger opted for EAT's second model, the Jo N°8 here, to come in at £2290, targeting a substantially dearer market position.

She did, however, face a challenge, simply because the N°5 is so good. The new egg-shaped MC would have to feature superior parts, with the testing and selection regimes even more critical. Although the cartridges are as universal as any, the N°8 is evidently optimised for EAT's new flagship F-Note tonearm, together with some Graham and Ortofon models.

We used the Graham Phantom, which the company often fits to its upper-range turntables, on the TechDAS Air Force III Premium [*HFN* Jun '19]. As the cartridge is

'The twang of Jew's Harp seemed to float in its own clear space'

massive, at 25.1mm at its widest point, 28.3mm deep and 19.2mm tall, there may be arms with fixed headshells and no slots for fore-and-aft tracking adjustment that might prove a tight fit.

Because the wooden shell encloses an aluminium core, those with a screw-tightening fetish will be happy to note that the N°8 can be fixed without any worries, while well-spaced, colour-coded pins also aid installation. And, while the curvy, bulging body of this cartridge is not as helpful as the parallel sides of blocky shapes for alignment, the prow of the N°8 is flattened and thus easy enough to use as a guide if viewed from overhead.

We used this with EAT's flagship E-Glo phono stage, setting the loading by ear and mostly preferring 80ohm. The optimum downforce

for this cartridge is specified as a porky 2.3g, but the N°8 proved less critical here than the N°5, and no mistracking was experienced even at 2g.

## IN CONTROL

Although the N°5 maintains its peerless value, the N°8 ups the ante by a huge amount. It warranted a debut blast with our preferred bass showcase, The Band's eponymous second LP [Capitol]. But with this it's not so much the phenomenal bass guitar of Rick Danko that shows you what the music's foundation can be, as Levon Helm's drumming.

'Up On Cripple Creek' was fat and fulsome via the N°5, though still utterly enjoyable. The N°8 added ample control and dryness to increase the realism of the bass drum – skins and all – with precision and detail ramped up. The snap, in particular on the snare, was tighter, faster, more crisp. The twang of the mock-Jew's Harp seemed to float in its own clear palpable space.

The timely arrival of *Monk's Dream* [Mobile Fidelity One-Step] then provided us with an exemplar of spatial concerns, in a virgin pressing. Each instrument occupied what we can only imagine was the exact positioning at the recording site, enhancing the concept of the Monk's quartet as a cohesive group while highlighting each player.

As for the sound of each instrument, it was chill-after-chill, those fleeting moments where the reproduction is so realistic and authentic that you know your system is working at its peak.

Ah, you're thinking: a One-Step LP makes any system sound better. True, so we followed this up with Whitesnake. They, of course, represent the heavy-metal-via-stadium, power ballad excess of the



**ABOVE:** The N°8's alloy body includes threaded inserts for a tight fit with robust headshells. While the chestnut overcoat has its charm, the rotund curves are no gift to precise cueing or set-up

big hair bands, but only the churlish would deny their sense of majesty. The 30th anniversary reissue of *Slip Of The Tongue* [Rhino] is a time capsule of the genre's overblown self-importance, like Prog Rock without the intellectual pretence. But this stuff can have you reaching for your air guitar before you can say 'Cheap An' Nasty'.

Then again, this LP featured the magnificent Steve Vai, and guitar is what it's all about. The N°8 seemed to know this, finding minuscule details that other pick-ups would leave buried, like pirates' treasure hidden under the sand.

## VERDICT

EAT's Jo N°8 achieves at its price what the N°5 did at £799 while adding subtle refinement in precisely the areas where the latter needed it. This cartridge is immediately captivating and so musical... a future classic. ☺

## HI-FI NEWS SPECIFICATIONS

Generator type/weight	Moving-coil / 12.5g
Recommended tracking force	22-25mN (23mN)
Sensitivity/balance (re. 5cm/sec)	385µV / 0.26dB
Compliance (vertical/lateral)	15cu / 14cu
Vertical tracking angle	22 degrees
L/R Tracking ability	>80µm / 75µm
L/R Distortion (-8dB, 20Hz-20kHz)	0.7-24% / 0.5-24%
L/R Frequency resp. (20Hz-20kHz)	+0.3 to -5.5dB / +0.3 to -3.6dB
Stereo separation (1kHz / 20kHz)	35dB / 23dB



A central image of a man in a tuxedo, likely a conductor, with his arms raised. He is surrounded by a cloud of musical notes. Above him is a yellow bar chart with seven bars of varying heights. The background is dark with various audio brand logos like Wilson Audio, DCS, Koetsu, darTzeel, Tech, S, EAT, D'Agostino, audio research, METRONOME, and PrimaLuna® scattered around.

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# AUDIO FILE

Belt-driven turntable/arm/cartridge  
Made by: MoFi Electronics, Chicago, USA  
Supplied by: Karma-AV Ltd, York  
Telephone: 01423 358846  
Web: [www.mofielectronics.com](http://www.mofielectronics.com); [www.karma-av.co.uk](http://www.karma-av.co.uk)  
Price: £1349 (inc. arm & cartridge)



## MoFi StudioDeck+

While our review of Mobile Fidelity's UltraDeck turntable [HFN Jul '19] appeared first, the less expensive StudioDeck, which will set you back £1199 without cartridge, is something of a 'sweet spot' candidate. It's actually £1349 when fitted with the StudioTracker MM pick-up, as here in StudioDeck+ guise, and there's an optional £200 'Super HeavyWeight' clamp. You can also order the deck pre-fitted with any one of three MoFi Electronics 'Tracker' pick-ups.

In a nutshell, StudioDeck versus Ultra, we have the same bearing (but different Teflon thrust pad),

'It came close to the flagship UltraDeck for both scale and "air"'

motor and arm (different copper wiring), a thinner platter and a simpler plinth construction for the StudioDeck. So little of consequence is sacrificed for a substantial saving.

In detail, the StudioDeck uses the ultra-quiet US-made AC-synchronous Hurst Motor, a 10in aluminium gimbal-bearing tonearm, Delrin platter material and dedicated anti-vibration HRS feet. Also, a single aluminium damping plate is used to add mass and dissipate vibration on the StudioDeck plinth.

Operational involvement consists solely of an on/off switch on the plinth's lower right-hand corner, with speed change from 33rpm to 45rpm achieved by moving the belt on the pulley. Tonearm set-up

is limited to balancing the arm, applying tracking force and hanging the anti-skate weight. From box to music? All in all, the entire process took only a dozen minutes or so.



### ABOUT THE VOICE

Silverhead's 1973 release *16 And Savaged* [Purple Records] is an album that embraces glam, power pop and hard rock, with a mix of speedy transients, slam and attack – it's certainly a recording that wants to bludgeon the listener.

Admittedly, the UltraDeck had the edge, most noticeably when it came to the percussion, yet the less costly unit offered a 'healthy percentage' of the flagship's performance. A simple analogy would be to cite two cartridges from the same family, with increases in price and gains in performance being incremental. The sheer

wonder of the StudioDeck vs. the UltraDeck is how perfectly it represents the gains without tickling the feet of the Law of Diminishing returns.

Next, as with its big sister, the StudioDeck was tested with the most refined recording we could muster, Dusty Springfield's 'The Look Of Love' on a 12in single from Classic Records. This really is 'all about the voice' and Dusty's breathy delivery. The StudioDeck demonstrated remarkable low-level detail, and again came close to the UltraDeck for delivering both scale and 'air', though with less warmth.

It was clearly appropriate that we try the StudioDeck with at least one MoFi title. So we opted for The

**ABOVE: The StudioDeck+ comes pre-fitted with MoFi's StudioTracker MM cartridge. The plinth has a single alloy-layer-on-MDF in place of the flagship UltraDeck's triple laminated construction**

Band's eponymous second LP, with Levon Helm's expressive drumming – always a litmus test for sonic precision – and Garth Hudson's majestic Lowrey organ proving particularly illustrative.

Again, the StudioDeck had a slightly 'lighter' sound, though we wouldn't say it lacked substance. It was more a case of quality rather than quantity, and one can tell that the same ears had 'voiced' both. The differences are on a par with buying 'the next amp up' in a range of integrated models. You get the same sonic signature, but slightly more punch. The difference here, though, is the massive savings.

One final observation: even more so than the UltraDeck, the StudioDeck justifies the addition of one particular accessory – a record weight, or clamp. MoFi's aforementioned 'noise dissipation' 'Super HeavyWeight' eliminated a trace of 'woof' in the mid-bass, and had the unanticipated benefit of also lowering surface noise.

We also played around with felt, rubber and cork mats, and the StudioDeck proved transparent and coherent enough to reveal the differences with repeatable results. That's one way of saying that the StudioDeck encourages tweaking, the UltraDeck less so, as it has the edge in ultimate refinement.

### VERDICT

MoFi has produced a gem of a basic deck that offers an instant dose of sheer delight. You all know the sensation when caught unawares by a product that defies its price category with magical sounds, and the StudioDeck is one of them. For those newcomers in search of a user-friendly introduction to proper vinyl playback, it's a no-brainer. ☺

### HI-FI NEWS SPECIFICATIONS

Turntable speed error at 33.33rpm	33.44rpm (+0.33%)
Time to audible stabilisation	4sec
Wow/Flutter (Peak wtd)	0.05% / 0.04%
Rumble (silent groove, DIN B wtd)	-67.2dB
Rumble (through bearing, DIN B wtd)	-67.7dB
Hum & Noise (unwtd, rel. to 5cm/sec)	-58.0dB
Power Consumption	5W (<1W idle)
Dimensions (WHD) / Weight	500x137x362mm / 8.7kg





Belt-driven turntable with electronic speed control  
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 Supplied by: Henley Audio Ltd, UK  
 Telephone: 01235 511166  
 Web: [www.project-audio.com](http://www.project-audio.com); [www.henleyaudio.co.uk](http://www.henleyaudio.co.uk)  
 Price: £1250 (inc. arm and cartridge)

AUDIO  
FILE



# Pro-Ject Classic Evo

Since the no-nonsense, 'plug 'n play' Pro-Ject 1 (1991) the company has produced a huge array of turntables to ensure it can offer a model to suit every taste and budget. Yet while some rivals will apply one single philosophical approach across all its turntables, Pro-Ject has shown itself to be far less doctrinaire.

For example, the original Classic [HFN Aug '16] was a nod to '70s designs, being a belt-drive, aiming to offer a sound substantially better than that of entry-level products but without breaking the bank. So rather than spring suspension, Pro-Ject fitted six Thermo Plastic

when you tap its plinth while a record is playing – showing a decent degree of vibration damping.

There are two more key tweaks to this new Evo version. Rather than the original's plastic sub-platter, the new deck uses a substantial metal affair while the hefty 300mm platter is lined with a thick ring of TPE damping on the underside. The inner platter sits on a steel/bronze/ Teflon main bearing and is turned by an electronically-governed AC motor. Oh, and besides 33.33 and 45rpm, 78rpm is supported.

The second upgrade concerns Pro-Ject's latest 9in tonearm, which retains the carbon-fibre wrapped aluminium one-piece tube of the original Classic, but gets a larger, beefed-up bearing housing. The counterweight is finished in bright nickel and, again, damped with TPE. This arm has a quoted effective

length of 230mm and an effective mass of 13.5g, it offers both azimuth and height adjustment, and has 'classic' thread-and-weight bias correction. The package comes complete with the company's Connect-IT E phono RCA cables, which hook up at the back.



## GOING ORGANIC

The Classic Evo is never less than enjoyable, and typically underscored by a detailed and communicative midband. It has a naturally open and organic sound that's fairly transparent yet doesn't 'machine gun' detail at the listener.

**ABOVE:** Seen here in its satin walnut finish, the machined MDF plinth also comes in a eucalyptus veneer. The alloy/ MDF top plate rests on six TPE balls inside the plinth, affording added isolation

With UB40's reggae 'Don't Let It Pass You By' [Signing Off; Graduate Records] it delivered a fulsome and thick bass. The kick drum came over with lots of energy and thump, and backed by a pile-driving bass guitar line that pushed the song along with gusto. There were serious amounts of heft here.

The Classic Evo's infusion of air and space to the sound, and good stage depth, are rather better than you'd expect from a turntable of this price, and this was underlined listening to 'Arabian Knights' from Siouxsie And The Banshees [Once Upon A Time; Polydor], where an airy ambience gave the song a compelling, almost ethereal feel.

The Ortofon Quintet Red MC cartridge is a very good match for this deck. It is naturally balanced, albeit with a gentle touch of brightness in the upper midband that accents percussion and vocals. This lends the Classic Evo a slight fillip, perking its rhythmic performance up a notch.

Perhaps as a result, the Evo is particularly entertaining with electronica, old and new. For example, while The Pet Shop Boys' 'I'm Not Scared' [Introspective; Parlophone] has a complex and compressed mix with some deep, powerful bass, this still sounded lively and energetic as the deck took a skillful swipe at the densely-packed musical layers.

## VERDICT

Pro-Ject's new Classic Evo turntable isn't a forensic retriever of detail, nor is it an ultra-grippy, taut and tight renderer of bass. Instead, it's aimed at mainstream buyers wanting something that sounds smooth, spacious and enjoyable – and in this it clearly succeeds. ☺

'The deck takes a very skillful swipe at dense musical layers'

Elastomer (TPE) balls between the wood plinth and main chassis plate.

The new Classic Evo continues with this approach, but adds some tweaks along the way. One change is that the original Classic came with an Ortofon 2M Silver MM, but the new Evo comes with the superior and more expensive Quintet Red MC fitted for £1250.

With its attractive real wood plinth – available in a choice of walnut and eucalyptus – and brushed metal top plate, this deck has a look and feel that traditional vinyl fans will like. In use it feels fairly slick, and is relatively quiet

## HI-FI NEWS SPECIFICATIONS

Turntable speed error at 33.33rpm	33.31rpm (–0.065%)
Time to audible stabilisation	5sec
Wow/Flutter (Peak wtd)	0.02% / 0.05%
Rumble (silent groove, DIN B wtd)	–72.3dB
Rumble (through bearing, DIN B wtd)	–68.6dB
Hum & Noise (unwtd, rel. to 5cm/sec)	–60.6dB
Power Consumption	6W (1W standby)
Dimensions (WHD) / Weight	462x131x351mm / 10.5kg

AUDIO  
FILE

Medium-output moving-coil cartridge with exposed body  
 Made by: Sumiko, Minnesota USA  
 Supplied by: Henley Audio Ltd, UK  
 Telephone: 01235 511166  
 www.sumikoaudio.net; www.henleyaudio.co.uk  
 Price: £2099



# Sumiko Starling

**A**long with no fewer than four new moving-magnet cartridges, US company Sumiko has introduced two Japan-sourced moving-coils, with the Starling here priced at £2099.

It features an exposed generator assembly, which can pay dividends when it comes to mass reduction and resonance optimisation, although care and a steady pair of hands are needed when fitting the pick-up to the arm – though a protective plastic guard is provided.

Bonded to a milled aluminium top plate, the generator features coils configured in an 'X' shape plus a boron cantilever fitted with a 'Micro-Ridge' stylus. Meanwhile, the stylus suspension is based around a synthetic rubber material said to ensure that compliance will be better controlled in different climates, and over years of use.

One thing to note is that the chamfered cartridge connection pins seem a little smaller than usual,

*'It was equally adept at delivering all the richness of the notes'*

so you may have to gently squeeze the headshell tags a little in order for them to grip effectively.

The Starling is supplied in a very stylish wooden box complete with mounting hardware, while Sumiko's downloadable user guide is an absolute masterclass in everything that a manual should be.

## RIGHT ON TRACK

While the Starling has a (measured) rising top-end you have no reason to fear that this is an overtly 'bright' or raw-sounding MC. With its remarkable tracking abilities, this is far from being a hard and brittle-sounding design. Rather, it's wonderfully even-handed in the way that it delivers the music.

That said, there *is* a sparkle to the Starling's performance. What this means, however, is bags of

glorious detail dragged effortlessly from the depths of the grooves and served up in a capacious soundstage with instruments perfectly ordered. What's more, it doesn't simply dissect the music in a surgical manner but always endeavours to remain faithful to the musical message as a whole.

The Starling also works wonders when it comes to revealing filigree detail. Nothing remains hidden. The merest brush of a cymbal or the faintest squeak of finger on fretboard is laid bare, but never does this forensic ability threaten to disturb the main flow of the music.

In fact, we don't think we have ever heard Tony Bowers' fingers sound quite as distinct when playing the walking bass line that introduces Simply Red's 'Sad Old Red' from their *Picture Book* LP [Elektra]. And while the Sumiko Starling was busy revealing his hands moving up and down the fretboard, it was

equally as adept at delivering all the richness of the notes, each starting and stopping in such a way as to propel the music along.

There is always a concern that a cartridge that delivers exceptional top-end extension might be found a little wanting lower down the frequency range. But this was not so here. The level of bass detail it pulled from the depths of each track played was highly impressive.

The solid yet syncopated bass line that underpins Sade's cover of 'Why Can't We Live Together' [*Diamond Life*; Epic] motored along with verve, forming an unshakable foundation for the remaining instrumentation and Ms Adu's voice.

Meanwhile, Alison Goldfrapp's vocals on the track 'Annabel', from Goldfrapp's *Tales Of Us* album [Mute Artists], were gloriously emotional,



**ABOVE:** The Starling's massive alloy mounting plate has threaded inserts for locking tight into a headshell. The boron cantilever moves up into position, and with the coils aligned, once tracking at 2g

every vocal tremor sending a shiver up the spine. Equally, the acoustic guitar backing was crisp, immediate and set at just the right position in the soundstage to give a fine sense of depth and space.

Of course, we don't all own pristine audiophile albums, so a good test of a cartridge is how well it is able to deal with something a little less perfect. Our copy of Bach's Two-harpsichord Concerto BWV1016 [Nonesuch] is well-used but the Starling moving-coil cut through any haze like a warm spoon through ice-cream.

## VERDICT

The Starling might be nerve-racking to fit but the challenge is rewarded once the music starts. It has a poise, polish and panache that is alluringly addictive. And the way in which it shrugs off poorer pressings is also a revelation. It's a welcome addition to a fine range of pick-ups. Ⓛ

## HI-FI NEWS SPECIFICATIONS

Generator type/weight	Moving-coil / 7.8g
Recommended tracking force	18-22mN (20mN)
Sensitivity/balance (re. 5cm/sec)	578µV / 0.23dB
Compliance (vertical/lateral)	10cu / 11cu
Vertical tracking angle	26 degrees
L/R Tracking ability	>80µm / 80µm
L/R Distortion (-8dB, 20Hz-20kHz)	0.37-21% / 0.35-18%
L/R Frequency resp. (20Hz-20kHz)	+2.4 to -0.4dB / +5.9 to -0.5dB
Stereo separation (1kHz / 20kHz)	25dB / 15dB





## H95 Integrated Amplifier



# Intelligence is Change



The measure of **INTELLIGENCE** is the ability to **CHANGE**, said Albert Einstein. With the H95 we believe we have done this statement justice.

The H95 is indeed intelligent. It is not just an amplifier, but also a complete streaming solution with Spotify Connect, AirPlay and UPnP connectivity. Software upgradeabi-

lity ensures improved functionalities and new features, enabling the H95 to change over time.

Changing up to Hegel's cool design and signature sound quality, with a host of inputs and playback possibilities, will allow you to build an amazing multi-talented system. That is intelligence.



SoundEngine2



Software Upgradable

[www.hegel.com](http://www.hegel.com)

# AUDIO FILE

Belt-driven turntable with electronic speed control  
Made by: Thorens GmbH, Bergisch Gladbach, Germany  
Supplied by: Signature Audio Systems  
Telephone: 07738 007776  
Web: [www.thorens.com](http://www.thorens.com); [www.signatureaudiosystems.co.uk](http://www.signatureaudiosystems.co.uk)  
Price: £3000



## Thorens TD 1601

The evergreen TD 160 has been brought bang up to date with two new models from Thorens. There's the purely manual £2500 TD 1600 and the EISA Award-winning TD 1601, which is a semi-automatic design that will set you back £3000.

A three-point suspension has been retained from the Thorens TD 150 launched in the 1960s, but the implementation here is quite different. Most notably, the subchassis is now made from MDF,

*'It was topped off with a delicious sprinkling of crisp percussion'*

and rather than hang from the top plate it sits on three foam-damped conical springs mounted to a heavy, damped baseplate. Three adjustable feet allow for levelling.

Furthermore, the top plate is now made from a composite called 'Alucobond' – an aerospace-grade honeycomb material sandwiched between two sheets of aluminium.

To limit lateral movement of the suspension, Thorens provides an alloy strengthening plate that connects the bearing to the tonearm mount. It takes the form of a braced steel thread, connected between the bearing housing and a steel pin mounted to the baseboard. This acts in the same direction as the motor pulley and

bearing, effectively encouraging the subchassis to remain in this axis.

Meanwhile, the TD 1601's 12V AC synchronous motor is secured to the baseplate in a non-resonant housing and is silicone damped. Power is supplied by an offboard PSU boasting a chunky toroidal transformer, the motor transferring its drive to the aluminium subplatter via a precision-cut belt – in turn supporting a 2.2kg outer platter.

Pre-fitted is the 9.1in TP92 arm which has a damped main tube and a resonance-control ring at the centre. You can dial-up tracking force by means of a calibrated counterweight, while bias is applied magnetically. A simple pick-up platform screws on

to the armtube with fore and aft adjustment and this can be rotated laterally to set up the cartridge.

There's also a neat in-built photoelectric auto-stop system, a plinth button activating a tiny motor to lift and lower the arm. When the end of a record is reached, the arm lifts and the motor is shut off.



### SWEET SUCCESS

The new Thorens TD 1601 certainly has a pleasing crispness to its presentation and proved capable of capturing the essential dynamics of recordings with ease. Mark Ronson's *Record Collection* [RCA] revealed it to be something of a master at carrying a tune. It picked up the bass lines very well, and never felt

**ABOVE: The TD 1601 plinth is housed in a high gloss wood surround with a choice of walnut or black finishes. Both RCA and XLR sockets are fitted at the rear for your preferred tonearm lead**

lightweight or lacking in body. This was notable on 'Somebody To Love Me', where the underlying beat was solid and taut. In addition, the upper bass had a pleasing liteness.

But it was in the upper registers where the TD 1601 came into its own, the detail and openness suggesting a much higher price tag. Occasionally, startling clarity can reveal itself to be an artificial brightness that becomes wearing. This was certainly not the case here, for we found real insight and a fine sense of sweetness. We were pleased to find that the midrange was inviting and open too, the deck revealing all instruments, acoustic or amplified, to their full extent.

Playing 'The Dance', from The Cinematic Orchestra's soundtrack *The Crimson Wing* [Walt Disney Records], was a joy, with percussion leaping enthusiastically from the loudspeakers. Behind this, the double-bass was appropriately fruity and fulsome and, when The London Metropolitan Orchestra's strings came in, they soared magnificently.

Switching to something with a bit more pizzazz, 'Come To Me' from Koop's *Koop Islands* LP [Compost Records] was an absolute hoot. This is a magnificent slice of jazzy happiness and the TD 1601 lapped it up. Vocals were breathy and vivid, underpinned by a solid walking bass line and topped off with a delicious sprinkling of crisp percussion to drive the track along.

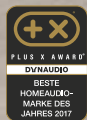
### VERDICT

Thorens has brought a classic design expertly up to date by adding an ingenious modern twist or two to a tried-and-tested recipe. The result is a highly impressive sound – and we found the automation system worked very well too. ⬆

### HI-FI NEWS SPECIFICATIONS

Turntable speed error at 33.33rpm	33.35rpm (+0.02%)
Time to audible stabilisation	5-6sec
Wow/Flutter (Peak wtd)	0.02% / 0.06%
Rumble (silent groove, DIN B wtd)	-67.7dB (-66.3dB suede mat)
Rumble (through bearing, DIN B wtd)	-65.5dB
Hum & Noise (unwtd, rel. to 5cm/sec)	-58.5dB
Power Consumption	17W (8W standby)
Dimensions (WHD) / Weight	440x180x370mm / 11kg

# Special Speaker Special Finish Special Forty



We could use this ad to say that there's a big, clever, research-based reason for introducing the brand-new Ebony Wave finish to Special Forty. We could say we targeted a certain demographic with its deliberately sinuous, precision-made take on the classic hardwood. Something the science told us would be irresistible.

But the truth is, we just thought it looked really, really nice. And we hope you do, too.

Learn more about the Special Forty at [www.dynaudio.com](http://www.dynaudio.com)



## DYNAUDIO



AUDIO  
FILE

MM/MC phono preamplifier  
 Made by: EAR Yoshino, Cambs  
 Supplied by: EAR Yoshino  
 Telephone: 01480 210004  
 Web: www.earyoshino.com  
 Prices: £1000 (MM) to £1499 (MM/MC with volume)



# EAR PhonoBox

Replacing the company's 834P [HFN Jun '94], which has seen a few tweaks and variants over the years, EAR's new PhonoBox comes with options – and one is entirely free!

You can buy the black box, fixed output, MM-only version for £1000, have the same with both MM/MC for £1199, or go for the chrome-finished 'Deluxe' for £1499. An added volume control involves no

sockets for phono-in and line/preamp out. Also on the back is a three-pin IEC mains socket.

## QUIET REVOLUTION

The old EAR 834P, for all of its musicality, was a bit wild 'n' woolly, albeit in a euphonic way. All it took here was a spin of The Beatles' *Abbey Road* anniversary reissue [Apple] to appreciate that the transparency and resolution of the PhonoBox was of a much more revealing calibre.

As with its forebear, the bass here simply dazzles in both its richness and authenticity. 'Come Together' had a weight and mass that

we just wouldn't have been able to experience a half-century ago, and the PhonoBox nailed it: you could feel each and every note played.

Turning to the punkish Runaways' *Queens Of Noise* [Modern Harmonic/Sundazed], as punchy and raucous an affair as its title promises, the PhonoBox dug deep, while working fast to ensure that the transients from both bass guitar and kick drums were taut and precise.

Joan Jett's guitar work showed this prowess consistently, and that speed is one of the PhonoBox's secret weapons. The sound was decisive, with sharp edges to each note in her fiery leads.

**ABOVE: The PhonoBox (MM and MC) is seen here with optional gain control and 'Deluxe' chrome fascia. Pick-up loading is fixed, but with well chosen values – so it's essentially plug 'n' play**

'The PhonoBox nailed it: you could feel each and every note played'

extra charge – perfect for when a PhonoBox is connected directly to a power amp and thus acting as a preamp in a minimalist LP system.

The aluminium-chassis PhonoBox contains three 13D16 triodes (but you can ask for ECC83s), and two small transformers provide the additional x10 step-up for MCs.

Simplicity is the order of the day here. The front bears only an illuminated on/off button, glowing red in standby before changing to amber when switched on. Meanwhile at the back a press button selects between MM and MC while an earthing post is sited below, between gold-plated RCA

It also demonstrated another family trait shared with the 834P, when it came to scale. Whitesnake is quintessential stadium rock, and even the band's ballads sound massive. The remastered album *Slip Of The Tongue* [Rhino] is the usual feast of swagger, with even better guitar showmanship, and the delivery was apposite for Steve Vai's complex playing. This unit is *fast* and nothing caught it out.

Rather more pensive is *Arthur (Or The Decline And Fall Of The British Empire)* [BMG], maybe The Kinks' greatest release ever. Ray Davies never shied away from using unusual instruments and sound effects, and this paean to a long-lost England that may never have even existed, is rich with nuance.

Just listen to the militaristic drum opening of 'Yes Sir, No Sir' behind proper, sinuous electric guitar, contrasted with brass that wouldn't shame the Black Dyke Mills Band. It's airy, spacious percussion, yet so crisp that it takes your breath away.

'She Bought A Hat Like Princess Marina' and 'Drivin' are rendered all the more evocative by the inclusion of contrasting instruments in terms of the eras evoked. Take the chunky bass guitar and twangy lead on 'Drivin' or harpsichord, wild lead guitar and kazoo on 'Marina' – we can't begin to tell you how much this little phono stage reinvigorated our love for this album...

## VERDICT

The PhonoBox, as said of the 834P in 1994, 'swings so fluidly and has such wide dynamics'. But it's quieter and more refined. Look elsewhere if you're a variable-loading obsessive, but we doubt you'll find anything more downright musical. ☺

## HI-FI NEWS SPECIFICATIONS

Input loading (MM/MC)	50kohm / 6.5ohm
Input sensitivity (re. 0dBV)	3.63mV / 378µV
Input overload (re. 1% THD)	84mV / 8.7mV
Max. output (re. 1% THD) / Impedance	10.6V / 50ohm–12.3kohm
A-wtd S/N ratio (re. 0dBV)	78.5dB / 76.6dB (MM/MC)
Frequency resp. (20Hz–20kHz/100kHz)	–0.4dB to +0.0dB / –0.18dB
Distortion (20Hz–20kHz, re. 0dBV)	0.014–0.118% (MM)
Power consumption	14W (2W standby)
Dimensions (WHD) / Weight	180x77x310mm / 5kg



MM/MC phono and headphone preamplifier  
 Made by: MoFi Electronics, Chicago, USA  
 Supplied by: Karma-AV Ltd, York  
 Telephone: 01423 358846  
 Web: www.mofielectronics.com; www.karma-av.co.uk  
 Prices: £499/£299

**AUDIO  
FILE**



# MoFi UltraPhono & StudioPhono

**W**hat you get with these Mo-Fi boxes is all you could want for adding phono to a system lacking it. On the top of their all-metal enclosures are a

*‘Textural consistency was of a whole, from deep bass to treble’*

volume control, a power-on LED and buttons for mono and subsonic filter. With the £499 UltraPhono a ¼in socket accesses its headphone amp (missing on the simpler, £299 StudioPhono), while the rear of both units sports RCA phonos for in-and-out signals, an earthing post and a multi-pin socket for power from the supplied AC adapter.

Flip them over, and here’s where the seriousness of these MoFi accessories becomes evident. A 5x30mm recess holds a dozen tiny DIP switches to allow you to match the unit to MM or MC cartridges, with nine impedance and four gain settings. The settings are printed on a label affixed to the underside,

so you don’t have to go looking for your owner’s manual.

Pay the extra and MoFi says the UltraPhono will surpass the StudioPhono with upgraded parts promising a boost to its MC performance. It also suggests that the UltraPhono is quieter and the resultant sound should be more neutral than with the warmer StudioPhono, offering a deeper soundstage and better imaging. And indeed, we found

that the UltraPhono was certainly the more analytical of the two.



## LENDING AN EAR

We wondered why these units sounded so good, and reminded us of Tim de Paravicini’s EAR Yoshino PhonoBox [see p41], then we were told ‘Tim helped us with the circuit design’. While the MoFi units haven’t quite the same dynamic contrast, bass extension or sweetness, they suggest the same basic nature in overall portrayal, in terms of content if not scale.

In other words, they’re as deliciously three-dimensional, transparent and musical if not as large in soundstage recreation.

**ABOVE: The UltraPhono and less expensive StudioPhono share the same alloy casework, but only the former includes a ‘Class A’ headphone preamp and 31-step volume control**

The UltraPhono seems happiest with the speed and leanness of MMs rather than the bloom of MCs – one suspects it is voiced to perfectly match MoFi’s own MMs. But we were still delighted with the sound on offer when using EAT’s Jo N°5 [HFN Dec ’18] and a Denon DL-103.

Having recently heard what both of these MCs could do with Tina Turner’s voice in ‘The Best’ from *Simply The Best* [Parlophone] via phono stages costing £1200 and £6k, we were mightily relieved to hear that these highly affordable units lost little of the impact.

Tina’s vocal inflections remained untainted, while the textural consistency was of a whole, from deepest bass to the uppermost registers. Blessedly, they always exhibited an even, balanced sound, rather than acting like the proverbial curate’s egg.

What added to the user experience was finding that the UltraPhono is also a terrific headphone amp, albeit a single-source device accepting only a phono signal. Playing the track via Audeze LCD-1 ‘phones [see p90] the UltraPhono retained a sense of openness and gave a realistic impression of space. And the UltraPhono preamplifier didn’t compromise the LCD-1’s slightly-out-of-head stage width one iota.

## VERDICT

The Vinyl Revolution has prompted a flood of superb phono stages and these two MoFi phono preamplifiers redefine what you can get for under £500. The generous cartridge matching facility ensures that those on a budget needn’t go without, while the sound quality banishes any thoughts of compromise. ⤴

## HI-FI NEWS SPECIFICATIONS

<b>Input loading</b> (MM/MC)	47kohm / 70ohm–47kohm
<b>Input sensitivity</b> (re. 0dBV)	9.7mV–460µV (MM to MC)
<b>Input overload</b> (re. 1% THD, MM/MC)	82mV / 43mV / 6.0mV / 4.0mV
<b>Max. output</b> (re. 1% THD) / <b>Impedance</b>	8.0V / 3.1–10.2ohm
<b>A-wtd S/N ratio</b> (re. 0dBV)	80.9dB / 61.1dB (MM/MC)
<b>Frequency resp.</b> (20Hz–20kHz/100kHz)	–0.11dB to +0.43dB / +0.81dB
<b>Distortion</b> (20Hz–20kHz, re. 0dBV)	0.00058–0.018% (MM)
<b>Power consumption</b>	3W
<b>Dimensions</b> (WHD) / <b>Weight</b>	98x32x180mm / 1kg

AUDIO  
FILE

MM/MC phono preamplifier  
 Made by: Primare AB, Sweden  
 Supplied by: Karma-AV Ltd, York  
 Telephone: 01423 358846  
 Web: www.primare.net; www.karma-av.co.uk  
 Price: £1345



# Primare R35

There's a great deal to be said for a flexible phono stage that offers numerous adjustments. And Primare's £1350 R35 model here has no fewer than 29 gain and loading steps across its MM and MC inputs.

It comes in a beautifully styled and finished enclosure weighing in at an impressive 9.5kg and available in titanium or black. The front panel is blank apart from the Primare

'The DL-103 was as punchy and gutsy as we have ever heard it'

logo, the centre of which doubles as an on/standby switch and also contains an operation LED. The unit reverts to standby after 20 minutes of no input signal detected, but this function can be defeated.

At the rear, there are unbalanced inputs and outputs on RCAs, plus a set of balanced XLR outputs. A row of toggle switches selects MC or MM operation, a subsonic filter and the gain of the preamp circuitry. Three switch positions give the options of +36, +40 and +44dB through the unbalanced outputs, plus +42, +46 and +50dB from the balanced XLRs, for MM. The corresponding figures for MC are +62, +66 and +70dB (unbalanced) and +68, +72 and +76dB (balanced).

Unscrewing the blanking panels beside each input socket reveals the input loading adjustments as a row of tiny DIP switches. These are fiddly to use and completely defeat the object of being able to turn down the volume, make a quick

adjustment, turn back up and listen. They are only labelled with switch numbers, so you need the manual to hand when making changes.

The two rows of ten switches are split between MM and MC sections. Nos 1 to 6 adjust MC impedance, with 21 settings over the 10ohm-47kohm range, while No 7 sets the MC load capacitance to 100pF or 1nF. Switch No 8 sets the MM impedance to 47kohm or 2.5kohm and Nos 9/10 select capacitance values of 100, 200, 300 or 400pF.

Also in the box was something called an 'AC Polarity Pen' that Primare recommends you use on your IEC mains input cable to confirm which lead is live. Primare says reversing the leads 'makes a significant difference to the sound'.



## REAL WALLOP

Cartridges used were the Ortofon 2M Black [*HFN* Mar '11], Clearaudio MC Essence [*HFN* Aug '17] and Denon DL-103 [*HFN* Jul '09].

We kicked off with the Ortofon 2M Black (MM), setting the R35 to its +44dB gain and standard 47kohm loading – a 'plain vanilla' set-up that immediately illustrated the delightfully smooth and inherently neutral performance offered up by this phono preamp. The presentation was poised, clean and beautifully detailed, with punch, heft and insight delivered at the low-end. Kick drums had real wallop behind them and bass guitar lines bounded along with great zeal.

The R35's treble typically imparts an appealing glossy sheen to performances. Treble

detail is excellent, and percussion instruments generally have just the right amount of metallic glimmer to their sound. Equally, firmly struck cymbals ring out strongly and decay much as you might imagine in a live performance. For example, the electronic percussion at the beginning of The War On Drugs' 'Under The Pressure' [*Lost In The Dream*; Secretly Canadian] sounded in complete contrast to the real hi-hats used in this track.

Switching to MC and with the Clearaudio MC Essence in place, the R35 once again did its best to step aside, sonically speaking, and ensure the cartridge remained the star of the show. Any midband hardness, stridency or slight coarseness that might have been evident with the high value MM quickly disappeared using the MC input and, in this instance, the more capable pick-up. Midrange detail, image focus and solidity all took a step forward.

So how about the venerable Denon DL-103 moving-coil? Setting the load impedance using the old adage of '10x the cartridge impedance' worked a treat here. In theory, the DL-103 works best into around 400ohm, thanks to its relatively high 40ohm generator impedance and, in our experience, can sound a little flat and dull into the 'standard' 100ohm loading. The DL-103 really came alive, as punchy and gutsy as we have ever heard it.

## VERDICT

Although the R35 may appear to have a daunting array of cartridge matching options, and its physical layout is not exactly user-friendly, it is well worth persevering with and will extract the very best from any cartridge that crosses its path. ⬇

**ABOVE: Elegant Scandinavian styling completes this flexible package. Touch the Primare logo – machined into the black alloy fascia – and the R35 switches out of standby. A titanium finish is also offered by way of alternative**

## HI-FI NEWS SPECIFICATIONS

Input loading (MM/MC)	47kohm / 10ohm-47kohm
Input sensitivity (re. 0dBV)	7.85mV-149µV
Input overload (re. 1% THD)	176mV/115/73/8.9/5.6/3.3mV
Max. output (re. 1% THD) / Impedance	22.0V / 80-93ohm
A-wtd S/N ratio (re. 0dBV)	85.0dB / 77.1dB (MM/MC)
Frequency resp. (20Hz-20kHz/100kHz)	-0.10dB to +0.12dB / +0.18dB
Distortion (20Hz-20kHz, re. 0dBV)	0.00035-0.0035% (MM)
Power consumption	12W (W standby)
Dimensions (WHD) / Weight	430x92x384mm / 9.5kg





# Natural selection.

Atlas cables are designed with clear, consistent objectives in mind, making it possible for us to have ideas and technologies created for our 'high-end' products quickly trickle down through the range – the new Element Mezzo XLR and Equator XLR cables are the latest examples in our evolution.

In recent years there's been something of a resurgence in the popularity of XLR connections, with brands such as Auralic, Chord Electronics and Hegel featuring XLR on their latest products.

It's created an opportunity for interesting original thinking, with some devices having sufficient output to drive 'awkward load' planar headphones or even loudspeakers – and yes, we have XLR cables and adapters to suit those applications and more.

Atlas cables are hand-made, by one person, in Scotland – so to complement our standard XLR configurations, creating custom variants for your needs is usually pretty straightforward. Selecting which of our cables to buy could be the only tricky bit.

Precision audio  
engineering.

Contact your dealer or Atlas direct for more info & advice.

**ATLAS**<sup>®</sup>  
the performance connection  
[atlas cables.com](http://atlas cables.com)

D E S I G N E D   &   H A N D M A D E   I N   S C O T L A N D



AUDIO  
FILE

MM/MC phono preamp with triode tubes  
 Made by: Pro-Ject Audio Systems, Austria  
 Supplied by: Henley Audio Ltd, UK  
 Telephone: 01235 511166  
 Web: [www.project-audio.com](http://www.project-audio.com); [www.henleyaudio.co.uk](http://www.henleyaudio.co.uk)  
 Price: £550



# Pro-Ject Tube Box DS2

With no fewer than 16 phono stages in its catalogue this is Pro-Ject's 'sweet spot' model at £550. The Tube Box DS2 is available in black or silver, with a choice of wooden side cheeks and, unusually for a phono amp at this – or any – price, it accommodates two turntables and offers two sets of RCA outputs. Power is from an 18V 'wall wart' and the unit also features 12V trigger input/outputs.

*'It delivered bass that was not just extended but truly rock-solid'*

While the front panel suggests that you might need a trip to the owner's manual, it's actually intuitive and user-friendly. After switch-on, LEDs light up to show which input has been chosen, whether or not the subsonic filter is engaged and which loading, capacitance and gain settings have been pre-selected by the user.

Dominating the fascia is the big rotary control that serves to dial in MC pick-up loading, which ranges from 10-1000ohm. Meanwhile, three buttons in a vertical array select Input 1 or 2, Output 1 or 2, and the subsonic filter. The top one

chooses between 47kohm loading for MM cartridges (or suitable high-output MC types), or 'Variable' for accessing the rotary. Below it are MM capacitance settings – 100pF, 220pF or 320pF – and the gain selector, with 40dB, 45dB and 50dB being ideal for MM cartridges, and 60dB and 65dB best for MCs.



**TUBE-Y WARMTH**  
 Listening to the remastered edition of James Taylor's *Greatest Hits*

[Warner] immediately revealed one of the Tube Box DS2's greatest qualities – quietness. While with 'Fire And Rain' and 'Sweet Baby James', a tube-y warmth worked its magic on a voice that's already so honeyed as to border on the calorific.

Then asked to rock out, with Mobile Fidelity's superb version of Twisted Sister's *Stay Hungry*, the track 'We're Not Gonna Take It' enjoyed all of the overwhelming force a heavy anthem demands. What's more, there was just enough softness at the upper reaches of the treble to add a frisson, again, of 'tubeness' – arguably as much a *raison d'être* for buying the Tube Box DS2 as its raft of facilities.

That's not to suggest for a moment that one should 'de-raunch' (or should that be 'Dee-raunch'?) something as inherently

and deliberately aggressive and volatile as Twisted Sister's harder-than-nails glam-metal. Indeed, bass was rock-solid and extended, as it had been throughout the remastered James Taylor LP.

Moreover, the whole thing held together beautifully even during the most frantic moments, which is all the more surprising given that Pro-Ject's founder, and hard-core classical devotee, Heinz Lichtenegger probably knows about as much heavy metal as we do Andalusian poetry.

Al Di Meola, a guitarist of sublime subtlety as well as speed, recently released his second homage to The Beatles, *Across The Universe* [E-A-R Music/Edel], the 14 tracks played in the Spanish guitar manner to dazzle you. This is like a demo LP for transient attack and detail. No blues, no smears here, and a waft of the air and woodiness associated with acoustic guitar.

As with the James Taylor set, this album provided the Pro-Ject Tube Box DS2 with the opportunity to display its chops with soundstaging. The width is broad while its big Pro-Ject sister, the E-Glo Petit preamp [HFN Feb '19], only just beats it for stage depth. Then there's the bass: on 'Strawberry Fields Forever' it offered mass of Kodo proportions. Meanwhile, up top, it never sounded nasty or raspy, or came across as too soft. And there was gain a'plenty too.

## VERDICT

A budget reference phono amp that handles two decks, has two outputs and adjustable loading to match any cartridge likely to cross one's path. But above all, it has a sublime sound, which makes it a killer. ☺

**ABOVE:** The protected ECC83 triode tubes can be seen popping up from the aluminium casework. LEDs show warmup, and loading options chosen for MM or high output MCs

## HI-FI NEWS SPECIFICATIONS

Input loading (MM/MC)	47kohm / 10ohm–1kohm
Input sensitivity (re. 0dBV)	9.45mV–556µV
Input overload (re. 1% THD)	72mV/51/32/10.5/6.1mV
Max. output (re. 1% THD) / Impedance	7.4V / 94–96ohm
A-wtd S/N ratio (re. 0dBV)	82.7dB / 62.7dB (MM/MC)
Frequency resp. (20Hz–20kHz/100kHz)	–0.3dB to +0.13dB / +2.2dB
Distortion (20Hz–20kHz, re. 0dBV)	0.12–0.51% (MM)
Power consumption	10W (1W standby)
Dimensions (WHD) / Weight	240x93x239mm / 2kg



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AUDIO  
FILE

MM/MC phono preamplifier  
 Made by: PS Audio, Boulder, Colorado  
 Supplied by: Signature Audio Systems  
 Telephone: 07738 007776  
 Web: [www.psaudio.com](http://www.psaudio.com); [www.signatureaudiosystems.co.uk](http://www.signatureaudiosystems.co.uk)  
 Price: £2495



# PS Audio Stellar Phono

The company says that its Stellar range provides a taste of the 'high end' at affordable prices, its £2495 Stellar Phono built into a full-width silver grey or black chassis with casework in steel (not alloy, perhaps in an effort to improve screening). And separate MM and MC inputs plus versatile loading and gain options should certainly appeal to those heavily committed to vinyl.

A recessed fascia groove houses a panel to the right indicating a variety of user-configurable parameters, with the selections displayed by LEDs beside four white legends that cover the basics: Mute, Input, Gain and Loading. There are no physical controls here, apart from the power/standby switch.

'The violins and violas spiralled upwards in a heavenly interplay'

Connectivity is comprehensive, the rear panel offering two sets of L/R outputs – one balanced via XLR sockets, and a second on conventional gold-plated RCA phonos. The inputs, meanwhile, comprise two sets of L/R phono sockets, one each for MMs and MC cartridges. All phono stage parameters are selectable via the remote control and you can make adjustments on the fly.

While MM cartridges are accommodated at the standard

47kohm setting, the Stellar Phono also allows the user to change MC cartridge loading between 47, 60, 100 and 200ohm. Then there are six gain settings, designed for low-output MCs to high output MMs. For MM, settings of +44/50/56dB are provided while +60/66/72dB options are available for MC.

In addition to these standard settings, there is a rear facility to dial-up a custom MC load value between 1-1000ohm via two small trim pots. While this extra flexibility is most welcome, you'd need a multimeter on the inputs for this.

## COOL AND PRECISE

Moving-coils we used included an Audio-Technica AT-OC9 ML/II and EAT Jo N°5 [*HFN* Dec '18], and the Pro-Ject Pick-it S2 MM [*HFN* Aug '19]. The PS Audio Stellar Phono proved a supremely transparent performer with a cool tonal balance. It was clean and precise, having little of the euphonic warmth

that some phono stages recreate.

With the AT-OC9 ML/II loaded at 100ohm, the explosive opening of 'Kiss This Thing Goodbye' from Del Amitri's *Waking Hours* [A&M Records] rocked the room, the band enjoying a palpable presence. Iain Harvie's stabbing interjections on his Les Paul guitar had real slam while even the piano, and the mandolin that picks its way above the heavy shuffling beat, enjoyed a precision and articulation we had not experienced before. Countless

sounds and textures buried deep in the dense mix were revealed to us for the first time.

Despite the EAT Jo N°5's recommended loading of >20ohm the lowest 60ohm option afforded by the Stellar Phono served it just fine. On 'Telegraph Road' from Dire Straits' *Love Over Gold* [Vertigo] the leading edges of plucked guitars, snare rim shots and piano were conveyed with astonishing speed and dexterity, particularly when it came to the rocking finale.

Vivaldi's 'Four Seasons' with the AAM under Christopher Hogwood [L'Oiseau-Lyre] is an absolutely searing performance on authentic instruments. Stunningly recorded, it captures world-class players at the peak of their powers. Right from the start, subtle ambient cues were laid bare – the creak of chairs, the sense of space in the Kingsway Hall – all creating a real live sense.

Not only was the rich tonal palette of this magnificent orchestra conveyed with remarkable clarity but there was a feeling of boundless extension at both ends of the frequency spectrum – without a hint of harshness to be heard. Cellos enjoyed a wonderful woody warmth while violins and violas spiralled ever upwards in heavenly interplay. With the affordable Pick-it S2 MM too, less open at its top end, the essential musical message and emotion of the Academy's 'Four Seasons' remained intact.

## VERDICT

This is just the ticket if information retrieval, speed and transparency are your priorities. With a first-rate turntable it can bring you closer than many of its contemporaries to the thrill of a live performance. ⤵

**ABOVE: Separate inputs for MM and MC mean two tonearms can be supported simultaneously while the MC input also includes continuously variable loading**

## HI-FI NEWS SPECIFICATIONS

Input loading (MM/MC)	47kohm / 60ohm–1kohm
Input sensitivity (re. 0dBV)	6.4mV–286µV
Input overload (re. 1% THD)	166mV/86/40/27/14/6.5mV
Max. output (re. 1% THD) / Impedance	26.0V / 140–145ohm
A-wtd S/N ratio (re. 0dBV)	80.1dB / 76.0dB (MM/MC)
Frequency resp. (20Hz–20kHz/100kHz)	–0.05dB to +0.0dB / +0.11dB
Distortion (20Hz–20kHz, re. 0dBV)	0.0055–0.071% (MM)
Power consumption	28W (27W standby)
Dimensions (WHD) / Weight	430x83x330mm / 10kg



Non-oversampling ladder-style DAC  
 Made by: AQ Technologies S.r.l., Milan, Italy  
 Supplied by: Elite Audio Ltd, Fife  
 Telephone: 01334 570 666  
 Web: www.aquahifi.com; www.eliteaudiouk.com  
 Price: £11,990

AUDIO  
FILE



# Aqua Formula xHD Optologic

Aqua's Formula xHD is the top model in a trio of DACs sharing the same converter architecture. This £11,990 design has what the Milan-based company calls 'Optologic' technology, with galvanic and magnetic isolation between analogue and digital sections achieved via opto-couplers.

Meanwhile, its D-to-A conversion is based on a 'ladder' of precision resistors for each channel, operating in differential mode for improved resolution and noise cancellation. These are fed with a proprietary digital signal derived from the

'It thrills with the sheer realism of the voices and the instruments'

inputs, generated within an FPGA (Field Programmable Gate Array).

The entire digital conversion section, including the clocking, is kept well away from any interference from the analogue circuitry, and vice-versa. In addition, the Formula xHD uses separate digital and analogue power supplies and, eschewing oversampling or digital filtering, the analogue section is direct-coupled, with no capacitors in the signal path.

The outputs are offered on either unbalanced RCAs, or balanced XLRs fed from a transformer-coupled circuit, which is rare in consumer

audio. Also, the xHD is of modular construction, with its various sections on separate circuitboards for ease of servicing and to allow it to be upgraded in the future.

All that aside, the Formula xHD is a pretty simple device, its controls running to nothing more than power, mute and phase inversion flip-switches, plus selectors for the bank of digital inputs to the rear.

In addition to an I<sup>2</sup>S port to match the AQLink connection on Aqua's La Diva transport, using an RJ45 connector, the Formula xHD offers more standard coaxial digital ins too. There's also an AES/EBU socket, and an asynchronous USB-B for connection to a computer (Windows users must download a driver).

A module option for an extra AES/EBU or RCA coax, AT&T fibre or Toslink can also be had. Sampling rates of 384kHz, 768kHz, DSD512 and input of DSD in native form, are only possible via the USB and AQLink connections, as the 'conventional' digital inputs are limited to 192kHz, and DSD via DoP.



**WHIPCRACK FAST**  
 With pianist Anna Fedorova's playing Rachmaninov [Channel Classics; DSD128/DXD] we were struck by the clarity with which the recording was conveyed via the Aqua DAC, especially in the *Paganini Rhapsody*. Not only was the presentation whipcrack fast where required, with a lovely sense of the

attack and decay of each note, but the music was supremely easy to enjoy, with an organic quality, and a real glow of the hall ambience.

Nor do you need to stick to 'hi-res' recordings to hear what the Formula xHD can do. Playing Etta James's *Heart Of A Woman* album of love songs [Private Music/RCA], it's striking how the quality of the voice shines through, even against some lavish arrangements. And the DAC brings out all the scale of the accompanying forces while still retaining focus where it should be.

Whether fed in from a PC via USB, or using the 'conventional' digital inputs, the Formula xHD does a superb job with CD-quality music, even opening up the muddy mix of Billie Eilish's dense *When We All Fall Asleep...* [Interscope/Polydor]. This display of youthful precocity is perhaps not a set to fall in love with, but at least the Aqua DAC brings a greater awareness of what's going on within the production.

*Rais*, a new 'one take' album [Just Listen, DSD 128], thrills with the sheer realism of voices and instruments, whether with the tender numbers or the more dance-influenced tracks, the trio close-miked in a large space. It sounds just as if you are sitting in front of the performers listening, from every breath and phrase of Kris Berry to the way Randal Corson and Jean-Jacques Rojer are balancing their instruments with her voice.

## VERDICT

The Formula xHD looks costly for a relatively 'featureless' DAC but listen and it all makes sense. It is revealing without being trying, lush but not bloomy, and above all capable of a captivating musical sound. ☺

**ABOVE: The xHD is hand-assembled and the standard of finish is exceptionally high, with solid aluminium casework finished in Nextel. It comes with an optional infra-red remote handset**

## HI-FI NEWS SPECIFICATIONS

Maximum output level / Impedance	3.52Vrms / 29-69ohm
A-wtd S/N ratio (S/PDIF / USB)	112.6dB / 112.8dB
Distortion (1kHz, 0dBFS/-30dBFS)	0.044% / 0.046%
Distortion & Noise (20kHz, 0dBFS/-30dBFS)	0.90% / 0.0050%
Freq. resp. (20Hz-20kHz/45kHz/90kHz)	+0.0 to -3.1dB/-3.2dB/-3.0dB
Digital jitter (48kHz / 96kHz)	910psec / 260psec
Resolution (re. -100dBFS / -110dBFS)	±0.4dB / ±0.8dB
Power consumption	9W (2W standby)
Dimensions (WHD) / Weight	450x100x370mm / 9kg

AUDIO  
FILE

CD/SACD/Network audio player  
 Made by: Arcam, Waterbeach, Cambs  
 Supplied by: Arcam (Harman International Industries Ltd)  
 Telephone: 01223 203200  
 Web: [www.arcam.co.uk](http://www.arcam.co.uk)  
 Price: £695



# Arcam CDS50

In 1986, Arcam proudly unveiled the first CD player to be both designed and manufactured in the UK. Now owned by Harman, its CDS50 (£695) is the sole silver disc-spinner in its lineup, and it's made in China. Here, the current 'HDA' look has taken over from the somewhat functional FMJ styling of past Arcam separates, the player having a smoother, softer style.

Not only is the Arcam CDS50 a network-capable machine (either via Ethernet or Wi-Fi), it also plays SACDs, and has optical and coaxial digital inputs. A rear USB-A 'host' socket allows playback from suitable external drives, and this can also be used to update the player's firmware if and when required.

The CDS50 has both coaxial and optical digital outputs (LPCM only) too, alongside analogue outputs

*'Arcam's CDS50 can sound impressively rich and musical'*

on both RCAs and balanced XLRs, plus the usual 'home automation' connections in the form of RS232 control and a 12V trigger input for remote on/standby switching.

Internally, the CDS50 reveals that it is closely related to the CDS27 [HFN Aug '15] it replaced. Indeed, at first glance the two look identical within, apart from some tidying of the internal routing. The principal difference between them is Arcam's choice of DAC – now it's the compact ESS9038Q2M chip from ESS Technology. This low-consumption, surface-mount DAC, measuring just 5mm square, has

already met with success in some portable USB DAC solutions.

## SWEET SPOT

The Arcam CDS50 seems to have more vitality and openness than we recall from the CDS27, although what was still very much in evidence was the company's characteristic sonic balance. To some ears that can seem rather 'safe', while to others it's rich, smooth and – in the very best way – inoffensive.

There are other players capable of digging even deeper into the sound of discs, notably in their rendition of depth and punch, and the way they open up the treble – but they're a lot pricier than this Arcam unit. And, of course, they lack that network capability.

Those players may also sound a little too forward and bright for some tastes, and there are no such traits in the way the Arcam CDS50 plays its music. This means that it will not only slip into a wide range of systems without problems, but will sound impressively rich and musical

without straying into the old 'pipe and slippers' archetype of the brand. That blend of richness and potency was obvious across a wide range of musical styles, including intimate chamber works and solo/small-ensemble jazz/blues like Eric Bibb's *Just Like Love* set [Opus 3].

Yes, the CDS50 sounds a little sweet and lush, but there's a decent sense of intimacy and involvement to the sound. And what's more, performers are well separated and have decent character, even if the kind of sparkle and ambience in evidence with more overt players is somewhat downplayed.

**ABOVE:** Arcam has kept the front panel of the CDS50 admirably simple, with nothing more than an oversized power switch and four transport controls below the display

Only with larger-scale recordings, whether played from disc, sourced from local storage or streamed from online, can the CDS50 sound rather more 'of a piece', lacking some of the finer detail one might hope for.

The Michael Stern/Kansas City Symphony recording of Holst's *The Planets* [Qobuz; 176.4kHz/24-bit], comes across as perhaps a little more densely populated than we have heard it on more revealing players. The great power of 'Mars' is projected with confidence even if its instrumental lines are a little jumbled – the rasp of brass is a little muted and elsewhere in the suite the finer nuances of the woodwind can get rather subsumed.

Nevertheless, the music sounds big and warm, as just does about anything you play through the CDS50, so few listeners will have much to complain about, especially given the value for money, quality of finish and flexibility on offer here.

Even taking into account the difference in output level between SACD and CD, switching between the two layers on a disc such as The Who's *Tommy* from 2003 [Polydor] shows the CDS50's ability to bring out the greater dynamics and detail of the Super Audio layer, with plenty of impact and drive. And that despite this disc not being the most sparkling example of the SACD art.

## VERDICT

The CDS50 is sensibly priced for what it does, and while it may not match the high-end in terms of format flexibility or sound quality, this remains a well-judged and competitive offering. Its musical presentation will suit a wide range of systems – not just those that are Arcam-based – and loudspeakers. ⬇

## HI-FI NEWS SPECIFICATIONS

Maximum output level / Impedance	4.45Vrms / 288ohm (XLR)
A-wtd S/N ratio (LPCM / CD / SACD)	115.1dB / 112.4dB / 114.5dB
Distortion (1kHz, 0dBFS/-30dBFS)	0.0002% / 0.0006%
Distortion & Noise (20kHz, 0dBFS/-30dBFS)	0.0008% / 0.0005%
Freq. resp. (20Hz-20kHz/45kHz/90kHz)	+0.0 to -0.4dB/-1.9dB/-5.0dB
Digital jitter (LPCM / CD / SACD)	6psec / 115psec / 18psec
Resolution @ -100dB (LPCM / CD / SACD)	±0.1dB / ±0.5dB / ±0.1dB
Power consumption	20W (1W standby)
Dimensions (WHD) / Weight	433x87x283mm / 5.3kg





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AUDIO  
FILE

USB DAC with custom filter and tube output  
 Made by: Balanced Audio Technology Inc., Wilmington DE, USA  
 Supplied by: Karma-AV Ltd, York  
 Telephone: 01423 358846  
 Web: [www.balanced.com](http://www.balanced.com); [www.karma-av.co.uk](http://www.karma-av.co.uk)  
 Price: £19,995



# Balanced Audio Tech. REX 3 DAC

While the company's first products from 1995 used valves, Balanced Audio Technologies has its roots in digital, its £19,995 REX 3 DAC being an update to a flagship design. And with its thick, curved front it's certainly eye-catching.

It will handle PCM inputs up to 384kHz/24-bit and DSD5 12 – at least via its USB input. Other inputs are provided for AES/EBU (XLR) and S/PDIF (two optical and two coaxial), these being selected using front-panel pushbuttons or via the supplied VK-R4 remote handset.

*'Its spark, speed and sheer power make a winning combination'*

The REX 3 features an all-valve output section made up of six 6C19s, two used as PSU current sources. This tube stage uses no overall negative feedback, buffers or followers in the signal path. It also lacks any in-line capacitors, and employs amorphous-core transformers for output coupling.

Another key design feature is Balanced Audio Technology's 'SuperPak' capacitor bank. This adds a group of large oil capacitors to the usual power supply electrolytics, greatly increasing the energy on tap. It's all part of the reinforcement

of the REX 3 DAC's proprietary, high-specification output stage.

## RIGHT OFF THE BAT

As soon as it soft-starts and stabilises itself ready for action, you realise you're on to something special here, even when going back to basics and playing CD-quality music in through one of the coaxial digital inputs.

Yazz Ahmed's album *Polyhymnia* [Ropeadope] is immediately notable for the way the transients of Sophie Alloway's percussion opening 'Ruby Bridges' really zings out of the speakers, and then remains just as crisp, tight and focused however busy the track becomes, the slinking beat driving the music along.

And the beauty of this DAC's sound is that it gives every instrument, every line of the scoring, plenty of breathing space. When you reach the album-closing homage to saxophonist Barbara Thompson, the lasting impression is of the rich variety of musical colours and textures on offer in the playing and recording, and not how good the hi-fi is sounding.

That sparkling sound, packed with freshness and vitality while maintaining the illusion of total ease, is the clever stuff here, as is clear with Compagnia di Ponto's 'small band' recordings of Beethoven's first three

**ABOVE:** Available in either silver or black the REX DAC 3 has a simple fascia layout – input selectors at the centre, standby and mute buttons either side and a control to set the display brightness

Symphonies [Deutsche Harmonia Mundi; 48kHz/24-bit]. With just 11 musicians deployed instead of the usual massed forces, these arrangements are sprightly, crisp and intimate, and the REX 3 DAC again does that wonderful thing of taking the listener to the heart of the music while allowing each individual contribution to be examined if required.

That's not to say it can't turn on the thunder if really necessary. With the blazing 'Walk On Hot Coals' from Rory Gallagher's *Check Shirt Wizard* live set [Cadet Concept/Chess; 96kHz/24-bit], the sheer vitality of the performances, recorded in 1977 on the Rolling Stones and Jethro Tull's *Maison Rouge* mobiles, is irresistible.

Mixed from the original multitracks, the album allows the guitarist's performances new life, and the REX 3 DAC's winning combination of spark, speed and sheer dynamic power makes the most of them, whether Gallagher is blues picking almost solo, or crashing it out with the band.

With all this ability, it's a given this remarkable DAC will do its thing with demo-quality jazz, too, and it passes the piano, bass and brushed drums test with total nonchalance. Be warned: so well does the REX 3 perform across the board that you're going to be spending a lot on adding to your music collection.

## VERDICT

This unashamedly expensive converter gets you closer to the music without you even realising it's doing it, and you'll be too immersed in what's being played to give another thought to all the engineering making it possible. ☺

## HI-FI NEWS SPECIFICATIONS

Maximum output level / Impedance	1.55Vrms / 315-565ohm
A-wtd S/N ratio (S/PDIF / USB)	95.1dB / 95.1dB
Distortion (1kHz, 0dBFS/-30dBFS)	0.0059% / 0.017%
Distortion & Noise (20kHz, 0dBFS/-30dBFS)	0.0025% / 0.095%
Freq. resp. (20Hz-20kHz/45kHz/90kHz)	-2.9 to -1.1dB/-16.5dB/-24dB
Digital jitter (48kHz / 96kHz)	280psec / 155psec
Resolution (re. -100dBFS / -110dBFS)	±0.2dB / ±3.5dB
Power consumption	128W (W standby)
Dimensions (WHD) / Weight	483x146x394mm / 14.5kg

# MODEL 404

STEREO INTEGRATED AMPLIFIER



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AUDIO  
FILE

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Made by: Bricasti Design Ltd, MA, USA  
Supplied by: SCV Distribution, Hertfordshire  
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Web: [www.bricasti.com](http://www.bricasti.com); [www.scvdistribution.co.uk](http://www.scvdistribution.co.uk)  
Price: £5399-£6999



# Bricasti Design M3

The US company Bricasti says its 'more affordable' M3 USB DAC – as compared to its M1 Dual Mono DAC, now in 'Classic' form at £9499 [HFN Jun '11] – nonetheless offers 'an incredible array of performance'.

The basic version is offered at £5399, but this increases to £6999 when fitted (as here) with a DNLA/UPnP-compatible network streaming card and new headphone amplifier option. The latter includes both 4-pin balanced XLR and 6.35mm single-ended jack outputs,

'The M3 recreated all the zest of the playing, with the rhythms taut'

and is available as a return-to-factory retro-fit option.

The M3 features two separate D/A channels using the classic Analog Devices AD1955 DACs for LPCM and a proprietary bitstream DAC solution to handle DSD inputs. The circuitry, meanwhile, is fully balanced throughout, with independent linear power supplies employed for both the analogue and digital cores of the product.

Its casework is all CNC-machined from solid aluminium, black anodised and with laser etched legends, and presents a flat front and rear face, unlike the sculpted form of the flagship M1. It sits on four 60mm-diameter non-adjustable feet with rubber inserts. Twin ventilating top-plates in silver grey are inset with countersunk fixing screws (and perhaps spoil the look).

That large silver-white rotary is not only a gain control but is also used in conjunction with some

of the fascia buttons. 'Input' is revealed as five choices on the display; 'Status' includes digital filter selection, display dimming, DSD conversion mode and phase inversion; 'Level' offers 1dB steps over a -99dB to +6dB range plus mute; 'Reference' remembers your preferred listening level with a long press. There's also an optional line-of-sight remote that matches the M3's styling (£529) and duplicates all key functions, including volume.

Meanwhile, the M3's USB and network inputs support up to 384kHz/24-bit LPCM, DSD64 and 128. Additional inputs include coaxial and Toslink optical S/PDIF while single-ended (RCA) and balanced (XLR) analogue outputs are fitted. There are two filter options, and the M3 has a custom single-bit converter so that DSD inputs are not converted to LPCM.

## FULL COLOURS

With the linear phase filter engaged, our first impression, listening via the inbuilt headphone amp (good though this later proved), was of a smooth presentation where all the subsidiary detail could be heard, but overall it was somewhat bland.

Changing to the minimum phase alternative brought an obvious improvement – with Sibelius's Symphony No 2 [Alpha] the soundstage shifted slightly but the rather sweet sound and fine production by Jens Braun was tonally much more involving.

Nothing has proved more fun this year than the Shchedrin *Carmen Suite*, provocatively adapted from Bizet's original. It's with the late Mariss Jansons and the Bavarian RSO [BR Klassik]. After the sinister

atmosphere of the opening tolling bells, the M3 recreated all the zest of the playing and full colour of the orchestration, rhythms taut and the soundstage explicitly set out.

Sticking with the USB input we switched to our main system and played the Shchedrin again. Now the pinpointing of instruments was even more apparent while the timbre of percussion instruments, such as the wood blocks, was resolved to even greater effect.

What's more, the qualities of PCM playback were more fully revealed, as was the overall potential of the M3. Switching to S/PDIF and the sound – as our reviews have consistently suggested – gained even more with the sense of instruments, such as the castanets, starting and stopping, while the Munich soundstage became more specific.

For a speech test – and animals snarling and roaring at London Zoo! – what better than the 1960 Decca recording of Saint-Saens's *Carnival Of The Animals* with the LSO and comic actress Hermione Gingold? The beasts in the opener always make you jump and the narrative is full-blooded – a treat, albeit of a Marmite kind. Gingold is set extreme stage left and the cynical texts registered with enormous presence here with a CD rip file.

## VERDICT

Whether you stream your music from Roon, have a big CD library and are looking to trial a new transport, or just enjoy connecting a laptop and listening over headphones, the Bricasti M3 is worth saving for. The engineering and finish are superb, while the sound quality is exemplary.

**ABOVE: Now with a UPnP network option, the M3's inputs and features are navigated by a sequence of six buttons and a rotary encoder (also the volume control, centre). When fitted, the balanced 4-pin XLR and standard 6.35mm headphone outs are set to the left of the fascia**

## HI-FI NEWS SPECIFICATIONS

Max. output (<1% THD, DAC/Pre)	3.99Vrms at 42ohm
Max. output (<1% THD, headphone)	8.8V/600ohm / 845mW/25ohm
Headphone output impedance	315-650mohm (20Hz-20kHz)
A-wtd S/N (S/PDIF / USB / headph.)	114.5dB / 114.4dB / 116.3dB
Dist. (20Hz-20kHz, DAC/headph.)	0.00016-0.0017%/0.00025-0.0016%
Freq. resp. (20kHz/40kHz/80kHz)	+0.0dB to -0.14dB / -16dB / -24dB
Digital jitter (48kHz/96kHz)	1915psec / 1705psec
Power consumption	27W
Dimensions (WHD) / Weight	356x57x286mm / 4.5kg



Network-enabled media storage/playback device  
 Made by: Innuos, University of Warwick Science Park, Coventry  
 Supplied by: Innuos (UK)  
 Telephone: 01793 384048  
 Web: www.innuos.com  
 Price: £10,800 (with 4TB storage)

AUDIO  
FILE



# Innuos Statement

We are seeing the role of the music server change. Where once it was no more than an optimised NAS device, designed to feed an external network music player, it has now morphed into a complete storage playback solution, connecting to a USB DAC or, in some cases, with onboard D-to-A conversion straight into a preamp.

With Innuos's two-box Statement prices start at £9800 for 1TB of SSD storage onboard, while the

Incidentally, connections between the PSU and 'head unit' are via 0.3m 'pig-tails', making it clear the two boxes are intended to be stacked.

The heart of the unit runs on a custom-designed motherboard, housing a quad-core Intel CPU and 8GB of RAM, of which 4GB is reserved for buffering during playback. And the Statement can play files at up to 384kHz/32-bit, DSD128 over DoP or native DSD.

Setting up the Innuos Statement is relatively simple. *Myinnuos.com*

allows the user to configure the unit and set up disc-ripping or the import of files from various sources, including other music servers, USB drives or NAS units. The connected

computer will also show an 'Auto Import' folder into which music can be dragged and dropped. You can also choose compatibility with Sonos, standard UPnP devices, or even Roon, although Innuos does not offer a bespoke app for this flagship solution.

## COMING CLEAN

With iPeng loaded on an iPhone, and OrangeSqueeze on an Android tablet we keep for just this kind of testing, it was possible to get things working into a variety of DACs connected to the USB output. Comparisons were thus

**ABOVE: The matching fascias of the Statement ripper/player [top] and PSU [bottom] are unadorned aside from a power button and loading slot. Playback is achieved via third-party apps**

able to be made with our usual computer audio weapons of choice – a stripped-out Mac mini running headless under control from an iPad, our day-to-day music set-up using Roon Core running on an Intel NUC, and as a straight UPnP server for our other network players.

Whichever route we tried, the Statement was very good, our lab testing highlighting the cleaning of the digital output signal going on here, and the way it isolates a connected UPnP player from the vagaries of a home network.

Yet any changes to the sound we might have detected versus our usual sources were vanishingly small – so much so that switching back to the Mac mini as a USB source, or sourcing music from a NAS, then returning to the Statement, had us rather wondering if we'd heard a difference in the first place. Yes, the sound with the Innuos Statement is nothing if not impressive, but then so it is with potentially much simpler hardware in use upstream of the DAC or network player.

Whether with the openness and clarity of the 'Stripped Down' version of John & Yoko's *Double Fantasy* [Apple/Capitol; 96kHz/24-bit] or the orchestral light and shade of the Kansas City/Stern reading of Holst's *The Planets* [Reference Recordings; DSD64], the main characteristic of the Innuos Statement was the *absence* of any characteristic whatsoever. We felt any one of several *analogue* system changes – amp, speakers, even cables – would have made a more noticeable change to the way the music was delivered.

## VERDICT

Our main impression of the Innuos two-box was that it simply gets out of the way. And that's perhaps all an audiophile would wish for. ☺

'The sound when using the two-box Statement is certainly impressive'

max-spec 4TB SSD model here is £10,800, in either black or silver.

The Statement's main unit includes a slot-loading CD ripper, storage and control hardware/software, while the second box contains multiple linear power supplies, connected to the 'business end' via a pair of multipin cables.

The Statement PSU is complex, having eight separate rails for the various sections of the server/player, fed from a central toroidal transformer. These include separate supplies for the two data reclockers within the Statement, managing the USB and Ethernet outputs.

## HI-FI NEWS SPECIFICATIONS

Digital inputs	1x Ethernet; 1x USB 2.0; 1x USB 3.0
Digital outputs	1x Ethernet; 1x USB 2.0
Digital jitter (Novafidelity 500H)	13psec (175psec via PC USB)
Digital jitter (Chord Hugo 2)	5psec (35psec via PC USB)
Digital jitter (Chord Mojo)	10psec (80psec via PC USB)
Power consumption	30W
Dimensions (WHD) / Weight	420x90 (110)x350mm / 21.5kg (total)

# AUDIO FILE

Network-attached player/DAC  
Made by: Pixel Magic Systems Ltd, Hong Kong  
Supplied by: Sound Design Distribution Ltd, Cardiff, UK  
Telephone: (0)800 009 6213  
Web: [www.luminmusic.com](http://www.luminmusic.com); [www.sounddesigndistribution.co.uk](http://www.sounddesigndistribution.co.uk)  
Price: £1845



## Lumin D2

This latest version of the company's affordable network audio player, the £1845 D2, is so light at 2.5kg that our stiffish Chord Company interconnects almost lifted it off its feet! Unlike its predecessor, the D1, which used a computer-style offboard power supply, the D2 now has a shielded switchmode PSU onboard, and a conventional rear IEC mains socket.

With one Wolfson WM8741 DAC chip for each channel used to feed the balanced circuitry, the D2 is able to handle files at up to 384kHz/32-bit and DSD128, whether from network sources or USB storage. It also allows the upscaling of lower-res files, with those up to 96kHz resampled to 192kHz or DSD.

As well as UPnP streaming over the network, it supports online services including Qobuz, Spotify,

'Boy, does Alison Krauss do emotion – her vocals here are jaw-dropping'

and Tidal (with MQA), and Apple AirPlay too. It also delivers Internet radio via TuneIn and is Roon-ready.

Apart from the D2's network connection, which is wired Ethernet only – there's no Wi-Fi or Bluetooth functionality here – and a brace of USB-A ports, things are kept pretty simple. You have a choice of either balanced or unbalanced analogue outputs, the former being preferable given the all-balanced internal layout, offering a choice of 'Normal' or 'Low' level, and there's

a volume control governed via the Lumin app. In addition there's a single BNC digital output, limited to 192kHz/24-bit and DSD64 via DoP.

After the player initialises, the display comes to life, showing a simple two-line indication of the content selected. Beyond that, you're in the hands of the app, which fortunately is excellent and also allows a wide range of set-up options. Beyond a quick start guide, to probe deeper into its facilities and capabilities, reference is needed to Lumin's website, which has information in the form of a series of FAQ topics.

### REAL PUNCH

The D2 rapidly reveals itself to be very capable, whether with upscaled CDs, hi-res PCM files or those full-fat double-DSD releases. It combines warmth and generosity with treble sweetness and a natural-sounding midband, all easy to enjoy. There's nothing over-lush or soft about this player, as is clear with rhythm-driven music such

as the *Victor Wainwright And The Train* set [Ruf Records]. The D2 powers bass and drums along with real punch, while also rendering the instrumental and vocal lines with a wide-open sense of timbre and texture. It's a real riot of a listen, too, one that finds the volume control inching up inexorably.

That the D2 gets the listener into the heart of the music is readily apparent with the intimacy of David Elias's *Crossing* album [David Elias Music; DSD64], which is a typically

**ABOVE: In black or brushed aluminium finishes, the D2's casework neatly oversails to conceal rear connections. Control is via the Lumin app**

simply-miked, 'straight to recorder' set, here presented with all its vitality and spontaneity intact. If you want the impression of real live musicians plonked in the room in front of you, the D2 delivers.

And the same applies to The L.A. Network's *Ella On Our Mind* album [2xHD; DSD128], recorded directly to Nagra hardware with no EQ or compression. Here the Lumin D2 brings out all the atmosphere and ambience of the studio, and really shines with the voices, especially the luminous tone of Aubrey Logan.

So too, Alison Krauss and Union Station's *Live* album [Rouder; DSD64] has that real 'in the audience' sense via the Lumin D2, with both the singer's gorgeous voice and her accompanying musicians rendered with bags of emotion and expression. And boy, does Krauss do emotion, with her vocals here frequently jaw-dropping, helped – as if they needed it – by the D2's unforced presentation.

But in case you were thinking this player was all about delicate voices and minimal recordings, play the '1941 March' from the Jerry Junkin/Dallas Wind Symphony on *John Williams At The Movies* [Reference Recordings; DSD64], and you'll hear just how well the Lumin D2 lets the track build from almost inaudible woodwind all the way through to full band and drums bombasts, while at the same time keeping the rhythms tight and crisp.

### VERDICT

While the D2 may be compact, lightweight and unassuming (albeit in a very classy manner), the sound it delivers is big, rich and dramatic as required, then at the next turn refined and intimate. Ⓛ

### HI-FI NEWS SPECIFICATIONS

Maximum output level / Impedance	4.08Vrms / 10ohm
A-wtd S/N ratio	114.9dB
Distortion (1kHz, 0dBFS/-30dBFS)	0.00032% / 0.0011%
Distortion & Noise (20kHz, 0dBFS/-30dBFS)	0.00065% / 0.0019%
Freq. resp. (20Hz-20kHz/40kHz/75kHz)	-0.0 to +0.1dB/-1.1dB/-8.0dB
Digital jitter (48kHz/96kHz/192kHz)	15psec / 50psec / 55psec
Resolution (re. -100dBFS / -110dBFS)	±0.3dB / ±0.9dB
Power consumption	20W (1W standby)
Dimensions (WHD) / Weight	300x60x244mm / 2.5kg



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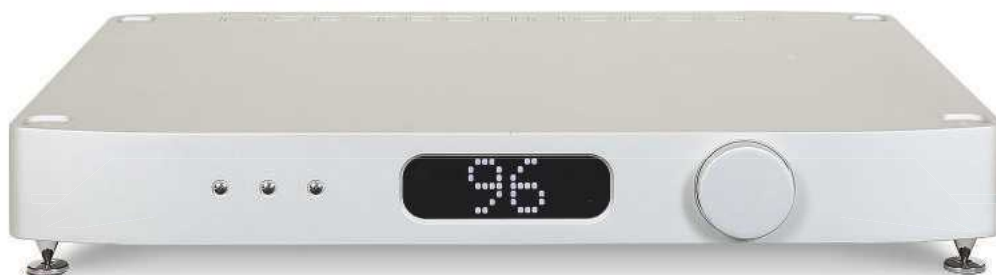
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AUDIO  
FILE

Modular ladder-style DAC and dual PSUs  
 Made by: MSB Technology Corp, California, USA  
 Supplied by: Hi-Fi Traders Ltd, Guestling, UK  
 Telephone: 020 3714 7236  
 Web: [www.msbtechnology.com](http://www.msbtechnology.com); [www.hifitraders.co.uk](http://www.hifitraders.co.uk)  
 Price: £14,940 (inc USB and Network modules and 2x PSU)



# MSB Discrete

An 'entry-level' product in the company's range, the £9950 MSB Discrete is an attractive proposition at the price, offering more than a flavour of the costlier Premier DAC [HFN Aug '19], albeit without its Premier Clock and RCA outputs. The unit also arrives with one less user-replaceable slot on board.

Instead, it comes fitted with two Prime DAC modules – MSB's basic digital conversion engine – while accommodating PCM inputs from 44.1kHz to a claimed 3.072MHz/

Supply, though this will set you back £1450. Meanwhile, the unit has a range of fixed digital inputs: one coaxial, two optical Toslinks and one XLR, plus one clock word-sync port.

No unbalanced RCA outputs are fitted, but the package came supplied with balanced XLR-to-RCA adapters for those who don't have amplifiers with this option.

## LOCKING ON

On first hearing this top-tier DAC, it doesn't quite give you a 'surprise and delight' experience, but

gradually beguiles you to the point where it's hard to go back to anything else.

The Discrete's disarmingly subtle and detailed delivery was most apparent on complex, layered music

such as 'Watcher Of The Skies' by Genesis [Fox trot; Virgin Japan], in this instance arriving via the coaxial digital input. This recording can spark an arid sound that's typical of early '70s prog rock, but not so here, as we found ourselves relaxing into the track and steadily becoming more immersed in the music.

This was largely down to the Discrete DAC's ability to separate out the different strands of a mix effortlessly. You could lock on to Steve Hackett's guitar work or Peter Gabriel's vocals, as each appeared distinct from one another.

This DAC doesn't push a song's beat especially hard at the listener. The opening drum work on the Genesis track wasn't forced at you but was sat back slightly which, in turn, pulled you deeper into the mix. Then you focused on the gently percussive way the electric organ

was being played, and the great phrasing of the vocals. This is tied to the DAC's adept handling of dynamics and its ability to capture the 'light and shade' in the playing, carrying accents well – eg, that crunchy, overdriven lead guitar sound was given great impact.

Via the network input fed from a Western Digital NAS drive by Ethernet cable, the MSB Discrete didn't change its character one bit. So where modern electronic music such as Moby's 'Honey' [Play; CDStumm] can sound quite dry – strident even – the Discrete DAC offered only musical honey.

So here, where the hi-hat sound was smooth and subtle, and the snare drum relatively subdued, our attention was instead drawn to the bass. The looped piano cadence that runs right through the song was tonally fuller than expected, there being real weight to the bottom end. Its rich timbre was impressively carried too.

The DAC also proved to be highly impressive spatially. Chic's 'My Forbidden Lover' [Risque; Atlantic], via the USB input from a MacBook Pro, was laid out as a wonderfully spacious stereo soundstage, with all the instruments located with pinpoint precision. Depth perspective was no less impressive, and with Lonnie Smith's *Think!* [Blue Note] – a jazz recording from the late '60s – the MSB Discrete made it sound truly three-dimensional.

## VERDICT

The MSB Discrete is a great first step on this company's stairway to digital audio heaven. It ticks all the boxes, not just boasting excellent sound but upgradability and stylish, beautiful build quality. ☺

**ABOVE: The large volume knob here offers control in 1dB steps, and can be disabled in the menu, which also offers automatic switch-off for the display or adjustable brightness**

'Never sounding dry, the Discrete DAC offers only musical honey'

32-bit plus up to DSD512 with DSD via DoP supported on all inputs.

These cards sit inside a full-width CNC-machined aluminium case, beautifully anodised and available in silver or black, which is fronted by the company's trademark large LED display. This is slaved to the master clock to reduce electrical interference with the audio board.

The review sample came with the £1590 galvanically-isolated, quad-rate DSD/768kHz/32-bit USB input module, together with the £1950 'Renderer module v2'. This is a network streaming card that also functions as a Roon endpoint.

The Discrete DAC has various power supply options. As standard it is supplied with one Discrete Power Supply box but two can be run simultaneously, and most of the auditioning was done this way. You can buy a second Discrete Power

## HI-FI NEWS SPECIFICATIONS

Maximum output level / Impedance	3.32Vrms / 142ohm (high o/p)
A-wtd S/N ratio (S/PDIF / USB)	114.1dB / 114.2dB
Distortion (1kHz, 0dBFS/-30dBFS)	0.0014% / 0.0078%
Distortion & Noise (20kHz, 0dBFS/-30dBFS)	0.0016% / 0.028%
Freq. resp. (20Hz-20kHz/30kHz)	+0.0 to -0.02dB/-0.8dB
Digital jitter (48kHz / 96kHz)	6psec / 6psec
Resolution (re. -100dBFS / -110dBFS)	±0.2dB / ±0.5dB
Power consumption	14W (1W standby)
Dimensions (WHD) / Weight (+ 2xPSU)	432x51x305mm/8.2kg + 5kg



Outboard USB DAC  
 Made by: Musical Fidelity (Audio Tuning Vertriebs GmbH), Austria  
 Supplied by: Henley Audio Ltd, UK  
 Telephone: 01235 511166  
 Web: www.musicalfidelity.com; www.henleyaudio.co.uk  
 Price: £499

**AUDIO  
FILE**



# Musical Fidelity MX-DAC

What the £499 MX-DAC offers the music lover with a limited budget is a full complement of inputs, sufficient features, luxurious styling and feel. But above all, its sound is genuinely astonishing.

The MX-DAC has no remote or volume control to allow it to serve as a preamp; there's no cool display, no analogue input; no phono stage; and no headphone output. It is purely a DAC. But run your hand over the matt silver finish, note the clean lines, admire the chamfering and fluted sides of the extruded case. Then flick the positive-feeling

*'It was the liquidity of the pedal steel guitar that had us floored'*

on/off toggle, tap the buttons with their crisp action, note the hardware at the back, including XLR balanced outputs, and you cannot but marvel that all this is delivered in a DAC costing just shy of £500.

Across the front are enough controls and LEDs to ensure that buyers-on-a-budget never feel deprived. At the left you find the on/off toggle, below LEDs indicating power-on and signal lock. Next are six LEDs to identify sampling rates from 44.1kHz to 192kHz, followed by two for DSD files.

The right-hand half of the fascia contains LEDs to indicate which of

two digital filters has been chosen followed by five to identify the selected input, all determined via sequential presses of two buttons.

At the rear you find XLR balanced and RCA line level outputs, a USB-B input, two each of RCA coaxial and Toslink inputs and, lastly, mains input for the 5V/2A wall-wart. As you might imagine, the MX-DAC can be up-and-running without getting near the instruction manual.

## KIND OF BLU

Using the Blu-ray audio disc from the anniversary box set of The Band's eponymous second album [Capitol], selecting the stereo 96kHz/24-bit PCM version, we were hit with one of those instant audio epiphanies.

So natural, so ripe was the sound of the bass, so satiny the upper frequencies, and so warm were the vocals that we knew we'd hit on a track which could sell the MX-DAC even to the most inveterate of hi-fi snobs.

Listening through Falcon Acoustics LS3/5As [HFN Dec '18], Levon Helm's slight nasality and inimitable drawl suffered no digital artefacts. They had presence and flow, and those who rank sibilance the most egregious of sins would have revelled in their absence.

Before moving on to streamed or downloaded high-res material, we began listening to the new Rhino mix of The Grateful Dead's *Workingman's Dead* but were

unexpectedly drawn to the sound of the bonus live CDs. 'Me And Bobby McGhee' possessed so much air and space that the sense of a real hall, filled with an audience and living, breathing musicians, was conveyed almost as convincingly as if it were a surround-sound disc!

What surprised us was how 'musical' the USB input sounded when we compared downloads with the equivalent CDs via either Toslink or coaxial inputs. 'I Fall To Pieces' from *The Best Of Linda Ronstadt – The Capitol Years* [HDtracks; 44.1kHz/24-bit] had a delicious clarity which suited her mellifluous vocals, as distinctive a set of pipes as country rock has ever enjoyed. As with The Band's Blu-ray, it was sibilance-free and as natural-sounding as you could hope for, but it was the liquidity of the pedal steel guitar that floored us. The MX-DAC behaved impeccably, revealing a gracefulness normally the province of systems of a higher pedigree.

This Ronstadt track was also a perfect showcase for the MX-DAC's admirable image specificity, delivering stage width and a deal of depth. What ultimately secured our affection for this unassuming component, though, was Amazon's free download of Albert King's *Born Under A Bad Sign* [Stax]. 'The Very Thought Of You', with moody saxes, tinkly piano, late-night drumming and King in full-on crooner mode, was mellow, seductive and truly soothing – cognac for the ears.

## VERDICT

We were hardly prepared for what the MX-DAC achieves. The sound is satisfying, seductive and silky, while its features and inputs make it a no-brainer purchase. ☺

**ABOVE: The MX-DAC has two small buttons for input and digital filter, indicated (along with sample rate) by rows of miniature LEDs. It features the same compact casework as the matching MX phono stage and headphone preamp**

## HI-FI NEWS SPECIFICATIONS

Maximum output level / Impedance	3.78Vrms / 45ohm (XLR)
A-wtd S/N ratio (S/PDIF / USB)	111.2dB / 111.1dB
Distortion (1kHz, 0dBFS/-30dBFS)	0.0014% / 0.00025%
Distortion & Noise (20kHz, 0dBFS/-30dBFS)	0.012% / 0.00045%
Freq. resp. (20Hz-20kHz/45kHz/90kHz)	+0.0 to +0.1dB/+0.4dB/+1.0dB
Digital jitter (LPCM / USB)	9psec / 9psec
Resolution @ -100dB/-110dB	±0.1dB / ±0.2dB
Power consumption	6W
Dimensions (WHD) / Weight	220x53x215mm / 1.9kg



# AUDIO FILE

Network-attached DAC  
Made by: Simaudio Ltd, Quebec, Canada  
Supplied by: Renaissance Audio, Scotland  
Telephone: 0131 555 3922  
Web: [www.simaudio.com](http://www.simaudio.com); [www.renaissanceaudio.co.uk](http://www.renaissanceaudio.co.uk)  
Price: £13,500



## Simaudio MOON 780D v2

A 'DAC with benefits' perfectly describes the MOON 780D v2 from Simaudio. At £13,500 it's the Canadian company's reference DAC, complete with a built-in streaming hub developed in-house.

With several network products in its range, you can see the sense of Simaudio developing its own streaming solution, MiND2 [MOON intelligent Network Device], which provides not only access to music stored on network computers

'The 780D v2 gets into the character of Dylan's voice right from the off'

and NAS drives, but also a range of online services. This second generation of MiND adds access to Tidal Masters with MQA, Qobuz Sublime+ and Deezer Hi-Fi, and also allows synchronised multiroom playback using multiple MiND2-equipped devices, as well as Roon-ready certification. To access the streaming services on offer, you're really going to need the company's MOON MiND2 Controller app.

As well as Ethernet connectivity, the 780D v2 also has Wi-Fi and Bluetooth with aptX, although we find that a decent network or USB hook-up always wins the day. To that end, the 780D v2 will accept audio from a computer via its asynchronous USB-B port, handling

files at up to 384kHz/32-bit and DSD256, the latter in native form.

MQA decoding is included and it also has two optical, three coaxial and an AES/EBU input. All of these are limited to 192kHz/24-bit.

Analogue outputs are on RCAs and balanced XLRs, and another pair of XLR sockets allows use of the company's 820S offboard power supply (a further £7200). Not that the 780D v2 stints on the power supply front as standard, using the company's own 'MOON Hybrid Power' to supply the juice.

The latter features high-speed switching and linear PSUs combined with 'M-LoVo' (Moon Low Voltage) regulators, I2DCf (Independent Inductive DC filtering) and conductive polymer capacitors, with the whole thing being designed for extremely low noise. Meanwhile, the dual-mono balanced design uses a pair of ESS9018S Sabre DACs governed by a 'femtosecond-grade' master clock by way of tackling jitter.



### SLOW BURN

Big and magnificent the 780D v2 may look, but its sound is something of a slow burn. This isn't a unit to rock you back on your heels with the first few notes, but what you do get is complete confidence and a beautifully open and superbly focused soundstage.

And that holds true whether you're playing music via the digital

**ABOVE:** Finished to an exceptional standard, the MOON 780D v2 is available in black, silver or two-tone black/silver. It can be operated using the four little buttons either side of the display, or the supplied remote handset, but the MiND Controller app makes things much easier

inputs or making use of this network player's streaming functionality. That was made clear with the *Bach: Redemption* set by soprano Anna Prohaska [Alpha; 192kHz/24-bit], recorded with a small ensemble.

Whether with the spare musical forces of most of the album, or the jazzy bonus arrangement with which it concludes, the effect is of very real performers at work in a well-resolved church acoustic. Prohaska's remarkable voice is handled with delicacy and care, and the instrumentation and small chorale on a few of the tracks have not a smidge of artifice about them.

The 780D v2's qualities become ever clearer as you delve deeper into its capabilities and your music collection, whether playing files over the network, directly from a computer using USB, or streaming in hi-res. Even with comparatively low-resolution streams – such as the odd Radio 3 live jazz session in 320kbps via the 780D v2's TunesIn feature – the sense of 'rightness' in the sound is maintained.

However, it's really with uncompressed music that this network player/DAC shines. With Bob Dylan's *Rough And Rowdy Ways* [Columbia; 96kHz/24-bit], the 780D v2 gets right into the character of the voice from the off, and makes clear the world-weary lyrics, while chugging out the blues of 'Goodbye Jimmy Reed' in toe-tapping style.

### VERDICT

Extended listening will reveal the MOON 780D v2's true maturity, resolution and power. With its wide-ranging capability, superb build and one of the best apps in the business, it makes an extremely strong case for itself. A class act indeed. ⏻

### HI-FI NEWS SPECIFICATIONS

Maximum output level / Impedance	2.369Vrms / 120ohm
A-wtd S/N ratio	110.6dB
Distortion (1kHz, 0dBFS/-30dBFS)	0.00009% / 0.00065%
Distortion & Noise (20kHz, 0dBFS/-30dBFS)	0.00025% / 0.0011%
Freq. resp. (20Hz-20kHz/40kHz/75kHz)	+0.0 to -0.2dB/-9.7dB/-6.1dB
Digital jitter (48kHz/96kHz/192kHz)	33psec / 19psec / 10psec
Resolution (re. -100dBFS / -110dBFS)	±0.1dB / ±1.0dB
Power consumption	15W (14W standby)
Dimensions (WHD) / Weight	476x102x427mm / 18kg



USB DAC/headphone amplifier  
Made by: iFi-Audio (Abbingdon Global Group), Merseyside  
Supplied by: iFi Audio  
Telephone: 01900 601954  
Web: www.ifi-audio.com  
Price: £129

**AUDIO  
FILE**



## iFi Audio ZEN DAC

The ZEN models sit at the 'even more affordable' end of the iFi Audio range, its ZEN DAC selling for just £129. Built for desktop use, the range has a look which is unlike anything else in the company's range, with high-quality aluminium casework that is not only striking but feels remarkably substantial.

Despite the toy-like dimensions, this is actually a potent and flexible digital device, both in its handling of data and its ability to fulfil its main functions of DAC and headphone

*'The immediacy here would be impressive in a high-end DAC'*

amplifier. Its variable-level analogue outputs mean it could even be used straight into a power amplifier or a pair of active loudspeakers.

One analogue output is a little 2.5mm socket on the rear panel that can be broken out into a pair of balanced XLRs via a suitable third-party adapter cable. But most users are more likely to use the ZEN DAC's entirely conventional unbalanced RCA outputs that can be set to fixed or variable, the latter under the control of the front panel knob.

Also at the front can be found the headphone outputs comprising a standard 6.35mm unbalanced connection or a 4.4mm 'Pentaconn' type for balanced 'phones.

The sole input here is a USB 3.0 Type-B socket, for which a suitable A-to-B cable is included. This connection also carries 5V power for the ZEN DAC, but there's a separate DC input on the rear of the unit should you wish to upgrade this with an aftermarket 5V/500mA supply such as iFi Audio's iPower and iPower X, at £49 and £99.

Within, it employs Burr-Brown/TI's DSD1793 'True Native' DAC, downstream of a customised X MOS USB input, enabling it to handle LPCM at up to 384kHz/24-bit, as well as DSD256 (quad DSD) in native form, and also MQA-encoded data. It's also possible to download different firmware options from the iFi Audio website that enable you to optimise the DAC in various ways, and experiment with alternative digital filter settings.

### A WEE WONDER

The term 'small wonder' rather undersells the ZEN DAC for this tiny unit is capable of a startling performance. Over a wide range of earphones and headphones we used, the amp proved its worth by driving everything we threw at it.

Playing Sam Amidon's often chaotic-sounding *The Following Mountain* [Nonesuch], it did a great job of bringing out the studio atmosphere, complete with its inter-track noise, buzzes and chatter. It all adds to the improvised feel here, from 'Gendel In 5' with its

multi-layering to the jam of 'April' closing the set, which just has that vibrancy of free association and interplay. The kind of ambience and immediacy here would be impressive in a high-end DAC...

Up the scale of recording to Sa Chen's dramatic, sweeping reading of Rachmaninov's Piano Concerto No 2, with the Gulbenkian Orch/Lawrence Foster [Pentatone], and the ability of this little DAC/headphone amp to deliver both the scale of the orchestra and the detail of the piano was never in any doubt, whether through headphones or into an amp in DAC mode.

And if you wanted any more proof of its speed, definition and ability with timbral textures, look no further than harpist Claudia Lucia Lamanna's performance of Mchedlov's 'Variations on a Theme of Paganini' [Linn]. Here the sound was appropriately crisp and tight, yet with a wonderful sense of the strings in motion and notes decaying into the acoustic.

Meanwhile, playing the first scene of Mascagni's *Cavalleria Rusticana* [Dresden PO/Marek Janowski; Pentatone] showed the effortless way in which the ZEN DAC makes music, from the subtle chimes to the rhythm of orchestra and chorus, not to mention a spot of percussive thunder. It's all rather wonderful and totally involving.

### VERDICT

A remarkably capable, fine-sounding piece of equipment and something very special at its price. Desktop audio doesn't have to be the poor relation of 'proper' hi-fi – buy one to boost your computer sound, and you may well find you're listening to it for most of the time. ☺

**ABOVE: An LED next to the volume control changes colour to indicate the incoming sample rate. Front-switchable 'Power Match' boosts levels while bass enhancement is offered via the ZEN DAC's 'TrueBass' circuitry**

### HI-FI NEWS SPECIFICATIONS

Maximum output (<1% THD into 47kohm)	3310mV (RCAs)
Maximum power output (<1% THD)	200mW/32ohm
Output Impedance (20Hz-20kHz)	0.4-0.5ohm (94ohm, RCAs)
A-wtd S/N ratio (re. 10mW/0dBV)	94.0dB / 108dB
Distortion (20Hz-20kHz, re. 10mW/0dBV)	0.002-0.075%/0.006-0.009%
Frequency resp. (20Hz-20kHz/45kHz)	+0dB to -0.02dB/-0.55dB
Digital jitter (48kHz/96kHz)	13psec / 15psec
Power consumption	2W
Dimensions (WHD) / Weight	100x117x30mm / 800g

AUDIO  
FILE

USB DAC/headphone amp  
 Made by: Lehmannaudio Vertriebs GmbH, Germany  
 Supplied by: Henley Audio Ltd, UK  
 Telephone: 01235 511166  
 Web: www.lehmannaudio.com; www.henleyaudio.co.uk  
 Price: £1700



# Lehmannaudio Linear USB II

'Simple and direct in its purpose'. That undoubtedly describes the Lehmannaudio £1700 DAC/headphone amp. But although it's very simple it is also built with great attention to detail, from the quality of the casework to the inputs and outputs and smooth volume control.

Despite the compact dimensions, the Linear USB II packs a toroidal transformer at the rear of the case,

'The clarity the amp is able to deliver is simply spine-tingling'

just in front of the IEC mains inlet while the dual mono layout uses discrete transistors to power its Class A headphone output stage. There are also separate boards for the digital and analogue sections.

Above the USB-B port is a pair of analogue audio inputs to which the Linear USB II defaults in the absence of a digital signal. There's also a pair of analogue outputs, so this little unit can also operate as a simple preamplifier into your power amp.

Meanwhile, the digital section uses the near-ubiquitous ESS ES9018 Sabre DAC, allowing audio streams at up to 384kHz/32-bit to

be accepted, along with DSD files via DoP. This USB II version is also distinguished by Lehmannaudio's latest 'Low-Z Copper' circuitboard.

The two 6.35mm front panel headphone sockets are sourced from Neutrik and are connected in parallel, so they can be used together (there's no switching). And plugging a pair of headphones into the left 6.35mm socket will mute the unit's preamplifier outputs.

Underneath the unit can be found DIP switches, two for each channel, provided to increase gain from unity (0dB) up to 20dB. Lehmannaudio suggests a choice of settings for 'loud' and 'very loud' with a

listed range of headphones.



## GRAND SCALE

Set-up is fuss-free, requiring nothing more than the connection of the supplied USB cable to a computer. Flip the rear mains switch and you're good to go. And this little box can deliver more than enough power to drive even the most recalcitrant 'phones as hard as most of us will ever require.

Play a recording such as Yevgeny Sudbin's meticulous reading of Rachmaninov's Piano Concertos Nos 2 and 3 [BIS; 96kHz/24-bit], and the amplifier delivers all the weight and

**ABOVE: The 110mm-wide Linear USB II, comes with a silver, black or chromed faceplate. And you can order a £45 set of brackets for out-of-sight mounting**

control of the playing, while scaling the BBC SO under Sakari Oramo, placing it all in a persuasive acoustic (Maida Vale Studios, London).

There's no tonal colouring going on here – at least not from the driving electronics – but just a sense of 'rightness'. It can do crystalline clarity too, as illustrated by the celebrated Tallis Scholars recording of Allegri's *Miserere* [Gimell], not just breaking that 'in your head' impression but even hinting at music surrounding you.

At the next turn it puts you in the studio with Neil Young and at the heart of the rambling, slightly shambolic *Homegrown* project issued in June [Reprise], which is a weird place to be for a short while, made more so by the way this Lehmannaudio amplifier resolves every element of the mix.

Meanwhile, with David Bowie's *ChangesNowBowie* set of acoustic versions of familiar tracks [via Tidal] the intimacy of the sound, and the clarity with which the Linear USB II delivers it, is spine-tingling with 'phones like Focal's Clear [HFN Mar '18] or the Oppo PM-1 [HFN Jul '14].

Even when playing a big John Williams orchestral piece such as the Dallas Winds' recording of 'March' from 1941 [Reference Recordings], which starts delicately before building to an explosive conclusion, the masterful control – and sheer energy – of the Linear USB II is totally captivating.

## VERDICT

All the simplicity and directness of the Linear USB II is evident from the first listen. With massive power, fine detailing, deft control and total confidence, this is a world-class headphone amp. Ⓜ

## HI-FI NEWS SPECIFICATIONS

Maximum output (<1% THD into 47kohm)	9500mV (RCAs)
Maximum power output (<1% THD)	260mW/32ohm (35mW/8ohm)
Output Impedance (20Hz-20kHz)	6.0-6.1ohm (51ohm, RCAs)
A-wtd S/N ratio (re. 10mW/0dBV)	92.7dB / 108.2dB
Distortion (20Hz-20kHz, re. 10mW/0dBV)	0.018-0.029%/0.0024-0.0029%
Frequency resp. (20Hz-20kHz/100kHz)	+0dB to -0.23dB/-3.7dB
Digital jitter (48kHz/96kHz)	15psec / 10psec
Power consumption	9W
Dimensions (WHD) / Weight	110x44x280mm / 1.5kg





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AUDIO  
FILE

Tube-based headphone preamp. Rated at 1W/12ohm  
 Made by: Manley Laboratories, Inc, California, USA  
 Supplied by: Elite Audio Ltd, Fife  
 Telephone: 01334 570 666  
 Web: [www.manley.com/hifi](http://www.manley.com/hifi); [www.eliteaudiouk.com](http://www.eliteaudiouk.com)  
 Price: £4500



# Manley Absolute

**M**anley Laboratories is taking on the extreme high-end of the domestic genre here with this £4500 Absolute unit – one that marries audiophiles' sonic requirements with the total control demanded by professionals.

It accommodates balanced headphones via XLRs and regular designs with ¼in jacks, and can be used as a preamp thanks to RCA line-level outputs and two pairs of RCA inputs for line sources.

Manley says the device provides '15 independent controls', and we tried all of 'em. The volume control on the fascia is a horizontal thumbwheel that'll bring tears to the eyes of those who remember vintage Marantz FM tuners. To the right is the mute button, to its left one to choose between push-pull or single-ended tube modes. You soon learn which suits which 'phones, music types or – when used as a preamp – which power amps.

Volume is indicated by a row of 16 white LEDs located above the thumbwheel, with 127x0.5dB steps. Next come four knobs and five buttons on the top of the front section, providing a match for the

provides a claimed 72dB swing each way, a detent taking it out of circuit.

The two 12AX7 input tubes and four 6AQ5 output tubes, wired as triodes, are housed in the valley formed by the metal sides, while at the back is a 'Headphone Protection Control' which monitors the output level and automatically decreases the volume when a preset threshold is reached.

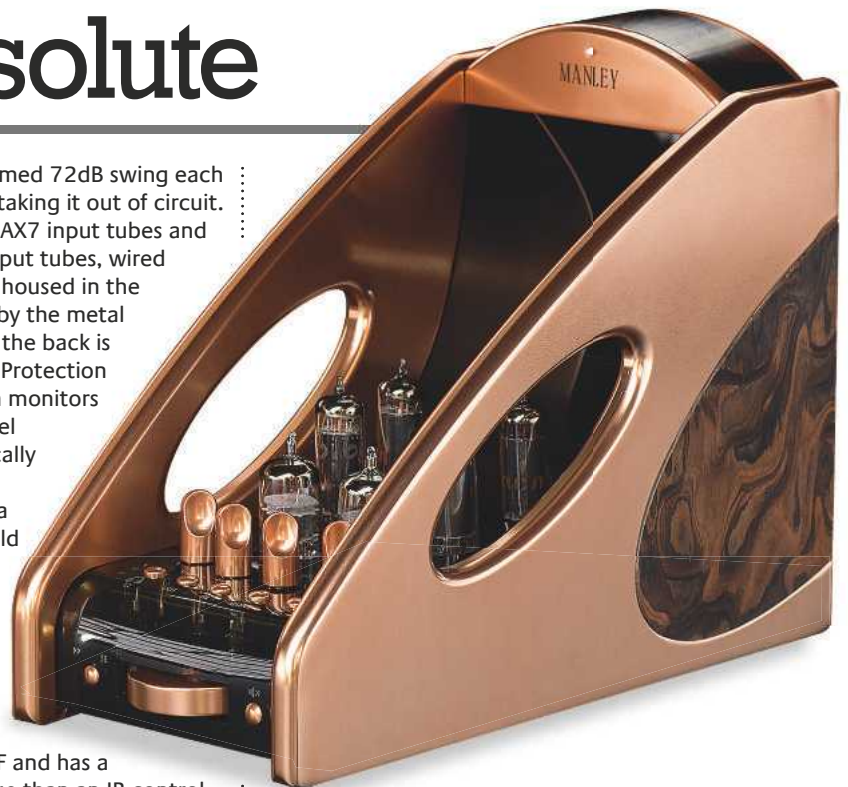
Finally, the remote is handy if you run long headphone leads as it operates via RF and has a far longer range than an IR control, and does not require line-of-sight.

## DOING THE CAN-CAN

We tried 12 wildly disparate pairs of headphones from Sennheiser, Audeze, Master & Dynamic, Beyer and others, balanced and single-ended, and of various impedances for our listening. These all showed that some experimentation will be needed with settings for the best subjective results.

Likewise with push-pull vs. single-ended listening – and with Paul McCartney's *Amoeba Gig* [Capitol] the percussion and bass were tauter, drier, with more impact on the former setting, most notably on 'Get Back', while the space and openness were more convincing with the amp in single-ended mode.

McCartney's performances took place in a record store in the USA, and have some of the most convincing audience sounds we can recall – no 'Rice Krispies' applause here – and this exploits the Absolute's greatest sonic virtue: its openness. With the closed-back, Audeze LCD-XC 'Hey Jude' reached sonic bliss via XLR with the impedance low, the feedback off and the mode single-ended.



**ABOVE:** The amp comes in a sculpted-from-solid chassis that doubles as a headphone stand. Three colours are available – black, silver and copper – with walnut burl veneer covers to the headphone rest areas

With the Audeze LCD-4z we delved into a ZZ Top-fest, *Goin' 50* [Warner], revelling in some of the best-recorded drum sounds imaginable. Surprise, surprise: expecting to prefer push-pull for maximum impact of Frank Beard's sublime percussive artistry, the SET position somehow added to the authenticity, especially for hearing the 'stretch' of the drum skins.

## VERDICT

With its total adjustability and design brilliance, and regardless of which headphone we used, this proved to be the most musical, open, natural-sounding headphone amplifier we've so far tested. ☺

'We revelled in some of the best-recorded drum sounds imaginable'

headphone load (set via custom output transformers) with positions of 'Low' for 12-50ohm, 'Medium' for 50-200ohm and finally 'High' for 200-600ohm and above.

The balanced and single-ended headphone outputs are button selectable together with the RCA preamp output. The middle button is for the two line inputs, the next toggles stereo/mono, and the last is the EQ control which activates or bypasses the tone controls.

Above these are four tall, slim rotaries. They govern corrective feedback, bass/treble adjustment or bypass, while the balance control

## HI-FI NEWS SPECIFICATIONS

<b>Max. output</b> (47kohm, L/M/H imp.)	8.9V / 14.8V / 24.4V (<1% THD)
<b>Max. power output</b> (25ohm, L/M/H imp.)	1880/1800/1136mW (3% THD)
<b>Output Imp.</b> (20Hz-20kHz, L/M/H imp.)	6.9ohm / 27ohm / 54ohm
<b>A-wtd S/N ratio</b> (re. 0dBV/25ohm)	88.2dB
<b>Distortion</b> (20Hz-20kHz, 10mW/25ohm)	0.042–2.1% (min feedback)
<b>Distortion</b> (20Hz-20kHz, 10mW/25ohm)	0.036–0.6% (max feedback)
<b>Freq. resp.</b> (20Hz-20kHz/100kHz)	+0.1 to –0.4dB/–1.7dB
<b>Power consumption</b>	68W (1W standby)
<b>Dimensions (WHD) / Weight</b>	140x208x292mm / 5.5kg



USB DAC/headphone amplifier  
 Made by: Novatron, Gyeonggi-do, South Korea  
 Supplied by: SCV Distribution, UK  
 Telephone: 03301 222 500  
 Web: [www.cocktailaudio.com](http://www.cocktailaudio.com); [www.scvdistribution.co.uk](http://www.scvdistribution.co.uk)  
 Price: £2199

# AUDIO FILE



## Novafidelity HA500H

**W**e've already reviewed Novatron's X45Pro streamer/server/DAC [*HFN* May '19], but this HA500H DAC/headphone amp (£2199), sold under the Novafidelity brand, really breaks the company's mould. Why? Because there's no networking, and not a sniff of any provision for onboard storage.

As well as its main function as a headphone amp, the HA500H can be used as a simple DAC/preamp having a single set of analogue ins,

'We have never heard these 'phones driven with such clout before'

on both RCAs and balanced XLRs, and a matching complement of analogue outputs, which can be run at fixed or variable levels.

In addition to USB-B and optical, coaxial and AES/EBU XLR inputs, there's an I<sup>2</sup>S digital connection to partner components such as the company's X50D streaming 'transport', which can deliver up to DSD256 via its I<sup>2</sup>S outputs, and its up-specced X50 Pro variant. It also has a wireless Bluetooth input for easy streaming from a smartphone, tablet or even your computer.

With the HA500H the user can select either a solid-state output or one using a pair of ECC82 valves,

the company helpfully suggesting 'a different sonic signature in reproducing music according to your feelings and music character'.

Meanwhile, inside the unit can be found a pair of ESS Sabre ES9018K2M DACs, with isolated circuits for the analogue/digital sections and a custom toroidal transformer in the PSU. All analogue inputs are first converted via an ADC to digital while the analogue output stages remain fully balanced.

The USB DAC input supports MQA-encoded files, DSD up to DSD256 and PCM to 384kHz/32-bit, and the headphone output is available on both a single-ended jack socket and an XLR balanced feed, with 'High' or 'Low' impedance settings to suit a wide range of headphones.

### PURE AND SIMPLE

Using the amp as largely intended – as a high-quality headphone-driver, with the luxury of that selectable output stage as a subtle tone control – is to hear it at its best.

For example, there was no advantage to using analogue or digital connections when paired with a Naim ND555/555PS combo [*HFN* Apr '19], beyond the 555's ability to play DSD64/128 files (although these come down to 192kHz/24-bit when output via the player's digital connection). Passing

the signal through the ND555's DAC into the HA500H's ADC/DAC chain robbed the music of some of its life whereas playing tracks via USB from a Mac mini computer, either via Audirvana or Roon, was a much happier experience.

But as a headphone amp the HA500H really comes into its own, being capable of an effortlessly dynamic sound regardless of the 'phones you throw at it. With everything from radio drama to the cleanly-recorded jazz of the Kathrine Windfeld Big Band's *Latency* album [Stunt Records], the amp delivered impact, detail and richness through the generous-sounding Bowers & Wilkins P9 Signature headphone [*HFN* Mar '17].

Furthermore, the triode tube option rescued what was initially a somewhat brash, super-analytical 'Focal presentation' – but then our Spirit Pros [*HFN* Dec '15] were designed as monitoring 'phones.

It was with the no-longer-available Oppo PM-1 [*HFN* Jul '14] headphones run balanced that the HA500H really showed what it could do. In fact we have never heard these headphones driven so convincingly, and with such clout, control and sheer musicality.

### VERDICT

The HA500H may not have the massive do-it-all specification of some of its stablemates, but its focused USB DAC/preamp approach still remains very tempting. It shines brightest when you overlook the frills and consider it purely as a headphone amplifier fed from one of the company's streaming players or, even better, just from a computer via USB. Keep it simple, and it really delivers. ☺

**ABOVE: The casework is fashioned from CNC-machined and polished aluminium, with a steel chassis. The configurable TFT display shows – among many details – input/output selection, signal and volume level, tube option and jack or balanced XLR headphone modes**

### HI-FI NEWS SPECIFICATIONS

<b>Max. output</b> (re. 0dBfs into 47kohm)	4.13V (preamp out, max vol)
<b>Max. power output</b> (25ohm, 1% THD)	1650mW (headphone out)
<b>Output Imp.</b> (20Hz-20kHz, pre/headph.)	45ohm / 10.2-10.6ohm
<b>A-wtd S/N ratio</b> (DAC/headphone)	114.5dB / 92.9dB (re. 10mW)
<b>Distortion</b> (20Hz-20kHz, pre/10mW)	0.0003-0.004%/0.0025-0.048%
<b>Freq. resp.</b> (20Hz-20kHz/45kHz/90kHz)	+0.0 to -0.01dB/-0.3dB/-0.1dB
<b>Digital jitter</b> (48kHz/96kHz)	40psec / 35psec
<b>Power consumption</b>	22W (1W standby)
<b>Dimensions (WHD) / Weight</b>	270x90x333mm / 6.9kg



AUDIO  
FILE

Network-attached DAC/headphone amplifier  
 Made by: T+A elektroakustik GmbH & Co. KG, Germany  
 Supplied by: The Audio Business Ltd, Wilts, UK  
 Telephone: 01225 704669  
 Web: www.taelektroakustik.de; www.theaudiobusiness.co.uk  
 Price: £6600



# T+A HA 200

Hot on the heels of its first headphone offering, the Solitaire P [HFN Jun '20], T+A also has this matching headphone amplifier, the £6600 HA 200. And though the price may be high, it's not hard to see where all the money has gone.

While it may be smaller than some of the behemoths we've seen from the German brand, it still has the same solid feel, not least due to the thick alloy fascia and the use of that same material for all the other panels, including the side-cheeks that also function as heatsinks.

'The HA 200 creates an entirely coherent "out of the head" soundstage'

Output is available on a standard 6.35mm socket, with balanced alternatives on a 4.4mm 'Pentaconn' socket and a four-pin XLR. Each output has its own selector button while the menu system allows impedance settings to be chosen from 8ohm to 80ohm.

While the HA 200 has both analogue and digital inputs, the former on both RCAs and balanced XLRs, and includes a DAC (or DACs), it doesn't have any form of analogue output beyond its headphone sockets, so it won't double as a DAC/preamp. The high-quality Class A output is a dedicated headphone preamp only.

Meanwhile, in addition to the analogue ins, there are two S/PDIF coaxial and optical inputs, AES/EBU and BNC ins, an asynchronous USB-B

port for computer connection, plus a Bluetooth antenna. A USB-A socket is for USB charging only, eg, for the supplied remote handset.

The USB-B socket will accept file formats up to 768kHz/32-bit and DSD1024 when used with a Windows computer loaded with T+A's driver, but Mac users are limited to DSD256 max. Like other high-end T+A digital products, the HA 200 uses separate signal paths for LPCM and DSD datastreams.

T+A's four tried-and-tested digital filter settings are available here in addition to two new 'No Oversampling' types. We spent much time playing with these but concluded there was no one 'sweet spot' fits-all option.

And there are even more avenues to explore, including a bandwidth setting that lets you switch between a 60kHz low-pass response and a 120kHz 'wide' option, the latter said to give 'a more spatial music reproduction'. The HA 200 also has balance, bass and treble controls, along with a variable loudness setting for low-level listening. There's also a crossfeed facility, which bleeds signal between the two channels for a more speaker-like stereo imaging.



## PALPABLE PRESENCE

What was quickly apparent was the ability of the HA 200 to grab hold of a pair of headphones and drive them in an entirely convincing manner, both using conventional unbalanced connections and – where available – in balanced mode. Reviewing T+A's Solitaire P we felt

**ABOVE: The HA 200's finish is exquisite, thanks to high-quality materials and painstaking hand-assembly. It comes in silver or black. The two VU meters show input/output levels while the adjacent display carries a wealth of information**

it was 'a good headphone waiting to become a truly great one', and listening to Dana Zemstov and Anna Fedorova's *Silhouettes* [Channel Classics] in DXD, we couldn't help but think that that moment of greatness had arrived. It wasn't just the confident weight and delicacy of piano and the timbre and bite of viola, but rather the open, spacious yet intimate acoustic captured.

Switching to Bowers & Wilkins P9 Signature 'phones [HFN Mar '17] brought a somewhat darker view of the music, but what was impressive was the way the HA 200 controlled what can be a slightly lush listen, creating a sprightlier sound without losing any weight. And with the P9s or the more open Focal Clears [HFN Mar '18], what the HA 200 does is create an entirely coherent 'out of the head' soundstage.

We've also never heard Oppo's PM-1 headphones [HFN Jul '14] driven so convincingly. Powered by the HA 200 they take on even greater weight and precision, which serves well a recording such as Snarky Puppy's *Live At The Royal Albert Hall* set [Live Here Now], with its large musical forces, tumbling rhythms and palpable audience presence. Even Ella Fitzgerald's 1956 *Live At Zardi's* set [Universal/Verve; 192kHz/24-bit] sweeps you up in the atmosphere of the evening, the immediacy of the recording shining through.

## VERDICT

What the HA 200 does, it does to sensational effect. Explore all its flexibility, plug in a good pair of headphones and let the music transport you. If you take premium private listening very seriously, you're going to love it. ☺

## HI-FI NEWS SPECIFICATIONS

Maximum output (47kohm, 1% THD)	8.261V (SE out, max. volume)
Max. power output (32/8ohm, 1% THD)	1650mW / 1160mW (8R setting)
Output impedance (20Hz-20kHz)	8.5-77ohm (8R-80R settings)
A-wtd S/N ratio (DAC/headphone)	113.3dB / 102.3dB (re. 10mW)
Distortion (20Hz-20kHz, 0dBFS/10mW)	0.003-0.009%/0.0009-0.0015%
Freq. resp. (20Hz-20kHz/100kHz)	+0.01 to -0.01dB/-0.26dB
Digital jitter (48kHz/96kHz)	20psec / <10psec
Power consumption	40W (1W standby)
Dimensions (WHD) / Weight	320x100x340mm / 6.5kg



Integrated amplifier. Rated at 120W/8ohm  
 Made by: Arcam, Waterbeach, Cambs  
 Supplied by: Arcam (Harman International Industries Ltd)  
 Telephone: 01223 203200  
 Web: www.arcam.co.uk  
 Price: £1995

AUDIO  
FILE



# Arcam SA30

Arcam has a new 'HDA' series of products in a matt grey finish, including this SA30 £1995 integrated. Not only does it top the range but it boasts new technologies that place it in the streaming amp category.

To begin with, the SA30 adds S/PDIF digital inputs (two optical, two coaxial) for the first time along with Dirac Live room compensation DSP. It also carries an HDMI eARC connection for use with a flatscreen TV, and packs a USB Type-A input for file playback from flash storage.

Additionally, there's a five-strong bank of stereo RCA inputs, with options for both MM and MC phono, plus a stereo pre-out should you

'It became impossible not to sit back and just enjoy the ebb and flow'

wish to use the SA30 with alternate amplification. A 3.5mm aux input and same-sized headphone socket are located on the front panel.

On the wireless side, the spec sheet includes Chromecast Audio integration and Apple AirPlay 2, but not Bluetooth. Wi-Fi enables hi-res streaming from networked storage (as does the wired Ethernet, along with system control) through Arcam's MusicLife app [HFN Jun '20], or a third-party UPnP app.

There's no touchscreen control, or full-colour display to present album artwork. Navigation around its menus is via the bundled IR remote, allowing access to network settings, digital filter selection, input management, etc. Thankfully

the large-scale nature of the display makes this text-heavy UI easy to read, while the remote has a useful touch-sensitive backlight.

The SA30's Class G amplification is conservatively rated at 2x120W/8ohm. To enable Dirac Live's room correction across the SA30's digital and analogue inputs, the amp uses an ADC for the latter, in advance of the DSP engine and ESS Sabre ESS9038 32-bit DAC. Opting for 'Direct' mode via the set-up menu bypasses the ADC for chosen inputs.

## BODY AND SOUL

This is an amplifier that combines power when needed with a pleasing delicacy and precision.

It demonstrates control of the rhythmic parts of a track, revelling in complex percussions and bass-lines, while at the same time giving impressive body and clarity to vocals and midrange details.

With 'Ramblin' Man' by The Allman Brothers Band [*Brothers And Sisters*; Capricorn Records], the SA30 offered an expressive and unerringly accurate performance. Dickey Betts' vocal commandeered the centre stage, cleanly separated from Greg Allman's harmonies, and it became impossible not to sit back and just enjoy the ebb and flow.

The twin guitar melody and bluesy solo that carry the track to its climax were brought forward, but avoiding a bright, fatiguing edge. There's a smoothness here that's immediately likeable.

'Rocks Off', The Rolling Stones' frenetic opener from *Exile On Main Street* [Virgin] is more of a challenge. It's a swirling, almost low-fi *mélange*

**ABOVE: A bold dimmable display delivers crisp, clear information from a softly-contoured fascia, complete with inset keys for menu, Dirac Live, input selection, balance and mute**

of multiple guitar tracks, brass fanfares, rolling piano, tambourine-led rhythms and Mick Jagger's rasping rhyming couplets. Yet through the SA30 it sounds better organised than it was perhaps ever intended. Keith Richards' quick-fingered riffs slice and dice through the ragtag accompaniment, the SA30 grabbing hold of the finest midrange details and elevating them to prominence, while keeping trebly hi-hats and cymbals distinct.

Streaming via Chromecast brings the Arcam's DAC into play, benefiting from the SA30's organised nature, but not at the expense of its tonality. Dire Straits' 'Private Investigations' [*Love Over Gold*; Tidal download], is a track that isolates instruments and focuses your ear. Mark Knopfler's acoustic guitar certainly stood out here, the SA30 revealing every string slide, bend and finger pick while the single-note bass-line thumped along in the background.

In fact, this track best exemplifies the SA30's most admirable traits. There's a palpable depth and breadth to its imaging that creates a cavernous space between the call-and-response interplay of guitar and marimba. The ominous, isolated thuds of a floor tom arrive with a startling dynamic punch, as do the forceful piano chords that signal the climax. But the quietest moments are teased out with a fine touch.

## VERDICT

More all-in-one than conventional integrated amp, Arcam's SA30 finds the brand embracing modern trends and features, if not the fashionista stylings of some rivals. It's a timely and welcome update – and shows Arcam hasn't lost its focus. ☺

## HI-FI NEWS SPECIFICATIONS

Continuous power (<1% THD, 8/4ohm)	145W / 220W
Dynamic power (<1% THD, 8/4/2/1ohm)	190W / 339W / 247W / 130W
Output imp. (20Hz–20kHz, Pre/Amp)	226ohm / 0.071–0.090ohm
Freq. resp. (20Hz–20kHz/100kHz)	+0.0 to –0.25dB / –4.6dB
Digital jitter (USB / S/PDIF)	50psec / 55psec
A-wtd S/N ratio (DAC/Amp)	104.1dB (0dBFS) / 94.5dB (0dBW)
Distortion (DAC, 0dBFS/Amp, 0dBW)	0.0015–0.002% / 0.0003–0.002%
Power consumption (idle/rated o/p)	41W / 408W (2W standby)
Dimensions (WHD, each unit)	433x100x323mm / 12kg

AUDIO  
FILE

Pre & power amplifier combination. Rated at 250W/8ohm  
 Made by: Audio Analogue, Tuscany, Italy  
 Supplied by: Decent Audio, Stockton-on-Tees  
 Telephone: 05602 054669  
 Web: [www.audioanalogue.com](http://www.audioanalogue.com); [www.decentaudio.co.uk](http://www.decentaudio.co.uk)  
 Prices (pre/power amp): £4999/£8999



# Audio Analogue Bellini/Donizetti Ann.

To mark its 20th anniversary in 2015, Audio Analogue decided to take a fresh look at some of its most noteworthy amps and create a new flagship range. The latest fruits of this long-term project are the £4999

'The four-to-the-floor beat kicked in and pummelled our sofa'

Bellini preamp and £8999 Donizetti Anniversary power amplifier.

The preamp has five line-level inputs, three on single-ended RCA phono with two on balanced XLRs, and there are also two pairs each of single-ended and balanced outputs.

Internally, there's a new power supply with filtering to minimise mains noise and RF interference while the main line stage is assembled onto a four-layer PCB and includes audio-grade capacitors

and military-grade, through-hole resistors. The volume control is a form of rotary encoder while the amp's various inputs are selected/switched by high-quality relays.

Much of the weight of the Donizetti Anniversary power amp comes from its two 1200VA transformers. The minimalist front panel is home to only a power switch and associated LED indicator, but things are a little busier round the back. The unit has both balanced XLR and unbalanced RCA inputs, plus a single set of speaker output terminals.



## GLORIOUSLY DEFINED

The first thing that's likely to strike you is the remarkable midband lucidity, and the expansiveness of the soundstage. These amps have an uncanny ability to place both instruments and vocalists in their own spaces. A perfect example of this was Norah Jones's 'Feelin' The Same Way' [*Come Away With Me*;

**ABOVE:** Bellini Anniversary [top] has one large control for on/standby, volume and input selection. Massive Donizetti amp [bottom] has an illuminated power button and matching fascia design

Parlophone]. She was seemingly standing in the centre of our room, with backing instruments slightly behind the plane of the loudspeakers. Everything was gloriously well defined.

The sheer level of clarity and purity in the treble region is first-class too, enabling you to hear the tinkle of a pin drop in even the busiest of mixes. Cymbals in general possessed a delicious metallic sheen while more vigorous strikes on the metalwork arrived with real force before shimmering away into the distance. Not once did hi-hats disappear into the back of a mix.

Underworld's 'Jumbo' [*Beaucoup Fish*; JBO] showed these amps at their bass-pumping best, being delivered with a punch that was absolutely spot-on. The swirling keyboard arrangements and main loping synth-loop remained clearly discernible in the mix after the four-to-the-floor beat kicked in and pummelled our listening sofa.

And where the Audio Analogue duo definitely excelled was with its handling of recordings that varied in their quality. The Corrs' 'Only When I Sleep' [*Talk On Corners*; Atlantic] sounds steely at best and is clearly mixed to make it radio-friendly. Yet never have we heard it sound better than here. The amps simply cut through the nastiness, managing to impart a sense of order to the proceedings and even bring a hint of purity to the ragged top end.

## VERDICT

If you're seeking a pre/power amplifier pairing that is not only kind to less-than-well-produced recordings but able to serve them up with sweetness and not a little polish, then look no further. ⏻

## HI-FI NEWS SPECIFICATIONS

Continuous power (<1% THD, 8/4/2ohm)	350W / 680W
Dynamic power (<1% THD, 8/4/2/1ohm)	350W / 690W / 1.35kW / 2.40kW
Output imp. (20Hz–20kHz, pre/power)	73ohm / 0.138–0.154ohm
Freq. resp. (20Hz–100kHz, pre/power)	+0.1 to –0.10dB / +0.0 to –3.5dB
Input sensitivity (for 0dBV/0dBW)	285mV (pre) / 139mV (power)
A-wtd S/N ratio (re. 0dBV/0dBW)	98.6dB (pre) / 85.7dB (power)
Distortion (20Hz–20kHz, 1V/10W)	0.0035–0.0039% / 0.015–0.33%
Power consumption (Idle/Rated o/p)	101W/945W (18W, Preamp)
Dimensions (WHD, Pre/Power)	450x140x380/450x221x428mm



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your *music*  
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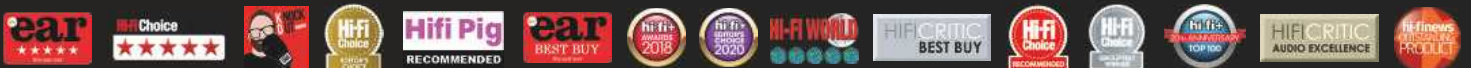
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AURALIC PRESS AWARDS



AUDIO  
FILE

Stereo tube power amplifier. Rated at 140W/8 & 4ohm  
 Made by: Audio Research Corp, Minnesota, USA  
 Supplied by: Absolute Sounds Ltd  
 Telephone: 0208 971 3909  
 Web: [www.audioresearch.com](http://www.audioresearch.com); [www.absolutesounds.com](http://www.absolutesounds.com)  
 Price: £19,998



# Audio Research REF160S

This amplifier is the stereo version of the company's REF160M mono power amp [*HFN* Aug '18]. The differences should thus relate solely to general monoblock-vs-stereo amp arguments – total isolation of left-and-right channels and separate AC sources for both, versus shared elements in the stereo edition. Yet here it's not straightforward because the new £20k REF160S model is almost *too* good.

At first glance, it looks to be exactly what a stereo version

'We wallowed in lower octaves we've never heard from this album'

should be: same rating, but a single chassis and a roughly 30% cost saving. Otherwise, it's the same in operation and practice, again with the pain of valve housekeeping reduced thanks to auto-bias and the user option of switchable Ultralinear and Triode operation on the fly.

We rather wish there was armchair remote selection available for this feature, but we nonetheless

found the choice to be source, genre, and system-dependent.

Installation was utterly straightforward. The rear of the amplifier is fitted with stout 4mm binding posts with nominal 16, 8 and 4ohm taps and an array of toggles that enable you to select single-ended or balanced inputs, fan speed and auto-shut off.

## POWER OF TWO

We soon threw out the notion of using the same LPs and CDs to repeat precisely the same tests used for the REF160M monoblocks. Instead, we trusted our ears to decipher the charms and merits of the REF160S. And it started with the bass.

Anyone who's heard the remastered, 50th anniversary edition of The Beatles' *Abbey Road* [Apple] knows that opening track, 'Come Together', is an exercise in bass quality, extension and expressiveness. Again, without looking at the colour of the LED to tell us which mode we were in, we wallowed in lower octaves we've never heard from this album. We even dug out an original copy to determine how much of it

**ABOVE:** Four buttons cover power on, meter light on/off, tube monitoring and Ultralinear or Triode mode, the LED changing blue to green. Inside, there are two 6H30 driver triodes and quad set of KT150 output tubes per channel

was the amplifier and how much the remastering. The sound was extended, taut and fast-sounding, but most of all it proved to be rich with detail in a way that elevated one's regard for Paul McCartney's playing to an even higher level. We found we were in Triode mode so we replayed both, in Ultralinear, and heard only a minuscule gain in impact and tautness.

We wanted to hear ZZ Top's 'Gimme All Your Lovin' [*Goin' 50*; Warner Brothers] both for the utter perfection of its percussive opening, and the raunch of Billy Gibbons' guitar playing. If we expected the Triode setting to be flabbier, the Ultralinear punchier, the difference was so subtle that it would be a matter of personal preference – if the Triode setting favoured the guitar and vocals, Ultralinear suggested a fraction more power.

And the REF160S proved to be breathtaking when fed half-track, 15ips tapes on an Otari 5050. Chasing The Dragon's *Big Band Spectacular* featuring the Syd Lawrence Orchestra is one of the most natural, powerful recordings we've heard in years. Again, the choice of mode was down to user preference but the sensation was one of an iron fist in a silken glove. The scale and presence of a big band is something to behold, and the REF160S delivered it with meter needles rarely passing midpoint.

## VERDICT

This goes to the top of our Fantasy Sound System League Table. It does everything with style, grace and – like a pussy cat suddenly discovering its inner lion – power to spare. Waving goodbye to the amp was a wrench we didn't anticipate. ☹

## HI-FI NEWS SPECIFICATIONS

Power output (<1% THD, 8/4ohm)	169W / 170W
Dynamic power (<5% THD, 8/4/2/1ohm)	180W / 181W / 215W / 185W
Output impedance (20Hz–20kHz)	0.687–1.48ohm
Freq. response (20Hz–20kHz/100kHz)	+0.1dB to –0.25dB/–4.0dB
Input sensitivity (for 0dBW/140W)	179mV / 2105mV (balanced)
A-wtd S/N ratio (re. 0dBW/140W)	93.6dB / 115.1dB
Distortion (20Hz–20kHz, 10W/8ohm)	0.06–0.19%
Power consumption (Idle/Rated o/p)	420W / 740W
Dimensions (WHD) / Weight	483x260x546mm / 45kg



# X1

Award Winning Turntable.



Available in:



# X1

## TURNTABLE

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Flash-forward to the present day, with the introduction of our all-new X1 which re-imagines the classic turntable design and elevates the sound performance to new heights. You will find no plastic here, only high-end, durable materials that boast an audiophile sonic performance at a fantastic price.

The X1 is available in three finishes to suit any home décor; a premium walnut wood veneer or luxurious black or white eight-layer gloss paint.



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AUDIO  
FILE

Pre & mono power amplifiers. Rated at 750W/8ohm  
 Made by: Chord Electronics Ltd, Kent  
 Supplied by: Chord Electronics Ltd  
 Telephone: 01622 721444  
 Web: www.chordelectronics.co.uk  
 Prices (pre/power amp): £12,500/£18,360 (each)



# Chord Ultima Pre 2/Ultima 2

**L**aunched to commemorate the UK company's 30th anniversary, the £12,500 Ultima Pre 2 and £18,360 Ultima 2 monoblock power amps comfortably undercut the original Ultima pairing, which would have set you set you back £90,000.

The power amplifier has a translucent spherical button buried in the centre of its thick alloy fascia to fire it up, like those on Chord's DAC range. LEDs within the top plates then light up the internal

'There's a vast pool of untapped power that's just ready to pounce'

workings. The LEDs can be dimmed using a hidden button in the vertical slot bisecting the upper part of the front panel. A credit card should do the trick, but a button at the rear would have been simpler! Duplicate sets of XLR/RCA inputs and 4mm outlets mean you can opt (as Chord suggests) to invert polarity.

The Pre 2 is all-analogue and line-level only, offering four sets of inputs on balanced XLRs, two on RCA phonos, and two tape in/out loops, also on RCAs, while pre-outs are on both RCAs and XLRs. There's also an AV bypass input, allowing signals to be routed directly to

the output without going through the volume control, for example when combining the Pre 2 with a surround processor or receiver.

Finally, you can also adjust the input gain to equalise the level between different sources.



## PASSION PLAY

These new Ultima 2s filled the room with an impressively broad and deep sound, but one also possessed of an easy tranquility that hinted at a vast pool of untapped power just ready to pounce. And they lay to rest any suggestion that Chord's switchmode-driven amplifiers may sound a little chilly about the edges.

With Logan Richardson's *Shift* [Blue Note] there was

no pause for breath as this Chord set-up revealed the beautiful but challenging melodies. The sound was rich, the performance compelling as the Ultima 2s provided just the urgency required, and no more, to fill the room. If there's any 'technicality' about the sound of this duo, there's sophistication and passion too.

And can they rock? You bet! Advancing the volume way short of '11' – in fact '3' would be closer to the mark – was more than sufficient to roll out the 2014 remix of Deep Purple's classic *Made In Japan*, originally captured on an

8-track machine [Universal]. Sure enough, this '96kHz/24-bit Deluxe Edition' looks more like a 48kHz upsample, but there's no gainsaying the additional see-through clarity and comprehensive tightening-up of what is surely one of the world's most visceral and energetic rock bands captured live, on stage, at the apex of their collective talent.

'Child In Time' sounded positively haunting with the amps driving our B&W 800 D3 speakers [HFN Oct '16] as the distinctive, tremulous quality of Jon Lord's Hammond organ hung in the night air, punctuated by Gillan's unique vocals swinging from intimate to wild dervish in a few beats. And the bass? Firm, deep and palpable, never sounding excessive.

Yes, there are other big amps that bring a slightly more velvety texture to grand classical and rock performances, but there are few that walk the line between incisiveness and envelopment with the confidence of the Ultima 2s.

## VERDICT

If you were enthralled by the debut Ultimas and have been saving ever since, cash in your chips now, buy the Ultima 2s instead and spend the excess £40k on new floorstanders and music. Yes, the Ultima Pre 2 and Ultima 2 are that good. ☺

**ABOVE: The Ultima 2 preamp (and power amp) come in 'Argent Silver' or 'Jett Black' aluminium casework**

**BELOW: Lights on! Chord's Ultima 2 is rated at 750W/8ohm**



## HI-FI NEWS SPECIFICATIONS

Continuous power (<1% THD, 8/4ohm)	690W / 1285W
Dynamic power (<1% THD, 8/4/2/1ohm)	810W / 1590W / 2963W / 4850W
Output imp. (20Hz–20kHz, pre/power)	96–100ohm / 0.021–0.093ohm
Freq. resp. (20Hz–100kHz, pre/power)	+0.0 to –0.1dB / +0.0 to –2.95dB
Input sensitivity (for 0dBV/0dBW)	1035mV (pre) / 93mV (power)
A-wtd S/N ratio (re. 0dBV/0dBW)	96.6dB (pre) / 77.7dB (power)
Distortion (20Hz–20kHz, 1V/10W)	0.00018–0.0021%/0.0007–0.08%
Power consumption (idle/rated o/p)	90W/1080W (23W, preamp)
Dimensions (WHD, Pre/Power)	480x173x355/480x180x670mm



Stereo power amplifier. Rated at 500W/8ohm  
 Made by: Constellation Audio, Newbury Park, CA, USA  
 Supplied by: Absolute Sounds Ltd  
 Telephone: 0208 971 3909  
 Web: www.constellationaudio.com; www.absolutesounds.com  
 Price: £64,998

AUDIO  
FILE



# Constellation Audio Centaur II 500 S

As you can see, this is a big, bluff amplifier – one that sells for £65k and is rated at 500W/8ohm. Essentially, it's the company's Centaur II with a 3kW-capable power supply on board

'Play jazz and this amp swings; play rock and it will bare its teeth'

and with the maximum voltage of the reservoir capacitors increased by 30% to handle the new higher rail voltages. This PSU supports four pairs of Constellation's novel single-ended 125W modules in a balanced/bridged configuration.

Another unusual aspect of the design is found on the input section, where there's a choice of not just single-ended RCAs or balanced XLRs, selected using a small toggle switch on the rear panel, but also a choice of XLRs – one set marked 'Bal' and the other 'Direct'. The latter option bypasses the amp's first gain stage – a fully balanced voltage preamp employing low-noise FETs. Removing

this preamp stage from the signal chain creates what the company calls 'Constellation Link' and, as a result, the 'Direct' connection has a lower overall gain. This may be compensated for by a preamp, including Constellation's own, that features a higher voltage output.

Other options include a mute switch and, completing the connectivity, both 12V trigger and RS232 control sockets in addition to a USB-B port for firmware updates.

## RATTLE AND THUNDER

Here, we used the dCS Vivaldi One digital media player [*HFN* Feb '18] as both DAC and preamp, finding the Centaur II 500 Stereo able to deliver all the power, clarity and dynamics anyone could want while always having power in reserve.

With Reference Recordings' Britten *Young Person's Guide To The Orchestra* with the Kansas City Symphony/Michael Stern, via our reference B&W 800 D3 speakers [*HFN* Oct '16], the thunder of the percussion in 'Variation M' and

**ABOVE:** Pressing the fascia bar initiates a series of self-diagnosis checks. Once ready, the LED switches from red to flashing orange, to blue. The cabinet's dimpled finish is both superb and resilient but the Centaur II 500 S remains a two-man lift!

the crisp rattle of the snares was simply superb, and the way the final fugue grew to its stately, massive conclusion was a spine-tingler.

And the amplifier was no less magical with the solo piano of Paul Lewis playing Mussorgsky's *Pictures At An Exhibition* [Harmonia Mundi; 96kHz/24-bit], not only with the punchy rhythms of the faster-paced 'pictures', but also with the lovely limpid sense of the slower ones, with every note from Lewis's instrument hanging in the Berlin Teldex Studio acoustic.

That this amplifier can rock is beyond question: its combination of speed, grip and sheer grunt ensures it drives speakers hard and tight with everything from the histrionics of Queen's 'Keep Yourself Alive', from the band's eponymous first album [Universal/Island; DSD64] through to the refined soft rock of 'Listen To What The Man Said' from Paul McCartney's *Pure McCartney* [Concord; 44.1kHz/24-bit]. The agility of this amp, belying its apparent status as a big ol' bruiser, was consistently in evidence, to exceptionally satisfying effect.

Play jazz, it swings; play rock, it bares its teeth; play chamber music, it glides... Whatever you want, the Centaur II 500 Stereo delivers.

## VERDICT

Does the Centaur name fit? Well, this amplifier plays music on a human scale, while delivering no shortage of giddy-up when required. Although by no means the costliest of Constellation amplification, it still exists in a very rarefied stratum of hi-fi, but justifies its price-tag with impressive build, and a sound combining solidity and dynamics with delicacy and refinement. ☺

## HI-FI NEWS SPECIFICATIONS

Power output (<1% THD, 8/4ohm)	585W / 930W
Dynamic power (<1% THD, 8/4/2/1ohm)	685W / 1.25kW / 1.69kW / 880W
Output imp. (20Hz–20kHz/100kHz)	0.032–0.049ohm / 0.21ohm
Freq. resp. (20Hz–20kHz/100kHz)	+0.00dB to –0.01dB/–0.18dB
Input sensitivity (for 0dBW/500W)	144mV / 3265mV (Balanced)
A-wtd S/N ratio (re. 0dBW/500W)	90.6dB / 117.6dB (Balanced)
Distortion (20Hz–20kHz, 10W/8ohm)	0.003–0.028% (Balanced)
Power consumption (Idle/Rated o/p)	229W / 1.73kW (5W standby)
Dimensions (WHD) / Weight	476x292x616mm / 68kg

AUDIO  
FILE

Monoblock power amplifier. Rated at 1500W/8ohm  
 Made by: D'Agostino LLC, Connecticut, USA  
 Supplied by: Absolute Sounds Ltd  
 Telephone: 0208 971 3909  
 Web: [www.dagostinoinc.com](http://www.dagostinoinc.com); [www.absolutesounds.com](http://www.absolutesounds.com)  
 Price: £125,000 (each)



# D'Agostino Relentless

**A** battleship to sink all other flagships, these monoblocks weigh as much as a car and, at £125k, cost as much as a house. The Relentless is CEO Dan D'Agostino's next step on from his 400W/8ohm Momentum monoblocks [HFN Oct '16].

The chassis is composed of interlocking slabs of precision-milled copper and 'aircraft-grade' aluminium alloy, with a 1µm-deep diamond cut finish, gloss black and silver (natural) anodising and hard, synthetic enamel coating. The face

'A sense of latent power hangs over every piece of music that's played'

carries the now D'Agostino hallmark meters – 'But don't take the numbers too seriously' says Dan.

Under the bonnet, there's a fully-screened 35kg 5kVA toroidal mains transformer while the custom PSU is supported by a bank of six huge 100,000µF electrolytics. This is a mono chassis, but one that uses a *single* differential input amplifier to derive the mirrored (plus and minus) audio rails for the balanced output.

The output stage itself is a huge 'transistor farm' staged over eight separate parallel amplifier modules

each with eight complementary pairs of hand-matched bipolar power transistors (128 devices per mono chassis). So the Relentless functions as 32 smaller, fast power amps in parallel per balanced side.

Power is supplied via three 500A lugs with live, neutral and earth connections cranked tightly into place – a torque wrench is provided, useful too to secure your favoured bare-wire/spade cable terminations.

## THE ULTIMATE JOURNEY

The Relentless paints an astonishing musical picture – one bursting with ripe detail, unprecedented grip and slam, a seemingly limitless palette of colours, and a palpable sense of latent power hanging over every piece of music played. Familiar albums are transformed as you are chaperoned along their musical journey.

We dialled up the 2001 remix of The Eagles' *Hotel California* [192kHz rip from DVD-A] and that iconic opening chord progression rang into the room, heard countless times before but somehow fresher now – more vibrant, intense and beguiling. This was music-making not just reaching out to touch you (or pound you in the case of Massive Attack or Yello) but taking you by the arm and gently drawing you from the audience to the stage. So

**ABOVE: The Relentless is specified as unconditionally stable into any likely load. It can serve, too, as an efficient, if costly, storage heater!**

there we were, admiring the layered sound of Walsh and Felder's guitar solos while the faint draft from Henley's cymbals raised the hairs on the back of our necks.

Channel Classics' DSD release of Stravinsky's *Rite of Spring* [Budapest Orch/Iván Fischer] provided another, entirely separate journey as the orchestra crafted sound shapes of breathtaking earthly beauty, with fresh timbres and structures of unlikely physicality.

The musicians interlocked to create a single, huge percussive instrument, from the resonant might of tympani to the shrill interjections of the piccolo. And the silences! As the contortions of brass, winds and strings lapsed into reflective moments, the ambience of the venue was exposed.

Deep Purple's 1972 *Made In Japan* [Universal] was recorded live in Osaka with, famously, 'everything louder than everything else'. The Relentless thrust us perilously close to the action as 'Machine Head', 'Highway Star' and 'Space Truckin'' were all thrashed out with casual disregard to both hearing and syncopation. Blackmore is gunning his Stratocaster like a man possessed while Jon Lord's organ is a frenzy of feedback – the perfect backdrop to Ian Gillan's barely-controlled screaming. We were inhaling the heady atmosphere of the Hammy Odeon.

## VERDICT

'Great expectations' can easily resolve into disappointment. Not so here, for the anticipation generated the world over by the astonishing scale and price of these amplifiers is realised in every facet of their unique performance. ☺

## HI-FI NEWS SPECIFICATIONS

Power output (<1% THD, 8/4ohm)	1605W / 2730W
Dynamic power (<1% THD, 8/4/2/1ohm)	1740W/3350W/6360W/11325W
Output impedance (20Hz–20kHz)	0.039–0.060ohm
Freq. response (20Hz–20kHz/100kHz)	+0.0dB to –1.1dB/–7.6dB
Input sensitivity (for 0dBW/1.5kW)	139mV / 5335mV (balanced)
A-wtd S/N ratio (re. 0dBW/1.5kW)	90.7dB / 122.5dB
Distortion (20Hz–20kHz, 10W/8ohm)	0.0025–0.016%
Power consumption (Standby/Idle)	35W / 512W
Dimensions (WHD) / Weight (each)	572x280x826mm / 258kg



# Heresy

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## *A little heresy is* good for the soul...

The Heresy IV offers unparalleled sound quality from a relatively small speaker. Utilizing Tractrix geometry, the all-new Heresy IV ports allow for the most efficient, fastest air transfer in their class, which reduces port noise for punchier low frequencies. In addition to delivering smooth, dynamic and low distortion sound, the Heresy IV is available in a high-quality Natural Cherry, Distressed Oak, American Walnut, or Satin Black Ash wood veneer finish. A removable slant riser base is included for ideal floor placement.



FINISH  
OPTIONS:



Distributed by Henley Audio

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AUDIO  
FILE

Integrated tube amplifier. Rated at 35W/8ohm  
 Made by: European Audio Team, Austria  
 Supplied by: Absolute Sounds Ltd  
 Telephone: 0208 971 3909  
 Web: [www.europeanaudioteam.com](http://www.europeanaudioteam.com); [www.absolutesounds.com](http://www.absolutesounds.com)  
 Price: £9498



## EAT E-Glo i

A new addition to the EAT family, this all-valve integrated is not cheap at £9498, and it is rated at only 35W in ultralinear mode or 18W in triode. Yet the perceived value is self-evident, ameliorating the issue of watts-vs-worth. Says EAT founder Jozefina Lichtenegger: 'Everything we do is about a love for tubes and for analogue, so the E-Glo i is a natural progression'.

'Stand-out qualities were warmth and a truly vast soundstage'

Apart from the sharp edges of the removable valve cover, this is otherwise a beautifully made product. It sports a matt silver finish, contrasting glossy piano-black (or Makassar) wooden end-cheeks, transformers in luxurious chrome boxes and positive, click-y toggle switches alongside smooth rotary controls. At 435x170x485mm (whd), the E-Glo i is substantial as well as being handsome.

Even the remote handset is jewel-like, with ten flush buttons for power-on, level up/down, mute and access to five line inputs. That only accounts for nine – the tenth, unlabelled button might perhaps cover a future function.

Set-up is intuitive for seasoned audiophiles, and only the valve positions need checking. Remove the cover, fit the four KT88s and the 12AX7 and 12AT7 triodes – these are refitted with EAT Cool Dampers – resecure the lid via the four Torx screws and make your connections.

At the back of the amp are five pairs of RCA phono, 8 and 4ohm multi-way speaker binding posts, a mains socket and the on/off rocker working in conjunction with a fascia standby toggle. At the front, LEDs show the source and power-on, flickering during the warm-up period. On the top you'll find the operating controls: power, motorised rotary volume control and the triode/ultralinear selection toggle.

### INTIMATE YET HUGE

To resolve the variable aspect of these two playback modes, we compared an open-reel tape of The Beatles' *Sgt Pepper* [Capitol], the corresponding US vinyl version and the new UK mixes on LP and CD [Parlophone]. Regardless of the position of the selector, the immediate, stand-out qualities were inherent warmth and truly vast soundstage properties.

And these were constant regardless of source, material or mode. This amplifier sounds both intimate *and* huge. Another bonus

**ABOVE:** Remove the protective cage from the massive chassis and the tubes and custom PSU/output transformers can be seen. Input/line triodes feature custom tube coolers

was image *height*. Admittedly, this was enabled in no small part by playback through the champions of that trait, our LS3/5As. The music always hovered above the speakers, topping a soundstage of cavernous depth and wall-to-wall boundaries.

Revelations started with the crowd noises that open *Sgt Pepper*, carrying on through 'With A Little Help From My Friends', its width bordering on the astounding, the former audibly floating in the room. Each instrument was perfectly located, percussion was as crisp as a Frito, snap as clear-cut as we've more often heard from solid-state amps of ten times the power.

The ultralinear mode we found tightened up the all-analogue recordings, while triode increased the warmth of the digital versions. 'She's Leaving Home' places Paul's vocals in front of massed strings, with John Lennon prominent among the group harmonies, making it easy to assess this using LP and CD. Textures – not levels – changed from mode to mode. They were trade-offs, simply differing in the way sound can vary subtly.

It was, however, the loopy 'Being For The Benefit Of Mr Kite' that further illustrated the dichotomy, being a crowded recording that's a masterclass in studio-created artifice. Calliope swirls, crisp cymbals, thumpingly hollow bass – rare are the occasions when we've heard such a glorious soundscape with so compact a system.

### VERDICT

The E-Glo i exhibits the brand's characteristic sound in spades – old-school, warm 'n' cuddly valve magic, more so in triode than ultralinear mode. Irresistible. ☺

### HI-FI NEWS SPECIFICATIONS

Continuous power (<1% THD, 8/4ohm)	35W / 34W (19W/19W Triode)
Dynamic power (<2% THD, 8/4/2/1ohm)	39W / 41W / 41W / 33W
Output imp. (20Hz–20kHz, UL/Triode)	1.09–1.15ohm / 1.03–1.08ohm
Frequency resp. (20Hz–20kHz/100kHz)	+0.10 to –0.04dB / –0.85dB
Input sensitivity (for 0dBW/rated o/p)	81mV / 505mV
A-wtd S/N ratio (re. 0dBW, UL/Triode)	92.7dB / 93.5dB
Distortion (20Hz–20kHz, 10W, UL/Triode)	0.11–1.24% / 0.65–1.18%
Power consumption (idle/rated o/p)	230W / 255W
Dimensions (WHD / weight)	435x170x485mm / 26kg





CD player & integrated amplifier/DAC. Rated at 60W/8ohm  
 Made by: Exposure Electronics, Lancing, UK  
 Supplied by: Exposure Electronics  
 Telephone: 01273 423877  
 Web: www.exposurehifi.com  
 Price: £1200/£1260 (CD/Amp)

AUDIO  
FILE



**LEFT:** The rear of the CD player [top] has fixed line (RCA) and digital (optical/BNC) outputs, but no digital ins. The amp [bottom] has two line inputs and MM phono plus USB-B and pairs of BNC/optical digital inputs

and rich, really making its presence felt. You could hear how the bassline was crafted in such a way as to power the song along.

UB40's 'King' [Signing Off; Graduate Records] offered a wealth of detail upfront, with a lively rendition of snare rim-shots and the rhythm guitar playing off beat. All the lead instruments, such as the heavily processed electric organ, were separated out very clearly and there was good timbre to lead vocals and harmonics, with everything delivered with evenness and clarity. We loved the reedy sound of the saxophone playing too. Up top, the ride cymbals had a subtly sweet sound that combined with a satisfyingly metallic zing.

Feeding the XM5's DAC directly with a hi-res DVD-Audio of Rush's 'Red Barchetta' [Moving Pictures; Mercury] via a Sony Blu-ray player was a joy. Instruments were clearly positioned and while the lead guitar certainly dominated the proceedings, Geddy Lee's vocals were firmly projected stage front.

Yet what impressed us most about Exposure's two-box XM CD/XM5 combination was the way it conveyed the natural flow of music, ensuring it always sounded involving and expressive, immersing the listener in the magic of whichever piece it was asked to play.

### VERDICT

This CD player/amp duo has a charming sound that's both articulate and engaging, while never descending into harshness. And despite the pairing's diminutive dimensions there's no sense of this combination ever playing second fiddle to any full-sized separates system at a similar price. ☺

# Exposure XM CD/XM5

Half width, or 'proper size' boxes? Exposure suggests both, with the £1200 XM CD player and £1260 XM5 integrated amp having fascias that measure 218mm wide. Both units are available in black or titanium.

The XM CD is a top-loader, with a 'sled' that slides back to reveal the mechanism, and a magnetic puck to lock the disc into position. Meanwhile, a large central display lights up in red, with the power and transport controls sitting beneath it.

'It sounded involving and expressive with whatever was played'

Inside there's a Sony KSS213C CD drive mechanism alongside a PCM1716 96kHz/24-bit DAC from TI with an 8x oversampling digital filter. A precision digital clock is also fitted, with dedicated power supplies for the digital transport and analogue audio stages.

As for the XM5 integrated, this is a Class AB amp based around Toshiba bipolar power transistors. It has a very capable MM phono section while a Wolfson DAC accommodates PCM audio through all of its inputs, or DSD via USB. There's also a handy line-level output should the owner wish to use the XM5 as a preamp with the company's XM9 monoblocks.



### FAMILY TRAITS

Those who have heard Exposure's mid-price separates will instantly recognise the XM CD/XM5's 'family sound'. That means an amp that sounds clean, but slightly tonally warm, allied to a smooth, yet crisp-sounding CD player. Spin up Steely Dan's 'Black Cow' [Aja; MCA Records] and the refined nature of the combo is immediately revealed. This is thanks to a subtly warm bass, smooth – almost silky – treble, and an even and open midband. The bass guitar work on this track instantly stood out: it was powerful

### HI-FI NEWS SPECIFICATIONS

Continuous power (<1% THD, 8/4ohm)	75W / 115W
Dynamic power (<1% THD, 8/4/2/1ohm)	98W / 174W / 160W / 86W
Output imp. (20Hz–20kHz, Amp/CD)	0.011–0.021ohm / 98–295ohm
Freq. resp. (20Hz–20kHz/100kHz)	–0.13 to –1.0dB/–13.4dB (Amp)
Distortion (20Hz–20kHz, CD/Amp)	0.0010–0.018%/0.0019–0.085%
A-wtd S/N ratio (CD/Amp)	99.3dB (0dBFS) / 86.9dB (0dBW)
Digital jitter (CD / LPCM, amp)	160psec / 75psec
Power consumption (idle/rated o/p)	14W / 212W (9W, CD)
Dimensions (WHD / Total weight)	218x94(89)x348(363)mm / 9kg



# AUDIO FILE

Integrated Class D amplifier. Rated at 200W/8ohm  
Made by: Extraudio BV, The Netherlands  
Supplied by: Whole Note Distribution, Scotland  
Telephone: 02039 115 549  
Web: [www.extraudio.com](http://www.extraudio.com); [www.wholenotedistribution.co.uk](http://www.wholenotedistribution.co.uk)  
Price: £8495



## Extraudio X250T

Less costly than the Dutch company's valve/solid state hybrid amp, the X250, this £8495 'Class AD' sibling combines the services of a Class A transistor preamp with a Class D power amp module from Hypex. The latter, specifically, is the NC252MP, one of six Hypex Ncore 'plug-and-play' solutions that also incorporate a switchmode PSU.

Otherwise the X250T, available in matt black or silver, is minimalist in a way that only the Northern Europeans seem to have mastered. Its fascia is self-explanatory, sporting

'The crowd noises and sense of space were as natural as we've heard'

a rotary source selector on the left and level on the right, and LEDs in between denoting which source is active: Phono (the MM PH1 module is a £525 extra), CD, Tuner, Auxiliary, Processor and Balanced.

The centred power-on button lights in the form of the company logo but Extraudio also supplies an RF remote to provide on/off, volume up/down and mute. 'Mute' prompts a sluggish 6.5sec reduction of the motorised volume, then you have to press the volume '+' button to restore your listening level.

All inputs – four via RCA and 'Balanced' via XLR – are line level, while the one marked 'Processor' routes directly to the Class D power

amp stage, turning off all other functions along with the volume and preamp section.



### GRACE AND FAVOUR

With Mitch Ryder & The Detroit Wheels' 'Jenny Take A Ride' from *Sockin' It To You* [RPM] we were delighted by a cohesive wall-of-sound as befits Ryder's music. Drums were vast, meaty, with powerhouse attack and Ryder's gutsy, shout-y vocals were sibilance-free and sufficiently menacing.

After an hour of raucous rock, however, we began to suspect this perhaps wasn't the X250T's forte, because it was so graceful even under duress. Turning to Joan Baez's *In Concert* [Vanguard; 7½ips tape], a glorious souvenir from her 1962/3 tour with

just voice and guitar, the sense of space and the crowd noises were as natural as we've heard. Stage depth was cavernous, and an airiness and presence suited perfectly this utterly 'unplugged' recording.

We followed Joan Baez with another Vanguard folk treasure, only this time one recorded in a studio, and with more voices and instruments. Ian & Sylvia's sublime *Play One More* [Vanguard; 7½ips tape] adds drumming, keyboards, organ and bass to the *Hootenanny!* protest-era folkie formula.

This was of slightly later vintage, from probably similar tape stock, having the characteristic Vanguard sound, and proving a further

**ABOVE: The 'analogue only' X250T uses Hypex Ncore Class D power amp modules and has separate linear and switchmode power supplies for its pre- and power sections. WBT 4mm posts are fitted for speaker cable connections**

informative demonstration: the two performers are stationed at either end of the soundstage. What this did was reinforce our impression that the soundstaging is deep, the midband reproduction – especially voices – is 'BBC-grade' convincing and the bottom end is more valve-like than transistor-y in its sound.

With Herb Alpert & The Tijuana Brass's *The Lonely Bull* [A&M; 7½ips tape], you hear a phalanx of gorgeous trumpets, while track 2, 'Let It Be Me', features the full-on cod-mariachi shtick, abetted by that jaunty classic, 'Acapulco 1922', so I was able to hear what the amp could do with the punchiest of transients and even whistling.

This Class AD amplifier certainly belies its solid-state innards. No teeth-jarring edginess, no closed-in sensations – it rather reminded us of the first-generation Primare 'cube' [HFN Feb '19] and even 1970s Denon monoblocks, which were always exemplars of solid-state without the austerity.

But were we imagining the lushness? Turning to Ray Conniff's *You Are the Sunshine of My Life* [Columbia; 7½ips tape], the room was awash with gossamer-light schmaltz so unctuous we could count the calories. This is, simply put, a sexy little minx of an amp. And we'll have to regard those oh-so-prolonged muting intervals as a kind of foreplay...

### VERDICT

When the first word that springs to mind is 'finesse', and the second is 'Whoa!' because of sheer slam, you can call it a 'hybrid' in yet another way. The X250T is one of those iron-first-in-a-velvet-glove amps that lets you rock or chill as desired. ☺

### HI-FI NEWS SPECIFICATIONS

Power output (<1% THD, 8/4ohm)	150W / 280W
Dynamic power (<1% THD, 8/4/2/1ohm)	151W / 285W / 275W / 195W
Output imp. (20Hz–20kHz/100kHz)	0.020–0.017ohm / 1.01ohm
Freq. resp. (20Hz–20kHz/100kHz)	–0.15dB to –0.75dB/–6.1dB
Input sensitivity (for 0dBW/150W)	201mV / 252mV (balanced)
A-wtd S/N ratio (re. 0dBW/150W)	83.1dB / 104.9dB
Distortion (20Hz–20kHz, 10W/8ohm)	0.00085–0.029%
Power consumption (Idle/Rated o/p)	17W / 175W (3W standby)
Dimensions (WHD) / Weight	445x125x395mm / 18kg



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Made in USA 



# AUDIO FILE

Integrated amp with network/USB inputs. Rated at 60W/8ohm  
Made by: Hegel Music Systems AS, Oslo, Norway  
Supplied by: Hegel Music Systems AS  
Telephone: +47 22 605660  
Web: www.hegel.com  
Price: £1500



## Hegel H95

Winning an EISA award last year for its high-end H390 amplifier, Hegel now offers an entry-level £1500 integrated, the H95. This incorporates the company's latest UPnP streaming solution along with a menu system that allows for those all-important 'over the air' updates and the potential for future upgrades.

The H95 also supersedes the company's H90, stepping up from this previous amp by including Hegel's SoundEngine 2 regime, which uses local and adaptive feedforward technology – rather than global feedback – to tackle distortion within the amp stages.

Only mild changes have been made to the analogue section,

'The H95 is controlled, detailed and refined, but exuberant as well'

with improvements to the power supplies, and also to the headphone output to reduce noise. The big change is to be found in the digital section, which now uses in-house designed 'SynchroDAC' technology, with balanced signal processing throughout to maintain dynamic range and reduce distortion.

As to features, as well as the amp's Ethernet network connection, it has an asynchronous USB-B input, three optical digital inputs and a single coaxial (RCA) input. The H95's two sets of line-ins are also on RCA's, and there's a pair for its variable preamplifier output. Meanwhile, any

of the inputs can also be configured as a 'bypass' – fixed-level inputs for use with an external surround processor – and it's also possible to set the maximum volume level for both the amplifier's main output and the headphone socket.

Hegel doesn't have a dedicated app to play UPnP music, so we tried the H95 with a range of UPnP/DLNA control apps, including Linn's Kinsky, PlugPlayer and Bubble UPnP, and they seemed to work just fine. Yes, it's limited to 96kHz/24-bit when streaming via UPnP, but we get the feeling that'll be more than adequate for most listeners.



### REAL SNAP

Straight out of the blocks the Hegel H95 had our attention with The Steve Howe Trio's 'Fair Weather Friend' [New Frontier; Esoteric Antenna], presenting the former Yes guitarist's instruments with real snap, son Dylan's drums with persuasive weight and drive, and revelling in the sound of Ross Stanley's Hammond.

There's a completely smile-inducing sense of the musicians arrayed before the listener, the H95 being controlled, detailed and refined, but at the same time sounding entirely exuberant.

With the Simphonie du Marais's period-instruments account of Handel's *Royal Fireworks* and *Water Music* [Musiques à la Chabotterie], the H95 sounded big and stately with the processional episodes while fast and nimble with the dance tunes woven into the music. And all the while it brought out the

wonderful character of all those contrabasses and hautbois, set in a rich, reverberant church acoustic.

So there we were, all ready to say, 'very good, though it lacks...', but that simply didn't happen. Switching to Sarah Willis's infectious *Mozart y Mambo* set [Alpha], on which the horn player is joined by the wonderful Havana Lyceum Orchestra, we were just as impressed by the scale and power of the orchestra in the Mozart tracks as by the lightness and fleetfooted rendition of the mambo ones. When the two collide in a mambo based on *Eine Kleine Nachtmusik* the effect may cause purist jaws to drop, but delivered with the H95's brio and vitality, it's a total feelgood track.

And though one might expect this amp, with its comprehensive streaming capabilities, to have its competence slewed heavily in favour of music played in digitally, it's as impressive when fed via its two analogue inputs.

Connecting a Naim network player to the analogue ins – and here we're talking a source playing through an amplifier less than a tenth of its price – the extra space, grunt and rhythmic acuity of the ND 555/555PS [HFN Apr '19] was clear. But the amp's onboard network facility wasn't that far off, and impressively delivered similar qualities, just to a lesser extent.

### VERDICT

This isn't quite a giant-killer in the mould of the H390, but it's still a remarkable amplifier, with power, poise and above all a hugely involving presentation. If your budget will only stretch this far, you'll not be disappointed. ☺

**ABOVE: The H95 is an exemplar of Hegel's trademark simplicity. Source and volume controls flank the display and a power button is hidden under the fascia. If you need a remote, it's a £95 extra**

### HI-FI NEWS SPECIFICATIONS

Continuous power (<1% THD, 8/4ohm)	73W / 106W
Dynamic power (<1% THD, 8/4/2/1ohm)	108W / 196W / 79W / 6W
Output impedance (20Hz–20kHz)	0.019–0.052ohm (778ohm, pre)
Freq. resp. (20Hz–20kHz/100kHz)	+0.0 to –0.26dB/–3.5dB
Digital jitter (48kHz/96kHz)	30psec / 135psec
A-wtd S/N ratio (re. 0dBW/0dBFS)	89.3dB (Analogue) / 100.9dB (Dig)
Dist. (20Hz–20kHz; 0dBW/–20dBFS)	0.006–0.03%/0.001–0.0025%
Power consumption (idle/rated o/p)	22W / 250W (2W standby)
Dimensions (WHD) / Weight	430x100x350mm / 11kg





Integrated tube amplifier. Rated at 28W/8ohm  
 Made by: Icon Audio, Leicestershire  
 Supplied by: Icon Audio  
 Telephone: 0116 2440593  
 Web: www.iconaudio.com  
 Price: £2299

AUDIO  
FILE



# Icon Audio Stereo ST30SE

The typical single-ended valve amplifier with low power output and an often equally low damping factor requires careful system matching. Icon Audio has decided to address these issues with its £2299 Stereo

'We got the sense Icon Audio's ST30SE was getting its groove on'

ST30SE, an integrated amp using just one KT150 output tube per channel and boasting a power output of 28W in ultralinear mode, and 18W in triode.

It sports three line-level inputs, for CD, Aux and Tuner, plus a tape input with matching record output. The bias for each output valve can be tweaked via the fascia meter, with a switch selecting which valve is to be checked, and two small trimpots located on the top panel.

Meanwhile, a rear three-position sensitivity switch selects 'H' (High) for increased sensitivity with lower feedback applied. Choose 'L' (Low) and the amp uses higher feedback and thus offers lower gain. This is recommended for most modern

line-level sources where the full range of the volume control is more likely to come into play. A central position, '0', where no feedback is applied, is for test purposes only.

Internal construction is excellent and high-quality components include an ALPS volume pot, Rubicon and Nichicon electrolytic capacitors, and SCR audiophile polypropylene audio capacitors. The speaker and input terminals are all gold-plated and valve bases are high-quality ceramic items.

## REAL APPEAL

Listening in triode mode, with the sensitivity first set to 'High', we were delighted to hear the Stereo ST30SE pretty much put to rest the idea that single-ended tube amplifiers are all woolly and indistinct-sounding, by serving up a performance that simply sparkled.

Not only was the top-end beautifully transparent but the amp seemed particularly adept at capturing the overall essence of a musical performance, portraying its complete message in a manner that was highly appealing. Across the midband, instruments were believable and vocals blessed with

good levels of detail, although we did feel that Nicky Holland's voice in 'Nobody's Girl' [*Sense And Sensuality*; Epic] was a little huskier than we were used to.

Moving to 'Low' helped boost the separation of instruments and vocals within the soundstage. Now Miss Holland appeared to have cleared her throat, stepped properly up to the mic and was projecting her voice into the listening room.

Ultralinear mode offered another step forward in sound quality. If a little of the exquisite midband richness was lost compared to triode mode, more importantly, there was now a far better sense that the bass was integrated with the rest of the music.

The amp dug deep into 'Tilted' from Christine And The Queens' *Chaleur Humaine* CD [Because Music] and bass notes no longer outstayed their welcome. Instead there was a feeling that the Stereo ST30SE had joined the party and was getting its groove on.

We felt that the ultralinear/low gain mode showed the ST30SE at its best, and listening to jazz singer Madeleine Peyroux's 'Dance Me To The End Of Love' [*Careless Love*; Rounder Records], it sounded as if the musicians had spread their chairs across the soundstage, filling the space between our speakers convincingly and pulling us right into the heart of the action.

## VERDICT

There is sure to be something to please the majority of listeners in one of the Icon Audio ST30SE's various modes. It has a glorious transparency and always gives the sense of being faithful to the message of the music at hand. ⬇

**ABOVE: The amp is seen here without its protective cover. Crowded but familiar fascia sports valve bias toggle and (power) meter, triode/ultralinear mode switch, volume rotary, on/standby, tape monitor and input selector**

## HI-FI NEWS SPECIFICATIONS

Power output (<2% THD, 8/4ohm)	30W / 30W
Dynamic power (<5% THD, 8/4/2/1ohm)	17W / 18W / 10W / 6W
Output imp. (20Hz-20kHz/100kHz)	0.85-1.17ohm / 1.58ohm
Freq. resp. (20Hz-20kHz/100kHz)	+0.0dB to -0.6dB/-9.4dB
Gain (High/Low, Ultralinear mode)	+36.9dB / +30.1dB
A-wtd S/N ratio (re. 0dBW/28W)	83.4dB / 97.9dB (Low Gain)
Distortion (20Hz-20kHz, 10W/8ohm)	0.61-10.9% (Low Gain)
Power consumption (Idle/Rated o/p)	177W / 220W (44W standby)
Dimensions (WHD) / Weight	380x240x300mm / 28kg

# AUDIO FILE

Integrated amplifier with USB DAC. Rated at 550W/8ohm  
Made by: Musical Fidelity (Audio Tuning Vertriebs GmbH), Austria  
Supplied by: Henley Audio Ltd, UK  
Telephone: 01235 511166  
Web: [www.musicalfidelity.com](http://www.musicalfidelity.com); [www.henleyaudio.co.uk](http://www.henleyaudio.co.uk)  
Price: £5649



## Musical Fidelity M8xi

Simon Quarry, the engineer behind some of MF's earlier and iconic big amplifiers, has returned to deliver us more than a taste of the old Musical Fidelity magic in this new £5649 M8xi integrated amplifier.

Whatever its heritage, the M8xi is certainly big and, weighing in at some 46kg, it's not especially

'It powers the deepest rhythms through your rib cage and beyond'

comfortable to hump about if grasped by those effective but utilitarian heatsinks.

Rated at a not inconsiderable 550W/8ohm per channel, but capable of rather more, the high (67V) voltage output is achieved by bridging a pair of output stages, the two 'sides' of each mono bridge comprising three pairs of high-current power transistors (a topology MF has refined for over a decade). As the red/black speaker terminals are floating, care needs to be taken not to connect the M8xi to a powered/earthed loudspeaker.

If the front panel looks a little sparse that's because all the real action is hosted at the rear of the chassis, where inputs extend to four single-ended on RCAs, including

one HT bypass, and two balanced on XLRs – preamp outputs too are both single-ended and balanced. There's also a fixed RCA line output and two sets of very substantial 4mm speaker cable terminals for bi-wirable loudspeakers.

Meanwhile, digital files up to 192kHz/24-bit are accommodated on pairs of coaxial and optical S/PDIF connections plus a single asynchronous USB-B port. Musical Fidelity's choice of DAC chip, the TI/Burr-Brown PCM5242, does not support DSD. Hence, neither does the M8xi. MF does make some fine

phono preamps, however, which explains why the M8xi is line only...



### TRUE GRIP

Massive Attack's 'Unfinished Sympathy' [Blue Lines; Wild Bunch Records] had our B&W 800 D3 [HFN Oct '16] speakers' rigid sandwich bass cones reach down as low and far as they might without popping their end stops. Shara Nelson's voice soared, the sampled bass and percussion powered and sparkled in turn, while the orchestral strings – recorded at Abbey Road Studios – possessed all the lush richness that we've come to expect from this track when played to its fullest.

Fortunately the M8xi is no one-trick pony. Sure it sounds 'big', boasting tremendous weight,

**ABOVE: Two huge rotaries dominate the extruded alloy fascia, catering for input selection and volume on this EISA 2020-21 Award-winning integrated**

extension and a pneumatic grip over bass notes that powers the deepest rhythms through your rib cage and beyond, but its repertoire is both more varied and extensive in its resolution of colour, timbre, dynamics and ambience.

It's versatile too. As Diana Krall sashays her way through her cover of The Eagles' 'I Can't Tell You Why' [Wallflower; Universal/Verve] the M8xi sheds its bulk and gets into the swing of things, lifting this vaguely melancholic ballad by illuminating both the brushwork percussion and the accompanying piano.

This was one of many albums we used to compare the sound of the M8xi through its analogue XLR and digital USB inputs, via a dCS Vivaldi One player/DAC [HFN Feb '18] and Melco N1ZS20/2 server [HFN Jun '17]. Simply put, the Musical Fidelity M8xi's USB input is good, very good, but an external high-end DAC will still have the edge.

The brush-like percussion on Carman Lundy's *Self Portrait* [JVC] is not a million miles off that from Krall's album, and in both cases the analogue input saw the M8xi paint performances that were just that bit smoother, more liquid in tone and delivery. Free of stress, strain or any subliminal background hash, the sound was both inviting and enveloping, spilling from the speakers and washing away minutes and then hours of our listening time. Not that we were complaining.

### VERDICT

This integrated amplifier, bluff exterior and all, is not only capable of driving a short piece of damp string, but does so with a dexterity and fleetness of foot that utterly belies its outward bulk. ☺

### HI-FI NEWS SPECIFICATIONS

Continuous power (<1% THD, 8/4ohm)	640W / 940W
Dynamic power (<1% THD, 8/4/2/1ohm)	880W / 1740W / 1300W / 720W
Output impedance (20Hz–20kHz)	0.039–0.11ohm (48–220ohm, line)
Freq. resp. (20Hz–20kHz/100kHz)	+0.0 to –0.3dB/–4.1dB
Digital jitter (USB at 48kHz/96kHz)	<10psec / 210psec
A-wtd S/N ratio (re. 0dBW/0dBfs)	85.9dB (Analogue) / 107.1dB (Dig)
Distortion (20Hz–20kHz; 10W/–3dBfs)	0.0009–0.0035%/0.0008–0.11%
Power consumption (idle/rated o/p)	133W / 2.1kW
Dimensions (WHD) / Weight	485x180x500mm / 46kg





# *exposure*



XM CD Player  
XM HP Headphone Amplifier



XM CD Player  
XM HP Headphone Amplifier



XM CD Player  
DISC PLAYER OR TRANSPORT  
OF THE YEAR

# *exposure*

## **Exposure Electronics Limited**

Unit 18 Winston Business Centre, 43 Chartwell Road  
Lancing, West Sussex, BN15 8TU, United Kingdom  
01273 423877

[www.exposurehifi.com](http://www.exposurehifi.com)



# AUDIO FILE

Integrated streaming DAC/Class D amplifier. Rated at 200W/8ohm  
Made by: NAD Electronics International, Canada  
Supplied by: Sevenoaks Sound and Vision, UK  
Telephone: 01732 459555  
Web: <http://nadelectronics.com>; [www.sevenoakssoundandvision.co.uk](http://www.sevenoakssoundandvision.co.uk)  
Price: £3999



## NAD Masters M33

With the launch of the £3999 M33 there are now two network systems in the NAD range, the M33 taking the concept of the M10 [HFN Jun '19] and scaling it up into a full-size hi-fi component, with network and Bluetooth/Apple AirPlay 2 connectivity. What's more, a new Eigentakt Class D power amp is incorporated in the M33 promising 'a minimum of 200W per channel'.

Network access allows the M33 to be integrated into multiroom audio systems, Windows or macOS desktop apps, and a whole range of third-party smarthome solutions. It can also be 'taken over' by Amazon Alexa and Google Assistant devices, or Siri via Apple's AirPlay 2.

A wide array of digital input options is available. Naturally, the M33 can stream content from network sources – using Wi-Fi or wired Ethernet – at up to 192kHz/

user-selectable sampling rates up to 192kHz/24-bit. These extend to a MM/MC phono input, said by the company to 'rival specialised outboard units', a further line input and one set of balanced inputs.

Meanwhile, in addition to the two sets of loudspeaker outputs, enabling bi-wiring and two-zone operation, the M33 also sports a set of preouts. These can either be used full-range into an external power amplifier, or configured as low-pass filtered subwoofer outs.

It's all very comprehensive, and the M33 also has built-in Dirac Live room correction [see HFN Jul '20], and comes with a mic to measure your room, plus five memory profiles to account for different listening and speaker positions.



### IT'S A BLAST!

Whether playing analogue or digital sources, streaming from a network store or accessing an online service,

NAD's M33 is nothing short of exceptional. Raise the volume and the M33's sound opens up to embrace and involve the listener.

The phono stage is good, too, as we cranked up a Rega

turntable to play Elvis Costello's *Armed Forces* [Radar], and instantly heard the off-kilter 'Accidents Will Happen' played with all its bite, and 'Oliver's Army' blasting from the speakers with solidity and attack.

Like other recent NAD amps using variations on Class D technology, this all-in-one has two essential components to its

sound. It's always crisp and clean, extracting bags of detail from whatever you choose to play and delivering superb dynamics, and it also seems unburstably powerful over a range of loudspeakers.

That ability to 'go loud' and yet stay in total control is heard again when playing The Orchestra Of The Americas recording of Falla's *The Three-Cornered Hat* [Linn; 192kHz/24-bit], with its explosive opening, thundering percussion and blaring brass giving way to what is sultry, intricate orchestration.

The M33 handles the dynamics and the detail equally well, letting the music flow, especially in the swirling 'Miller's Dance'. This whole set is bold, expressive and dramatic, and the M33 laps it up, as striking with the flow of the strings as it is with the punch of the rhythms.

With Yo-Yo Ma, Chris Thile and Edgar Meyer's delicious *Bach Trios* set [Nonesuch], the M33 delivers a beautifully focused view of the arrangements, double-bass and cello having a sonorous yet tightly defined sound, and mandolin a wonderful tight snap.

Finally, for a change of pace, we loaded up Liam Gallagher's *MTV Unplugged* set [Warner], enjoying the way the M33 revealed the layers of instrumentation, all the way through a glorious singalong 'Champagne Supernova' packed with detail and atmosphere.

### VERDICT

The M33 has wide-ranging flexibility, ease of use and the acclaimed NAD sound. It's as impressive with analogue sources as when doing its streaming thing, and upgradability furthers confidence in this amplifier as a long-term buy. ☺

**ABOVE: NAD's M33 has a 7in Gorilla glass touchscreen and rests on 'magnetic iso-point' feet to counter vibrations. The headphone output is powered by its own amplifier module**

'Double-bass and cello have a sonorous yet tightly defined sound'

24-bit, as well as access various online streaming services. It also has a USB input for playback from storage devices, an HDMI input for TV sound plus two S/PDIF coaxial, two optical and an AES/EBU digital input on XLR. Icing on the cake – the M33 is also Roon-ready as well.

There are also analogue inputs, which are converted to digital at

### HI-FI NEWS SPECIFICATIONS

Continuous power (<1% THD, 8/4ohm)	220W / 430W
Dynamic power (<1% THD, 8/4/2/1ohm)	261W / 515W / 815W / 502W
Output impedance (20Hz–20kHz)	0.006–0.009ohm (95ohm/pre)
Freq. response (20Hz–20kHz / 90kHz)	–0.01 to –0.19dB / –12.5dB
Digital jitter (48kHz/96kHz, 0dBW)	<5psec / 8psec
A-wtd S/N ratio (re. 0dBW/0dBFS)	94.0dB (Analogue) / 109.6dB (Dig)
Dist. (20Hz–20kHz; 0dBW/–20dBFS)	0.0002–0.003%/0.00004–0.0003%
Power consumption (idle/rated o/p)	32W / 446W (29W standby)
Dimensions (WHD) / Weight	435x133x396mm / 9.7kg



Pre & power tube amplifiers. Rated at 70W/8ohm  
 Made by: PrimaLuna, The Netherlands  
 Supplied by: Absolute Sounds Ltd  
 Telephone: 0208 971 3909  
 Web: www.primaluna-usa.com; www.absolutesounds.com  
 Price: £4150 (each)

AUDIO  
FILE



# PrimaLuna EVO 400

This Netherlands-based company has played a big part in promoting the joys of 'glass audio' to a new audience, and its latest EVO 400 pre/power duo (£4150 apiece, in black or silver) is its third-generation flagship. As such, it's an uncontrived design allied to solid engineering.

Although the preamplifier has no internal DAC, there's a good selection of inputs – including balanced XLRs. This fully dual-mono design has twin custom-wound toroidal power transformers, said to be low in hum and electromagnetic interference. Selected passive

the remote control. It hosts three 12AU7 triodes per channel plus no fewer than two pairs of EL34 power valves on each side – twice the number of many contemporaries.

Furthermore, PrimaLuna's 'Adaptive AutoBias' circuit not only accommodates a choice of alternate output tubes but also continuously monitors the condition of all the valves. If one tube goes down, it instantly switches the amp into protection mode.



**THOROUGHLY MODERN**  
 The PrimaLuna EVO 400 combo has something of a 'valve sound'. It's

fulsome in the bass, while the midband has a subtle richness to it that's not something you hear from many transistor amps. It's also surprisingly insightful and one might even say 'well lit' in the upper

'The bass is fulsome while the midband has a subtle richness to it'

components are fitted, while input selection is achieved using sealed relays, located tight behind the rear panel for short signal paths. Neat, hand-wired, point-to-point wiring is employed, using Swiss-made silver-plated OFC wire, while alongside a pair of 5AR4 tube rectifiers sit three 12AU7 triodes per channel.

The EVO 400 power amplifier offers excellent loudspeaker driving ability and switchable ultralinear/triode operation to taste, all from

mid, especially when running in ultralinear mode. As for the treble, this is clean and smooth yet retains plenty of energy.

Cue up Steely Dan's 'Home At Last' [Aja; MCA Records] and this normally fairly smooth and silky '70s rock track becomes rather forward and feisty. That's not to say harsh, but neither were Donald Fagen's distinctive vocals shy and retiring. This complemented the well-lit treble, as cymbals came over with

bite. Bass was punchy and thumpy, the power amplifier delivering a big thwack into our loudspeakers.

In triode mode, the same song was instantly transformed, with a subtle diminution of bass power and a slight flattening of treble. Yet the midband came into its own, the textures of the many different instruments were now distinct and we began to hear real tonal colour.

The sense of recorded space was another area that never failed to impress, with the haunting modern jazz of Herbie Hancock's 'I Have A Dream' [The Prisoner; Blue Note] enjoying a luxuriously wide acoustic. The EVO 400 pre/power amplifiers opened this simple yet effective late '60s track right up, throwing images far stage left and stage right.

The beautiful flute, trumpet and flugelhorn playing on the recording also charmed us, as these were locked confidently in space, panned hard to either side and dancing between our two speakers.

## VERDICT

The PrimaLuna EVO 400 pre/power amps get close to the top tier for a fraction of the price of high-end equipment. It's a duo with a charm many rivals conspicuously lack. ☺

**ABOVE: The preamp and its simple fascia**

**BELOW: The matching power amp can be switched into monoblock form**



## HI-FI NEWS SPECIFICATIONS

Continuous power (<2% THD, 8/4ohm)	73W / 85W (2.45V, preamp)
Dynamic power (<5% THD, 8/4/2/1ohm)	112W / 110W / 105W / 82W
Output imp. (20Hz–20kHz, pre/power)	264–1.1kohm / 5.6–5.0ohm
Freq. resp. (20Hz–20kHz, pre/power)	–0.0 to +0.0dB / –0.3 to +0.5dB
Input sensitivity (for 0dBV/0dBW)	429mV (pre) / 147mV (power)
A-wtd S/N ratio (re. 0dBV/0dBW)	97.5dB (pre) / 94.0dB (power)
Distortion (20Hz–20kHz, 1V/10W)	0.36–1.25% / 0.70–2.0% (UL)
Power consump. (pre/idle/rated o/p)	57W / 273W/475W
Dimensions (WHD, Pre/Power/weight)	386x206x404mm/24kg/31kg

AUDIO  
FILE

Network-ready pre/DAC/power amp. Rated at 200W/8ohm  
 Made by: Primare AB, Sweden  
 Supplied by: Karma-AV Ltd, York  
 Telephone: 01423 358846  
 Web: www.primare.net; www.karma-av.co.uk  
 Prices: £2600-£3500 (pre)/£2700 (power)



# Primare PRE35/A35.2

With the preamp here you can opt to include or omit the company's Prisma network facility and DAC (£2600 vs. £3500) and its paired A35.2 power amp (£2700) can also be bought separately. We tested the full complement.

Either way, you certainly get a lot of connectivity, functionality

'Whatever you play, it will come across with strength and solidity'

and power for your money. Indeed, Primare claims 200W/8ohm for the A35.2, which uses its UFPD 2 analogue Class D technology.

Screw in the Wi-Fi antennae, enter your wireless router details and you're all ready to go. The app lets you to play music via Wi-Fi and Bluetooth, AirPlay, Spotify Connect and Chromecast, and also offers multi-room/multi-zone control. Available on both iOS and Android platforms, the app looks elegant and confers great flexibility thanks in part to its Roon functionality.

Those going for more traditional source options will find the PRE35's

rear panel crammed with sockets. There are twin balanced XLR inputs, three pairs of RCA inputs, four Toslink optical and two coaxial digital ins. You'll also find a USB-B port for computer connection.

All these feed a sophisticated AK4497 DAC, working at up to 768kHz/32-bit PCM and DSD256 resolution. Both fixed and variable analogue outputs, a coaxial digital output and IR in/outs, along with an RS232 service port complete the picture.

The A35.2 power amp has corresponding switchable XLR/RCA inputs. Its fascia is a model of minimalism, with only an on/standby switch neatly inlaid into the large Primare logo. Both units have rear mains switches.



## SLAM DUNK

It's immediately clear that these Primare components make an impressive combination and offer real value. Whichever type of music you play, it will be delivered with strength, solidity and slam.

Its gutsy presentation makes for a thrilling ride, even at very high volume levels – its rendition of The Crusaders' track 'Street Life' [Street Life; MCA Records]

**ABOVE: The PRE35's fascia controls feel silky and its white-on-black OLED display is clean and crisp. The power amps can be bridged into monoblock guise**

showing this to the full, while also revealing the power amp's fine dynamic headroom. Even during the song's crescendos and with the volume rammed right up, the music sounded authoritative yet effortless.

The PRE35/A35.2's other winning trait is its tonality. In short, this combo is quite a smoothie, having a sound less forward than that produced by many of its rivals. Cue up, say, Herbie Hancock's 'Speak Like A Child' [Speak Like A Child; Blue Note] and you won't feel that this slightly thin-sounding late '60s recording is in any way uneven.

You're able to enjoy the lustre of the brass, for example, yet the flugelhorn doesn't scream out of the mix at you. There was a decent amount of detail to be heard too, with plenty of information about the acoustic of the recording studio. It was also flattered by the power amplifier's obvious punch.

This Primare combo also offers up an impressively wide, capacious soundstage. It was particularly good from left to right, generating an expansive, room-filling sound.

And its streaming performance proved to be very good indeed, making light work of, for example, Tracy Chapman's 'Fast Car' [Tracy Chapman; Elektra]. The music was pleasingly smooth, delicate and engaging, while at the same time having no shortage of snap.

## VERDICT

Primare's sophisticated PRE35/A35.2 combination offers plentiful facilities, slick ease-of-use and an enjoyably powerful sound. While optimised as a pair, both pre and power amp remain very competitive in their own right – the latter being a high-value powerhouse. ⤵

## HI-FI NEWS SPECIFICATIONS

Continuous power (<1% THD, 8/4/2ohm)	215W / 455W
Dynamic power (<1% THD, 8/4/2/1ohm)	220W / 465W / 570W / 300W
Output impedance (20Hz–20kHz)	0.009–0.012ohm (180ohm, PRE35)
Freq. resp. (20Hz–20kHz/100kHz)	+0.0 to –0.25dB/–5.9dB (A35.2)
Distortion (20Hz–20kHz, 0dBfs/0dBW)	0.0009–0.007%/0.0008–0.010%
A-wtd S/N ratio (re. 0dBfs/0dBW)	115.4dB (PRE35) / 79.0dB (A35.2)
Digital Jitter (48kHz/96kHz)	440psec / 155psec
Power consumption (idle/rated o/p)	25W / 450W (33W, PRE35)
Dimensions (WHD / Total weight)	430x106(145)x420(400)mm/ 23kg



# Climbing the Ladder



Sydney



Yukon



Mackenzie



Big Sur



Red River



Golden Gate



Chicago



Evergreen

Climbing the ladder of AudioQuest interconnect cables leads to better and better performance, thanks to less and less interference from the cable.

This is made possible by the use of superior materials and the implementation of increasingly more sophisticated construction techniques, such as: the progression from Long-Grain Copper to solid Perfect-Surface Silver, from Foamed-PE insulation to FEP Air-Tubes, from Metal-Layer Noise-Dissipation System to multi-layer Carbon-Based NDS, from low-distortion Gold-Plated terminations to extreme-purity Red Copper plugs with Hanging-Silver plating, and more.

Despite their differences, our Bridges & Falls and Rivers audio interconnects are all closely related. **Follow the color code:** Chicago is a bigger, better version of Evergreen; but Golden Gate, with its Perfect-Surface Copper conductors, is clearly more refined. Similarly, Triple-Balanced Red River is a bigger, better version of Golden Gate, but doesn't offer the greater advantages of Big Sur... And so it goes, all the way up to Yukon.

The reason for the two sides of the ladder is simple: The Double-Balanced **Bridges & Falls cables can be fitted with a choice of RCA plugs, 3.5mm mini-plug, 3.5mm female, or DIN plugs** (usually for Naim electronics). Meanwhile, aside from Chicago, the **Triple-Balanced Rivers cables can be fitted with RCA or balanced XLR plugs.**

So, start at the bottom, where the AudioQuest value system is already 100% evident, or climb as high as you like. Keep climbing until the incremental cost of the higher model is no longer the **least expensive way to make the most improvement**—but beware, you might find yourself at the top of the ladder or beyond before reaching that point!

Sincerely,

A handwritten signature in white ink, reading "WEL".

William E. Low

**audioquest**®

AUDIO  
FILE

Preamp/DAC & power amplifier. Rated at 500W/8ohm  
 Made by: The Rotel Co. Ltd, Tokyo, Japan  
 Supplied by: Rotel Europe, Worthing, UK  
 Telephone: 01903 221 710  
 Web: www.rotel.com  
 Prices: £3299/£5399 (pre/power)



# Rotel Michi P5/S5

Last marketed as a brand in the 1990s, Michi is now in a new facility for hand-building its products and has reappeared with this £3299 P5 'control amplifier' and 500W-rated S5 stereo power amp at £5399.

Operating in Class A, the P5 has two sets of balanced analogue

'The sound was big and bold with striking low-end extension'

inputs, four line-ins on RCAs, and a switchable MM/MC phono stage. There's also one line out, two mono subwoofer outputs and a headphone output on the fascia.

The amp's digital provision is also generous with three optical and three coaxial digital inputs, plus a USB-B port for connection to a computer, and Bluetooth. A network port is also provided, but this is for control over IP and firmware updates, not network audio streaming, while the USB-A

socket is only there to power external devices. Two AKM DACs allow the P5 to handle content up to 384kHz/32-bit, with DSD, DoP and MQA support via the USB-B.

Other control options on the P5 extend to a socket for a remote infrared sensor, 12V triggering, and serial RS232. Digital outputs are also provided, on both optical and coaxial sockets.

The menu system allows tone controls or bypass, the setting of a fixed level on any input – unused inputs can be turned off – while MM/MC phono selection can be accessed from the fascia or via a slender metal-clad remote handset.

The S5 power amplifier has inputs on both balanced XLRs and RCA sockets, selected by a switch, and there are two sets of solid speaker terminals per channel. Meanwhile, the front panel can show a VU meter, or a choice of three frequency spectrum analyser displays – all dimmable.

The power amp is a dual-mono Class AB design of a symmetrical

**ABOVE:** Gloss black fascias are simple and clean – the S5 power amp as understated as the preamp, except for the prominent display, which switches from VU meters, a 'Spectrum Analyser', or off...

layout, with the two channels located in separate fan-cooled housings, and packing a total of 32 high-current output devices.

**BRIGHT AND BREEZY**  
 Driving our demanding B&W 800 D3 speakers [HFN Oct '16] the P5/S5 duo quickly established itself as being able to exert plenty of control while delivering an open, captivating sound. With ELP's 'Karn Evil No. 9' [Brain Salad Surgery; Razor & Tie] the sound was big and bold, with both striking bass extension and speed across the frequency range.

The burst of brass opening 'Blowin' The Blues', from Kyle Eastwood's *Time Pieces* set [Jazz Village] was a real wake-up in its immediacy, and as the track developed it was easy to relish every element, from Eastwood's propulsive bass-line to the stabs of piano and powerful drumming.

The sound was bright, breezy and bracing, yet underpinned with weight and substance and, as our listening progressed, so grew our appreciation of the way this pre/power combination presents music.

Playing the sparky, darting recording of Mozart's *Marriage Of Figaro* overture [Linn; 192kHz/24-bit], the Michi P5/S5 delivered a rich, ripe sound, yet one with the agility and detail to convey the exuberance of both score and performance. There's no shortage of dynamic extension here, either.

## VERDICT

This Michi combination brings a welcome breath of weight, scale and entirely natural music-making to an overpopulated high-end arena, with a wide-ranging ability across a broad span of genres. ⬇

## HI-FI NEWS SPECIFICATIONS

Continuous power (<1% THD, 8/4ohm)	670W / 1170W
Dynamic power (<1% THD, 8/4/2/1ohm)	691W / 1.39kW / 1.78kW / 902W
Output imp. (20Hz–20kHz, Pre/Amp)	121-375ohm / 0.016-0.075ohm
Freq. resp. (20Hz–20kHz/100kHz)	–0.23 to –0.63dB/–1.05dB
Digital jitter (USB / S/PDIF)	350psec / 370psec
A-wtd S/N ratio (DAC/Amp)	106.1dB (0dBfs) / 92.8dB (0dBW)
Distortion (DAC, 0dBfs/Amp, 0dBW)	0.0006–0.006% / 0.0003–0.016%
Power consump. (Pre/Amp at rated)	28W / 1.65kW (143W idle)
Dimensions (WHD, each unit)	485x238x465mm / 60kg (total)



Pre/power amplifier. Rated at 225W/8ohm  
 Made by: Simaudio Ltd, Quebec, Canada  
 Supplied by: Renaissance Audio, Scotland  
 Telephone: 0131 555 3922  
 Web: www.simaudio.com; www.renaissanceaudio.co.uk  
 Prices (pre/power amp): £7800/£16,750

**AUDIO  
FILE**



## Simaudio 740P/860A 2

Part of Simaudio's MOON range, this pre/power combination comprises an all-analogue but flexible preamp, the £7800 740P, and the 860A v2 power amp, which is rated at 225W/8ohm and costs £16,750.

Dual-mono, the 740P has three inputs on RCAs, and two more on

'Drums are especially toothsome in what is a typically careful mix'

balanced XLRs, plus three output options – two on RCAs and one balanced. It can be used with an external power supply and offers what is the usual range of custom install-friendly control connections, including 12V triggers, IR and RS232 socketry (also for firmware updates), along with its branded SimLink remote control system.

The 860A v2 power amp is again entirely dual-mono in design and powered by twin transformers plus a total 240,000µF of reservoir capacitance. It is rated at 225W/8ohm and can be bridged into even higher power monoblocks. It

offers single-ended and balanced inputs, and while a DC-coupled design with servo control, it can be switched into AC-coupled mode which, according to Simaudio, is 'recommended for older preamps including many tube models'.

Operating in Class A for the first 5W of its output, the amplifier employs Simaudio's 'Lynx' technology to eliminate global feedback, and is fully balanced all the way to the output stage. The latter uses precision-matched MOON output devices said to deliver

'unprecedented gain linearity resulting in improved bass response and even more accurate sonic reproduction'. On which note...

### GRAND SLAM

Driving a variety of loudspeakers, the Simaudio MOON duo impressed with the freshness and vitality of its sound, allied to fine low-end weight. True, the bass was perhaps a little dry at times, but what it lacked in warmth it certainly more than made up for in its ability to slam hard.

Bernstein conducting the New York Philharmonic in his 'Symphonic Dances' from *West Side Story* [Sony],

**ABOVE: These Simaudio amplifiers have a black part fascia and polished metal casework, although you can opt for all-black or all-silver. The preamp [top] boasts a bold dot-matrix display**

for instance, is treated to subtlety in the more lyrical parts, but has real fire and speed in the 'Rumble' section, a thrilling *molto allegro*. The sound here is highly detailed, never straying into brashness, and soundstaging is both crisply focused and three-dimensional.

And the pairing is also highly appealing with simpler recordings such as Chip Taylor and Carrie Rodriguez's 'Him Who Saved Me' from their [*Let's Leave This Town* album [Texas Music Group/Lone Star]], focusing on the harmonies, including Taylor's husky voice, but doing so to highly musical effect.

The same goes for Elton John's 'Take Me To The Pilot', from his self-titled album [Mercury], which the amps treat to a delicious sense of the musical forces as they build, while keeping a close eye on the individual musicians. The drums sound especially toothsome in this typically careful Gus Dudgeon mix.

Even with the dense mish-mash that is Pink Floyd's *The Endless River* [Columbia] – a compilation of mislaid files and studio floor sweepings that can sound at times as if it should have been called 'The Endless Album' – the Simaudio amps open up the mixes wide. This allows one to zone in on the various instruments in what is occasionally a big, unruly wash of sound.

### VERDICT

Often the simple approach works best, so what this Simaudio pairing lacks in digital and streaming accoutrements it more than makes up for in the clarity and clout of its sound. Soundstages are focused and naturally scaled, instruments are real and unforced, and the dynamics are never in question. ☺

### HI-FI NEWS SPECIFICATIONS

Continuous power (<1% THD, 8/4ohm)	289W / 530W* (protection)
Dynamic power (<1% THD, 8/4/2/1ohm)	297W / 585W / 1.13kW / 360W
Output imp. (20Hz–20kHz, pre/power)	73ohm / 0.005–0.025ohm
Freq. resp. (20Hz–100kHz, pre/power)	+0.0 to –0.0dB / +0.0 to –6.9dB
Input sensitivity (for 0dBV/0dBW)	490mV (pre) / 75mV (power)
A-wtd S/N ratio (re. 0dBV/0dBW)	99.9dB (pre) / 95.8dB (power)
Distortion (20Hz–20kHz, 1V/10W)	0.0001–0.0003% / 0.004–0.015%
Power consumption (Idle/Rated o/p)	84W/780W (8W, Preamp)
Dimensions (WHD, Pre/Power)	476x102x419 / 476x192x445mm



AUDIO  
FILE

Pre & power amplifier combination. Rated at 100W/8ohm  
 Made by: Yamaha Corporation, Japan  
 Supplied by: Yamaha Music Europe GmbH (UK)  
 Telephone: 0844 811 1116  
 Web: <https://europe.yamaha.com>  
 Prices: £6499 (each)



# Yamaha C-5000/M-5000

As well as the NS-5000 loudspeakers [HFN Jun '17] and GT-5000 turntable [HFN Oct '20], Yamaha now offers the C-5000 preamp and M-5000 power amp in its 5000 series, both at £6499 apiece.

With piano-style keys for power and feature selection, solid metal bars for knobs on the input selectors, a chunky volume control

'Kick drums pounded with a real sense of physical impact'

and those glorious analogue meters on the power amp, the designs hark back to the company's past, yet look stylishly modern too.

Analogue only, the dual-mono C-5000 preamplifier uses Yamaha's 'Floating and Balanced' circuit topology, which sees it electrically balanced throughout and not referenced to ground. It offers

connections via unbalanced phono sockets for four line level inputs, one with a corresponding output, plus two balanced inputs through XLRs. These are switchable for absolute phase or to add attenuation.

Meanwhile, two unbalanced and one balanced sets of outputs can be selected individually from a front panel control or all switched on at once. The phono stage cartridge loading is fixed at 47kohm for MM but adjustable for MC.

As for the 100W-rated M-5000 power amp, this features balanced and unbalanced inputs plus two pairs of superbly chunky 4mm speaker terminals. It's also possible to invert the phase of the balanced input or switch the M-5000 into a bridged monoblock amplifier.



## ROOF RAISING

The first thing that grabs you is the unerring background silence when these amps are powered up, while their dynamic capabilities

**ABOVE:** Seen in silver here, this Yamaha duo also comes in black – either way you get gloss piano black side cheeks. Those retro power meters can be dimmed to suit ambient conditions

seem almost endless once the music flows. The amp is more than capable of raising the roof, although at more normal listening levels it was the startling clarity offered that proved particularly gripping.

Gone was the sound of 'dustbin lids' on one of our regular treble torture tracks, The Corrs' 'Only When I Sleep' [Talk On Corners; Atlantic], the Yamaha duo revealing these to be the sound of cymbals being struck. What's more, this sense of clarity and detail was not the result of an unnatural boost in treble. The Yamaha pairing is as smooth and beguiling as you could hope for at the top-end and the amps also produced a remarkable sense of depth perspective.

With the phono input the C-5000 places the action right in front of the listener, with fine projection. On 'C-Side' from Khruangbin's *Texas Sun* EP [Dead Oceans], Leon Bridges' vocals came from the centre of the space between our seat and the far equipment rack, with Laura Lee's bass positioned directly behind him and the steady percussion appearing from just behind the right loudspeaker. Captivating!

Bass was another area in which the C-5000 and M-5000 proved effortlessly capable, with all inputs. Kick drums pounded with a sense of physical impact while the warmth and resonance from double-basses was an absolute joy to behold.

## VERDICT

This is Japanese ingenuity and engineering quality at its very best. The results with the C-5000/M-5000 duo are typically sublime, with Yamaha's longstanding 'Natural Sound' moniker rarely seeming more appropriate. ⬇

## HI-FI NEWS SPECIFICATIONS

Continuous power (<1% THD, 8/4ohm)	145W / 256W
Dynamic power (<1% THD, 8/4/2/1ohm)	167W / 317W / 590W / 995W
Output imp. (20Hz–20kHz, pre/power)	74–92ohm / 0.0026–0.070ohm
Freq. resp. (20Hz–100kHz, pre/power)	–0.05 to –0.5dB / –0.07 to –1.1dB
Input sensitivity (for 0dBV/0dBW)	98mV (pre) / 199mV (power)
A-wtd S/N ratio (re. 0dBV/0dBW)	101.5dB (pre) / 99.0dB (power)
Distortion (20Hz–20kHz, 1V/10W)	0.0001–0.002%/0.003–0.012%
Power consumption (Idle/Rated o/p)	73W/362W (48W, Preamp)
Dimensions (WHD, Pre/Power)	435x142x451/435x180x464mm



Circumaural planar-magnetic headphone  
 Made by: Audeze LLC, California, USA  
 Supplied by: Exertis UK, Essex  
 Telephone: 01279 822822  
 Web: [www.audeze.com](http://www.audeze.com); [www.unlimited.com](http://www.unlimited.com)  
 Price: £399

**AUDIO  
FILE**

# Audeze LCD-1

With these open-backed headphones costing £399 Audeze has produced a smaller, lighter alternative to its other LCD models. Here it has adopted a single-sided planar magnetic driver unit with profiled bar magnets on one side of the diaphragm only.

A possible concern for some will be the smallish earpads, commensurate with the reduced capsule dimensions. They don't have a large enough opening to surround the entire ear – unless yours are notably dainty. So despite its low weight and a modest head clamping force, comfort will depend on the shape of your head...

Also, our lab tests suggest that the LCD-1 is moderately sensitive to the integrity of the earpad seal. Avoiding leaks is an imperative if you want to enjoy the prodigious bass extension that PM 'phones usually deliver, and of which the LCD-1 is certainly capable.

The cable is almost 2.1m in length and divides 37cm short of

to a price. In many ways this seems the least idiosyncratic Audeze headphone ever – which piles pressure on it to deliver a sound that the marque's devotees have come to expect...

## TELLING TEST

While the mind-blowing £3599 LCD-4z has spoiled us rotten, Audeze has also shown mastery with affordable kit, including our choice for train travel: the sealed-back, on-ear Sine. But the open-backed LCD-1 immediately showed more bloom, warmth and refinement.

We assessed them with LP, tape and digital download sources. The latter surprised us no end, and it's particularly telling as the

LCD-1s were analytical enough to allow us to hear the difference between the same song via two different smartphones and our superior Pioneer XDP-100R portable [HFN Aug '16].

These LCD-1s are no slouches when it comes to hearing nuances!

Our track selections included the mono version of 'Ue O Mu-ite Aruko' by Kyu Sakamoto (originally issued by Toshiba-EMI), and the ultra-wide stereo of Julie London's 'They Didn't Believe Me' from *Julie... At Home* [Liberty Records]. Both these recordings feature distinctive, emotive voices, lush backing and enough beauty to allow one to play them a dozen times in a row without losing the will to live.

Both Kyu and Julie sang largely within the head, true, but the breathiness of the latter and the clear enunciation of the former were perfectly preserved and 'non-intrusive'. How can something be in one's skull and *not* be intrusive?



**ABOVE:** While the fold-up capsules and provision of a carrying case suggest mobile music use, the one lead provided (with ¼in adapter) is a lengthy 2.1m

Well, we heard both an absence of artifice and enough outside-of-the-head sound to preclude any such distraction from the performances.

## VERDICT

The Audeze LCD-1s can fold up to near-pocket size, sound superb whatever the source and are so free of nasties that we could even imagine them crossing the thin line between hi-fi and studio usage. If you want true high-end cans but can't (or just won't) pay four figures, you simply must hear them. ☺

'These LCD-1s are no slouches when it comes to hearing nuances'

the capsules to connect separately to each via gold-plated 3.5mm TRS mini-jack plugs. The same connector is fitted at the source end of the lead, and there is a clip-on (rather than screw-on) adapter provided for use with ¼in jack outlets.

There's no channel identification on the headset plugs but the capsules themselves are clearly labelled on the inside of the headband. So take care not to misconnect L/R channels! And gratifyingly, while the lead has a braided sheath, this is not a headphone prone to disconcerting levels of capsule noise when the cable drags across clothing.

While some may consider the LCD-1 perhaps a little ordinary, it has necessarily been engineered

## HI-FI NEWS SPECIFICATIONS

<b>Sensitivity</b> (SPL at 1kHz for 1Vrms input)	118.1dB
<b>Impedance modulus min/max</b> (20Hz-20kHz)	13.1ohm @ 4.4kHz 13.3ohm @ 9.9kHz
<b>Capsule matching</b> (40Hz-10kHz)	±3.3dB
<b>LF extension</b> (-6dB ref. 200Hz)	<20Hz
<b>Distortion 100Hz/1kHz</b> (for 90dB SPL)	<0.1% / <0.1%
<b>Weight</b> (headset only)	253g



AUDIO  
FILE

Open-back, circumaural planar magnetic headphone  
 Manufactured by: Dan Clark Audio, San Diego, USA  
 Supplied by: Electromod, Bucks, UK  
 Telephone: 01494 956 558  
 Web: [www.danclarkaudio.com](http://www.danclarkaudio.com); [www.electromod.co.uk](http://www.electromod.co.uk)  
 Price: £900



# Dan Clark Audio Aeon 2

**A**mong the plethora of headphones with round, rectangular or elliptical capsules, the £900 Aeon 2s are rare in having capsules that are ear-shaped. Well done Dan Clark for seeing the obvious...

Those circumaural earpads, broad headband, fairly low weight and a modest head clamping force, make this a very comfortable headphone to wear. The earpads are shaped to help achieve a more effective seal, and this is an important factor with the Aeon 2 because otherwise its bass output is significantly affected.

Unusually, the Aeon 2 is supplied with three different 'tuning materials' which fit within the capsules to provide various levels of absorption and resonance damping to suit individual tastes.

It's increasingly common for manufacturers to use a broad strap

fold up into the headband and a zip-up hard-shell case is provided. From what we can see on the Dan Clark Audio website, no shorter (or balanced) cable is offered.

Principal changes to the design over the Aeon original include an updated driver structure flipped by 180° to remove flow disturbance by the magnets between the diaphragm and ear; superior driver damping (a real issue with planar magnetic diaphragms, which tend to display a series of closely-packed high-Q resonances); and new voicings for the Closed and Open versions. The latter is said to offer 'a leaner lower midrange'.

## REAL STORM

The 'sound' of these headphones was usefully illustrated by a period instruments account of Beethoven's 'Pastoral' Symphony [Harmonia Mundi], where the players sit with strings to the left, winds to the right, horns and timpani centred behind.

One strong virtue of the Aeon 2 is its pinpoint and detailed soundstaging, albeit imaging very much within the head. And with the Beethoven the drums made a massive impact, given the headphone's bass response.

When listening to Dave Brubeck's 'Blue Rondo À La Turk' [Time Out; Columbia Legacy] with some other 'phones tested this year, we puzzled over where the struck metal percussion had gone, and it was the same here. The playing motored along enjoyably but those contributions were notably muted.

We doubt that with 'On The Run', from Pink Floyd's *Dark Side Of The Moon* [EMI], you'd pick out all the lyrics whatever your system, and only the odd word registered here. But the Aeon 2s made an engaging job of all those electronic sound effects buzzing around the head.

'Given the Aeon 2's bass response, the drums made a massive impact'

to support the headphone on the scalp, above which is the true headband – the structure which applies head clamping force – in the form of a thin metal strip or, as in the Aeon 2, a pair of thick Nitonol alloy wires. But headbands of this type always resonate, and the Aeon 2's is no different – tap it and you hear a distinct metallic 'ting'.

The company has opted to use sliding sleeve locking connectors, which lend an upmarket look and feel, while the cable itself is 2m long, terminated at the source end with a 3.5mm TRS mini-jack plug with a screw-on adapter provided for 6.35mm jack sockets.

This rather suggests the Aeon 2 isn't intended for use on the move, despite the fact that the capsules



**ABOVE: The Aeon 2 comes in two distinct versions: closed-back for users who need isolation from external sound, and open-back, as reviewed here**

But we truly bonded with the Aeon 2s with the huge orchestra Richard Strauss employed for his *Alpine Symphony* and some thrilling conducting and playing by the Oslo PO [Lawo]. Particularly where a big storm threatens the climbers.

## VERDICT

Finish is to a high standard and the Aeon 2's spacious and insightful sound brings rewards. Classical fans might want more an extended treble but if electronic music is your thing, then don't hesitate! ☺

## HI-FI NEWS SPECIFICATIONS

<b>Sensitivity</b> (SPL at 1kHz for 1Vrms input)	105.2dB
<b>Impedance modulus min/max</b> (20Hz-20kHz)	12.2ohm @ 20Hz 12.3ohm @ 11.0kHz
<b>Capsule matching</b> (40Hz-10kHz)	±5.0dB
<b>LF extension</b> (-6dB ref. 200Hz)	<20Hz
<b>Distortion 100Hz/1kHz</b> (for 90dB SPL)	<0.1% / <0.1%
<b>Weight</b> (headset only)	326g



# LUMIN

STREAMING DONE RIGHT



“ If you want the impression of real live musicians plonked in the room in front of you, the D2 delivers... Outstanding ”

LUMIN D2 - Hi Fi News, June 2020

“ I am blown away by its performance...It puts it in direct competition with products that cost several times as much ”

LUMIN X1 - Hi Fi Plus, 169 Editor's choice 2020

“ Not only is the X1 a first-class component, but the support behind the Lumin is also as stellar as the unit itself ”

LUMIN X1 - The Absolute Sound, Editor's Choice 2020

“ One of the best sounding streamers at its price then and is also easy to use, stable in operation and superbly built ”

LUMIN T2 - StereoNET, March 2020



THE AUDIOPHILE NETWORK MUSIC FAMILY - LUMINMUSIC.COM

AUDIO  
FILE

Fully open (hovering adjacent to ears) moving-coil headphone  
 Manufactured by: LB-acoustics Messgeräte GmbH, Vienna  
 Supplied by: LB-acoustics  
 Telephone: +43 (0)6641 218844  
 Web: <https://mysphere.at>  
 Price: €3300 (ex-VAT)



# Mysphere 3.2

Thirty years ago AKG introduced its K1000 headphone. It had no earpads as such (the capsules were held away from the head by small pads) and it was pared-down structurally. What's more, its square drive units sat in woven cages of thin metal wire, which could be rotated to be either flat to the ear or angled forwards.

Created by its AKG co-designers, Heinz Renner and Helmut Ryback, LB-acoustics' Mysphere 3.2 – priced €3300 before VAT – is an improved realisation of the K1000. All its features are retained, but the look is less quirky while fit and finish are excellent – the modified metal/plastic headband wraps tightly around the head at an angle, with sliding bearings for adjustment.

Neatly, the two soft pads on the inner surface of the headband here attach by magnets, for easy removal, and are washable, while a domed 'soundframe pad' covers the driver on the capsules' inner face.

'There was an alluring airiness that served up a sense of "being there"'

Electrical connection is via adjustable-angle 3.5mm TRRS mini-jack sockets at each end of the headband, and these allow a four-wire connection. Four cable options are provided: 3.5m-long unbalanced, terminated in a TRS mini-jack with 6.35mm adapter (€150); 3.5m balanced with 4-pin male XLR (€170); 3.5m-long balanced with 4.4mm Pentaconn plug (€170); and 1.2m balanced/unbalanced, with 2.5mm TRRS mini-jack (€130). Oh, and all the connector pins are gold-plated.

Inside each low-obstruction capsule is a 40mm square drive unit with a radial magnet structure, just as in the K1000, comprising a ring of 20 small gold-plated magnets – the gold-plating is there to protect the neodymium magnets.

LB-acoustics says its 'Multilayer technology membranes feature internal damping with glass, air and resin reinforcement, realising resonance-free HF performance far into the ultrasonic range'.

## RIGHT ANGLE

The 3.2 doesn't have one 'sound', but a variety according to how you angle the capsules relative to your ear. With them flat to the ear and partly sealed to it by the soundframe pad, it's louder, has more bass and sounds in large part like a conventional headphone.

With the capsules flung wide open, the level drops enough to require a volume setting close to your amp's maximum. Bass all but disappears and the stereo image then becomes imprecise.

The closed position we often preferred for rock music, whereas for vocal and classical music programme, partly open retained an acceptable tonal balance and expanded the perceived soundstage without it becoming indistinct. 'It Was

A Very Good Year' from *Sinatra At The Sands* [Reprise; 96kHz/24-bit rip] was a good example of a track to which the Mysphere 3.2 could bring a little extra something most headphones fail to deliver.

Old Blue Eyes was positively located centre-stage, his voice had an utterly natural tonal balance and there was an alluring airiness to the imaging that served up a genuine sense of 'being there'. Furthermore, there was an unmistakable sense of the sound having at least partly dissociated from the head.

Results were also good with chamber and orchestral music. Tony Faulkner's recording of Beethoven's String Quartet Op.18:5, played with flair by the Allegri String Quartets [192kHz/24-bit download from [www.vivatmusic.com](http://www.vivatmusic.com)], was



**ABOVE:** The design's padded headband sits diagonally across the head while the 'capsules' either lie flat to the ear or may be rotated up to 36° outwards

persuasively distanced in a way that headphones aren't adept at, and the ethereal quality of Robin Ticciati's Schumann Symphony No 2 with the Scottish CO [Linn Records; 192kHz/24-bit] was enhanced by the 3.2's spacious imaging.

## VERDICT

LB-acoustics' Mysphere 3.2 is impressively engineered and its rotatable capsules really do free it from the more claustrophobic aspects of headphone listening. On acoustic music in particular, you'll find the 3.2 can soar. ☺

## HI-FI NEWS SPECIFICATIONS

<b>Sensitivity</b> (SPL at 1kHz for 1Vrms input)	102.7dB
<b>Impedance modulus min/max</b> (20Hz-20kHz)	93.6ohm @ 1.2kHz 414ohm @ 65Hz
<b>Capsule matching</b> (40Hz-10kHz)	±7.0dB
<b>LF extension</b> (-6dB ref. 200Hz)	49Hz
<b>Distortion 100Hz/1kHz</b> (for 90dB SPL)	1.5% / 0.1%
<b>Weight</b> (headset only)	347g



Floorstanding three-way horn loudspeaker with active bass  
 Made by: Avantgarde Acoustic Lautsprechersysteme GmbH, Germany  
 Supplied by: Padood Ltd, Cambridge, UK  
 Telephone: 01223 653199  
 Web: [www.avantgarde-acoustic.de](http://www.avantgarde-acoustic.de); [www.padood.com](http://www.padood.com)  
 Price: £79,500 (horn/cabinet colour options from £3550-£7400)

AUDIO  
FILE

# Avantgarde Duo Primo XD

Nothing quite prepares you for the sheer visual impact of this huge 1.8m-tall speaker from Germany, least of all its moulded-from-ABS midrange horn exceeding the full width of the enclosure.

Sensitivity is necessarily very high – Avantgarde claiming a full 107dB!

The £79,500 design has horn-loaded treble and midrange drivers and an active bass section using four 300mm fibre-coned drivers and a total 2000W of Class D amplification. There's on-board DSP too, accessed using either a USB or wired Ethernet connection, providing 'linearisation' through a ten-band equaliser, an active crossover variable over a range of 20-500Hz and a subsonic filter, adjustable in 1Hz steps.

*'When the Duo Primo XDs turn on the magic you're transfixed'*

Covering 170Hz-2kHz, the 170mm mid driver, with its 'soft mesh dome' and custom AlNiCo magnet, sits in the throat of a huge 67cm-diameter horn, which is lacquered and polished.

The tweeter, meanwhile, is a 50mm driver with a 25mm horn-coupling, mounted in its own 18cm diameter horn below the larger driver. Again this is available in custom finishes. It uses a Mylar dome and ferrite magnet, with Avantgarde claiming a frequency extension of up to 20kHz.

## SHEER IMPACT

Push them too hard with a big, powerful amp and these speakers can sound overbearing. But run them at a comfortable level and their extraordinary dynamic ability is revealed to impressive effect. Specifically, the sheer visceral

impact that quartet of bass drivers can deliver and the openness of the midrange and treble typically yields a slickly detailed, very precise but unforced presentation at modest listening levels.

Position yourself 'just so' and solo voices or strings can appear so immersive it's as if they are truly in and around your head. When the Duo Primo XDs turn on the magic they leave you transfixed. Playing the Barenboim/Staatskapelle Berlin recording of Elgar's Symphony No 1 [Decca], that characteristic fluidity and scale was much in evidence, the speakers doing a fine job of localising the woodwind and brass, with the percussion suitably distant.

Similarly the Dena Piano Duo's fine recording of the Brahms *Haydn Variations* [*Hommage à Grieg*; 2L, DSD64] was delivered with exemplary clarity and lightness of touch, with realistic weight from the Steinway instruments. Lake Street Dive's stripped-back take on 'I Want You Back',

from *Fun Machine* [Signature Sounds], also proved well within the speakers' comfort zone. They treated it to deep, tight bass and crisp percussion, combining with the lone trumpet to underpin Rachael Price's vocals perfectly.

When these speakers are good, they're very good, as the atmosphere and low-end grunt from the opening sequence to Elton John's *Goodbye Yellow Brick Road* [Mercury/Rocket] made clear.

## VERDICT

As a statement about how seriously you take your audio system, they don't come much more dramatic than the Duo Primo XDs, which can sound very special indeed – especially on vocals. If not always 'speakers for all seasons', when you hear them 'sing' it may prove difficult to go back! ☺



ABOVE: Ten colours are available for the flared horns with tiger rosewood or zebrano polished veneers for the enclosures

## HI-FI NEWS SPECIFICATIONS

Sensitivity (SPL/1m/2.83V – Mean/IEC/Music)	103.4dB/102.5dB/102.1dB
Impedance modulus: minimum & maximum (20Hz–20kHz)	7.5ohm @ 7.9kHz 32.8ohm @ 108Hz
Impedance phase: minimum & maximum (20Hz–20kHz)	–32° @ 155Hz 33° @ 70Hz
Pair matching/Resp. error (500Hz–20kHz)	±1.9dB/ ±4.8dB/±5.2dB
LF/HF extension (–6dB ref 200Hz/10kHz)	<20Hz / 19.8kHz/19.4kHz
THD 100Hz/1kHz/10kHz (for 90dB SPL/1m)	<0.1% / <0.1% / 0.3%
Dimensions (HWD) / Weight (each)	1800x670x650mm / 185kg



AUDIO  
FILE

Five driver, three-way reflex-loaded floorstanding loudspeaker  
 Made by: B&W Group Ltd, West Sussex  
 Supplied by: B&W Group Ltd  
 Telephone: 0800 232 1513  
 Web: [www.bowers-wilkins.co.uk](http://www.bowers-wilkins.co.uk)  
 Price: £4499



# B&W 702 Signature

There's little to distinguish this £4499 floorstander from the earlier B&W 702 [HFN Dec '17], beyond a rather snazzy wood finish to the cabinet, shinier trim-rings around the drivers, with a matching grille over the tweeter, and a metal 'Signature' plate on the rear panel.

The in-house designed and built drivers are the same, as is the configuration, the just under 1m-tall cabinet housing a midrange driver and a trio of bass units, the latter tuned with a rear-venting port.

The 25mm 'Carbon Dome' tweeter (inspired by the 800 series) sits in its own pod atop a milled aluminium enclosure that's long been a feature of upmarket B&W speakers. The midrange, meanwhile, has a 165mm Continuum woven composite driver, its chassis engineered for maximum stiffness.

Decoupled from the cabinet, it sits above a trio of 165mm

they do little to alter the amount of bass power these speakers deliver, which is considerable.



## EFFORTLESS GROOVE

At normal domestic listening settings these 702 Signatures stir into life with a focused, open sound as impressive for its soundstaging as the way it presents the timbres and textures of voices and instruments. Fire up Monty Alexander's take on 'Rocking In Rhythm' [My America; Telarc] and they really slam into the dramatic opening before settling into an effortless groove, the growling bass successfully underpinning the piano and percussion as the track bops along.

Similarly with 'Canción del Mariachi' [Desperado soundtrack; Epic], performed by Los Lobos and Antonio Banderas, the speakers make light work of the propulsive rhythms, while delivering plenty of insight into both the vocals and

the metallic sound of the guitar strings. It's definitely an attacking sound, but a hugely enjoyable one.

That clean balance, allied to no shortage of power, serves well the demands

of classical music: the brass of Wagner's *Götterdämmerung* Prologue [Simón Bolívar Orch/Dudamel; 48kHz/24-bit] sounds suitably menacing, while the strings and woodwind are treated with both delicacy and precision as we reach 'Siegfried's Rhine Journey'. Meanwhile, Richard Rodgers' 'The Carousel Waltz', played by the John Wilson Orchestra [EMI], is handled in a persuasive fashion, the sense of the unstoppable spinning fairground ride evoked with real style.

## VERDICT

The sound of the 702 Sigs has been both refined and, possibly, given a slightly more commercial edge. They are hugely enjoyable and musically rewarding – room-friendly too, and easy enough to match, provided you give them some amp power to work with. ☺

**RIGHT:** Clothed in its luxury cabinet finish the 'Signature' shares the same trio of Aerofoil bass drivers, Continuum-coned FST midrange unit and carbon-dome tweeter as the original 702 S2. Full-length grilles are magnetically secured, while the base can be spiked or fitted with rubber feet



'Strings and woodwind are treated with both delicacy and precision'

'Aerofoil Profile' bass drivers, their cones formed from composite skins enclosing an EPS foam core.

So what's new beyond the luxury finish? Well, the Signature model has an upgraded crossover design and components (eg, Mundorf capacitors), larger heatsinking and an upgraded low-frequency capacitor in the bass section.

The terminals, meanwhile, are mounted low down to the rear, below the dimpled port, and linked with jumper bars removable for bi-wiring or bi-amping. Two-part foam pieces, comprising an outer ring and an inner 'bung' are supplied for bass tuning, but we found these speakers to be uncommonly room-friendly, with little of the overall bass energy coming from the port.

While the use of the bung may tighten things marginally by increasing air resistance in the port,

## HI-FI NEWS SPECIFICATIONS

<b>Sensitivity</b> (SPL/1m/2.83V – 1kHz/Mean/IEC)	89.8dB / 89.6dB / 87.5dB
<b>Impedance modulus: minimum &amp; maximum</b> (20Hz–20kHz)	2.90ohm @ 118Hz 23.7ohm @ 59Hz
<b>Impedance phase: minimum &amp; maximum</b> (20Hz–20kHz)	–70° @ 72Hz 47° @ 1.35kHz
<b>Pair matching/Resp. error</b> (200Hz–20kHz)	3.3dB / ±3.7dB/±4.2dB
<b>LF/HF extension</b> (–6dB ref 200Hz/10kHz)	50Hz / 63kHz/61kHz
<b>THD 100Hz/1kHz/10kHz</b> (for 90dB SPL/1m)	0.5% / 0.15% / 0.5%
<b>Dimensions</b> (HWD) / <b>Weight</b> (each)	994x200x337mm/29.5kg



# GT-5000

## GIGANTIC AND TREMENDOUS



AUDIO  
FILE

Omnidirectional two-way loudspeaker  
 Made by: Duevel, Germany  
 Supplied by: Signature Audio Systems, UK  
 Telephone: 07738 007776  
 Web: www.signaturesystems.co.uk; www.duevel.com  
 Price: £3995



# Duevel Venus

**A**ffordable omnidirectional speakers have never quite made it into the mainstream, but one company that produces sensibly-priced designs is Duevel. The £4k Venus compact floorstander is the middle model in a five-strong range and has been continually updated over its 20-year lifespan.

This latest iteration occupies a stylish hexagonal enclosure that is rear-ported and braced, and which has damping pads fitted on each internal surface. An upward-facing 220mm bass driver with carbon fibre cone fires out from the underside of a circular reflector disc mounted on pillars above the cabinet.

Above this, further pillars support a 33mm soft dome tweeter and this fires *downwards*. The upper and lower profiles of the disc are different to better suit the frequency ranges being dispersed.

The speaker also has four small absorption pads stuck around the tweeter faceplate and one on the upper side of the reflector at

can move around your listening area with little change in the speakers' musical presentation.

On the title track from the eponymous LP by country supergroup The Highwomen [Elektra], each vocalist stepped into the limelight in turn, with backing instrumentation layered expertly behind. Yet rather than having the sensation of being right in front of the group, the feeling was of being further back, with plenty of space around listener and performers.

If you like to perch on the edge of your seat, eyes shut, in order to work out the positioning of the second violinist to within an inch or two, then you may find the Venus a tad vague in this respect, although we found its particular presentation of music, almost irrespective of genre, disturbingly addictive.

The treble was insightful and detailed, with vocal sibilants a particular stand-out delight. The precision with which these delivered their message with crispness and then simply vanished, was not what you might have anticipated.

Bass response is surprisingly deep, given the relatively modest dimensions of the cabinets. Fortunately, it's also taut and precise. 'Gosh' from Jamie xx's *In Colour* [Young

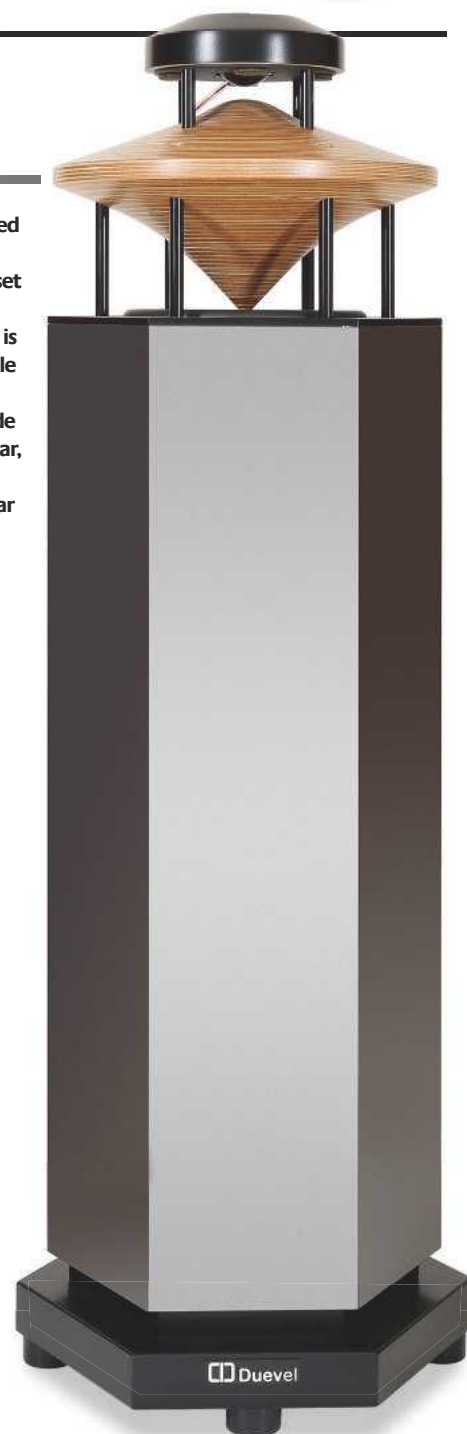
Turks] thundered through the listening room, giving the Venus's modestly-sized bass drivers a good workout but never finding them losing their grip.

Subtler still, the acoustic upright double-bass on 'Indigo River' from Julianna Raye's *Restless Night* CD [3Crows] was conveyed with exactly the right amount of fruity warmth – you could almost smell the cigarette smoke in the 'jazz club' atmosphere.

## VERDICT

Duevel's single-minded dedication to omnidirectional loudspeakers has not been in vain here, and the way these Venus towers fill the listening space with sound – virtually eliminating the traditional 'sweet spot' – is quite remarkable. ☺

**RIGHT:** Tucked away at the rear, a single set of substantial binding posts is provided, while the cabinet finishes include Black, Macassar, Maple, and Padouk (similar to rosewood)



'The Venus's musical presentation can be disturbingly addictive'

what is notionally the rear of the loudspeaker. These are said to reduce unwanted reflections. Little detail is provided about the 'phase linear crossover', though the PCB is located in the base of the cabinet away from the magnetic field and local output of the bass/mid driver.

## DISAPPEARING ACT

With omnidirectional speakers, instead of a soundstage with pinpoint accuracy, you get a huge swathe of sound across the listening area. The result here is that the Venuses have the knack of being able to disappear more effectively than any other loudspeaker design we can think of. Their real strength comes from the image stability they offer – and it's surprising how you

## HI-FI NEWS SPECIFICATIONS

<b>Sensitivity</b> (SPL/1m/2.83V – Mean/IEC/Music)	81.6dB / 81.3dB / 80.8dB
<b>Impedance modulus: minimum &amp; maximum</b> (20Hz–20kHz)	3.7ohm @ 134Hz 69.3ohm @ 2.8kHz
<b>Impedance phase: minimum &amp; maximum</b> (20Hz–20kHz)	–54° @ 4.9kHz 70° @ 1.8kHz
<b>Pair matching/Resp. error</b> (200Hz–20kHz)	±3.7dB/ ±8.5dB/±6.1dB
<b>LF/HF extension</b> (–6dB ref 300Hz/10kHz)	34Hz / 14.5kHz/14.5kHz
<b>THD 100Hz/1kHz/10kHz</b> (for 90dB SPL/1m)	4.8% / 0.6% / 2.5%
<b>Dimensions</b> (HWD) / <b>Weight</b> (each)	970x280x260mm / 20kg



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AUDIO  
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Floorstanding four-way loudspeaker  
 Made by: Franco Serblin Studio, Vicenza, Italy  
 Supplied by: Absolute Sounds Ltd, UK  
 Telephone: 0045 9684 5100  
 Web: [www.franco-serblin.it](http://www.franco-serblin.it); [www.absolutesounds.com](http://www.absolutesounds.com)  
 Price: £24,998



# Franco Serblin Ktêma

Four years in development, the Ktêma was launched in 2010. Only recently has proper UK distribution been resolved and a *HFN* review made possible for this £25k/pr speaker. It is available in Satin Sycamore or gloss piano black – both having polished aluminium top-caps and a stabilising spiked outrigger.

Franco Serblin's obsession was all about recreating the space of a live event. This explains the unusual shape of the Ktêma and its almost-triangular footprint culminating in a severely narrow baffle only 170mm wide – narrower than an LS3/5A. The speaker spreads to 400mm across the rear, while front-to-back it is 460mm deep. And they like to be at least 0.5m from all walls.

Made from thin layers of wood and aliphatic glue 'hot pressed'

'One can't avoid the term "silky" because that's just what you get'

together, the cabinet houses a vertical array comprising a 28mm soft-dome tweeter above two custom-made 100mm midrange units. A brace of 230mm metal cone drivers then fires from the back of each tower. The woofers are covered by a slotted rear panel with vents forcing the sound outward.

While very low frequencies are largely omni-directional here, most of the energy is guided along the convex sides of the loudspeaker. Only a small fraction is transmitted directly through the rear, via the slits in the back panel.

## A SOUND FOR LIFE

These Ktêmas love a lot of juice and they enjoy delivering realistic levels. That's not to say that the Ktêmas cannot whisper, for they excel at low levels too. But the

need for loads of power in reserve was manifested in the way the lower registers behaved, especially regarding control and slam.

The percussion in the remastered *Abbey Road* [Apple] made some visitors we had jump visibly in their seats, when Ringo's break at the tail-end of 'Carry That Weight' had nearly the impact of that legendary release, *The Sheffield Drum Record*. Yes, it was that vivid!

We put on Ray Anthony's admittedly schmaltzy *Dancing Over The Waves* [Capitol], a 7½ips, ½-track tape from 1958 possessing the finest big band pedigree. Highs were crisp without being aggressive, sounding airy and gossamer-like with no lack of precision or definition, and one can't avoid the term 'silky' because that's what you get – a glossy sheen so un-hi-fi-like that the original tape owner would never have heard it like this.

Turning to vinyl and *BB King & Eric Clapton – Riding With The King* [Reprise], the test was the obvious battle of the guitars. Both performers are/were masters of restraint and fluidity on this set. The Ktêmas managed the deft trick of sounding like the audio equivalent of extra virgin olive oil, while at the same time serving up heart-stopping, lightning-quick transients.

Another visitor was shocked to see a soft-dome tweeter, marvelling that it could have the sort of speed now associated with metal domes or ribbon tweeters. But Serblin was a true maestro and he coaxed just the right qualities from both.

## VERDICT

The Ktêma does everything right and nothing wrong. It creates soundscapes suggesting whole audio vistas beyond one's walls, yet conveys intimacy too. It's one of the finest speakers we have heard. ☺



ABOVE: Serblin supplies the Ktêma with a tensioned 'elastic band' grille, removed here. It has no effect on sound quality

## HI-FI NEWS SPECIFICATIONS

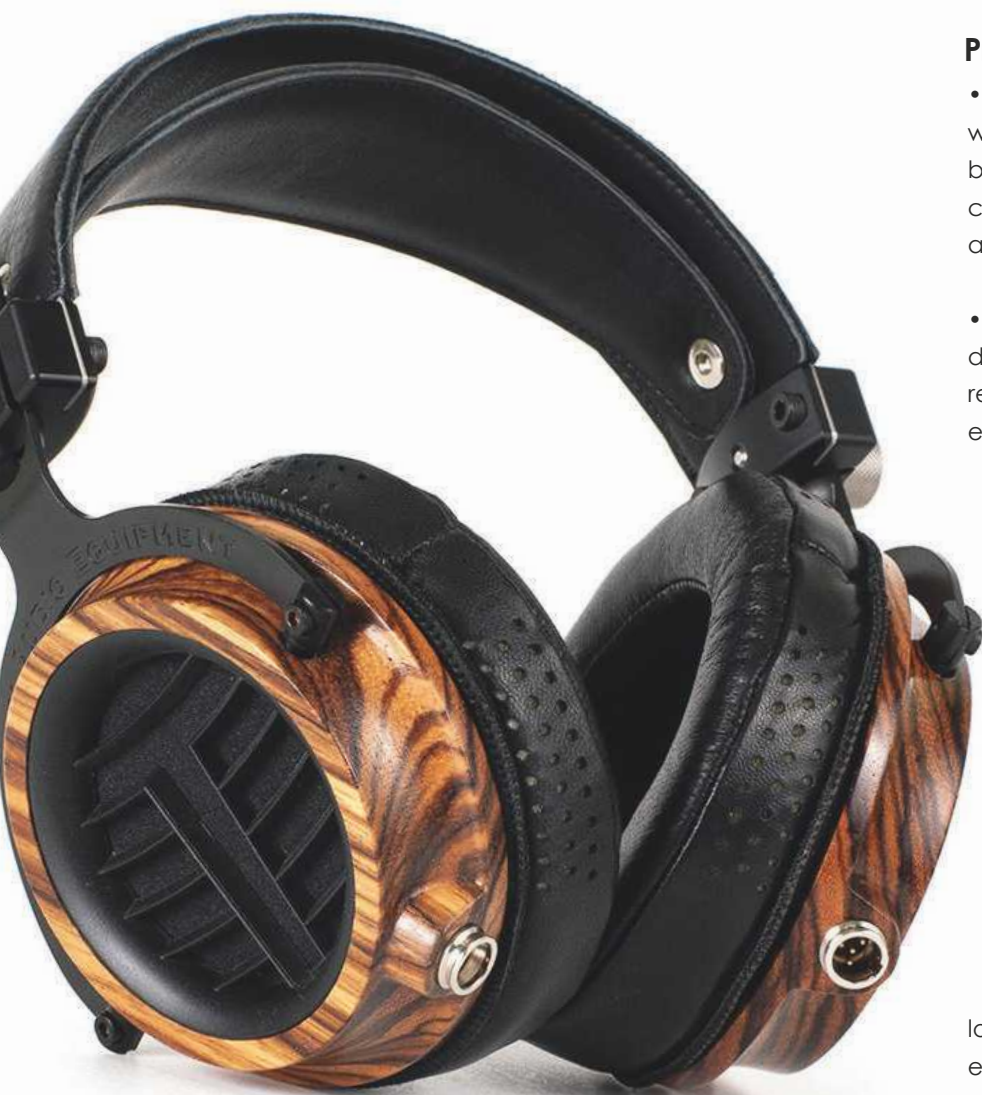
Sensitivity (SPL/1m/2.83V – 1kHz/Mean/IEC)	87.7dB / 88.8dB / 87.0dB
Impedance modulus: minimum & maximum (20Hz–20kHz)	2.8ohm @ 20kHz 8.0ohm @ 860Hz
Impedance phase: minimum & maximum (20Hz–20kHz)	–28° @ 5.1kHz 24° @ 415Hz
Pair matching/Resp. error (200Hz–20kHz)	0.8dB / ±2.9dB/±3.3dB
LF/HF extension (–6dB ref 200Hz/10kHz)	25Hz / 35kHz/36kHz
THD 100Hz/1kHz/10kHz (for 90dB SPL/1m)	0.7% / 2.1% / 0.2%
Dimensions (HWD) / Weight (each)	1110x425x460mm / 55kg

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AUDIO  
FILE

Six-driver, DSP-controlled active speaker/eight-driver sub  
 Made by: Kii Audio, Bergisch Gladbach Germany  
 Supplied by: Sound Design Distribution Ltd, Cardiff, UK  
 Telephone: (0)800 009 6213  
 Web: [www.kiiaudio.com](http://www.kiiaudio.com); [www.sounddesigndistribution.co.uk](http://www.sounddesigndistribution.co.uk)  
 Price: £29,990-£32,290 (with Kii Control)



# Kii Audio THREE BXT

Following in the 'multi-driver active speakers with clever DSP control' path of B&Os Beolab 90 [HFN Dec '16], we had the less ambitious Kii THREE [HFN Aug '18]. But what you see here is the £29,990 THREE BXT – the Kii THREE atop a 'bass bin', to put it simply (and a retrofit for existing users at £16,670/pr).

In each THREE BXT there are ten Ncore Class D power amplifiers. The THREE itself, which can be removed from the BXT and used independently if required, contains six – one per drive unit (tweeter, midrange, two side-firing drivers, and two rear-firing drivers) – while the BXT has four driving its eight drivers (four forward-firing, four side-firing) in pairs, with each amplifier rated at 500W/2ohm.

'They slammed into the track with a literal kick in the drums'

Mating the THREE and BXT is easy, as is decoupling them. The THREE slides into position on lipped rails, and short electrical connections for mains power, signal and data are made between the rear panel of the THREE and top rear panel of the BXT. These are then made to the BXT's lower panel, a three-pin XLR providing for either analogue or AES/EBU digital inputs.

USB, Toslink optical and coaxial S/PDIF inputs are available via the optional Kii Control wired remote, which also provides volume and access to tone controls, etc.

## INSTANT INTEGRATION

It's laudable that the first impression the Kii THREE BXT creates is that the package hangs together as if it was designed as a single speaker. Right from the sparkling opening notes of Britten's Piano Concerto

[Howard Shelley, BBC PO/Edward Gardner; Chandos] the percussive attack showed their speed and definition, and their ability with the microdynamics of the music, with the balance between piano and orchestra sounding both entirely natural and insightful.

Off to a good start, then, yet Donald Fagen's title track from *Morph The Cat* [Reprise] took us all by surprise, the Kii combo slamming into the track with a literal kick in the drums before the whole kit sprang into life, soon joined by a satisfyingly grumbly and tight bass and the chiming keyboards, guitar and then brass.

Fagen's voice had bags of character, with no sign of the sibilance some speakers can elicit, and as the track became busier and the mix denser, the speakers just let it do so, with no confusion or compression.

In other words, all the quality here is subservient to the main task of making music rather than technical showboating, and the same holds true for soundstaging – broad, deep and focused, it's just there, a stage where performances are set.

Even with the least complex music we played, Keith Jarrett's very familiar *The Köln Concert* [ECM 1064/65; DSD64], the quality of the Kii Audio speaker system was evident in the luminous piano sound and ambience, the way each note decayed into space, Jarrett's exertions and the thud of the pedals laid out for inspection, as was the beauty of the tumbling musical expression. Via these speakers it was once again mesmerising.

## VERDICT

This THREE BXT is visually striking, offering effortless soundstaging and focus, remarkable levels of detail, power and dynamics, and breathtaking musicality. Fabulous! ☺



ABOVE: You can have the THREE BXT in a range of colours, including the THREES in one shade and the BXTs in another!

## HI-FI NEWS SPECIFICATIONS

Frequency response error (300Hz–20kHz)	±2.1dB / ±1.7dB
Pair matching (300Hz–20kHz)	±1.0dB
LF/HF extension (–6dB ref 200Hz/10kHz)	<20Hz / >40kHz / >40kHz
THD 100Hz/1kHz/10kHz (for 90dB SPL/1m)	0.5% / 0.1% / 0.3%
Dimensions (HWD) / Weight (each)	1200x200x400mm / 51kg



Floorstanding two-way loudspeaker/active crossover/pre & power amps  
 Made by: Kudos Audio, County Durham & Exposure Electronics, Lancing, UK  
 Supplied by: Kudos Audio & Exposure Electronics  
 Telephone: 0845 458 6698 & 01273 423877  
 Web: www.kudosaudio.com & www.exposurehifi.com  
 Prices: £13,000 (loudspeaker); £2540 (VXN crossover); £11,100 (amplifiers)

AUDIO  
FILE

# Kudos Audio Titan 707

Exposure has made a foray into active drive here, in partnership with speaker brand Kudos, with a VXN-series crossover box tuned to the needs of the speakers, and inserted between pre and power amps [not shown here]. The Kudos Titan 707 model (£13,000) offers the ability to bypass their internal passive crossovers, and so it's easy to switch them from passive to active status.

The VXN active crossover itself is a simple, all-analogue device designed to mimic the existing passive crossover in the Kudos speakers, rather than tune, improve or otherwise iron-out any wrinkles in the drivers' performance.

Dual mono, it is powered by its own offboard PSU in a matching half-width enclosure, again with

'Cellos and percussion were well delineated and had good attack'

separate feeds for each channel. It comes in a choice of two- or three-way versions, at £1545 and £1795, with the power supply at £995. Internal dip-switches allow output levels for treble and midrange (if applicable) to be adjusted.

The speakers, meanwhile, stand 105cm tall in a choice of four wood veneers, gloss black or satin white, and are a two-way design using drive units developed in conjunction with specialists SEAS. The tweeter employs a 29mm fabric dome, and is customised for use in the Titan loudspeakers, while the mid/bass units have a 220mm double-coated paper cone driven via a 39mm voice coil, with copper shorting ring and aluminium phase plug.

Although the 707 seems only to have a single low-frequency driver in fact it's an isobaric design, with a second driver coupled behind inside

the cabinet. This vents through a fixed boundary bass reflex port at the bottom of the speaker.

## MAGNIFICENT SEVEN

In total we had no fewer than seven (Exposure) boxes between source and speakers, comprising the preamp, crossover and power supply, and four monoblocks – though only two were needed for the passive listening session.

Initial impressions when running the system thus were good, the set-up delivering a rather persuasive soundstage focus with Claire Martin's 'tangofied' take on the 'The Man Who Sold The World', [Time & Place; Linn]. True, Martin's voice sounded a little brash, and the piano perhaps rather too jangly at times, but the accompanying cellos and percussion were well delineated and certainly had good attack and drive.

Switching over to active working, the benefits should have been obvious – better drive for each unit, no

intermodulation between the drivers, and the small matter of having an extra couple of power amps in harness, each of them now handling a specific frequency band.

And you know what? All those gains were up there on the soundstage, not only grabbing the Titan 707s and whipping them into shape, but making it immediately apparent where all the money was channelled. With Claire Martin and her cellos, inner details of the track were now revealed, interweaving tango rhythms slinking behind her piano and voice to winning effect.

## VERDICT

Crisper, clearer, faster and more detailed: that sums up the gains on offer when taking this Exposure/Kudos system active, the set-up gaining in control and losing some of the restraints in passive mode. ⚡



ABOVE: Seen in wood veneer finish (four choices), the speaker has a base plinth fitted with polished adjustable spikes

## HI-FI NEWS SPECIFICATIONS

Sensitivity (SPL/1m/2.83V – Mean/IEC/Music)	87.6dB / 86.9dB / 86.6dB
Impedance modulus: minimum & maximum (20Hz–20kHz)	3.8ohm @ 144Hz 27.5ohm @ 2.4kHz
Impedance phase: minimum & maximum (20Hz–20kHz)	–34° @ 73Hz 54° @ 1.2kHz
Pair matching/Resp. error (200Hz–20kHz)	±1.0dB/ ±2.5dB/±2.9dB
LF/HF extension (–6dB ref 200Hz/10kHz)	45Hz / 33.2kHz/34.1kHz
THD 100Hz/1kHz/10kHz (for 90dB SPL/1m)	0.3% / 0.1% / 0.8%
Dimensions (HWD) / Weight (each)	1050x298x370mm / 50kg



AUDIO  
FILE

Desktop/bookshelf/standmount two-way loudspeaker  
 Made by: Magico Loudspeakers LLC, Hayward CA, USA  
 Supplied by: Absolute Sounds Ltd  
 Telephone: 0208 971 3909  
 Web: [www.magico.net](http://www.magico.net); [www.absolutesounds.com](http://www.absolutesounds.com)  
 Price: £9998



# Magico A1

No-one who has experienced Magico's now discontinued Ultimate horn speaker will easily forget it. But, arguably closer to Magico's core design ideals, at 395x216x268mm (hwd), the £10k A1 is somewhat more practical to unpack, install and enjoy!

All Magico designs are infinite baffle/sealed box types, but the absence of a reflex port in this compact enclosure not only improves its transient behaviour but also ensures it's all but agnostic about room positioning. Furthermore, while the A1 is the most affordable Magico, it's not lacking in sophistication or stripped of all the brand's signature features.

The A1's cabinet comprises six machined aluminium panels bolted together from within – 9.5mm-thick slabs of 6061 T6 'aircraft grade' aluminium braced and reinforced by additional aluminium alloy

'The bass had slick attack and no artificial bloom or boom'

sections connected to the top and bottom panels and midway up the enclosure. It is remarkably inert!

Drivers and crossover are all culled from Magico's development of its costlier ranges. The extremely lightweight and rigid beryllium tweeter uses the same 28mm dome as the high-frequency drivers in its M-series, albeit without the 'diamond coating'. The motor system is simpler, but still based on a neodymium magnet assembly and 28mm voice coil, and the driver is now loaded into an improved absorptive rear chamber.

The 165mm bass/mid driver, however, is specific to the A1. It employs an overhanging 39mm titanium voice coil equipped with a copper shorting ring (reducing coil inductance at HF), within a double-ferrite magnet system. Its 'multi-wall' cone is a sandwich of two

carbon fibre layers in front and a single layer behind, separated by a vibration-killing Rohacell filling. A layer of 'XG Nanographene' is embedded into the surface of the laminate, contributing significantly to its stiffness.

## A LITTLE MAGIC

As the sound of Carman Lundy's voice filled the room [*Self Portrait*; JVC] we knew we were in for a treat. Piano, percussion and strings blended both insightfully and subtly, every little twist of vocal and splash or brush of cymbal punctuated by ivory to exquisite effect.

As a rule, the A1s will vividly open up the music at hand, including what are ostensibly dense mixes like Mike Oldfield's 'Taurus II' [*Five Miles Out*; Universal]. The sound of the Uilleann pipes and Maggie Reilly's atmospheric vocals can sound stunning on a half-decent system but, as Oldfield spasms between splices of jazz-

rock, fusion and ye olde Robin Hood music through this side-long saga, there are backing sequences that can thicken the clarity of the multi-tracked mix. Here, however, the A1s exposed a level of detail, of structured edginess and complexity, that typically escapes many larger but no less costly loudspeakers.

And how do the A1s fare with demanding dynamics and bass that goes way down deep? The short answer 'in their stride'. We cued up the 2009 remix of Yello's 'Oh Yeah' [*The Race*; Mercury] and were positively startled by the attack of the synthesised percussion as it rattled right through Dieter Meier's deep and rumbling vocals.

All the elements of the set were in balance, the bass delivered with slick attack and no artificial bloom or boom. Its bass just descends very smoothly and quietly exits...



## VERDICT

For the A1 Magico has leveraged its years of engineering know-how, made sensible concessions to the bill of materials, and condensed the lot into a remarkable little speaker. Its design allows for great flexibility in placement, in-room or shelf mounted, while its sound is smoothly extended. ☺

**ABOVE:** The all-black A1's sealed aluminium cabinet hosts a 28mm beryllium dome tweeter allied to an 'XG Nanographene' layered 165mm mid/bass unit

## HI-FI NEWS SPECIFICATIONS

<b>Sensitivity</b> (SPL/1m/2.83V – Mean/IEC/Music)	81.6dB / 82.4dB / 82.3dB
<b>Impedance modulus: minimum &amp; maximum</b> (20Hz–20kHz)	2.7ohm @ 20kHz 39.4ohm @ 56Hz
<b>Impedance phase: minimum &amp; maximum</b> (20Hz–20kHz)	–62° @ 2.1kHz 53° @ 46Hz
<b>Pair matching/Resp. error</b> (200Hz–20kHz)	±0.8dB/ ±2.4dB/±2.4dB
<b>LF/HF extension</b> (–6dB ref 400Hz/10kHz)	47Hz / >40kHz/>40kHz
<b>THD 100Hz/1kHz/10kHz</b> (for 90dB SPL/1m)	0.7% / 0.1% / 0.1%
<b>Dimensions</b> (HWD) / <b>Weight</b> (each)	395x216x268mm / 20kg



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Two-way bookshelf/standmount loudspeaker  
 Made by: Monitor Audio Ltd, Rayleigh, Essex  
 Supplied by: Monitor Audio Ltd  
 Telephone: 01268 740580  
 Web: [www.monitoraudio.com](http://www.monitoraudio.com)  
 Price: £325



# Monitor Audio Bronze 100

For its 'sixth generation' release, Monitor Audio has overhauled the entire Bronze series, describing the Bronze 100 as a bookshelf/standmount model. Yet its actual size might make this speaker a little tricky to use as the former.

The manual recommends placing it between 15cm and 30cm from the rear wall, at least 1m from side walls, and 1.8m to 3m apart to create an equilateral triangle with your listening position. Where this is not possible, Monitor Audio provides two foam bungs to plug the speakers' rear-facing HiVe II reflex ports should the speakers be parked too close to a rear wall.

The 200mm bass/mid driver is made from the company's bespoke C-CAM composite and also debuts

Protecting the 25mm dome tweeter is a grille with an acoustically transparent 'hexagonal dispersion pattern'. Set flush to the baffle, this adds a slice of contemporary appeal.



## BEAT THIS...

These Bronze 100s provide a level of enjoyment that's over and above their down-to-earth asking price. While the 200mm bass/mid drivers catch your eye (and ear), there's a thrillingly unfettered treble here that adds sparkle and openness to recordings, joined by a midband performance that's both

expressive and nicely attacking.

Mounting the

loudspeakers on a stand and giving them room to breathe results in a performance at its most refined, with an even

handling of bass notes providing a strong foundation to the music.

With Queen's 'These Are The Days Of Our Lives' [*Innuendo*; Parlophone], there's a bump to John Deacon's bass-lines that can make them unduly dominant when speakers and rear wall are ignoring social distancing guidelines. But the supplied port bungs tempered this effectively, and in doing so revealed more subtlety to his playing.

Even with a modestly powered amp, they sparked into life and delivered an upbeat performance. Conga-drum hits were precisely located within the soundstage, just as Brian May's lead guitar playing deftly hung in the middle.

As for that open treble, it's everywhere, giving air to the synth motifs and hi-hats in Patti LaBelle's disco anthem 'Stir It Up' [*Beverly Hills Cop*; MCA], and the



rimshot rhythms of The Bee Gees' 'How Deep Is Your Love' [Tidal, 44.1kHz/16-bit]. Monitor Audio's duo perfectly sets the mood here, being just the right side of bright and not too ponderous.

## VERDICT

Admirable performers whatever you throw at them, Monitor Audio's Bronze 100s are always fun thanks to a killer combination of bass weight and delectable highs, while their easy-to-drive nature will find them plenty of fans. ☺

**ABOVE:** Finishes are Walnut, Black, White or Urban Grey with two grille colours to suit. Chunky, gold-plated binding posts support bi-wiring/amping

## 'An unfettered treble adds both sparkle and openness to the music'

its Damped Concentric Mode (DCM) technology. This is an FEA-optimised architecture of driver cone and surround said to improve linearity and combat breakup modes.

C-CAM is used again for the 'Gold Dome' high-frequency drivers, while a new refinement here is the Uniform Dispersion Waveguide, which aims to better control off-axis output from the slightly recessed dome tweeter while fine-tuning time alignment with the bass/mid. Furthermore, it also allows for a lower crossover frequency: 2.2kHz.

The speakers use 15mm MDF enclosures internally braced to limit vibration, with additional rigidity coming from the bass/mid driver installation itself, which sees it anchored via a large bolt that connects to the cabinet rear. This system also works to decouple the driver from the front baffle.

## HI-FI NEWS SPECIFICATIONS

Sensitivity (SPL/1m/2.83V – 1kHz/Mean/IEC)	87.7dB / 87.6dB / 85.2dB
Impedance modulus: minimum & maximum (20Hz–20kHz)	4.6ohm @ 37Hz 28.4ohm @ 75Hz
Impedance phase: minimum & maximum (20Hz–20kHz)	–49° @ 86Hz 45° @ 63Hz
Pair matching/Resp. error (200Hz–20kHz)	0.9dB / ±1.8dB/±1.6dB
LF/HF extension (–6dB ref 200Hz/10kHz)	51Hz / 23.9kHz/43.8kHz
THD 100Hz/1kHz/10kHz (for 90dB SPL/1m)	1.3% / 0.45% / 0.3%
Dimensions (HWD) / Weight (each)	376x231x325mm / 7.8kg



Three-and-a-half way floorstanding speaker with active bass  
 Made by: Paradigm Electronics Inc., Canada  
 Supplied by: Pulse Cinemas Ltd, Essex, UK  
 Telephone: 01279 647 039  
 Web: [www.paradigm.com](http://www.paradigm.com); [www.pulsecinemas.com](http://www.pulsecinemas.com)  
 Price: £34,000 (inc. ARC Genesis)

AUDIO  
FILE

# Paradigm Persona 9H

A hybrid combination of a conventional passive midband and treble with an active bass section, the £34k 9H sits at the top of the Canadian company's Persona range.

The bass department is fully integrated into the design of the speaker, which only has a mains input to show it differs from an entirely passive design, and is connected to an amplifier conventionally using bi-wirable terminals. Bass extension is claimed at 15Hz, an on-axis response flat to within  $\pm 2\text{dB}$ , a sensitivity of 93dB and a benign 8ohm impedance.

While Paradigm specifies an amp compatibility of 15W-500W, we wouldn't be tempted to hook them up to a low-powered valve amplifier, and we drove them to the max

'The sheer power of the percussion just explodes into the listening room'

using the Constellation Inspiration Monos [HFN Oct '19].

Beryllium is used for both the 25mm tweeter and the 178mm midrange unit, the former sitting behind a 'Perforated Phase Aligning Tweeter Lens', while the latter uses a similar PPA assembly, powered by an 'Inverse Differential Drive' neodymium magnet assembly.

As to the bass, four 215mm 'Ultra high-excursion X-PAL' drivers are used in each speaker, held in place with a 'Shock-Mount Isolation System' and driven in pairs by DSP-controlled 700W amplifiers. Two are rear-mounted operating in vibration-cancelling opposition, and vented through vertical grilles in the tapered back of the cabinet. So they need ample space behind them.

The speaker uses conventional passive crossover technology for the midrange and treble, and an active

crossover for the bass, operating from 400Hz downwards. All the electronic room correction activity is confined to the bass, and is thus able to compensate for sub-optimal positioning, the speakers each having a USB port to connect to the owner's or installer's PC running the Anthem Room Correction software.

## SPINE-TINGLING

Playing Kate & Anna McGarrigle's 'Be My Baby' [*Dancer With Bruised Knees*; Warner] we were captivated by the vitality with which this track was presented. The sisters' voices had a lovely fragility, with the tight harmonies crisply defined, while there was a broad, deep sense of the soundstage they occupied.

And if that wasn't spine-tingling enough, a switch to the NYP/Boulez recording of Ravel's *La Valse* [Sony] showed the Persona 9H loudspeakers' way with the fluidity of the orchestra, and then their ability to make the listener jump with the

sheer power of the percussion on the recording, which just explodes into the listening room.

These speakers seem capable of delivering any level one might require without stress or restriction – they can be sweet and light on their feet with Copland's own recording of 'Billy The Kid' [Sony] and then deploy their immense power and speed with Frankie Goes To Hollywood's 'Welcome To The Pleasuredome' [*Rage Hard*; ZTT]. We don't think we've ever heard that as clean and hard-hitting as here.

## VERDICT

Paradigm's Persona 9H speakers are outstanding in every respect, from the superb quality of build and finish to their scintillating sound. Partner them with a high-quality amp and prepare to be dazzled by a design fully justifying its flagship status. ☺



ABOVE: Enclosure colours are Harmony White, Vanta Black, Carbon Black gloss, Aria Blue (pictured above) or Sonic Silver

## HI-FI NEWS SPECIFICATIONS

Sensitivity (SPL/1m/2.83V – Mean/IEC/Music)	94.1dB / 93.3dB / 92.8dB
Impedance modulus: minimum & maximum (20Hz–20kHz)	2.4ohm @ 12.2kHz 148ohm @ 20Hz
Impedance phase: minimum & maximum (20Hz–20kHz)	–83° @ 36Hz 11° @ 1.1kHz
Pair matching/Resp. error (200Hz–20kHz)	$\pm 1.1\text{dB}$ / $\pm 4.5\text{dB}$ / $\pm 4.4\text{dB}$
LF/HF extension (–6dB ref 400Hz/10kHz)	<20Hz / 19.4kHz/19.1kHz
THD 100Hz/1kHz/10kHz (for 90dB SPL/1m)	0.1% / 0.1% / 0.1%
Dimensions (HWD) / Weight (each)	1320x300x520mm / 86kg



AUDIO  
FILE

Three-way reflex-loaded floorstanding loudspeaker  
 Made by: The Professional Monitor Company Ltd  
 Supplied by: PMC Ltd  
 Telephone: 01767 686300  
 Web: www.pmc-speakers.com  
 Price: £8495-£8995



# PMC twenty5.26i

Outwardly unchanged from its twenty5.26 predecessor, the £8495 '26i, says PMC, is 'substantial re-engineered', improving performance without moving away from the signature sound of its forbear.

New here is the 19mm tweeter, designed in conjunction with SEAS, having a soft dome within a 34mm roll surround. It's mounted in a curved, fibre-glass 'HF dispersion plate' and protected by a grille, while the crossover point is 1.7kHz.

Both the 50mm soft dome mid unit and 170mm 'g-weave' (woven glass fibre composite) bass driver – which cross over at 400Hz – are continuations from PMC's previous range. Once again, the latter feeds into PMC's take on transmission line bass-loading, with its 'ATL' chamber terminating in two front-facing Laminair vents [see facing pic].

'The interplay between the vocals and chorus was just scintillating'

Much of the twenty5.26i's boosted performance, claims PMC, comes from a new crossover with 4th-order filters in each arm of the network. This uses hand-selected components mounted on 'military-grade' fibre-glass boards, all connected via pure copper tracks. The redesigned vibration-reducing plinth stand, says PMC, also offers 'radically improved performance'.

## TIGHT AS A NUT

Realism, transparency and true musicality. This is the three-pronged mission statement of the twenty5i series and with that in mind it's hard to consider the twenty5.26i as anything other than a success.

This new-breed floorstander picks up the baton from previous PMC speakers, impressing with the clean, nuanced delivery, precise sense of rhythm and top-to-bottom balance the company's fans expect.

This clarity and timing was there to savour on the Queen track 'Another One Bites The Dust' [*The Game*; Tidal Hi-Fi 44.1kHz/16-bit], one of the band's most disco-infused moments. The big PMC speaker conveyed the tight-as-a-nut production and work of musicians at the top of their game.

The punchy drum pattern and rhythm of the bassline were locked in perfect unison, while Freddie Mercury's rapid-fire verses fizzed from the centre stage yet retained a delicate reverb. Interplay between vocals and chorus was scintillating.

With Faithless's dance tune 'We Come 1' [*Outrospective*; BMG] we got more of an impression of how much that 170mm bass driver punches above its weight, ranging impressively deep but still sounding lightning-fast and responsive.

We could have happily fed the twenty5.26i a diet of electro-pop and dance music to savour its adroit handling of up-tempo music, and the slick manner in which it dots musical flourishes across its soundstage. But we changed the pace with Philip Glass's 'I. Opening' [*Glassworks*; Tidal Hi-Fi, 44.1kHz/16-bit]. Almost entirely a piano instrumental, with an unusual triple-note construction that gives it the air of falling forward, this let the delicacy of the twenty5.26i's mid and treble come to the fore, and its talent for dynamics as the music ranged from soft to *forte*.

There's a cohesive nature to the twenty5.26i's performance that's addictive. The effect is that you can lose the sense you're listening to a set of speakers, the six drivers instead forming a balanced, even whole, from pure-sounding bass at the bottom to grit-free highs.

## VERDICT

Those seeking a speaker that works with the music, rather than unduly adding to it, will cherish PMC's premium-priced floorstander. Free of bluster, it's dynamic, transparent and detailed-sounding. ☺

**RIGHT:** Across the twenty5i series, buyers get a quartet of finish options: Walnut, Oak and White Silk. Choosing Diamond Black adds a £500 premium. The Twenty5.26i has a full-height grille that's attached magnetically



## HI-FI NEWS SPECIFICATIONS

<b>Sensitivity</b> (SPL/1m/2.83V – 1kHz/Mean/IEC)	86.2dB / 85.7dB / 84.0dB
<b>Impedance modulus: minimum &amp; maximum</b> (20Hz–20kHz)	3.9ohm @ 116Hz 30ohm @ 48Hz
<b>Impedance phase: minimum &amp; maximum</b> (20Hz–20kHz)	–69° @ 60Hz 34° @ 3.8kHz
<b>Pair matching/Resp. error</b> (200Hz–20kHz)	0.7dB / ±5.1dB/±4.6dB
<b>LF/HF extension</b> (–6dB ref 200Hz/10kHz)	38Hz / 28.2kHz/29.9kHz
<b>THD 100Hz/1kHz/10kHz</b> (for 90dB SPL/1m)	1.2% / 0.8% / 0.6%
<b>Dimensions</b> (HWD) / <b>Weight</b> (each)	1040x192x439mm / 25kg

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**Amir – Founder**



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AUDIO  
FILE

Two-and-a-half-way floorstanding loudspeaker  
 Made by: Dantax Radio A/S, Denmark  
 Supplied by: Decent Audio, Stockton-on-Tees  
 Telephone: 05602 054669  
 Web: <http://scansonic.dk>; [www.decentaudio.co.uk](http://www.decentaudio.co.uk)  
 Price: £6249



# Scansonic MB5 B

Looking identical to the Scansonic MB5 loudspeaker [HFN Aug '17] the £6249 MB5 B has been reworked by chief designer Benno Baun Meldgård to provide, he says, 'an all embracing upgrade'. The midrange and bass drivers – four 115mm units, between which mid and bass duties are split – use a die-cast aluminium basket for rigidity and retain their carbon cones, but feature a new low-loss spider in their suspension. These features, plus the powerful magnets, combine to offer a claimed improvement in both dynamic handling and bass response.

Of equal significance is the redesigned crossover, better integrating the drivers that are also 'time-aligned' by the gently angled baffle. Meanwhile, a version of sister company Raidho's ribbon planar tweeter is retained without revision. This bespoke driver uses a Kapton/

'We also experienced quite a few moments of startling reality'

alloy sandwich membrane just 20 microns thick, weighs just one gram, and is sandwiched between powerful neodymium magnets.

To improve the ease with which the speaker can be set up, a trio of ports sits above the single set of speaker terminals sculpted into the narrow 'spine' of the cabinet.

A sleek-looking, internally braced enclosure, in 'high density MDF', has been modified to optimise air-flow, allowing a reduction in the internal damping. Also in the quest for 'better coherence', the cabinet is shaped to avoid internal reflections and standing waves.

**LOCATION, LOCATION...**  
 Scansonic is very particular about the placement of its MB5 B floorstanders, which we found happiest 1m+ into the room. For example, the deceptively simple

and thoroughly charming Kate & Anna McGarrigle's *French Record* [Hannibal] was mired in low frequency fluff until the speakers were pulled forwards. The MB5 Bs then made more than a passing gesture at unravelling 'Entre Lajeunesse et la Sagesse', which boasts a spicy folk instrumentation that should raise a smile.

We also experienced more than a few moments of startling reality, Christian McBride's double-bass affording a magnificently deep and thunderously resonant foundation for the opener to Diana Krall's *Love Scenes* [Universal Music/Verve]. Such is the grip and sheer power of the MB5 B's delivery you'd be tempted to turn up the volume and wallow in the atmosphere in what might otherwise have been background, late-night listening.

Frankly, this speaker system can reproduce a visceral weight, power and sheer musical presence that eludes many far bigger floorstanders. The unchanged ribbon-esque treble unit sounds deliciously open and extended without a hint of brightness. There is still plenty of 'air' but absolutely no coarseness or brittleness, qualities that feed all the way down through the mid and bass to ensure the MB5 B creates large and unforced soundscapes.

Stravinsky's *The Firebird* [Bergen SO/Andrew Litton; BIS] is appropriately fleet of foot and the MB5 B expresses this very fluid-sounding recording with a light touch. The *pianissimo* strings in the 'Berceuse' are realistically feathery just as the appearance of Kastchei's monster guardians is accompanied by an appropriately menacing onslaught of percussion.

## VERDICT

Slide these slimline floorstanders into just the right spot and their profile diminishes entirely, leaving a wonderfully unfettered and captivating musical performance. Once the MB5 Bs are on song, you'll be hooked and listening for hours. ☺

**RIGHT: Cabinet finishes are black or white silk. The 115mm carbon-fibre mid units and 115mm bass drivers look identical to those in the MB5 but now feature new suspension systems. The ribbon/planar tweeter is retained as are the stabilising alloy outriggers**



## HI-FI NEWS SPECIFICATIONS

<b>Sensitivity</b> (SPL/1m/2.83V – Mean/IEC/Music)	87.7dB / 86.1dB / 85.9dB
<b>Impedance modulus: minimum &amp; maximum</b> (20Hz–20kHz)	2.8ohm @ 29Hz 12.5ohm @ 2.0kHz
<b>Impedance phase: minimum &amp; maximum</b> (20Hz–20kHz)	–33° @ 3.1kHz 34° @ 20Hz
<b>Pair matching/Resp. error</b> (200Hz–20kHz)	±3.2dB / ±4.8dB/±4.1dB
<b>LF/HF extension</b> (–6dB ref 200Hz/10kHz)	54Hz / >40kHz/>40kHz
<b>THD 100Hz/1kHz/10kHz</b> (for 90dB SPL/1m)	2.7% / 0.3% / 0.7%
<b>Dimensions</b> (HWD) / <b>Weight</b> (each)	1185x178x319mm / 24kg





Three-way floorstanding loudspeaker  
 Made by: Sonus faber SpA (Fine Sounds Group), Italy  
 Supplied by: Fine Sounds UK  
 Telephone: 01592 744710  
 Web: [www.sonusfaber.com](http://www.sonusfaber.com); <https://finesounds.uk>  
 Price: £14,900

AUDIO  
FILE

# Sonus faber Olympica Nova V

Part of a range of seven loudspeakers, the £14,900 Olympica Nova V features the company's 'Lute' internally ribbed cabinet design, comprising eight layers of real wood, laminated and shaped together under pressure. As for the cast aluminium cap, this is inset with matching wood

Arguably, the standout feature of the Olympica Nova series is the metal 'Stealth Ultraflex' vent that supplements bass output. Running full height, these vents are offset to one side of the cabinet, and positioning the speakers with their vents inward (which we preferred) should give tighter bass, or set outwards greater bass *weight*.

The in-house drive units are topped off by a 28mm silk

*'The sound of Ravel's La Valse was as grand as it was dramatic'*

dome tweeter that includes an aluminium bridge carrying a tiny pad, in contact with the dome to apply what Sonus faber calls 'local damping to the apex typically responsible for anti-phase behaviour of soft-dome diaphragms'.

The 150mm midrange driver, meanwhile, uses a rough-textured cone of fibres including Kapok and Kenaf, said to reduce resonance. The three 180mm bass drivers each uses a sandwich cone design combining two layers of cellulose material and a syntactic foam core, for low mass and high rigidity.

## NICE AND COSY

The sound is big and rich-sounding, with masses of orchestral scale and very sonorous solo piano, and for those who judge the success of a big speaker on its ability to deliver warmth and a room-filling sound,

there'll be little to complain about here. Indeed, the Olympica Nova Vs deliver a deeper and more extended low-end than might be anticipated from the list of specifications.

In short, the Nova V prefers to paint a broad and colourful canvas of sound rather than deliver a surgically penetrating insight. For example, with Iiro Rantala's take on Gershwin's 'Liza' [*My History Of Jazz*; ACT], the music was presented as a slightly smoothed whole, with more emphasis being given to the weight of the piano and drums than the metallic hue of the cymbals.

With moderately sparkling recordings like Ravel's *La Valse* [NYPO/Boulez; Sony Classical], the slightly eerie and ominous feel of the opening section sounds as grand as it does dramatic. Again, these are speakers that wrap you in the music, nice and cosy, rather than invite you over for an evening of technical introspection.

With a change of pace to 'Mercy', from Muse's *Drones* [Warner; 96kHz/24-bit download] the dense and full-on mix is delivered up with real impact, driven in particular by the bass and drums but with no abrasive top-end forcing you to back off on the volume to save your ears. Similarly, playing Sam Cook's 'Bring It On Home To Me' [*Portrait Of A Legend*; ABKO] the sound, which can easily appear bright and hard, is gently massaged here into something less fragmented and unforgiving.

## VERDICT

The Olympica Nova Vs deliver a cultured, almost velvety view of the music, likely to impress with their sheer scale and absence of any obvious sonic nasties. In so doing they may relinquish a little of the sparkle and character that some listeners might seek, but these big floorstanders could never offend. ☺



ABOVE: Sonus faber's big floorstander with cast aluminium outrigger-spiked base comes in a choice of walnut or wenge

## HI-FI NEWS SPECIFICATIONS

Sensitivity (SPL/1m/2.83V – Mean/IEC/Music)	91.8dB / 89.9dB / 89.0dB
Impedance modulus: minimum & maximum (20Hz–20kHz)	2.8ohm @ 14.3kHz 14.3ohm @ 2.5kHz
Impedance phase: minimum & maximum (20Hz–20kHz)	–48° @ 4.1kHz 33° @ 1.2kHz
Pair matching/Resp. error (300Hz–20kHz)	±1.7dB / ±4.8dB/±4.4dB
LF/HF extension (–6dB ref 300Hz/10kHz)	43Hz / >40kHz/>40kHz
THD 100Hz/1kHz/10kHz (for 90dB SPL/1m)	0.4% / <0.1% / 0.3%
Dimensions (HWD) / Weight (each)	1175x424x530mm / 44kg

AUDIO  
FILE

Three-way, five-driver floorstanding loudspeaker  
 Made by: SVS, Ohio, USA  
 Supplied by: Karma-AV Ltd, York  
 Telephone: 01423 358846  
 Web: [www.svsound.com](http://www.svsound.com); [www.karma-av.co.uk](http://www.karma-av.co.uk)  
 Price: £1795-£1995



# SVS Prime Pinnacle

These floorstanders from SVS vaguely recall the monoliths from Stanley Kubrick's *2001: A Space Odyssey*. Bucking current trends, there's not a curved edge in sight, and they're available only in a Gloss Black finish (£1995) or a more prosaic Black Ash (£1795).

Although the Black Gloss livery is surely worth the premium, and a smidgeon of style comes from the tapered front baffle, these are hardly speakers that will make visitors to your listening room stop and stare. Grilles, which cover roughly three-quarters of the face, are clip-in rather than magnetic, and suggest that this speaker has been built to hit a price point.

SVS says the Prime Pinnacle has benefited from a more extensive voicing programme than any other model in its history. 'Key parts of this design were balancing out the tweeter height relative to

'The Prime Pinnacle can drop deep yet maintain a tight grip'

the listener position', it says, so development experiments included alternating the position of the mid unit below and above it.

For the latter, SVS opted for a 135mm glass-fibre cone, a trickle-down design from ones in SVS's premium Ultra Tower speaker, while above it is the 25mm aluminium dome tweeter with FEA-optimised diffuser, for 'a wide dispersion and accurate on/off-axis delivery'.

Beneath this sits the triple stack of bass drivers, all measuring 165mm in diameter and made from polypropylene, a material chosen for its stiff-but-light properties. By opting for these relatively small low-frequency units as opposed to a pair of larger drivers, the width of the speaker is kept to a minimum.

Each bass driver works out of a rear 50mm-wide port and each is individually tuned. The MDF cabinet,

25mm thick at the front, features four separate internal enclosures, plus rigid bracing, in a bid to combat unwanted resonances.



## BIG AND BOLD

Given that trio of front-firing bass drivers, you might well think SVS's Prime Pinnacle is all about bass brutality. But while low-frequency handling is an obvious plus point it's neither overblown nor unrefined, while mids and highs aren't relegated to second fiddle.

The title track from Michael Jackson's *Bad* [EPC] gives them a chance to strut their stuff. The ascendant bassline that underpins each verse is delivered evenly and fluidly, and is subjectively uncoloured. Atop this, the electronic percussion, hand-claps and Jackson's breathy vocals have a crisp edge and believable tonality.

Switch to the synthetic bass notes of London Grammar's 'Hey Now' (*If You Wait*), and the speaker shows its ability to drop deep while maintaining a tight grip. SVS's expertise in subs certainly pays dividends.

A quieter track, such as Alice In Chains' semi-acoustic 'No Excuses' from their *Jar Of Flies* EP [Columbia], finds the Prime Pinnacle in fine voice for what is arguably an affordable floorstander. Jerry Cantrell and Layne Staley's twin-tracked vocals are clearly delineated, and the low-key percussion, which blends hi-hats and rapid snares with high-pitched toms into a syncopated rhythm, finds its space within the soundstage. And again, the Pinnacle's ability to resolve low frequencies without coming across as sluggish or boomy, is remarkable.

## VERDICT

Svelte enough to slip into all but the smallest rooms, and undemanding when it comes to placement, these floorstanders have clear all-round appeal. Music driven by bass and percussion is their bread and butter, but there's a sweeter side too. ☺

**RIGHT: The Prime Pinnacle sports a 25mm alloy dome tweeter, 135mm composite fibre-glass mid unit and a trio of 165mm polypropylene woofers, all working into their own acoustic spaces**



## HI-FI NEWS SPECIFICATIONS

<b>Sensitivity</b> (SPL/1m/2.83V – Mean/IEC/Music)	89.0dB / 88.2dB / 88.2dB
<b>Impedance modulus: minimum &amp; maximum</b> (20Hz–20kHz)	2.8ohm @ 4.1kHz 14.6ohm @ 22Hz
<b>Impedance phase: minimum &amp; maximum</b> (20Hz–20kHz)	–51° @ 2.6kHz 29° @ 10.3kHz
<b>Pair matching/Resp. error</b> (300Hz–20kHz)	±0.8dB/ ±3.3dB/±3.6dB
<b>LF/HF extension</b> (–6dB ref 200Hz/10kHz)	45Hz / 30.7kHz/31.8kHz
<b>THD 100Hz/1kHz/10kHz</b> (for 90dB SPL/1m)	0.1% / 0.1% / 0.1%
<b>Dimensions</b> (HWD) / <b>Weight</b> (each)	1029x203x340mm / 26kg

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Finishes Available:





AUDIO  
FILE

Three-way floorstanding loudspeaker  
 Made by: System Audio A/S, Denmark  
 Supplied by: Karma-AV Ltd, York  
 Telephone: 01423 358846  
 Web: [www.system-audio.com](http://www.system-audio.com); [www.karma-av.co.uk](http://www.karma-av.co.uk)  
 Price: £2900



# System Audio Legend 40

This Danish company boasts that 'A System Audio speaker is much faster than a conventional loudspeaker'. Time to buckle up, then... Its Legend 40 tower tested here is priced at £2900 and comes in either satin black or white finish.

Unusually, the speaker has an upgrade path from wired passive to wireless active. System Audio will retro-fit its rear-mounted amplifier/DSP module, effectively turning the '40 into its Legend 40 Silverback.

Handbuilt, with one employee working on one speaker from start to finish, the Legend 40 sports a 25mm tweeter, 135mm midrange, and two 135mm woofers. The mid and bass drivers use a woven fibre cone chosen for its low weight and high damping, supported by

'These loudspeakers are quick to lock into the funk/pop groove'

a rubber surround with in-built resonance control rings.

Meanwhile the two bass units work out of a rear-firing port, the combination good to a claimed 30Hz. As for the woven silk tweeter, this uses a patented DXT acoustic lens to combat baffle diffraction, improve off-axis response, and smooth integration with the midrange at a 2kHz crossover point.

The cabinet's MDF front baffle is 29mm-thick, set on a 5mm walnut inlay, while the curved sides use six layers of pressed 3mm MDF. Internally, an 18mm MDF plate divides the midrange and bass drivers into separate chambers.

System Audio expects its speakers to appeal to the spatially challenged, and this is emphasised by a recommended placement of just 15-35cm from the rear wall. In fact, it suggests the Legend 40

is suited to close-to-boundary placement, another string in its living-room-friendly bow.



## SOUND OF SPEED

The use of lightweight driver materials in the pursuit of 'speed' is repeatedly in evidence when listening to the Legend 40s. They seem to relish the rhythms of music and quick-fire instrumentation, resulting in a clear, dynamic presentation. Bass extension is pleasingly deep and tracks that demand soundstage width and depth are well-served.

Load up 'Cream', from Prince's album *Diamonds And Pearls* [Warner] and the Legend 40s quickly lock into the funk/pop groove. There's appreciable snap and clarity to bass and drums, and you get the sense that the speakers' driver quartets are operating in total harmony.

It's such a dextrous performance that we dug out Machine Head's 'This Is The End' [*Unto The Locust*; Roadrunner], which rampages at a furious pace and underpins razor-sharp thrash guitar riffs with kick-drums. It all marches out like a well-oiled regiment.

The title track to Norah Jones' jazz-tinged debut album *Come Away With Me* [Parlophone] showcases the loudspeakers' ability to resolve subtle detail. Her midrange is soft but well-rounded; she's close-mic'd but with a slight reverb, while soft percussive brushing is as eloquently conveyed as the piano accompaniment.

## VERDICT

The Legend 40s yield a performance that's always descriptive of the music, whether it calls for delicate, detailed highs, a midband capable of both softness and steel, or unflustered nuanced bass. There's slick imaging here too. ☺

**RIGHT:** The slim, user-friendly Legend 40 comes in black or white and has magnetically attached grilles. It's sufficiently versatile to be set up close to room boundaries, but bi-amping/bi-wiring is not accommodated



## HI-FI NEWS SPECIFICATIONS

<b>Sensitivity</b> (SPL/1m/2.83V – 1kHz/Mean/IEC)	87.0dB / 87.4dB / 85.1dB
<b>Impedance modulus: minimum &amp; maximum</b> (20Hz–20kHz)	2.9ohm @ 130Hz 23ohm @ 80Hz
<b>Impedance phase: minimum &amp; maximum</b> (20Hz–20kHz)	–65° @ 92Hz 39° @ 28Hz
<b>Pair matching/Resp. error</b> (200Hz–20kHz)	2.3dB / ±2.8dB/±2.6dB
<b>LF/HF extension</b> (–6dB ref 200Hz/10kHz)	50Hz / 36.7kHz/39.3kHz
<b>THD 100Hz/1kHz/10kHz</b> (for 90dB SPL/1m)	0.4% / 0.3% / 0.8%
<b>Dimensions</b> (HWD) / <b>Weight</b> (each)	955x190x265mm / 19kg



Factory-terminated interconnect cables  
 Made by: Atlas (Scotland) Ltd, Kilmarnock  
 Supplied by: Atlas Cables  
 Telephone: 01563 572666  
 Web: www.atlascables.com  
 Price: £500 (1m stereo set, terminated in XLRs)

**AUDIO  
FILE**

# Atlas Equator

Given the increased number of XLR sockets we've seen on hi-fi separates in recent years, 'balanced' is rapidly becoming the new black.

Here, we look at a new Atlas interconnect that illustrates the industry trend towards XLR-equipped cable derivatives. In this particular case Atlas's new Equator XLR is a symmetrical/balanced version of its well-reviewed and longstanding Equator Integra RCA interconnect.

Within the Atlas hierarchy the Equator XLR sits between its Element XLR, the base model, with Hyper XLR at the top of its hi-fi range (the Ascent/Mavros/Asimi cables occupy the 'high-end' range). Prices start from £500 for a 1m stereo set, increasing by £50 per stereo metre (£600 for a 3m stereo set).

While Atlas's Element XLR uses OFC conductors and XLR pins, and a foamed polyethylene dielectric, the Equator XLR uses OCC (Ohno Continuous Casting) copper conductors and silver-plated OCC pins, plus the same

**'The sound remains nimble, while bass is unmuddied and quick'**

dielectric. There's no soldering to be found here as the OCC-to-OCC connections are all cold welded.

The internal geometry is very straightforward – both the signal (L) and return (R) cores are a twisted pair, comprising 2x60x0.1mm strands, while the screen (the 'X' in XLR) is a combination mylar/aluminium foil plus woven OFC braid, terminated at both ends of the cable.

The Equator interconnects are not marked for directionality although slow-drawn OCC copper directly embraces the concept. Either way, a cotton filler holds all the cores in place, reducing

microphony, and the entire cable is jacketed in a soft, white PVC.

OCC copper may have fewer grain boundaries than an equivalent-purity OF copper but the 75mohm/m loop resistance remains unaffected as does the low capacitance and series inductance of 75pF/m and 0.40µH/m, respectively. This is another Atlas cable suitable for long runs.

## A ROUNDED VIEW

We had the opportunity to compare these new balanced Atlas Equators with the brand's costlier Mavros Ultra cables [HFN Mar '16] as well as the stratospherically-priced silver/gold Absolute Dream from Crystal Cable [HFN Jun '12] and in no respect did the Equator XLR come up embarrassingly short.

Laced between a dCS Vivaldi One player/DAC [HFN Feb '18] and Constellation Inspiration monoblocks [HFN Oct '19] the Equator XLR offered a slightly more rounded view of musical events, trading some micro-detailing for a smoother balance that, potentially, will find a very sympathetic home in a slightly brighter-sounding system.

Yello's limited edition 'Virtual Concert' DVD-A issue of *Touch* [no cat no; 48kHz/24-bit] provided a focused example of how

**ABOVE: Supplied sheathed in an ivory white soft PVC jacket, the Equator XLR features OCC copper in both its conductors and XLR pins**

the Equator XLR interconnect succeeds in taking the edge off the liveliest percussion while still retaining the body and ambience of the performance. The cable ensured that the band's Dieter Meier and Boris Blank's energy, power and enthusiasm was retained on their virtual stage, while avoiding any opportunity for grit and grain to aggravate what might already be a forward-sounding amp or loudspeakers.

The sound remains nimble too, the bass unmuddied and quick where it needs to be or heavy and extended where the recording demands. It's a very realistic upgrade from the company's basic XLR interconnects.

## VERDICT

These interconnects offer a very subtle emollient that trades forensic insight for a sound that is forgiving and musically compelling. There are 'brighter sounding' interconnects to be had, but don't read the Equator XLR's story as a euphemism for 'dull' or recessed for these are shrewdly balanced and will reward without stripping your music to its roots. ☺

## HI-FI NEWS SPECIFICATIONS

Series Inductance (1m loop)	0.40µH
Parallel Capacitance (1m)	75pF
Resistance (1m loop)	75mohm
Leakage	300Mohm

AUDIO  
FILE

Factory-terminated USB interconnect cable  
 Made by: The Chord Company, Wiltshire  
 Supplied by: The Chord Company  
 Telephone: 01980 625700  
 Web: [www.chord.co.uk](http://www.chord.co.uk)  
 Price: £400 (1m)



# Chord Epic USB

The last time we ran a comprehensive USB cable group test was over six years ago [*HFN* Jul '13 and '14] with Chord's entry-level SilverPlus coming top-of-the-heap. It has remained in residence ever since as our USB cable of choice.

The intervening period has seen the SilverPlus morph into the current entry-level C-series while

'Flashes of percussion sparkled in a broad and deep soundstage'

the costlier Signature 'Tuned Array' USB cable became the template for Chord's more recent, intermediate Epic USB model. And, at £400 for a terminated 1m set (£160 per additional metre), the new Epic USB cable is no costlier than its Signature forefather in 2014.

So, the Epic USB employs a similar set of four PTFE-insulated, silver-plated copper conductors for the +5V line and ground plus the differential data pair, which are also separately shielded. This

geometry deviates slightly from that of the USB standard (you'll notice that few 'audio USB' cables carry the official USB trident motif), but limited overshoot on the waveshape and a fast 9.6nsec risetime – as was revealed in our Lab Test – suggest its characteristic impedance is not too far under the 90ohm standard. At least that's the case at these

data rates and frequency. Note that our tests also revealed that a 5m length of Epic USB has a slightly reduced bandwidth but exactly the same edge risetime. A 2m length may prove to be optimum.

Finally, a high-density double braid provides improved RF/EMI rejection, while the cable's woven silver-grey jacket brings added robustness. However, the Epic USB is not especially flexible so care must be taken not to stress delicate USB sockets when locating and inserting Chord's custom silver-plated A- and B-type plugs.



## AN EPIC SOUND?

Pressed home – carefully – between a Melco N1ZS20/2 music library [*HFN* Jun '17] and DCS Vivaldi One

player/DAC [*HFN* Feb '18] the influence of Chord's Epic USB was subtle but nonetheless engaging, the intimate setting of Vov Dylan and Glenn Amer's self-explanatory *The Music Of Cole Porter Without Words* [Elkwood Sony; DSD128] sounding especially close without sucking the air from the room. The rosin-rich tone of the violin was perfectly pitched against the gentle percussion of Amer's piano – the duet, likely as not, sweeping you along as you sing 'I Get A Kick Out Of You' and 'I've Got You Under My Skin' in the hope and anticipation that no-one else is listening...

Compared directly with our long-term sample of Chord's SilverPlus, the Epic USB delivered a slightly darker and, on brief audition, fractionally less vibrant sound. Listen longer, however, and it's clear the Epic USB is marginally more refined, possessed of great control and delivering energy and passion when required as slickly as it will reveal subtle details.

Never more so than in the 'Ride Of The Valkyries' from Wagner's *The Symphonic Ring* [Duisburger Phil/ Jonathan Darlington; Acousence, 192kHz/24-bit] as the stormy strings swell to meet the thunderous energy of the horns and flashes of percussion that sparkle in a broad and deep soundstage. Much of this resolution will depend on the scope and scale of your system, but if your kit has the capacity then Chord's Epic USB will surely open the door.

## VERDICT

Just like Chord's original Signature 'Tuned Array' cable, the current Epic USB promotes a sound that's smooth, richly detailed and very expressive. On first exposure it might appear to lack some 'bite', but in practice there's no lack of colour or contrast to its richly hued performance. Yet this tickled-up Epic still faces stiff competition from, er, the more flexible C-USB, née SilverPlus, available at just £50/1m. Thinking of 5m runs? Compare before plunging. ☺

**ABOVE: Inspired by the company's first-generation Signature cable, the Epic USB is terminated in bespoke silver-plated A- and B-type plugs**





Network switch with wired and optical ports  
 Made by: Buffalo Technology, Japan  
 Supplied by: Audiophile Digital Music Masters Ltd, UK  
 Telephone: 01252 784525  
 Web: www.melco-audio.com; www.audiophiledigital.co.uk  
 Price: £2000

AUDIO  
FILE



# Melco S100

Recently there's been an explosion in the availability of switches designed to fit between your Internet connection, your music storage and your network audio player. Enthusiasts claim 'magic properties' for particular existing IT-type network switches, and a variety of companies now offer their own 'audiophile-tuned' products.

The Melco S100 occupies its own position in this new market.

'The Melco S100 simply revealed more of everything played'

It's comfortably the most expensive unit of its kind, at £2000, so what is Melco offering here?

The idea of the S100 is not just to complement the company's range of digital music libraries, but also upgrade any network set-up that employs Ethernet connectivity for audio. Nor is it a modified version of an existing IT-grade design, but a new solution that draws on the expertise of its parent company's Buffalo division.

This bespoke box includes its own processor, a 1.5MB packet buffer, plus audio-grade capacitors in its PSU, which is fed from an offboard power supply 'brick', used for isolation and to allow for future upgrades. It's all mounted in

a vibration-isolating steel chassis, with shielding provided by external aluminium casework.

In practice, the S100 provides three means of connectivity: there are four 100Mb Ethernet ports, four 1Gb ports, and two SFP ports to connect fibre optic cables via suitable adapter modules at around £20 apiece. The 100Mb ports are designed for sound-critical devices such as network players and NAS units (or a Melco library) and also your Internet router if you're using streaming services.

Meanwhile, the 1Gb ports are designed for high-traffic connections to a Roon Core, or for control if you're not streaming from online services,

while the optical connections provided will offer an isolated link to compatible players.



## POUNDING BARGAIN

Inserting the Melco S100 between our QNAP servers and Naim ND555 DAC [HFN Apr '19] in place of a simple budget Netgear switch, the music gained body, detail and insight – and not in a subtle way.

Even with a period recording such as David Bowie's Newleyesque 'Love You Till Tuesday', from his self-titled 1967 album [Deram/Universal], the complexities of the arrangements became much clearer, the thunderstorm of 'Please Mr Gravedigger' more ominous, and Bowie's intonation of the

**ABOVE: Melco's S100 network switch has no more than a single blue LED at its front, while ten ports populate the rear – four each of 100Mb and 1Gb, and two optical fibre SFP (small form-factor pluggable)**

developing story all the more chilling. What previously sounded like a trite piece of music theatre now came unsettlingly alive.

How obvious you find the gains with the S100 in harness will depend on the quality – and in particular the resolution – of the player you have employed downstream. In our system it was clear-cut, at least when compared with a basic switch configuration.

Playing the excellent Linn compilation *A Bach Offering* [Linn Records; 192kHz/24-bit] the S100 carried the depth, texture and expression, and well-captured acoustics of this familiar performance with aplomb.

Similarly, even with the pounding 'Bargain' from The Who's *Next* [Qobuz; 96kHz/24-bit], this 'audiophile dataswitch' brought greater insight into the component parts of the mix, from the rumbling bass and frenetic drumming to the strike and sustain of the lead guitar.

And so it goes on, with the Melco S100 simply revealing more of everything we played. That said, however, we'll stick to a belief that one can obtain similar gains for less with some DIY network fettling, but if you want a simple plug 'n' play improvement for a high-end network music system, the S100 will take some beating.

## VERDICT

It's hard to give an absolute verdict on a device where the gains will depend as much on the rest of your network as on the ability of your network player to reveal what it does. But if you've invested heavily in network playback, and want a simple, easy-to-install upgrade for your system, the Melco S100 can bring major sonic gains to any Ethernet-based set-up. ☺

## HI-FI NEWS SPECIFICATIONS

Ethernet Ports (RJ45)	4x100Mb / 4x1Gb
Ethernet Ports (SFP/optical)	2x100Mb
Digital jitter (Arcam CDS50)	5psec (6psec without S100)
Digital jitter (Mytek Brooklyn Bridge)	5psec (5psec without S100)
Digital jitter (Lumin D2)	10psec (15psec without S100)
Power consumption	6W
Dimensions (WHD) / Weight	215x61x269mm / 2.5kg

AUDIO  
FILE

Mains regenerator with four outlets  
 Made by: PS Audio, Boulder, Colorado  
 Supplied by: Signature Audio Systems  
 Telephone: 07738 007776  
 Web: [www.psaudio.com](http://www.psaudio.com); [www.signatureaudiosystems.co.uk](http://www.signatureaudiosystems.co.uk)  
 Price: £2310



# PS Audio Stellar Power Plant 3

Back in 1998 PS Audio introduced its first mains regenerator. It was a device born of the view that if you want the cleanest mains supply then you will need to synthesise it from scratch. A mains regenerator is, in essence, a high voltage power amplifier with an integral sine wave oscillator at its input. And we've often found that a regenerator's largest benefits accrue upstream when used to power signal sources and preamplifiers, etc.

'MultiWave added a sprinkle of magic dust to what was already good'

Don't look down on the Stellar Power Plant 3 just because, at £2310, it's the cheapest in the company's latest range. If you're a buyer on a constrained budget looking to achieve the best bang for your buck, then it's a canny choice.

It's a slim unit, although heavy due to its large toroidal transformer, and has a strip of perforations on its top panel venting an internal heatsink. To the rear, meanwhile, it has no inputs other than mains power, and just four outputs in the form of three-pin UK mains sockets.

These sockets are divided into two groups of two: 'Filtered High Current or Regenerated', with a switch off to one side that selects between HC (high current) and Regen (regenerated) operation; and

two outlets, labelled 'Regenerated', which are not switchable.

Via the HC outputs you can connect items of equipment, such as power amplifiers, that would draw more than the Stellar Power Plant 3's 300W maximum rated output while benefiting, potentially, from its inline filtering.

The SPP3 is intended to be driven via a supplied plastic IR remote control handset (lose this at your peril), while three LEDs on the front panel indicate the power being pulled from the regenerated mains outlets, 'MultiWave' selection, or 'CleanWave'. The claim for 'MultiWave' – which adds third harmonic distortion

at 150Hz to flat-top the output waveform – is that this increases power supply conduction time and thereby reduces voltage rail ripple in downstream equipment.

CleanWave, on the other hand, is a degaussing function intended to eliminate any permanent magnetisation of transformer cores in the attached equipment (though this must be powered up in order for CleanWave to work).



## CATCH THE WAVE

In our review of the PS Audio P20 [HFN Apr '19] we wrote that, 'The effect of unplugging a Chord Qutest DAC [HFN Nov '18] from the P20 and plugging it directly into the mains was extraordinary'. We found this all over again with the SPP3.

**ABOVE: LEDs on the fascia show Output, MultiWave and CleanWave status, and also double as fault indicators if the SPP3 detects a problem. The unit is available in silver or black**

Diana Krall's 'Narrow Daylight' from *The Girl In The Other Room* [Verve] is not her clearest set but relies for its impact on the slightly cloudy piano sound being well resolved and her vocal being picked out quite separately, in as open a soundstage as possible. All these things suffered when our Chord Qutest DAC [HFN Nov '18] was plugged into the mains supply rather than the SPP3.

The stereo image shrank and dynamic ease and variety were dialled back, both contributing to a 'closed in' sensation in which the thoughtful, wistful lyric had less emotional clout.

Classical music gained too with the SPP3 doing its thing. Listening to Gershwin's Piano Concerto [Harmonia Mundi], initially with the Qutest connected just to the mains, it was difficult to suppose that the Rochester Orchestra could sound any more vigorous or expansive in the opening section, or Jon Nakamatsu's piano any more sonorous when it enters. But with the SPP3 in place the stereo image became more obviously layered and the entire performance more solid, stable and musically engaging.

With his incomparable voice, Nat King Cole's *Welcome To The Club* with the Count Basie Orchestra [Audio Fidelity] is an addictive introduction to the joys of easy listening jazz having all the ingredients for a magical musical experience. But in order to realise that potential, our HA-510 headphone amp [HFN Apr '14] needed the Stellar Power Plant 3.

Then the sound expanded dynamically as much as spatially. But the key difference was the sense of being present while these masters of their craft – now long departed – wove their spell.

MultiWave just gilded the lily, adding another small sprinkle of magic dust to what was already outrageously good sound.

## VERDICT

If you've never experienced mains regeneration, you'll find the Stellar Power Plant 3 can transform – yes, transform – the sound from your source components, DACs and headphone amplifiers. Wow! ☺

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HFNYB20P





# Philips CD960

The Philips CD960 of 1987 was one of the company's occasional flirtations with the top end of hi-fi. These were to show that the Dutch brand could offer components capable of state-of-the-art performance.

Design and assembly was done in Japan by MJI (Marantz Japan Incorporated), which at that time was a Philips subsidiary. However, unlike the matching FA860 amp, Philips components and technology were used extensively, including the complete 16-bit/4x oversampled chipset with TDA1541A DAC.

When it came to the transport, Marantz decided not to opt for the latest Philips CDM4 deck but took a step back, selecting Philips' CDM1

**"Hello Mary Lou" is just so jaunty and brisk that it's hard to keep still'**

optical unit, as was used in some of the company's 14-bit models. This was fitted to a Marantz-designed loader, which operated quickly and smoothly – the open-and-close key was located on the door of the tray.

The rest of the build followed Japanese high-end practice, with many locally sourced components used. These included a generous power supply system with separate sections for the analogue, digital and mechanical parts of the machine. Meanwhile, the DAC and analogue sections received a large dose of exotic Japanese parts – though it's worth noting that the

critical components which defined the working points of the filters were left unchanged from the basic Philips specification.

Rather, sensible improvements were made, such as the use of separate op-amp chips instead of combined ones, to reduce crosstalk, and the selecting of film capacitors instead of ceramics for use around the DAC to eliminate microphony.

One small break from the Philips pattern could be found in the servo section, where instead of the standard ICs a circuit was built onto a small extra PCB using miniature surface-mounted components.

A ledge at the bottom of the fascia housed some of the control keys, as did a hidden drawer,

which concealed the less frequently used functions. Enhancements included full infra-red remote control; Favourite Track Selection (FTS); and what was claimed to be a hi-fi

headphone amplifier, which boasted its own slider volume control.

## RICH REWARDS

Given that the CD960 design represents a final polishing of the Philips 16x4 package rather than a total re-think, it comes as no surprise to find that the sound of this player is essentially familiar.

Compared with the best of the older 14-bit Philips players – eg, the CD303 [HFN Nov '13] – the CD960 offers a drier take on the bass and has sharper, better focused treble. Yet by any other standards this is still a rich-sounding machine.

**ABOVE: The CD960 retained a European look but the silky black alloy front panel and weighted controls were way ahead of those to be found on Philips' previous models. Optical and coaxial digital outputs were also included on the rear of this player**

One thing that does remain is the huge amount of space that Philips players traditionally generate in and around the music. The late summer cool of Chris Rea's 'Miles Is A Cigarette' [God's Great Banana Skin; East West], filled our listening room, with the trademark cymbals that shimmered and didn't splash – during the 1980s only Philips really knew how to do that.

What really impresses about the CD960, though, is how it ensures all the various parts of a musical performance meld into a realistic whole. Many CD players don't do this nearly so well and can sound forced and 'mechanical' as a result. To hear this Philips machine glide through a recital by The Dutch Swing College Band [PMF Records] is nothing short of an utter delight.

True, there isn't quite as much bass on offer here as earlier Philips players were able to deliver, but the treble has been noticeably improved. A slightly pushed forward midrange is still in evidence, but it's now sufficiently smooth to no longer draw attention to itself.

The result is that the album's opening piece 'Hello Mary Lou' is just so jaunty and brisk when heard via the CD960 that it's hard to keep still as it plays. What's more, the brass and woodwind sections remain vivid yet free of harshness. Comfortable listening even at high volumes is another CD960 virtue, too, with its top-end polish.

## VERDICT

Philips' CD960 remains a reference-class player of the highest quality, and even today is difficult to fault. It's just a shame that it has become expensive again after years in the doldrums – so start saving. ☺

## HI-FI NEWS SPECIFICATIONS

Maximum output level / Impedance	2.29Vrms / 54-59ohm
A-wtd S/N ratio	109.9dB
Distortion (1kHz, 0dBfs/-30dBfs)	0.00039% / 0.021%
Distortion & Noise (20kHz, 0dBfs/-30dBfs)	0.00065% / 0.030%
Frequency response (20Hz-20kHz)	+0.0 to -0.17dB
Digital jitter	160psec
Resolution @ -90dB/-100dB	-2.0dB / -2.1dB
Power consumption	13W
Dimensions (WHD) / Weight	420x100x378mm / 10kg



# Sony PS-FL7

A drawer-loading deck, the linear-tracking PS-FL7 was part of Sony's attempt to keep turntable sales alive as CD increased its grip on the market. And at a glance, it doesn't look much like a turntable at all.

What's more, it was decided to position the deck at the bottom of Sony's stack systems so as to give its range a fresh and up-to-the-minute look – just what was needed in those style-conscious times.

Given that a full 1980s hi-fi stack may well have comprised a reasonably powerful amplifier, tuner, cassette deck containing two transports, graphic equaliser, timer and, of course, a CD player, Sony's drawer-loading turntables had to be built strongly, and they were.

Released in 1985, the PS-FL7 was controlled by a microprocessor with

*'There was a satisfying bite to the guitars that opened the track'*

four motors under its command. Of these, one was a linear type, which was used for raising and lowering the arm. Two more were employed for tracking and driving the plinth in and out of the cabinet, leaving just the direct-drive motor for the platter. This made full use of the new digital techniques developed for video recorders, the bulk of the circuit being contained in two chips sourced from Toshiba.

The servo system employed two 8-bit DACs, one of which corrected

the motor's speed and the other its phase. Both were locked to a quartz crystal reference. Meanwhile, the PS-FL7's arm was notable for its exceptionally short pivot-to-stylus distance, which measured just 75mm. A finely engineered gimbal pivot was used, mounted on a light and rigid carriage which allowed the pivot point to overhang the remainder of the record.

Finally, the plinth was cast in 'Sony Bulk Moulding Compound' (SBMC). This proprietary resin allowed complex shapes with the necessary acoustic properties to be formed with reasonable ease.

The PS-FL7 can be operated in two different modes. In fully automatic mode one opens the drawer, places the record on the platter and presses 'Play'. The record

then disappears as the drawer retracts into the cabinet, its size being read by sensors that look up through holes in the platter. Playback then continues until the end of the record, although manual arm lifting/cueing is possible.

In manual mode, the machine plays with the drawer open so most of the record remains visible. However, this time all automatic functions are disabled, including repeat mode and the lifting and returning of the tonearm once the end of the side has been reached.



## STRIKINGLY VIVID

Fitted with an Audio-Technica AT85EP MM pick-up, the PS-FL7 proved to be a decent performer that just seemed happy to play

**ABOVE:** The compact PS-FL7 isn't obviously a turntable when the drawer is shut. Records can be played like this, or with the drawer open for fully manual operation

whatever was loaded into it in a matter of fact, ungilded manner.

'Driver's Seat' from Sniff 'N'

The Tears' *Fickle Heart* [Chiswick] sounded pleasingly upbeat, with a most satisfying bite to the guitars that open the track. One could describe the sound as being like a TV picture with the contrast setting turned right up, strikingly vivid at the cost, perhaps, of some of the fine detail. For rock and some electronic music this is, of course, exactly what you want, although some might prefer a presentation that is a bit more relaxing.

Some classical pieces benefit from equipment having a bit of vim however, eg, DG's recording of Beethoven's Piano Concerto No 1, with Pollini and the VPO. While there wasn't quite the space around the performers that linear-tracking turntables such as the Technics SL-10 [HFN Apr '19] and B&O Beogram 4000 [HFN Jun '14] can provide, the performance was still involving. And it was a pleasure to hear Side 1 with no degradation in tracking performance towards the centre of the disc, which is a virtue of the linear-tracking system.

In the final analysis, the PS-FL7 isn't really a match for the Technics SL-10, but possibly it was never really meant to be. However, seen as the simplest and safest way to listen through a side of an LP the design works with slick efficiency.

## VERDICT

The PS-FL7 may be one of Sony's less well remembered endeavours, but this drawer-loading, linear-tracking turntable surely deserves another look. With an attractive combination of advanced technology and high-quality engineering, it's certainly a different take on turntable design. ☺

## HI-FI NEWS SPECIFICATIONS

Turntable speed error at 33.33rpm	33.33rpm (−0.02%)
Time to audible stabilisation	2sec
Wow/Flutter (peak wtd)	0.25% / 0.07%
Rumble (silent groove, DIN B wtd)	−70.6dB
Rumble (through bearing, DIN B wtd)	−68.0dB
Hum & Noise (unwtd, rel. to 5cm/sec)	−62.8dB
Power Consumption	6W
Dimensions (WHD) / Weight	430x96x382mm / 7.5kg

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# B&O Beogram 1800

**W**ith the arrival of the 5000 system in 1968, the 1000 turntable in B&O's range seemed less than adequate. As a stopgap, the company offered the Beogram 3000, which was a Thorens TD124 with a B&O arm and cartridge. But a new turntable was sorely needed.

That deck was the Beogram 1800 and it boasted a number of improvements. It had a floating sub-chassis built onto a solid plinth while a new tonearm could exploit B&O's current high-compliance cartridges. Also, new onboard mechanisms brought automatic starting for any size of disc and automatic stop at the end of play.

The plinth was made from stout wooden sections for maximum rigidity and these supported a

*'The soundstage opened up, with brass sounding vibrant and natural'*

heavy alloy die-casting that formed the top plate of the turntable. This was polished and lacquered.

The new arm was built around a straight aluminium tube and employed dynamic balancing to set the tracking force. An ingenious system of ball-bearings running on an inclined track smoothed the arm's radial movement while at the same time providing anti-skating compensation. The optional SP12 cartridge was a moving-iron type, tracking at 2g and with a tiny metal cross at the end of the cantilever

suspended within four longitudinal coils inside the tiny capsule.

Meanwhile, the Beogram 1800's heavy platter, designed to minimise resonances, ran on a hardened needle point and was stabilised radially. Drive was via a round-section belt, with the whole assembly hung from a platform using springs to prevent vibrations.

To allow the speed to be fine tuned, a centrifugal governor was fitted to the motor shaft. This used bob weights on springs to bring a brake disc into contact with a pair of felt pads once the correct speed had been reached. The position of these pads was set by a knob accessible on the top of the deck.

Given that not all amps in the late '60s could accommodate a magnetic cartridge, a slot was fitted underneath where a B&O G4 equalising preamp could be installed.

Speed and record size must be set manually via two small levers on the front of the plinth. The output from the cartridge is then muted until the automatic cycle is finished so that no mechanical noise makes it through to the loudspeakers. At the end of the side playing, the arm cues itself up and stays there, and a button performs a lift/resume function during play.



## STRIKING IT RICH

Our Beogram 1800 was fitted with an SP12 pick-up, its elliptical stylus contributing to the deck's subjectively good tracking ability. True, Chris Rea's 'Happy On The

**ABOVE:** The B&O Beogram 1800 came with a choice of teak, rosewood or white plinths – it lacked the 78rpm option of the earlier 1000 but retained its motor and drive mechanism

Road' [*Road Songs For Lovers*; BMG] seemed to swim around slightly in pitch compared to what we heard with the track played on the rock-steady Technics SL-J33 [*HFN* Jun '20] but the 1800's big, rich and natural sound more than made up for this.

Heavy, deep and deliberate bass pointed towards well-resolved arm-to-cartridge matching, while the top-end was effortlessly smooth with no hint of the crackles and pops associated with LP listening. Indeed, surface noise in general was low, while the turntable's drive mechanism, despite it having many rotating parts, was quiet too.

Duke Ellington's 'In A Mellow Tone' [*Blues In Orbit*; Music On Vinyl] seemed tailor-made to show what a fine turntable the Beogram 1800 is. The piece builds against a perfectly quiet background and at first sounds a little dull, until the trumpet suddenly strikes up. All at once the soundstage opens with the brass sounding vibrant and natural, not 'squaky' and awkward.

The sense of space the SP12 cartridge can conjure up would be impressive for a new design of exotic construction, let alone a seemingly simple one from the '60s. We would have perhaps preferred a slightly tighter sense of focus in the centre of the soundstage, but we can't think of many decks from this era able to rival the '1800.

## VERDICT

In looking more like a traditional turntable, the Beogram 1800 is viewed by some as one of B&O's ugly ducklings. Yet not all of the company's decks can match this model's solidity and distinctive sound quality. For anyone in the market for a totally authentic '60s turntable this is a 'must hear'. ☺

## HI-FI NEWS SPECIFICATIONS

Turntable speed error at 33.33rpm	33.43rpm (+0.3%)
Time to audible stabilisation	6sec
Wow/Flutter (peak wtd)	0.05% / 0.03%
Rumble (silent groove, DIN B wtd)	-68.2dB
Rumble (through bearing, DIN B wtd)	-67.3dB
Hum & Noise (unwtd, rel. to 5cm/sec)	-55.0dB
Power Consumption	12W
Dimensions (WHD) / Weight	438x160x324mm / 7.8kg

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# JVC JA-S11

**W**ell-suited to first-time buyers, the JVC JA-S11 cost less than £100 when it was launched in 1977. Yet it looked, felt and sounded a lot more expensive, with its brushed alloy fascia and a decent sprinkling of shiny spun knobs.

Connections were provided for a record player with an MM cartridge, a tuner, two tape recorders – both with full monitoring and cross-dubbing facilities – and two pairs of loudspeakers. There was also an ‘aux’ input, which would later prove ideal for hooking up a CD player.

At the heart of the amplifier were two hybrid chip modules that contained the output transistors and their supporting components, all precisely assembled and trimmed for a long and trouble-free life.

*‘The slightly stark sound heard here lent the song an oddly “live” quality’*

As these modules were fed from split supplies it was possible to couple the loudspeakers directly to their outputs with no capacitors or transformers in the way. This ensured minimum losses and the greatest possible accuracy in this critical part of the signal path.

For line-level sources the music’s route through the amplifier was short and direct. There was no active preamp stage, the tone controls working in the negative feedback loop of the output stage.

For the phono stage a specialised IC from Hitachi was employed. The RIAA curve was implemented using filters where paralleled components were used to get the characteristics exactly right, with care taken to ensure a true 47kohm loading.

Meanwhile, the speaker outputs were protected by fast-acting fuses and an electronic protection relay. And while the number of available sources has multiplied since the amp appeared, there’s still a place to plug everything in. For example, the fascia-mounted ‘Tape-2’ sockets make it easy to connect a portable player without having to fumble around at the back of the unit.

Modern sources such as CD players can’t overload the inputs of the JA-S11, but a machine with a full 2V output does give the volume control an abrupt action at its lower settings. The way to solve this issue is to add an attenuator. As for the loudness function, it should be unnecessary if your loudspeakers are up to scratch, and anyway it can be turned off. Finally, the tone controls cannot be bypassed, although their effect seems unobtrusive enough.



**CLARITY AND DRAMA**  
Many JVC amplifiers of this era are characterised by a vivid, larger-than-life presentation, and the JA-S11 sounds like another from that mould. Rather like a photograph that has been processed in a way that increases contrast, it generates clarity and drama to a degree that

**ABOVE:** There’s no shortage of facilities here with outputs for two pairs of speakers – switchable via the lever on the far left of the fascia – tone and loudness controls, and a headphone socket

is greater than that present in the original recording.

Playing ‘Sowing The Seeds Of Love’ by Tears For Fears [Fontana], as the mix becomes ever more complex following its Beatlesque opening, the JVC JA-S11 keeps up, throwing exuberant cymbal crashes into the far corners of the soundstage as if for fun.

Gentler material, such as Katie Melua’s ‘If The Lights Go Out’ [Pictures; Dramatico] did not show the JA-S11 up either. For some listeners, a richer more luxurious-sounding amplifier may provide a more satisfying rendition of music like this, but the slightly stark sound here lent the song an oddly ‘live’ quality, which we really appreciated. Part of this effect came from the vocals, which were lifted clear from the rest of the recording, even if they did sound a little hard-edged at times.

And we found the phono stage to be a good match for modern cartridges, such as those offered by Ortofon in its 2M range. The image projected was perhaps more limited in width and depth when compared to the big soundstage generated using a CD player via the aux input, but the sound remained explicit and well-lit. As the basis for a small system with vinyl as the primary source, the JA-S11 is still a convincing proposition.

## VERDICT

As was the case when it was first launched, this remains the perfect beginner’s amplifier. Fully featured, tough and decent sounding, the JVC JA-S11 looks, handles and plays like something far more expensive. In short, it’s as easy and hassle-free as vintage hi-fi ever gets. ☺

## HI-FI NEWS SPECIFICATIONS

<b>Power output</b> (<1% THD, 8/4ohm)	40W / 63W
<b>Dynamic power</b> (<1% THD, 8/4/2/1ohm)	51W / 80W / 95W / 82W
<b>Output imp.</b> (20Hz–20kHz/100kHz)	0.190–0.195ohm / 0.363ohm
<b>Freq. resp.</b> (20Hz–20kHz/100kHz, 0dBW)	–1.55dB to –0.35dB/–5.8dB
<b>Input sensitivity</b> (for 0dBW/30W)	22mV / 126mV
<b>A-wtd S/N ratio</b> (re. 0dBW/30W)	74.0dB / 88.8dB
<b>Distortion</b> (20Hz–20kHz, 10W/8ohm)	0.009–0.024%
<b>Power consumption</b> (Idle/rated output)	16W / 117W
<b>Dimensions</b> (WHD) / <b>Weight</b>	390x152x330mm / 7kg





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# Leak Stereo 30 Plus

The Stereo 30 was Leak's first amp to use transistors [HFN Oct '10]. Made from germanium, these devices were known to be both noisy and prone to thermal runaway, yet the amp was well regarded and sold successfully until the appearance of silicon transistors signalled a step change in performance.

Quieter and more stable, silicon made it possible to build high-gain, high-power circuits with relative ease. The Stereo 30 Plus was essentially the original concept built around a complete lineup of silicon devices – the same, only better.

The revised amplifier featured a hand-wired aluminium chassis onto which four edge-connector slots were mounted, the metalwork also

Finally, improvements were made to the turntable input, with proper matching for standard MM cartridge types, while the addition of a headphone socket reflected that models suitable for stereo listening had now become widely available.

To use the Stereo 30 Plus optimally it is vital to understand how each input operates. The complete preamp circuit comes before the volume control so high-level sources, such as a CD player, will overload it if the wrong input is chosen. The RIAA stages are always in the signal path, but their response and gain are flattened by the switching-in of different feedback circuits when the tuner and tape inputs are chosen.

For LP listening the most useful input is 'Pickup 1' because this is RIAA equalised and applies the correct loading of 47kohm. The 2mV sensitivity of this input is also ideal. Of the

tuner inputs 'Tuner 2' offers two sensitivities, the lower one (250mV) being just suitable for a CD player. 'Tuner 1' was primarily intended for Leak's own Troughline series, and its 25mV sensitivity is too high for most conventional equipment.

'Tape Replay', when selected with the main switch, gives a sensitivity of 400mV. However, there is also a 'Tape Monitor' switch that routes the same socket straight through to the volume control, bypassing the preamp circuitry entirely. The amp then essentially

becomes a passive preamp driving a fixed-gain power amp, as is the modern practice in this area.

Compared to the possible confusion over inputs, the output side of the amplifier could not be simpler. Here there's one set of loudspeaker sockets together with a headphone socket.

## RICH PICKINGS

Listening to varied orchestral excerpts from a Philips test CD [Test Sample 5] revealed the Leak Stereo 30 Plus to be slightly warm-sounding, yet capable of good extension in both the bass and treble regions. The low notes were rich and plummy and the highs had greater sparkle than one might expect from such a vintage design.

With Tchaikovsky's 'Waltz of the Flowers' one might say that the amplifier's low-end is perhaps a tad ponderous, but the pleasingly brisk treble kept things moving along, making for a lively and engaging performance overall.

Rock music failed to highlight any serious shortcomings either. REM's delightful but raucous 'Bad Day' [In Time; Warner Bros] retained much of its bite and edge through the slightly soft-focus lens of the Stereo 30 Plus. Playing *Lionheart* by Kate Bush [EMI] revealed sweet if slightly recessed vocals, though the dreamy atmosphere of the recording was rendered beautifully.

## VERDICT

The Leak Stereo 30 Plus is an ideal introduction to vintage hi-fi being easy to find, cheap to buy and simple to repair. A well preserved example will return an enjoyable listening experience too, with little potential for expensive failure. ☺

**ABOVE:** Neat styling and clearly labelled controls make the Stereo 30 Plus an ideal first buy, both when the amp was new and for vintage fans today

*'The dreamy atmosphere of Kate Bush's *Lionheart* was rendered beautifully'*

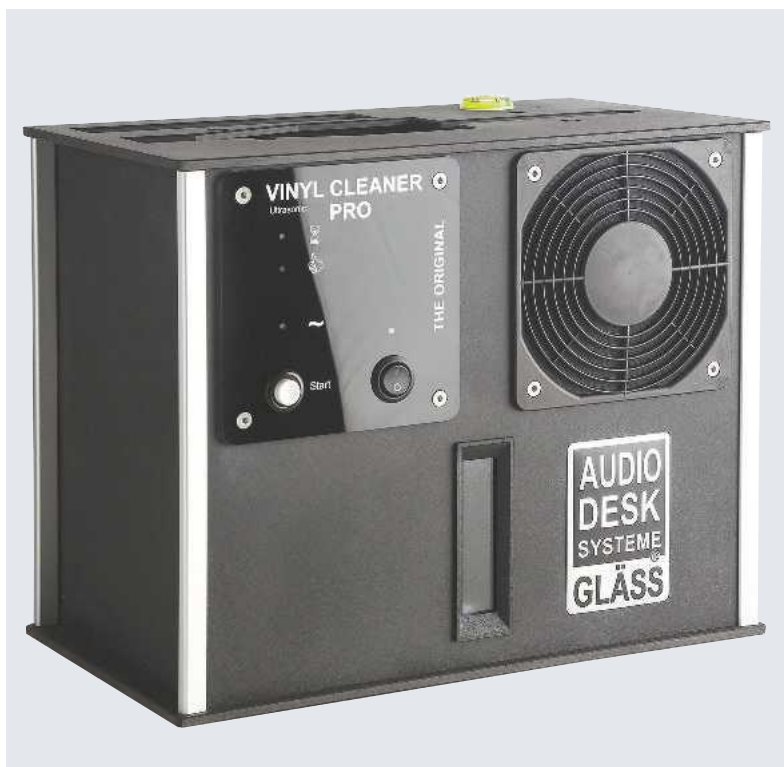
forming the heatsink for the output transistors. These slots were home to four small PCBs, one preamp module and one power amplifier module per channel.

New controls better matched a typical user's needs. The former complicated filter dial and variable slope selector were replaced with a simple top-cut switch, while the largely pointless tape-head input was replaced by one for a tape machine having built-in amplifiers. Also, the mic input was repurposed to accept a second tuner.

## HI-FI NEWS SPECIFICATIONS

Power output (<1% THD, 8/4ohm)	20W / 23W
Dynamic power (<2% THD, 8/4/2/1ohm)	27W / 37W / 43W / 31W
Output imp. (20Hz–20kHz/100kHz)	0.28–0.64ohm / 4.2ohm
Freq. resp. (20Hz–20kHz/100kHz, 0dBW)	–4.3dB to –1.9dB / –23.8dB
Input sensitivity (for 0dBW/15W)	93mV / 375mV (Low Gain in)
A-wtd S/N ratio (re. 0dBW/15W)	87.7dB / 99.5dB
Distortion (20Hz–20kHz, 10W/8ohm)	0.048–0.14%
Power consumption (idle/rated output)	19W / 65W
Dimensions (WHD) / Weight	343x122x228mm / 6.1kg

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Paul Rigby – The Audiophile Man, October 2019





# B&O Beomaster 2400-2

**R**leased in 1977, B&O's Beomaster 2400 receiver brought touch-sensitive operation and full remote control to a world that expected nothing more than knobs and buttons. Soon the company's factory was unable to make receivers fast enough to satisfy demand.

What set the 2400 apart was the absence of any visible mechanical controls. Designer Jakob Jensen had divided the functions into 'primary' and 'secondary' groups, the former accessible on the main panel with the latter hidden under a hinged lid on the top of the receiver.

The primary controls comprised touch pads for source selection, volume control and power off, the set being switched on from standby when a source was selected. To

*'Especially impressive was the sense of space around the instruments'*

make this easy, five of the sources were pre-tuned radio programmes on the FM band, the remaining two being assigned to a record player and a cassette recorder.

The secondary controls included treble, bass and balance, loudness compensation, plus AFC and stereo/mono selection for the unit's tuner section. The tuning controls were also hidden beneath the lid, with four small dials for positions 1-4 and a larger one for 'free tuning' between infrequently used stations. As for B&O's remote control unit,

this used ultrasonic signals to send commands for volume, radio presets, turntable and standby.

A 1978 update, the 2400-2 seen here, increased the volume steps from 16 to 32. You could also start and stop a B&O turntable via remote or by touching the panel. Encountering this slim receiver today is still a delightful experience. The touch sensors work with a slickness and precision that would make even an iPad user green with envy, while ergonomically it is difficult to fault overall.

The optical bar-graph displays for treble, bass and balance are fascinating to use and it's hard to believe that they simply comprise a printed pattern on clear plastic.

The power amp section of the Beomaster 2400-2 is DC-coupled and rated at 2x30W/8ohm, so the receiver should be more than powerful enough for most listening needs. The phono stage is optimised for B&O's own cartridges, but these are

sufficiently similar to standard MM types for there not to be a problem with a non-B&O turntable.

One of the company's design aims was to ensure users heard music after just one touch of the panel, and this is elegantly achieved by the tuner section, following a gentle 'click' from an internal relay.



**RADIO TIMES**

With bass and treble extremes not especially explicit, the sound is tighter but perhaps less beguiling than serial B&O owners have come

**ABOVE: Primary functions on the 2400 – radio tuning, volume and tone controls – were shown by neat red or green lights and texts. Connections are via B&O's preferred DIN sockets for which adapters are easily found**

to expect – every now and again B&O deliberately voiced one of its designs in just this manner. Hence the Beomaster 2400-2 lacks some of the indulgent appeal of, say, the Beomaster 4400 [HFN Jun '12] and Beolab 5000 [HFN Dec '13].

In its favour, the soundstage it delivers is deep and three-dimensional, there being no obvious gaps or pools of music concentrated only around the loudspeakers. It will play loudly, but without a pounding bassline it can sometimes feel as if this receiver is simply making a lot of noise for no real purpose.

However, when it comes to classical and orchestral pieces the 2400-2 comes into its own. Playing a CD of Grieg's 'Morning Mood' [DG] via the tape input revealed a natural and fluid texture that was easy to become lost in. What was especially impressive was the sense of space around various instruments and the level of detail the amp was capable of resolving. Rossini's *La Gazza Ladra* overture [DG] also retained much of its excitement and drama.

As for the Beomaster 2400-2's FM tuner section, we found this to be excellent. Good sensitivity made noise-free BBC Radio 3 easy to receive and a live evening concert by the BBC SO was subjectively no less enjoyable than listening to the same selections played directly from a connected turntable or CD player. And once set, the tuning stayed spot on for the whole evening.

## VERDICT

A design classic, even if in some areas it falls short of the 'best in class' level that one would expect from B&O. A great collector's piece, but keen listeners should also hear the Beomaster 2200 model. ☺

## HI-FI NEWS SPECIFICATIONS

<b>Power output</b> (<1% THD, 8/4ohm)	32W / 56W
<b>Dynamic power</b> (<1% THD, 8/4/2/1ohm)	42W / 72W / 36W / 17W
<b>Output imp.</b> (20Hz–20kHz/100kHz)	0.105–0.120ohm / 0.375ohm
<b>Freq. resp.</b> (20Hz–20kHz/100kHz, 0dBW)	–0.7dB to –0.28dB/–4.2dB
<b>Input sensitivity</b> (for 0dBW/30W)	42mV / 245mV
<b>A-wtd S/N ratio</b> (re. 0dBW/30W)	84.7dB / 99.3dB
<b>Distortion</b> (20Hz–20kHz, 10W/8ohm)	0.065–0.185%
<b>Power consumption</b> (idle/rated output)	21W / 121W
<b>Dimensions</b> (WHD) / <b>Weight</b>	620x60x250mm / 7.6kg



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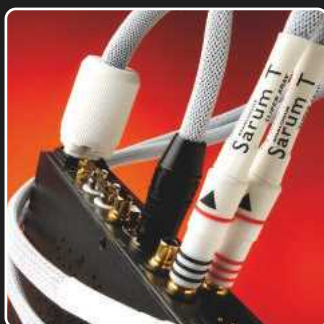
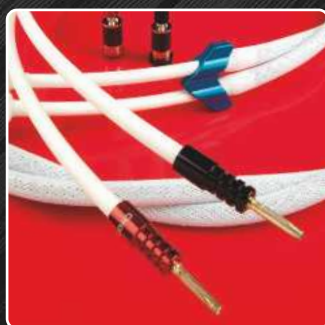
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## Paul Miller Group Editor

Technical writer on all things audio for over 35 years, award-winning test engineer and current President of EISA, Paul Miller took over the editor's chair in 2006

# Keeping it real

At a time when listening to music, and optimising the potential of our hi-fi systems, is playing a vital role in sustaining our sanity, **Paul Miller** offers a very personal account of life at the coalface

Up until the beginning of 2020, 'virtual reality' meant donning a headset and sliding into an F1 racing car, experiencing a free fall parachute jump, stepping out onto the surface of another planet or, indeed, into the realm of a parallel universe. The best part of a year on and I think we can all agree that VR is no longer required for us to experience an alternate reality. We are now living it...

For many of us this has meant a period of adaptation – the increase in remote working being a key change. This, in turn, has meant more time at home, enforced or otherwise, and for many audiophiles more time for us to immerse ourselves in our shared passion – hi-fi and music. I reached out to you all at the beginning of this period and you've responded with great tales of your own personal 'hi-fi journeys', filling our 'Sound Off' (letters) pages for several months. We love hearing from you, so keep 'em coming.

### DISTANCE NO OBJECT

However, while we can all enjoy our own systems, the restrictions inherent in social distancing, etc, have also slammed the door on any opportunity to meet together and experience the awe-inspiring high-end gear featured in these pages. For now, hi-fi shows are on the back-burner, as are large scale international meetings of any stripe.

Very early this year, for example, I was forced to cancel the EISA Convention, scheduled for Antwerp in April, the EISA Awards Meeting (Poland, June) and the Gala (Berlin, September). Instead, I instigated a series of Skype and Zoom conferences that brought together all the EISA member magazines from 30 different countries. And it worked!

'The UK Hi-Fi Show *Live* will return to Ascot next year!'

Over several months we collaborated on the reviewing, judging and even the distribution of hundreds of different CE products across the world – from hi-fi to mobile devices, camera bodies and lenses, large-screen TVs and home theatre hardware. In many respects this year's EISA Awards were the most comprehensively informed of any in the Association's near-40 year history [see *HFN* Oct '20; [www.hifinews.com/category/eisa-awards](http://www.hifinews.com/category/eisa-awards); and <https://eisa.eu/awards>].

Unfortunately – predictably – it was impossible to transpose the inherently tangible experience of our UK Hi-Fi Show *Live* into the virtual domain. After all, what is *Hi-Fi News* magazine and website if not already a 'virtual' portal into our dreams of owning the ultimate equipment? But whatever the world throws at us, it remains our mission to bring you as close to the equipment as possible every month even if, for the time being, that experience must remain vicarious.

### HEAVYWEIGHT HI-FI

In practice our quest to keep reviewing the world's finest hi-fi – with our in-house photography, world-leading lab tests and 'real' listening sessions – has brought its own challenges, particularly with only one of us in the same room on any given day. Often, it's the simple things that have required the most thought – how do you move and unpack a 100kg+ crate for lab testing, for photography (now another solo job) and then set-up for auditioning?

We are none of us getting any younger (!) and the helpful Honey Monsters once drafted to assist in moving the likes of the Avantgarde Duo Primo XD loudspeakers [p94] or, heaven forbid, the quarter-ton D'Agostino monoblocks [p73] are no longer a viable option. We've overcome all these obstacles, even to the point of setting-up



**ABOVE:** The D'Agostino Relentless arrives by pallet truck – one more step on the journey taken by every product featured in *Hi-Fi News*

the bulkiest amps and speakers on site before sanitising the listening room, leaving the kit to run for several days in isolation before one of our reviewers arrives for a day's listening.

Where there's a will, there's a way... and we've produced some huge issues this year – the October book clocked up 164-pages while this massive 188-page Yearbook is the largest we've published in over 40 years!

### SET YOUR CLOCKS...

So while *Hi-Fi News* will always maintain the quality of 'real' reviewing that you demand and deserve, be in no doubt that we *will* all meet again and share the sights and sounds of hi-fi's royalty together. So grab the diary and leaf ahead one year, for the UK Hi-Fi Show *Live* 2021 is scheduled to return to Ascot on 11-12<sup>th</sup> September with a fall-back date of 6-7<sup>th</sup> November.

I cannot wait to welcome you all back to the UK's most prestigious hi-fi show venue and share the stunning sounds offered by all that you see, and more, in this special 188-page Yearbook. It will be a celebration to remember! ☺



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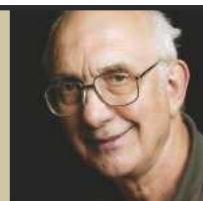
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## Barry Fox Technology journalist

Barry Fox trained in electronics with the RAF and worked as a patent agent, but he gave that up to enter journalism. He is one of the world's top technology writers

# Thinking small

Could the need for social distancing reward the serious listener with a return to smaller hi-fi shows, wonders **Barry Fox**, after he looks back over a year in which online innovation came to the fore

The world is as it is, not how we might like it to be. This year Covid ended conventional press launches and mega shows like IFA and CES, shut theatre and music venues, and locked us away. But there have been significant upsides. Enforced isolation has given us time to catch up – on music listening, fixing troublesome home entertainment systems, and sorting through boxes of old recordings.

One of the first things I did was buy a Dymo labelling device, stock up on blank label tape and use it to identify both ends of every audio, video and power cable in the house. So no more crawling behind cupboards and tugging at cables to try and identify them.

## FREE ENTERPRISE

During lockdown numerous music venues and musicians have been streaming old and new material, for free or voluntary donation. Pianist Joe Stilgoe turned his shed into a performance studio and entertained us royally (see [www.youtube.com/user/joestilgoe](http://www.youtube.com/user/joestilgoe)).

Meanwhile, the Royal College of Music has put a large collection of archived concerts online, free to watch. You'll be astonished at the variety and calibre of performance, often with big name guest conductors including Bernard Haitink, John Wilson and Sir Roger Norrington. Just search YouTube for the Summer 2020 online concert



**ABOVE:** Pianist Joe Stilgoe broadcast from his garden shed for free during lockdown

series. And not to be outdone, Ronnie Scott's jazz club, Glyndebourne and the Met in New York have all posted wonderful music performances online for free.

Writing earlier in the year about my trawl through old live cassette recordings [HFN Sep '20] I noted the lack of any software to decode Dolby B recordings, and Dolby Labs' apparent lack of interest. I'm happy to report that several engineers are now working on open source solutions which hopefully can be used with the free Audacity editing software.

## NEW WAVE

Audio press launches have long followed a basic routine. The launch venue has been a posh hotel in London's West End, a factory in the sticks or an exotic far-off location. After an introductory spiel by a senior exec, the real meat came with a technical talk by a design engineer and an open Q&A session at which anyone with a genuine interest in the tech learns from everyone else's questions, and how they get answered. Then demo music was played, often in a separate room with good acoustics. Everyone went home with a good idea of how the new products sounded and worked.

Covid put a stop to all this and audio companies have been experimenting with online 'webinar' alternatives. I have 'been to' quite a few of these events, and they vary widely, often blighted by technical problems. Satellite giant SES Astra had to give up its first conference and reschedule. Linn vowed never again to trust Zoom. B&W staged an excellent event that ran like clockwork. But because of a computer glitch at my end I lost the stream to a Philips launch of TVs with B&W audio.

Technics staged a good event stressing 'improved sound quality' but is still working out how to demonstrate it without sending out more loan stock than its factories can



**ABOVE:** Glyndebourne Open House brought free opera streams to YouTube every Sunday

produce. The technical problems with conferencing will shake down and be sorted. But that leaves the need for a solution to the demo problem – without

dumping the burden on specialist dealers who need to sell to hi-fi enthusiasts and not deal with opinionated hacks from the press.

My prediction is that this need will be met by a new wave of small hi-fi shows.

Serious punters will pay for time-slotted, socially-distanced listening sessions. So the rooms won't be crowded, which is a good thing for serious listening. Casual show-goers who see big events as a family day out to eat hot dogs and collect brochures will be put off and the electronics giants will only take part if they are serious about audio. Who knows, we could end up thanking Covid for a return to sound sanity. ☺

'Dealers need to sell hi-fi, not deal with hacks from the press'

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## Barry Willis

Journalist for top American audio-video publications

While his main interest is high-end audio, Barry Willis also writes about the culinary industry, visual art and theatre for a huge variety of US newspapers and magazines

# Losing my religion

Mulling over the upheavals we've experienced this year, **Barry Willis** finds himself questioning some of the tenets we audiophiles hold dear. Then came his encounter with a recalcitrant TV...

It's late-August as I write and I can't overstate the strangeness of 2020: the pandemic, the disappearance of mass events, a US stock market surging despite widespread unemployment and wildfires raging throughout California, earlier than usual, thanks to a rare spate of storms that unleashed lightning on millions of acres of dry vegetation. There's ash in the air, delicate as snow flurries, and the April edition of *HFN* has arrived at my local bookshop late, as if it had made its way through global disruption by sailing ship then horse-drawn wagon from the UK.

### OFF THE WALL

I've enjoyed the extended holiday, which is the first ever for me and I suspect for millions of others. All of this – bad and good, but mostly bad – has taken place against a backdrop of absolutely baffling irrationality. At one end of the political spectrum we have those who argue that global warming is a hoax while at the spectrum's other end are those who assert that vaccines may be proof of a government-backed mind-control programme to turn us into obedient zombies. Somewhere out there, lunatics of all varieties meet and join hands to laugh at those like me who think that logic and rationality make for far better lenses through which to view the world.

Which brings me to hi-fi – in particular, the niche we occupy, long riddled with its own array of assumptions, expectations, projections, and articles of faith. During the shutdown I had the time and opportunity to see how much objectivity I have remaining. For example, there's a widespread belief that for optimum performance, loudspeakers should be pulled into the room one-third of the way from the back wall. I have no

'Hi-fi is riddled with its own assumptions and expectations'

idea where this dictum originated, but it persists. One can tune the bass response of rear-ported speakers by moving them in and out – we all know that trick – but placement should make little difference if the ports are on the front baffles.

And that's how it worked for me – my preference with three different pairs of speakers was with them positioned just under a metre from the rear wall, but bear in mind that I'm not a fan of near-field listening. At the concert hall my favourite seat is front-row centre in the mezzanine. Someone else may prefer bringing

speakers far into the room, with severe toe-in, and sitting almost between them. I know someone who does this, and it's no problem for me. I avoid religious conflicts.

Regarding cables: yes, better ones make a difference, but not always the earth-shaking difference that some manufacturers would like us to believe.

And cheap generic stuff can be musically satisfying. As for single-wire connections vs. bi-wiring – the bi-wire might be more revealing, but to my mind not to the point of a significant difference. Casual listeners could probably never differentiate the two, nor would they care. We might take a lesson.

### REMOTE LEARNING

The past 12 months may have marked my initial transition from curmudgeon to codger. In early August I spent some days helping my friend Lynn prepare her San Francisco apartment building for sale. While we did this we stayed in a vacant unit, whose previous tenant had abandoned a new 55in 4K TV.

Lynn didn't know how to operate it, and after 15 minutes of fumbling with the remote, I had to admit that I didn't either. And I'm a supposed expert. It made me exceedingly nostalgic for the good old days when all you had to do was press the 'on' button. Those days, it seems, are now sadly far behind us. ☹



**ABOVE:** A pair of Marten Coltrane Black Pearl loudspeakers dominate this luxurious listening room, being positioned around a metre from the rear wall. The speakers have down-firing ports



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## Adam Smith Hi-fi reviewer

Electronics engineer, music lover and former loudspeaker designer, Adam Smith is known to dabble with all audio formats, but is a committed vinyl fan at heart

# Talking shop

It was the year vinyl went virtual, says **Adam Smith**, as he picks over figures for record sales across the Pond and celebrates the turntables, phono stages and pick-ups that caught his ear

Even though bricks and mortar record shops drew down their shutters for a long period earlier this year, vinyl sales increased – at least in the US. I suppose there is an irony here, as it appears that people switched to the Internet in order to buy traditional physical formats.

The up-tick in sales was aided by a large number of re-releases, limited editions and box sets, despite the fact that the launch of some new albums was delayed. The result was that the RIAA has reported that for the first half of 2020, revenues from vinyl album sales in the US was up 4% on that recorded in 2019.

## FALLING DOWN

Meanwhile, a reported drop in the sales of CDs compared with the same period last year probably does not come as a huge shock. However, the decline in revenues of 22% for digital download sales certainly is something of a surprise. I suspect this is due to the increasing popularity of streaming services [see p149], but could it mean that the download format will have a shorter lifespan than once predicted?

**RIGHT: Yamaha's GT-5000 turntable heads up the company's four-strong flagship 5000 series. It's a belt-drive design with a straight, offset-free arm**



Even Record Store Day, which was expanded to three separate events this year due to the pandemic [HFN Nov '20], went virtual. I'm sure I wasn't alone in being pleased by this. Much as I love vinyl and am a sucker for a limited edition release, even I draw the line at queuing outside a store from the early hours only to discover that a record dealer ten feet further up the queue has already snapped up all copies of the very disc I wanted. This year I pre-ordered online, and my purchase arrived safely just a few days later.

On the equipment front, over the past 12 months I've had the pleasure of spending time with numerous turntables

and phono-related items, and all have been superb. From Primare's feature-packed R35 phono stage [see p43] to Sumiko's hugely impressive Starling MC cartridge [p37], I've had a whale of a time in my listening room in 2020!

I even had cause to acquaint myself all over again with an old friend in the form of the Avid Volvere SP turntable [p32]. I encountered an earlier version of this deck over ten years ago and was blown away by it. It has remained in my memory as a favourite ever since and the latest iteration was a delight. Obviously I'm not going to miss one last opportunity

to moan about the difficulty of fitting the deck's twin belts, but the struggle is more than worth it!

Of course, if you wanted to spend less time assembling your turntable, then Vertere had you in mind with the release of its 'plug-and-play' DG-1 Dynamic Groove [HFN May '20] deck, complete with 'flat' arm inspired, in part, by NAD's classic 5120 LP spinner from late 1983.

## TOP TABLE

However, my highlight of the year was the Yamaha GT-5000 turntable [HFN Oct '20]. I'm a fan of high-end Japanese turntables in general, and have owned

a Yamaha GT-2000 for years, so am well aware of the dedicated following this particular deck from 1983 enjoys.

As a consequence, I felt it important that Yamaha got its new creation right, not only to ensure that it

appealed to a new audience of vinyl lovers, but didn't upset turntable geeks such as myself. And it succeeded. Yes, the GT-5000 may be belt-drive unlike the direct-drive GT-2000, and it may come equipped with a straight underhung tonearm echoing those found on DJ decks, but it works. And works magnificently. This turntable was definitely my vinyl highlight of the year. 🎧

'Downloads might have a shorter lifespan than predicted'



**ABOVE: Record Store Day saw a revamp this year, as HFN explained in its Nov '20 issue**





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## Andrew Everard Reviewer/writer

Andrew Everard has reviewed consumer electronics for over 30 years and is still effortlessly enthusiastic about new developments, discovering new kit – and music

# Something special

Ignoring the elephant in the listening room, the past 12 months have seen many hi-fi highlights, along with some lows, says **Andrew Everard**, as he recalls those products that left their mark

Even before we entered what's now turning out to be the new abnormal, the past 12 months of this hi-fi reviewer didn't get off to a great start. In November 2019 we learnt of the loss of Ken Ishiwata, only a few months after he parted company with Marantz after more than 40 years.

Little more than a year previously, I'd been in Amsterdam for the celebrations of that milestone, and the launch of the KI Ruby products to mark it. Ken had been in fine fettle, wearing a gold jacket for the presentation and joking he'd got it in preparation for his 50th anniversary.

In the time after the parting, I'd heard he'd been working on something special with his good friend Karl-Heinz Fink, and did some presentations of FinkTeam speakers at various shows. Just recently we discovered what that was, in one of the rare truly surprising announcements in a hi-fi market prone to leaks.

### LEGACY UNVEILED

The Rotel Tribute amplifier and CD player saw Fink finishing the work he and Ishiwata had started, with the blessing of Ken's son and daughter. While it was good to see the legacy marked in a fitting manner, I can't help feeling it would be even more so were the tribute to have been the result of the efforts of the team Ken led at Marantz. Oh well...

But then this has been something of a year for special editions, from the Bowers & Wilkins 702 Signature [see p95], and more recent 600 Anniversary speakers, through to the Marantz 12 Series Special Edition models [HFN Nov '20] and Denon 110 Anniversary range. Those I have heard to date have been impressive, though in the case of all those just mentioned the original models were already pretty impressive in themselves.

**RIGHT: iFi Audio's ZEN DAC [see p60] pictured beneath the company's ZEN CAN headphone amp [HFN Nov '20]. The two products are part of a four-strong range that also includes a wireless streamer and phono stage**



A very welcome return last year was that of the Michi brand – described to me by editor PM as 'Rotel's Lexus'. This after all was a 'ground up' project, and showed distinct promise when I heard it playing at a B&W 'open house' back in the summer of 2019, and more than lived up to that when we finally got it into the listening rooms earlier this year, in pre/power [p87] and preamp/monoblock versions [HFN Oct '20].

I liked the original Michi series back in the dim and distant and while the new versions aren't anything like as minimalist, they're very impressive. I'm looking forward to hearing whether the integrated amps can repeat the success of the pre/power models.

Far from minimalist is NAD's EISA Award-winning

Masters M33 [p83], which builds on the success of the company's remarkable little M10 [HFN Jun '19] all-in-one system we reviewed last year by upping the size and amplifier power. Regular readers will know I am a convert to the ease and sound quality of streamed music, all the way up to multiple DSD formats (not to mention a Roon devotee), and this NAD network amplifier seems to me to be very much the way forward for hi-fi systems combining user-friendliness and performance.

At the opposite end of the spectrum, it was impossible not to be impressed by the mighty D'Agostino Relentless monoblock power amplifiers [p73] – though I'm glad we had plenty of assistance shifting them around – while the speed and impact of the Kii Three/BXT active loudspeaker combination [p101] was entirely jaw-dropping.

Then again, there have been products defying expectations, or even logic. The Melco S100 [p116] – part of a slew of new audiophile network switches – showed that such devices can make a difference to the sound of a system.

### ART OF THE STEAL

And if you want to know what have been the audiophile bargains of the year, look no further than the little ZEN products from UK-based company iFi Audio. The EISA Award-winning ZEN DAC [see p60] in particular is nothing short of a steal, and I have recommended it to several friends asking the old 'how do I connect a computer to my hi-fi?' question.

And best of all, as I am writing this, I am also wading through an inbox full of press releases about new products, some launched 'virtually' on a number of video platforms over the past few weeks (with varying degrees of success). Looks like the 'new world' is going to be a pretty entertaining place after all. ☺

'Want to know what have been the bargains of the year?'



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## Christopher Breunig Music Journalist

Christopher Breunig trained as an architect but became won over by music and collecting classical recordings. He was *Hi-Fi News*' Music Editor from 1986-2000

# My Blue Heaven

The Beethoven 250th anniversary brought some distraction for music lovers, under present circumstances. **Christopher Breunig** views a vast collection that's impossible to fully explore

**M**ost of my listening each month involves sieving new releases for *HFN*'s music pages, with not much time left for picking something off the shelf for pure enjoyment (I guess it's much the same for reviewers KK, MB and SH).

And for those with a big collection, the grim fact is that many of us won't live long enough to rehear everything a further time – I am re-quoting the late Alastair Robertson-Aikman of SME here [Off The Leash, *HFN* Aug '20].

It was 50 years ago that Deutsche Grammophon sent me its complete Beethoven Edition LP sets for review, and most of those boxes I confess haven't been touched for a couple of decades at least. The Karajan 1960s Symphony cycle would be one exception, although Speakers Corner issued 180g pressings for that – and the CDs hold up pretty well for sound too, for these much remastered recordings.

### BONN ANNIVERSAIRE

I mention Beethoven because 2020 marked another 'anniversary', of course, which was 250 years since the composer's birth in Bonn. And inevitably the record companies have been celebrating. I don't have to feel guilty about not hearing a large proportion of the new releases as, in most cases, I don't have to ask for review copies.

Several labels have now decided to send out download links each month – so no postage costs for supplying physical media – although when trialed a few years back most critics weren't having any of that new-fangled tech, thank you!

**LEFT: AudioQuest's £270 DragonFly Cobalt DAC/headphone amplifier**

**RIGHT: The latest version of Audirvana, 3.5.40 shown here on CB's MacBook Pro. Artwork for imported albums is on show, while software controls include digital volume, track access and fast forward, etc**



It's the best option for purchasers too, under present conditions, where CD availability schedules are not always able to be met. My Warner's CD set of Guido Cantelli reissues [*HFN* Nov '20] took almost three months to be supplied, while a friend had to revert to amazon.uk for the large Sir John Barbirolli set as his usual supplier couldn't cope with initial demand. It's the same with new jazz and rock availability.

This time last year I had just bought myself the AudioQuest DragonFly Cobalt DAC/headphone amp [*HFN* Oct '19], and now the most enjoyable way to listen to music (over headphones) is to sit back with my MacBook Pro, the DragonFly and my trusty Beyerdynamic T1s [*HFN* Aug '13]. Those 'phones are first-generation, and getting a bit worn, but I was delighted to find a company supplying sets of replacement earpads: [www.thomann.de](http://www.thomann.de). A pair was despatched and arrived within 48hrs of my placing an order. Recommended!

I have always felt the tonal balance of the first Beyerdynamic T1 headphone corresponded with what I heard with my Quad ESL57 loudspeakers, while with generations 2/3 the company says it has added bass 'for a more natural sound' [sic].

Back in the day, music lovers could only *read* about new recordings – until Radio 3's review programme – but now we get podcasts both with *Gramophone* and *Presto Classical*. The conscientious reviewer Harriet Smith, for whom I once worked when she edited the ill-fated *Record Review* magazine, impressed me there with her candour.

### PRETTY PLEASED

I'm not so sure about the Philharmonia Orchestra's new chief conductor, Santtu-Matias Rouvali, talking about their live debut recording (Tchaikovsky *Swan Lake* excerpts) taken from a Festival Hall concert [Signum]. He seems pretty pleased with the outcome, but I dug out the 1953 Philharmonia/Karajan selection [Warner Classics] for comparisons. There the drama jumps out at

'Most critics weren't having any of that stuff, thank you!'

you with all its potency and atmosphere – suavity too in the playing under the demanding conductor (then some years away from his Berlin appointment).

So while I may never listen again to, say, Beecham in opera, or Haydn, for that matter, having those comparative references is a lifeline. ☺



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## Tim Jarman Electronics Engineer

Tim Jarman has been repairing and collecting vintage hi-fi for over 20 years. He is an authority on both classic B&O equipment and the Sony Walkman series

# Only for the brave?

A challenge overcome can be a highlight too... **Tim Jarman** looks back at some of the classic kit we've featured over the past 12 months and reveals that not everything is always as it seems

Sometimes I wonder whether our regular Vintage Review features make the owning of classic hi-fi components look too simple. Month after month, gleaming examples of fondly remembered models are offered up to tempt you. They look good, sound good and often measure pretty well too. Why not get involved? Well, before you do, here are some cautionary tales from this year's crop, just so no one runs away with the idea that this is always a straightforward hobby.

### WASH 'N' BRUSH UP

The Trio (Kenwood) DP-850 CD player [HFN Jan '20] arrived as a tidy, boxed example. Switching on revealed a blank display while a sound like a machine-gun came from inside the chassis. This turned out to be the sled-motor trying to tear up the rack that moves the optical block along and the cause was a tiny diode.

The purpose of this diode was (ironically) to offer protection should something else fail, yet it had become the sole cause of the player's demise. This must have happened pretty early on since once the fault was fixed the laser proved to be almost unworn.

Meanwhile, the Philips FA860 amp [HFN Feb '20] had seen a harder life but

**RIGHT: One tough cookie – the Philips FA860 amplifier was actually built by Marantz, which equipped it with premium parts such as an ALPS four-gang volume attenuator**



still appeared to work when first tested. However, both Zobel networks across the loudspeaker outputs were completely incinerated (not just the resistors but the capacitors as well). This suggested that some very odd loads had been driven with the amp, and one can only speculate as to what it could have been used for. Marantz must have built this one tough though, for no other damage was found.

The Philips FA860 wasn't the toughest product we featured in last year's Vintage Reviews though. That award goes to the JVC JA-S11 amplifier [see p127]. Its previous owner abandoned it because although it still worked, a highly unpleasant odour emanating from within made it difficult to live with indoors. Various methods were tried in an attempt to banish the pong but in the end the whole thing went into a deep, warm bath. It did the trick. But water kills electronics doesn't it? Not the JA-S11. The muting relay had to be popped open to let the moisture out, but a day leaning the amp against a radiator dried up the rest. Needless to say, don't try this at home!

The B&O Beogram 1800 [see p125] turntable was my own and I remember buying it. I drove to a big house at the expensive end of town, but now things were looking run-down. The deck lived in what must have once been a magnificent indoor pool-house but decades of exposure to the damp and chlorinated atmosphere

had taken their toll. The once luxurious plinth looked like washed-up driftwood and every bearing inside had seized solid. Copious quantities of wood stain, Danish oil and penetrating fluid were required to renovate it, along with many hours of patient, delicate work on the complex motor and automatic mechanisms.

### AMATEUR DRAMATICS

My favourite, though, was the Philips CD960 player [HFN July '20], which was bought unseen for strong money (they aren't getting any cheaper are they?). On inspection, all the original DAC

components had been torn out and replaced by an amateurish arrangement built on a crude, freely-floating PCB. It appeared to have been executed using nothing more than a hammer and several lengths of table-lamp

'Water kills electronics doesn't it? Not the JVC JA-S11'

flex. An extra mains transformer had even been added, again with no regard for basic electrical safety. It was certainly therapeutic cutting all this lot out, but finding the correct replacement parts needed to return the machine to factory specification was less straightforward.

Is vintage hi-fi only for the brave? It doesn't have to be, but it pays to keep your eyes open when choosing components to buy. Either that or get creative. Between you and me, this can be as much fun as the listening... ☺



**ABOVE:** Rescued, restored and ready to go... Under the lid of the Philips CD960 CD player

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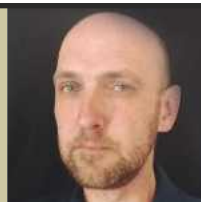


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## Mark Craven Contributing Editor

Mark Craven has been editor of *Hi-Fi News*' sister title *Home Cinema Choice* for nearly a decade and has a passion for music, film and everything in between

# Full stream ahead

Subscriptions, server-farms and the sheer variety of traditional hi-fi products has **Mark Craven** reflecting on audio's old battle grounds. Or is it just that the algorithms are getting smarter?

**A**t times over the last three decades, my music listening has become stuck in a rut. The same songs have enjoyed replay after replay, with many a CD bearing so many marks it now resembles a cat's scratching post. Not at the moment, though. A highlight of the last year has been a broadening of my tastes. The reason – as I expect might be the same for many of you – is that I've jumped fully onboard the subscription music train.

### TIDAL FORCES

It's not that I hadn't used such services in the past. I remember playing around with Last.fm in the 2000s, before getting a Rdio account in 2013 (the platform ceased in 2015). I then moved to Spotify, but switched to Tidal, taking advantage of its CD-quality streams and consigning 320kbps to the digital dustbin.

So what's changed for me this year in particular? I've let Tidal take more control. Previously, my attitude toward streaming services was that they were almost a necessary evil; a way to conveniently listen to my favourite CDs without having to remember where I'd actually put them. I took a dim view of the much-hyped 'recommendation' engines. I don't allow my friends to force me to listen to their favourite music, so why should I let a server-farm and database do the same?



**ABOVE:** Tom Petty And The Heartbreakers pictured in 1977 – remember them?

**RIGHT:** The baby model in Paradigm's flagship speaker range, the £8600 Persona B boasts a seven-layer enclosure housing two beryllium drivers in the form of a 25mm dome tweeter and 178mm bass/midrange



Maybe I've mellowed, or the algorithms have become smarter, but over the past 12 months I've been keener than ever to see what Tidal wants to push my way. And the result is I'm discovering music that would, frankly, never have crossed my path otherwise, from the Red Dirt country of Jimmy LaFave to the Norwegian metal/rock 'n' roll crossover band Kvelertak.

The service also has a handy knack of digging up artists I'd forgotten I used to like in my distant youth, such as Tom Petty And The Heartbreakers. And I've even subsequently bought some of these hitherto unheard of, or forgotten, delights on physical media, which was always the argument in favour of streaming platforms when critics highlighted business models based on meagre royalty payments.

With so much of my listening now online, it's also led to a hardware revamp. Affordable multiroom speakers may not be an audiophile proposition, but being able to listen to whatever you want, wherever you are, with a smartphone as the interface

is a thrill. In the world of genuine hi-fi, the procession of products through my listening room this year has showcased the diversity of what's available.

### PICK 'N' MIX

Arcam's SA30 [see p66] appears to be a traditional integrated amp, but adds network audio playback and Dirac Live digital room correction to its enthralling

sound. On the other hand, Paradigm's Persona B standmounts [*HFN* Oct '20] deliver exactly what flagship models should – room-filling, spine-tingling performance – while Monitor Audio's entry-level Bronze 100s

[p105] are value for money personified.

The old battle lines between digital and physical, 'high-end' and 'budget', are giving way to a pick 'n' mix attitude. Floorstanders in the living room, wireless headphones on the train, and a quality listening experience throughout. In many ways it could be said that music lovers have never had it better. ☺

*I'm now keener than ever to see what Tidal pushes my way'*

The background of the advertisement is a close-up, high-angle shot of a dark-colored car's rear. The focus is on the taillight, which has a distinctive red LED light signature. A black cable with a red band and connectors is draped over the taillight. The Black Rhodium logo, consisting of a stylized 'B' and 'R' followed by the brand name, is positioned at the top.

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## Steve Harris Contributor

Steve Harris edited *Hi-Fi News* between 1986 and 2005. He loves jazz, blues music, vinyl and vintage hi-fi and anything that makes good music come to life

# Slow release...

Not everything planned for the past year was stopped in its tracks. The highlight of 2020 for **Steve Harris** centred around talk of a new live album from Thelonious Monk, recorded in 1968

In February, spending a happy day at the Audiojumble in Tonbridge, I had no idea that there'd be no more hi-fi socialising for a long time. But as everything closed down around us, music became more important than ever.

In June came a press release headed 'The Jazz Story Of 2020', and it really was. The Impulse! label was announcing the release of a previously-unheard session by Thelonious Monk, recorded in unusual circumstances.

### BENEFIT BOOTLEG

The story centred on Danny Scher, now retired from a successful career in concert promotion. In October 1968, Scher was a 16-year-old jazz fan and a student at Palo Alto High School. Learning that Thelonious Monk was playing the Jazz Workshop in San Francisco less than 30 miles away, he managed to book the Monk quartet for an afternoon benefit concert.

Then, as Scher told *The Times Of Israel*, 'A school janitor asked me if he could record it and I gave him a blank 1/4in reel-to-reel tape. I didn't even realise that I wasn't supposed to record the concert. Afterwards he gave the tape back and I just put it away in a closet in my parents' house'.

At school, Scher played drums in a jazz band and became principal percussionist in the California Youth Symphony Orchestra. The Monk concert wasn't his first effort as a promoter, as he'd already presented pianist Vince Guaraldi (playing an upright piano in the gym), vocalist Jon Hendricks and vibraphonist Cal Tjader.

He was already being encouraged by jazz educator Dr Herb Wong, who'd brought Oscar Peterson in to play for students at California's Washington Elementary School, and Darlene Chan,

**MONK**  **Palo Alto**



**ABOVE:** Thelonious Monk's *Palo Alto* concert on Impulse! (left) and (right) *Underground* from earlier in 1968, the last studio album to feature the Monk quartet that played the Palo Alto event

who'd started the Berkeley Jazz Festival in 1967. She gave Scher the phone number to call Monk's manager, Jules Colomby.

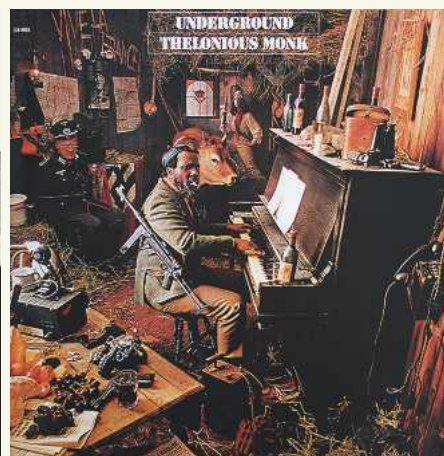
Only a few years later, at Stanford University, Danny Scher became a concert promoter for real. Stanford's Frost Amphitheater had hosted Jefferson Airplane, Creedence Clearwater Revival and

Santana but in 1971, after a disturbance, the university banned rock concerts there. In 1972, after crowds streamed in to see Miles Davis without paying, it banned all concerts.

But Scher persuaded the authorities to relax

the restrictions if he took care of security. He booked Joan Baez and sold 10,000 tickets for what became the first of many successful events. Scher's efforts caught the attention of promoter Bill Graham and he went on to become his right-hand man.

After doing nothing with the Monk tape for decades, Scher took it to Fantasy Records and had it remastered. Then he started discussions with Monk's son and estate representative T S Monk, eventually



reaching an agreement that would allow the recording to be released.

But it was not to be. The *Palo Alto* album was to appear on July the 31st, 2020. On July the 27th news came it was being postponed 'due to circumstances beyond the label's control'.

### BUT HOLD ON...

Danny Scher explained: 'I received word there was a dispute between the estate and Monk's previous label. They're saying we'll let you know if it's being released, not when. I've held onto this recording for 50 years. So I can hold onto it for another two or three decades'.

For a while, it seemed we'd never be able to relive that historic 1968 high school concert, which for one afternoon brought white Palo Alto and black East Palo Alto together in harmony. But then early September brought good news: it would be released after all, physically by Impulse! and digitally by Sony.

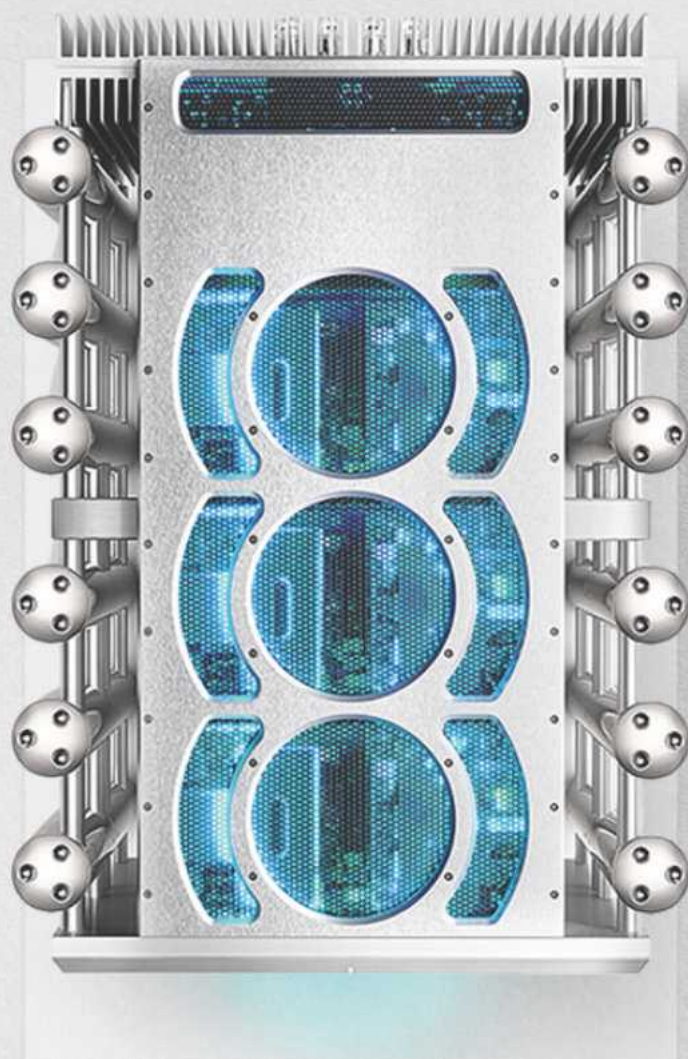
And in an interview for *All About Jazz*, Scher revealed he'd pulled off another school benefit concert in the following March – this time, amazingly, with Duke Ellington. And he still has the tape... ☺

"A school janitor asked me if he could record the concert"





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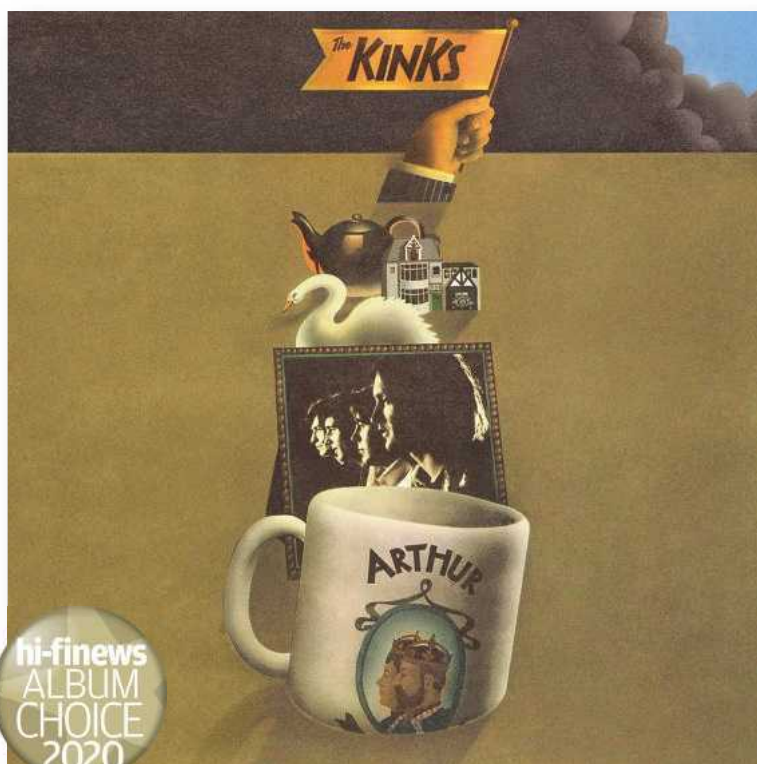


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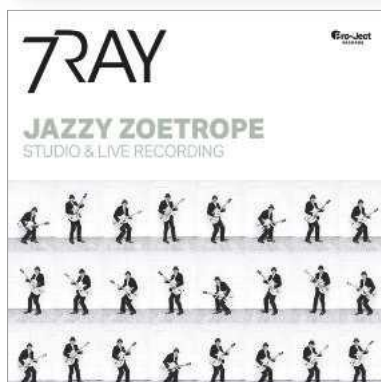
### THE KINKS

Arthur Or The Decline And Fall Of The British Empire

BMG/ABKCO BMGCAT407DLP (two discs)

Some 30 years ago, I devoted a whole back page to *Arthur*, which I've loved since the day it was released. Fifty years on, and it's about time all admitted that it betters their earlier ode to lost England, *The Kinks Are The Village Green Preservation Society*, on every level. Why this wasn't a hit is a mystery; suffice it to say, I cannot name a 'concept' album that comes near it. Fiery guitar and harpsichord? Rock 'n' roll and music-hall whimsy? The Kinks did it even better than The Bonzos. This superbly-remastered double LP adds a dozen bonus cuts, and there's a CD/singles box with even more on which to feast. 'Victoria', 'She Bought A Hat Like Princess Marina' – with a few tweaks, this could be *Brexit – The Musical*. **KK**

Sound Quality: 95%



### 7RAY WITH TRIPLE ACE

Jazzy Zoetrope

Pro-Ject Records PJR001 (two 180g vinyl LPs)

Pro-Ject's Heinz Lichtenegger always puts his money where his mouth is, and his long-promised record label kicks off with a stunner. This is a jazz feast, one LP recorded in the studio, the other live, Heinz wanting to showcase the best of analogue. The music is a super-cool, velvety-voiced collection of standards, including 'Nature Boy', 'A Foggy Day', 'One For My Baby' and 14 other tracks, with four of the songs appearing both live and in the studio for comparison. The results are exactly what you would expect of a music project that's helmed by a militant audiophile such as Lichtenegger. This set will also be offered on open-reel tape. **KK**

Sound Quality: 95%



### DIRE STRAITS

Love Over Gold

Mobile Fidelity MFSL 2-469 (two 45rpm LPs)

Though no fan of Dire Straits, I can't deny the sonic brilliance of this, their fourth LP: dating from 1982 and their first to hit No 1 in the UK charts. As ever, the musicianship is sublime, and Mark Knopfler's fluidity and inventiveness are enough to draw audiophiles to this set, but the self-indulgence counters the previous releases' greater accessibility. Indeed, the 14m+ of 'Telegraph Road' was causing me to lose the will to live, but suffering through it is what pays my mortgage. That aside, MoFi has done a spectacular job of reissuing the Dire Straits catalogue at this level, though it remains to be seen if one of the band's titles will earn One-Step status. **KK**

Sound Quality: 95%



### AL DI MEOLA

Across The Universe

E.A.R Music/Edel 0214706EMU (two 180g vinyl LPs)

World-class jazz guitarist: check; 180g vinyl: check; small-group instrumental covers of peerless, familiar material: check. This could be either an audiophile LP that's tedious beyond belief, or an album so lush, so musically dazzling, that you can't wait for the time you can use it as a demo disc in a store. It's the latter. If you know Di Meola's work, then you'll appreciate his virtuosity, speed and impeccable taste, but you might not know he's a devotee of the Fab Four: this is his second set of Beatles tunes. The notes also state which make of guitar he's playing, for those of you who know their axes. It's also on CD [0214031EMU], and that sounds great, too. **KK**

Sound Quality: 90%







COMPACT DISC



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## THE J GEILS BAND

The Morning After

Mobile Fidelity MFSL1-415 (180g vinyl)

Aside from the atypical hit single, 'Centerfold', the UK never 'got' Boston's J Geils Band. But then this wasn't a singles band. They arrived at the tail end of the '60s playing down 'n' dirty R&B, paving the way for The Fabulous Thunderbirds, Dr Feelgood and others, and they had a secret weapon in Magic Dick, arguably the best harp player ever. This LP didn't quite match the eponymous 1970 debut, but it still blows away anything else in the genre. Each musician was peerless, and lead singer Peter Wolf had stage presence of Jagger-esque proportions. A staggering mix of originals and soul/funk classics; the sound is magnificent, its bottom octaves scary. **KK**

Sound Quality: 95%



## BREAD

Baby I'm-A Want You

Mobile Fidelity MFSL1-336 (180g vinyl); SACD: UDSACD-2205

Soft rock remains a guilty pleasure that will never attain 'cool' status, so approach this as if it were a Carpenters album. But to deny its pop perfection, tuneful brilliance, superb musicianship and exquisite production is to be self-abnegating. Their fifth and best LP, it gave us the achingly beautiful title track, the elegiac 'Everything I Own' and the mild rocker 'Down On My Knees'. Bread were a supergroup of sorts, as would be any with the late-Larry Knechtel of the legendary Wrecking Crew in its ranks. Harmonies of Hollie-esque lushness, melodies in the Simon & Garfunkel stratum – this may be the rock equivalent of a chick flick, but it's truly irresistible. **KK**

Sound Quality: 90%



## B B KING & ERIC CLAPTON

Riding With The King

Reprise 093624895206 (two discs, 180g vinyl)

To mark this superb LP's 20th anniversary, it has been remastered adding two unreleased tracks. It was something of a dream come true for Clapton, whose friendship with King went back decades. Duets of starry-eyed Brit blues pioneers playing with the genuine article date to the birth of the revival: Clapton was there on one of the first of such pairings, backing Sonny Boy Williamson while in The Yardbirds in '63. This features classics from both their repertoires, and the fun lies in guessing who is playing which guitar break. One bonus track is 'Rollin' And Tumblin'', which Clapton performed with Cream. 'Hold On I'm Coming' has to be the high-point. **KK**

Sound Quality: 90%



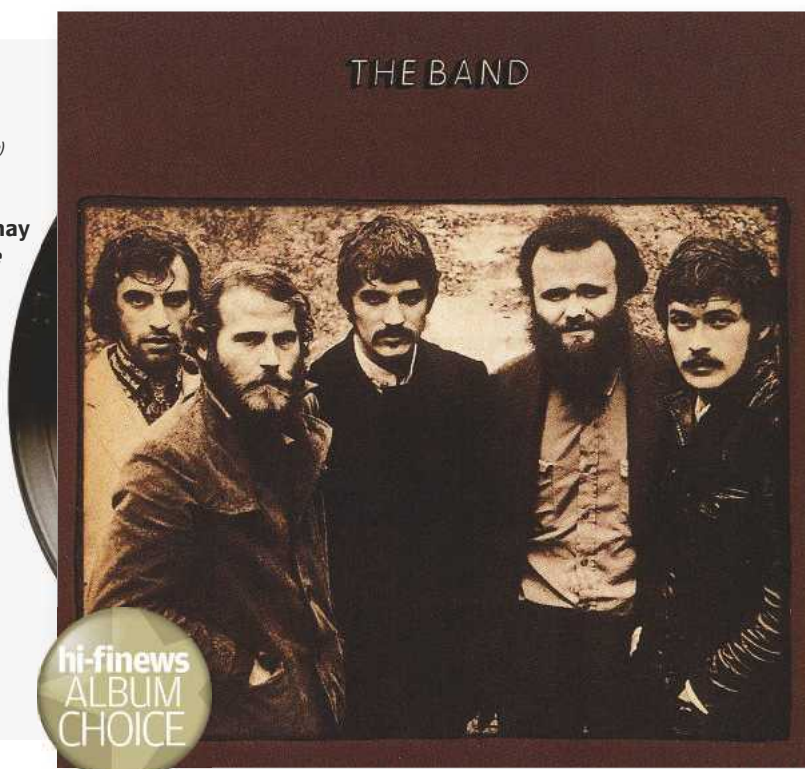
## THE BAND

The Band (50th Anniversary Deluxe Edition)

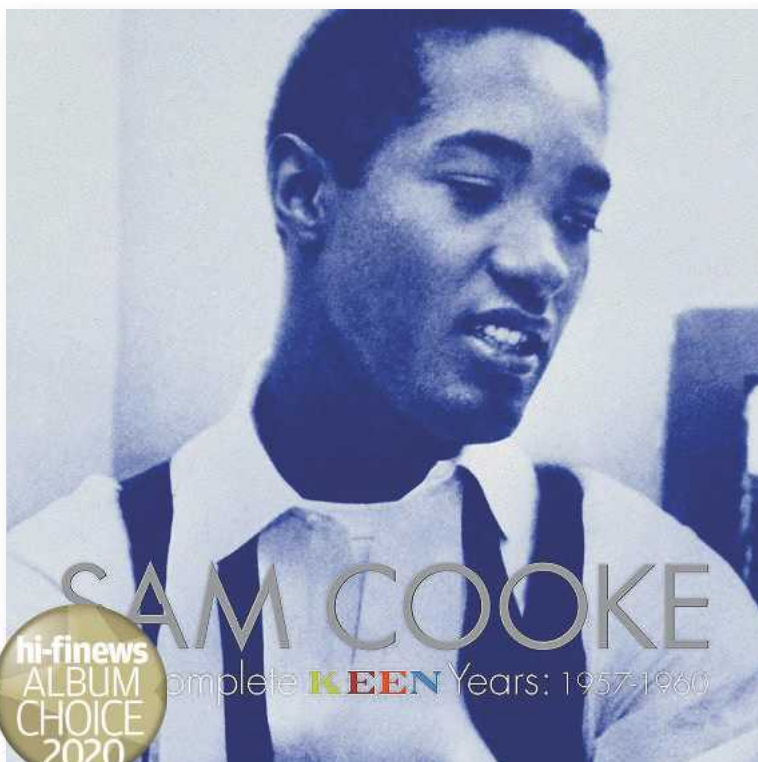
Capitol 00602577842832 (two 45rpm LPs + two CDs + Blu-ray + 7in single)

**My go-to LP for visceral bottom-end impact, peerless musicianship and transcendent material has been 'audiophiled' so often, it may have beaten The Allman Brothers' At Fillmore East. Somehow Capitol managed to squeeze out a bit more, for an ultra-vivid 'Rag Mama Rag', 'Up On Cripple Creek' and their other classics – but not enough to justify purchase should you own the stunning MoFi LP. That said, this set is gorgeous. Bettering the extras in the Music From Big Pink box, the vinyl is joined by a CD version with six bonus tracks, a CD of the band's Woodstock performance, a 7in single and a Blu-ray with the album and bonus tracks in stereo and 5.1 surround, plus a documentary. Bliss! **KK****

Sound Quality: 95%



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### SAM COOKE

The Complete Keen Years 1957-1960

ABKCO Music 18771-85032 (five discs; mono)

**Prior to his full-blown mainstream superstardom era with RCA, Cooke – arguably the most important postwar African-American singer after Nat ‘King’ Cole to break down race barriers for crossover success – delivered three LPs for Keen, plus two compilations. Taken from the once-lost master tapes, with killer sound quality, each is lovingly reproduced here in rich, crisp mono, with immaculate mini-card sleeves, two with bonus tracks covering his singles, while the superlative *Tribute To The Lady* also includes the glorious stereo version. This is the period that yielded ‘teen’ hits like ‘Wonderful World’, ‘Only Sixteen’ and ‘You Send Me’, but with plenty to indicate that – like Bobby Darin – Cooke could fill the Copa. KK**

Sound Quality: 95%



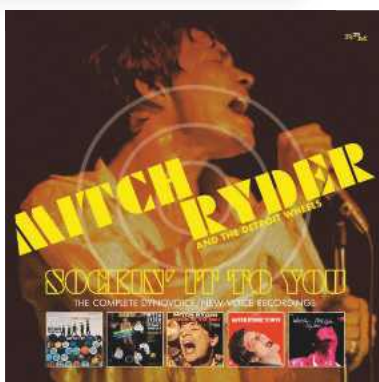
### THE FLYING BURRITO BROTHERS

Burrito Deluxe

Intervention Records IR-SCD8

If you want to wind up Gram Parsons fans, just tell ‘em you prefer this to the band’s debut, *The Gilded Palace Of Sin*. I do, falling in love with it even before discovering that ‘Wild Horses’ was lifted from The Rolling Stones, who would release their version a year later. Purists aren’t enamoured of *Burrito Deluxe* because it’s less ‘Parsons’ and more ‘the rest of the band’, but it’s still a prime example of undiluted country-rock, with the requisite Bob Dylan cover – a fine ‘If You Gotta Go’ – and enough nods to The Byrds (and foreshadowing of The Eagles) to ensure its permanence in the pantheon. This second album release from the Burritos truly is ‘*Gilded Palace 2*’. KK

Sound Quality: 90%



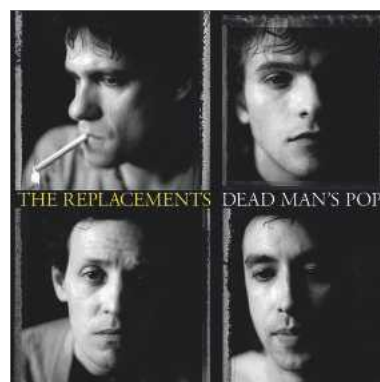
### MITCH RYDER & THE DETROIT WHEELS

Sockin' It To You

RPM Records QRPMT549 (three discs)

If the name doesn’t mean a thing to you, that’s because the UK was deprived of this US powerhouse, now ironically a demi-god for rockers in Germany. Pumping out the best party music and blue-eyed soul imaginable in the mid ‘60s, à la Gary U S Bonds, James Brown-fan Ryder and band – later to provide members of Cactus and Lynyrd Skynyrd – established their home base as a hard rock capital and gave us masterpieces like ‘Little Latin Lupe Lu’, ‘Jenny Take A Ride’, ‘Devil With A Blue Dress On...’ and others. This set contains all the band’s output and the first Ryder solo LP, with plenty of extras. Crank up the volume and you’re in Frye Hall, circa 1967. KK

Sound Quality: 90%



### THE REPLACEMENTS

Dead Man's Pop

Rhino R2 596304/603497851133 (four CDs + LP)

Much-loved, The Replacements merit this level of treatment, usually reserved for the likes of The Beatles, Pink Floyd, Led Zeppelin or others of that scale. As with the Fab Four’s reissues, it’s an expansion of a single album, *Don’t Tell A Soul*, first released in a form with which the band was unhappy. Setting things straight, the 1989 version was ‘radically reimagined’ in a 12x12in set with the intended track order and mix. The bonuses comprise unreleased material, among them early versions of ‘I’ll Be You’ and ‘Achin’ To Be’, five recordings with Tom Waits and an entire live show from 1989. This is indie music proving that melody and brains don’t preclude tension. KK

Sound Quality: 90%







COMPACT DISC



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DVD



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## LYNN ANDERSON

Rose Garden & Greatest Hits

Vocalion CDLK4612 (multi-channel SACD)

Long before Ken Burns' dazzling TV history of country music in 2019, Vocalion was delivering sublime examples of the genre. Many of you not *au fait* with C&W might start with this two-on-one from one of its finest female vocalists. 'Rose Garden' was a massive hit for Anderson that crossed over to the mainstream; the eponymous album is a delight and filled with great covers like 'It's Only Make Believe'. The hits collection contains 11 gems, including the late singer's aching version of 'Cry'. The surround-sound may disconcert because there are whole instruments behind the listener, but, hey, that was 1970s 'quad' – and you can always play it in stereo. KK

Sound Quality: 90%



## LORI LIEBERMAN

The Girl And The Cat

Drive On Records 115115-16; two 45rpm LPs: 115115-17

You needn't ask – you know the sound will be staggeringly good. Like kindred spirit Eleanor McEvoy, LL values sonic authenticity, so this CD was engineered by hubby Joe Cali and mixed by Bob Clearmountain. For me, it is her most personal, liberated, undiluted release of a career spanning 47 years. Lieberman's singing – ever delicate and fragile – always exudes a quiet, almost-preternatural maturity. Here it is augmented by a mesmerising, aching sense of longing, and this is enhanced by a 'classical' atmosphere provided by the Matangi String Quartet's contribution. The songs? Save these for quiet, introspective moments. KK

Sound Quality: 90%



## THE DOORS

The Soft Parade

Elektra 603497851324 (three CDs + LP)

Continuing the 50th anniversary reissue programme, we're up to The Doors' fourth, which kicked off with the mournful/joyous 'Tell All the People'. They followed that with the magnificent 'Touch Me', the two openers cocking a snook at the emerging 'Big Band Rock' outfits like Blood Sweat & Tears, Chicago, *et al.* Punchy brass, sublime guitar-work stage right, even a commanding vocal from Jim Morrison. All this wasn't enough to prevent negative reviews but some (like me) consider it vastly under-rated. Along with the remastered album are the stripped-down, horns-less mix, new solos by Robbie Krieger, an hour-long jam and a bonus original LP. KK

Sound Quality: 90%



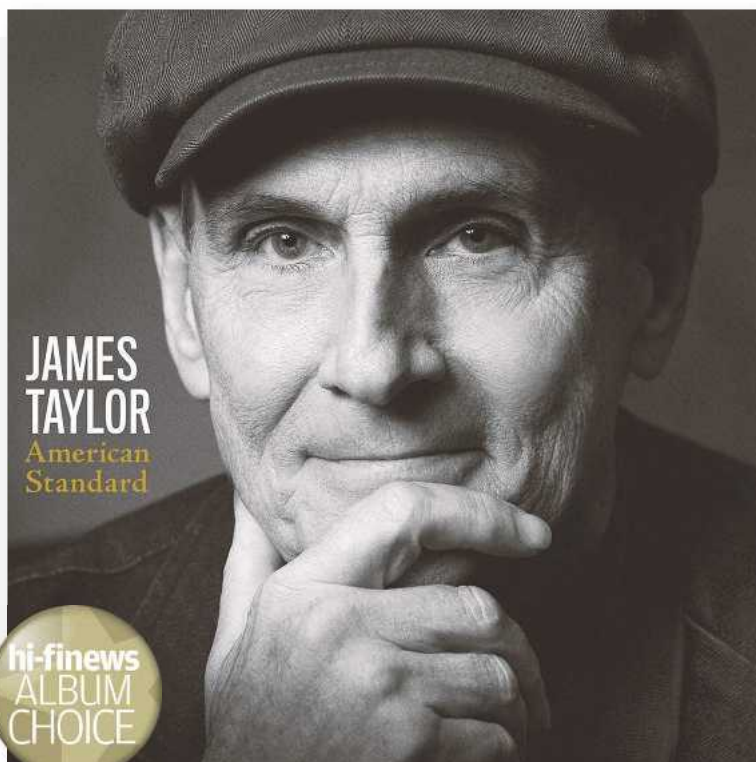
## JAMES TAYLOR

American Standard

Fantasy 00888072145719

Taylor has always had great taste in songs to cover, never failing to select tunes which suit his laid-back style. This brand new selection of 14 from the Great American Songbook actually recalls earlier, associated sets: ex-wife Carly Simon's multi-album celebration of the canon, and for sonic merit, brother Livingston's work for Chesky Records. JT's chilled delivery matches each song, like a mellow 'Moon River', 'Pennies From Heaven' and others that work well with a lilt and a gentle smile. This album is so cosy, so warm 'n' fuzzy that I'd recommend it for those in need of a little de-stressing in these hectic times. OK, it's not jammed-packed with genius originals, like *Sweet Baby James*, but trust me: it's no Starbucks throwaway. KK

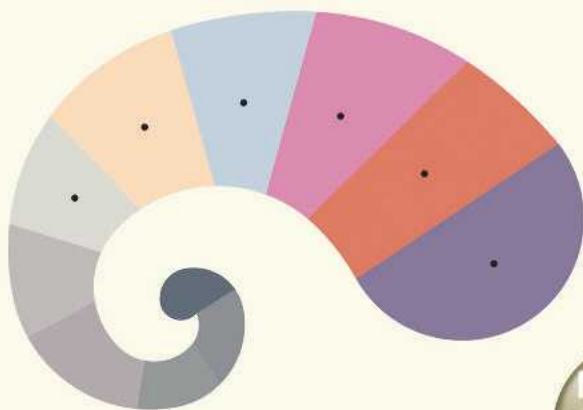
Sound Quality: 90%



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### Handel **Concerti grossi** Op. 6 (7–12) **Akademie für Alte** **Musik Berlin** Bernhard Forck



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2020

#### AKADEMIE FÜR ALTE MUSIK BERLIN/BERNHARD FORCK

Handel: Concerti grossi, Op. 6:7-12  
(96kHz/24-bit, FLAC/DSD64)

[www.hifinews.co.uk](http://www.hifinews.co.uk); Pentatone PTC5186738

Handel wrote his 12 *concerti grossi* Op. 6 in a short space of time in 1739, borrowing here and there from others or from his own music (eg, Nos 11 and 12 are reworkings from two of his organ concertos). The music, for strings and continuo, was slotted into London oratorio performances and the scores sold on a subscription basis. The earlier Pentatone release of Nos 1-6 prompted some criticism for including wind parts taken from

the composer's own later markings in working scores, but here it's 15 string players led by Forck, organ, harpsichord and lute. The group's Beethoven 'Pastoral' [p174] has been a 250th anniversary highlight and, recorded in a Berlin church, they make a beautiful sound from the deep rich opening *Largo* of No 6 to the dancing *Allegro* finale to No 12, with added colour from the continuos. **CB**

Sound Quality: 95%



#### BEHZOD ABDURAIMOV, LUCERNE SO/ JAMES GAFFIGAN

Rachmaninoff: Paganini Rhapsody; Symphony No 3; 'Lullaby' (trans) (96kHz/24-bit, FLAC)

[www.hifinews.co.uk](http://www.hifinews.co.uk); Sony Classical 19075981622

The two main works were completed at the composer's Lucerne home, the Villa Senar, in 1934/39. Correcting the distortion of the cover art, the PDF is in itself valuable as it contains numerous family photographs and portraits, together with a few jottings by Rachmaninoff. What it leaves out is that the Steinway D in this *Paganini Rhapsody* recording is one given to Rachmaninoff to mark his 60th birthday – notably thinner in timbres than with more modern examples, but very well suited to the extraordinary dexterity of the young Uzbek pianist. His playing is full of subtleties in dynamics and timing and the famous '18th Variation' sounds newly minted. Sony and Gaffigan combine to create a Straussian opulence in the Symphony – a rather unusual if compelling interpretation of the work. **CB**

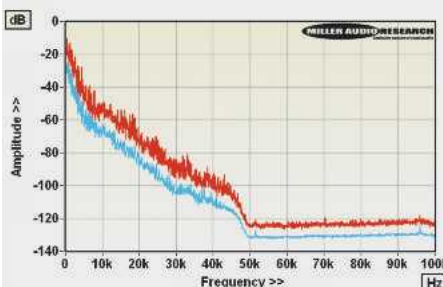
Sound Quality: 95%



### OUR PROMISE

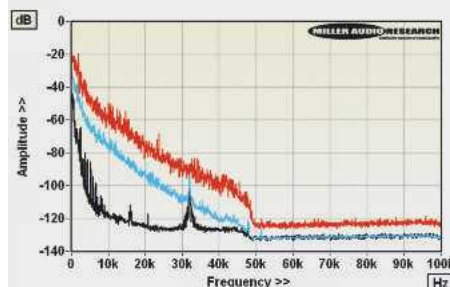
Following our Investigation feature [HFN, Jun '11] where we examined the claimed quality of high-resolution downloads, *Hi-Fi News & Record Review* is now measuring the true sample rate and bit-depth of the HD music downloads reviewed on these pages. These unique reviews will be a regular source of information for those seeking new and re-mastered recordings offered at high sample rates and with the promise of delivering the very best sound quality. (Note: asterisk in headings denotes technical reservation explained below.) **PM**

### LAB REPORT



Recorded at the Nikodemuskirche Berlin, in early 2019, the full bandwidth offered by 96kHz sampling is used by harmonics from both higher strings and harpsichord that extend up to ~40kHz. This is where 'high-res' comes into its own. **PM**

### LAB REPORT



Aside from a low-level/ultrasonic clump at 31.95kHz/32.05kHz [black trace] these are well-recorded and produced works, never peaking above -1dBfs and typically enjoying a very wide dynamic range. These are genuine 96kHz files. **PM**



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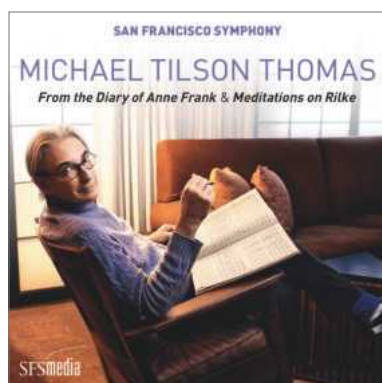
BLU-RAY



VINYL



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## SAN FRANCISCO SYMPHONY/MICHAEL TILSON THOMAS

From The Diary Of Anne Frank; Meditations On Rilke (192kHz/24-bit, FLAC/MQA)

[www.hiresaudio.com](http://www.hiresaudio.com); SFS Media 2193600792

In May 1991, we had the LSO's Barbican premiere of MTT's revised *From The Diary Of Anne Frank* with Audrey Hepburn. She and Tilson Thomas had together chosen parts of the diary which he might set in a large-orchestra context – listening to a tape, he was musically influenced by the intonation she used in reading the extracts. It serves the diary so well: the dark, percussion-heavy section after 'yellow star...' mirrors the occupation horrors profoundly. Marking MTT's stepping-down from the SFS, this recording has Isabel Leonard as a beyond-criticism narrator and couples last year's settings of poems by Rilke, with Sasha Cooke (excellent) and Ryan McKinny (very musical). The bar-room piano relates to family history while the score echoes Mahler, and Copland more so. **CB**

Sound Quality: 95%



## JULIAN SCHNEEMANN & FRIENDS

Caravan II (DXD; DSD64-DSD512)

[www.nativedsd.com](http://www.nativedsd.com); Just Listen Records JL014

This set by Dutch composer and pianist brings together influences ranging from East to West, both in the writing and the instrumentation, and across classical, folk and jazz influences. Schneemann is joined here by Syrian oud virtuoso Jawa Manla, violinist Emmy Storms and percussionist Jeroen Batterink, along with singers in the traditions of Syria, Namibia, and India, and the whole project is captured in perfect one-take detail by NativeDSD/Channel Classics/Just Listen founder Jared Sacks. The sound is packed with information and depth that is revealed on repeated listening, has excellent punch, slam and drive, and the bass is truly weighty. But what strikes one most is the immediacy, and the sense of attending a live musical event. Reviewed here in DSD64, for wider hardware compatibility, it's even more striking in the original DSD256. **AE**

Sound Quality: 95%



## STEMMEKLANG

Tomba Sonora (DXD; DSD64-DSD512)

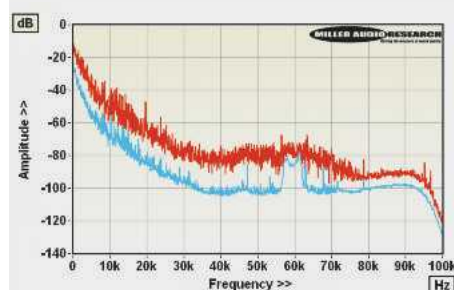
[www.nativedsd.com](http://www.nativedsd.com); 2L 2L-155

This is something of a curiosity. The idea of the project is really an experiment in sound, utilising the acoustic of the mausoleum Norwegian artist Emanuel Vigeland built for himself at Slemdal, near Oslo (dubbed the *Tomba Emmanuelle*). He then wrote, performed and recorded this music to make the most of the highly reverberant space. The music is by Kristin Bolstad, the performance with a small vocal/cello ensemble including the composer, and the recording is by 2L founder Morten Lindberg, recently the recipient of a Grammy for another of his 'immersive' recordings. And this one is definitely immersive, the instruments and voices melding together with those early reflections into a dense, meditative soundscape, yet retaining fine definition. Oh, and it's even more spine-tingling in multichannel, the venue really engulfing the listener. **AE**

Sound Quality: 95%

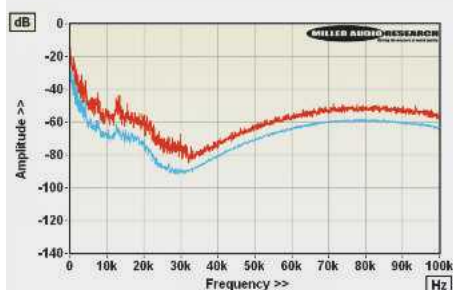


### LAB REPORT



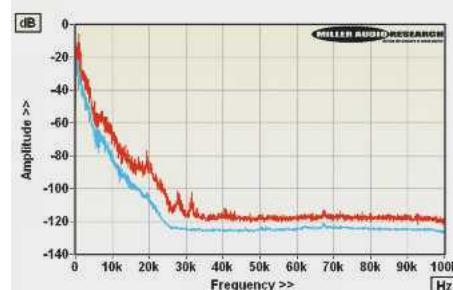
Recorded live at 192kHz/24-bit during performances at the Davies Symphony Hall, mean levels are typically between -20dBfs and -30dBfs but with true 0dB peaks in trks 1, 5, 6, 8 and 10. Note also the ultrasonic spuriae at ~60kHz. **PM**

### LAB REPORT



Edited using Merging Technologies Pyramix software at DSD256, our file is a DSD64 downsample. As upper reaches of vocal and percussive content dip into the >30kHz requantisation noise, the DSD128/256 file may be preferred. **PM**

### LAB REPORT



Merging Technologies' DXD DACs were employed for this 352.8kHz recording (also offered in DSD64-512). Bandwidth is overkill for the musical content but, for best sound, the FLAC encodes should first be converted to linear WAV files. **PM**





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### BAVARIAN RSO/MARISS JANSONS Mahler Symphony No 1 (48kHz/24-bit, FLAC)

[www.hiresaudio.com](http://www.hiresaudio.com); BR Klassik 900179

Our first complete Mahler Symphony cycles came from Haitink [Philips] and Bernstein [CBS] with DG following with a Bavarian Radio Symphony Orchestra set under Rafael Kubelík. But Audite then produced his (preferable) live recordings from the Munich Herkulessaal – the venue here too. Jansons' performance dates back to March 2007 but the sound is rich and vividly detailed. A stumbling block for Klemperer, who declined to conduct the work, the finale here is the most persuasive I have ever heard (there's no following applause included). It crowns a performance with impeccable playing, and Jansons gets a lot of true *pianissimi*, while the horn section has a wonderful glow. He brings tenderness and dignity to the Jewish celebration in (iii) – a single characterful double-bass opens the 'Frère Jacques' theme, not the entire section which you get in some versions. **CB**

Sound Quality: 95%



### Yael Naïm Nightsongs (44.1kHz/24-bit, FLAC)

[www.qobuz.com](http://www.qobuz.com); Tôt Ou Tard

Having your music chosen for an Apple commercial can do a career no harm, especially when word goes out that the late Steve Jobs had selected it himself. That was 12 years ago, giving French-Israeli singer/songwriter Yael Naïm her first big hit. Six albums and two Best Female Artist awards from the French equivalent of the Grammys later, we have the gorgeous-sounding *Nightsongs*. Its shimmering production showcases Naïm's breathy, occasionally husky voice with a lovely intimacy. And whereas some tracks are stripped back, others – such as 'She', with its ethereal choir – up the layering a little more to dramatic effect. But they do this without ever seeming overdone. It'll all be a bit fragile and close up for some tastes, but it's none the worse for that – and, despite the roots of Naïm's fame, it just about swerves the 'John Lewis ad' effect. **AE**

Sound Quality: 90%



### HAGUE STRING TRIO After The Darkness (DXD; DSD64-DSD256)

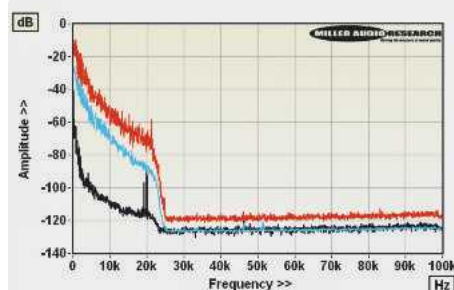
[www.nativesd.com](http://www.nativesd.com); COBRA0065

This set takes its title from Elie Wiesel's narrative of his experiences during the Holocaust (2020 marks the 75th anniversary of the liberation of Auschwitz), and the majority of the works here are by composers who died at the hands of the Nazis. Yet despite that background, and the dark opening of Hans Krása's 1944 *Passacaglia & Fuga*, this set soon develops into a celebration of these composers, not just a memorial to them. The Hague String Trio has a wonderful fluidity and tension to its playing, whether in the rhythmic – and all too short – Krása fugue, written in the Terezín ghetto, or Dick Kattenburg's *Trio à Cordes*: world premiere recording. The trio is well-served by a close-focused, intimate and rather dry recording by Tom Peteers (Renswoude, The Netherlands), throwing all the attention on the quality of the playing and music-making to fine effect. **AE**

Sound Quality: 90%

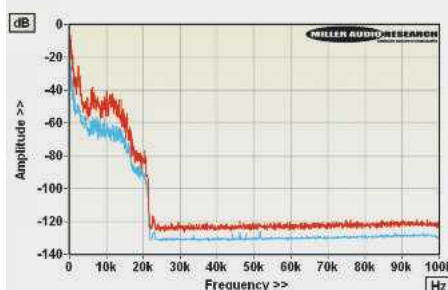


### LAB REPORT



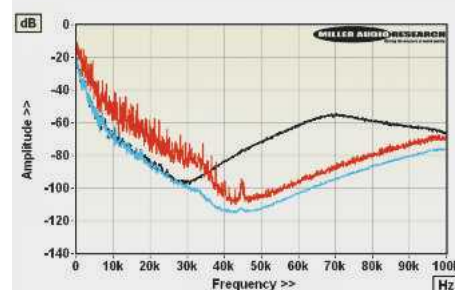
Aside from some minor spuriae ~20kHz [black trace, Graph] this is a clean file that makes excellent use of the available dynamic range (v. quiet backgrounds). Pity about the limited ~22kHz bandwidth – surely this was recorded at 96kHz? **PM**

### LAB REPORT



While the CD sample rate is necessarily limited, and (analogue) noise evident on the guitar/vocal feeds, the dynamic range is still well used, particularly on trk12 [see Graph]. Peak levels are close to the digital wire at -0.1dBfs. **PM**

### LAB REPORT



Recorded in DSD256 on Merging Technologies hardware, this file is also available in DXD format. The DSD128 downsample [red, peak; cyan, RMS] is preferable for its added bandwidth over the smaller DSD64 file [black]. **PM**

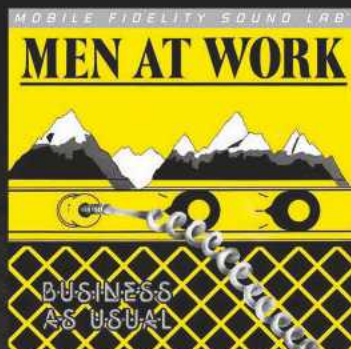
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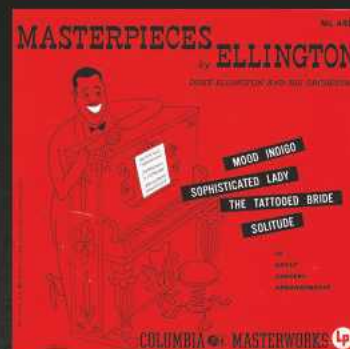
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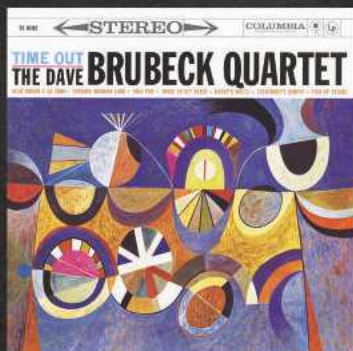
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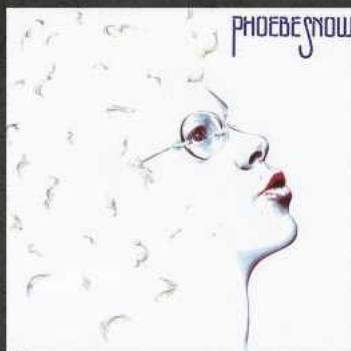
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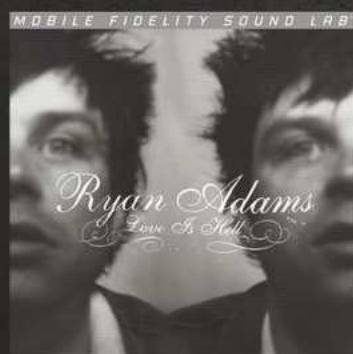
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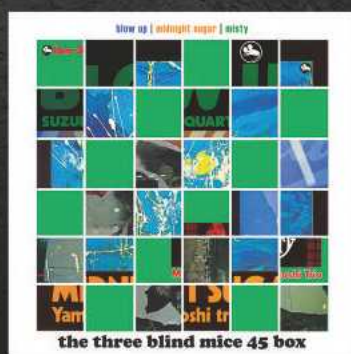
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### WOLFGANG MUTHSPIEL, SCOTT COLLEY & BRIAN BLADE

Angular Blues (96kHz/24-bit, FLAC)

[www.qobuz.com](http://www.qobuz.com); ECM 003178702

This set was recorded in Tokyo after the trio – guitarist Muthspiel, with Colley on bass and Blade on drums – had completed a run at the superb Cotton Club in the city's Maranouchi district, and the familiarity shows in relaxed, easygoing performances oozing confidence and musical harmony. With the tapes then mixed back in the renowned Studios La Bouissone by ECM founder Manfred Eicher and Muthspiel, it can be taken as read that this album bears all the label's hallmarks of fine sound and integrity. What's really striking is the intimacy of the sound, its warmth and generosity never getting in the way of the detail and the superb playing. Muthspiel's originals make up most of the list and there are two standards here – Cole Porter's 'Everything I Love' and, to finish, 'I'll Remember April'. Jazz at its best. **AE**

Sound Quality: 90%



### ROGER ENO & BRIAN ENO

Mixing Colours (44.1kHz/24-bit, FLAC)

[www.hiresaudio.com](http://www.hiresaudio.com); Deutsche Grammophon 483 777 1

A collaboration between the Eno brothers, in a sequence of what can only be called 'tone poems' evoking various hues. Sounds pretentious? Well, the result is much more successful than one might have dreaded. It's a mix of past experiments in ambient music, with compositions mainly by Eno B produced and processed by Eno R, giving the whole project a sound that's at times relaxing, at others slightly unsettling. You find simple layers of instrumentation complementing and layering over each other. So it's hardly 'get the party started' stuff, but in what one seems to have to call 'the ongoing situation' I found it both calming and worthy of repeated listens. New details emerge each time from the beautifully judged sound here, so whatever may be colouring your mood right now, the light and shade with *Mixing Colours* might be just the tonic you need. **AE**

Sound Quality: 90%



### RACHAEL PRICE AND VILRAY

Rachael & Vilray (88.2kHz/24-bit, FLAC; MQA)\*

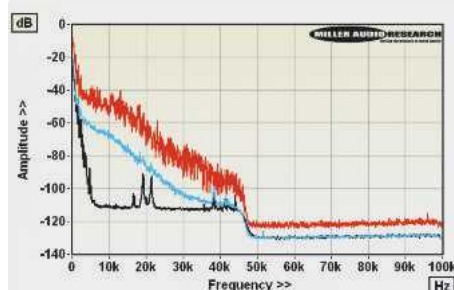
[www.hiresaudio.com](http://www.hiresaudio.com); Nonsuch Records n/a cat no.

The arrival of this album immediately caught my attention, for Australian-born Rachael Price is the 'can do no wrong' voice of Lake Street Dive, one of those bands tending to appear a lot in my listening sessions. If their beautifully crafted recordings sound good on a system, you can be sure it's doing pretty well! This is Price's debut album with songwriter/guitarist Vilray, with whom she has been performing since 2015 – and it's been well worth waiting for. With all but two of the tracks original Vilray compositions, the set plays to the not inconsiderable strengths of Price's voice. It's an intimate, thoughtful album, immaculately produced with fabulous focus by Dan Knobler, who has previously worked with Lake Street Dive. As even the unfamiliar tracks already sound like jazz standards, what more could we possibly ask? Heartily recommended. **AE**

Sound Quality: 90%

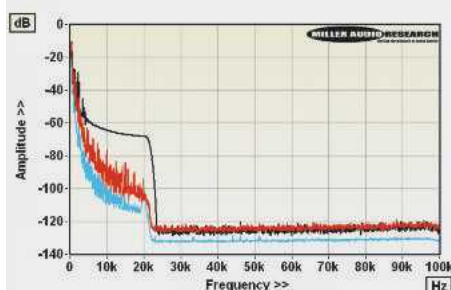


#### LAB REPORT



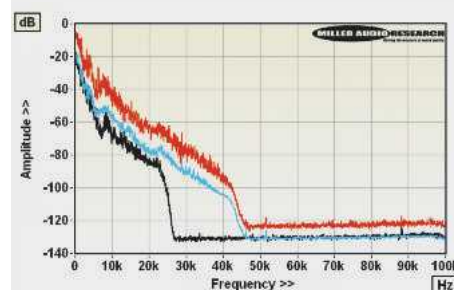
There are some minor spuriae at 19.5kHz and 21kHz, seemingly associated with Muthspiel's guitar feed [black trace], but the mix is otherwise clean. The ~45kHz span is well used, mainly by percussion, and peaks are well under 0dBfs. **PM**

#### LAB REPORT



This is a 44.1kHz/24-bit file and so while bandwidth is necessarily restricted to ~20kHz there's potentially more dynamic range than CD. In practice the range is good (peak-to-RMS typ. 17dB) but some clipped samples on trk3 [black trace]. **PM**

#### LAB REPORT



Recorded/mixed in different studios, there are two file types here: trks 3, 4, 9 and 12 may be 48kHz upsamples [black trace], the others are commensurate with 88.2kHz. Max. recording level is ~0dBfs, and note spurious 28.8kHz tone. **PM**





### JARVIS

#### Beyond The Pale

Rough Trade RT0129CD (LP: RT0129LP; cassette: RT0129LPE2)

This new project – Jarvis Cocker's first new music in over a decade – is an inspired, fresh-sounding set and a career highlight. Recorded live in 2017 and then overdubbed, the six-piece band plays it lean and syncopated, with electronics, keyboards, guitars, drums and violin occasionally tightening up into propulsive rock grooves. The female backing singers are a perfect foil to Cocker's lead vocals, echoing and answering his proclamations. His witty, pithy lyrics deal with existential topics, like human development and the misfits of society. On 'House Music All Night Long' he is partying alone and his take on evolutionary theory finds him 'Dragging my knuckles, listening to Frankie Knuckles' on 'Must I Evolve?'. **MB**

Sound Quality: 95%



### ÁSGEIR

#### Bury The Moon

One Little Indian TPLP1472CDP; LP: TPLP1472

Icelandic songwriter Ásgeir composed this, his third album, creating the songs as basic guitar and keyboard demos before taking them into the studio and fleshing them out with additional musicians and lyricists. The tempo rarely rises above a slow shuffle but, in a track like 'Lazy Giants', about 'the spectre of economic collapse', it's more than powerful enough to emphasise Ásgeir's message. The title track is a masterful combination of unlikely components which Ásgeir blends into an elegant, coherent whole. His delicately beautiful voice and haunting melodies make every song supremely easy to sink into, like relaxing after a hard day. **JBK**

Sound Quality: 95%



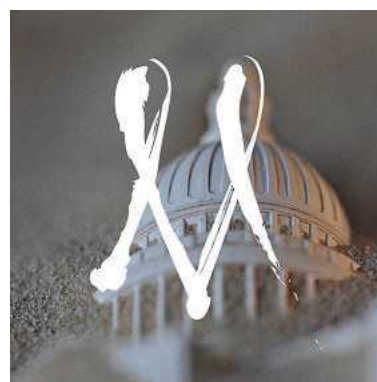
### TIM BURGESS

#### I Love The New Sky

Bella Union BELLA1006CD; LP: BELLA1006V

Burgess has recorded 13 albums with The Charlatans but this is his first completely self-penned solo album. And he has found a perfect foil in multi-instrumentalist Daniel O'Sullivan from Grumbling Fur, equally adept at pop and experimental styles, and contributes some deft violin and keyboard arrangements. Burgess's vocals have a light and breezy charm, but we are never far from an inspired structural twist or chord sequence in songs with echoes of Brian Wilson and Todd Rundgren. Lyrically Burgess is always engaging, making a droll examination of art celebrity on 'The Warhol Me' while on 'The Mall' he portrays a shopping centre as a thing of wonder. **MB**

Sound Quality: 90%



### MY BUS

#### Our Life In The Desert

Onomatopoeia Records HUM30; LP: HUM29

For lovers of the early '90s dream pop genre, two Belfast bands, Butterfly Child and Papa Sprain are names to conjure with. Joe Cassidy of the former and Gary McKendry of the latter are old friends who worked together under the My Bus moniker 30 years ago. Now they've returned with a dozen mesmeric songs which more than confirm that they've lost none of the surreal originality which first drew attention to them. Tracks like 'She Was Never There', 'Moon Tempo' and 'Breakfast In Bed' also confirm that this is a more consistently lovely album than anything either of them achieved on their own. We just hope the partnership continues. **JBK**

Sound Quality: 95%





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## EFTERKLANG

Altid Sammen

4AD Records 4AD 0172

Seven years since their last release, the Danish trio returns with an album boldly sung in their native language. We Brits are very lazy about anything sung in other than English, but Efterklang is worth trying that little bit harder for. Their song titles appear like random phrases constructed from names of items of furniture in IKEA, but the sheer beauty of Casper Clausen's voice transforms the unfamiliar words into streams of pure sound that penetrate the listener's psyche at a level deeper than mere understanding. They've always been bold innovators, but the acoustic/electronic arrangements here surpass anything they've achieved so far. A rewarding listen. *JBk*

Sound Quality: 95%



## FASSINE

Forge

Trapped Animal Records TAR 018

Fassine, one woman and two blokes based in London, deserve your attention, even if they sometimes stray into amorphous avantgarde cacophony. Sarah Palmer provides almost all of the vocals, a role she fulfils exquisitely, while the two chaps mostly confine themselves to providing brooding electronic accompaniment, and are occasionally set loose to create fascinating ambient soundscapes. But it's when they go for something more closely related to classic pop, such as the captivating, soaring 'Magpie', the sci-fi nightmare of 'Limbs', or the enigmatically, almost unbearably sweet 'Hellsto' that their potential is revealed to full effect. *JBk*

Sound Quality: 95%



## HJALTALÍN

Hjaltalín

Self released HJALTALINCD004; LP: HJALTALINLP004

After a seven-year silence the highly rated Icelandic group return in grand style. Typically, their songs are melodic but with twisting, episodic structures reminiscent of Danish group Efterklang. On 'Chestmark', Högni Egilsson and Sigríður Thorlacius intone over twitchy drum patterns, which cut to brooding Bollywood style orchestrations, while on 'Row' they juxtapose electronics and synthetic percussion with sumptuous string arrangements. Hjaltalín's instrumentation is subtly deployed, with much use made of space, while on 'Love From '99' they show their rapport by smoothly gearshifting through unexpected time changes. *MB*

Sound Quality: 90%



## THE FLAMING LIPS

American Head

Bella Union BELLA1052

Here, The Flaming Lips investigate their cultural identity through the disorientating prism of drug use. With its acoustic guitar, 'Mother I've Taken LSD' initially sounds like a warped take on Neil Young before the introduction of looming strings and rolling, Ringo-esque drums. If that title suggests that we're in for a bit of a laugh, it's actually a poignant collection, evoking a loss of both innocence and sanity, a feeling amplified by the reverby haze around Wayne Coyne's melancholic vocals. On 'When We Die When We're High' the restless drumming, chiming vibraphone, wah-wah guitar and ghostly vocodered voice shape one of the more impressionistic highlights of this disquieting and beautiful album. *MB*

Sound Quality: 95%







### JACK HUES

Primitif

Dawn Chorus DCRC015 (two discs)

Hues is best known as the singer in 1980s popsters Wang Chung, but his other activities include playing guitar in exploratory jazz group The Quartet and composing soundtracks. This double album is something else entirely, a meditation on love, loss and passing. It starts with an impassioned take on Burt Bacharach's 'The Look Of Love', with the rhythm section of Canterbury psychedelic group Syd Arthur and sampled strings that slowly veer into dissonance. A similar tension runs through the propulsive 'Whitstable Beach' and the seesawing cellos of 'Winter', and elsewhere jazz and folk elements permeate this strong set. Hues reckons it's the album he's waited 40 years to make and one can see why. **MB**

Sound Quality: 95%



### REN HARVIEU

Revel In The Drama

Bella Union BELLA948CD; LP: BELLA948V

Ren Harvieu's debut *Through The Night* went to No 5 in 2012 but the follow-up was delayed due to a life-threatening spinal injury. But this is a fabulous return. Her voice is animated and refreshingly direct and unaffected, with just a little Dusty Springfield smokiness, and she gets straight to the emotional core of the songs. She gives us a mix of classic song craft, written in conjunction with Romeo Stodart of Magic Numbers, and imaginative arrangements. These cover a lot of stylistic ground, veering from piano-based torch songs to big guitars and sweeping orchestral arrangements, culminating in the triumphant drama of 'My Body She Is Alive'. **MB**

Sound Quality: 95%



### NICK MASON'S SAUCERFUL OF SECRETS

Live At The Roundhouse

LEGACY 1907598 2722 (two CDs + DVD; 2LPs: -2711, Blu-Ray: -2749)

When ex-Pink Floyd drummer Nick Mason announced that he was coming out of retirement to revisit that band's pre-*Dark Side Of The Moon* material in concert, he took everyone by surprise. And with Spandau Ballet mainstay Gary Kemp on guitar and vocals, it seemed doubly unlikely. But for many fans this was the Floyd's golden era and tracks like 'Fearless', 'Remember A Day' and Syd Barrett's twilight zone freak-out 'Vegetable Man' had never been played live before. In this 2019 show Mason steadies the ship, while guitarists Kemp and Lee Harris and keyboardist Dom Beken play with energy and edge. **MB**

Sound Quality: 95%



### PENGUIN CAFE

Handfuls Of Night

Erased Tapes BSM 256

Four albums into an acclaimed career, Penguin Cafe has established itself as an entity quite distinct from its illustrious predecessor, Penguin Cafe Orchestra, but devotees of either will find much to enjoy in both. Led by Arthur Jeffes, son of PCO founder Simon Jeffes, the ensemble exists in a similar contemporary chamber music space, but never plunders its heritage. On this album, Jeffes leans more towards gossamer string orchestrations and minimalist piano backings than his dad ever did, and eschews much of the quirky humour that was an essential PCO element. The result is like being in a gorgeously immersive aural flotation tank. **JBk**

Sound Quality: 90%







COMPACT DISC



SUPRAUDIO



DVD



BLU-RAY



VINYL



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## THE PRETENDERS

### Hate For Sale

BMG 4050538603569; LP: 4050538603576

This release features a new Pretenders lineup with Martin Chambers back on drums, and it showcases the first songwriting collaborations between Chrissie Hynde and guitarist James Walbourne: ten finely-wrought tracks, which all sound like potential singles. And while 'The Buzz' evokes memories of their 1979 single 'Kid', another cautionary anti-drug song 'Junkie Walk' is a tougher proposition, with scorching fuzz-toned lead guitar. They purvey gritty rock on the title track, some skank on 'Lightning Man', and Hynde delivers a moving vocal performance on the piano ballad 'Crying In Public', all of which are captured in vivid detail here. *MB*

Sound Quality: 90%



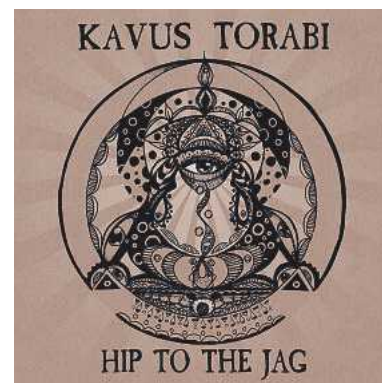
## SEASICK STEVE

### Love & Peace

Contagious 0190296852275; LP: 0190296852152

When on the title track, Steve Wold sings 'Hey man, what's the issue here? Things have all got tangled up' it feels reassuring, like we are once again in capable hands. This latest instalment of timeless electric blues nods back to Willie Dixon's songs and John Lee Hooker's boogie, but is imbued with his characteristically cool worldview, as exemplified by 'My Woman', a droll paean to his wife. *Love & Peace* is sparse and gnarly, with Steve's raw, imaginative guitar playing backed by Dan Magnusson's clattery, syncopated drumming. It was recorded both at home and in commercial studios and Steve has achieved a satisfying mix here of the rough and the smooth. *MB*

Sound Quality: 90%



## KAVUS TORABI

### Hip To The Jag

Believers Roast BR23CD; LP: BR23V

Guitarist and vocalist Kavus Torabi is best known for working with The Cardiacs, Knifeworld and more recently the version of Gong that continued with the blessing of founder Daevid Allen, who died in 2015. But this is a strictly solo effort, vividly recorded at Torabi's Skyhenge studio. With harmonium and santoor – an Indian hammer dulcimer – woven into guitars, synths and occasional percussion, it's a personal and reflective form of psychedelia, with an exultant, acoustic guitar-based song, 'Cemetery Of Light' and the elegiac moods of 'Break My Fall'. 'Slow Movements' a panorama of juddering synth drones closes the album in spectacular fashion. *MB*

Sound Quality: 90%



## BEDOUIIN SOUNDCLASH

### Mass

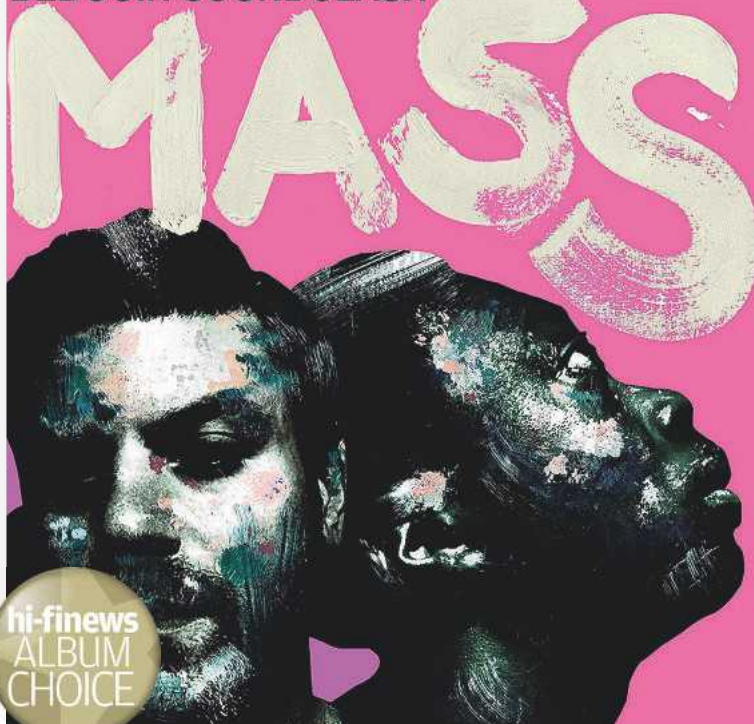
Mr Bongo/Easy Star MRBCD211; LP: MRBLP211P

The long-awaited fifth album from this astonishingly eclectic Canadian duo is well worth the wait. The core creative couple, vocalist/songwriter Jay Malinowski and bassist Eon Sinclair, have lost none of their drive or their ability to mix and match musical styles as if there were really no barriers between traditional jazz, soul, pop, electronica and dance. Recorded partly in New Orleans with the participation of the revered Preservation Hall Jazz Band, and partly in Vancouver with the St James Music Academy children's choir, this is one of the most joy-filled albums I've encountered in ages. It's also choc-full of gloriously singable songs and virtually irresistible top of head to toe tip grooves. *JBk*

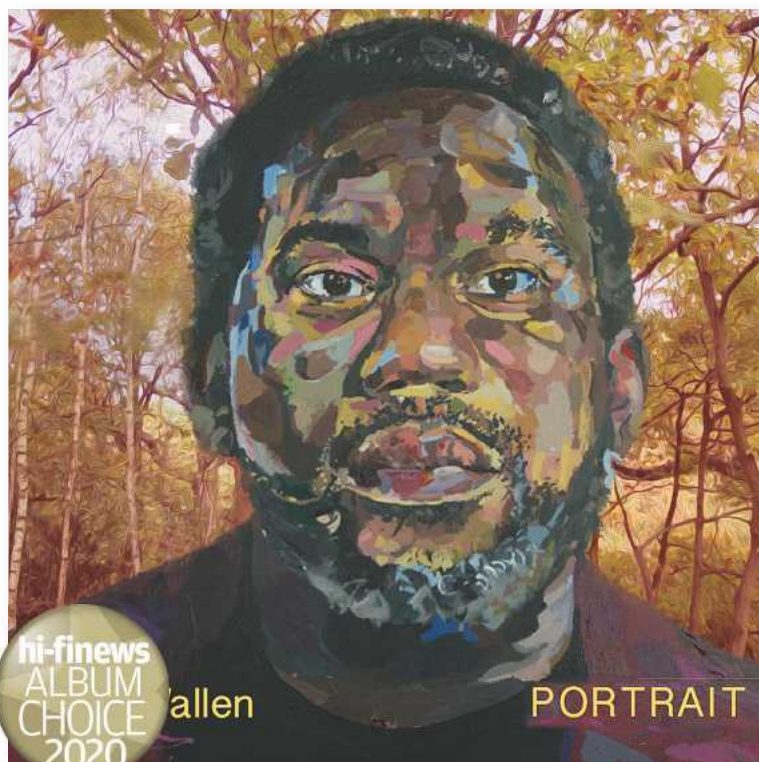
Sound Quality: 95%



## BEDOUIIN SOUNDCLASH



hi-fine  
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### BYRON WALLEN

Portrait: Reflections On Belonging

Twilight Jaguar TJCD3

Surprisingly, this is the outstanding British trumpeter's first release under his own name since *Meeting Ground* in 2007. Wallen draws on his experiences as a musician touring the world and on the diversity around him at home in South East London, 'meditating on identity, culture and what it means to belong'. You hear a choir of schoolchildren, a market cry, and flute-like sounds from Wallen's conch collection on 'Ferry Shell'. But the pieces are vibrant and varied, Wallen's big-toned, engaging playing perfectly supported by his excellent and close-knit Four Corners band, which comprises guitarist Rob Luft, bassist Paul Michael and the dynamic American-born, UK-based drummer Rod Youngs. A warm and inspiring album. **SH**

Sound Quality: 90%



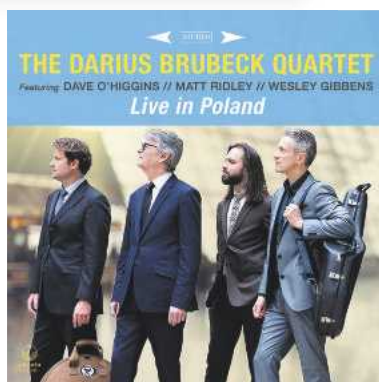
### CARLA BLEY/ANDY SHEPPARD/ STEVE SWALLOW

Life Goes On

ECM Records 832063; LP: 854826

A third album in a sequence that began with *Trios* in 2013, recorded lovingly with a wonderfully lush sound. It's also somehow a warmer, more joyful experience than 2016's *Andando El*. There are three suites of new pieces by Bley, the first giving the album its title and gently based on the blues with long, loping lines from Sheppard's saxophone and Swallow's bass, a melody instrument in his hands. 'Beautiful Telephones' comments ironically on an early Trump tweet and finally, 'Copy Cat', as the title suggests, plays lightly with ideas of call-and-response, reflecting this long-standing trio's fabulous inner rapport. **SH**

Sound Quality: 90%



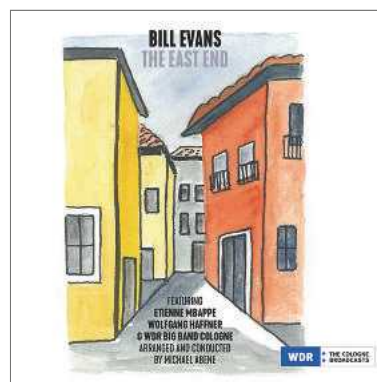
### THE DARIUS BRUBECK QUARTET

Live In Poland

Ubuntu Music UBU0033

All four of Brubeck's sons are musicians. In the 1980s Darius pioneered jazz education in South Africa, but moved to London in 2006 and formed a new quartet. Drummer Gibbens and bassist Ridley were heard with saxist Mike Rossi on *For Lydia And The Lion* in 2009, but in 2014 came *Cathy's Summer*, Dave O'Higgins completing the current lineup. Here they're in fine form on the last night of a 2018 tour that marked the 60th anniversary of Dave Brubeck's 'Iron Curtain' visit. O'Higgins is robust and Rollins-tinged on 'Your Own Sweet Way', warmer on the other Dave Brubeck piece here, 'Dziękuję' or 'Thank You'. And 'Take Five', inevitably, ends a great live set. **SH**

Sound Quality: 90%



### BILL EVANS

The East End

Jazzline D77066; two LPs: D78066

Saxophonist Bill Evans made his name in Miles's early-1980s 'comeback' band, since when he's restlessly catalysed different genres, eg, feeding bluegrass into a jazz-funk blender with his Soulgrass band in the early 2000s. *Vans Joint* was recorded with the Westdeutscher Rundfunk big band in 2009, but here Evans is heard live on his triumphal return to Cologne and the WDR in 2011, with fellow guests Etienne Mbappé on bass and leading German drummer Wolfgang Haffner. Once again, his music was superbly arranged by Michael Abene and finely executed by the WDR players. And as always, Evans's own playing is both endlessly inventive and accessible. **SH**

Sound Quality: 90%







COMPACT DISC



SUPRAAUDIO



DVD



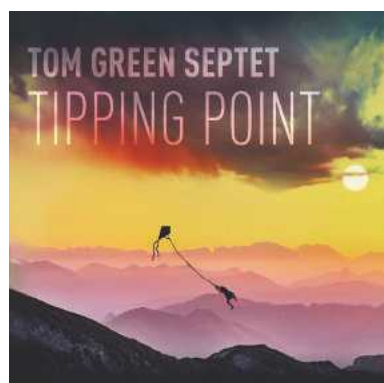
BLU-RAY



VINYL



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## TOM GREEN SEPTET

### Tipping Point

Spark! 008

Gifted trombonist and award-winning composer Tom Green launched his Spark! label back in 2015 with *Skyline*. With only one change of personnel (altoist Tommy Andrews replacing Matthew Herd) the new album is a promise fulfilled, as Green's 'chamber jazz' writing is stronger and fuller-sounding than ever. On bass is Misha Mullov-Abbado, to whose 2015 debut album Green contributed, while on trumpet is Tom's friend since schooldays Jim Davison. These close-knit colleagues put Green's music over with verve and aplomb, the horns, for instance, often sounding like a much bigger band, but playing with delicacy and subtlety too. *SH*

Sound Quality: 90%



## HIROMI

### Spectrum

Telarc TEL00081

Hiromi's new solo album marks the end of her 30s, but its theme looks back further as, she says, her first piano teacher 'taught me to see colours through music'. It opens with a typically spectacular attack on the piano in 'Kaleidoscope' but in 'Whiteout' she conjures a snow scene with Debussyan delicacy, while 'Yellow Wurlitzer Blues' is a kind of hyperspace boogie plus harmonic twists. With 'Rhapsody In Various Shades Of Blue' she revels in Gershwin's bravura but adds other references, even The Who's 'Behind Blue Eyes'. Finally there's the delightful classical-style nostalgia of 'Sepia Effect'. A fabulous pianist as always, and a great artist too. *SH*

Sound Quality: 90%



## ABDULLAH IBRAHIM

### Dream Time

Enja ENJ-9676 2

June 2019 saw the release of *The Balance*, recorded by Ibrahim with his group Ekaya in London in November 2018, shortly after his 84th birthday. Now, a decade after *Senzo*, five years after *Song Is My Story*, comes a new solo piano album. Once again, in a long sequence played without a break, Ibrahim seems somehow to distill his whole life story. There are the African themes, pieces for Coltrane and Ellington, and a beautiful nostalgic melody conjuring up Ellington's great trombonist Lawrence Brown. Recorded in a relatively cosy hall near Ibrahim's new home in Bavaria, the sound is intimate yet sonorous, just right for this deep, calm and healing music. *SH*

Sound Quality: 85%



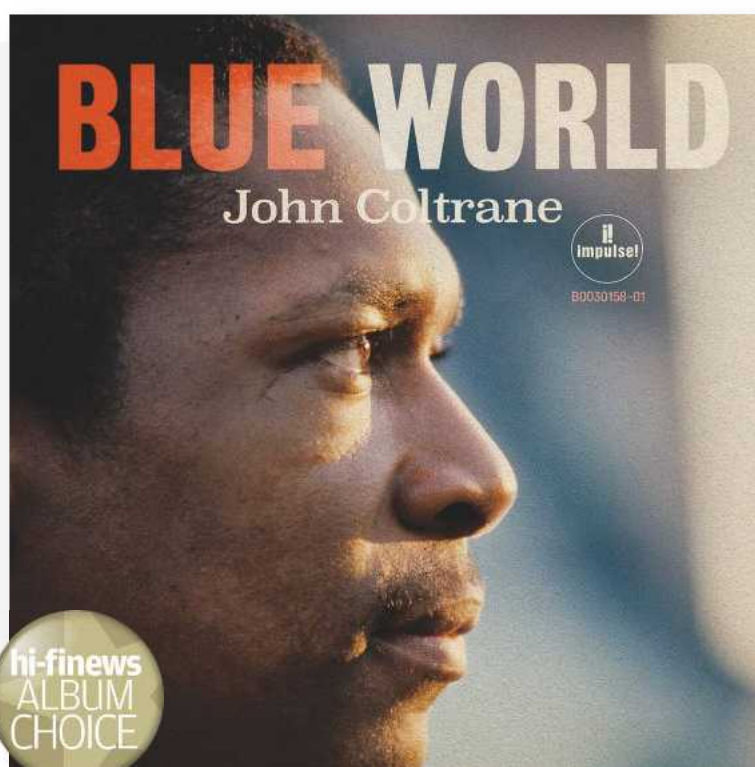
## JOHN COLTRANE

### Blue World

Impulse! 7762652 (mono); LP: 7762651

After last year's *Both Directions At Once*, here's another unreleased studio session from Coltrane's classic quartet. The tracks were recorded in June 1964, at the request of Gilles Groulx of the Canadian National Film Board, for his movie *Le Chat Dans Le Sac*. Rather than bring in new material, the group revisited earlier Coltrane compositions. Groulx took the (mono) master back to Canada, but only used ten minutes of the music in the film. Now, you can hear all of it, starting with a beautiful, luminous 'Naima', the first of two takes. Then, as well as three takes of 'Village Blues', you get 'Traneing In', 'Like Sonny' and the title track. Not exactly another 'lost album', but definitely another 37 essential minutes. *SH*

Sound Quality: 90%







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— HI FI WORLD

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— STEREO TIMES (USA)

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— AUDIO 10 (USA)

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SUPRAAUDIO



DVD



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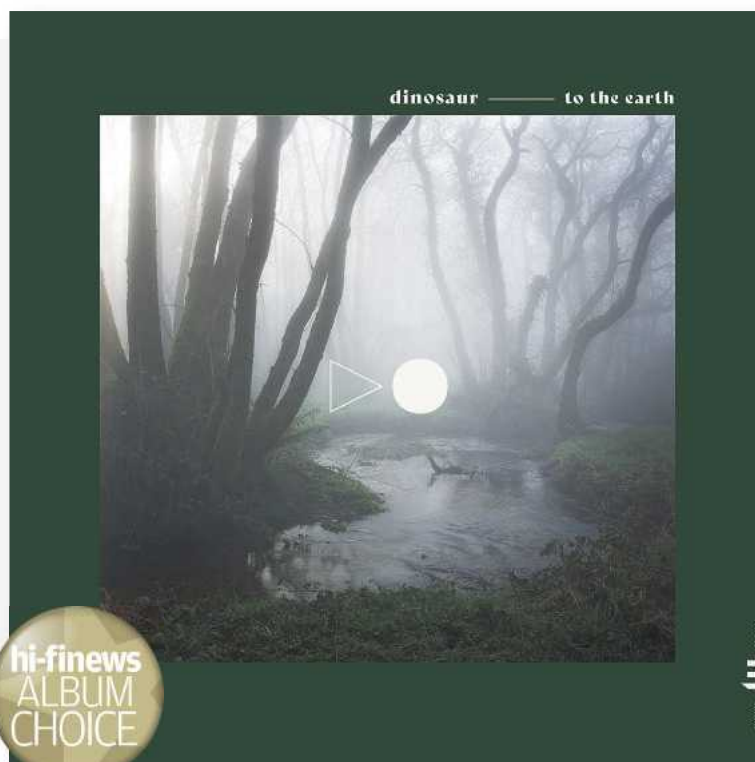
### DINOSAUR

To The Earth

Edition Records EDN1154; LP: EDNLP1154

It's ten years since trumpeter and composer Laura Jurd teamed up with pianist Elliott Galvin, bassist Conor Chaplin and drummer Corrie Dick, all wonderful players. They all also appeared alongside the Ligeti Quartet and Ben Davis on *Landing Ground* in 2012 and in the Chaos Orchestra big-band project. Here the Dinosaur quartet sounds more acoustic than on 2018's synth-heavy *Wonder Trail*, creating an inviting and richly-textured sound world with only gentle electronic assistance. The one cover is a striking take on Strayhorn's 'Absinthe', and Jurd's pieces are great, from the sprightly, optimistic title piece to the Monk-tinged crawl of 'Slow Loris' or her flowing 'To The Water'. And her own playing is fabulous. **SH**

Sound Quality: 90%



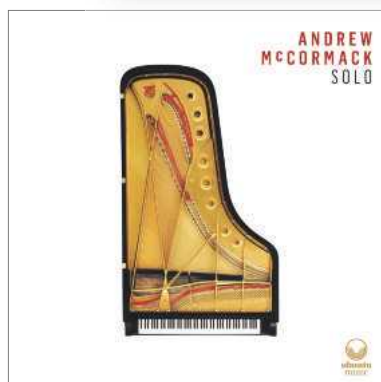
### KEITH JARRETT

Munich 2016

ECM 779 3748 (two discs); 2LPs: 0829260

More than 40 years on from *The Köln Concert*, Jarrett's solo albums have become a seemingly endless series. But his unique abilities and focused approach to performance still make each new one special. Here, as usual, the pieces are given numbers, in this case I to XII, but the first is by far the longest at nearly 14m, intense, densely rhythmic, a *tour de force* in itself. At the end of the concert, Jarrett added three interpretations, with 'Answer Me, My Love' and 'It's A Lonesome Old Town' followed majestically by 'Somewhere Over The Rainbow'. For other pianists, solo concertising can be a mountain to climb, but Jarrett is far away up there already. **SH**

Sound Quality: 90%



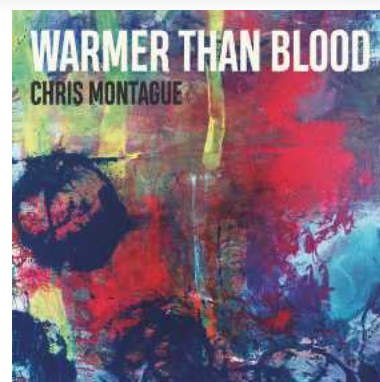
### ANDREW MCCORMACK

Solo

Ubuntu Music UB0059

Known in recent years for his work with Kyle Eastwood and his own Graviton ensemble, McCormack still loves the challenge of a solo concert – as he puts it, 'You could say I'm addicted'. He wrote some of the pieces here in 2016, and performed them at the London Jazz Festival. But they were put aside until last year, when he dusted them off and added new ones to create this welcome solo album. Never flashy but always communicative, revealing harmonic depths and depth of feeling too, his playing always has a pulse. And he rounds off this absorbing set with a subtly re-harmonised and freshly-absorbing 'For All We Know' that just hits the spot. **SH**

Sound Quality: 90%



### CHRIS MONTAGUE

Warmer Than Blood

Whirlwind Recordings WR4756; LP: WR4756LP

Guitarist/composer Chris Montague grew up listening to rock and blues players but then voraciously absorbed the whole jazz guitar canon too. Having toured with pianist Kit Downes and drummer Josh Blackmore, he's joined again by Downes in a trio completed brilliantly by Ruth Goller, who adds chordal and percussive effects on electric bass – the absence of drums lets you listen in more clearly to the interactions of Montague and Downes. With three players who all give out so much energy, the music can be intense, but Montague is lyrical on the almost ballad-like 'Not My Usual Type', which has a more conventional chord structure than most of his pieces. **SH**

Sound Quality: 90%



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### MARIUS NESET/LONDON SINFONIETTA Viaduct

ACT Music ACT 9048-2

An unrivalled master of his instrument, the Norwegian saxophonist is also a remarkable composer. This second collaboration with the London Sinfonietta follows his 2016 *Snowmelt* project and was a commission for the 2018 Kongsberg Jazzfestival. Speaking of *Snowmelt*, Neset said that the three words in his mind before he started writing were 'acrobatic, virtuosity, romantic' and maybe that still applies. He chose the name *Viaduct* to connote 'a connection to different musical ideas... how you go from one world to another'. He runs the gamut of 20th century art music, and jazz rhythms too, with the Sinfonietta players rising brilliantly to the most extreme demands. *SH*

Sound Quality: 90%



### MICHEL PETRUCCIANI Colors

BMG/Dreyfus Jazz 538459425 (two discs); 2LPs: 405053 8526837

Pianist Michel Petrucciani died in Jan '99, when he was 36. This 20th anniversary tribute is culled from albums he made for the French label Dreyfus from 1994. It focuses on Petrucciani the composer, as all 18 pieces are his own. From *Solo Live* (1998) comes the longest track, his evocative 'Trilogy In Blois' suite, and the shortest, his amazing boogie/stride workout 'She Did It Again', which here fades out before it becomes 'Take The "A" Train'. Along with the solos we hear Petrucciani in duet with organist Eddie Louiss, with trios augmented by horns or string quartet, and with Stephane Grappelli on the jaunty 'Little Peace In C For U'. He was a true great. *SH*

Sound Quality: 90%



### SHABAKA AND THE ANCESTORS We Are Sent Here By History

Impulse! Records 0864560; LP: 0864563

Outstanding instrumentalist and determined leader Shabaka Hutchings' current projects include *Sons Of Kemet* and *The Comet Is Coming*. After several visits to South Africa, the Barbadian British saxophonist launched his 'Ancestors' concept with a group of musicians there. He firmly intends this new album to be heard as a whole, each song to be listened to in conjunction with its corresponding poem, built on vocalist Siyabonga Mthembu's lyrics. The music is compelling and often hypnotically repetitive, but although the album is 'a meditation on our coming extinction', it also 'proclaims a visioning of the path forward'. *SH*

Sound Quality: 90%



### VIKTORIA TOLSTOY

Stations

ACT Music ACT 9740-2

Though she's a descendant of the great Russian novelist, the singer's Swedish father is a professor of music and, she says, 'I heard jazz music every day since I was a baby so that just comes naturally. But then I listened to everything'. This time, as young pianist Joel Lyssarides joins her long-time guitarist Krister Jonsson, bassist Mattias Svensson and drummer Rasmus Kihlberg, she starts with Nordic material. The title song is by mysterious Swedish singer-songwriter Stina Nordenstam and there are two by Ida Sand. But she finds other destinations too, stirring deep emotions with a wonderful version of Nat Adderley's 'The Old Country' and giving Jonsson a chance to rock out on Dylan's 'Million Miles'. *SH*

Sound Quality: 90%



### Viktoria Tolstoy Stations

Joel Lyssarides  
Krister Jonsson  
Mattias Svensson  
Rasmus Kihlberg





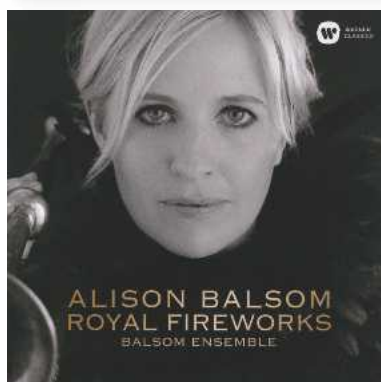
### AKADEMIE FÜR ALTE MUSIK BERLIN/ BERNHARD FORCK

Beethoven: Symphony No 6/Knecht: Grande Sinfonie

Harmonia Mundi HMM 902425 (downloads to 96kHz/24-bit res)

A musical 'Portrait of Nature' with birdsong, a thunderstorm, a trickling brook and descriptive movement-headings – no, not Beethoven's, but a work heard 20 years before the 'Pastoral', composed by Justin Knecht and believed to be known to Beethoven. Necht's storms are even more violent than his successor's! The juxtaposition here is obviously thought-provoking, and fortunately, we have the most enjoyable period-instruments 'Pastoral' I've so far encountered. Leader/director Forck has his players with winds grouped to the right of the soundstage and the timbres of flute and oboe make a magical effect at the end of (ii) and in the peasants' awkward band trio. **CB**

Sound Quality: 95%



### ALISON BALSOM/BALSOM ENSEMBLE

Music by JS Bach, Handel, Purcell and Telemann

Warner Classics 9029537006 (downloads to 192kHz/24-bit res)

Here, Alison Balsom plays exclusively on the natural trumpet in a wide-ranging programme, from the rich splendour of the *Royal Fireworks* to the black sound of drums in Purcell's *Funeral Music* resonating in St Jude's, Hampstead – and then giving way to the one beautiful vocal track: 'Thou Knowest Lord'. (A vivid contrast with Purcell's cheery Sonata in D here.) It's all in demonstration-worthy sound, trumpets stage right and left in a new arrangement of the Handel. Director Simon Williams has re-orchestrated this and created a new setting of Bach's 'Jesu, Joy', where Balsom is like a vocalist. A Bach *Christmas Oratorio* Suite is also rescored by him. **CB**

Sound Quality: 90%



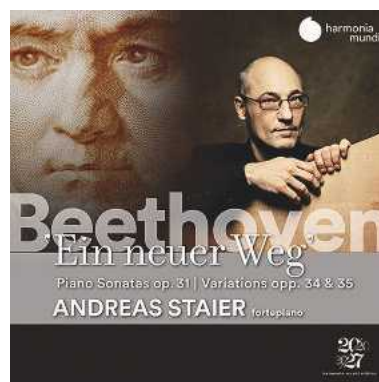
### STEPHEN HOUGH, FINNISH RSO/ HANNU LINTU

Beethoven: Piano Concertos Nos 1-5

Hyperion CDA68291/3 (three discs; downloads to 96kHz/24-bit res)

These recordings were made last June, after concert performances at the Helsinki Music Centre, Stephen Hough playing a Bösendorfer Vienna concert grand. He uses the composer's cadenzas except in 2(ii) – Hough's own, more fitting than Beethoven's 'Hammerklavier' one. In No 4 he also lightly arpeggiates the opening chord – but there's no thrilling glissando at the recap. in 1(i). Time and again Hough surprises with his exact dynamic or timing detail yet everything makes sense in this very consistent cycle. And he gets a matching partner in Lintu. They convey very well Beethoven's pianistic journey from 2-5. **CB**

Sound Quality: 90%



### ANDREAS STAIER

Beethoven: Piano Sonatas Op.31:1-3; Variations Op.34 and Op.35, 'Eroica'

Harmonia Mundi HMM90232728 (downloads to 96kHz/24-bit res)

These works, all published in 1803, come with the cover line 'A New Way', as Beethoven, threatened by deafness, then told a friend he wanted to take a different musical path. Staier plays a Mathias Müller fortepiano (c.1810), wonderful in its timbral colours – still musical with Beethoven's *forte* chords in Var.IX from the 'Eroica' set! Here and there in the sonatas Staier arpeggiates a chord but the sheer intelligence and sensitivity of what he does – he's Kempff-like in the meandering *Adagio grazioso* of Op.31:1 and brings freshness to the well-worn 'Tempest' – makes these two CDs unmissable. **CB**

Sound Quality: 95%







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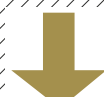
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### JEAN-GUIHEN QUEYRAS, ALEXANDRE THARAUD, RAPHAËL IMBERT Complices

Harmonia Mundi HMM902274 (downloads to 96kHz/24-bit res)

This is like a chocolate box with exquisite flavours, from Haydn to Shchedrin (a tangy homage to Albéniz), with Chopin, Saint-Saëns's 'Swan' and familiar Kreisler as soft centres, the Coltrane Bach improv (with tenor sax) and Dutilleul's *Strophe* something with more to chew on. Mostly, Queyras is partnered by Tharaud in these transcriptions, although I liked even more the two solo cello pieces (Zimmermann's short *Study*, wholly in a high register, and the *Strophe*) and the Haydn 'Toy' Symphony finale with two other strings. Rarities include an *Adagio* by one von Veczy and Poulenc's charming *Chemins de l'amour*. **CB**

Sound Quality: 90%



### MAGDALENA KOŽENÁ, DEUTSCHES SO & RUNDfunk CH/ROBIN TICCIATI Debussy: Three Nocturnes/Durufle: Requiem

Linn CKD623 (downloads to 192kHz/24-bit resolution)

Ticciati's 'Nuages' have a boldly solid form while the brilliant 'Fêtes' receives demonstration-worthy sound (from a Berlin radio studio); the vocal perspectives in 'Sirènes' are impeccably staged too. Commissioned by the Vichy government, Durufle's conservative *Requiem* was only completed in 1947, and like the Fauré (both have a female soloist in the *Pie Jesu* but no *Dies Irae*), published in different forms – Ticciati has recorded the full orchestra with organ scoring. Kožená's solo made me simply whisper 'wow!' and I like the way choral sections are separated over the soundstage. An outstanding Linn CD. **CB**

Sound Quality: 95%



### MARINA HEREDIA, CARMEN ROMEU, MAHLER CO/PABLO HERAS-CASADO Falla: El Amor Brujo; El Sombrero de Tres Picos

Harmonia Mundi HMM902271 (downloads to 96kHz/24-bit res)

Unusual repertoire for the Mahler Chamber Orchestra perhaps, but vivid performances under Heras-Casado, who has an earthy Granadian flamenco singer (Marina Heredia) in *El Amor Brujo*, as Falla would have wanted, contrasting with the gentler tones of the mezzo's brief numbers in *Three-Cornered Hat*. You can simply picture everything in this ballet: the ripostes of the 'blackbird' made me laugh, as did the bassoon solos characterising the pompous Corregidor. The Barcelona Auditori Studio recording is exemplary, as are the annotations included with this CD – full song texts provided as well, of course. **CB**

Sound Quality: 95%



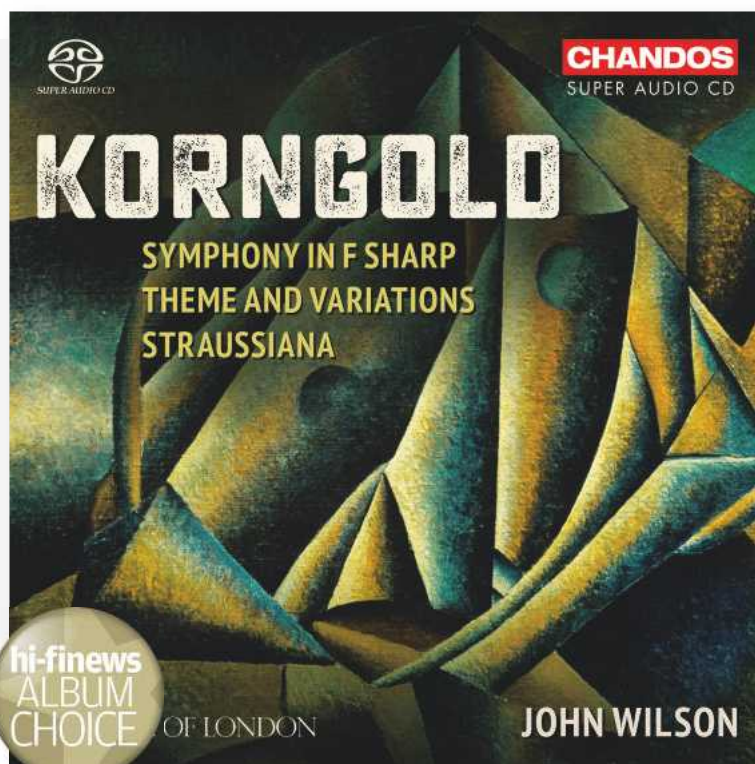
### LONDON SINFONIA/JOHN WILSON

Korngold: Symphony; Theme & Variations; Straussiana

Chandos CHSA 5220 (SACD; downloads to 96kHz/24-bit resolution)

**Forced to leave Berlin, Erich Korngold made a name for himself writing film scores in the States. He intended his Symphony to re-establish himself as a serious composer – however, it had a disastrous 1954 radio premiere and only resurfaced under Rudolf Kempe who made the first recording (RCA) in 1974. The problem for us is that with its alternations of skittishness and solemnity and lush scoring it does sound like a film score. But you'll not be bored for a moment and the 1953 fillers are charming pieces – the second arranging Strauss II rarities à la *Graduation Ball*. With John Wilson's reconstituted London Sinfonia and outstanding Chandos engineering it's a significant addition to the catalogue. **CB****

Sound Quality: 95%





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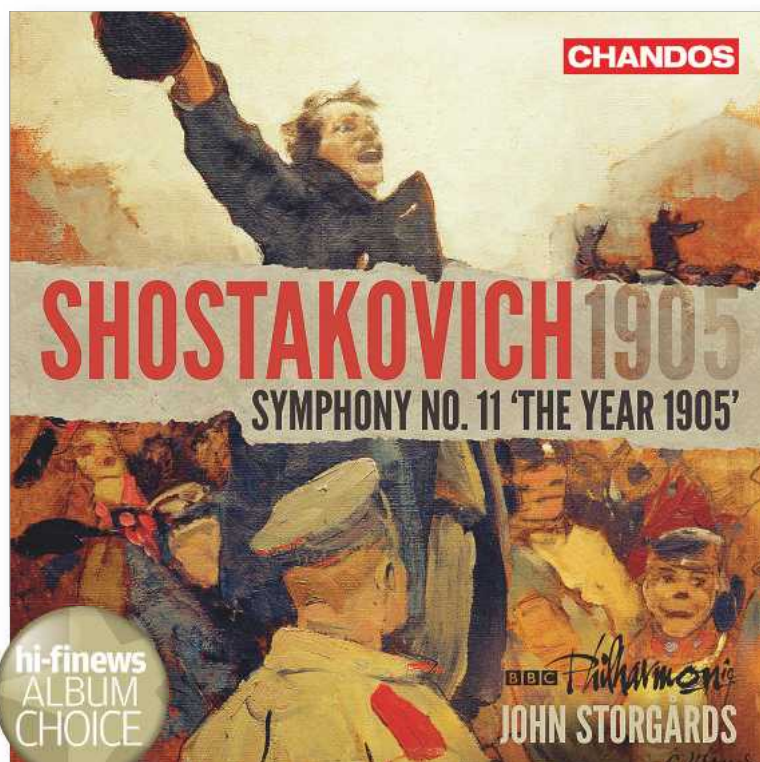
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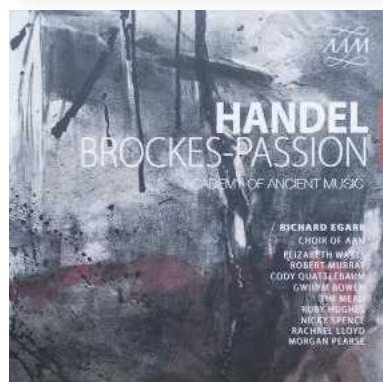
### BBC PHILHARMONIC ORCHESTRA/ JOHN STORGARDS

Shostakovich: Symphony No 11, 'The Year 1905'

Chandos CHSA5278 (SACD; downloads to 96kHz/24-bit resolution)

With this Symphony Shostakovich returned to a programmatic theme: the Palace Square event in 1905 when troops fired and cavalry charged into an innocent crowd bearing a petition for the Tsar. (It's speculated that the composer was actually alluding to the Soviets invading Hungary.) The finest music comes in the opening dawn movement – barely rising above *mf* in its 18 minutes. There are important parts for the snare-drummer and tympanist tying the movements together – a sombre *adagio* follows the massacre depiction. Stay with the musically unrewarding finale, for the thrilling effect here of four heavy church bells at the very ending. Multi-channel too, if you want that. **CB**

Sound Quality: 95%



### SOLOISTS, ACADEMY OF ANCIENT MUSIC/RICHARD EGARR

Handel: Brockes-Passion

AAM Recordings AAM007 (three discs)

Predating the Bach *Passions*, and with four musical settings all premiered at Hamburg in 1719, this recording fulfills a long ambition of Richard Egarr's. It was made live at The Barbican and at Henry Wood Hall sessions this Easter. And it reflects an enormous amount of scholarly input, with one CD of appendices and a 215pp illustrated hardback book exploring every aspect of the work. The sound has a wonderful clarity, as much to do with instrumental and vocal articulation as superb engineering. Of the soloists I have to single out especially the sterling Elizabeth Watts. Handel's music just flies along! **CB**

Sound Quality: 95%



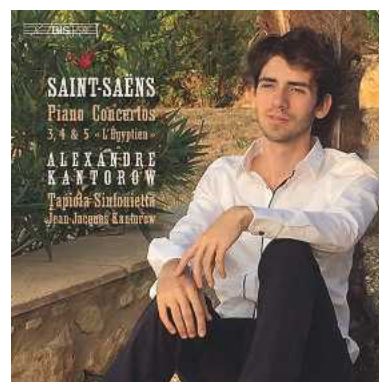
### SANDRO NEBIERIDZE

Piano Works by Prokofiev and Rachmaninov

Harmonia Mundi HMN916115 (downloads to 96kHz/24-bit res)

Nebieridze is a young Georgian pianist and composer and his debut recording is full of contrasts. Rachmaninov's unashamedly romantic Sonata No 2 (revised version) and Prokofiev's determinedly modern No 4; the motoric drive of his E minor *Étude* and the wistful *Vocalise*; the brio of 'Mercutio' and the pathos in 'Romeo and Juliet before parting' in Nebieridze's four chosen *R&J* excerpts. Then there's the unfailing articulation where high speeds are required versus an inwardness in slow music where the pianist explores the depth of intentions in the writing. A fine Steinway recording and considered gap-lengths between tracks complement this absorbing playing. **CB**

Sound Quality: 95%



### ALEXANDER KANTOROW, TAPIOLA SINF/ JEAN-JACQUES KANTOROW

Saint-Saëns: Piano Concertos Nos 3, 4 and 5

BIS BIS2300 (SACD; downloads up to 96kHz/24-bit resolution)

Father and son made a terrific impression with their 2015 Liszt Concertos SACD and in 2019 Alexandre Kantorow won the 16th Tchaikovsky Competition. The Saint-Saëns Concertos are rarely heard live – No 2 was one of Artur Rubinstein's warhorses and only No 2 remains from the benchmark recordings with Jeanne-Marie Darré – and hearing this SACD one hopes Kantorow will do all five. His 'orientalism' in 'L'Égyptien' is a delight, while his fluency is consistently breathtaking, and these are well-balanced, natural sounding productions. If you think Rachmaninov was a romantic composer you should listen to Saint-Saëns! **CB**

Sound Quality: 95%





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### 12 ENSEMBLE

Schubert: 'Death and the Maiden' Quartet, arr strings  
Sancho Panza Records SPAN0002 (downloads to 96kHz/24-bit res)

With a core group of London-based string players, 12 ensemble was formed in 2012. For their second CD they have made their own arrangement of Schubert's Quartet D810, rather than using the completion of Mahler's transcription first heard with the 1986 ECO/Tate EMI LP. The CD also has short, attractive pieces by Tavener (*The Lamb*), Oliver Leith (*Honey Siren*, with descriptive titles: 'Like Thick Air', 'Full Like Drips', 'Like Slow Dancing In Honey') and a song by the Icelandic band Sigur Rós. What sets their Schubert apart is that the sound is more akin to a small chamber group than a mass of strings. The playing is incisive and the engineering outstanding. **CB**

Sound Quality: 95%



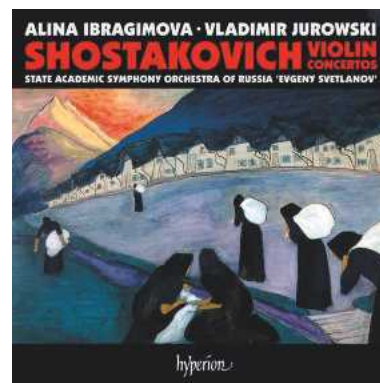
### BAVARIAN RSO/MARISS JANSONS

Schedrin: *Carmen Suite*/Respighi: *Pines of Rome*  
Bavarian RSO/Mariss Jansons

BR Klassik 900183 (downloads to 48kHz/24-bit resolution)

Schnittke's 1967 adaptation of Bizet's *Carmen* (with bits of *L'Arlésienne* and *Maid of Perth* impudently thrown in) was scored for strings and 47 percussion instruments. It was written for his wife, a Bolshoi prima ballerina, to perform but immediately condemned by the Soviet authorities. Rozhdestvensky's *Melodiya*/EMI LP was acclaimed as an unmissable audiophile release (1968). Jansons' live recording is from 2017, and he brings out all of its inherent dark drama – no 'tongue-in-cheek' for the more exotic scoring. The Respighi, given six months before he died last year, is another all-stops-out performance. **CB**

Sound Quality: 90%



### ALINA IBRAGIMOVA, STATE ACADEMIC SO RUSSIA/VLADIMIR JUROWSKI

Shostakovich: Violin Concertos Nos 1 and 2

Hyperion CDA 68313 (downloads to 96kHz/24-bit resolution)

In 2011 the violinist and conductor recorded Mendelssohn Concertos together with the OAE, while for this coupling Jurowski suggested his Moscow Orchestra. Two venues were involved and in No 1, after the demanding cadenza, Ibragimova has opted to revert to the original soloist's opening of the *Burlesque* finale – Oistrakh had requested a brief respite, and Shostakovich complied. Light-toned and alert to every detail, she is perfectly integrated with Jurowski's powerful accompaniment. The later work is less public, maybe an Oistrakh 'portrait', and emerges strongly here. Fine sound too. **CB**

Sound Quality: 95%



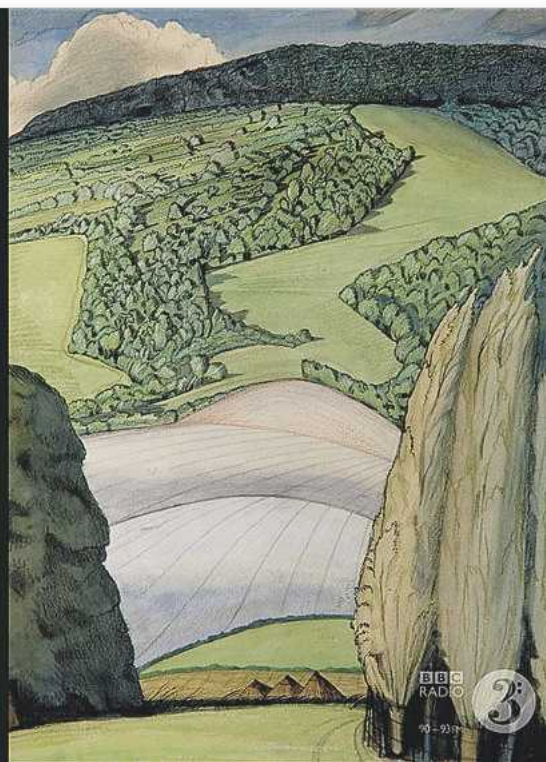
### BBC SO/MARTYN BRABBINS

Vaughan Williams: Symphonies Nos 3, 'Pastoral', and 4; Saraband 'Helen'

Hyperion CDA68280 (downloads to 96kHz/24-bit resolution)

After the 'London', the countryside in landscape and spiritual reflections, then the turbulent No 4, memorably recorded by the composer in 1937 with the BBC SO [Naxos 8111048]. Each RVW symphony took steps in a new direction, as with Beethoven's. And the scherzo from No 3 is not unlike that composer's merrymaking folk – although here they scamper away, not heading to a storm but an inspired solo soprano voice, set far back. A shock, then, to run from that finale to the bellicose 4(i). Both works receive outstanding recordings in Brabbins' series and his completion of the 1913-14 unpublished Marlowe setting (tenor, chorus and orch), *Saraband*, is a rewarding bonus. **CB**

Sound Quality: 95%



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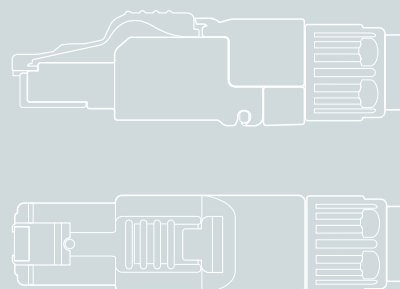
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KEN KESSLER TELLS IT LIKE IT IS...

It was a bumper year for bargains and standout big-ticket components alike, says **Ken Kessler**



**R**ecounting the previous year is the sole object of our annual, but 2020 was far from typical. New product releases were hampered, if not abandoned altogether, by the dearth of hi-fi shows and the means of selling them.

They were natural casualties of the lockdown required to contain COVID-19. The last show I was able to attend was the AudioJumble in Tonbridge in February [*HFN* Mar '20] – a wonderful event, but not exactly a venue for product launches.

### SAVVY SPECIALISTS

There was, however, an unforeseen benefit from the isolation we have all suffered. More than one hi-fi manufacturer reported an upswing in sales, even though hi-fi stores were closed. The beneficiaries, then, must have been mail-order houses and the specialist retailers savvy enough to respond to this renewed lust for music and the equipment to play it on by engaging the services of DHL, Yodel, FedEx and their like.

Just as millions rediscovered gardening, cooking, jigsaw puzzles, Lego and other hands-on pursuits, many dusted off their record, CD or cassette collections, enabling music-on-its-own to enjoy a renaissance. And it wasn't just music that begged for sound system upgrades: cinephiles previously not subscribing to services beyond Sky or Virgin also signed up for Netflix, Amazon Prime and

other purveyors of box-sets, some of them offering top-notch sound quality along with true high-definition images.

I cannot speak for any concomitant increase in subscriptions to streaming services, as I have even less interest in that form of music consumption than I do in badminton, *TOWIE* or the works of Noam Chomsky. Ignoring the all-pervading *ennui* it engenders in me, 2020 saw plenty of new streaming devices. No shock there.

What I can report is that there has been a plethora of new LPs and CDs, the former all the more surprising as we are painfully aware of the loss of the industry's main supplier of lacquers. Notwithstanding this challenge,

anniversary box-sets proliferated, with stunners from The Rolling Stones, Tom Petty, Gene Clark, Fleetwood Mac, John Lennon, The Eagles, King Crimson, Tears For Fears, and too many others to name-check here. Blessedly,

there was certainly no shortage of new turntables, arms, cartridges and phono stages to address this flood of new titles.

My year's hardware highlights? Too many to list in spite of the pandemic, and the fact that I only cover at most two items per issue. After all, I would rather spend my time with components worth praising rather than damning. With this in mind, the 'product of the year' for me – and this is utterly personal and has no authority like an EISA Award – has

**'The "product of the year", for me, was EAT's E-Glo i amp'**

to be the EAT E-Glo i integrated tube amp [see p75]. Yes, I melted when I heard the Audio Research REF160S [p69], but as I just wrote the book on that brand, I must avoid any whiff of a conflict of interest.

The D'Agostino Relentless mono power amplifier [p73] is beyond words, like a Bugatti Chiron. And I fell so in love with the Franco Serblin Ktéma speakers [p99] that I seriously considered selling one of my watches to pay for a pair. But the EAT E-Glo i amplifier captured my heart because it reminded me of the excitement of when I first embraced valves, only with a 21st century spin, and finish and looks reserved for the best in high-end audio.

### SUPREME SOUNDS

Less costly but no less mind-blowing were the MoFi UltraPhono [p42] and EAR PhonoBox [p41] phono preamps, and I finally got to live with the incredible Falcon Acoustics LS3/5a [*HFN* Jan '19] without the pressure of having to write a review. They made my year, especially driven by the EAT E-Glo i and, daily, I find myself torn between them and my reference loudspeakers, the Wilson Audio Sasha DAWs [*HFN* Mar '19].

Other delights of the past 18 months included the truly cost-effective Audeze LCD-1 headphones [p90], Musical Fidelity's MX-DAC (a gem!) [p58], Quad's Vena II Play all-in-one amp/DAC [*HFN* May '20], the EAT Jo N°8 moving-coil cartridge [p33] and the Manley Absolute headphone amplifier [p63]. If I had to name a 'brand of the year', it's the revived Luxman, which offers some of the most desirable products available today. And as for my indulgence should a lottery win take place, I would beg Nishikawa-san of TechDAS to build just one more Air Force Zero turntable, sporting a brace of Graham Phantom Elite tonearms.

If a lesson was learned this past year, it was accepting that open-reel tape reigns supreme. Chasing The Dragon's 15ips, 1/2-track sampler arrived just before writing this column, and it caused me to note how nothing matches reel-to-reel for dynamics, stereo separation, soundstage, bass extension or pretty much anything else. Hmmm... nothing new there, then, for KK. Other than to expect better in 2021. ☺

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