

# hi-fi news

THE HOME OF REAL HI-FI  
**& Record Review**

**Exclusive**

18 PAGES  
 of Music  
 Reviews &  
 Features

## MAJOR CHORDS

**ULTIMA 2 pre/power amps – finer than its flagships?**



### PrimaLuna

**EVO 100 DAC –  
 digital and the  
 magic of tubes**

**Sumiko**  
**Pearwood II**  
 high-end MC

**Scansonic**  
**MB5 B** floorstanders get a radical rework

#### INVESTIGATION

**Hi-Fi @ Home**  
 We revisit HFN readers' systems

**Bricasti M3**  
 Network DAC & headphone amp

**Solitaire P**  
 Exclusive test  
 of T+A's PM  
 headphones



- **OPINION** 12 pages of letters & commentary • **VINYL RE-RELEASE** The Bar-Kays Soul Finger 180g LP
- **FROM THE VAULT** Ortofon's SPU cartridge • **VINTAGE REVIEW** Technics' linear-tracking SL-J33 deck
- **SHOW BLOG** We report from Prague's Hi-Fi Show • **READERS' CLASSIFIEDS** Hi-Fi bargains galore

UK £5.25 US \$13.00 Aus \$13.50



9 771472 256257

# MODEL 12A

A Lifetime of Music Discovery Begins Here...



Available Finishes:



Based on the award winning Synergy, the Model 12A has been designed for those who prefer to select their own special combination of phono stage and cartridge for a unique listening experience. It comes equipped with the legendary SME 309 tonearm and high-end Crystal Cable wiring. Precision engineered and handcrafted perfection with the close attention to detail that SME is famous for.

Transparency, detail and sound purity that will simply take your breath away.



*"This is a no-nonsense, compact, user-friendly package that will cut to the heart of the musical mix to reward with a sound that's taut, precise and highly detailed."*  
Hi-Fi News, September 2019

For dealers in the UK please call Padood on **01223 653199** or visit [www.padood.com](http://www.padood.com)

For international sales please call SME on **+44 1903 814321** or visit [www.sme.co.uk](http://www.sme.co.uk)

SME

# CONTENTS

## VINYL & RECORD REVIEWS

### 72 Classical Companion

This month Brahms takes centre stage as Christopher Breunig turns his attention to the symphonies

### 74 Vinyl Release

An album with an unhappy tale to tell as Steve Sutherland takes a fresh listen to The Bar-Kays' 1967 debut LP *Soul Finger*, on 180g vinyl

### 76 Vinyl Icon

Amid the fracas of guitar feedback lies a string of polished pop gems... Mike Barnes on the recording of Jesus & Mary Chain's *Psychocandy*

### 82 Meet The Producers

From studio tea boy to godfather of the late '60s British Blues Boom. Steve Sutherland looks at the work of UK producer Mike Vernon

### 86 Music Reviews

Our selection of audiophile LP and hi-res downloads reviewed by our specialists alongside the latest rock, jazz and classical albums

## DEFINITIVE PRODUCT REVIEWS

### 36 Chord Ultima 2 series

Better at half the price? We test the latest pre/power combo from the Kent-based company – with some surprising results...

### 42 PrimaLuna EVO 100 DAC

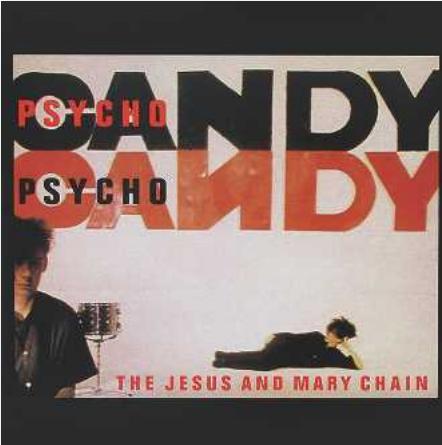
Company adds tube USB DAC with 'SuperTubeClock' to its Evolution range. An 'irresistible bargain'?

### 46 Scansonic MB5 B

Now with input from Gamut's designer, the slimline MB5 floorstander sees a radical rework

### 50 Lindemann Musicbook Source & Power 1000

Why this networked pre/power pairing with Class D amp is one of the best small style systems around



### 54 Sumiko Pearwood Celebration II

Pedigree pick-up maker returns with a premium MC cartridge that's dressed to impress – but how does it sound?

### 58 Bricasti M3

A barnstormer of a network-attached DAC with M1 DNA, and it's aimed at those on a more modest budget!

### 62 T+A Solitaire P

Debut 'phones from one of Germany's finest exploit planar magnetic tech to deliver bass that's rarely rivalled

### 66 Arcam CDS50

We hear what is probably the most affordable dedicated CD/SACD player on the market. Time well spent?

## VINTAGE

### 114 Vintage Review

How do yesterday's classics shape up today? We test a compact square turntable meant to tempt audiophiles away from CD – the Technics SL-J33

### 122 From The Vault

We return to HFN Jan '84 and join Ken Kessler as he hears the Ortofon SPU Gold, a deluxe version of the original SPU, launched in 1959

## NEWS AND OPINION

### 15 Welcome

A message from the editor

### 16 News

Yamaha unveils new A-S series amps, Dynaudio revamps its four-model Contour speaker lineup, T+A adds preamp to HV range, first ever integrated amplifier from EAT

### 18 Show Blog

Spectacular speakers and towering tubes, plus superior kit from regional brands. Ljubiša Miodragović reports from Prague's Audio Video Show

### 28 Hi-Fi @ Home revisited

We talk to readers whose systems have featured in our pages over the years to find out what's changed, starting with a set-up from 2008

### 96 Opinion

Comment and analysis as Barry Fox, Barry Willis, Jim Lesurf, Steve Harris and Andrew Everard consider the hot audio topics of the day

### 106 Sound Off

A letters special this month after we asked you to tell us of your hi-fi experiences during the lockdown. They came in thick and fast...

### 130 Off The Leash

Could a fire that happened a dozen years ago be the greatest risk to the future of music remastered for reissue? Ken Kessler has the details...



**ABOVE:** We catch up with readers whose systems once appeared in our Hi-Fi @ Home feature.

Where are they now? See p28



**LEFT:** Highly flexible and feisty when it comes to power, Lindemann makes its mark with The Musicbook Source [top] and Power 100 networked pre/power combo, p50

SUBSCRIBE!

**hi-fi news**

Save 75% on digital with a print subscription See p112

JUNE 20

PASS

Introducing the XP-12 & XP-17



Enjoy the Experience

Pass Laboratories, Auburn, CA 95602 | 530.878.5350 | [passlabs.com](http://passlabs.com)

Distributed by Select Audio | Tel 01900 601954 | [www.selectaudio.co.uk](http://www.selectaudio.co.uk)

selectaudio<sup>®</sup>  
exquisite audio products



Ultra-pure monocrystal silver conductor in its largest diameter.  
Revolutionary construction and connectors for an ultimate performance.

**Absolute clarity,  
Extraordinary musicality.**



**Balanced, solid and powerful.**

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



**ELEGANT, FLEXIBLE AND BEAUTIFUL.**



#### **THE ULTIMATE DREAM SERIES**

Six all-monocrystal silver conductors and a center silver-gold core, terminated with the highest grade of Oyaide connectors. A perfect combination of engineering and design.

Exceptional neutrality,  
Unforgettable transparency.

*What many dream, only you experience.*

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



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

Start your journey by scanning the QR code or contact: The Audio Business  
hello@theaudiobusiness.co.uk



# #music reengineered

## HA 200





**T+A**  
Engineering Emotion

# 2GO



---

## GO ANYWHERE STREAMER/SERVER

HUGO RANGE



Hugo 2 has taken one giant leap: with a new addition of the 2go streamer/server device, which brings wireless and wired streaming, up to 4TB of storage, plus auto source-switching for seamless music playback between playback applications. Hugo 2 with 2go is now a DAC, preamp, headphone amp, streamer and digital music library, all in one class-leading British-built device.



• CHORD •

Chord Electronics Ltd.

CHORDELECTRONICS.CO.UK

Made in  
BRITAIN



30  
PURE  
AUDIO  
since 1989



HDA

ARCAM

# HEAR EVERYTHING

HDA – High Definition Audio, brings the ultimate in quality to the music that we love. And it is no coincidence that we've also named our latest range of amplifiers and players HDA. This line-up from Arcam brings high definition audio into your home, with unsurpassed clarity and enjoyment. Experience the HDA Series at [www.arcam.co.uk](http://www.arcam.co.uk).



# 33 Revelations Per Minute



## ULTRAPHONO

“

The MoFi UltraPhono redefines what you get for £500, even if you don't factor in what is a mighty fine headphone section. The cartridge matching facility ensures that audiophiles-on-a-budget needn't go without, while the sound quality banishes any thoughts of compromise.... ”

HiFi News, March 2020



karma

audio - visual

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



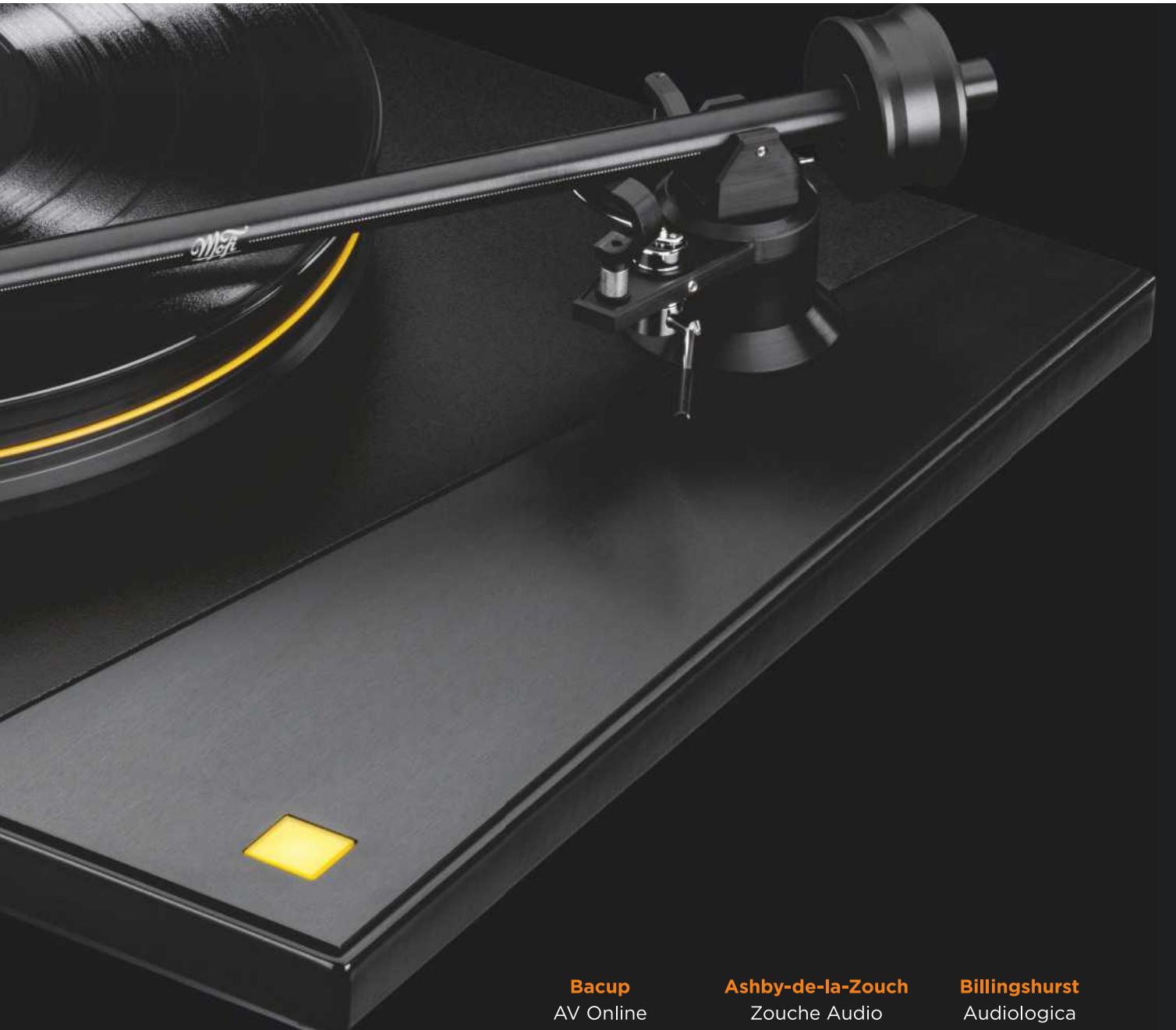
## STUDIODECK+

“For (a) painless introduction to proper vinyl playback, this is a no-brainer.”  
**HiFi News, January 2020**

## ULTRADECK+M

“Here the UltraDeck+M again belied its price/heft category, like a boxer knocking out a contender in the next weight class....it's a dream choice for those who want components that can evolve along with them.”  
**HiFi News, July 2019**





**Edinburgh**  
Hi Fi Corner  
0131 556 7901

**Glasgow**  
The Music Room  
0141 333 9700

**Lincoln**  
Superfi  
01522 520 269

**Birmingham**  
Audio Affair  
0121 224 7300

**Warrington**  
Doug Brady Hi Fi  
01925 828 009

**Bacup**  
AV Online  
01706 878 444

**Leeds**  
The Audio Republic  
0113 217 7294

**Wolverhampton**  
Midland Hi Fi Studios  
01902 380 083

**Cinderford**  
Ceritech Audio  
01594 540 268

**Ashby-de-la-Zouch**  
Zouche Audio  
01530 414 128

**York**  
Wall of Sound  
01904 704 107

**Norwich**  
Basically Sound  
01362 820 800

**Torquay**  
Kingscote Audio  
01803 313 714

**Billingshurst**  
Audiologica  
07901 833 128

**Nottingham**  
Nottingham Hi Fi  
0115 975 8613

**Ipswich**  
Signals  
01394 672 464

**Truro**  
Senso Systems  
01872 273 215

**karma**  
audio - visual

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



Stay home. Enjoy music.

ifi

[www.ifi-audio.com](http://www.ifi-audio.com)

**RIGHT:** Best of both worlds? Sumiko's Pearwood Celebration II offers top-notch MC sound quality with MM tracking performance, p54



**ABOVE:** Inspired by the flagship M1, Bricasti's M3 DAC is now offered with network audio and headphone amp options, see p58



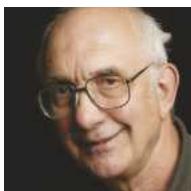
WARNER BROS. RECORDS

**MUSIC:** Jesus & Mary Chain's debut album *Psychocandy* is our Vinyl Icon (p76) while Steve Sutherland relives The Bar-Kays' fateful flight as *Soul Finger* is re-released on 180g LP (p74)

**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



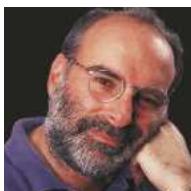
HI-FI NEWS' EXPERT LINE UP: THE FINEST MINDS IN AUDIO JOURNALISM BRING THEIR EXPERIENCE TO BEAR ON ALL AREAS OF HI-FI & MUSIC



**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'



**KEITH HOWARD**  
has written about hi-fi for 40 years, and edited *Hi-Fi Answers* for nine. KH performs our speaker and headphone lab tests



**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



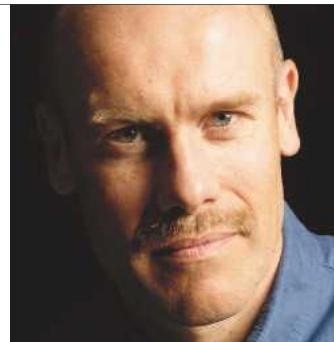
**STEVE SUTHERLAND**  
worked on *Melody Maker* and then edited *NME* from 1992-2000, the Britpop years. Steve brings a unique slant to our Vinyl Release pages

**A**t the time of writing we are all one month into our new lockdown lives, and one more sizzling issue of your favourite hi-fi magazine has been served up on schedule to the printers. As I promised last month, *Hi-Fi News* will continue to publish throughout this period and serve our loyal readers with the high quality reporting, in-depth reviews and entertaining music features to which you have all rightly become accustomed.

Thinking of those selfless NHS heroes – including Mrs P – working on the front line in Covid wards across the country, certainly puts what we are doing into some perspective. Nevertheless, I believe it is important we play our small part in keeping each and every hi-fi fan entertained and informed and, most importantly, feeling very welcome as part of our audiophile community.

Your response to my rallying call for pictures and stories about your 'hi-fi journeys' has been incredible, and we have reprinted a select few across our 'Sound Off' pages (p106-111). Please, keep them coming in and we will stretch this section of the magazine to feature as many of you as possible next month!

Of course, listening to music, as well as dreaming about that next upgrade, remains at the



core of our shared passion. It's also one important pleasure not currently denied us, alongside watching movies, bingeing on box sets and playing immersive games, for those so inclined.

So go wild and enjoy your hi-fi systems like never before: curate your own musically-themed evenings for family members

'Why not try out some weird and wonderful hi-fi combinations?'

and, for those of you with a small cache of hi-fi gear, try out some weird and wonderful kit combinations that really shouldn't work, but might just raise a smile of delight! And, most importantly, tell us all about it...

I'll be doing the same here at basecamp while assembling the cream of aspirational hardware to keep your audio fantasies fully fuelled. By way of teaser, next month we feature the return of an audio legend – Goldmund.

**PAUL MILLER GROUP EDITOR**

# Yamaha backs stereo

## A TRIO OF TRICKLEDOWN INTEGRATEDS

Anyone who recalls classic Yamaha audio products like the CT-7000 tuner will immediately recognise the aesthetic – silver fascia (there's also a black option), rectangular toggle switches and moving-coil panel meters – of its new three-model A-S series of integrated amplifiers. In order of ascending price the range comprises the A-S1200 (£1999), A-S2200 (£2999) and A-S3200 (£4999), rated at 160W, 160W and 170W, respectively, into 4ohm.

Junior of the three, the A-S1200, offers five line-level inputs plus a switchable MM/MC phono input. Next up, the A-S2200, features balanced circuit design and adds a balanced XLR input along with a fully discrete headphone amplifier. Top model, the A-S3200, also incorporates a discrete headphone amplifier, doubles up on the balanced XLR inputs and uses superior internal components such as polyphenylene sulphide film capacitors. Internally the A-S3200 is built using Yamaha's 'Internal Streamlined Construction', which is intended to make the entire structure of the amplifier as resonance-free as possible. Heatsinks are internal in all three models, allowing the fitment of



polished piano black side pieces to match the finish of Yamaha's NS-3000 and NS-5000 loudspeakers [HFN Jun '17].

**Yamaha Corp., Japan, 0844 811 1116; [www.yamaha.com](http://www.yamaha.com)**

## Contour quartet

### NEW 'I' SERIES FROM DYN AUDIO

Dynaudio has updated its four-model Contour series to create the Contour i range, comprising the 20i standmount, 30i and 60i floorstanders, and 25Ci centre-channel speaker. Overall design remains as before but the new models feature improved cabinet finish, internal damping, crossovers and drive units, with trickle-down from the flagship Confidence range. All four models are fitted with a new Esotar2i tweeter which allows simplification of the crossovers as impedance correction is no longer required within the high-pass section. UK prices for the standard walnut, grey oak high-gloss and black high-gloss finishes are £3999/pr, £6199/pr and £7999/pr for the 20i, 30i and 60i, with the 25Ci priced at £2899.

**Dynaudio A/S, Denmark,  
01638 742427;  
[www.dynaudio.com](http://www.dynaudio.com)**



## HI-FI NEWS' NUGGETS

### CAMBRIDGE & ROON

Following on from Roon Ready updates for its Edge NQ preamp/network player and CXN (v2) network audio streamer, Cambridge Audio has now made available a free firmware update for the £1399 Azur 851N network player featuring Roon Ready, which integrates Roon's high-resolution streaming and music management technology. Once it's updated, the 851N will be recognised by Roon on your network. [www.cambridgeaudio.com](http://www.cambridgeaudio.com), [www.roonlabs.com](http://www.roonlabs.com)

### MOON & RAIDHO

Canadian high-end electronics brand MOON has formed an association with the Danish speaker manufacturer Raidho Acoustics. MOON's press release suggests this is a meeting of minds, not a merger: 'Later this year, hi-fi lovers across the globe can expect to see Moon and Raidho Acoustics performing together at audio shows and in retail stores'. [www.simaudio.com](http://www.simaudio.com), [www.raidho.dk/raidho-acoustics](http://www.raidho.dk/raidho-acoustics)

## New Niagara

### AUDIOQUEST'S COMPACT CONDITIONER



AudioQuest has expanded its series of Niagara mains power conditioners with the introduction of the midrange, slimline (445x88x386mm, whd) Niagara 3000 model, priced at £2599. Like the larger, costlier Niagara 5000 and 7000 [HFN Sep '17], the 3000 features AudioQuest's 'AC Ground Noise-Dissipation System', 'Transient Power Correction' (which can deliver a claimed 55A of peak current for 25msec), and wide-bandwidth 'Level-X' linear filtering which AudioQuest suggests is free of the multiple electrical resonances typical of standard mains filters. Non-sacrificial surge protection, which is proof against multiple mains transients of up to 6kV and 3kA, is also included.

**AudioQuest, California, 01249 848 873;  
[www.audioquest.com](http://www.audioquest.com)**

## E Glo gets a boost

### EAT INTRODUCES ITS FIRST TUBE INTEGRATED

Austria-based European Audio Team has introduced its first integrated amplifier, the intriguingly named E-Glo I, which is an all-valve, Class A design able to operate its output stage in either triode mode (rated at 18W into 4 or 8ohm) or ultralinear mode (in which the rated output almost doubles to 35W). A toggle switch on the top panel selects the output modes, alongside another which scrolls between the five line-level unbalanced (RCA) inputs. Incidentally, EAT

already offers three standalone phono preamplifiers for lovers of the black stuff. Other technical features include high-quality coupling capacitors, PCBs which are milled to provide the sound quality of 'wire-to-wire' connection, and a Permalloy-cored output transformer. Output valves are KT88s from either Electro-Harmonix or, at a premium, from EAT. UK price TBA.

**European Audio Team, Austria, 0208 971 3909; [www.europeanaudioteam.com](http://www.europeanaudioteam.com)**



## High Voltage preamp

### T+A EXPANDS ITS HIGH-END HV RANGE WITH A NEW PREAMP

While many high-end audio manufacturers proclaim the benefits of simple circuitry and short signal paths, T+A is happy to say of its new P 3100 HV preamplifier – based on the P 3000 HV [HFN Sep '14] – that it has a 'new, very complex circuit board layout [which] compensates for the temperature coefficients of the transistors'. The result being sufficient thermal stability that all inter-stage

coupling capacitors have been eliminated. Also featured are a larger mains transformer and improvements to the switchmode PSU to increase its output current capability and enhance its electromagnetic shielding. Four balanced (XLR) and seven unbalanced (RCA) inputs are provided.

**T+A elektroakustik GmbH & Co., Germany, 01225 704669; [www.taelektroakustik.de](http://www.taelektroakustik.de), [www.theaudiobusiness.co.uk](http://www.theaudiobusiness.co.uk)**



## Give your bass a boost

### PSB LAUNCHES A BRACE OF AFFORDABLE SUBWOOFERS

PSB Speakers, the respected Canadian loudspeaker manufacturer, has launched two powered subwoofers to complement its inexpensive Alpha Series, which comprises two standmounts, one floorstander and a centre channel. Smaller of the two, the £399 Alpha S8, has an 8in long-throw woofer, while the larger £449 Alpha S10 has a 10in driver. Both models have integral Class D amplifiers rated at 150W. They each feature onboard DSP to maximise performance, and both are reflex loaded by rectangular slot ports beneath the amplifier plate on the rear panel. The S8 (318x292x387mm) is specified



as having a lower corner frequency of 35Hz (-3dB), while the S10 (359x356x445mm) reaches down a little further to 28Hz (-3dB) and 22Hz (-10dB).

**PSB Speakers (Lenbrook Group), Canada, 01732 740 944; [www.psbspeakers.com](http://www.psbspeakers.com)**

## HI-FI NEWS? JUST ASK...

If you can't always find a copy of this magazine, help is at hand! Complete this form, hand it in at your local store and they'll arrange for a copy of each issue to be reserved for you. Some stores may even be able to arrange for it to be delivered to your home.

Subject to availability

Please reserve/deliver my copy of **Hi-Fi News** on a regular basis, starting with issue.....

Title.....First name.....

Surname.....

Address.....

.....

Postcode.....

Telephone number.....

IF YOU DON'T WANT TO MISS AN ISSUE...



## Upcoming Events(?)

### DATES FOR YOUR HI-FI DIARY – TO BE CONFIRMED!

- |                   |  |
|-------------------|--|
| <b>19-20 SEPT</b> | The UK Hi-Fi Show Live, Ascot Racecourse Grandstand, Ascot Berkshire SL5 7JX; <a href="http://www.hifishowlive.com">www.hifishowlive.com</a>         |
| <b>27 SEPT</b>    | Audiojumble, Tonbridge; <a href="http://www.audiojumble.co.uk">www.audiojumble.co.uk</a>   |
| <b>17-18 OCT</b>  | World of Hi-Fi, Dorint Kongresshotel, Düsseldorf Neuss; <a href="http://www.highendsociety.de/world-of-hifi">www.highendsociety.de/world-of-hifi</a> |
| <b>06-08 NOV</b>  | Audio Video Show, Radisson Blu Sobieski Hotel, Warsaw, Poland; <a href="http://www.audioshow.pl">www.audioshow.pl</a>                                |
| <b>21-22 NOV</b>  | North West Audio Show, Crangage Hall (De Vere Crangage Estate), Cheshire; <a href="http://audioshow.co.uk">http://audioshow.co.uk</a>                |

# Audio Video Show, Prague

Words & pictures: Ljubiša Miodragović



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, there was

no shortage of showstopping kit, from international and local brands alike. Whether it was Kronzilla tubes, cutting-edge streamers or big-ticket speakers made from slate, you could be sure of sounds to suit all music lovers.



DALI showed its Rubicon 2C standmount and Rubicon 6C floorstander [third from left], both active and controlled by DALI's wireless Sound Hub. Its passive Rubicon 8 [far left] and Rubicon 6 floorstanders were also on display, with a Naim Uniti Nova streamer [HFN Nov '17] as source. [www.dali-speakers.com](http://www.dali-speakers.com)



German company Lindemann introduced a new series it calls Limetree. The lineup comprises the Phono MM/MC preamp, Bridge network player, Network streamer/DAC, and the Headphone headphone preamp/amplifier. Each features the same 107x40x130mm (whd) metal housing and other models in

the range are promised. The rest of the system saw the company's Musicbook Source [p50] used to play tunes via a Musicbook Power 1000 power amp. Turntable was Pro-Ject's RPM Carbon [HFN Jan '16], speakers were the AQ Passion Teen standmounts and AQ Passion floorstanders. [www.lindemann-audio.de](http://www.lindemann-audio.de)



Local distributor Audio Center Czech showcased two set-ups. The smaller system used electronics from Primare's Prisma series, including the PRE35 pre/power [HFN Dec '19] teamed up with Audiovector R3 floorstanders. These were flanked by Monitor Audio's towering Platinum PL500 II loudspeakers [HFN Jun '16] connected to a Chord Ultima 5 amplifier fed by the company's Blu MkII CD upsampling transport and DAVE DAC [HFN Apr '16]. [www.primare.net](http://www.primare.net); [www.chordelectronics.co.uk](http://www.chordelectronics.co.uk)

## SHOWBLOG Sights and sounds from around the globe

McIntosh hosted an impressive suite, its MT10 turntable with acrylic platter feeding an MP1100 phono stage and an MCD600 SACD/CD player used with an MS500 network player as digital sources. Meanwhile, a C2700 preamp with its five 12AX7A and single 12AT7 tubes was hooked up to a pair of hybrid MC901 monoblocks with four KT88, two 12AT7 and one 12AX7A tubes per side to drive Sonus faber Olympica Nova V speakers. [www.mcintoshlabs.com](http://www.mcintoshlabs.com)



Czech company KR Audio has built itself an enviable reputation when it comes to producing vacuum tubes and used the event to show off single-ended amplification from its Kronzilla series. This integrated 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)



Perfect Sound Group – a distributor based in Prague – assembled two set-ups from brands in its extensive portfolio. The first [top] included an Accuphase E-800 integrated amplifier and DP-560 SACD player/DAC. The electronics were complemented by Fyne Audio's flagship F1-12 speakers and an Avid Ingenuity P&P turntable.

The second system [shown below] also featured an Avid Ingenuity P&P turntable but was more compact, having at its heart an Exposure 2510 integrated amplifier, said to deliver 75W per channel into 8ohm, driving KEF's three-way R3 standmounts [HFN Dec '18]. An IsoTek Evo3 Aquarius power conditioner was also used. [www.avidhifi.com](http://www.avidhifi.com); [www.exposurehifi.com](http://www.exposurehifi.com)



Arcam was present with a system showcasing components from its HDA series, with SA10 and SA20 integrated amps hooked up to CDS50 CD/SACD network players [p66]. The turntable came courtesy of Pro-Ject while speakers were the [l-r] Pontos 6 and 8 floorstanders and Pontos 9 standmounts from local manufacturer AQ Audio. [www.arcam.co.uk](http://www.arcam.co.uk)



# Born in 1986 Raised in 2020

---

Leave Dynaudio engineers alone with a speaker and they'll make it better. They can't just help themselves. And they love nothing more than improving a legend.

With new tweeters, new woofers, new crossovers – and new thrills – Contour i takes all you've loved about the family since 1986, adds 2020 knowhow, and brings your music back to life.

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



---

DYNAUDIO

## SHOWBLOG Sights and sounds from around the globe



Czech loudspeaker manufacturer Xavian introduced its Classic range of loudspeakers, which currently comprises the Terza [left] and Quarta. These large standmount models boast custom-designed drivers from Italian company AudioBarletta and come in a choice of six 'luxury' finishes. [www.xavian.cz](http://www.xavian.cz)

These two-piece speakers are the SN/SL 670 from German manufacturer Fischer & Fischer. The upper cabinet sports an AMT tweeter by Mundorf

and this is set between two 180mm midrange drivers. Meanwhile, the lower cabinet houses twin 220mm woofers. Both enclosures are made from

'low-resonance' natural slate. The electronics used were also of German origin, courtesy of T+A's flagship HV series. [www.fischer-fischer.de](http://www.fischer-fischer.de)



MBL was out in force, its 111 F hybrid loudspeakers [far right] driven by an N51 integrated amplifier with an N31 CD/DAC player used as source. Also serving up the digital sounds was an Innuos ZENith streamer/server. Not that vinyl had been overlooked: an EAT Forte S turntable [HFN Dec '10] equipped with a F-Note arm and Jo N°5 cartridge [HFN Dec '18] took to the grooves, spinning its magic via an E-Glo S tube preamp [HFN Mar '17].

Meanwhile, a more affordable MBL set-up [see inset] featured electronics from the Corona series in the form of the C31 CD player/DAC [HFN Sep '12], C11 preamp and C21 stereo power amp. Speakers were the Borg from the FinkTeam, which use an AMT tweeter allied to a mid/bass driver measuring a mighty 26cm. [www.mbl.de](http://www.mbl.de)



Gryphon Audio has come up with a complete system comprising the Ethos CD player with an ESS Sabre ES9038PRO DAC at its heart, Essence preamp and Essence monoblock. Speakers used alternated between the company's Pantheon [left] and the exotic-looking Giya G2 from Vivid Audio. [www.gryphon-audio.dk](http://www.gryphon-audio.dk)



Czech company Javorina, which has been making solid wood furniture for over 70 years, showed this beautiful retro-looking AV storage unit made from oak. Measuring 200cm long, it has a storage drawer and includes an active soundbar rated at 200W. [www.shop.javorina.sk](http://www.shop.javorina.sk)



The sound and vision of Scandinavia



## How to build the ultimate 15 Series system

**Start with the compact combination of I15 MM with CD15 Prisma,** shown above, providing superior all-analog integrated amplification and inboard MM phono preamplification, with digital disc, stored and streamed media playback.

Need digital inputs? Replace CD15 Prisma with DD15 CD transport and SC15 Prisma network player/preamplifier with multiple digital inputs.

Need more sophisticated phono preamplification for use with a low-output moving coil cartridge? Substitute the MM15 board with R15 MM MC phono preamplifier.

Just need a network player and system control centre with or without amplification for passive or powered speakers? Select either I15 Prisma or SC15 Prisma.

**Whatever your system needs,  
the 15 Series provides.**

- For more information go to [primare.net](http://primare.net)





Sroll is named after company 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 per channel into 4ohm. Speakers are the Sound Garden, which boast no fewer than 14 drivers per enclosure. [www.sroll.com](http://www.sroll.com)



LampizatOr arrived from Poland to wow visitors with its wares, which saw its Pacific DAC [top of rack] fed by a SuperKomputer music server with the mains running

through a Silk AC power filter. As for the loudspeakers, these were the active Blipo Home U22 Limited from Sveda Audio, also from Poland. [www.lampizatorpoland.com](http://www.lampizatorpoland.com)



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

which boast a 38cm woofer. Electronics included a pair of the company's monoblocks fed by a PrimaLuna preamp [bottom of equipment rack]. [www.rdacoustic.cz](http://www.rdacoustic.cz)



From Canada came Simaudio with a tasty-looking stack of kit including its Moon 650D CD transport, 680D DAC and 740P preamp, while the dual-channel Moon 860A power amp drove a pair of the 1130mm-tall Beethoven Concert Grand loudspeakers [left] from Vienna Acoustics. [www.simaudio.com](http://www.simaudio.com)



On home turf, local importer Amarock Studio drew crowds as it demonstrated the 118cm-tall Avior II loudspeakers from US manufacturer Rockport Technologies. Also on hand was a Signature SIA-030 integrated amplifier from Vitus Audio and Métronome Technologie's AQWO SACD/CD player [HFN Mar '19] and DAC [see inset]. [www.metronome.audio](http://www.metronome.audio)





H120 Integrated Amplifier

HEGEL  
MUSIC SYSTEMS

baby  
*Giant*



Standing on the shoulders of GIANTS, the H120 carries forward the proud history of HEGEL amplifiers. The multi award winning designs that over the years have

dazzled listeners with their combination of raw dynamics and delicate naturality. The H120 carries that legacy with it, but in a smaller and more affordable package.



Control4®  
ready



SoundEngine2

## SHOWBLOG Sights and sounds from around the globe



Slovak company Stark Audio premiered a new pair of speakers it calls Eight. These active standmounts actually make up a complete audio system, because in addition to built-in amplification, they also house an onboard DAC and streamer, and have an attractive touchpanel control on top. [www.stark.audio](http://www.stark.audio)

Canor Audio made sweet music with a system that combined tubes and solid-state, vinyl and CD. This saw its AI 1.10 and AI 1.20 integrated amplifiers join forces with a CD 1.10 CD player/USB DAC [HFN Aug '14] while a Pro-Ject turntable fed the company's PH 1.10 phono stage. [www.canor-audio.com](http://www.canor-audio.com)



Chinese company Hifiman, best known for its high-end headphones and portable players, was present with its premium, range-topping Shangri-La system. This comprises a pair of electrostatic headphones and a tube amplifier equipped with 300B valves. [www.hifiman.com](http://www.hifiman.com)



Classé unveiled its new Delta Pre and Delta Stereo amplifiers, which together offer analogue, digital and network connectivity plus a substantial 250W/8ohm rated power output. The rest of the system comprised Denon's DCD-1600NE SACD player and a pair of Polk Audio's Legend L600 speakers. [www.classeaudio.com](http://classeaudio.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 consisted of electronics from its flagship HV series as well as a G 2000 R turntable [HFN Jul '16]. [www.taelektroakustik.de](http://www.taelektroakustik.de)



Another sight – and sound – to behold was this mountain of electronics from Canadian company EMM Labs. Racked up centre stage was its NS1 streamer, TX2 SACD transport, DA2 converter and DV2

D/A processor while to the right and left sat its MTRX2 monoblocks, said to deliver 1kW per channel into 4ohm. The exotic-looking speakers are the Estelon from Forza. [www.emmlabs.com](http://www.emmlabs.com)

# Next month

HFN reports on highlights from the Athens Hi-Fi Show

# THE ULTIMATE



 **absolute sounds ltd.**

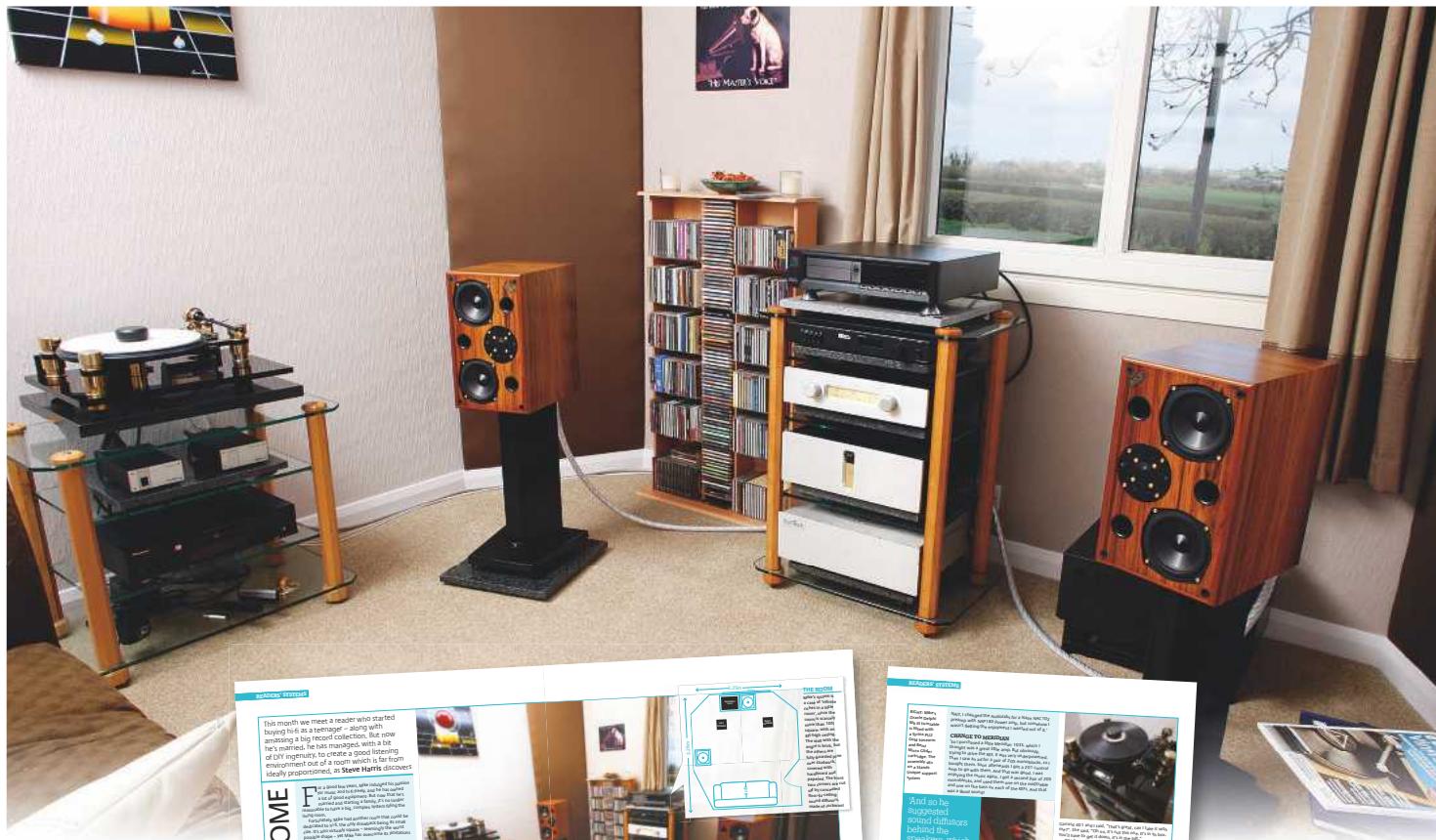
International Distributors & Consultants of Specialised Hi-End Home Audio & Video Systems  
58 Durham Road, London, SW20 0TW   T: +44 (0)20 89 71 39 09   F: +44 (0)20 88 79 79 62  
[absolutesounds.com](http://absolutesounds.com)   [info@absolutesounds.com](mailto:info@absolutesounds.com)



# MUSIC PLAYBACK

For Your Nearest Dealer Please Visit The [Absolute Sounds Website](#)

# HI-FI @ HOME – WHERE ARE THEY NOW?



**ABOVE:** Mike's original set-up and listening room with the front two corners cut off by concealed floor-to-ceiling sound absorbers

# Hi-Fi @ Home revisited

**Steve Harris** catches up with a reader whose system we featured in 2008 to find out what changes he's made. But first, here's the way things were...

**F**or many years, reader Mike indulged his passion for music and hi-fi freely, and he has owned a lot of good equipment along the way. But now that he's married and starting a family, it's no longer reasonable to have a big, complex system filling the living room.

Fortunately, Mike had another room that could be dedicated to hi-fi, the only drawback being its small size. It's also virtually square – seemingly the worst possible

shape – yet Mike has overcome its limitations to a remarkable extent. In the years before this final move Mike's system went through some fascinating twists and turns.

## FIRST SYSTEM

'The first proper system I got was in 1981 or 1982 – a NAD 3020 amp, Dual CS505 deck with a Grado FCE cartridge, and a pair of Celestion Ditton 110 loudspeakers.'

Leaving school and starting work,  
Mike soon changed the turntable for

a Michell Synchro, with a Linn LVX arm and an A&R P77 cartridge. The NAD gave way to a Naim NAIT, and the speakers to a pair of Monitor Audio R700s. 'That system then stayed with me until I was about 20, because I found it so enjoyable.

'Then my boss at work wanted a turntable. I was thinking I wanted to upgrade to a Linn LP12, so I sold him the Synchro. But the money I'd put aside for the LP12 went to something else, so as a stopgap, in came a little Revolver. This was OK.



but I thought it was a pale imitation of the Synchro. After about four months, I traded it in for an LP1 with Basik LVX tonearm, still keeping the A&R P77 cartridge.

'I was very happy with that, but it made me start digging a bit deeper. So then I went and spent a fair chunk of money on a Linn Kairn, 280 power amp, and Keilidh speakers. And that was quite a jump!'

### SOMETHING NOT RIGHT

'Although it was enjoyable, I did start to think that I'd actually played a much bigger range of LPs when I had the Synchro and the NAIT, compared to what I played now I had the Linn. I realised that I was listening to a lot more small-scale, jazzy blues sort of stuff, whereas some of the other music that I liked just didn't get a look in.'

'I decided this was because when I tried to play a piece of classical music, or rock, I didn't think that the Linn actually did the job very well.'

'I went back to the dealer. He said, basically, you've outgrown the system; you need to build the turntable up. So again, I spent a fair chunk of money. I bought an Ekos, an Arkiv and a Lingo, all in one hit. That was another fairly big step up!'

'And yes, I was happy with it for a while. But, when I'd listened to the Lingo at the store, I'd also had a demonstration of the Naim Aro. They'd had two Linns set up side by side. And there was another young lad listening too, who'd just happened to pop in. We both preferred the Aro, and we were both told we were deaf, by the dealer!'

'So, being still a bit young and impressionable, I didn't go with what my own ears were telling me. Instead I went with what the dealer said, and bought the Ekos arm.'

'I won't say I regretted it, but I started thinking "something's not quite right". And then I started going round the mulberry bush between different amplifiers as I'd decided it was the amp at fault.'

'I kept the Kairn, changed the power amps for a pair of Audiolab 8000Ms and bought a pair of KEF Reference 1s to replace the Keilidhs. The KEF was definitely a far more capable speaker. It survived many, many system changes after that.'

'Anyway, the KEFs lasted but the Audiolabs didn't, as I found them

far too bright. Because I'd liked the Naim NAIT, I changed the Audiolabs for a Naim NAC102 preamp with NAP180 power amp, but somehow I wasn't getting the enjoyment I wanted out of it.'

'So I purchased a little Meridian 103S, which I thought was a great little amp. But trying to drive the KEFs, it was very underpowered. Then I saw an ad for a pair of 205 monoblocks, so I bought them. Soon afterwards I got a 201 control amp to go with them. And that was good. I was enjoying the music again. I got a second pair of 205 monoblocks, and used one on the mid/treble and one on the bass on each of the KEFs. And that was a good sound!'

### STEPPING UP

'I'd bought my first CD player back in 1983, a Technics SL-P10. When the mechanics started to go – it wouldn't always load – I bought a Philips player, and that lasted quite a while. But now, as I had the Linn deck, I thought it was time I brought the CD up to the same standard. I

bought a Mission Cyrus Discmaster and DACmaster, which I loved. I thought that was a great CD player.'

'Then I saw an ad for a Garrard 401 turntable in the local free ads paper that I'd picked up on the way to work, just to get change for the coffee machine. On the way home I went along there. Quite an old lady answered the door, said "Oh yes, it was my husband's", and ushered me in. She showed me a Garrard 401 and I said, "That's great, can I take it with me?".

'She said, "Oh no, it's not this one. It's in its box. You'll have to get it down, it's in the loft."

'She brought a pair of steps, I ventured up into the loft and found it. There was a sealed Garrard 401 motor unit, never been out of its box. It turned out her husband had worked for Garrard, and he'd bought two. This one had never been used!'

'So then, a trip up to Terry O'Sullivan at Loricraft. I wasn't in a position then to pay £650 for one of their plinths, but he as good as gave me a set of plans to build my own. Though I did buy a lid from him! ↗

**"The Garrard 401 was so brilliant that I sold the Linn"**

**BELOW:** Mike's Oracle Delphi Mk III turntable is fitted with a Syrinx PU2 Gold tonearm and Benz Micro Glider cartridge. An IsoTek Substation supplies all the electronics except the Gamut power amplifier





**SPENDOR**

REVEALING EVERY DETAIL

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

MADE FOR MUSIC. DESIGNED FOR YOU.

[spendoraudio.com](http://spendoraudio.com)

'Initially, I fitted an SME 3009 Series III arm, and the old P77. I was captivated by the musicality of it, the way music started and stopped so brilliantly. So I sold the Linn.

'I enjoyed that for long time, but then I found a secondhand SME 310. And that brought me into contact with someone well known in the hi-fi industry, Umit Kayacan, who sadly passed away last year. He knew the late John Michell very well, and the people at ProAc and Exposure. I added a Denon DL-304 cartridge, which was a fabulous combination, brilliant. I really rate the Denon, a very good pick-up.'

'Then I tried a few other things. I bought a Ming-Da MC7 preamplifier on eBay. It had a lovely sweet sound provided you could get over the fact that it buzzed like a bumblebee. I had it for just a week and then I put it straight back on eBay.'

### HUMMING ALONG

'I also bought an Audio Research SP8 preamp, which had the most amazing phono stage, absolutely stunning, and then I got a D60 power amp to go with it. That was a great combination, but being a little bit elderly, the D60 also had hum problems. It wanted a really good service, which would have cost as much as I paid for it.'

'I um'd and ah'd and as a stopgap bought a Cambridge Audio P500 power amp. Then the option came up of buying the Gamut 200. I'd heard the Gamut amp in its original form as the Sirius, with Jeremy Baldwin down at The Right Note. I'd made contact with him about the time I bought the first Meridian, although I didn't actually buy anything from him, and I didn't go back to him for about eight years!'

'He'd said to me then, "just because something is older, doesn't mean it isn't any good. If something was good once, it'll be good now – it just isn't flavour of the month anymore". And that was good advice.'

'And I remembered the Sirius sound. He'd played it to me with Audio Physic Virgo speakers and a Wadia CD player. That was so impressive. So I couldn't resist the chance to buy the Gamut.'

**"I redesigned the room around the sound traps"**



Inevitably, perhaps, Mike also acquired a Wadia 302 CD player.

'The SP8 made way for a Goldmund Mimesis 2. And, through Umit, the Garrard gave way to a Thorens TD124, which I still have. It's mounted in a piece of Welsh slate, and that in turn is dropped into a 40mm-thick piece of birch ply. That's a hell of a combination, and one with a wonderful glorious midrange.'

'But it's huge! It's a monstrous size. And I had the opportunity to buy my other all-time favourite turntable, the Oracle. It came as a package,

with a Syrinx PU2 tonearm, Benz Micro Glider cartridge and Trichord Diablo phono stage with Never Connected power supply.'

Up to this point, the hi-fi was in the big living room, but, Mike says, 'When I got married things changed a bit!' He threw himself into the project of creating the new listening room. Like the Thorens turntable,

**TOP:** Mike's Acoustic Energy AE2 Series II Reference loudspeakers sit on Sound Style stands

**ABOVE:** Mike's Wadia 302 CD player sits on a granite slab from Vertex AQ while the FM tuner is a Creek CS3140 and preamp/power amps are the Gamut C2R/D-200 III

the KEF speakers were really too big for the small room, and were replaced by Acoustic Energy AE2s on Sound Style stands.

'The room itself is very unusual. It's nearly cuboid, which goes against everything that's said about good sound. I went back to Jeremy at The Right Note and said "Help! How can I get good sound in this square room?". And he suggested sound absorbers behind the speakers, which would help a lot.'

'And I literally redesigned the room around the sound traps. I made a framework up and stuffed the back with rock wool, which is held in with wires. Then I had some filter material, used in fish tanks, which I put over the main frame. The whole thing is actually attached to the wall with Velcro, so the whole panel can be removed. And it looks seamless, because I took it an extra stage further, and ran the skirting board along the front edge.'

'Another thing Jeremy had said was, "Try and lose as many corners as you can", and so I put in a deep coving, actually around the absorbers, so they look part of the room. And even I was surprised at the difference that made.'

'It goes without saying that the mains got sorted out along the way. I've got a dedicated spur which runs off its own set of meter tails. It's star-earthed outside with half-a-dozen inch-thick, four-foot long copper rods banged down into the ground.'

'Working from the room up, starting from that point, I've achieved more now than I've ever got in the past, through all the incarnations of the system. I find now that everything in my music collection sounds good!'

### HOW TO LISTEN

Mike also remembers the influence of the late Umit Kayacan.

'He was a character. He was the one who started me looking in more depth at music, more than hi-fi. He was a hi-fi fanatic, but he really loved music, especially jazz.'

'He broadened my musical horizons quite a bit. He was quite an influence, and he taught me that, at the end of the day, it is your ears that count. What something sounds like to other people doesn't really matter. It's more important that it sounds right to you.' ☺

# The First Word in Music Streaming.



Music. Literally the first word in 'music streaming', and always our top priority. Our network players feature cutting-edge technology – developed over 3 years by 25 expert engineers at our Salisbury HQ – but more importantly stay true to our founding mission, to take you closer to the authentic emotion of the music you love.

So, whether you're listening to your own digital library, commercial music services such as TIDAL, Spotify, Qobuz and internet radio, or exploring the world of Roon, you'll enjoy music streamed with our signature pace, rhythm and timing. Handmade here

in England, the slimline ND5 XS 2, Classic superstar NDX 2 (pictured) and flagship ND 555 players are winning Awards around the world. Hear the difference with your favourite music at your local Naim specialist retailer.

Now featuring native Qobuz integration



[naimaudio.com/streaming-awards](http://naimaudio.com/streaming-awards)

Awards for NDX 2



## HI-FI @ HOME – CATCHING UP 12 YEARS LATER...



**A**fter starting a family, Mike felt he could no longer justify maintaining a very expensive system, and all those sought-after high-end pieces were eventually moved on.

'Everything has changed. Is it still an expensive system? Yes. Is it still as expensive as it was then? No. Are there any items purchased new in there? Very few. Are there some very good secondhand buys in there? Yes there are!'

'You remember I mentioned Umit Kayacan? Going back to the 1980s, he was a big fan of the Magnum amplifiers made by Colin Wonfor and Tony Relph (of Rega fame) and he had the A200 Monoblocks. Well, I came across a pair of the A50s at a bargain price, and based on how the A200s sounded, I bought them.'

'They gave me a lot of what the Gamut had given me. But when I was changing the mains cables, I managed to blow one of them up, which wasn't overly clever!'

#### DOWN TO EARTH

Mike took the amps to John Sampson of JS Audio Repairs.

'I got them back and I have to say, whatever he did to them, they were better sounding than I'd ever heard them, better than I'd heard the 200s. Amazing!'

He tried a couple of decks before eventually settling on the smart-looking all-acrylic SRM/Tech Arezzo. The arm is a Rega RB300 modified and re-wired by Origin Live. Mike usually runs a Supex SD900 or Denon DL-103, fitted

**ABOVE:** Mike has downsized and evolved a completely different system. There's now just one (larger) Stands Unique rack, while a new cabinet holds more LPs

**RIGHT:** Ruark Solus Speakers now sit on Something Solid stands, which replaced Foundation Broadsword and 'removed a veil'

**BELLOW RIGHT:** Primare 31.7 processor is used only as a stereo preamp, fed for digital listening by a Schiit Audio Bifrost DAC

**FAR RIGHT:** SRM/Tech Arezzo turntable fitted with Origin Live-modded Rega arm and AT-VM95SH pick-up, standing in for Mike's Supex SD900 and Denon DL-103, with Creek OBH-8 phono stage

with a boron cantilever and parabolic stylus by US specialist, 'cartridge retipping-5'. Recently, he sent the Supex to the company to be retipped – but then the Denon got broken and needs to be repaired again.

So Mike fell back on his standby moving-magnetic, the Shibata-tipped Audio-Technica AT-VM95SH. This is run through a Creek OBH-8 phono stage, but for the moving-coils Mike has a RJM Phonoclone, a kit-build copy of the 47Labs Phonocube, picked up cheaply from eBay as a functioning but noisy unit.

'After discussion with the seller I was convinced the problem was mains/earthing related. When it arrived and I opened it, the birds' nest that greeted me confirmed my suspicions, power cables crossing signal cables, etc. A couple of

hours with the soldering iron had the buzzing eradicated.'

Meanwhile, Mike's line preamp is the sound section of a high-grade AV processor, the Primare 31.7. 'Lots of inputs, very neutral, and definitely among the best I've had.'

#### SMALL FRY

Then there is a Schiit Bifrost DAC, which has been fitted with Uber and GEN5 USB upgrade boards. 'This one was Technicolor compared to monochrome from the others,' he says. Feeding the DAC via USB is a fanless PC running Linux-based Volumio software, linked to an old Dell PC working as a Vortexbox NAS drive and storing 4500 albums. Mike still has a CD player, the sturdy Pioneer PD-S703, but tells me that he rarely uses it now.

And speakers? Mike's Acoustic Energy AE2s had to go after the surrounds broke up on the bass drivers, but he has happily replaced them with the Ruark Solus.

'I'm actually on my second pair of these. When my daughter was three, I was changing a CD and she'd come along and turned the volume up on the amplifiers. I hit play and they went "bi-bip", fried instantly. It took me until this time last year finally to find another pair.'

'One of my friends who was visiting recently commented that the sound appeared to be coming from around ten metres behind the loudspeakers, which would put the musicians in the front garden!' ☺



# KRONOS

TIME FOR MUSIC®



“ ...the best of all decks with none of the downsides. ”

- Alan Sircom, HiFi+

 MAGNEPLAN  
INCORPORATED

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

- Chris Martens, HiFi+



Life's just better with a **DECENT AUDIO** System

# Raidho acoustics

“ Pick an album, play track one, intending to listen to only that track. Five tracks later you are still mesmerised. ”

- Alan Sircom, HiFi+



AUDIO ANALOGUE  
soundpleasure



“ More than worthy of an extensive audition... a near ideal performance. ”

- James Parker/Paul Miller, HiFi News

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

DECENT AUDIO  
sound distribution  
OFFICIAL UK DISTRIBUTOR

# Chord Ultima Pre 2/Ultima 2

The Chord Ultima range has grown from a single pre and power amp, as the tech becomes more affordable. The Ultima 2 models might just give the flagships a scare

Review: Andrew Everard & Paul Miller Lab: Paul Miller

**N**ever let it be said that the Chord Electronics range isn't distinctive in its styling: all the way up from the tiny Mojo DAC [HFN Jan '16] to the flagship Ultima reference preamplifier [HFN Feb '19], the company's products look like nothing else on the market, as if to emphasise that what's going on inside them involves no shortage of proprietary technology, too.

The Ultima Pre 2 and Ultima 2 monoblock power amps we have here were launched as part of the company's 30th anniversary celebrations, along with further power amps expanding the Ultima range from just two models to no fewer than five. With the Pre 2 listing at £12,500 and the power amps at £18,360 apiece, they comfortably undercut the original Ultima pairing, a full stereo set of which would set you back £90,000. Below the 750W-rated Ultima 2 monoblock is the 480W Ultima 3, another mono at £11,000 a pop, while two stereo power amps have also become available this year – the 300W Ultima 5 is £9250, and the 180W Ultima 6 £5995.

## OPTIONAL LEGS

All the amps, by the way, are available in a choice of 'Jett Black' or Argent Silver finishes to their aircraft-grade aluminium casework, while the company's optional Integra Leg system, in a choice of Jett Black, Argent Silver or Nickel finishes, also allows the products to be stacked.

In practice, the Ultima 2 monoblock is a direct replacement for the SPM 6000 MkII, with new industrial design from company head John Franks [see p39]. The Pre 2 is a fresh design, too, and far less bonkers than the extremely quirky original Ultima preamp, with no sign of those odd 'magnetics set, fuel pumps' switches.

**RIGHT:** The blue/green LED illumination for the Ultima Pre 2 is embedded into the underside of the lid. Inside the alloy casework the switchmode PSU [top left], motorised volume and 'dual feedforward' analogue gain stage [right] are fully screened

What's more, the power amps have got their balls back: each one has a translucent spherical button buried in the centre of its thick alloy fascia, reminiscent of those on the company's DAC range, to fire it up.

Mind you, these wouldn't be Chord Electronics' products without at least some quirkiness... As in other models in the company's lineup, there's LED illumination – blue and green LEDs combining to produce 'teal' – within the top plates to light up the internal workings. On the power amp these, and the 'power ball', can be dimmed if required, using a hidden button in the vertical slot bisecting the upper part of the front panel.

As the manual puts it, 'Simply locate the hidden button in the middle of the faceplate, insert a thin object and push until you hear an audible 'click'. The light ring and power button will cycle between low and high brightness modes'. A credit

card should do the trick, but a button on the rear panel might have been simpler.

## ANALOGUE, WITH FLAIR

The Pre 2 is an all-analogue device and line-level only, offering four sets of inputs on balanced XLRs, two on RCA phono, 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. However, this input is only on XLRs which is slightly unusual when the majority of surround devices will use unbalanced RCAs.

You can adjust the input gain to equalise the level between different sources [see PM's Lab Report, p41], though a bit of familiarisation will be needed to

'What's more,  
the power amps  
have got their  
balls back'





operate the preamp with confidence, not least because any of the sources can be allocated to Bus A or Bus B, thereby routing to one of several outputs.

The explanation goes as follows: this allows any of the inputs to be recorded to either of the tape outputs, and that in general use Bus A is the default. Pressing the button marked 'A' on the front panel sends that signal to the Tape 1 outputs. Meanwhile the 'B' bus is indicated on the Pre 2's display by a line of five dots below the indicated source which is sent to the Tape 2 outs. The remote handset [p41] also lets you control the Bus/input selection.

Confused yet? If not, the layout of the power amp's rear-panel connections should sort that. This is a mono power amp, yet at first glance it appears to have two sets of inputs, on both RCA and XLRs, along with

two sets of 4mm speaker outputs. OK, so the latter is hardly unusual – many mono power amps have two sets of speaker outs to simplify bi-wiring of suitable speakers. Here, however, the twin inputs allow the connection of the power amp with either normal (left hand inputs/4mm outputs) or inverted phase (right hand ins/outs). By all accounts, Chord errs in favour of the inverted input, which is just how Editor PM kicked-off his listening tests.

**CHORD'S NEW ULTIMATE?**  
Driving my favoured B&W 800 D3 speakers [*HFN Oct '16*], and fed from a dCS Vivaldi ONE/Melco front-end [*HFN Feb '18*], these new Ultima 2s quickly got into their stride, writes PM. They filled the room with an impressively broad and deep sound, but one also possessed of an easy tranquility

**ABOVE:** Dominated by its huge volume control, the Ultima 2 can also be operated from across the room thanks to its large display showing input, output, level and gain setting. Two 6.35mm headphone sockets are also offered

that hinted at a vast pool of untapped power just ready to pounce. But don't crank up Chord's volume control to get your speakers jumping – the gain of these monos is higher than usual at 30dB, so the Ultima Pre 2 should be set to 'x0.5' to get a useful range out of that bulbous dial.

Warm-up is very swift indeed – 20 minutes tops – and neither do the Ultima 2s soak up too much juice when idling (90W each), so you have the easy option of leaving them on or off between sessions. I should say at the outset that these Ultima 2s lay to rest any suggestion that Chord's ➤

## THE POWER GAME

As I discussed in our review of Chord's flagship Ultima monoblocks [*HFN Feb '19*], achieving high power outputs into moderate 8 or 4ohm loads is as much about delivering a high voltage across the load as supplying the current to support it, which is why most designers opt for a bridged-mode output configuration to double the amplifier's voltage capacity. Chord takes a different approach, its Ultima 2 sharing the same trio of ±110V switchmode supplies debuted in the flagship Ultima, operating in parallel here to deliver the current required to maintain the amp's voltage output across very low loads.

So, like the Ultima, the '2 bucks the industry trend for bridged output stages, making these two amplifiers the most powerful single-ended hi-fi designs in the world. Furthermore, the fact that the Ultima 2's output stage is

half the size – 32 lateral MOSFETs instead of the Ultima's 64 – has very little impact on its real world performance [see Lab Report, p41]. In practice, it's the three PSUs calling the shots here – supporting dynamic outputs of 825W, 1595W, 3041W and 5617W in the Ultima and 810W, 1590W, 2963W and 4850W into 8, 4, 2 and 1ohm loads, respectively, for the Ultima 2. So while the Ultima delivers a clean 75A of current for short-term musical peaks into the toughest loads, the Ultima 2's 70A is no less impressive.

The most powerful amps we've tested? Up until the advent of D'Agostino's Relentless monoblocks [*HFN Mar '20*], that crown was held by Musical Fidelity's Titan [*HFN May '10*] and Tri-Vista kW [*HFN Aug '03*] – bridged designs that delivered 1050W



and 1996W into 8/4ohm loads, the former achieving 5896W/1ohm (76.8A) while the Tri-Vista kW continued to 8820W into 0.8ohm. But the £250k Relentless – another balanced/bridged design – has set a new benchmark with 1740W, 3350W and 6360W into 8, 4 and 2ohm and 11,325W (or 106A) into 1ohm. Astonishing, but at a price! PM

# Heresy

Titanium Diaphragm Hi-Frequency Driver  
Polyimide Diaphragm Midrange Compression Driver  
12" Fibre Composite Cone Woofer  
Stylish Magnetic Woven Grill  
MDF Cabinet With Three Fine Veneer Finish Options  
Tractrix Horn Ports for Improved Airflow



*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 slant riser base is included for floor placement that is removable for cabinet installations.

**Klipsch**  
**HERITAGE**  
LOUDSPEAKERS



FINISH  
OPTIONS:



Distributed by Henley Audio

T: +44 (0) 1235 511 166 | E: sales@henleyaudio.co.uk | W: www.henleyaudio.co.uk | [Facebook](#): HenleyAudioUK | [YouTube](#): HenleyAudio



**ABOVE:** Slimmer, but as deep as the flagship Ultima, the Ultima 2 is equipped with one of Chord's distinctive rollerball controls – it glows red in standby, green during start-up, then blue in operation. A slot and microswitch in the fascia allows the striking illumination [see pic below] to be adjusted

switchmode-driven amplifiers may sound a little chilly about the edges. Living with the flagship Ultimas for a month back in 2019 convinced me of this, but the Ultima 2s take this refinement to another level – the Ultima Pre 2 is significantly quieter and, thus, so is the combination.

#### TURN UP THE HEAT

Take the poignant 'In The Winter I Returned' [Dear River; Linn AKD505, 96kHz/24-bit] where Emily Barker's voice nudges insistently ahead of Ted Barnes' very deliberately plucked strings, all rising from a very dark and yet eerily spacious acoustic. As her natural sibilance builds and other performers in The Red Clay Halo join the piece, there's still that sense of both volume and intensity growing harmoniously, all of a piece without a suggestion of raggedness.

Turning up the heat with Logan Richardson's debut for Blue Note [*Shift*; Blue Note 00600406671585, 96kHz/24-bit] and there was no pause for breath as this Chord combo revealed the beautiful but challenging melodies. Here were the

twists, turns and obvious improvisation traded between saxophonist Richardson and guest star Pat Metheny on guitar, all underpinned by an oh-so-tight engine-room fuelled by bassist Harish Raghavan and Nasheet Waits on drums.

The sound was rich, the performance compelling as the Ultima 2s provided just the urgency required, and no more, to fill the room on command. So there's certainly a 'technicality' about the sound of this duo, but there's sophistication and passion too.

And can they rock? You bet! Advancing the volume way short of '11' ('3' would be closer to the mark) was more than sufficient to roll out the 2014 remix of Deep Purple's classic

live *Made In Japan* [Universal Music Group UNI285], originally captured on an 8-track machine. 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, on stage, at the apex of their collective talent. ↗

'Vocals swung from intimate to wild dervish in a few beats'



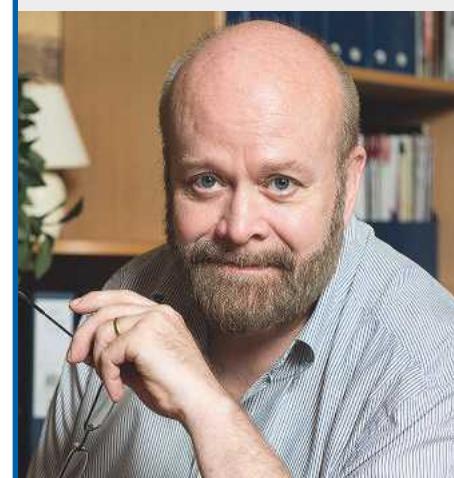
#### JOHN FRANKS

**The Ultima 2 is the more powerful of two new monoblocks to be inspired by Chord's massive flagship amplifier, all sharing proprietary technologies. 'All our full-sized amplifiers are designed to be scalable with many common design parts being the same', confirmed Chord Electronics' MD and Chief Designer John Franks. 'Our Ultima amplifiers use in-house designed ultra low noise HF (switchmode) PSUs. They distribute the instantaneous output current across the main power rails keeping them balanced and the centre ground point free from loop distortion.**

**'We have made 600W, 2kW and 4kW [peak] PSU modules – each built into a metal frame of precisely the same dimensions, so they can be incorporated into any of the amplifiers. We designed them to operate in pairs, but in practice any number can be wired in parallel giving great power and flexibility.'**

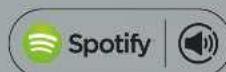
**'The Ultima 2 has three of our 4kW PSUs working in parallel in each mono amplifier. This is the same number we use in the Ultima flagship although the Ultima 2 has 32 lateral metal-on-silicon MOSFET power transistors, half that deployed in our larger Ultima Amp.'**

**The cool-running of these amplifiers is achieved by reducing the standing current down to just a few mA in each N- and P-channel pair of output devices. 'And', says John, 'this is combined with our dual feedforward transconductance error correction circuit, based on a paper by Prof. Malcolm Hawksford and work by Bob Cordell of Bell labs'.**



# NOVAFIDELITY

Innovators in streaming devices offering unrivalled future-proof feature sets since 2003.



## Multiple control options

- Full traditional remote control
- Full front panel control with 7 inch colour screen\*\*
- Web interface via PC, iOS or Android device
- [NEW] Music X Neo control app for iOS and Android

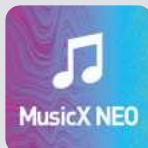
## Highly flexible

- Up to 8TB internal storage (16TB on X50/X50PRO)
- CD ripping functionality
- Network protocols supported
  - UPnP(DLNA) Server/Client/Media Renderer
  - Samba Server/Client
- Bluetooth, Airable (internet radio), DAB/FM
- Wide-ranging analogue I/O including phono stage\*\*\*

\*HD implementation due early 2020

\*\* Excludes N15D. app/webinterface control only

\*\*\*Phono stage on X35, X45, X45Pro



**Now shipping  
with MusicX NEO**

Remote control  
app compatible  
with iOS and  
Android



**WWW.NOVAFIDELITY.COM**  
Distributed exclusively in the UK and Ireland by **SCV Distribution**  
[www.scvdistribution.co.uk](http://www.scvdistribution.co.uk) | 03301 222500



**ABOVE:** Preamp [top] offers eight line ins (four on XLRs, four on RCAs including two tape loops), one AV bypass output (on XLRs) and two sets of main outputs (on RCAs and XLRs). The power amps [below] have inverting and non-inverting inputs on RCAs and balanced XLRs with partnering sets of speaker outputs on 4mm binding posts

'Child In Time' (Osaka) sounded positively haunting through the Ultima 2/802 D3s 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 without ever sounding excessive.

I still have the original gatefold 2LP set issued in 1972 but, to really savour the atmosphere, the remaster beats it hands down. This

ability to expand the scope of its sound, to render an intricate and also realistically physical performance in a decently-sized space, remains a key quality of the Ultima 2 combination.

**LEFT:** Chord's heavyweight, multi-function remote governs volume, balance, input and output selection. BUS A key (and ± Vol) takes you to the Gain settings



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

#### AUDIO ICONOCLASTS

These amps – the Ultima 2 monos in particular – are poster childs for the technology within. So they are not particularly 'like' any competing solutions. They tread their own path, and demand to be heard. Non-conformists the world over will, quite rightly, love them to bits. Ⓛ

#### HI-FI NEWS VERDICT

If the Ultima flagship is a costly 'technology demonstrator' then these Ultima 2 offsprings are a textbook illustration of trickledown in action. Frankly, if you were enthralled by the debut Ultimas and have been saving ever since then 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 really are *that* good.

Sound Quality: 90%

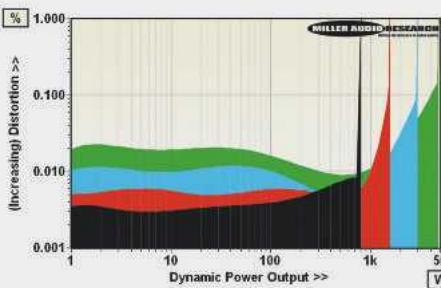


## LAB REPORT

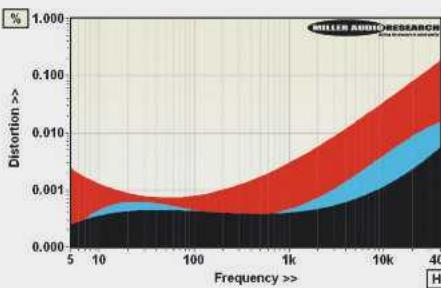
### CHORD ULTIMA PRE 2/ULTIMA 2

In common with the Ultima Preamp [HFN Feb '19] the Ultima Pre 2 offers six levels of overall gain: 'x0.5', 'x1.0'... 'x2.5 and 'x3.0' amounting to -0.3dB, +5.3dB, +9.9dB, +12.1dB, +14.0dB and +15.4dB, balanced in/out, respectively. Maximum output level is 10V regardless of gain (so the input overload is a marginal 1.7V in the x3.0 gain setting), from a 96ohm source impedance, while the 'useable' range of its 99-step volume control is ~53dB. Optimum channel balance, in our sample at least, was achieved at the 1 o'clock position (12 o'clock yielding a L/R channel error of 0.65dB). Intriguingly, the A-wtd S/N ratio is significantly improved over the Ultima Preamp's 83dB (re. 0dBV) at 96.6dB while distortion is lower, and *lowest* in the x3.0 gain setting where 0.0002-0.0023% compares against 0.0003-0.0085% in the x0.5 mode [black vs. blue trace, Graph 2]. Regardless of gain, the Pre 2's response is flat to within ±0.1dB from 1Hz-100kHz.

The partnering Ultima 2 monoblock did not quite make its continuous 750W/1305W 8/4ohm power rating – 690W/1285W was nearer the mark at <1% THD – but the three ±110V PSUs operating in parallel delivered a magnificent 810W, 1590W, 2963W and 4850W into 8, 4, 2 and 1ohm loads under dynamic conditions [see Graph 1, below]. At 1kHz/8ohm, THD increases very gently with output from 0.002%/1W, 0.003%/10W and 0.0035%/100W up to just 0.0045%/600W. THD increases by a factor of ~20x at 20kHz, reaching 0.008%/10W [red trace, Graph 2]. Output impedance increases from a low 0.018-0.020ohm (20Hz-1kHz) to 0.09ohm/20kHz and 0.91ohm/100kHz, and the response rolls gently away at HF to -0.23dB/20kHz and -2.95dB/100kHz (10W/8ohm). PM



**ABOVE:** Dynamic power output versus distortion into 8ohm (black trace), 4ohm (red), 2ohm (blue) and 1ohm (green) speaker loads. Max. current is 69.6A



**ABOVE:** THD vs. freq. for Ultima Pre 2 (1V out, x3.0 black trace; x0.5 blue) vs. Ultima 2 (10W/8ohm, red)

#### 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

# PrimaLuna EVO 100 Tube DAC

PrimaLuna's minimalist, valve-equipped EVO 100 DAC may seem a throwback to the time when digital only meant CD, but the sonic performance is truly 21st century

Review: Ken Kessler Lab: Paul Miller

**T**wo words spring to mind when examining PrimaLuna's Evolution series EVO 100 DAC: 'old school'. Yes, a genre as seemingly new as digital has been around long enough to qualify for that mode of thinking. This unit is, I have been told emphatically, 'a DAC for purists', so £2888 gets you no wireless connections, no pandering to streaming, no headphone output, no level control. It is strictly a DAC in the original sense – a D/A converter-only and not one that doubles as a preamp or headphone amp.

The EVO 100 is a direct descendant of the earliest digital/tube hybrids. As far back as 35 years ago, industry innovator Neil Sinclair formed California Audio Labs and unleashed a CD player with a valve output section. So this is not a stretch, for I seem to recall PrimaLuna's parent company distributed CAL in the Netherlands. Is this why the EVO 100's sound reminded me of CAL's Tempest II CD player so vividly?

## TUBE COMPLEMENT

Styled to match the company's amplifiers [HFN Apr '20], which all share the same layout, the EVO 100's chassis consists of a narrow-but-deep footprint of 279x404mm with a height of 191mm. The fascia is just 75mm high, in front of a horizontal surface containing two each of 5AR4, 12AU7 and 12AX7 valves, flanked by two big capacitors. Behind them is the cubist metal enclosure covering the transformers, but the look is sleek because of the clever, curved tube cage, one of the brand's signature touches (which has been removed for our pictures).

And another thing: the fit and finish are exceptional – far from the days when PrimaLuna was a pioneering European brand manufacturing in China, and before its quality control matched the better Western production standards.

**RIGHT:** There's a mix of PCBs and point-to-point wiring for the tube stages [far right]. An XMOS USB solution [far left] feeds an SRC4192 and PCM1792 DAC combination [left]. The tube output is transformer-coupled [lower left]

Precious few indicators tell you that this is of the 2020s, not the 1980s, but the clues are there. One is a beautifully-made, all-metal wand of a remote control (see p45), with display dimming, mute and source selection, matching the four individual buttons on the unit's fascia. Another is the cool blue look of the two displays, the top showing the selected input, the bottom the sampling rate. The latter adds a neat function: I am notoriously impatient about amp warm-up, but this almost ameliorates the wait as the display commences with a 60-second countdown from switch-on.

As is PrimaLuna practice, the on/off rocker switch is on the left side, while the back contains the necessary optical, coax and AES (XLR) legacy digital inputs plus USB-B for computer connection. As you can see, set-up is a piece of cake, and all was achieved without my bothering to read the instruction manual editor PM had mailed me. The only thing I had to determine was

which coin-type battery was needed for the remote control handset.

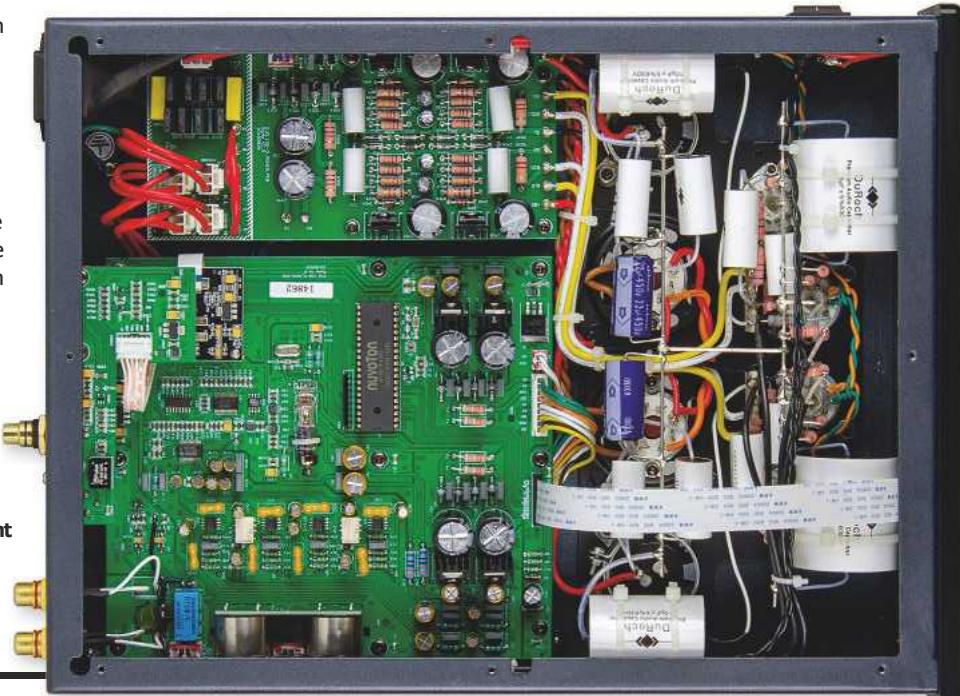
## SLICK OPERATION

If only everything worked as well and as swiftly as this unit. I tried the S/PDIF inputs using a Sony BDP-S370 Blu-ray player and my trusty Marantz CD12 transport, as well as assorted file sources via USB and my iMac. In the course of the listening, rates ranged from 44.1kHz to 192kHz, while downloads included assorted high-res WAVs and FLACs. Because I was so taken by the

importance of the valve output section, I was almost forgetting how sophisticated is the digital processing [see PM's boxout, p43], wedded as I am to the 30-year-old Marantz DA-12 DAC for most of my reference listening to 'Red Book' CDs.

Operationally, one cannot fault the EVO 100, once past one's contemporary expectations for the omitted features. Believe me, I wrestled with this conundrum

'There's more to it than adding a frisson of tube heat for effect'





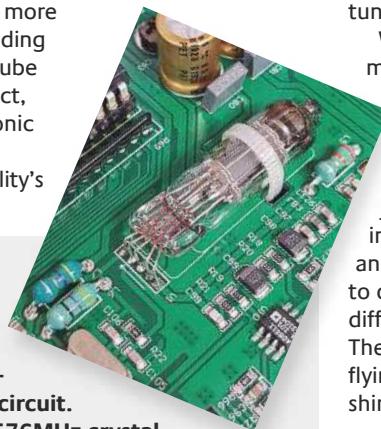
**LEFT:** Lifting the protective/decorative cage reveals a pair of 12AX7 and 12AU7 triodes in the audio circuit and two large 5AR4 tube rectifiers in the DAC's power supply. The selected input and sample rate is revealed in two displays, below

for some time, finding it hard to recall the last DAC I tried which didn't accommodate headphones and which lacked a level control. I repeat this because it's necessary to put the EVO 100 in context. So, while this may smack of 'early digital' vis-à-vis facilities, the operation is a slick as any self-installing A/V product with HDMI.

### BASKING IN THE GLOW

Two seconds: that's all it took to embark on my wander down a sonic Memory Lane – but with my destination of early tubed CD players, that might seem a hunt for

clichés. 'Tube DAC' is too suggestive of a fat, rosy sound applied to mask the essence of digital clarity, in the way our entitled ancestors might have preferred splashing on cologne to bathing. Thus, while the first adjective to pop into your head will be 'warm' upon initial exposure to the EVO 100, there's more to it than adding a frisson of tube heat for effect, in the euphonious manner of Musical Fidelity's



### THE 'TUBE CLOCK'

Now dubbed the 'SuperTubeClock', the special sauce that governs the timing of data through PrimaLuna's XMOS-based USB input, SRC4192 asynchronous upsampler and PCM1792 DAC (both from TI, *née* Burr-Brown) is based around a tube rather than transistor circuit.

This master clock is still referenced to a standard 24.576MHz crystal – the small metal can just visible at the bottom of the inset picture – while a miniature 6S6B triode is used in the subsequent wideband oscillator. This same circuit, and the choice of monolithic 192kHz/24-bit DAC, now 14 years young, was first revealed in PrimaLuna's ProLogue Eight CD player [HFN Nov '08]. I discuss the performance differences with its EVO 100 Tube DAC in my Lab Report [see p45] but the 'tube clock' itself has also witnessed some refinement.

PrimaLuna's claims for the efficacy of the tube oscillator really boil down to the exceptionally wide frequency response of this signal generator and, thus, its ability to deliver a recognisable 'square' timing waveform with good edge definition. The absolute frequency accuracy is determined by the choice of crystal, and its mere +20ppm error is well within Class I tolerance. Jitter, in practice, is influenced by noise and other interference emanating from every corner of the digital circuit and is reduced from the 330psec measured with the ProLogue Eight to 160psec (48kHz) and 60psec (96kHz) in the EVO 100, with ±100Hz and ±200Hz PSU modulations the key components [Graph 2, p45]. PM

X-10 buffer [HFN Oct '96]. When the unit arrived, I was wallowing in the lushness of *Echo In The Canyon* [BMG 538493922], a CD curated by Bob Dylan's son, Jakob, who sings lead vocals on all tracks. Beautifully recorded, it serves up sublime musicianship and staggering harmonies, and Jakob has a tuneful voice unlike his dad.

What knocked me out was its opener, a majestic remake of 'Go Where You Wanna Go', with Jade Castrinos providing a powerful distaff voice which differs in texture from Dylan's much as does Lou Rawls' from Dianne Reeves. While juxtaposing two voices hardly delves into the areas where digital usually annoys, it speaks much of a device's ability to deal with the nuances that mean the difference between authentic and artificial. The EVO 100 DAC passed the test with flying colours, with an extra star for the shimmer of The Byrds-like jangling guitars.

### TEEN TREASURES

Then there was Twinkle's *Girl In A Million* [RPM D545], a remastered CD set of her complete original recordings, CD 1 made in the all-analogue mid-1960s, with session men including Jimmy Page. Pure pop it may be, but Decca treated her to the best engineers, and the mono tracks for which she's best known – 'Terry', 'Golden Lights' and other teen treasures – were enough to reveal how this DAC deals with textures.

Her wispy vocals are delicate enough to require almost ineffable subtlety from the sound system, and listeners will delight in the air they possess. Whether via speakers or headphones, the mono recordings ➤



handmade in Switzerland



Boenicke Audio  
W8 Loudspeakers  
W8 range starts from  
£6,995.00 RRP

**exclusively distributed in the UK by elite audio**

contact us to find out more about our part exchange and interest free credit terms



Retailing the world's most sought  
after Hi-Fi components.



T: 01334 570 666  
E: [INFO@ELITEAUDIOUK.COM](mailto:INFO@ELITEAUDIOUK.COM)  
W: [WWW.ELITEAUDIOUK.COM](http://WWW.ELITEAUDIOUK.COM)

**BOENICKE**  
audio



**ABOVE:** Simplicity itself – four standard digital inputs are fitted including AES/EBU (XLR), S/PDIF (on RCA and optical) and USB-B for computer connection. Fixed, transformer-coupled analogue outputs are on single-ended (RCA) connections only

had a fatness that I like to think is an approximation of front-to-back depth. Whatever the case, the sensation was of hearing into the music, something not normally attributed to pop singles. The shocker was her later work on CD2.

Her 1970s recordings for Instant were engineered by a wizard, 'Days' recalling the 'Baroque Rock' of US band The Left Banke, thanks to the harpsichord. The EVO 100 showed such grace with this Fabergé egg of a track that I made a mental note to stop thinking in terms of euphonic coloration – the refuge/rationale of the anti-valve scoundrel.

#### DEAD RINGER

As the next track, 'Caroline', is a power rocker of 'Runaways-lite' percussive incessancy, I swiftly learned that the EVO 100 DAC

understands attack, transient edges, convincing decay and other elements which surely contradict any belief that sticking tubes in a digital product simply masks nasties or dulls details. This converter does nothing to undermine the speed of digital. Quietness, however, is another matter, as I found when A/B'ing the track with a solid-state DAC.

**LEFT:** Slimline EVO remote selects between Coax/Opt, AES/EBU and USB inputs, with audio and display 'muting'



I just said I reject accusations of valves being the hi-fi world's equivalent of rose-coloured glasses. But there is no denying the noise floor is less subterranean than with conventional processors. Equally, I will point out that I could only detect this sensation of a low-level haze when listing through headphones. Ultimately, however, it was downloading and 'streaming' via USB that proved this DAC's worth.

Turning to wolfgang.com's vast selection of rare live gigs, I selected Warren Zevon in 1982 in Boston, for his rousing 'Werewolves Of London' at 48kHz. It proved massive in scale and sounding as it should: as if played via FM radio. Switching on Fidelia, I listened to the EVO 100 at 192kHz with a download of BB King's 'Sneakin' Around', a mono session of dubious sonic merit but musically a gem. I played it against the original LP, *The Great BB King* [United Records 728] and it was a dead ringer. I want an EVO 100. □

#### HI-FI NEWS VERDICT

To say that I'm staggered by the EVO 100 is understatement, primarily because I wasn't expecting such undeniable musicality. This DAC has such a genteel way with whatever signal is fed to it that you'll be listening for hours longer than intended. It's an exercise in quality, usability and performance versus features and bling. If you're already tube-biased and in need of a high-end DAC, this is an irresistible bargain.

Sound Quality: 88%

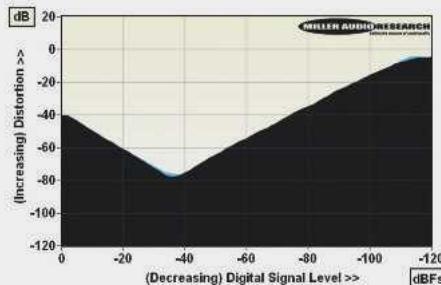


## LAB REPORT

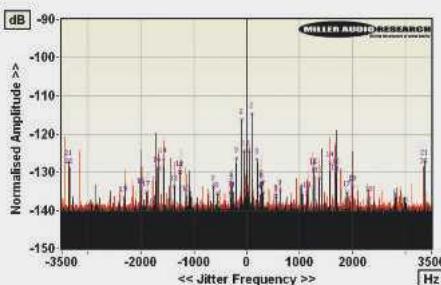
### PRIMALUNA EVO 100 TUBE DAC

If ever an outboard DAC was a 'game of two halves', then this is it – based on the ProLogue Eight CD player [HFN Nov '08], the EVO 100 employs a tried-and-tested SRC4192/PCM1792 upsampler/DAC chipset to good effect but it's the transformer-coupled 12AX7/12AU7 triode output stage that dominates its subjective 'colour'. On the digital front, while PrimaLuna is still using this legacy DAC, with 'fast' linear phase digital filter, the suppression of stopband (alias) images is much improved over the Eight – from 29dB to 89dB here. Output is lifted from 1.88V to 2.15V but the A-wtd S/N ratio is boosted more significantly from just 95dB to 105dB even if low-level resolution remains comparable at  $\pm 0.5$ dB over a 100dB dynamic range and  $-3.5$ dB at -100dBFS. Jitter is reduced to a very limited 80psec PSU modulation with 96kHz/24-bit data [Graph 2 and boxout, p43].

Nevertheless, the 'sound' of the EVO 100 is dominated by its tube output. We have tested numerous tube-equipped preamps and DACs that demonstrate vanishingly low levels of distortion, so what follows must surely have been a deliberate engineering choice. Output impedance is excessively high at 2.38kohm through mid and treble, increasing further to 3.5kohm/100Hz and 12.1kohm/20Hz, suggesting the EVO 100 will be fairly cable and preamp-sensitive. As expected, the response falls away at bass frequencies to  $-0.16$ dB/100Hz and  $-1.6$ dB/20Hz but reaches out to  $+0.1$ dB/20kHz,  $-0.5$ dB/45kHz and  $-7.4$ dB/90kHz with 48kHz, 96kHz and 192kHz media, respectively. Distortion peaks at  $>1\%$  and then steadily falls to a minimum of 0.014% between -35dBFS and -40dBFS. By conventional standards these are high figures, but the levels and trend are impressively consistent with frequency [see Graph 1, below]. PM



**ABOVE:** Distortion vs. 48kHz/24-bit digital signal level over a 120dB dynamic range (1kHz, black; 20kHz, blue)



**ABOVE:** High resolution 24-bit jitter spectra via S/PDIF and USB inputs (48kHz, red w. markers; 96kHz, black)

#### HI-FI NEWS SPECIFICATIONS

Maximum output level / Impedance	2.15Vrms / 2.35-12.2kohm
A-wtd S/N ratio (S/PDIF / USB)	104.9dB / 105.0dB
Distortion (1kHz, 0dBFS/-30dBFS)	1.07% / 0.025%
Distortion & Noise (20kHz, 0dBFS/-30dBFS)	1.03% / 0.026%
Freq. resp. (20Hz-20kHz/45kHz/90kHz)	-1.6 to $+0.1$ dB/-0.5dB/-7.4dB
Digital jitter (48kHz / 96kHz)	160psec / 80psec
Resolution (re. -100dBFS / -110dBFS)	$\pm 0.6$ dB / $\pm 3.5$ dB
Power consumption	53W
Dimensions (WHD) / Weight	279x191x404mm / 13kg

# Scansonic MB5 B

From a new and extended Raidho family these Scansonic floorstanders now benefit from the 'GamuT touch'

Review: Andrew Everard & Paul Miller Lab: Keith Howard

We've been here before, reviewing the Scansonic MB5 speakers three years ago [HFN Aug '17]. However, collective amnesia has not set in, for despite the £6249 MB5 B looking near enough identical in its choice of black or white silk finishes, it is in fact a new version of the design, reworked by chief designer Benno Baun Meldgård. Hence the 'B' suffix on the new model.

And that's where the intrigue really starts for, as you'll read in KH's Lab Report [p49], while everything about the new speaker *looks* the same, from the cabinet to the drivers, the measured performance suggests we are looking at two completely different models. In practice, the MB5 B has lower sensitivity, a re-shaped frequency response, and better bass extension but with higher distortion. Fascinating...

## DANISH DESIGNS

Meldgård was previously chief designer at another hi-fi brand, GamuT [see boxout, p47] but fast forward to today and Raidho, Scansonic, and GamuT are all now owned by Dantax A/S, a company started nearly 50 years ago in Pandrup (the North of Denmark's Jutland peninsula), which is where it's still headquartered. You'll pass a well-known hi-fi name with alarming frequency when travelling about here – DALI, Dynaudio, Jamo and of course Bang & Olufsen are among the leading lights.

There's necessarily some pooling of talent, as is the case with Dantax, which started out buying in components when it began production in 1971, before acquiring the celebrated driver brand ScanSpeak in 1977. OK, it later sold that operation off to another company, which still hand-builds ScanSpeak drivers in Denmark, but you get the idea: audio manufacturing runs deep around here.

Back to the MB5 B, and the publicity tells of 'an all-embracing upgrade' for the MB range, which originally took its name from designer Michael Børresen, who was responsible for Raidho's speakers, and then the launch of the MBs as a more affordable

take on the same technologies. Meldgård, having arrived with GamuT, has made significant changes to the six-strong lineup from the standmount MB1 B through to the range-topping MB6 B with its array of six mid/bass drivers. Meanwhile the simplified version of the Raidho ribbon planar tweeter is retained without revision. This bespoke driver uses a Kapton/alloy sandwich membrane just 20 microns thick, weighs just one gram, and is sandwiched between powerful neodymium magnets.

The midrange and bass drivers – the MB5 B has a total of 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 have been treated to 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.

The company says this also helps reduce the running-in required before the drivers perform at their best, though it also suggests that during break-in you 'don't hold back on the volume as it is the movement of the drivers that makes the speakers come to life'. Editor PM follows up on this in his listening notes [p47]. Of equal significance is the redesigned crossover, better integrating the drivers that are also 'time-aligned' by the gently angled baffle.

## CABINET CONUNDRUM

Now there may be some semantics escaping us here, as we think the cabinet principle is unchanged between the two generations, but apparently 'the previous acoustically vented cabinets have now been replaced with a ported cabinet... tuned for optimal impulse response'. This is said to improve the ease with which the speaker can be positioned in the room. Either way, the trio of ports sitting above

**RIGHT:** The 115mm carbon-fibre mid units and pair of 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





## RUNNING THE GAMUT

So, these Scansonic speakers are designed as a junior version of the Raidho range, originally designed by the same hand but now re-tuned by the former head designer of GamuT. So how did we get here? Well, having sold off its ScanSpeak factory in Denmark after 20 years of ownership, Dantax was co-operating with overseas partners to develop and manufacture products until in 2009 it took over Raidho, and more recently launched the Scansonic brand as a more affordable counterpart to the Raidho line.

And GamuT? Well, the two companies didn't quite merge. As the Dantax announcement of 2015 put it: 'After some years of weak results, the bank and the board of GamuT A/S have decided to liquidate the company, and Dantax Radio A/S has purchased all the assets. Dantax Radio has also hired GamuT's chief designer Benno Baun Meldgård, who is known as one of the very best designers in the industry. The amount of the investment is only a modest amount.'

And the original designer, Michael Børresen? Having parted from Raidho along with colleague Lars Kristian Kristensen who originally brought Børresen onboard at cable brand Nordost before they created Raidho, he now runs speaker company Børresen Acoustics. Yes, still in Denmark.

the single set of speaker terminals are beautifully sculpted into the narrow 'spine' of the tapered cabinet – it's a very elegant solution [see pic, p49].

That sleek-looking enclosure, built from 'high density MDF' (should that be HDF?) has also been modified to optimise air-flow, allowing a reduction in the use of internal damping. Also in the quest for 'better coherence and dynamics', the cabinet is shaped to avoid internal reflections and standing waves, and is braced to reduce vibrations. Meanwhile the top-plate and front baffle are treated to carbon-fibre inlays, albeit purely for cosmetic reasons. The speakers sit on smartly finished aluminium outrigger feet, which are fitted with substantial, easy to adjust, blunted spikes.

### LOCATION, LOCATION...

Scansonic is very particular about the placement of its MB5 B floorstanders, writes Editor PM – 'far apart (9ft) but close to the listener... plenty of toe-in... at least 3ft from rear walls... will tolerate being a few inches from side walls...'. And this advice is well worth heeding for these rearported cabinets, however well-braced and limited in internal volume, start to join in if the speakers get a sniff of a rear wall.

Add to this the long run-in time of the reworked bass drivers – the new suspension still seems reluctant to relax – and you'll probably find the MB5 Bs happiest at *least* 1m into the room. In previous generations it was the planar magnetic tweeter that took its sweet time to come on song, but with Benno's Bs it's all about the bass.

### 'It's not a twin – the new MB5 Bs play Mars to the MB5's Venus'

For example, the deceptively simple and thoroughly charming Kate & Anna McGarrigle's *French Record* [Hannibal HNCD 1302; 44.1kHz/16-bit] was mired in low frequency fluff until the speakers were pulled far further into the room than I'd typically place my significantly larger B&W 802 D3s [HFN Dec '15]. Nevertheless, with bass, organ, tuba and drums all part of this contemporary folk mix there's a lot of grumbling detail to untangle.

Once bathed in fresh air, the MB5 Bs made more than a passing gesture at unravelling 'Entre Lajeunesse Et La Sagesse', one of

many collaborations with Canadian poet Philippe Tatartcheff and a joyous, spicy folk instrumentation now released to raise a smile from this locked-down listener.

Partnered with Constellation's Inspiration Monoblocks [HFN Oct '19], the MB5 Bs also delivered 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; 96kHz/24-bit]. Percussion, save for piano, is absent and guitarist Russell Malone's rhythm figures verge on the subliminal, but this is all part-and-parcel of the vibe to Ms Krall's fourth album.

### DECIBELS AFTER DARK

Such is the grip and sheer power of the MB5 B's delivery you'll be tempted to turn up the volume and wallow in the presence in what might otherwise have been background, late-night listening. ☺



Beautiful engineering,  
Beautiful sound



KOG AUDIO

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



Frankly, this system can reproduce a visceral weight, power and sheer musical presence that eludes many far bigger floorstanders.

If the original MB 5 would sound effortless, calm and perhaps a little creamy then the MB5 B stands ready to bring more energy, vigour

**LEFT:** The narrow, tapered cabinet profile dictates the use of multiple reflex ports while the reworked crossover still only offers one pair of 4mm cable terminals and no bi-amping/wiring

and chest-pounding vitality to the music at hand. Perhaps the 'B' should be retitled 'D' because while this reworked version *looks* identical, when played hard it reveals itself to be a sonic doppelgänger. OK, so the MB5 B is no evil twin, but it does play Mars to the MB5's Venus...

The ribbon-esque treble unit, unchanged here, 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 mid and bass to ensure the MB5 B creates large and unforced soundscapes.

### MUSICAL MONSTERS

In conductor Andrew Litton's hands, Stravinsky's *The Firebird* [Bergen SO; BIS-1974, 44.1kHz/24-bit] is appropriately fleet of foot and the MB5 B expresses this very fluid-sounding recording with a light touch. The string *pianissimi* in the 'Berceuse' are realistically feathery just as the appearance of Kastchei's monster guardians is accompanied by an appropriately menacing onslaught of percussion.

As I have already indicated, 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... ☺

### HI-FI NEWS VERDICT

It is very rare to come across two loudspeakers that look ostensibly identical and yet measure and sound like two entirely different models from two unrelated brands. Such is the gulf between the MB5 and GamutT-inspired MB5 B. Not that the MB5 was anything less than a fine speaker, but if it was merely a good design waiting to become truly great, then it's the MB5 B that provides the necessary flourish.

Sound Quality: 85%

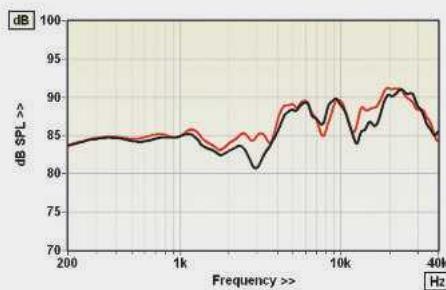


## LAB REPORT

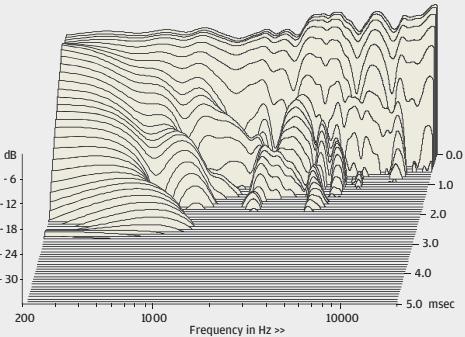
### SCANSONIC MB5 B

Scansonic specifies a 90dB sensitivity for the MB5 B, and that fits well with the 89.8dB we recorded from the MB5 [HFN Aug '17]. But we recorded much lower figures this time, the industry standard pink noise figure of 86.1dB and 'music' figure of 85.9dB indicating that an 86dB specification would be more realistic. The treble responses/sensitivities of the 5 and 5B are similar, but it's as if the output of the bass/midrange unit has been slugged in the 5 B. Unusual as it is to specify impedance as '<4 ohm', it's a neat way of incorporating minimum impedance and nominal impedance in a single figure (nominal being 1.25x minimum). But Scansonic's 4ohm minimum is significantly higher than the 2.8ohm minimum modulus we recorded. Impedance phase angles are well controlled but even so this low modulus results in a minimum EPDR of 1.6ohm at 35Hz, with another dip to 1.8ohm at 107Hz, so the MB5 B rates as a more than typically difficult load to drive.

Forward frequency responses [Graph 1, below], measured at 1m at tweeter height, show a distinctly shelved-up treble and sufficient variability to record response errors of ±4.8dB and ±4.1dB respectively, which are a little on the high side. Pair matching error is poor at ±3.2dB over the same 200Hz-20kHz frequency range, although the largest disparities are quite narrow-band at 3kHz and 8kHz. Diffraction-corrected nearfield bass measurement recorded a bass extension of 54Hz (-6dB re. 200Hz), which is not atypical for smaller floorstanders. As we often find with planar tweeters, high frequency distortion was 10x higher than typical of the best dome tweeters. The CSD waterfall [Graph 2] indicates a few treble resonances. KH



ABOVE: The 2.5kHz peak and depressed presence of the MB5 is replaced in the 'B' by a boosted mid/treble



ABOVE: Strong mid-driver resonance seen in the MB5 is much reduced here. Only minor treble modes remain

### HI-FI NEWS SPECIFICATIONS

Sensitivity (SPL/1m/2.83V – Mean/IEC/Music)	87.7dB / 86.1dB / 85.9dB
Impedance modulus: minimum & maximum (20Hz–20kHz)	2.8ohm @ 29Hz 12.5ohm @ 2.0kHz
Impedance phase: minimum & maximum (20Hz–20kHz)	-33° @ 3.1kHz 34° @ 20Hz
Pair matching/Resp. error (200Hz–20kHz)	±3.2dB/ ±4.8dB/ ±4.1dB
LF/HF extension (-6dB ref 200Hz/10kHz)	54Hz / >40kHz/>40kHz
THD 100Hz/1kHz/10kHz (for 90dB SPL/1m)	2.7% / 0.3% / 0.7%
Dimensions (HWD) / Weight (each)	1185x178x319mm / 24kg

# Lindemann Musicbook Source & Power 1000

With multiple inputs, streaming functionality and plenty of power, this elegant and compact system promises consummate convenience and super sound. Does it deliver?

Review: David Price Lab: Paul Miller

**S**ince 1993, Lindemann has been making distinctive products, all with an accent on design and technology. Although the company has also sold loudspeakers in its 27-year history, electronics have formed the staple of the product portfolio – and it has shown a particular interest in digital technology. The D680 of 2001, for example, was the first German SACD player, while the original Musicbook was an early example of a highly advanced streaming front-end [HFN Jun '14]. Lindemann's thinking has been eerily prescient, as other brands have since scrambled to get similarly elegant so-called 'style systems' into their ranges...

Now in 2020, the latest £3250 Musicbook Source is offered alongside the £3000 Musicbook Power 1000 and £2000 Musicbook Power 500 power amps. This review focuses on the first two products, forming a highly versatile streaming/DAC/preamplifier and power amplifier combination for £6250. Indeed it's one of the most flexible options at or around its price, and beautifully built too – the quality of the casework is absolutely top tier and the yellow OLED display is super-crisp.

## WELL CONNECTED

The Musicbook Source sports one Asahi Kasei AK4493 stereo DAC per channel, working off the optical/coaxial S/PDIF, USB-A and network (including Bluetooth) digital inputs. The latter connects via the wired Ethernet port, or wirelessly using the two mini antennae supplied. There's also the ability to plug in an Apple USB SuperDrive CD-drive, which is a cheap and elegant way to add CD playing capability at £79 (from Apple). In addition to its network streaming

functions and dedicated headphone amp, the Source is also a fully-fledged preamp offering three line inputs, one of which may be replaced by an MM phono option. The line outputs also include balanced XLRs.

The matching Musicbook Power 1000 power amp sports Hypex's Ncore NC502MP Class D module, which in this guise offers a claimed 2x250W/8ohm and 2x500W/4ohm [see PM's Lab Report, p53]. I connected it via balanced XLR cables, with the rear toggle switch set to 'Stereo' mode.

Confusingly, perhaps, there's also a 'Bi-Amp' mode for those wishing to run twin Power 1000s. No crossovers are built in, but there's a variable gain control to adjust the output level of what is notionally the right channel – if this 'channel' drives the bass arm of a split

crossover then it can be used to tweak the loudspeaker's low frequency output.

## WORK IN PROGRESS

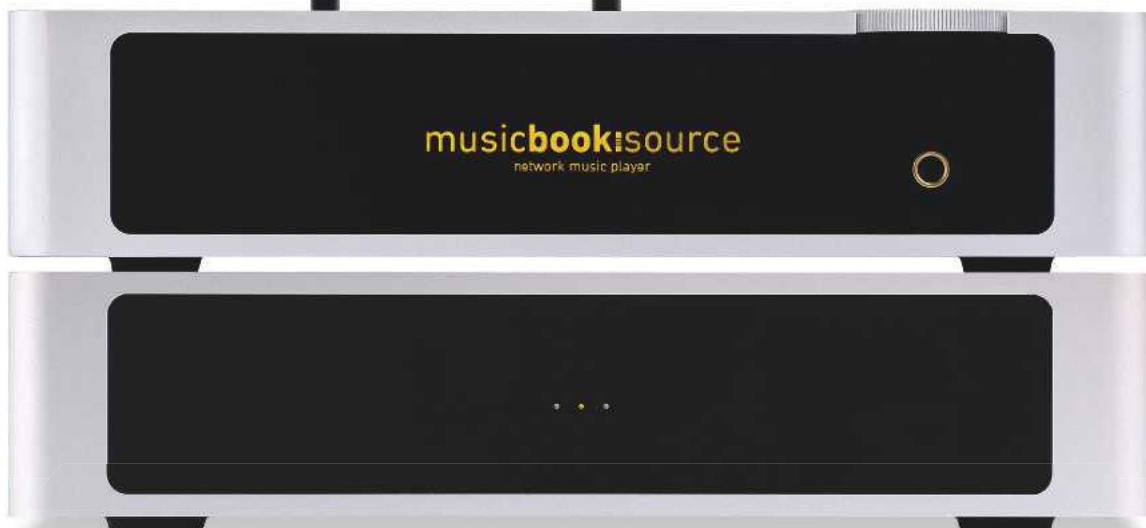
The system is controlled by a 'jog wheel' selector mounted to the upper right of the Musicbook Source's fascia, which also functions as a volume control and mute button, depending on the combination of down-clicks and turns – you click/rotate for input selection and menu navigation, or rotate only for volume. It's pretty intuitive to use, but

the downside is that it's not possible to fully manage the inputs and facilities this way. Lindemann once offered an IR remote control, but this is now replaced by an iOS/Android app in order to fully configure and drive the Musicbook Source.

'Lindemann's Musicbook combo just tells it like it is'



**RIGHT:** Inside the Power 1000 is a Hypex Ncore NC502MP Class D module, with standby and main switch mode PSUs. In 'Bi-Amp' mode the gain of the Right channel may be adjusted for feeding the bass arm of a two-way crossover



If you dive into the Google Play Store or Apple Appstore, then avoid the Lindemann app called 'Musicbook' because this doesn't work with the current version of the Source – instead you should download the Lindemann app with the bass clef icon. At the time of writing there was also an issue with the Android version of the app not reliably 'seeing' the Musicbook Source on the network. Fortunately, the iOS version of the app seemed to work just fine on any number of Apple iDevices.

Via my Apple iPad, the iOS version of the app proved more stable than many I have tried; it didn't freeze or fall off the network, and offers a wide range of features. Most folk will use it for remote control of the input selection – switching between analogue and network inputs –

## LPCM TRUMPS DSD

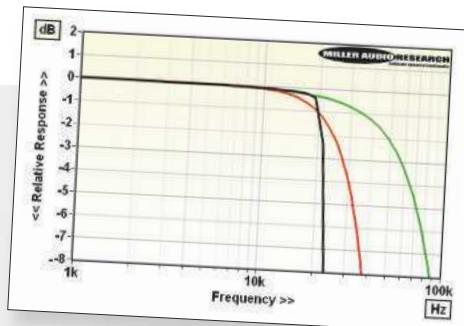
**Although Lindemann has adopted the latest 'Velvet Sound' DAC from Asahi Kasei – the AK4493 – it has side-stepped the optional six digital filters in favour of native sample-rate processing. The response and alias rejection of the Musicbook Source's default mode are comparable to a 'Sharp' roll-off filter, offering a full 120dB suppression of stopband images and response that reaches out to -0.3dB/20kHz, -1.8dB/45kHz and -8.7dB/90kHz with 48kHz/96kHz/192kHz music files, respectively, via the network input [192kHz file, green trace, inset Graph]. The S/PDIF inputs behaved oddly on test, with a -6dB/8kHz response using 48kHz files and 56kHz limit with 192kHz files [red trace].**

The AK4493 DAC accepts up to 768kHz PCM and 22.4MHz DSD but is 'driven' here via an AK4137 asynchronous upsampler that also includes an LPCM-to-DSD data converter. This is the chip behind the DSD setting in the 'DAC Mode' menu option in Lindemann's App. However, all LPCM inputs look to be downsampled to 44.1kHz before conversion to DSD, resulting in a 20kHz response limit and steep cut-off [black trace]. Furthermore, while jitter remains spectacularly low in DSD mode, noise is higher resulting in a mere 95dB A-wtd S/N ratio. So, yes, I would expect a subjective difference between the 'PCM' and 'DSD' modes here. PM

volume control and working the streamer. I connected a Western Digital uPnP NAS drive with no problems, but streaming fans will be happy to know that you can also set up your own Tidal, Deezer, Qobuz and Highresaudio accounts in the app, if you have them – and there's also both podcast and radio functionality.

## BIG SOUND AUTHORITY

There are plenty of good looking compact systems around, but not so many that I've been comfortable listening to over a protracted period of time. Happily the Lindemann's Musicbook Source/Power 1000 combination succeeds by serving up an enjoyable and engaging musical



performance. It might not match up to some conventional – less attractive and more bulky – hi-fi separates, but still proves genuinely satisfying to listen to. Essentially, it is clean, detailed and articulate – with a good deal of drive and power, too.

Kicking off with the system through its own DAC and network input via my Western Digital NAS, this combination rewarded with a commendably open and even sound. There's no sense of a shouty, chromium-plated upper midband or treble, nor does the bass boom and wallow. Instead, everything is kept in proportion and communicated without drawing attention to any particular instrument or performer, unless called for by the recording itself, of course.

Feed it some classic rock such as Dire Straits' 'Lady Writer' [*Communique*; Vertigo 800 052-2x] and you're fully aware that this is quite a dry-sounding late '70s rock production, with just a touch of softness and warmth around the edges. The system is transparent enough to tell you this without adding its own sonic pawprint to the music, allowing you to hear into the mix with ease, and follow the strands you so wish – or simply sit back and enjoy the overall effect.

## COMPLETE CONTROL

Warp ahead a decade or so, and Guns N' Roses' 'Paradise' [*Appetite For Destruction*; Geffen Records GED 24148] sounds punchier, brighter and more sassy with a big sheen to hi-hat cymbal work and more impact to the drums – thanks to its very deliberate production and mastering. Here we're seeing Lindemann's Musicbook combo just telling it like it is.

The next key facet of its reproduction is its confident stereo imaging. This seems to spring from the sheer 'grip' of that ↗

# BAT

## BATHE IN THE GLOW OF FULL FIDELITY

Introducing the all-new REX 3 family, the culmination of 25 years of engineering excellence.



“ Just let it weave its magic, and you'll be too immersed in what's being played to give another thought to all the engineering making it possible. ”

REX 3 DAC,  
Hi Fi News May 2020



REX 3 DSD Tube DAC



Zero negative feedback  
for extreme purity.

REX 3 Preamp



18-tube dual-chassis. Easy-to-use customisable interface.

REX 3 Triode Power Amp



Intelligent auto bias +  
fuseless protection circuit.

**karma**  
audio - visual

Balanced Audio Technology  
[balanced.com](http://balanced.com)



**ABOVE:** The pre/DAC [top] includes USB-A, optical and coaxial digital and network ins plus WLAN/BT antennae alongside three line ins and balanced/single-ended pre outputs. The 1000 Power [bottom] offers balanced inputs only and 4mm speaker output sockets. In 'Bi-Amp' mode the gain/volume of the R channel is variable

1000 power amp. It never feels short of breath, always seems to have control of what it and the loudspeakers are doing, and works to bring a general sense of precision to the system as a whole. It doesn't have a big, loose and fluffy sort of character; instead there's a lot of detail and insight to enjoy.

Together, this makes for a wide yet controlled soundstage, so cue up Crosby, Stills and Nash's 'Wooden Ships' [from their eponymous album; Atlantic 19117-2] and the first lead vocal pushes out far right, with the second lead far left. Meanwhile, the lead guitar is precisely located centre-right, with the rhythm guitar far left, and so on. The result is an expansive stereo mix that's far grander in scale than you might expect from simply looking at such 'compact' components! Perhaps there are more purposeful full-sized separates that will deliver an even bigger and deeper soundstage still, but no-one could never accuse this system of sounding flat.

#### STEADY HAND

There's a tidiness to the sound too, that translates into a crisp, steady handling of rhythms. For example, the Crosby, Stills and Nash track was lovely to listen to, even if there was not quite the louche, relaxed gait that I've heard with bigger but arguably slightly more coloured-sounding systems. With this in mind, some might think it just a touch too controlled and ordered for more rousing programme material, but ultimately it comes down to taste.

For my part, when I fed the system some electronica in the shape of Thomas Dolby's 'One Of Our Submarines' [Golden Age Of Wireless; EMI 2679 152], I was genuinely impressed by how engaging its handling of the PPG Wave-powered bass groove was. The

snare drum sounds were tight and well damped, and the song thumped along in a pleasingly purposeful way.

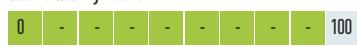
For most of my listening, I maintained the Musicbook Source in its PCM mode, because when the DSD option was selected the sound softened and seemed to step back from fine detail and dynamics. I've experienced this before when comparing these two formats, but the Musicbook Source did deliver a slightly more closed-in feel via DSD than I'm used to, even bearing in mind this is an LPCM-to-DSD conversion [see PM's boxout, p51].

I should mention the Musicbook's analogue inputs which sounded subtly more opaque and less defined than the network input, just as their handling of dynamics was not quite as dramatic. The Thomas Dolby track carried the snare drum hits without quite the same drama, and his voice appeared just a touch less expressive than I'd enjoyed via the wired network input. And it's the latter, of course, that remains the Musicbook's raison d'être and in which capacity this little Lindemann combo never disappointed, regardless of the music played. ☺

#### HI-FI NEWS VERDICT

The Lindemann Musicbook Source/Power 1000 combination is a highly impressive package – with plenty of power, very pleasing sound, undeniable versatility and excellent build and finish. Its few small niggles don't detract from the fact that this is one of the finest small 'style systems' around. It's well worth investigating if you're specifically looking for something that makes sweet music in a small space.

Sound Quality: 83%

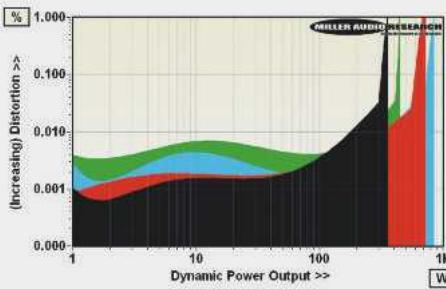


## LAB REPORT

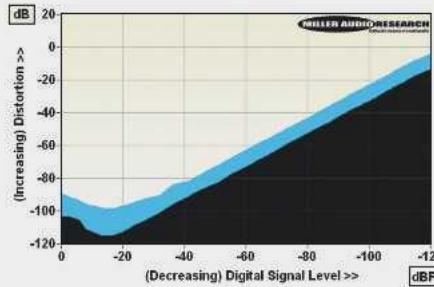
### LINDEMANN MB SOURCE/1000

I discuss the implementation of the Asahi Kasei AK4137 SRC and AK4493 DAC (one stereo DAC per channel) in our boxout [p51], but this is otherwise the only DAC to rival ESS's Sabre solutions when it comes to jitter suppression. The figures obtained from the Musicbook Source are spectacular – less than 7psec with any sample rate – while the A-wtd S/N ratio is a wide 111dB provided the 'DAC Mode' setting is switched to 'PCM'. Maximum output, with the volume set to '99', is a full 4.8V (balanced) from a usefully low 23ohm source impedance while distortion is as low as 0.0003–0.0011% from 20Hz–20kHz over the top 20dB of its dynamic range [see Graph 2, below].

Wisely, in my view, Lindemann has chosen Hypex's Ncore NC502MP Class D module for the beating heart of its 'Power 1000'. Lindemann rates it at 2x250W/8ohm and 2x500W/4ohm, according well with the module's 2x350W/8ohm and 2x500W/4ohm specification, and the 2x365W/8ohm and 2x650W/4ohm measured on the lab bench here. The PWM module, and SMPS, necessarily has limited headroom but the 365W, 725W, 850W and 455W achieved under dynamic conditions into 8, 4, 2 and 1ohm loads [see Graph 1] is still sufficiently powerful for most installations. The 81dB A-wtd S/N ratio (re. 0dBW) is also good for this technology – the noise is 'white' rather than hum – while the response is both very extended at ±1dB from 1Hz–25kHz and also extremely stable into varying load impedances. This is a key feature of the Hypex Class D solution. Distortion, too, is a very low ~0.003% through bass and midrange frequencies right up to 275W/8ohm and only increases, quite steeply, above 10kHz reaching 0.18%/20kHz/10W. All in all, this is a very solid amp. PM



**ABOVE:** Dynamic power output versus distortion into 8ohm (black trace), 4ohm (red), 2ohm (blue) and 1ohm (green) speaker loads. Max. current is 22.3A



**ABOVE:** Distortion versus 24-bit digital signal level over a 120dB range (1kHz, black; 20kHz, blue)

#### HI-FI NEWS SPECIFICATIONS

Continuous power (<1% THD, 8/4ohm)	365W / 650W
Dynamic power (<1% THD, 8/4/2/1ohm)	365W / 725W / 850W / 455W
Output imp. (20Hz–20kHz, Pre/Amp)	23ohm / 0.010–0.018ohm
Freq. resp. (20Hz–20kHz/100kHz)	+0.0 to –0.7dB/–6.3dB
Digital jitter (USB / S/PDIF)	5psec / 7psec
A-wtd S/N ratio (DAC/Amp)	110.5dB (0dBFs) / 81.0dB (0dBW)
Distortion (DAC, 0dBFs/Amp, 0dBW)	0.001–0.004% / 0.0012–0.030%
Power consump. (Pre/Amp at rated)	20W / 1.1kW (25W idle)
Dimensions (WHD, each unit)	280x63x220mm / 6kg (total)

# Sumiko Pearwood Celebration II

With nearly a half century of MC experience under its corporate belt, Sumiko knows how to optimise pick-up performance: enter the Pearwood, an MC that tracks like an MM

Review: Jonathan Gorse Lab: Paul Miller

**S**ince it was founded in 1972 by noted audio designer David Fletcher, the US-based Sumiko Corporation has been making some of the world's most desirable pick-ups at its production facility in Japan. What's more, not only has it become one of the leading agents for audio equipment in North America but its UK presence has recently been boosted by distributor Henley Audio [see PM's boxout, p55].

Its current cartridge range comprises two tiers: the midrange Oyster series, which includes affordable moving-magnet and moving-coil designs, and the high-end Reference series. Within the latter are six diverse models ranging from the Songbird (£899) to the range-topping Palo Santos Presentation at £4999 [HFN Jul '10] complete with rosewood body and line-contact stylus. The £3199 Pearwood Celebration II lies second from the top and shares many features with the Palo flagship, Sumiko positioning it as a design that offers more than a taste of its ultimate offering but at a more affordable price.

## FORBIDDEN FRUIT

At this rarified level, presentation is an important part of the overall ownership experience and this cartridge doesn't disappoint. Not only is its body crafted from the wood from which it derives its name, but so also is the presentation box in which it is supplied. Pearwood is an expensive timber because most pear trees are grown for their fruit, which means few are felled to satisfy the demands of discerning audiophiles!

The cartridge is supplied with a very comprehensive 35-page manual detailing its genesis, an explanation of

the design choices made and extensive guidance notes on how to set-up the cartridge for best performance. Unwrapping a pick-up that has been designed and hand crafted with such abundant care evokes feelings of delight and expectation, albeit tempered by the discovery there's no stylus guard!

On paper, the Sumiko Pearwood Celebration II has a relatively generous 0.5mV output [see PM's Lab Report, p57], Sumiko trading a little extra moving (coil) mass for compatibility with a wider range of phono preamps. In particular, Sumiko highlights

the greater risk of hum, noise and RFI pick-up when a high-gain phono stage is combined with a very low output MC. For the Pearwood Celebration II, output is boosted by a substantial AlNiCo magnet assembly and front yoke, precisely pressure-fitted to ensure a uniform magnetic field.

The cantilever is a refined long-grain boron rod supporting an ultra-low-mass Ogura Jewel Company P9 solid-diamond elliptical stylus. An elliptical profile was chosen in preference to a line-contact or Shibata type because Sumiko believes those more exotic profiles require very precise tonearm alignment, which is difficult to achieve under all but the most fastidious (read impractical) of conditions.

## A FINE FIT

Sumiko also suggests that an elliptical stylus still delivers a very musical sound even when not aligned to laboratory standards, bringing benefits to 'real world' audiophiles. Meanwhile, the cartridge's straight-sided rectangular body affords easy alignment, although it's quite shallow and correct VTA put the rear of my SME IV's tapered arm tube quite close to the record edge. A headshell shim and record clamp to flatten any warps are two useful accessories with these tapered SME arms!

Otherwise, the cartridge body is tapped for standard M2.5 mounting bolts and a sound coupling between the arm and cartridge is assured via its Teflon-coated aluminium bonded mounting plate.

Sumiko is at pains to point out that the cartridge can accommodate a wide range of preamp loads from 100-1000ohm thanks to its internal impedance of 30ohm. The body weighs 7.0g and optimum tracking force is specified at 2.0g while its compliance characteristics indicate that

**RIGHT:** Despite the modest 2.0g downforce and low compliance, but assisted by a boron cantilever and Ogura diamond, the Pearwood has the tracking prowess of a lightweight MM





it would suit the majority of high-quality medium or high-mass tonearms.

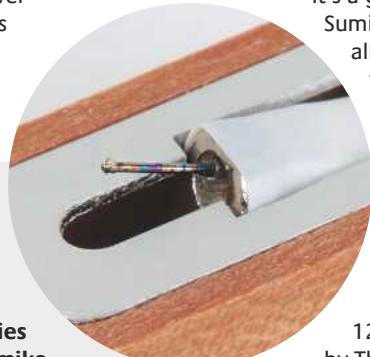
Production levels of such an esoteric design are necessarily low due to the labour-intensive hand-built nature of the product. This artisan approach carries through to the testing and QC procedure – each cartridge is subjected to a battery of test records, is individually auditioned and is hand-calibrated prior to dispatch. Sumiko argues that only by such intensive attention to detail in the hands of a master craftsman can the very highest levels of performance be achieved.

### ROCK STAR

My resident Michell GyroDec turntable and SME IV arm proved ideal partners for the Pearwood Celebration II while a PS Audio

Stellar Phono [HFN Feb '20] offered all the loading and gain options I could wish for. The remainder of the test system included Naim NAC82/HICAP/NAP250 amplification driving ATC SCM40 speakers.

Let me put my cards on the table – when it comes to cartridge performance, I seek neutrality. That means clear vocals, acoustic guitars and violins that reveal their timbres, not to mention drums that have all the attack and solidity of the real thing. And from the very beginning that's exactly what the Pearwood Celebration II delivered. There was a feeling of superb clarity and detail that never descended into harshness or cacophony. There was a sense of rock-solid stability underpinned



### FROM MICRO TO MACRO

I discussed the history of Sumiko's design and distribution business in our review of the Starling [HFN Mar '20]. Today Sumiko is a brand as comfortable with the micro-engineering of an Ogura Jewel Company P9 stylus and long-grain boron cantilever (see inset picture) as the macro-engineering of its S series active subwoofers. So bass enthusiasts may well recognise the Sumiko name, as it also has a history selling high-performance subwoofers for hi-fi and home theatre applications. Finding one available might be a tall order, however – a separate entity to Sumiko Phono Cartridges, Sumiko's subwoofers haven't been picked up for UK sale by distributor Henley Audio.

Once an agent of North American sub-bass specialist REL Acoustics, more recently Sumiko partnered with Italian marque Sonus faber to produce a four-strong range. This kicks off with the compact S.0 – an affordable 6.5in/120W Class AB design – before advancing in driver size and onboard power to the top-of-the-range S.10, which partners a 12in driver with 12in passive radiator, and claims 1kW peaks from its Class D amplifier module. Adopting the tagline 'musical subculture', Sumiko positions its subs as ideally suited for two-channel stereo systems – think definition, speed and nuance rather than the infrasonic depth and sheer slam of more home cinema-focused models. PM

**LEFT:** Although the magnet, yoke and 'moving-coil' assembly are mounted into a rigid alloy chassis and top plate (with threaded lugs), the 90° angles of the decorative Pearwood sleeve are a boon for accurate alignment. Cueing is a little trickier

by a soundstage that proved as immovable as a Stonehenge obelisk.

These qualities of stability and unflappability encouraged me to delve deep into my record collection with nothing proving off limits. Even torture tracks and poorly recorded albums were rendered with a rare panache, and U2's *Joshua Tree* [Island 208 219] is a fine example of this. While an enjoyable album musically, it suffers from an over-compressed mix that can sound both shrill and muffled at the same time. The experience is akin to listening to music with a permanent head-cold – perhaps that's the effect producer Daniel Lanois was seeking, though somehow I doubt it.

### TORTURE TRACK

Hearing 'Trip Through Your Wires' via the Pearwood Celebration II was a revelation, with the opening harmonica beautifully rendered without loosening my fillings as usual. Better than that, the whole LP actually sounded like a band in a room, there being a good sense of acoustic space while Larry Mullen's drum kit had some weight behind it, if still lacking some kick.

It's a good example of how the Sumiko Pearwood Celebration II allows you to enjoy more of your record collection. As a further blessing, surface noise was commendably low and the cartridge tracked like it was on rails, just as predicted by PM's lab tests [p57].

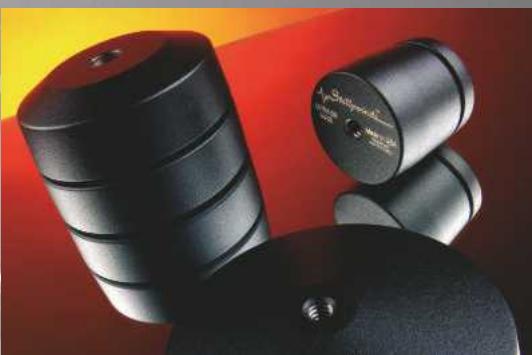
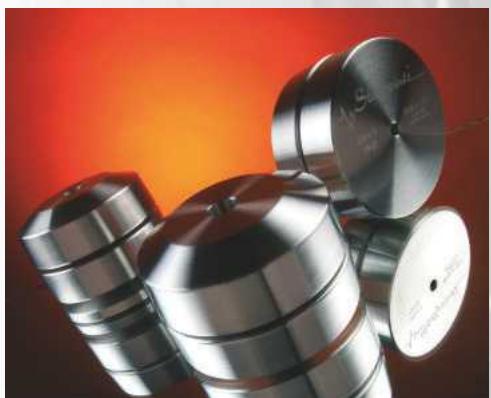
One torture track I longed to play was the 12in mix of 'This Corrosion' by The Sisters Of Mercy [WEA MR39T] – a song so explosive in its delivery it feels as if it might set fire to the GyroDec every time I spin it! The band fielded the massed choir of The New York choral society – all 40 of them – and backed them with soaring distorted guitar and a pounding drum beat. The effect is Wagnerian and yet the stuff of nightmares for a diamond to track cleanly in a groove.

Every cartridge I have ever used on the GyroDec in 21 years has sounded like it was screaming for mercy, neither able to reproduce the voices cleanly nor maintain control over the proceedings. This time it ↗



# Stillpoints™

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



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

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

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



Distributed by  
**KOG AUDIO**

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

[info@kogaudio.com](mailto:info@kogaudio.com)

024 7722 0650

## LAB REPORT

### SUMIKO PEARWOOD CELEBRATION II

**RIGHT:** Colour-coded and tapered cartridge pins emerge from a Teflon plate. The black bolt clamps the magnet assembly into the alloy body

was different, and where once there was chaos now there was order. The massed choir soared cleanly in the huge acoustic space of an imaginary cathedral while it was easy to pick out the intricate bass line behind the beat. Despite the track's complexity, the Pearwood Celebration II demonstrated incredible slam, precision and attack, which served to emphasise the sheer power and energy of the performance.

In short, the Pearwood Celebration II was absolutely dazzling and I have never heard The Sisters sound better. This is what great audio design is all about. All those years spent saving for an upgrade and worrying about synergy and turntable set-up resolve down to this – one perfect track, one night and tears in your eyes...

#### REAL DEAL

Playing Belle And Sebastian after that really was moving from the ridiculous to the sublime, but *Days Of The Bagnold Summer* [Matador Ole-1455-1] and 'I Know Where The Summer Goes' is as pure a slice of pop heaven as it's possible to find. Glorious Hammond organ underpins the track to a shuffle beat and Stuart Murdoch's plaintive vocals are wonderfully expressive. As the timbre and sonority of Sarah Wilson's cello poured from my speakers, this cartridge left no stone unturned in revealing forensic details of the piano buried low in the mix.



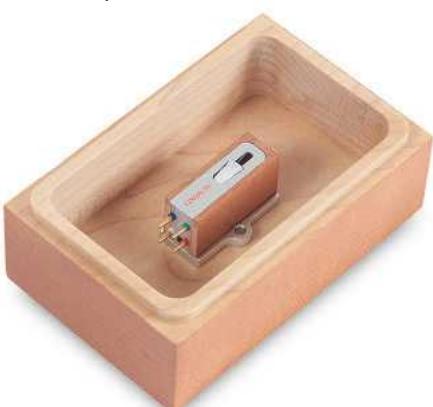
On other tracks, such as 'Sister Buddha (Intro)', the Pearwood Celebration II presented the strummed acoustic guitars with startling transparency and the accompanying bass guitar with a wonderfully ripe fullness. The perceived bandwidth is wide, and there's a sense of neutrality, of nothing being added or taken away. It was rather like sitting in the control room in the studio, listening to a playback with the band.

Electric guitar can certainly be a challenging instrument to reproduce yet on 'Once Upon A Time In The West' from Dire Straits' second studio album *Communique* [Vertigo 6360170] Knopfler's signature Stratocaster sound was astonishingly textured and real. A true virtuoso, every string-bend and nuance of his playing was laid bare while other instruments in the mix were clearly delineated. Yet none of this was ever at the expense of presenting the song as a cohesive whole. ☺

#### HI-FI NEWS VERDICT

From the moment you open the beautiful box and digest the lovingly written manual it is clear the Pearwood Celebration II is a very special cartridge indeed. It tracks grooves effortlessly and reproduces music with stunning veracity. Its ability to excel at reproducing the fundamental building blocks of music – timbre, texture and dynamics – puts it in the cream of the vinyl-playing high-end. In a word, sublime.

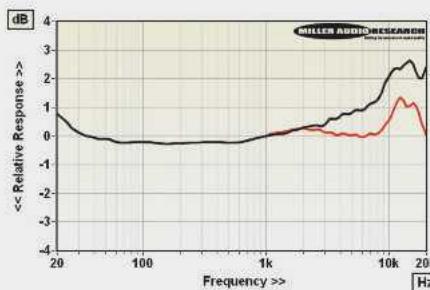
Sound Quality: 86%



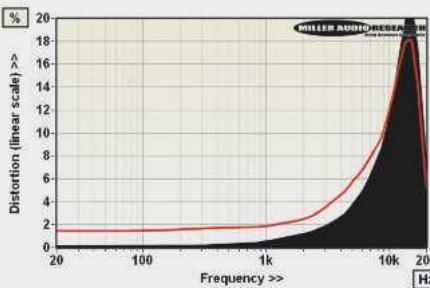
**ABOVE:** The Pearwood Celebration II arrives in a fragrant wooden box, but be careful when unpacking and installing because no stylus guard is supplied

Although we recently looked at Sumiko's Starling MC [HFN Mar '20] the Pearwood Celebration II bears closer comparison, in both design and performance, to the flagship Palo Santos Presentation [HFN Jul '10]. Both cartridges feature a wooden sleeve, an AlNiCo magnet and long-grain boron cantilever but the 'ultra low mass' 75x5µm line contact diamond used by the Palo Santos is traded for an elliptically-ground P9 stylus from the Ogura Jewel Company in the Pearwood. Both cartridges have a slightly high 25-26° VTA at their recommended 2g downforce but both offer a flatter HF response, and better L+R/L-R symmetry than the Starling. The Pearwood's low/mid frequency response (20Hz-2kHz) is flat to within ±0.5dB leaving the output to peak at +1.1dB [L+R, red trace, Graph 1] and +2.6dB [L+R, black trace] above 10kHz [see Graph 1, below]. This is unlikely to cause audible brightness or emphasise surface noise, just as the ~20% peak in equalised distortion (~8dB re. 5cm/sec) at a similar 15kHz [Graph 2] will add no 'coarseness'. The THD is simply a reflection of the Pearwood's very extended HF response.

Like the Palo Santos, the Pearwood has a relatively low 9-10cu compliance and yet it boasts the tracking prowess of a lightweight MM. Few MCs surpass the 80µm groove test but the Pearwood steps up and tracks through. Via the stepped 300Hz test tracks, the Pearwood suffers just 0.2% distortion at +6dB (re. 5cm/sec), increasing to a mere 0.8% at the maximum +18dB modulation. Once again, few 10cu MCs will get past the +15dB grooves. Tracking assured, the 0.5mV cartridge output (into 100ohm) is achieved with a wide 25dB+ midband channel separation and a channel imbalance of just 0.4dB. PM



ABOVE: Frequency response curves (-8dB re. 5cm/sec) lateral (L+R, black) versus vertical (L-R, red)



ABOVE: Lateral (L+R, black infill) and vertical (L-R, red) tracing and generator distortion (2nd-4th harmonics) vs. frequency from 20Hz-20kHz (-8dB re. 5cm/sec)

#### HI-FI NEWS SPECIFICATIONS

Generator type/weight	Moving-coil / 7g
Recommended tracking force	19-22mN (20mN)
Sensitivity/balance (re. 5cm/sec)	515µV / 0.4dB
Compliance (vertical/lateral)	9cu / 10cu
Vertical tracking angle	26 degrees
L/R Tracking ability	>80µm / 80µm
L/R Distortion (-8dB, 20Hz-20kHz)	0.65-25% / 0.25-21%
L/R Frequency resp. (20Hz-20kHz)	+1.5 to -2.9dB / +2.6 to -0.4dB
Stereo separation (1kHz / 20kHz)	28dB / 22dB

# Bricasti M3

With trickle-down tech from the flagship M1, a custom DSD DAC plus network and headphone amp options, Bricasti's M3 looks like the new go-to star of the range

Review: Christopher Breunig Lab: Paul Miller

**W**ith its upgraded M1 Dual Mono DAC now in 'Classic' form and selling in the UK at £9499, Bricasti has also announced a more affordable alternative, but still offering 'an incredible array of performance'. The basic M3 USB DAC is offered at £5399, but this increases to £6999 when fitted with its 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, and is available as a return-to-factory retro-fit option as the front fascia requires some reworking [see boxout, p59].

The new 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 is fully balanced throughout – including the volume control – and there are independent linear power supplies for both the analogue and digital cores of the product. The elegant, almost soft lines of the M3's alloy casework disguise what is a very purposefully built unit that, at 355x64x286mm (whd) and weighing 4.5kg, is rather bigger than our pictures might suggest.

## PRO HERITAGE

Its casework is all CNC-machined from solid aluminium, black anodised and with laser etched legends. The M3 presents a flat front and rear face, unlike the sculpted form of the flagship M1 and its gold-plated limited edition variant [HFN Oct '16], and looks all the better for that. It sits on four 60mm-diameter non-adjustable feet with rubber inserts. The twin ventilating top-plates might, however, have been more domestic-friendly in black, rather than silver grey and are inset with a dozen countersunk fixing screws.

**RIGHT:** Two linear power supplies are fitted, one for the network, USB and digital processing circuitry [right] and one for the AD1955 DAC-based analogue output [top left] and retro-fitted headphone preamp [near left]

The overall aesthetic reflects Bricasti's very first product, the M7 Stereo Reverb processor designed for use in recording studios. The company was begun back in 2004 in a converted mill in Shirley, Massachusetts, by two former Lexicon employees, Brian Zolner and DSP software designer Casey Dowdell.

A critical listener, Zolner's touchstone was the acoustics of Symphony Hall Boston, and its itinerary of fine-tuning and component choice is still determined at Bricasti by listening tests. The company also

cooperates with AeVee Labs, New Haven, for its hardware engineering. Its M1 DAC appeared in 2011 [HFN Jun '11] and a well-received 200W/8ohm fully balanced monoblock followed in 2015. Bricasti's domestic lineup also includes 125W and 150W stereo amplifiers.

Back to the M3, and 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. If you set the M3 to '0dB' then it defaults to bypass mode for direct output into a partnering

preamp. An optional line-of-sight remote handset matches the M3's styling (£529) and duplicates all key functions, including volume [see p61].

While the original M1 had no USB-B input, although this was added later, the M3's USB and network inputs support up

*'The beasts in the opener always make me jump'*





to 384kHz/24-bit LPCM (a downloadable driver is needed for PCs), DSD64 and 128. Additional inputs include AES/EBU, coaxial and Toslink optical S/PDIF. Both single-ended (RCA) and balanced (XLR) analogue outputs are fitted. Finally, while the M1 has no fewer than 15 digital filter options these are condensed to a choice between linear and minimum phase fast roll-off types in the M3. It also has a custom single-bit converter so that DSD inputs are not converted to LPCM.

### FULL COLOURS

With the M3 connected via USB to my MacBook Pro running Audirvana 3.5, my initial listening proved very enjoyable via the headphone output using my trusty Beyerdynamic T1 [HFN Aug '13] cans, before moving onto my main DNM PA3 power amp and Quad ESL-57 system. Santtu-Matias Rouvali has reached Vol 2 in his Sibelius Symphony cycle with the Gothenburg SO [Alpha ALPHA574].

### HEADPHONE RETROFIT

**Our sample of the M3 was not only fitted with the optional network card but also the very new headphone preamp. At the time of writing, no technical specification for this amplifier had been posted aside from the fact that it is (necessarily) a fully balanced solution configured to drive both 4-pin XLR and single-ended 6.35mm outputs. In practice, Bricasti's headphone output registers 8.8V at '+1' volume and 7.85V at '0', clipping at the '+2' setting. Adjusted for a 600ohm load this represents an output of 100mW while the amplifier retains sufficient current to support 845mW/25ohm at >1% THD, the latter impedance representative of the 'average' load measured across our comprehensive headphone reviews [p62]. Distortion is very low indeed and typically <0.0005% through bass and midrange and <0.002%/20kHz at 10mW/25ohm.**

The frequency response of the preamp is determined by that of the DAC stage [see Lab Report, p61] but its impressively low 315-650mohm source impedance means the M3 will manage the varying load of low impedance 'phones without exaggerating any existing peaks and dips in their acoustic response(s). Channel separation is ~95dB across the 20Hz-20kHz range.

Noise, too, is very low and the ultimate A-wtd S/N ratio very wide at 116dB – the M3 will drive the most sensitive of headphones without obvious background hum. PM

48kHz/24-bit] and this is an eminently straightforward account. With the linear phase filter engaged, my first impression was of a smooth presentation where all the subsidiary detail could be heard, though overall it was somewhat bland.

Changing to the minimum phase alternative brought an obvious improvement – the soundstage shifted slightly but the rather sweet sound and fine production by Jens Braun was, from a tonal perspective, so much more involving. The same effect was also shown with the remarkable young Italian pianist Filippo Gorini playing late Beethoven sonatas [Alpha 591; 192kHz/24-bit], recorded in the Beethoven Haus Bonn.

Nothing has proved more recent fun than the Shchedrin *Carmen Suite*, adapted from Bizet's original. It's with the late Mariss Jansons, recorded live with the Bavarian RSO [HFN May '20, p95; 48kHz/24-bit download]. After the sinister atmosphere of the opening tolling bells,

**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]

with track 2 the M3 recreated all the zest of the playing and full colour of the orchestration, with the rhythms sounding taut and the soundstage (albeit close-mic'd) explicitly set out.

Researching my Classical Companion piece about Jansons [HFN Feb '20] I was struck by how well those early Chandos Tchaikovsky Symphony recordings with the Oslo PO still sounded, although they are only 44.1kHz/16-bit resolution. Listening to No 1, 'Winter Dreams', you wouldn't say it was in any way an 'audiophile' choice – some of the *fortes* are a bit strained – but the M3 carried you along as Jansons urged his players dramatically forward.

### POINTS OF VIEW

Sticking with the USB input I switched to my 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 – good though its inbuilt headphone stage was.

Switching to Input 2 (S/PDIF) and the sound – perhaps unsurprisingly – gained even more in the sense of instruments, such as the castanets, starting and stopping while the soundstage became more specific, and less 'in your face'.

HFN's DAC reviews have consistently shown a preference for S/PDIF over USB. For Bizet in a purer form a new Linn ➤





**ortofon**  
accuracy in sound

# CADENZA

The Cadenza Series of high-end Moving Coil (MC) cartridges allow you to get the most from your vinyl records. By carefully implementing cobalt-iron pole pieces, using new improved winding processes on the armature, and employing an extruded aluminium housing - amongst other changes - the Cadenza Series is able to out-perform all those that came before it.

The name *Cadenza* comes from the Italian word for cadence, which refers to a soloist during an orchestra performance where they play alone in an elaborate manner. It therefore seemed fitting that such a capable and nuanced cartridge series should use the same name.

Like other modern ranges, the Cadenza Series is structured in Ortofon's preferred colour-tier nomenclature; so there are Red, Blue, Bronze, and Black variants available to suit varying budgets and tastes.



## Red

This MC cartridge and introduction to the series features a Nude Fine Line stylus which delivers open, dynamic sound with a touch of warmth.



## Blue

Featuring much greater dynamics and resolution, the sound is more open and reproduces more accurate details thanks to the Nude FG 70 stylus.



## Bronze

A step up in the range, this cartridge boasts a Replicant 100 stylus to produce stereo imaging capabilities that illuminate the farthest corners of the soundstage.



## Black

Flagship of the range, the Cadenza Black is simply the best and features a Nude Shibata stylus which guarantees amazing tonal neutrality, dynamics and purity of sound.

## NETWORK-ATTACHED DAC



**ABOVE:** All digital inputs are supported here including wired Ethernet (as a DNLA compatible network player the M3 handles up to 384kHz PCM and DSD128 as DoP), USB-B (also 384kHz PCM and DSD128 as DoP), optical/coax S/PDIF and AES/EBU (XLR).

192kHz/24-bit download has the Scottish CO under François Leleux playing the *Carmen Suite No 1* [CRD624] which is enjoyable. But the album also has Gounod's *Petite Symphonie* scored for winds only. The M3 conveyed very well the alertness of the playing and the intimacy that this group suggests.

For a speech test – and animals snarling and roaring at London Zoo! – what better than the 1960 Decca recording of Saint-Saëns's *Carnival Of The Animals* with the LSO and comic actress Hermione Gingold? The beasts in the opener always make me jump and the narrative is a full-blooded, arch treat (of a Marmite kind). Gingold is set extreme stage left [CD rip from Decca 483 056] and the cynical texts registered with enormous presence here.

### WOW FACTOR

You couldn't have a greater contrast than Magdalena Kožená singing the 'Pie Jesu' from Duruflé's *Requiem* in the wonderful Linn recording with Robin Ticciati [CKD623; 96kHz/24-bit]. The sheer dignity of her interpretation with a presence that you feel you could almost reach out to and touch, the clarity of her enunciation, and the sensitivity of the accompaniment again made me say 'Wow!' as the track ended.

Using an AudioQuest carbonfibre cable, I next connected the M3 to my CD player and, with the tracks I so often use for headphone reviewing – Patrick Stewart narrating

Prokofiev's *Peter and the Wolf* [Erato 4509-97418-2], 'Blue Rondo à La Turk' from

**LEFT:** Optional all-alloy M3 remote offers control over input, balance, display and volume

Dave Brubeck's *Time Out* [Columbia Legacy CH 65122], and the MJQ in *No Sun In Venice* [Atlantic 1284-2] – there was a significant step up in sound quality. There were more nuances in both speech and the orchestral reproduction in the Prokofiev, and the two jazz examples were more open and 'three-dimensional', with metal percussion having a more realistic timbre.

In our Hi-Res Downloads pages [HFN Jan '20] we reviewed Vladimir Jurowski's live recording of Tchaikovsky's *Nutcracker* ballet [Pentatone PTC5186761] at 96kHz/24-bit resolution. But NativeDSD.com has this as DSD tracks, so I compared the Overture and the six *Divertissement* movements. There was an obvious difference, initially perhaps subtle, but repeating the comparison showed how you get an increase in natural presence and a sense of ease about climaxes with DSD.

This was even more striking with the finale of Mahler's Symphony No 1, in the Budapest Fischer/Iván Fischer recording [Channel Classics; DSD64], where the sheer impact pinned you back into your seat. Extra money and longer download times of course, but thanks to the M3 I did become something of a convert. ☺

### HI-FI NEWS 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 DSD DAC and headphone amp are welcome additions to the platform, and the engineering and finish are superb. It's built to last, operation is straightforward and the sound quality is exemplary.

Sound Quality: 88%

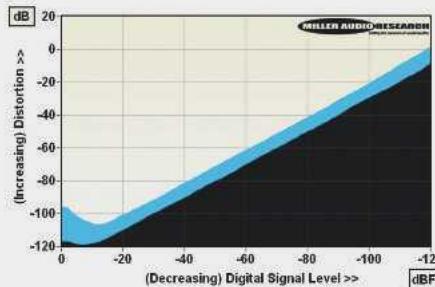


## LAB REPORT

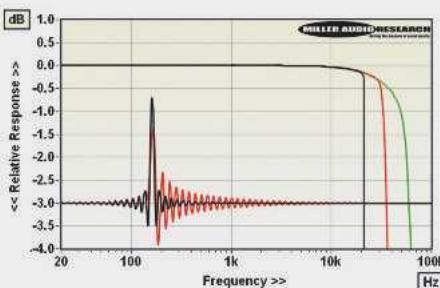
### BRICASTI M3

In the nine years since we tested the original Bricasti M1 [HFN Jun '11] and then the 'Gold Edition' [HFN Oct '16] the design has evidently been 'finessed' to the point where this more affordable M3 version could be derived, complete with custom DSD DAC and headphone amplifier [see boxout, p59]. For LPCM inputs the same Analog Devices AD1955A DACs still define the very low 0.00016% distortion through the midrange at its (fixed) 4.0V peak output, falling to 0.00007% at -10dBFS and 0.00025% at -30dBFS [see Graph 1, below]. As before, there's a slight increase in 3rd harmonic distortion to 0.0017% at 20kHz falling to 0.00035% between -10dBFS and -30dBFS (a function of the analogue stage) while the A-wtd S/N ratio is boosted by a few dB to 114.5dB and low-level resolution also improved to ±0.1dB over a full 100dB dynamic range.

Bricasti's DDS (Direct Digital synthesis) clocking is retained for the M3 but jitter is not as vanishingly low as it was in the M1. Numerically high at 1915psec, the specific jitter sidebands are nevertheless very low rate at ±15Hz, ±25Hz, ±35Hz and ±45Hz, so the subjective impact will be reduced. Bricasti has elected to offer both linear and minimum phase digital filters as part of its integral 8x upsampling regime [Graph 2, below]. It specifically recommends not upsampling data in an upstream media server but to deliver the files in native form to the M3. Both filters offer the same 105dB stopband (image) rejection and very similar response curves that reach -0.15dB/20kHz with 48kHz media and rolls steeply away beyond -3dB/36kHz (96kHz files) and -3dB/60kHz (192kHz files). These engineered roll-offs are earlier than typical but are not inherently 'wrong'. PM



ABOVE: Distortion versus 24-bit digital signal level over a 120dB range at 1kHz (black) and 20kHz (blue)



ABOVE: Time (linear phase filter, black; minimum phase filter, red) and magnitude responses at 48kFs (black), 96kFs (red) and 192kFs (green)

### HI-FI NEWS SPECIFICATIONS

Max. output (<1% THD, DAC/Pre)	3.99Vrms at 420hm
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

# T+A Solitaire P

When a company of T+A's audiophile standing decides, perhaps belatedly, to launch a high-end headphone and spares no effort in its design, the wise sit up and take notice

Review & Lab: **Keith Howard**

**I**t seems a very long time ago – it is a very long time ago – that Germany's T+A elektroakustik was known in the UK market principally for manufacturing 'omnidirectional' loudspeakers reminiscent of Stig Carlsson's classic Sonab designs. More recently, T+A has become a scion of the German hi-fi industry, best known in the UK today for its electronics, although it continues to manufacture loudspeakers.

What it hasn't done until now is make a headphone. At £4800 – to which add £6600 if you also purchase the Solitaire HA 200 headphone amplifier [reviewed next month] – the Solitaire P classifies as a statement product, a dive straight into the deep end of the headphone market. But at a time when the bubble that has been the headphone sector for the past decade is widely reckoned to have burst, has it arrived too late? Furthermore this conventionally styled, heavier-than-average and low sensitivity planar magnetic design contrasts, on many levels, with the recently reviewed Audeze LCD-1 [HFN Mar '20] and Dan Clark Audio Aeon 2 [HFN Apr '20].

## HEAD FIRST

But we audiophiles tend to be a conservative lot, and there's much about the Solitaire P to admire and be reassured by. As T+A points out, it may be new to headphone manufacture but it isn't new to planar drive units, although previous examples have been electrostatic drivers for its loudspeakers. Did T+A consider making an electrostatic headphone? If so, it rejected the idea on the basis that an electrostatic needs a polarising supply whereas a planar magnetic

design is self-contained and can be plugged straight into a conventional headphone output socket. Probably that was a wise marketing decision...

How does a first-time headphone manufacturer set about creating a design that will comfortably fit as many users as possible? It's not a trivial problem, even though there is copious anthropometric information available about ear and head sizes. At 545g the Solitaire P headset is quite heavy but the headband is generously padded on its underside, the synthetic leather and Alcantara earpads are deep, and the head clamping force is modest. Yet the elliptical-profile earpads aren't truly circumaural – not for my lugs, anyway – and, while squishy to the fingers, didn't feel

very giving on the head. But we all have different shapes of head and ears, so my sensations may not be universal.

## CAPSULES 'N' CABLES

As standard, two connecting leads are supplied, both 3m in length. The unbalanced option terminates in a chunky 6.35mm, gold-plated jack plug; the balanced option in a 4.4mm TRRS Pentaconn jack. No provision is made for connection to mini-jack outlets. An alternative

balanced lead, terminated in a 4-pin XLR plug, is available as an option. At the headset end the cable divides to feed each capsule separately, connecting via what look to be push-fit two-pin Lemo connectors with an extended bespoke body shaped to match the cut-out in the perforated capsule cover. The downside of this neat arrangement is that the female part of the connector, and the wires therefrom, can be clearly seen through the perforations [see p65].

The connecting cable, by the way, has a smooth sheath which helps prevent the Solitaire P from suffering capsule noise when the lead is dragged over furniture or clothing, even though tapping the perforated capsule cover suggests that it is still quite microphonic. Testing showed the Solitaire P to have a large resonance, though, probably caused by the headband, associated with the kink at around 50Hz in its bass response. Also, this is not an open-back planar magnetic which, like some, shrugs off compromised earpad sealing. While it's not as sensitive to this factor as some, it does lose bass extension if earpad leakage is present [see Lab Report, p65].

Within each capsule is a planar magnetic (isodynamic) drive unit of T+A's own design which saves weight

**RIGHT:** T+A has opted for a conservative, conventional appearance with little ornamentation or bling, putting its emphasis instead on pure engineering quality





by being single-sided yet still delivers low nonlinear distortion at high SPLs. There are 11 magnets arrayed on one side of the diaphragm only (the outer side), which are of differing lengths to fit the driver's elliptical form. As for the construction of the driver – including its distinctive magnet

cross-section – it is nothing short of superb [see boxout, below].

#### FULL EMOTION

For the listening I used my resident Teac HA-501 headphone amp [HFN Apr '14], Chord Electronics

#### PRECISION PERFORMANCE

Precision seems to have been the keyword for T+A during its development of the Solitaire P's elliptical planar magnetic driver, which has major and minor axes of 110mm and 80mm. The capsule frame is machined from 35mm aluminium plate in a CNC operation that takes a five-axis milling machine over 60 minutes. Located within it, the frame which holds the magnets positions them to within a few tens of micrometres of their optimum locations. We've become familiar in recent years with PM headphone drivers which abandon traditional rectangular- or square-section bar magnets for shapes which are less obstructive to airflow when the diaphragm moves, but the Solitaire P is the first design we've seen that uses a wedge profile. Precisely what the diaphragm material is T+A doesn't say, nor does it specify its thickness any more precisely than 'a few µm'. As usual, the 'voice coil' – itself 'only µm thick' – is formed by photo-etching a conductive layer deposited on the diaphragm surface.



**LEFT:** Wherever 'possible and sensible' T+A has used aluminium in the construction rather than plastic. High quality materials feature throughout, with the earpads combining synthetic leather and Alcantara

Qutest DAC [HFN Nov '18], Mac mini running JRiver Media Center v22 and a PS Audio P10 mains regenerator [HFN Apr '13]. The first thing you'll notice when using the Solitaire P is that it needs a good twist of the volume control to achieve a given loudness. While some other planar magnetic headphones have lower voltage sensitivity still – champion in this respect being the HiFiMan Susvara [HFN Dec '19] – it does mark the Solitaire P out from the PM headphones once made by Oppo [HFN Jul '14], and more recently the EL-8 [HFN Oct '15] and the current LCD-1 [HFN Mar '20] from Audeze, which collectively raised their voltage sensitivity to match that typical of moving-coil designs. But with a partnering headphone amplifier that's worthy of the Solitaire P, sufficient drive voltage should never prove to be an issue.

Tonally the Solitaire P resembles many other planar magnetics and runs true to what you'd expect from its frequency responses. While it lacks the shelved-up bass demanded by the latest Harman target response it conspicuously lacks treble energy. As a result it delivers a refined, low-grit and low-grain sound but can lack a little sparkle and analysis.

'Now Is The Month Of Maying' [96kHz/24-bit rip from *Voices Unbound*; AIX 80012], a track that I haven't played for years, comprises an a cappella choir of male and female voices singing a well-known ballet written by Thomas Morley in 1595. As with all good choir recordings, reproduced at its best it allows you to

'hear into' the ensemble to individual voices within, which renders the performance altogether more real, more vital and engaging than a smoothed-over, lower-resolution equivalent. Arguably the Solitaire P errs slightly on the side of the latter.

Another example was provided by 'Goin' Back To Joe's' [Naim Label 24/96 download], a fine purist recording but because it's not EQ'd or otherwise pimped-up it demands a high level of transparency if it's not to descend from being a great performance and recording into something distinctly less memorable. The Solitaire P's ↗



## Sbooster BOTW Power & Precision ECO MK2 linear power supply.

This simple linear power supply upgrade will dramatically improve the performance of your Hifi products\* and you will hear the difference. At £330.00 this is one of the most cost effective Hifi upgrades available. Contact your dealer for a demonstration.

\*Must have an DC inlet.

For a full list of compatible brands please see [www.sbooster.com](http://www.sbooster.com) and search upgrades.

Arcam	Auralic	Bel Canto
Chord	Creek	Graham Slee
iFi Audio	Lumin	M2TECH
Martin Logan	Melco	Musical Fidelity
Mytek	Project	Rega
Roon	SOtM	Stax

Products from the brands above benefit sonically when used with S Booster linear power supply.

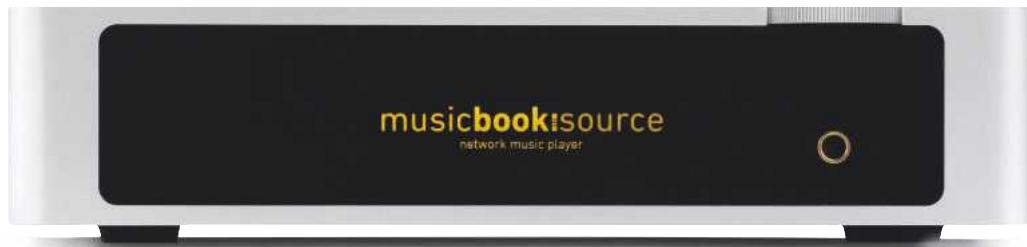
*Signature*  
AUDIO SYSTEMS

Distributed by Signature Audio Systems, call: 07738 – 007776  
or by e-mail to: [info@signaturesystems.co.uk](mailto:info@signaturesystems.co.uk) Web: [www.sbooster.com](http://www.sbooster.com)



## LINDEMANN.

### Lindemann's next generation Musicbook Network Music Player is the perfect package.



TECHNOLOGY  
PARTNERS

Spotify  
ROON ready

DEEZER  
airable

qobuz  
Bluetooth

TIDAL  
Wi-Fi

USB

HIGHRESAUDIO

*Signature*  
AUDIO SYSTEMS

Distributed by Signature Audio Systems, call: 07738 – 007776  
or by e-mail to: [info@signaturesystems.co.uk](mailto:info@signaturesystems.co.uk) Web: [www.lindemann-audio.de](http://www.lindemann-audio.de)

## HEADPHONES

**RIGHT:** The cable connectors slide up into the capsules, which is neat – but the body of the connector is visible through the perforated capsule cover

reticent treble certainly reduced the percussive impact of Laurence Hobgood's piano while Kurt Elling's vocal – compelling at its best – was a little less intimate, less nuanced.

Of course, I'm judging the Solitaire P by high standards here, but when you're being asked to pay the thick end of £5k for a headphone those are the only ones to apply. Many modern headphones have a tonal balance not unlike this, and it may be that T+A felt it advisable to follow the pack rather than risk the criticism of the Solitaire P being 'bright', which is all too commonly fired at headphones which dare to deliver a neutral rather than rose-tinted sound.

Having not tried any classical music thus far, I turned next to Roderick Williams singing the haunting 'Is My Team Ploughing?' from Butterworth's setting of *A Shropshire Lad* [44.1kHz/16-bit rip from Naxos 8.572426]. Although this too was given a warmer cast than I'm used to, that quite suited Williams' elegant baritone and the spare piano accompaniment, and the emotional impact – of a dead man asking questions of a friend who's now intimate with his old girlfriend – was delivered in full.

### FLEET OF FOOT

However, with the third movement of Robin Ticciati's Schumann Symphony No 2 [Linn Records CKD 450; 192kHz/24-bit], whose ethereal magic is so easily lost, I felt again the lack of presence band analysis that gives the violins a delicate texture in this performance and recording.

Listening to vocals I heard the occasional – just the occasional – hint of sibilant emphasis (always a difficult area for headphones) so put on my go-to 'difficult' recording to check this further, Sabina Sciubba and Antonio Forcione's 'Take Five' from *Meet Me In London* [Naim label, 192kHz/24-bit]. Sure enough, Sciubba's sibilants were occasionally harsh – associated, perhaps, with high-Q diaphragm resonances around 8.5kHz visible in the Solitaire P's CSD waterfalls – but few headphones pass this test



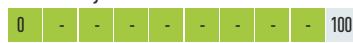
unclothed and the issue is only likely to manifest itself rarely.

When it comes to bass, I can't imagine anyone being disappointed by the Solitaire P. You might, like me, wish to dial back its quantity a little but nobody can gainsay its quality. It produced extended, powerful LF on all my bass test tracks and proved fleet of foot where bass agility was required, such as in the frenetic electric bass runs of Chris Jones' 'Fender Bender' [44.1kHz/16-bit rip from the Stockfisch CD *Roadhouses & Automobiles*; SFR 357.6027.2] and with Brian Blomberg's acoustic bass in 'The Saga Of Harrison Crabfeathers' [44.1kHz/16-bit rip from Wood; A440 Records 4001]. Headphones with such an extended bass are rarely as adroit. ☺

### HI-FI NEWS VERDICT

As things stand, I feel the Solitaire P is a good headphone waiting to become a truly great one. Its warm tonal hue will appeal to some listeners – probably to many – even if I was not wholly engaged with all choices of music, mostly because of its treble reticence. If you boost the treble using equalisation it sounds more convincing, and you begin to appreciate the great care with which it was created.

Sound Quality: 82%



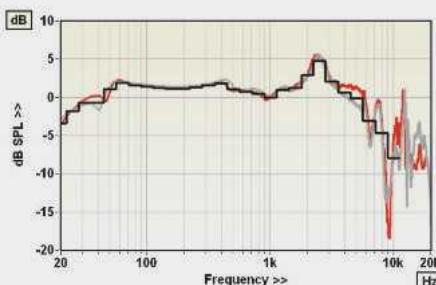
## LAB REPORT

### T+A SOLITAIRE P

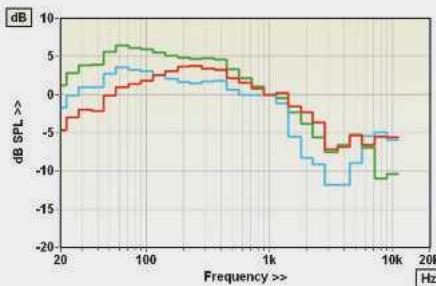
Irrespective of its high price, the Solitaire P measures like many other planar magnetic headphones. It has an almost constant, resistive impedance versus frequency – so there's no concern that its tonal balance will change according to the source impedance of a partnering headphone amplifier – but T+A's choice of an 80ohm nominal impedance is something of a puzzle. Had it halved this to 40ohm, making it more typical of a planar magnetic design, it would have raised the measured 104.3dB SPL voltage sensitivity (re. 1V at 1kHz), averaged for the two capsules, by 6dB. While the Solitaire P is very far from being the lowest sensitivity PM design we've ever measured, that extra 6dB would get it usefully nearer to many moving-coil alternatives.

As the uncorrected frequency responses show [see Graph 1, below], other classic PM features evinced by the Solitaire P are a well extended bass and more of a hillock than a peak at around 2.5kHz. So, as with many PM headphones, the diffuse-field corrected response [green trace, Graph 2 below] shows a mostly downward trend from 65Hz to 10kHz. The Harman 2013 correction shows a perceived frequency response that's flat to within ±4dB limits below 2.5kHz, but still a shelving down of treble output by about 6dB above 3kHz.

The later, 2017 Harman correction (not illustrated here) shows a peaked lower midrange centred on 250Hz, with a declining perceived LF output of 3dB per octave below that. So the Solitaire P is yet another planar magnetic headphone that promises to have a warm cast to its tonal balance. It's also another planar magnetic design to demonstrate a series of closely-packed high-Q resonances in its cumulative spectral decay waterfalls (also not shown here). Open-back PM headphones typically vary in their sensitivity to compromised earpad sealing too – some are unaffected but the Solitaire P lost about 8dB of output at 20Hz on our 'worn over hair' test. KH



ABOVE: Response is both extended in the bass and very flat to 2kHz. The suppressed presence/treble is also evident from the corrected responses [below]



ABOVE: Third-octave freq. resp. (red = Harman corrected; cyan = FF corrected; green = DF corrected)

### HI-FI NEWS SPECIFICATIONS

Sensitivity (SPL at 1kHz for 1Vrms input)	104.3dB
Impedance modulus min/max (20Hz-20kHz)	78.9ohm @ 20Hz 79.8ohm @ 51Hz
Capsule matching (40Hz-10kHz)	±5.6dB
LF extension (-6dB ref. 200Hz)	<20Hz
Distortion 100Hz/1kHz (for 90dB SPL)	0.1% / <0.1%
Weight (inc. cable and 0.25in connector)	545g

# Arcam CDS50

Based on Arcam's 'FMJ' CDS27 CD/SACD disc spinner and network audio player, is the more affordable CDS50, complete with new DAC, the brand's best kept secret?

Review: James Parker Lab: Paul Miller

**C**D players, along with integrated amps, have long been such a mainstay of the Arcam product catalogue that it comes as something of a surprise that the CDS50 we have here, selling for £699, is now the sole silver disc spinner in its lineup. This, after all, was the company responsible, in 1986, for the first CD player both designed and manufactured in the UK, just four years after the format hit the shops and at a time when Linn and Naim were both sticking to their 'no good will come of this' guns.

Not too long after that the company also launched a UK-built entry-level player designed to take on the Japanese majors – Denon, Marantz and Sony – at their own game, but then that was the Arcam way in those days. Among its 'first British-built' list were counted the Black Box DAC [HFN Aug '88], the Delta 150 NICAM [HFN Dec '90] and Alpha 10 DAB [HFN Jan '99] tuners and, perhaps most memorably, the Delta 100 [HFN Jun '92], the only UK-designed and assembled Dolby S cassette deck.

## DRESSED TO IMPRESS

As followers of the brand will know, things have changed greatly at Arcam. The old factory, staffed largely by a local workforce drawn from the families of the local military base, is gone as indeed is the military base itself. The company still has a presence nearby, but these days it's in a shared office development just across the road from the old manufacturing facility, and the name over the door is different. Arcam is now owned by Harman International, itself part of Samsung, and what were once the company's new offices now play host to the UK wing of Harman's Luxury Audio group.

While the CDS50 is now made in China, there's still a sniff of 'old Arcam' about the player, as it shares the features and

capabilities of the CDS27 [HFN Aug '15], albeit with some significant changes. Not least of these is the adoption of a snappy set of new clothes, in the form of the current 'HDA' look, which has taken over from the somewhat functional FMJ styling of past Arcams. It's a smoother, softer style, extending across a lineup currently encompassing both stereo and AV products, but it still has an air of fitness for purpose to it.

The CDS50 certainly isn't unique among modern CD players, most of which have increasingly become multifunctional devices, some with extended digital input capability, others with full-blown network streaming onboard. Where it is unusual, however, is in its disc-playing for not only is this a network-capable CD player, but it also plays SACDs.

That's unusual in CD players as a whole, being usually reserved for a few 'universal' Blu-ray players and a handful of very high-end stereo machines, and as far as I can tell the CDS50 is the least expensive

dedicated CD/SACD player on the market, undercutting the next most affordable, a Denon model, by a healthy margin.

## PURIST PLAYER

That immediately makes it of interest to listeners like me, with a hefty collection of SACD discs. Yes, it's possible to rip such software to a computer and play it over a network – though strangely not with the CDS50's network section, which tops out at 192kHz/24-bit – but for many users such conversion will involve jumping through too many hoops compared to the simple action of placing a disc in a drawer and hitting play.

So this is a purist stereo disc player, but with the addition of network playback, either via Ethernet or Wi-Fi, and it also has optical and coaxial digital inputs, to which external sources can be connected. Also, a USB-A 'host' socket allows playback from suitable external drives, and can also be used to update the player's firmware

'It undercuts  
the next most  
affordable  
SACD player'



**RIGHT:** Inside the CDS50 a switchmode PSU [far right] powers the CD/SACD drive [lower left], USB and network board [top, centre] and analogue stage [top left]. This has a 'mobile' (low PSU consumption) ESS9038Q2M DAC



if and when required. The only downside of this USB provision is that the socket is on the rear panel, so best suited to drives connected and left in place as a library rather than as a means of quick playback of a few tracks copied from a computer. However, it shouldn't be too much of a chore to run a short (and inexpensive) USB extension cable through to the front of the player if you're a frequent 'stick-swapper'.

## DIVERSE DACS

The player also has both coaxial and optical digital outputs (LPCM only) alongside analogue outputs on both RCAs and balanced XLRs, plus the usual 'home automation' connections – RS232 control and a 12V trigger input for remote on/standby switching. Arcam has kept the front panel of the CDS50 admirably simple, with nothing more than an oversized power switch and four simple transport controls below the display, while the remote control [p69] is the company's standard multifunction handset, able to look after both the player and an amplifier.

The controls remain relatively simple and although it is possible to scroll through files (in streaming or USB playback mode), it's not the most pleasurable task especially

if you're accessing a large music collection. It can take a lot of key-presses, and a good deal of squinting at the display, to find the music you're after. Fortunately Arcam, to quote the old line, has an app for that [see boxout on the MusicLife app, below].

Internally, the CDS50 reveals that it is closely related to the CDS27 it replaced. Indeed, at first glance [see p66] the two look identical within, from the CD/SACD transport and the layout of the boards to the switchmode power supply (feeding separate regulated supplies for the disc mechanism, digital and DAC/analogue boards). Yes there's been some tidying of the internal routing between the two models, but the network/USB board certainly seems the same, as does the transport, although that in the review sample lacked its identifying label.

If memory serves, the CDS27 used a Sony KEM-480AAA mechanism, actually a Blu-ray drive also found in some PlayStation models, which would explain the dual-purpose SACD/CD capability (although Sony turned off this function in its PlayStations).

As PM explains in his Lab Report [p69], the principal difference between the FMJ CDS27 and CDS50 is Arcam's choice of DAC – the TI/Burr-Brown PCM1794 used

**ABOVE:** Arcam's latest and very contemporary industrial design is evident from the sleek lines, smoothly-contoured fascia, large multi-function display and bold CD/SACD transport controls

in the former being traded here for the compact ESS9038Q2M DAC from ESS Technology. This low-consumption, surface-mount DAC chip, just 5mm square, is more typically found in high-performance mobile devices but it has already met with success in some portable USB DAC solutions.

## 🎵 SUPER RICH

Looking back over my listening notes for the old CDS27, I think it's safe to say that I found it some way off being the most interesting player I'd ever auditioned, whether when playing back discs or streaming from the rather more limited online services then available. The passage of time meant that a direct A/B comparison was not possible, but while the Arcam CDS50 seemed to have more vitality and openness about its presentation than I recall from the CDS27, what was still very much in evidence was the company's characteristic sonic balance.

Specifically, to some ears that can seem rather 'safe' and a little pedestrian, while to others it's rich, smooth and – in the very best way – inoffensive. Even taking into account the difference in output level ➤

## ARCAM'S APP

As well as streaming from local storage, Arcam's MusicLife app, which is available for both Android and iOS platforms, also allows the player to access online music services. As with the CDS50's file format range, the online service selection here isn't as comprehensive as that provided by some dedicated network players, but Arcam has most of the basics covered via its platform. So, as well as Internet radio, it's possible to play Deezer, Napster and Tidal, plus the streaming services of Highresaudio and Qobuz.

True, the MusicLife app isn't the slickest of its kind, and can involve a bit more tapping than some of its rivals, but it's more than up to the job of finding and playing the music on available storage devices, and providing basic streaming capability with other brands' UPnP client devices should you have them. As well as supplying network and online service access with the CDS50 (and various other Arcam network products) it also announces its compatibility with the Mark Levinson N°5101 SACD/network player – there's that Harman connection again!



**PMC**<sup>®</sup>

**twenty5i**



A LEGEND IN  
THE MAKING

Find out more about the new series at your  
local retailer: [www.pmc-speakers.com](http://www.pmc-speakers.com)

**ATL™**  
FEATURING 

**20**  
YEARS

**UNRIVALLED**  
twenty year warranty

# CD/SACD NETWORK PLAYER



**ABOVE:** The CDS50 offers wired and wireless network inputs (media is accessible via the MusicLife app), USB-A, optical and coaxial S/PDIF inputs together with a fixed analogue output on RCAs and balanced XLRs. Wired triggers facilitate automation

between SACD and CD (nearly 3dB by PM's measurements), switching between the two layers on a disc such as The Who's *Tommy* [Polydor 9861011] shows the CDS50's ability to bring out the greater dynamics and detail of the Super Audio layer, with plenty of impact and drive, even if this isn't the most sparkling example of the SACD art.

There are other players capable to getting even deeper into the sound of discs, notably in their rendition of the depth and punch of the grumbling Entwistle bass and frenetic drumming, and the way they open up the treble, but they're a lot pricier than this 'Budget Esoterica' Arcam, and of course lack that network capability.

However, while those players may sound a little too forward and bright for some tastes, there are no such traits in the way the Arcam CDS50 plays its music, meaning 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's much in evidence across a wide range of musical styles,

including intimate chamber works and solo/small-ensemble jazz/blues such as Eric Bibb's *Just Like Love* set [Opus 3 CD22002]. Yes, the CDS50 sounds a little sweet and lush, but there's a decent sense of intimacy and involvement to

**LEFT:** Partnering remote offers direct track access, skip and search with disc and digital input selection available via the menu ring. Options for Arcam amplifiers are below



the sound. What's more, performers are well separated in the mix and have decent character, even if the kind of sparkle and ambience in evidence with more overt players is somewhat downplayed.

## THE BIG EASY

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/24bit], comes across as perhaps a little more densely populated than I 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. Ⓛ

## HI-FI NEWS 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, if not a unique one in the sub-£1000 arena. Yes, it is based on the old CDS27 but it has no shortage of style, can play SACDs, and its presentation will suit a wide range of amplification – not just Arcam's – and loudspeakers.

Sound Quality: 84%

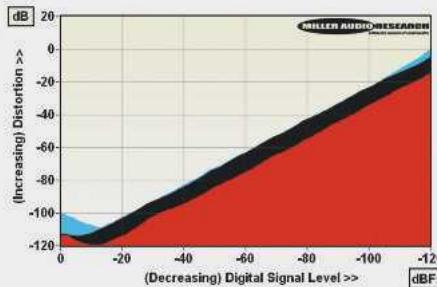


## LAB REPORT

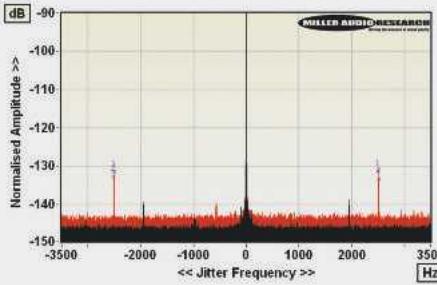
### ARCAM CDS50

Borrowing heavily from the core design of its CDS27 CD/SACD player [HFN Aug '15], the more affordable CDS50 is distinguished by Arcam's decision to swap out the TI/Burr-Brown PCM1794 DAC for a 'mobile' (low power consumption) ESS9038Q2M from ESS Technology. The CDS50's balanced output delivers a slightly lower 4.45V (vs. 4.85V) from a higher 288ohm source impedance (vs. 70ohm) but its A-wtd S/N ratio is superior at 115dB vs. 112dB. The pattern of distortion vs. frequency and vs. digital level is very similar indeed via both the CDS27 and CDS50, falling as low as 0.00008-0.00025% (20Hz-20kHz) over the top 30dB of the CDS50's dynamic range with 24-bit sources (via network or S/PDIF), and increasing to just 0.0002-0.0009% with 16-bit CD [see Graph 1, below]. This is an excellent result.

There's another key similarity between the two players: the maximum 4.45V output is reduced to 3.2V via SACD (all at 0dBFS), so bear this in mind if you compare the two layers of a CD/SACD disc. Also, as with the CDS27, SACD data is downsampled to 88.2kHz LPCM within the CDS50, so the response with these discs reaches -0.4dB/20kHz but falls to -8.8dB/40kHz. The frequency response of LPCM audio delivered over the network and S/PDIF connections differs from that of the CDS27 because Arcam has elected to employ the 'Minimum Phase/Fast' digital filter option of the ESS DAC. The lack of pre-ringing but extended post-ringing will also exert some subjective impact while the response(s) reach out to -1.9dB/45kHz (96kHz media) and -5.0dB/90kHz (192kHz media). Jitter is very low too at <20psec with 24-bit files, all sample rates, and SACD sources [see Graph 2, below]. PM



**ABOVE:** THD versus digital level – 1kHz at 24-bit/48kHz over Network (red), 1kHz at 16-bit/44.1kHz via CD (black) and 20kHz via CD (blue)



**ABOVE:** High res. jitter plots using 24-bit/48kHz data (Network input, black; SACD, red with markers)

## 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



P S A U D I O

Pioneering world class audio products

# PS Audio's Stellar range is affordable excellence

## Stellar Gain Cell Preamplifier/DAC

The Stellar Gain Cell™ combines the benefits of an exceptional analogue preamplifier and a full-featured DAC. Fully balanced analogue circuitry from input to output, the Stellar Gain Cell builds upon years of research and innovation in the art of Class A analogue amplification and state-of-the-art digital reproduction.



£1,550



£1,350

## Stellar S300 Stereo Amplifier

Breathe new life into your loudspeakers with the Stellar™ S300. The S300 combines the slam, linearity, and toe-tapping pacing of a Class D output stage with the warmth, grace, and rich inner detail of Stellar's Class A proprietary Analog Cell.

## Stellar M700 Power Amplifier Monos

The Analog Cell is the heart of the M700's musicality, where richly overlayed layers of music's inner details are preserved even in the most complex orchestral crescendos. The Analog Cell is a proprietary, fully differential, zero feedback, discrete, Class A MOSFET circuit, hand-tuned to capture the smallest micro dynamics without sacrificing the loudest macro dynamics music has to offer.



£2,700

# PS Audio Introduces the Stellar Phono Preamplifier!

Redefining record collections,  
one LP at a time



"I recommend a listen to the Stellar to anyone in the market for a new phono preamp, regardless of price. I don't think I've ever written that before."

Michael Fremer - Stereophile, Jan 2020

£2,500

The new Stellar Phono Preamp has both fixed and variable loading for moving coil cartridges, fully adjustable from the remote control. The unit's ultra-low noise allows the use of MC cartridges with output as low as 0.15 mV. Two different tonearms can be selected via the remote, with either single-ended or balanced outputs. A massive, heavily-regulated power supply and full DC coupling allow the unit to provide up to 20V rms output for powerful bass and unrestricted headroom and dynamics. PS Audio's first product way back in 1974 was a phono preamplifier that outperformed and replaced far more expensive units. Since then, we've offered a number of excellent phono preamps, but the new Stellar Phono Preamplifier is the best we've ever made.

## Stellar Power Plant P3

Built as an evolution from our renowned P12, P15, and P20 the P3 is our most affordable regenerator – perfect for powering sources and small to medium systems. Power Plants generate sine-wave-perfect, regulated, high current AC power from your home's AC. In the process of regeneration, problems on your power line such as low voltage, distorted waveforms, sagging power, and noise are eliminated and the power quality enhanced. The results are both audibly and visually stunning when powering either audio or video products.



£2,300

PS Audio Power Plants are regarded for their ability to reduce noise and THD to virtually zero while providing rock steady voltage output.

Traditional power conditioners can only affect a portion of incoming noise and are unable to compensate for over or under voltage. Furthermore, power conditioners raise the impedance of the power going to your system, which can bleach your sound and drain away dynamics. The P3 handles things completely differently. Through the P3's active regeneration process, it provides perfect power while also lowering the impedance, increasing the dynamics and openness of your system.

*Signature*  
AUDIO SYSTEMS

Distributed by Signature Audio Systems, call: 07738 – 007776  
or by e-mail to: [info@signaturesystems.co.uk](mailto:info@signaturesystems.co.uk) Web: [www.psaudio.com](http://www.psaudio.com)

# Classical Companion

BEHIND THE MUSIC WITH HI-FI NEWS & RECORD REVIEW

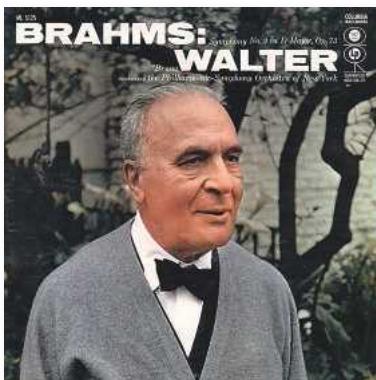
## Johannes Brahms *The Symphonies*

A staple musical diet option for many of us, distasteful to a few, these four works come in a variety of flavours. **Christopher Breunig** suggests complete and partial choices

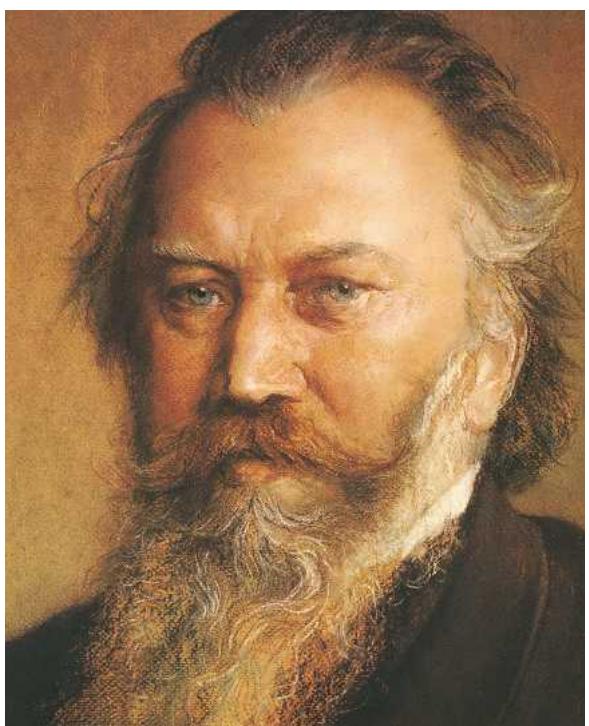
'Aimez-vous Brahms?' asked Françoise Sagan in 1959 (well, it was the title of her novel, actually). For some reason, Benjamin Britten did not like much of Brahms's music – he retained a soft spot for the D-minor Piano Concerto and the early Piano Quartet. But, writing in his prewar diaries, he considered Symphony No 1 to be 'pretentious' and No 2 'ugly and gauche'.

After a long gestation period, the composer didn't complete his first symphony until he was 43, at which time he was working in Vienna and arranging concerts for the Gesellschaft der Musikfreunde. By then many substantial pieces – the *German Requiem*, *Alto Rhapsody*, *Haydn Variations* – had been performed, and the C-minor Symphony, his Op.68, was well received at its first performance in

→ Bruno Walter's 1950s NYPO Brahms cycle had an exciting Symphony No 2



↙ This 1891 portrait of the composer by Ludwig Michalek, done in Vienna, is now in the Hamburg State Library



Karlsruhe that November. (Disliking the idea of travel, Brahms asked his friend Joseph Joachim to conduct the UK premiere, requested by Cambridge University as a doctorate thesis, the following year, 1877.)

Brahms himself was less than fully satisfied and made changes to the slow movement before agreeing publication with Simrock. To critics who had found suggestions of Beethoven in the new score, Brahms retorted 'any ass can see that'.

Sir Charles Mackerras's 1997 Telarc set of all four Symphonies [CD-80465 – now out of print] included the original slow movement as an appendix. Recording with the Scottish Chamber Orchestra he aimed to emulate performances of the scale he felt Brahms would have heard in Meiningen when working with its Court Orchestra in the 1880s. His last Symphony, No 4 in E-minor, was premiered there in 1885, Brahms conducting.

That was the only symphony ending in a minor key, with a great *passacaglia*. Symphony No 2 in D, the sunniest of them, was heard in 1887, the composer suggesting, tongue-in-cheek, that it 'ought

to come out in mourning... a sad and melancholy piece'. Unlike its predecessor, it was composed during a summer visit to a Corinthian lakeside town.

Symphony No 3 in F, shorter than the others, dates from the summer of 1883; like No 2, its first performance was with the Vienna Philharmonic, neither with Brahms conducting. It has a recurring motto, F-A-flat-F, the composer's *Frei aber froh* [free but happy] response to his friend Joachim's *Frei aber einsam* [free but lonely] F-A-E motif. The work fades finally away to silence.

### ONES TO AVOID

So what are the 'standout moments' in these symphonies? In No 1 the two graded accelerandi which herald the chorale theme in the finale. In No 2 the charming, slightly wistful third movement; and in No 3 the rather murky, swirling patterns also of (iii), the *Poco allegretto*. The slow movement of No 4 has an emerging theme to which AA Milne devotees can slowly whisper the words 'Chris-to-pher Rob-in is saying

his prayers! The scherzo includes triangle although it barely registers on most recordings.

The discography is of course vast and you might simply pick a set

'Benjamin Britten thought No 2 was "ugly and gauche"'

by a favourite conductor. I'd say there are a few cycles to avoid, like the dull late '70s Masur/Leipzig cycle recently reissued – a big disappointment when it first came out. Barenboim's DG remake with his Berlin Staatskapelle strikes me as stodgy with some unfathomable decisions taken: it's not in the least Furtwänglerish as some might expect. A selection of Furtwängler's Brahms recordings (not necessarily

the best) has been made by Warner [9029563383; 8 CDs].

The 1966-7 VPO/Barbirolli LPs (EMI) were also less successful than expected, although Warner has reissued them on vinyl as well as CD. But the Barbirolli Society offers his excellent Symphony No 4 with the Hallé, engineered by Pye in Sept 1959 [SJB1061].

With Karajan, as a generalisation you could say his earliest versions of most of his repertoire were the best, and the 1977 and '86-'88 DG Brahms remakes aren't really a patch on those recorded in 1963-4 [479 8228; 96kHz/24-bit download]. The cycle has also reappeared on 180g vinyl [DG 479 7429; 4LPs], while his even finer account of No 1 with the VPO is currently on a Regis super-budget CD [RRC1395]. And if you missed Decca's VPO/Karajan CD box-set, you can download this version separately from 478 0155.

The complete cycles come in all flavours and from different

PHOTO: ONDINE RECORDS



eras. If you look for warmth and expansiveness, then Bruno Walter's 'Indian Summer' recordings with the *ad hoc* Columbia Orchestra should satisfy [details in Essential Recordings boxout]. That said, the old NYPO No 2 had a truly thrilling finale – now, it's tucked away in a £300 Sony complete edition set [19075923242; 77 CDs].

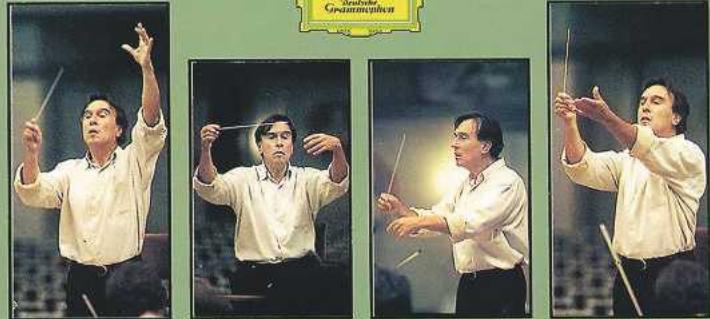
An exciting ending to No 2 made this Symphony my most often played LP in Toscanini's NBC series [Sony CD-quality download: G010003678467P]. In 1952 Toscanini was persuaded to conduct a Brahms cycle with the Philharmonia (his only postwar UK appearance), and Testament has these slightly flawed performances – complete with fireworks set off by a lunatic in the Festival Hall. These transfers are described at length on Gramophone's website.

→ Claudio Abbado's collected Brahms Symphonies and other orchestral and choral works is a DG 5CD set

## BRAHMS · 4 SYMPHONIEN

Haydn-Variationen · Tragische Ouvertüre · Akademische Festouvertüre  
Alt-Rhapsodie · Schicksalslied · Nänie · Gesang der Parzen

Berliner Philharmoniker  
CLAUDIO ABBADO



By contrast Rudolf Kempe's very flexible readings with the Berlin Philharmonic and RPO (No 4) are also on that label [SBT3167].

### HISTORIC LANDMARKS

If you can find used copies, there are outstanding single LPs from the 1950s and later. Eduard van Beinum's 1955 Concertgebouw recording of No 1 [Decca LXT 2675] and George Szell's No 3 from two years before that [Decca LXT 2676] should be on your shortlist, while at the time a close rival to the Szell was Karl Böhm's VPO No 3 [LXT 2843].

Böhm's final VPO cycle for DG I found unmemorable but a very grand earlier No 2 with the Berlin Philharmonic (1956) came as a CD

import reissue [474 989-2] with session notes under the gatefold's clear plastic disc retainer.

Fritz Reiner rarely strayed from Chicago (eg, R Strauss and Verdi in Vienna for RCA/Decca) but came to London for an outstanding Brahms No 4 with the Royal Philharmonic Orchestra – Charles Gerhardt producing and Kenneth Wilkinson, 'Wilkie', his engineer at Walthamstow Town Hall. Originally issued in a 1963 *Reader's Digest* box set, and with this audiophile status, it was hardly surprising that Chesky licensed it for CD [CR6].

At a comparable artistic level, the Carlos Kleiber No 4 with the Vienna Philharmonic (1981) is, naturally, still current [DG 457 7062]. ☺

## ESSENTIAL RECORDINGS

### Symphonies Nos 1-4/Abbado

DG 4043382 (five CDs)  
Abbado and the Berlin Philharmonic: fine modern recordings – a clear library choice.

### Symphonies Nos 1-4/Klemperer

Warner Classics 4043382 (four CDs)  
Klemperer's recordings with the Philharmonia Orchestra now come with five other Brahms works at budget price.

### Symphonies Nos 1-4/Ticciati

Linn Records CKD601 (two CDs)  
The conductor's final big project with the Scottish Chamber Orchestra – the best of the smaller-scale cycles on disc, and available as a 192kHz/24-bit FLAC or ALAC download.

### Symphonies Nos 1-4/Szell

Sony G010003872247F and G010003872227P  
George Szell's immaculate Cleveland Orchestra cycle from the late '60s is now available as 192kHz/24-bit downloads. Amazon (US) has these as an SACD set.

### Symphonies Nos 1-4/Toscanini

Testament SBT3167 (three discs)  
The Festival Hall live performances from 1952 expertly remastered by EMI engineers.

### Symphonies Nos 1-4/Walter

Sony 88843072592 (five CDs)  
The Columbia SO series, including other Brahms orchestral works, etc, with four NYPO Hungarian Dances and the German Requiem.

# Vinyl Release

BEHIND THE MUSIC WITH HI-FI NEWS & RECORD REVIEW

## The Bar-Kays *Soul Finger*

**Steve Sutherland** relives the fateful night when four of The Bar-Kays flew with Otis Redding in 1967, the plane diving into icy Lake Monona. The album is on 180g vinyl

**T**he next thing he knew he was floating. Freezing cold and floating. His head hurt. There was blood. He heard a noise. Then another. Cries in the distance. Cries for help. He began to go under and he splashed around, found a seat cushion and desperately clutched it to his chest to help stay afloat – he'd never learned to swim.

Over there he could just make out Carl, then Ronnie bobbing about in the water, his head emerging then sinking again. He could see that Carl was still strapped in his seat and the seat was dragging him down. Where was the plane? He couldn't see the plane. Where was it?

### SOUND OF SILENCE

He kicked his legs. He was only wearing one shoe. Soon there was no more shouting. No more crying. Silence. He began to drift. His hands getting colder.

Colder still. Too cold to hang on to the cushion. Too cold. He let it go and... This is the life that flashed before him.

Six-year-old Ben Cauley is in the New Friendship Baptist Church in South Memphis, singing in the choir. Ben is in seventh grade at Booker T Washington High School. He is playing the trumpet along with a group of his schoolmates and neighbourhood kids.

There's Jimmy King playing guitar, Phalon Jones playing sax, Carl Cunningham on the drums, Ronnie Caldwell on keyboards, and James Alexander on bass.

There they are, The Imperials, cocky underage kids with funky chops and flashy dance moves, illicitly playing The Palace... Flamingo Room... Club Tropicana... Blue Stallion. At The Hippodrome, the vice

### STEVE SUTHERLAND

Steve edited NME from 1992-2000, the Britpop years, launching NME.com and reviving the NME Awards. Previously he was Assistant Editor on Melody Maker. Among his many adventures he has been physically threatened by Axl Rose, hung out awhile with Jerry Garcia and had a drink or two with Keith Richards...



squad raid, the owner, connected, already tipped off, the band stashed in the dressing room, the bust over, back blasting on stage.

### RENAME HOMAGE

Then there was the audition at Volt/Stax... Al Jackson and Booker T Jones, of Booker T. & The M.G.'s, heroes, stars, coaching and encouraging... The name change in

homage to the Mar-Keys, a cheeky take on their favourite tipple, Bacardi... The sessions when The M.G.'s were busy elsewhere... Albert King, Rufus and Carla Thomas, Sam and Dave...

The session rehearsals covering JJ Jackson's *'But It's Alright'*. The vamp on 'Mary Had A Little Lamb', the neighbourhood kids loitering outside the studio... Isaac Hayes and David Porter coaxing 'em in to let loose and shout 'Soul Finger!', paying 'em off with Coca Cola...

The party when *Soul Finger* goes Top 20... the song playing out at every bar-b-q in the South and beyond... his song... The B side, 'Knucklehead', Jimmy's guitar ringing like a bell, rocking every house party on the block...

Recording the album... having big, big fun with the cover of The Mad Lads' 'I Want Someone'... Getting their bolero on for 'Theme From Hells Angels', a make-believe movie theme ... 'Bar-Kays Boogaloo', their swinging signature tune... 'With A Child's Heart', softer, sadder, and purely instrumental... 'House Shoes', the coolest of the cool... 'Hole In The Wall', donated by The M.G.'s, groovy like ice... Loring Eutemey's album



The Bar-Kays pose for a portrait outside Stax Records' 'Soulsville USA' headquarters in 1967 in Memphis and (inset) poster for concerts in Ohio before the crash



Priced £20.99, the 180g vinyl reissue of The Bar-Kay's album *Soul Finger* is available online from [www.juno.co.uk](http://www.juno.co.uk)

sleeve, a cartoon hippy psychedelic love-in, all beads 'n' bells 'n' mini skirts...

The band so tight they lay down the whole album, all instrumentals, in just one day... The astonished delight of producers Tom Dowd and Chris Huston who thought they'd seen and heard it all... Dowd telling tall stories about Aretha Franklin, John Coltrane, Ray Charles and Otis...

### TAKING OFF

Ah, Otis... Otis!... Otis running backstage at The Hippodrome, all excited, yelling, 'Y'all bad!...' Otis, fresh from his triumph at The Monterey Pop Festival where he matched, nay slew, The Who, Jimi Hendrix and Janis Joplin... Otis offering them the gig as his backing band... Ben explaining they were still in school and could only do weekends... Otis laughing and saying 'no problem', he'd pick them up in his plane on Fridays... Ben's parents saying 'No'... Otis pleading... then Ben pleading... Otis offering tutors on tour... Ben pleading some more... Mom and Pop throwing up their hands, giving in, having to write out notes of permission...

Then came the summer of '67 and the ten-night stand at The Harlem Apollo... Sh\*t scared... more pleas, for a rehearsal... Otis refusing... 'You boys know the numbers'... Still in school and the world's hottest act showing so much faith!... The stage outfits – they only had one each. And on the third night some cat in the crowd yelling, 'You guys need some new suits!'. And James Brown!... James Brown!... The band cranking up 'Papa's Got A Brand New Bag' and The Godfather of Soul himself jumping on stage to duet with Otis... Wow!... What a night!

Then some down time, as Otis paused to have a polyps removed from his throat...

Early December, back on the road... weekenders at colleges... Flying to and fro in Otis' new twin-engine Beechcraft... Friday December 8, Vanderbilt University,



Nashville, Otis hot, the band cooking... Saturday December 9, Cleveland, Ohio, filming the *Upbeat* TV show then, later, a gig... Sunday December 10, up early – 5am – everyone sleepy, making their way to the airport to fly to their show at the Factory in Madison, Wisconsin... James Alexander drawing the short straw and leaving them there to go return the hire car and catch a commercial flight... James saying he'll meet them at the other end...

### KIND OF LOW

Everyone climbing into the Beechcraft... eight of them in all... the cabin freezing... Carl asking an attendant to crank up the plane so the cabin can warm up... The attendant refusing, saying something about the battery being kind of low and he'd rather leave it to the pilot... Dick Fraser, the pilot, starting the engine... Otis sitting up front with him, the band, exhausted, drifting in and out of sleep... Otis talking about this new song he's written, 'Dock Of The Bay', how proud he is of it, how, when they get back to Memphis, they'll have to finish it, and put down some horns... Sleep... Sudden violent shuddering... Phalon glancing out of the window, seeing something, saying, 'Oh no!...'

Unbuckling his seat belt, getting up out of his seat, going over to see what it was that Phalon was seeing in Lake Monona below... Blackness... Blackness...

And too cold to hang on to the cushion... He let it go and... hands grab his shoulders, hauling him into a boat.

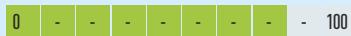
In the hospital he learned that a man who lived lakeside had seen the plane go down, at a 35° degree angle, straight into the lake. The man called the police and they arrived within 17 minutes.

Lying alone in that hospital bed, he said they had a gig to play tonight and he had to go. They said, 'No son. No'. Then they told him he was the sole survivor. They said he was lucky. But Ben didn't feel lucky. He didn't feel lucky at all. ☺

### RE-RELEASE VERDICT

With 11 songs, *Soul Finger* was the 1967 debut album by The Bar-Kays, recorded by Tom Dowd and Chris Huston at the Stax Studio, Memphis, and issued in the States on the Volt label [VOLT S 417] – distributed and reissued by Atlantic. The title track became a Top 20 crossover pop hit. As Steve says, the band had been tutored by Al Jackson, Jr, and Booker T. & the M.G.'s. Here, it's reissued with the original artwork, on 180g vinyl, by Music on Vinyl [MOVLP2628]. HFN

Sound Quality: 80%





# Jesus & Mary Chain *Psychocandy*

Fuzz, feedback and live shows ending in fisticuffs... this debut LP from two brothers from East Kilbride saw the pair meld their love of '60s girl groups with the sounds of the industrial movement to create uncompromising music with a melodic pop heart

Words: **Mike Barnes**

The 1980s is often referred to as a classic era for pop music, but the musical landscape was changing, with suggestions that rock was becoming outdated – the derogatory term 'rockist' had recently entered the vernacular – and the happening thing now was the shiny new pop purveyed by bands such as ABC, The Associates and Depeche Mode.

Up in East Kilbride, near Glasgow, two guitarist brothers with musical aspirations, Jim and William Reid, were viewing these goings-on with some distaste, which crystallised when the *NME* ran a cover feature on Kid Creole And The Coconuts.

#### HOME BREW DEMOS

Disaffected and on the dole, and feeling that things were always happening elsewhere, they set about making demos on a four-track Portastudio bought for them by their father. They briefly relocated to London but soon returned home.

The brothers' favourites included T Rex, The Stooges, The Velvet Underground and The Beach Boys. Their approach then was simple.

'We used to listen to a lot of '60s stuff, the trashier side of The Stones, Thirteenth Floor Elevators and all that,' Jim Reid told me in 1998.

'We thought that's the kind of music that we want to make, but to take it to another level. Why don't people just shove the guitar up, let the fuzzbox do the talking?'

Their love of noise was also partly inspired by the German group Einstürzende Neubauten



WARNER BROS. RECORDS

BLANCO NEGRO / WARNER BROS. RECORDS

**↑** The band pictured in 1987 (l-r) – new drummer John Moore, Jim Reid, William Reid and bassist Douglas Hart

**↑** William and Jim Reid pose for a record company publicity shot in 1985

**↓** The group's first single, 'Upside Down', which appeared in 1982 on Creation Records

whose radical approach to music included allying guitar and vocals to electronics, the sounds of machinery, power tools and metal plates used as percussion. But Jim and William were critical of other dour 'industrial groups' like Test Department, and wanted to create a new fusion of noise and pop.

#### CHAIN REACTION

Their early demos failed to gain much interest from promoters on the cliquey Glasgow gig circuit, but one cassette fell into the hands of Bobby Gillespie, a friend of Alan McGee who ran the fledgling Creation Records label.

The Jesus And Mary Chain first appeared in London at a Creation Records night at The Roebuck on Tottenham Court Road, in June 1984. They had travelled on the overnight coach arguing and drinking – the Reid brothers had a particularly fractious relationship – and although by all accounts their set was a shambles, McGee saw something in them and they recorded a single 'Upside Down' for the label – Jim on vocals, both brothers on guitars, Douglas Hart on bass and Gillespie on drums – which was released in November 1984.

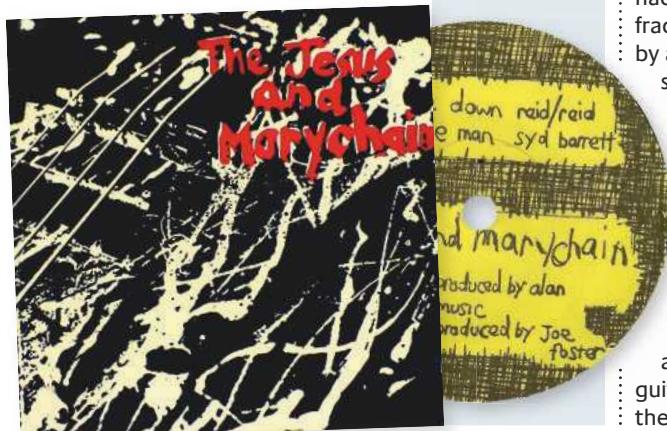
Jim Reid told *Rolling Stone* that, when they set up their amps and effects pedals, 'the guitars did most of the work themselves. You just plugged them



: in and they started screeching like you wouldn't believe'. And from the first few bars of 'Upside Down' the template was set – a reverb-heavy sound, Gillespie's primitive tub-thumping, clouds of trebly guitar racket and Jim Reid (who became the group's lead vocalist because he lost an argument with William) singing a buoyant pop melody.

In those early days Creation Records was a hand-to-mouth outfit and so The Jesus And Mary Chain signed to WEA Records subsidiary Blanco Y Negro. They had wanted to make videos 'like The Monkees', but in the one for their second single, 'Never Understand', the group looked cool and detached.

Bobby Gillespie's drum kit was revealed to be shockingly minimal, comprising just one snare drum and one floor tom, which he played ↗



# Black Rhodium Charleston

All Cables Obey the Laws of Physics. Charleston Plays Music Beautifully.



It is a long step from understanding how the Laws of Physics describe the effects of RFI, EMI, vibration and dielectric absorption in insulation on your music, to engineering a cable that sets all these effects to an absolute minimum. **Charleston makes that step.**

*'Listening to the Black Rhodium Charleston differs from almost all other speaker cables. The high notes of the choirs soar without any apparent compression, the low notes are very clear, detailed and precise.'*

Opus 51 review - [www.opus51.fr/nouveautes-hifi/item/899-black-rhodium-charleston](http://www.opus51.fr/nouveautes-hifi/item/899-black-rhodium-charleston)

- Hand built in several layers of insulation, vibration damping and RFI/EMI screening
- Conductor wires enhanced with a Deep Cryogenic Treatment
- Each conductor is individually screened to minimise RFI/EMI between conductors
- Large ferrite rings minimise high frequency noise generated outside the cable
- Rhodium plated locking plugs used for strength, reliability and superlative sound

Download the full design whitepaper from the Charleston product page.

Contact your Black Rhodium dealer now for a demonstration or visit our website:

**www.BlackRhodium.co.uk**

Hand made Hi-fi cables made in England

## VINYL ICONS

### PRODUCTION NOTES

John Loder, who ran Southern Studios in Wood Green, was more sympathetic to The Jesus And Mary Chain's ideas – after all, he'd recorded the anarcho-punk band Crass there – and encouraged them to experiment, rather than tell them what they couldn't do. After setting-up the mixing desk and levels he would leave the group to record everything themselves. They could buzz him over the studio intercom if they needed any help.

For these sessions they cut out drink and drugs completely and approached their task with what Jim Reid now describes as a 'professional attitude' – there were relatively few arguments between the brothers. It was also relatively cheap: the six-week recording stint cost £17,000 and so they could take their time.

*Psychocandy*'s cavernous, rather distanced soundworld ran contrary to all the more clinical studio orthodoxies of the day and harked back more to the '60s, when it was all about microphone placement within a room. Guitar feedback, by its very nature, has to be created in a space and William Reid's Gretsch guitar was a semi-acoustic model, and so perfect for producing this effect in conjunction with a Fender Twin Reverb amplifier and a Shin-Ei 8-TR fuzz/wah pedal.

The studio was basic with no drum or vocal booths. The bass,

with beaters, echoing Moe Tucker's set-up with The Velvet Underground.

Into 1985, The Jesus And Mary Chain became one of the most notorious groups around, with the Reid brothers the new *enfants terribles* on the block. If the rest of the mid '80s scene was relatively safe and self-congratulatory, their shows were very loud, very short and were becoming violent.

### PAINFUL RACKET

When they played at North London Polytechnic that March they appeared very late, took an age to tune up, then delivered approximately 16 minutes' worth of painful racket. The audience threw glasses and cans at the stage and the band and road crew actually threw them back, before one of the PA stacks got pushed over.

The group also made an appearance on *The Old Grey Whistle Test*, which booked them with some trepidation. They were right to worry and were horrified when the musicians turned up at 10am (a time set deliberately early for safety's sake) already drunk, having been up all night. For the cameras this translated as a kind of surly raggedness. They had only begun

playing live relatively recently, yet certainly didn't display any nerves.

But Jesus And Mary Chain gigs soon became a magnet for people looking for trouble. At the Electric Ballroom in September 1985 the police were

called after a lighting rig was nearly pulled over and the audience invaded the stage before attempting to destroy the band's equipment. They decided to take a break from playing live to let it all calm down.

If the Reid brothers had not been so singleminded, *Psychocandy* could have sounded quite different. Although they had recorded at



WARNER BROS. RECORDS

Warner Bros promo shot and (top) Jesus And Mary Chain merchandise in the form of pin-badges

The 7in single 'Just Like Honey' appeared in 1985

The Reid brothers – 'a fractious relationship'

'The group turned up at 10am already drunk'

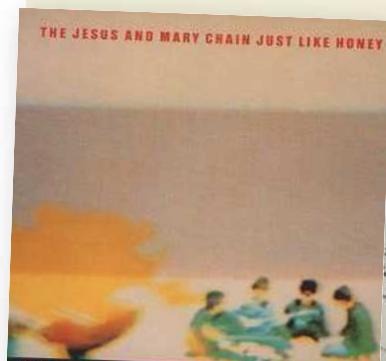
home they had never been in a commercial studio until they went into Alaska in Waterloo to record 'Upside Down'. At first they made the common mistake of mixing the song over the studio's huge Tannoy speakers which left them thinking it sounded amazing. But when

they played it on domestic equipment 'it sounded like Dire Straits', so they started to remix it.

Once signed to Blanco Y Negro, The Jesus And Mary Chain were sent to Island

studios with Stephen Street [HFN Jun '18], who had recently engineered The Smiths' *Meat Is Murder* and had even remixed Kid Creole And The Coconuts. Unsurprisingly the pairing didn't work out and they ended up going back to Alaska to record 'Never Understand', which would appear on *Psychocandy* (the first single released from the album, it peaked at No 47).

The rest of the album was recorded in the summer of 1985 at Southern Studios, in Wood Green in North



drums and guitar were all recorded live with the vocals and extra guitars overdubbed. Jim Reid's vocals were the only element that was close-miked, with reverb and effects added afterwards. They also recorded separate tracks of guitar noise and feedback and carefully fed these into the mix for dynamic effect.



# Audio Venue

bespoke audio visual consultants



Vertere Acoustics DG1  
£2750.00



B&W 800 D3  
£22500.00



JBL L100 Classics  
£4000.00



Proac K3  
£9750.00



Luxman SQ-N150  
£3000.00



Sonus Faber Amati  
£23500.00



Mark Levinson No.5085  
£7995.00



Wilson Audio Sabrina  
£18998.00



Auralic Aries G2  
£3899.00

Part exchange and home demonstrations available

**[audiovenue.com](http://audiovenue.com)**

**BRANDS INCLUDE** Anthem, Arcam, Audeze, Audio Research, Audioquest, Auralic, Astell & Kern, Dagastino Inc, Bowers & Wilkins, Chord, Classe Audio, Control 4, Devialet, Esoteric, Focal, Fyne Audio, Hana, JL Audio, Kaleidescape, KEF, Koetsu, Krell, Lateral Audio, Luxman, Mark Levinson, Martin Logan, Michell Engineering, Musical Fidelity, Naim Audio, Primaluna, Proac, Project, PS audio, Quadraspire, Questyle, Rotel, Ruark Audio, Sennheiser, SONOS, Sonus Faber, Spectral Furniture, TelluriumQ, Vertere Acoustics, Wilson Audio, Yamaha, and many more...

27 Bond Street  
Ealing  
London W5 5AS  
**T** 020 8567 8703  
**E** w5@audiovenue.com

36 Queen Street  
Maidenhead  
Berkshire SL6 1HZ  
**T** 01628 633 995  
**E** info@audiovenue.com

# Alternate Format Discography



ANDY CATLIN/WARNER BROS. RECORDS

Jim and William Reid (far left and centre) with the band in 1989 and (below) the brothers in 2017, promoting the *Damage And Joy* album

London – an establishment run by engineer John Loder – and was released in the November that year. With all the controversy surrounding the group it was bound to sell, and it reached No 31 in the UK charts.

## SCREECHING FEEDBACK

Its commercial success was matched by critical praise. Those early singles weren't just flukes, and with a drum pattern straight out of The Ronettes' 'Be My Baby', 'Just Like Honey' showed a less frenetic approach and an ability to write timeless pop melodies, while 'Cut Dead' sounded almost pastoral in an edgy kind of way.

But even these songs had a slightly corrosive feel and the full-throttle motorbike song 'The Living End' is full of screeching feedback powered on by ominous guitar lines oddly reminiscent of Sandy Nelson's

'Let There Be Drums' – it evokes both Chris Spedding's 'Motorbikin' and Suicide's 'Ghost Rider' to thrilling effect. The swaggering 'Taste The Floor' builds up so that, by the time we hear the chorus, any sense of rhythm guitar is obliterated by unforgiving sheets of distortion.

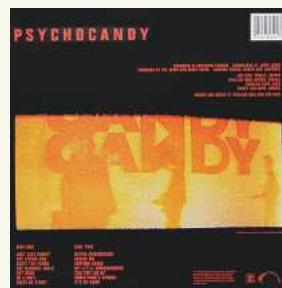
The magic of *Psychocandy* lay in the fact that while you'd heard these sorts of pop tunes before, no one had ever heard them presented in quite this way. The album that bucked all the 1980s trends is now almost universally lauded by critics as

one of the highlights of the decade. The group's use of saturated guitar was a huge influence on My Bloody Valentine and groups who followed them in the so-called 'shoegazing' scene towards the end of the 1980s. But 35 years on, *Psychocandy* still sounds unique. Ⓛ

**'The album is seen as one the decade's highlights'**



STEVE GUILICK



## ORIGINAL VINYL

The UK and European LP of *Psychocandy* was released on Blanco Y Negro in 1985 [BYN 7, 240790-1]. The inner sleeve had photos of the group and some of the lyrics. Pedants will note that on the grey record labels of the initial pressings the title is spelt 'Psycho Candy', though this was rectified later that year on UK and European pressings that came with white labels.

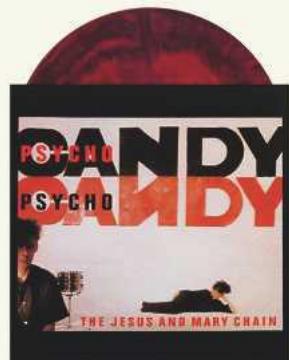
In the US the album appeared on Reprise/Blanco Y Negro [1-25383] with orange, green and blue record labels with both company logos. A later pressing that year bore orange/brown Reprise labels, with the steamboat logo denoting a 'pop' release, and was issued with the same catalogue no.



## AUDIOPHILE VINYL

The first 180g pressing of *Psychocandy* came on Reprise in the US in 2004 [R1 78059]. Demon then released a special 2013 Record Store Day LP on white red and black 'paint splatter' vinyl. This numbered limited edition also came with an A3 poster of an early gig flyer [Candy1]. The label also put out a black vinyl 180g LP in 2014 [Demonreccandy1].

In the US in 2017, Reprise/Blanco Y Negro released two LPs: a standard weight pressing on red and black vinyl [pictured below] and a 180g pressing on black vinyl [both R1 78059].



## FIRST CD

*Psychocandy* was first released on CD in the UK and Europe in 1986 and included 'Some Candy Talking' [Blanco Y Negro/WEA 242 000-2]. The US version also appeared that year [Reprise 9 25383-2] but without the extra track.

## FIRST REMASTER

The album was remastered in the US by Bill Inglot and Dan Hersch in 2006 for a joint Rhino Records/Blanco Y Negro release with original tracklisting. The

# Meet the Producers

BEHIND THE MUSIC WITH HI-FI NEWS & RECORD REVIEW

## Mike Vernon

From Fleetwood Mac to Focus, Bowie to the British blues greats, this UK-born producer helped create many of the greatest performances committed to tape, while founding his own label along the way. **Steve Sutherland** celebrates the work of Mike Vernon...

**I**t may not have been the dumbest thing he ever did, but it was certainly up there. David Bowie announced that the set-list for every performance of his 1990 Sound+Vision world tour would be partially decided by the most popular songs from his back catalogue, as voted for by his fans.

However, poor David was left in something of a pickle when voting in the UK demanded that he perform a song from 1967, way back before he was Ziggy Stardust, before he was The Thin White Duke, before, quite frankly, he was really any good at all.

That song, ladies and gentlemen, was 'The Laughing Gnome', an embarrassingly awful novelty disc that comprised Dave meeting up with, yup, a gnome, the two conversing together, the gnome in a sped-up Chipmunks-esque fashion.

### BLUES BOOM

When his label Deram first released it, it bombed. But later, in '73, once Dave had jumped ship to RCA and become the massively famous and successful Ziggy Stardust, Deram reissued it to a gullible public who gobbled it up the UK charts to No 6.

As it turned out, ol' Dave eventually wriggled out of his set-list dilemma when it was brought to his attention that the *NME*



MANHATTAN RECORDS

▲ Mike Vernon in 2016

▼ Label for 'The Laughing Gnome' 1967

▲ David Bowie pictured in 1967

had run a campaign called Just Say Gnome to entice readers to vote in order to bring him down a peg or two. But why have we raked this up right now? Because the man who produced 'The Laughing Gnome' is the very chap we're here to celebrate. Meet Mr Mike Vincent.

As it was for Dave, 'The Laughing Gnome' was also a glitch in Mr Vernon's impressive career.

He is mostly renowned for championing the British Blues Boom of the late '60s, early '70s, beginning his career, like so many others, as pretty much the tea boy at Decca Records.

'I didn't really have a job description in those days', he explains. 'I suppose it was what you'd now call a gofer – "Make the tea, go for this, go for that, take this up to the studio" – and that was about as far as it went.'

This was 1962 and Mr Vernon was still in his teens. 'It was a stuffy old place, full of stuffy old people,

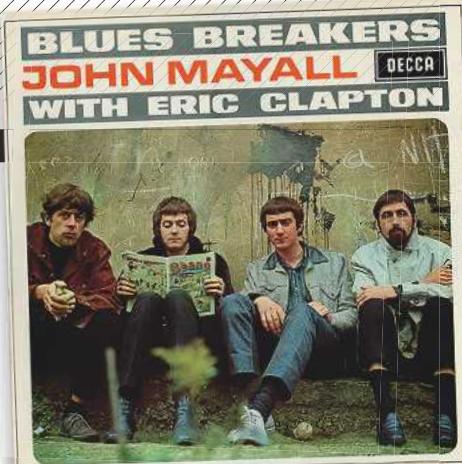
and I just felt it needed an injection. I was far too young to ever say such a thing, but I just felt that there would come a time when Decca would become part of the real world', he recalls. 'I'd like to think that I had some major part in that.'

### MAJOR FORCE

What happened was this: 'I just took opportunities. I was a blues freak, and I was always out at night in London at any one of about half a dozen clubs, listening to The Yardbirds and so forth. That's how I met Eric Clapton. I used to go see John Mayall at The Flamingo and we became known to each other and that's really how John Mayall got his renewed deal at Decca...'

'I went to [my boss] Hugh Mendl and said, "We need to pay some attention to John Mayall's Bluesbreakers, especially now he's got this young ex-Yardbirds guitar player, Eric Clapton, who's turning the blues scene completely upside down. He's going to be a major





force as a guitar player in the future. We need to nab this band while we've got the chance". And he said, "Go ahead and do it!". So we negotiated the deal. I got involved as producer immediately, and that was really how it all started.'

### SHEER POWER

Clapton was the rising star at this point and Mike Vernon, somewhat of a novice at production, was anxious to capture this lightning on vinyl.

'The whole plan was to make that record as live sounding as we possibly could,' he recalled. 'And in those days that was not easy, because there were so many restrictions in terms of the way people used to do things. Everything was always, "Well, you must always have the microphone only so far from the actual cone of the amplifier and the amplifier must only be turned up to three or four for the optimum sound reproduction!".

'Clapton said to me, "This is going to be your biggest challenge, recording my sound!". Thank God, we had a young engineer who became a very famous producer, Gus Dudgeon, who was ready for any challenge whatsoever.'

'I still remember seeing his face the very first time Clapton plugged into the Marshall stack and turned it up and started playing at the sort of volume he was going to play. You could almost see Gus's eyes meet over the middle of his nose, like he was just going to fall over from the sheer power of it all!'

'But after an enormous amount of fiddling around and moving amps, we got a sound that worked. I think all the solos, with the possible

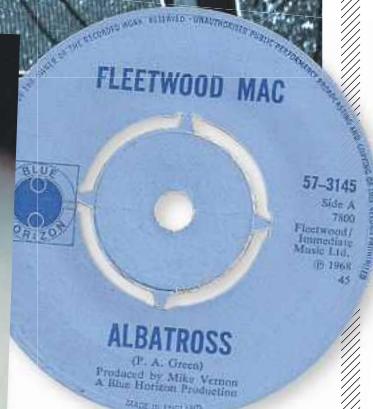
John Mayall's  
*Bluesbreakers*  
With Eric  
Clapton LP

Peter  
Green  
live on stage  
in 1970

Chicken  
Shack's  
1968 debut,  
*40 Blues  
Fingers...*

Blue  
Horizon  
label for  
'Albatross' –  
Fleetwood  
Mac's UK No 1  
single

Ten  
Years  
After pictured  
in 1970



exception of "Stepping Out", were done live. You can tell they were, because the drums suffer as a result of it. There was an enormous amount of guitar on the drums. The studio wasn't very big – it was big enough, but nobody had had to deal with a band making that kind of noise.'

John Mayall's *Bluesbreakers With Eric Clapton* was released in July 1966 and instantly set the template for the London gig scene for years to come. *Bluesbreakers* didn't just distil the blues, it created something vital and new: blues rock. At a sweep, Clapton's pairing of a vintage Gibson Les Paul with

an overdriven Marshall amplifier transformed the very sound of the underground, guitarists all over the country inspired to follow suit.

Clapton swiftly moved on to form Cream with Jack Bruce and Ginger Baker. And Mike Vernon overnight became The Man if blues rock was your be-all and end-all. In quick succession he

"You can tell  
Clapton's solos  
are live: the  
drums suffer"

produced Savoy Brown's splendid debut LP *Shake Down*, Ten Years After's

eponymous opener, Chicken Shack's cool first outing *40 Blue Fingers, Freshly Packed And Ready To Serve*, and, in 1968, the world's introduction to Fleetwood Mac.

Here's how that came about... In April 1967, John Mayall gave Peter

Green some free studio time at the Decca Studios in West Hampstead to jam out some ideas. Green had been Clapton's replacement in Mayall's band. Four

songs came out of the sessions, one of them being an instrumental called 'Fleetwood Mac'.

### NEW HORIZON

Enthused by the results, Green, whose reputation was soaring, assembled himself a group and began the search for a second guitarist to share and lessen the load. Mike Vernon stepped in and recommended an 'amazing slide guitarist' named Jeremy Spencer. By this point, Vernon had quit full-time employment with Decca to run his own label Blue Horizon.

'It just sort of snowballed,' Vernon recalls of Blue Horizon, 'to the point where Peter Green was ↗



*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)

# MEET THE PRODUCERS

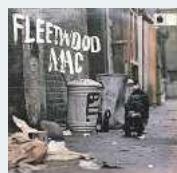
BEHIND THE MUSIC WITH HI-FI NEWS & RECORD REVIEW



**1966**  
Vernon has Clapton turn his amp against a wall and covers it with a blanket. John Mayall's *Bluesbreakers With Eric Clapton* is a watershed blues album



**1967**  
Recorded at Studio Two in Decca's West Hampstead facility, Vernon oversees David Bowie as he makes his self-titled debut. It's a financial flop



**1968**  
Just a year later and Vernon's riding high as Fleetwood Mac's self-titled debut peaks at No 4 in the UK album charts, bringing the band success overnight



**1969**  
Vernon sings backing vocals on 'Hear Me Calling' as he works with Ten Years After on *Stonedhenge*, which peaks at No 61 in the US



**1969**  
Vernon joins Chicken Shack at CBS Studios in London for the recording of *OK Ken?*. The album reaches No 9 in the UK charts



**1972**  
A hit album and single too, the Vernon-produced *Focus 3* climbing to No 6 in the UK charts and the single 'Sylvia' peaking at No 4



**1976**  
Vernon takes the reins for The Climax Blues Band's album *Gold Plated*. On its release the LP becomes the band's highest-selling in both the UK and US

going to leave John Mayall and form his own band and he said to me, "I want you to record our records and I want them out on Blue Horizon". I did the very first demos with what would become Fleetwood Mac, and they got offered to Decca via Blue Horizon but they wouldn't agree so we offered it to CBS and they took it with the Blue Horizon label identity.'

## DREADED CALL

'Once that record came out, it was something of a success', he says, modestly. 'And I got the dreaded phone call from the seventh floor at Decca, got called in and was told, "You can't produce records for other record companies!". I said, "Well, I did offer it to you and you rejected it, so I took it to someone else". They said, "OK, but you can't do these two things at once, so you either have to resign or we'll fire you!". So I said, "Right, I resign as of now".'

'I went away, and three weeks later I came back and signed an independent production deal with Decca, and that's how I continued on as an independent producer for Decca... and other companies.'

While giving budding young Brit blues stars their start, Blue Horizon also supported American originals like Furry Lewis, Bukka White, Hubert Sumlin, Johnny Shines, Slim Harpo and Arthur Crudup. As a fan/producer, Vernon was also chuffed to work with the likes of Freddie

King and Bo Diddley, artists who, although revered, were somewhat out of step with the hippie grooviness of the times.

'The Beatles had no effect on what I was doing whatsoever because, from the very start, I'd become very much a part of something different happening in London. My scene was very much southern and central London and I could go and see all these great bands perform live for next to nothing, every night.'

'They were terrifically exciting times. In London we got the added bonus of seeing more of the touring American artists of the day. These guys wouldn't only play the large concert halls as they did in other cities, but also small clubs and bars. The atmosphere was just alive.'

And 'alive' was – still is – the key to Mike Vernon's production technique. 'I'm a great fan of analogue. For me, analogue makes you focus more on what you're doing. You have to actually give the performance of your life to be able to get the result.'

'When you work digitally, you have so much more scope,'



↑ Freddie King's *Burglar* from 1974, which saw Vernon produce most of the tracks

↓ Mike Vernon is currently fronting his own band – The Mighty Combo



and if you make a mistake, it can be corrected at the drop of a mouse. I'm not saying I don't subscribe to it, because I do. But it's not the way I prefer to work.'

When the blues rock boom petered out, Vernon kept at it for a while, producing Focus's early LPs. But then he pretty much retired, returning

every now and again to give a studio leg-up to some new blues hopeful.

## LAST LAUGH

So how, you may well ask, did this blues purist, godfather of such a specific scene, wind up doing 'The Laughing Gnome'? Good question. Deram was a subsidiary of Decca and Vernon was the in-house producer. Simple as that.

Hence Vernon not only did the 'Gnome' but Bowie's debut LP, *David Bowie*. The singer had been slung off Pye when his attempts at chart success had failed. Bowie's manager Kenneth Pitt played some recordings to Hugh Mendl, who passed them to Vernon, who bought the song rights and agreed to record an album.

'I remember thinking, "This is a really quirky record – who on earth will buy it?". I thought, "If we can come up with a song which has that certain something, this guy might just go somewhere".'

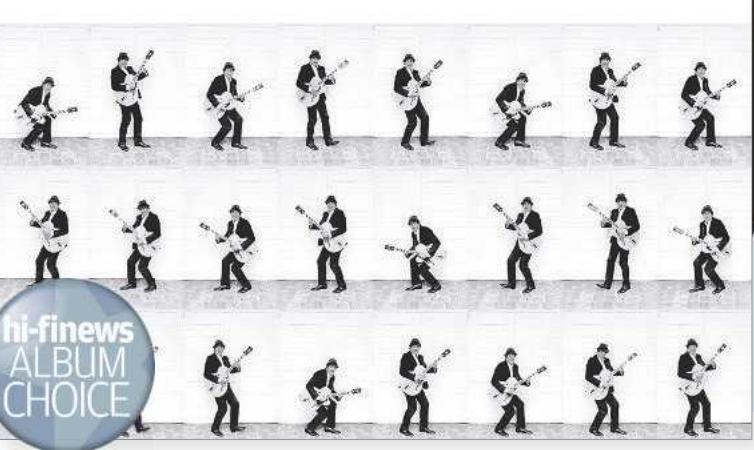
Then Deram released "The Laughing Gnome"...'

## AUDIOFILE: VINYL


Pro-Ject  
RECORDS

### JAZZY ZOETROPE

STUDIO & LIVE RECORDING



hi-fi news  
ALBUM CHOICE
0 - - - - - - - - 100

### 7RAY WITH TRIPLE ACE

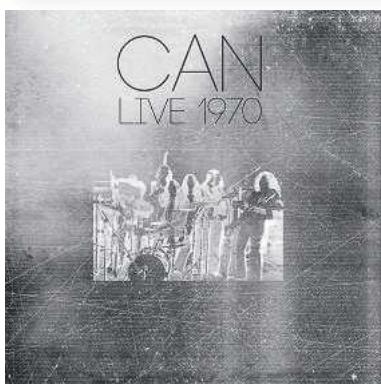
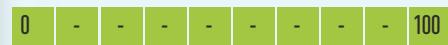
Jazzy Zoetrope

Pro-Ject Records PIR001 (two 180g vinyl LPs)

**Pro-Ject's Heinz Lichtenegger always puts his money where his mouth is, and his long-promised record label (perfect for feeding the turntables he makes) 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 [groan...] helmed by a militant audiophile such as Lichtenegger. This will also be offered on open-reel tape! KK

Sound Quality: 95%



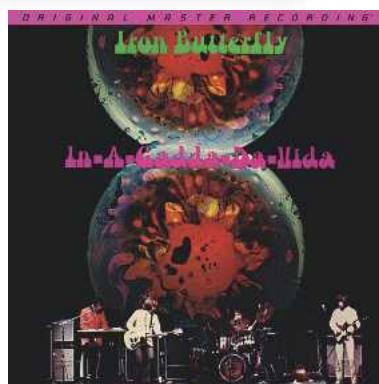
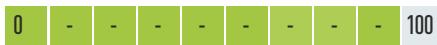
### CAN

Live 1970

Inner Space ISP2LPC2200 2LPs silver-coloured vinyl

Is it now politically incorrect to call this 'Krautrock'? You know the genre: that Teutonic take on prog-rock designed to tax your tweeters and woofers. But if that's your poison, you will wallow in this one, recorded live in Nov '70 for broadcast – and the sound is mighty fine – for the TV show *Karussell für die Jugend*. Dazzling musicianship, eclecticism enough to induce schizophrenia, Can-teens, or whatever you call the fans of Holger Czukay & Co, will recognise this concert as occurring during the sessions for their much-praised second LP, *Tago Mago* – three of the eight songs, including a magnificent 'Oh Yeah', come from that album. KK

Sound Quality: 85%



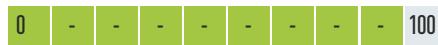
### IRON BUTTERFLY

In-A-Gadda-Da-Vida

Mobile Fidelity MFSI1-386 180g vinyl

Once regarded as the dumbest heavy metal song of all time, this album's title track is an organ-driven, riff-laden anthem from 1968, all 17m of it, which served as the soundtrack to many a psychedelic 'psession'. Goodness me, was it really over a half-century ago? Now it sounds quaint and repetitious, but it still exhibits a weird majesty that I find irresistible, even if my drug of choice is a statin. If you were wondering, the dumb neologism is due to the band being so stoned when they recorded it that they couldn't pronounce the planned title 'In The Garden Of Eden'. Been there, done that... Fun if you're the sort who can sit through *El Topo*. KK

Sound Quality: 90%



### ROLLING STONES

Let It Bleed 50th Anniversary Edition Super Deluxe

ABKCO 8578-1 (part mono; two 180g LPs + two SACDs + 7in single)

Let's dispense with the good news: if you approve of the remastering of classic rock albums which let you hear more, eg, *Abbey Road* or The Band's *Music From Big Pink*, then you will love what the genius Bob Ludwig achieved here. It is without question one of the band's finest albums – my personal fave – and the sound, in mono and stereo, on both LP and SACD, is exceptional. But do not buy this set; opt for the individual titles in your choice of format. Here's a massive box, with book, souvenirs, etc, but, unlike The Beatles' anniversary reissues, your expenditure is not rewarded with any bonus material. Not one track. At around £95, it's disappointing. KK

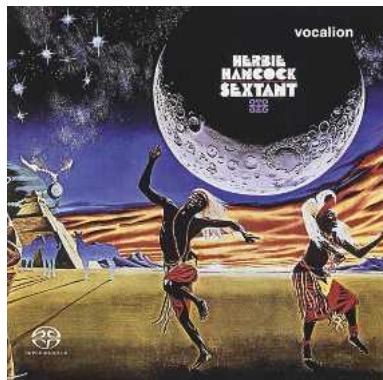
Sound Quality: 90%



# AUDIOFILE: DIGITAL



Download



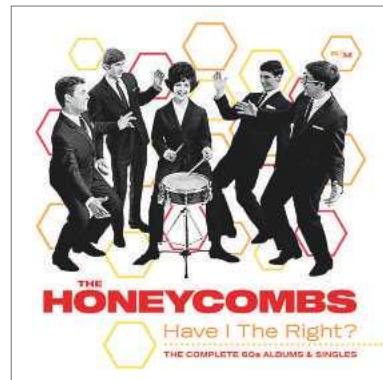
## HERBIE HANCOCK

Sextant

Vocalion CDSML 8556 (multi-channel SACD)

Vocalion has issued this 1973 jazz treasure with both PCM stereo and SACD surround layers, the latter with the original SQ quadraphonic mix. The notes explain that the original quad-mix tapes are missing, so Vocalion used the best available 'discrete' sources. Three tracks running to just under 40min, HH's last outing with the Mwandishi crew, his first for Columbia and 'the one before' the magnificent, commercially-huge *Headhunters*, *Sextant* is what one calls a 'soundscape', but don't let that cliché deter you. It is lush, gorgeous, funky and hypnotic, very Miles-y, and you will find it hard not to lose yourself in the surround-sound version here. KK

Sound Quality: 85%



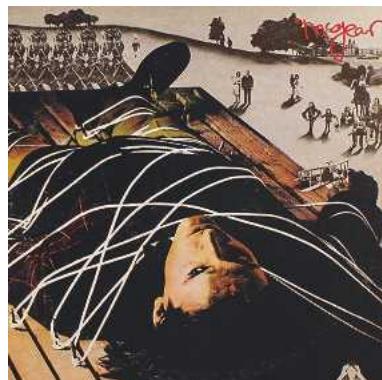
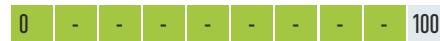
## THE HONEYCOMBS

Have I The Right?

RPM Records QRPMBX548 (part mono; three CDs)

Leaving aside my disdain for Joe Meek, this fine box set deserves your attention for the title track alone, an astounding moment in pop history to rank with The Dave Clark Five's 'Glad All Over' for sheer, grab-you-by-the-ears impact, catchiness and sure-fire hit potential. Arguably the only song Meek ever produced that even comes close to merit the praise heaped on him, it's also this band's finest moment. A kick-ass female drummer (still a novelty), infectious featherweight pop – it's a pleasant footnote to what was happening in the UK when The Beatles walked the earth. The set includes everything the group recorded, including the live-in-Tokyo album. KK

Sound Quality: 90%



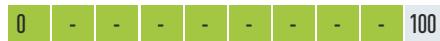
## MIKE MCGEAR

McGear

Esoteric Recordings ECLEC32655 (two CDs + DVD)

I 'get' multi-disc sets of The Beatles' *White Album* or The Band's eponymous second LP, but Paul McCartney's brother's oddball solo from 1974? This ex-member of The Scaffold and sibling of the world's most successful songwriter did deliver a gorgeous, whimsical release, but expanding it with outtakes, 'odd ditties' and an interview DVD is strictly a move for Macca completists, who does guest here, along with the rest of Wings and other luminaries. This is slick, intriguing, with sublime sound – the drum solo on 'What Do We Really Know?' is audiophile-level – so it's not that self-indulgent. But I confess I bought it because I'm a Fab Four completist. KK

Sound Quality: 90%



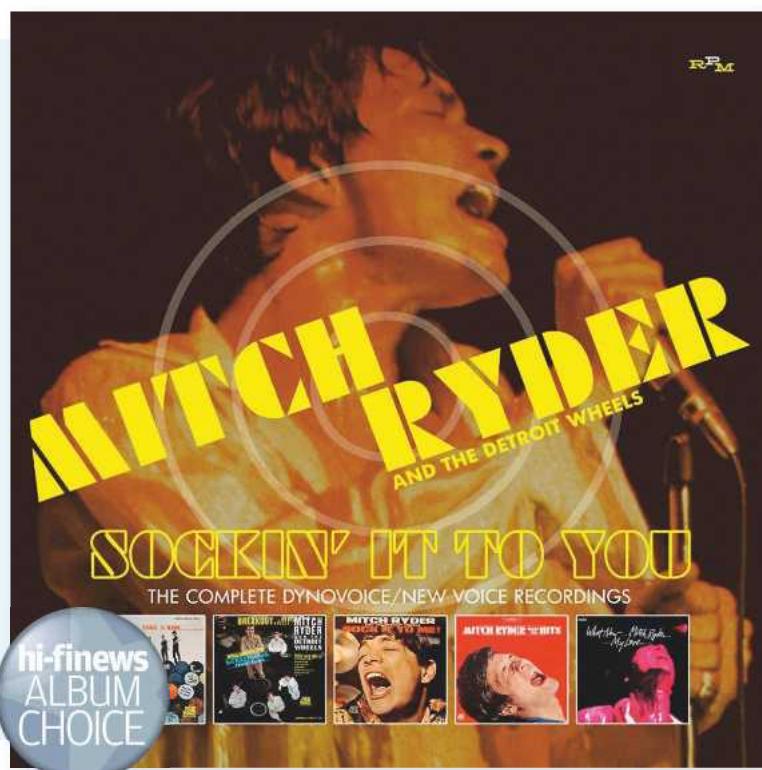
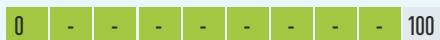
## MITCH RYDER & THE DETROIT WHEELS

Sockin' It To You

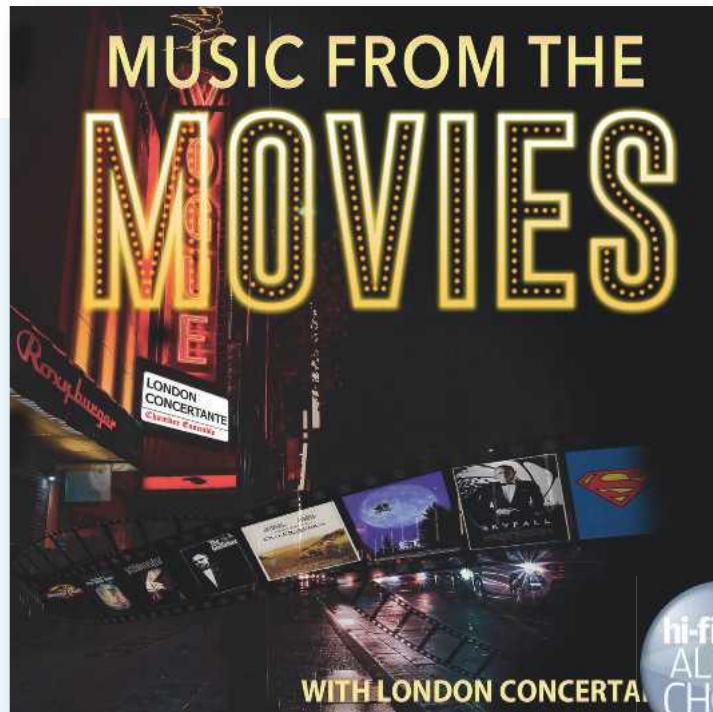
RPM Records QRPM7549 (three discs)

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' (destroying The Righteous Brothers' version), '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 '67. KK

Sound Quality: 90%



## HI-RES DOWNLOADS



## LONDON CONCERTANTE

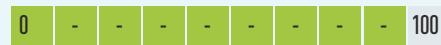
Music From The Movies (96kHz/24-bit, FLAC)

[www.highresaudio.com](http://www.highresaudio.com); CMG n/a cat no

You'd be forgiven for thinking 'Not another album of movie music', and admittedly the selection here is hardly adventurous. It kicks off with *ET* before proceeding in an orderly and entirely predictable fashion through *Schindler's List*, *Superman*, and an extended *Jurassic Park* medley of John Williams. Well, it's either a medley or just all of JW's film music blurring into one. However, what sets this collection apart is the quality of the playing and recording. This isn't another big-band session orchestra

album, but is tautly played by this accomplished chamber ensemble and recorded with equal precision and detail. Nothing is going to rock you back on your heels, but this is still a delightful set. Constantly interesting, the smaller forces involved give a good insight into the scoring, right the way through to a crisply rendered take on a Bond theme that loses nothing for the absence of Adele's 'Sky-foaaaal'. AE

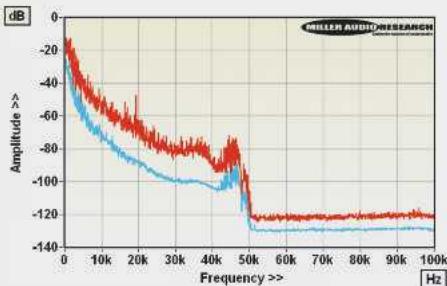
Sound Quality: 85%



## OUR PROMISE

Following our Investigation feature [HFN, Jun '11] in which 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



No technical or recording details are provided for this CMG release but the 96kHz rendering offers a good dynamic range with no samples exceeding -0.3dBFS. Alias filtering is not complete – note low-level images at 44-48kHz. PM



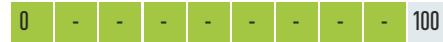
## SCOTTISH CO/FRANÇOIS LELEUX

Bizet: Carmen Suite No 1; Symphony in C/Gounod: Petite Symphonie (192kHz/24-bit, FLAC/ALAC)

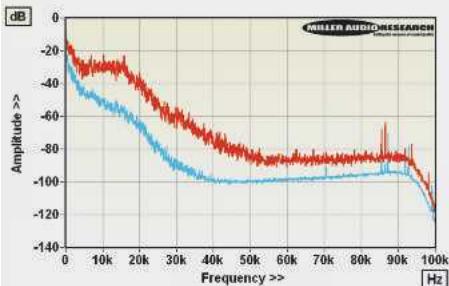
[www.linnrecords.com](http://www.linnrecords.com); CDK624

The gem here is the little symphony composed by Charles Gounod in 1885, for flute and pairs of oboes, clarinets, bassoons and horns. Here, Leleux (equally known as oboist and conductor and, incidentally, the husband of Lisa Batiashvili) leads the renowned winds of the Scottish Chamber Orchestra. The five orchestral movements taken from *Carmen* were arranged by Ernest Guiraud (in the opera his recitatives often replaced the original spoken dialogue), while the Symphony was one of Bizet's early works – he was 17, and much influenced then by Gounod's music. These are punchy recordings, close-mic'd presumably to overcome the long reverb of Caird Hall, Dundee. But soundstage details are sharply focused and all the performances have drive and spirit. Those winds make a lovely sound together. CB

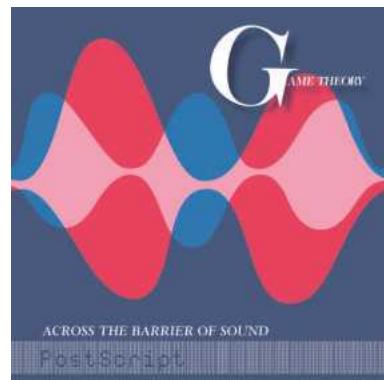
Sound Quality: 85%



## LAB REPORT



Another Philip Hobbs production for Linn, this 192kHz download shows some slight rise in ultrasonic noise and spurious at 86-94kHz but the bandwidth is well used (percussion to 50kHz) and dynamic peaks do not exceed -0.4dBFS. PM



## BUDAPEST FEST ORCH/IVAN FISCHER

Mahler Symphony No 7 (DXD; DSD64-DSD256)

[www.nativedsd.com](http://www.nativedsd.com); Channel Classics CCS SA 38019

This was the last stop in Fischer's journey through the Mahler Symphonies – he says he doesn't do the huge Eighth (although his brother Adam has recently recorded it for Avi Music) but *Das Lied von der Erde* is promised for later this year. You can still see the absorbing Dutch TV documentary on this Sep '15 production, which I mentioned in my earlier SACD review [HFN Jun '19], and coming back to Fischer's interpretation I still find the three inner movements the most convincing – especially the eerie Scherzo, like a ballroom populated with ghosts! The very fine orchestral playing and Channel Classics' true concert hall perspective raise the rating, but Kubelik and Tennstedt, I think, brought one closer to Mahler's world here than Fischer, whose flexible tempo choices seem to me to come at the expense of flowing continuity in the two outer movements. CB

Sound Quality: 85%



## CONAN GRAY

Kid Crow (44.1kHz/24-bit, FLAC)

[www.qobuz.com](http://www.qobuz.com); Republic 862939

A remarkably brief set from this 'just out of his teens' singer/songwriter/YouTube sensation draws on his background growing up as a mixed-race kid in Texas. But the mix is slightly unusual: Irish father and Japanese mother. The result is an album instantly going Top 5 in the States, and with a huge Spotify following. School bullying, drug and alcohol abuse, sexual confusion – it's all here, and there's no denying Gray's ability to craft a good tune while delivering a lyrical punch. If you listen closely, that is. Unfortunately that's not always too easy, given the tendency of the production to throw in the kitchen sink, while the performer's strangely androgynous voice is a matter of taste. Still, there's much to like here, especially in the more stripped-down tracks. However, this is an album most likely to appeal to the fans, and fortunately there's no shortage of those. AE

Sound Quality: 80%



## GAME THEORY

Across The Barrier Of Sound: PostScript (44.1kHz/24-bit, FLAC; MQA)

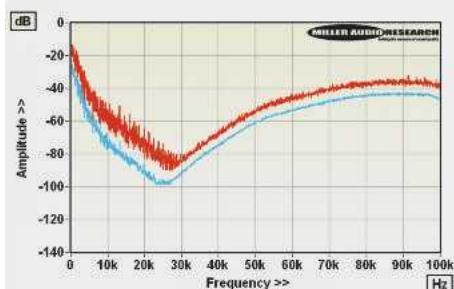
[www.highresaudio.com](http://www.highresaudio.com); Omnivore Recordings 18161

We seem not exactly short of 'retrospectives and rarities' releases of late. Some of these offer an insight, while others appear no more than the sweepings from the cutting-room floor. There's a bit of both in this album from the heyday of the late singer/songwriter/cult power-popper Scott Miller. He's with his best-known outfit, aficionados of which would have you believe never quite reached the fame it was due. The sound quality is variable here, being drawn from fan-club cassettes, home demos, live recordings and some unreleased studio sessions, and there's much to like in both the songwriting and the jangly, punchy performances. But this is probably one more for the fans – who'll love the demos Miller worked up in his post-GT career – and completists, rather than the casual listener. AE

Sound Quality: 75%

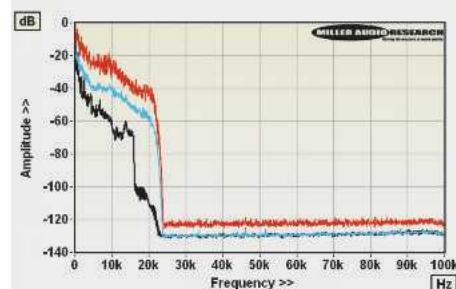


## LAB REPORT



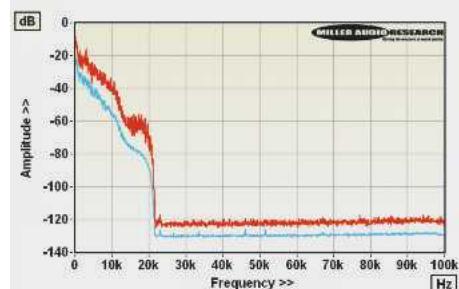
Although this download is offered in DXD and DSD up to DSD256 (4x), the original recording was made using Grimm Audio DACs at just DSD64. Thus, the swell of ultrasonic requantisation noise will be identical in all versions (DSD128 here). PM

## LAB REPORT



Free of clipped samples but still recorded up to the digital endstops (-0.2dBFS), this 44.1kHz file has a very limited dynamic range (peak-to-RMS a little over 1-bit). Meanwhile trk 4 looks to have been recorded at 32kHz [black spectrum]. PM

## LAB REPORT



The provenance of these tapes probably explains why most of the tracks sound more compressed than the (best case) 2-bit peak-to-RMS dynamic range might suggest. Trk 14 illustrated here. Difficult to understand how MQA will assist. PM

# TRADE IN DEAL

*Signature  
Series*  
SAVE £1000\*

Xtension Series  
SAVE £500\*

£1000  
OFF

TRADE IN  
ANY Hi-Fi  
TURNTABLE  
FOR MASSIVE SAVINGS\*

*Signature  
Series*

We're giving analogue aficionados more reason than ever to make our prestigious high-end turntables your next purchase. Until the end of May, all Xtension line and Signature line turntables can be purchased as part of a trade-in deal, for up-to £1000 off the regular SRP.

The Signature 10 is a true audiophile device, taking all the elements of a flagship but making them more accessible and easier to fit into a typical space. To help complete the package, the turntable is also supplied with a heavy-weight record puck, sophisticated tonearm and a high-end Power Box RS UNI TT linear power supply.

\*T&C apply, visit our website for further details



BURL FINISH

FIND THE FULL PRODUCT SPEC. ONLINE AT:  
[www.henleyaudio.co.uk](http://www.henleyaudio.co.uk)



COMPACT DISC



SUPERAUDIO



DVD



BLU-RAY



VINYL



DOWNLOAD

hi-fi news  
ALBUM  
CHOICE

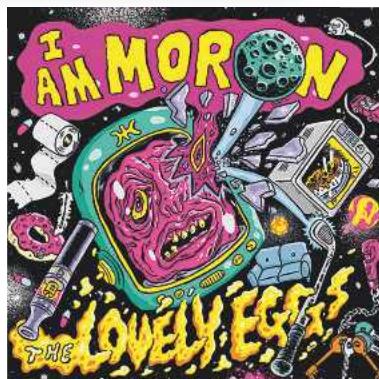
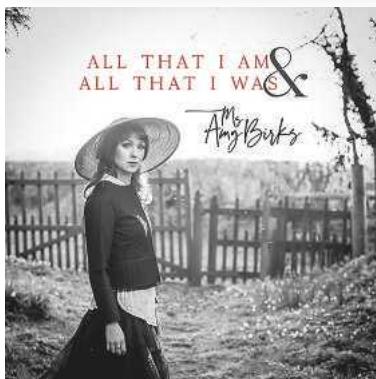
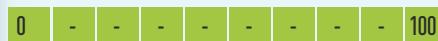
## NICK MASON'S SAUCERFUL OF SECRETS

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 all 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 vividly recorded 2019 show Mason steadies the ship, guitarists Kemp and Lee Harris and keyboardist Dom Beken play with energy and edge and, some geezerish vocals notwithstanding, the material is reinterpreted and reinvigorated. MB

Sound Quality: 95%



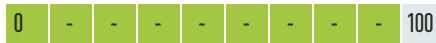
## MS AMY BIRKS

All That I Am &amp; All That I Was

MABCD01 (LP: MABLPO1)

Birks' 2019 single, 'Jamaica Inn', a dangerously romantic moorland drama with a sweeping band arrangement, has a bit of the 'Wuthering Heights' about it, but the majority of the songs here are set in a more intimate soundworld of piano, strings and occasional drums, and range from the sombre 'More' to the animated melody of 'Keeps You Guessing'. Her finely etched lyrics chronicle personal inner states and historical stories like 'Catherine' – a sketch of the first wife of Henry VIII. John Hackett's flute adds melody and texture throughout, and his brother Steve (ex-Genesis) also features on guitar, his empathetic playing complementing Birks' voice on 'I Wish'. MB

Sound Quality: 90%



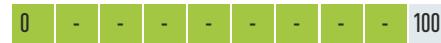
## THE LOVELY EGGS

I Am Moron

Eggland EGG013CD (LP: EGG013LP)

The Lancaster-based married duo of guitarist and singer Holly Ross, and drummer David Blackwell, chronicle the UK at its shallowest and most absurd in another set of sardonic, surreal, satirical swipes at modern consumer society. It's all delivered with spiky humour and encompasses the stroppy chants of 'Insect Repellent' and the defiance of 'This Decision', while on 'You Can Go Now', they sift through the cultural rubbish of everyday life. All this is set to fuzz guitars and buzzing, bleeping synths. It's a raw, exhilarating, stripped-down sound, which is given great heft by producer Dave Fridmann, best known for his work with Tame Impala and Flaming Lips. MB

Sound Quality: 85%



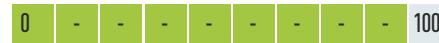
## THUNDERCAT

It Is What It Is

Brainfeeder BFCD100 (LP: BF100)

Stephen Bruner aka Thundercat has played bass guitar in thrash band Suicidal Tendencies and worked with rapper Kendrick Lamar and AOR superstar Michael McDonald – experiences all of which feed into this new album. After the success of 2017's *Choke* Bruner seemed poised to be a global star, but this is a collection of enigmatic and oddly shaped, mainly short, songs. There's a hazy, spacey production sound and Bruner's sweet vocal melodies float across rock rhythms, ticking beats and jazzy grooves. The title track is a gorgeous ballad featuring Brazilian guitarist Pedro Martins, and Bruner's bass playing is virtuosic throughout. MB

Sound Quality: 90%



## Audiodesksysteme PRO Ultrasonic Vinyl Cleaner



**The original and the simplest ultrasonic vinyl cleaner is now even more efficient in use.**

New top plate aperture allows for easier loading and unloading of the discs.

Drying fans are even quieter and the drying cycle extendable.

New black wiper blades are more efficient and have extended life.

Simple to use optional adaptor for cleaning 7" vinyl discs.

Contactless cleaning action removes much more dirt than conventional cleaners relying on applying liquid and suction.

Completely automatic cleaning and drying cycles. Both sides cleaned simultaneously resulting in a dry, ultraclean LP in 6 minutes.

Previously cleaned LPs, used LPs, and brand new albums sound significantly better after ultrasonic cleaning.

This ultrasonic cleaner makes vinyl discs sound better, more than just removing noise. Soundstage is larger, more detail is revealed, a better tonal balance, and greater dynamics.

Deliberately low energy ultrasonic generator ensures efficient cleaning without the risk of potential damage to the delicate vinyl surface.

Ultraclean grooves will extend stylus life.

More than just a vinyl cleaner, an essential component.

4 Colour options available: grey, black, white and red. £2525.

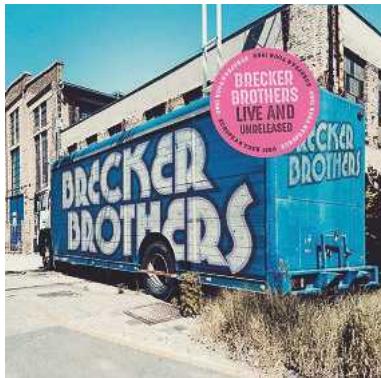
Small footprint:  
33cm (w) x 20cm (d)

[Visit our website for more details.](#)

Please contact us for your nearest dealer.

The original Audio Desk Vinyl Cleaner PRO was a superb performer – and it still is, I might add. The PRO 2019 is that much better. It not only corrects some of the wrinkles from the original design, it cleans 7" singles properly and (mostly) efficiently but it improves upon the basic sound quality. Sound had a great 3D effect... as if the information presented to the ear was embossed. Music flowed very easily.

Paul Rigby – The Audiophile Man, October 2019

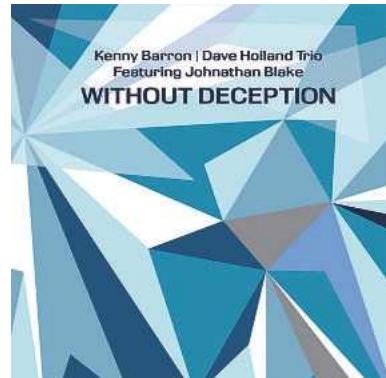
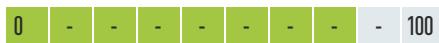
**BRECKER BROTHERS**

Live And Unreleased

Leopard D77072 (two discs; two LPs: D78072)

Here's a double album that captures a single night of non-stop excitement from trumpeter Randy and saxophonist Michael Brecker's pounding jazz/funk band, blowing down the walls of Onkel Pö's Hamburg jazz club during their 1980 European tour. By this time they'd made half a dozen albums for Arista and had a hit single with 'East River', so they're all in great form as Michael stretches out with ever-wilder sax solos and Mark Gray soars with pitch-bending keyboard lines. As Randy Brecker puts it, they 'left the audience in tatters'. Though lacking the sonic perfection of a studio album, this recording captures the impact of this exuberant band at its peak. SH

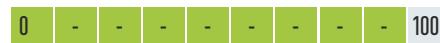
Sound Quality: 80%

**KENNY BARRON/DAVE HOLLAND TRIO**  
Without Deception

Dare2 Records DR2-01 (LP: LPDARE011)

Veteran pianist Kenny Barron and bassist Dave Holland have worked with all the greats of their generation, and they'd met many times before finally getting together to tour as a duo in 2012. They followed up with the 2014 studio album *The Art Of Conversation* [Impulse!]. Now the duo has become a trio with a star drummer from a younger generation, Johnathan Blake, who helps things along from the start on Barron's Bossa-style 'Porto Alegre', and the social-media inspired title track. And the two main protagonists are as uninhibited and creative as ever, Barron slipping into Monk mode on Ellington's 'Warm Valley' for example. All thoroughly enjoyable. SH

Sound Quality: 85%

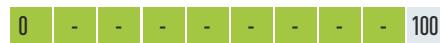
**ROB LUFT**

Life Is The Dancer

Edition Records EDN 1152 (LP: EDNLP 1152)

'In demand' is an overworked phrase, but it really applies to still-rising-star Rob Luft. The young British guitarist's many recent projects include straight-ahead jazz in *O'Higgins & Luft Play Monk & Trane* as well as exquisite playing for Albanian jazz/folk singer Elina Duni, along with regular bassist Tom McCredie and drummer Corrie Dick. As with his 2017 Edition debut, *Riser*, they're joined here by Joe Wright on saxophone and Joe Webb on keys. Byron Wallen's Four Corners band also includes Luft, and he returns the compliment here by guesting on two tracks. Luft's compositions range from gritty to ethereal, making a rewarding and repeatable listen. SH

Sound Quality: 85%

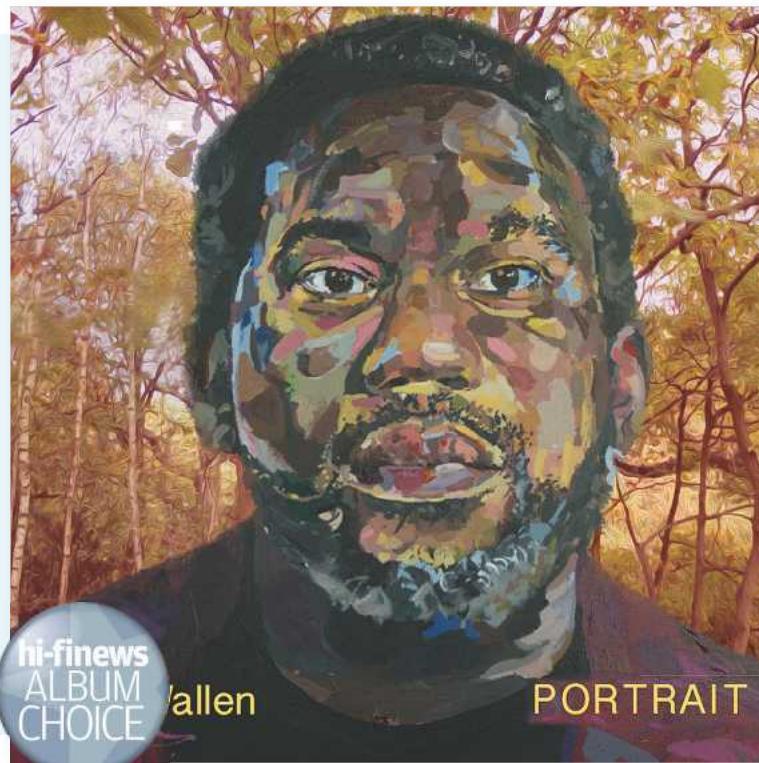
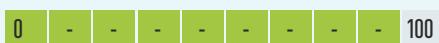
**BYRON WALLEN**

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%



hi-finews  
ALBUM CHOICE

Wallen

PORTRAIT



# The VINYL ADVENTURE

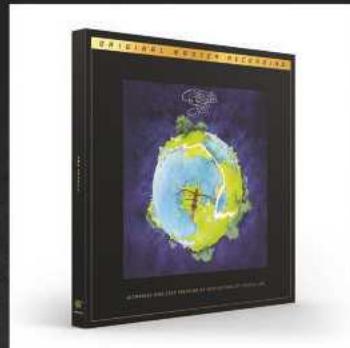


Purveyors of  
audiophile quality  
vinyl & accessories



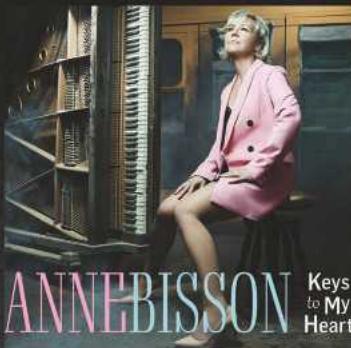
### **The Three Blind Mice 45 Box**

The Three Blind Mice  
180g 45rpm 6LP Box Set



### **Fragile**

Yes  
180g 45rpm 2LP Ltd Ed Box Set



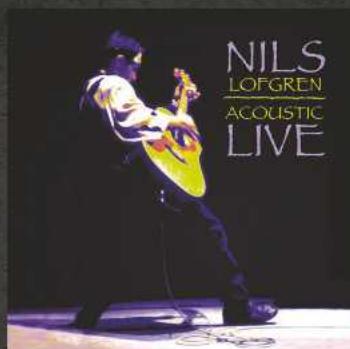
### **Keys To My Heart**

Anne Bisson  
180g 45rpm One Step Vinyl



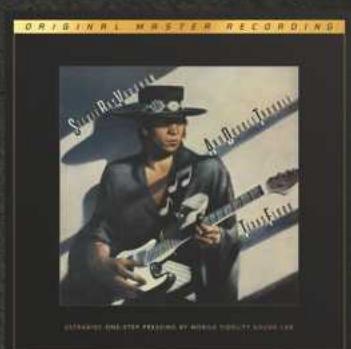
### **Legrand Jazz**

Michel Legrand  
180g 45rpm Limited Edition 2LP



### **Acoustic Live**

Nils Lofgren  
4 Disc 200g 45rpm Box Set



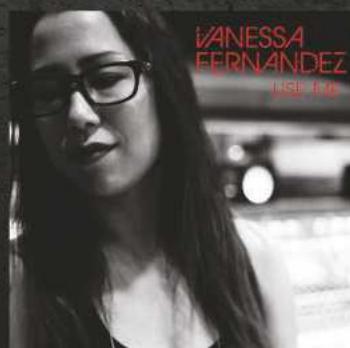
### **Texas Flood**

Stevie Ray Vaughn  
180g 45rpm 2LP Ltd Ed Box Set



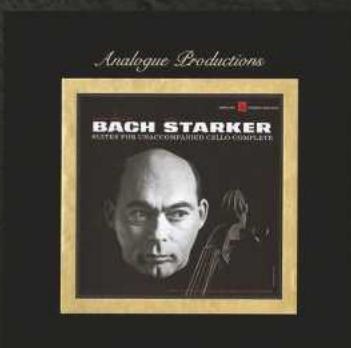
### **Monk's Dream**

Thelonious Monk  
180g 45rpm 2LP Ltd Ed Box Set



### **Use Me One**

Vanessa Fernandez  
2LP 45rpm 180g Ltd Ed Vinyl



### **Suites For Unaccompanied Cello Complete**

Janos Starker Bach  
200g 45rpm 6LP Box Set



**www.thevinyladventure.com 01422 250590**



COMPACT DISC



SUPERAUDIO



DVD



BLU-RAY



VINYL



DOWNLOAD

**Beethoven**  
Symphony no. 6 'Pastoral'  
Knecht | 'Le Portrait musical de la nature'  
AKADEMIE FÜR ALTE MUSIK BERLIN

hi-fineWS ALBUM CHOICE

NHARD FORCK Konzertmeister

2027 harmonia mundi edition

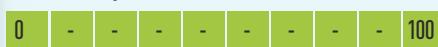
**KNECHT/BEETHOVEN**

Le Portrait musical de la Nature/Symphony No 6  
Akademie für Alte Musik Berlin/Bernhard Forck

Harmonia Mundi HMM 902425 (downloads to 96kHz/24-bit res)

A 'Grande Sinfonie' 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%

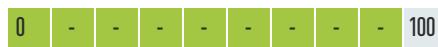
**BEETHOVEN**

The Late String Quartets, Op95-135  
Brodsky Quartet

Chandos CHAN20114(3) (three discs; downloads to 96kHz/24-bit res)

The recording dates show the Brodskys began with the last quartet and *Grosse fuge* (Oct '17), and finished by tackling the *Cavatina* from Op. 130 (Apr '19); the sessions were held at Potton Hall. What sets this cycle apart – and it's good to have the F-minor, Op.95, as a bonus – is the feeling that these players are communing with the music with an inward concentration that's different from performances 'played out' to an audience. The way each player joins in with the 'conversation' of the Quartet, clearly positioned yet not spotlit, draws you into a set of interpretations which are especially fine in the slow movts. CB

Sound Quality: 85%

**SCHOENBERG**

Violin Concerto; Verklärte Nacht  
Isabelle Faust et al, Swedish RSO/Daniel Harding

Harmonia Mundi HMM902341 (downloads to 96kHz/24-bit res)

Of the music by the Second Viennese School composers, Schoenberg's is the most difficult for listeners – his atonal Violin Concerto from 1936, when he was living in the States, has as a sweetener here *Verklärte Nacht* in its original string sextet scoring (Faust with distinguished soloist colleagues). Five tracks are provided for this sensitive performance but crescendi are accompanied by the sound image moving forwards. Faust's commanding playing along with the admirable support from Harding should open doors for many in the Violin Concerto, however – Hahn's [DG] is with the same fine orchestra. CB

Sound Quality: 85%

**SHOSTAKOVICH**

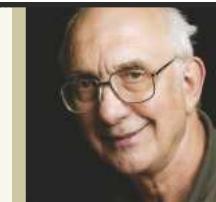
String Quartets Opp.138, 142 and 144  
Fitzwilliam Quartet

Linn CKD612 (downloads to 192kHz/24-bit resolution)

The Fitzwilliam String Quartet was formed in 1968 and during the late '70s recorded all of Shostakovich's string quartets for Decca. Only violist Alan George remains from the original lineup and in the Linn booklet he recounts their close contact with the composer – they gave the UK premieres of all three of his last quartets re-recorded here. Op.144 is the one comprising six *Adagio* movements; in Op.138 he asks the players to strike their violins with bow-sticks. Philips Hobbs has secured outstanding sound quality for these often harrowing, but compelling, works and the interpretations are surely definitive. CB

Sound Quality: 95%





## 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

# Making Hay

Spotify has its limitations for the serious listener, says **Barry Fox**, who takes himself off to Breconshire and discovers the secondhand CD market is flourishing there, amid all those books

**S**ign of the times. When renowned alto sax player Soweto Kinch gave a concert at the Royal Academy of Music in London recently (largely without mics, as per RAM policy), he ended with the track 'Syncomania' from his recent album, *The Black Peril*. As the applause died down he suggested to the audience that they listen to the whole album. 'It's available on Spotify,' he promoted. Just think about that.

Listening on Spotify is free (if you are happy to hear some adverts, that is) or ad-free and all-you-can-eat for a monthly subscription fee that is less than the cost of a CD. Anyone with a home computer running software that is free-to-download and easy-to-use (which I'm not going to name) can capture the stream, edit out the adverts and permanently burn it to a CD or copy it to USB stick.

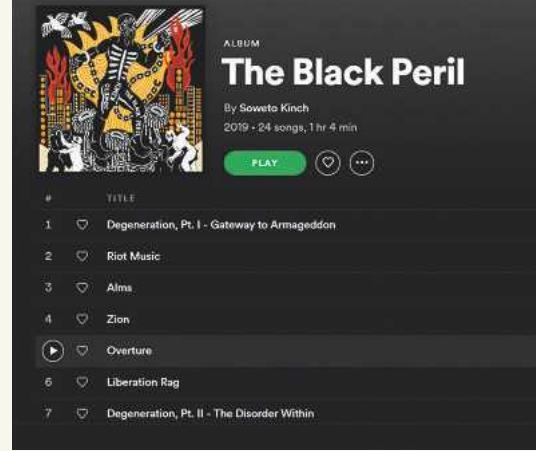
### PHYSICAL APPEAL

Perhaps inevitably, the musicians get paid a pittance. As a British lawyer who has spent his life fighting piracy, initially of music and now televised sports, puts it: 'The lawyers who struck these online music deals have become the sharks'.

For most people who use Spotify, and other similar services, it doesn't matter that stream quality is a few bits less than CD. They also don't care that the online sites offer next to no sleeve note information. It's all just audio wallpaper...

Serious music listeners need to find a physical copy, now more likely to be a 12in LP with plenty of space for the artwork – which explains why HMV's Fopp record store near London's Cambridge Circus has grown more racks for vinyl every time I visit. The selling price and margins on LPs are higher than for CDs, so you can't blame the record companies for going with the vinyl flow.

'More and more used CD outlets are popping up in small shops'



ABOVE: Soweto Kinch seen performing at the Royal College of Music (left) but you could hear his *Black Peril* album via Spotify for free, trim out the commercials and then copy to CD-R

But something else is happening that is not so good for the record companies. There is a burgeoning market for secondhand CDs. I'm not talking about charity shop bins and shelves where an unsorted mix of *Best Of...* Bassey, Shadows, Clayderman and Glenn Miller sell for a quid. I'm talking about the specialist shops and online traders who now deal in discs. More and more outlets

are popping up online and in small low-rent shops. I've recently spotted several in small Sussex towns. But what's happening in Hay-on-Wye is the best pointer.

A few decades ago Hay was a sleepy farming town visited mainly by hardy souls who wanted to get cold and wet walking in the rain up steep hills and falling into the River Wye from flimsy canoes. The town was dying on its feet.

Richard Booth, a wealthy eccentric who owned a local castle and proclaimed himself King of the Independent State of Hay, bought job lots of old books and starting selling them from disused shops.

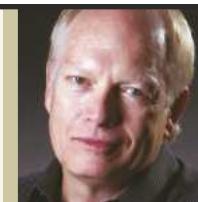
The bandwagon rolled and the town blossomed with secondhand book shops, one filling an old cinema. Hay now hosts a world-famous annual literary festival. Tourists visit from all round the world.

Now those shops are moving into the sale of secondhand CDs. From small beginnings five years ago Hay could soon become as much of a magnet for music lovers as for bookworms.

### CLEAN SWEEP

During a recent visit to the town I spent several happy hours in the cinema book shop, which claims to stock some 200,000 volumes. It had just taken delivery of a huge collection of pre-owned music CDs of all genres. They were still being sorted. Meanwhile, up near the castle, the owner of a shop full to the brim with meticulously indexed LP and CD racks has now installed several thousand pounds worth of professional vinyl suction-cleaning equipment.

But there's no money in it for the record companies. All the profit from secondhand disc sales goes to the seller. And this is exactly why the record industry started pressing vinyl again, isn't it? ☺



## 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

# Linkwitz legacy continues

At a spring reunion at the home of the audio idealist, **Barry Willis** discovers his speakers, with their magical disappearing act, are still available to the DIYer or from a couple of authorised suppliers

**O**n Sunday, the 1st of March this year, I attended a delightful gathering of the audio faithful at the home of Eike Linkwitz, widow of the legendary engineer Siegfried Linkwitz, who passed away a couple of years ago following a 17-year battle with prostate cancer.

A radio frequency radiation specialist by training and profession, Siegfried [HFN, Mar '16] was also a lifelong music and audio enthusiast, one who arguably made more contributions to the advancement of playback fidelity than any other individual. Believing that the performance of loudspeakers was limited by their cabinets – what we call ‘box colorations’ – he aggressively pursued open-baffle free-air designs and then generously shared his developments with his many followers.

### DECEPTIVELY SIMPLE

In 2017, his friend Dr Frank Brenner assumed the mantle and is continuing Siegfried’s quest to bring affordable high-performance audio to as many people as possible. Aiding him are the vivacious and engaging Eike, and Craig Allison, a blues musician, hi-fi enthusiast, and former senior salesman at Lavish Hi-Fi in Santa Rosa, California. Allison’s long relationship with Siegfried was more than mentor-and-student and closer to father-and-son. The afternoon was like a sweet family reunion, one they hope to repeat every quarter.

The March gathering drew 30 or more fans from throughout Northern California and included one who flew up from San Diego just for the day. We gathered at the Linkwitz residence to listen to Siegfried’s creations, some of his favourite music – the guy’s tastes were incredibly eclectic – and of course, any recording that anyone might have brought along, provided it was in digital form that could

**RIGHT: Present at the gathering: Team Linkwitz, (l-r) Craig Allison, Eike Linkwitz and Frank Brenner. The speaker seen far left is one of the LX521.4s. The slim black columns are a new variant of the LXmini+2 called the LXsirius+2. The ‘+2’ designation indicates the two tubular woofers on the floor. The LXsirius speakers can be used with or without them**



be played back on a laptop. Siegfried’s loudspeakers were arrayed across the front of the living room – the deceptively simple LXmini, the LXmini+2 (with two outboard subwoofers), and the full-range LX521.4, with its pairs of open-baffle 10in woofers set in a V-configuration in order to minimize unwanted vibration.

Amplification was different from when I’d last visited – Siegfried’s stalwart ATI power amps having been replaced by PowerBox 4180 and PowerBox 6pro NCORE devices – but the same effortless transparency still shimmered.

### EMOTIONAL TIE-IN

The long-sought phenomenon of ‘disappearing loudspeakers’ has seldom been more obvious, even when there were people chatting amiably throughout the room. Every track, from symphonic classical to singer/songwriter to power pop, was delivered with utmost realism and emotional conviction.

You can’t ask for more at any price.

Frank Brenner said that Linkwitz systems can be had ‘starting from approximately \$500 up to \$11,000’ depending on configuration and assembly. Compare this to the six-figure system of a friend in attendance at the event, whose fancy new multi-box preamp/processor combo includes the option of an additional special digital filter at, yes, \$11,000.

### PRO ASSEMBLY

Brenner also mentioned that his group is engaged in fighting copyright infringements by a Chinese manufacturer, although the chances of shutting it down seems remote at present.

Audio hobbyists who know their way around a workshop can buy plans for all Linkwitz designs from the Linkwitz Lab website, [www.linkwitzlab.com](http://www.linkwitzlab.com). And for those who prefer to have their gear professionally assembled and tested should know that there are only two authorised websites: [www.magicLX521.com](http://www.magicLX521.com), which is based in Germany, and [LXspeakerfactory.com](http://LXspeakerfactory.com) in California. All others are suspect. ☺

**‘You can’t ask for greater realism at any price’**

E X P E R T PRO

AUDIOPHILE EVOLUTIVE SYSTEM

# The next stage of evolution

**ALL THE CORE ELEMENTS OF HI-FI DELIGHTS ENGINEERED INTO ONE ULTRA-COMPACT DEVICE.**

Performance : 0,00025% - 2x1000 W / 6Ω

133 dB Signal to Noise Ratio in Dual Mono configuration



S A M

R A M

CORE  
INFINITY

## SPEAKER ACTIVE MATCHING

From a mathematical model of your speakers, SAM® Speaker Active Matching enables your Expert Pro to accurately adapt the signal transmitted to them. For the first time, it is then possible to obtain perfect time alignment between the recorded signal and the sound pressure generated by the speaker drivers. The emotional power of music, just as the artist intended.

## RECORD ACTIVE MATCHING

With this exclusive Devialet technology, your Expert Pro's phono stage becomes entirely configurable on-the-fly, and adapts itself dynamically to the exact characteristics of your turntable and vinyl records. With more than 256 combinations for your MM or MC cartridge and 13 RIAA equalization curves available, RAM perfectly tailors the playback of your favorite albums.

## NEW INTELLIGENT CORE

Core Infinity opens Expert Pro to a whole new world of features designed to heighten current and future streaming capabilities. Complete with the latest Devialet OS operating system, Core Infinity brings a range of streaming protocols to Expert Pro, now ROON READY, including UPnP renderers, AirPlay®, Spotify Connect. In wireless mode and Ethernet, discover a new world, open and future-proof.

DE VIALET

INGÉNIERIE ACOUSTIQUE DE FRANCE

**TELEPHONE**  
**01865 790 879**

**E-MAIL**  
shop@oxfordaudio.co.uk

**WEBSITE**  
www.oxfordaudio.co.uk



**SHOP ADDRESS**  
Cantay House, Park End Street  
Oxford, OX1 1JD

**BUSINESS HOURS**  
Tuesday - Friday: 10am to 6pm  
Saturday: 10am to 5pm  
Closed: Mondays, Sundays  
& Bank Holidays

**Sign-up (on website) to our popular newsletter for the latest news and instore events**  
**Ask about our popular buy now pay later scheme with 0% apr and no deposit**



## 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

# Outta space

We've come a long way from compressing files to fit on MP3 players, but are we perhaps now getting a little bit carried away? **Andrew Everard's** files are becoming larger and larger

**I** seem to be having far too many pub conversations about hi-fi of late, but the trouble is every time one talks about the subject with what esteemed colleague Kessler calls 'civilians', one runs the risk of making oneself look ever so slightly daft. Advising a friend the other week about ripping his music to a NAS drive before committing his CD collection to storage in the garden shed, the question arose of just how much storage I thought he'd need.

'Oh, I don't know – 4TB, maybe,' I ventured, 'or 8TB to be on the safe side, because...'. The clang of the jaw dropping was almost audible.

'Why would I need all that?' I was asked. 'I mean, even my PC only has 500GB or something, and that's got music, movies and all sorts on it.'

### SECOND PINT

I sensed I might be backing a loser here, but the next question gave me no choice but to keep digging: 'How big is your server?' I was asked. Casting aside the notion that it's not the sort of thing a gentlemen discusses – after all, didn't Rolls-Royce always describe the power of its cars as 'adequate' and still fits them with a 'power reserve' meter showing just how much the engine has to give, rather than anything as crude as a rev counter?

– I came clean and admitted that my current device runs to a quintet of 8TB hard drives.

'40TB? What on earth do you need all that for?' It called for a second pint: this was going to be a long explanation, starting with the memory of the days when a 650MB CD-R disc was more than sufficient (theoretically of course) to store the entire content of a full-length album on disc. We're both of a certain age, and can remember the days when

we used to make up test discs to take to hi-fi shows, carrying a selection of tracks with which to audition whatever was on demonstration. That was before the disc gave way to the USB stick, and now to the demonstrator's friends, Tidal and Qobuz, allowing almost any request to be summoned up and played. Well, when the hotel Internet lets it, anyway.

My friend, more adept at the old mental maths than me – well, with the assistance of his trusty iPhone calculator – was already agog at the number of albums I could fit on my seemingly ginormous server, to the extent of thrusting a screenful of digits under my nose. When, he wondered, would I ever find time to play all that music?

At which point I felt it time to explain that 'CD-quality' – good old 44.1kHz/16-bit – was only the beginning, and that some of the music I've been buying and downloading of late can almost approach that CD-R capacity for a single track. Now this isn't the time or place to debate the pros and cons of what all that extra data brings you in terms of sound. I was more than happy to demonstrate that to my friend a few days later, with files extending up into 192kHz/24-bit, then on to 358.2kHz DXD, and all the way through to DSD at up to DSD512.

You see, for all those articles you've probably read about why we don't need MP3 or other forms

of compression these days, thanks to faster broadband speeds for downloading or streaming, and the falling cost of storage (guilty as charged, M'lud, in that I've written a few of those in recent times), it does seem that music has expanded to fill the space available.

True, you can now pick up a complete 4TB external USB drive, or a bare HDD to fit in a NAS, for under £100, and an 8TB on the right side of £150, with drives

**You'll have read  
about why we  
now don't need  
compression'**



ABOVE: AKM's AK4498EQ DAC will join its 64-bit AK4191 PWM modulator to create the 'D/A Separation Solution for High-end Audio'

now available holding 12 or even 16TB, but what once looked like huge capacities soon fill up when high sampling rate DSD files are on the menu.

### KEEPING AFLOAT

And it seems we're not done with the massive files DSD512 demands: there are already DACs out there capable of handling DSD512, which means single-bit, but at a sampling rate of 22.4MHz, or PCM data at around 768kHz. And as I write this, a press release has landed about the next launch from Japanese company Asahi Kasei Microdevices, better known as AKM and the maker of the Velvet Sound range of DAC chips.

Its new 'D/A Separation Solution for High-end Audio' combines its Premium AK4498EQ DAC with the forthcoming AK4191 delta-sigma modulator, designed with 256x oversampling, and claiming 50dB less noise than previous devices. And it's capable of handling PCM files at up to 1.536MHz sampling rate, and DSD1024/44.8MHz.

I'm just envisaging how massive a DSD1024 file of a movement of a classical symphony is likely to be, and I'm led to the immortal words of Sheriff Brody – 'You're gonna need a bigger boat'. ☺



The best brands you've probably never heard

Telephone +44 (0)203 9115 549 | [www.wholenotedistribution.co.uk](http://www.wholenotedistribution.co.uk)



## A+D = Class AD

An incredible new category of amplification from Amsterdam that has to be heard to be believed.



"This amplifier certainly belies its solid-state innards. No teeth-jarring edginess, no closed-in sensations."

"This is, simply put, a sexy little minx of an amp."

Ken Kessler, Hi-Fi News  
May 2020 Issue

Watch the videos at [www.wholenotedistribution.co.uk](http://www.wholenotedistribution.co.uk)

## Ordinary... meet extraordinary

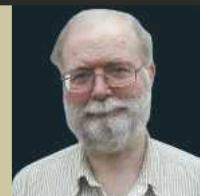
A new class of Music Server from Klinkt Beter and 432 EVO. Protect your investment with the ability to upgrade to higher models and performance as your system evolves.

**432 EVO**  
432 EVO REFERENCE MUSIC SERVER



Watch the videos at [www.wholenotedistribution.co.uk](http://www.wholenotedistribution.co.uk)





## Jim Lesurf Science Journalist

Jim Lesurf has spent a lifetime in audio, both as an engineer at UK hi-fi company Armstrong and reader in Physics and Electronics at St Andrew's University

# Batteries included

Rather than poke something into his ears, **Jim Lesurf** prefers to listen to his music in a more traditional manner. And he's concerned that new products need a technician to update batteries

**M**ost of my listening to music relies on various well-established types of source, played via a power amplifier and a pair of loudspeakers. In recent years I've also begun using a mobile device and a pair of headphones. This has proved an excellent way to enjoy music when undertaking a tedious task that prevents me sitting down in a comfy chair at the 'sweet spot' of a stereo set-up.

However it's pretty clear that for many, perhaps most people, music is now usually heard via headphones or 'earbuds' driven by a 'device' – often a mobile phone or 'tablet'. And it recently occurred to me that the differences between these two approaches actually have some aspects I'd not previously appreciated.

### CLASSIC APPEAL

OK, for one thing I am personally queasy about poking earbuds into my ears. I'm not sure if this is because I don't want to look like a character from the Kirk-era *Star Trek* series, or am simply nervous about shoving things into my ears! So my preference is for over-ear headphones. Another is that I prefer to choose equipment whose main purpose is to reproduce music as well as possible, rather than to make phone calls or look at videos of cats or 'celebs'. I suspect most *HFN* readers will be with me on this.

Beyond those issues, two distinctions struck me recently. One is that almost all the hi-fi kit I use is what might now be called 'classic'. The exceptions are a few specific items such as a modern DAC or two, able to cope with high-res material from a Linux box. But when it comes to amplifiers, FM tuners, or loudspeakers, the items I prefer are largely designs made and sold years ago that continue to suit me. In the main, they were built to work for decades, and

**RIGHT:** A technician changes the battery in a typical smartphone – but shouldn't it be a job the original purchaser could easily do for himself, rather than having to pay an expert?



PK STUDIO / SHUTTERSTOCK.COM

have continued to do so. And also usually they can be serviced when it may be required. And when that last point came to mind, it prompted another realisation.

### BREAKING IN

The ancient Nokia phone I still use can be opened up to replace its SIM card or to replace its internal battery. I did this a few years ago when the old battery began to struggle to hold a charge. The replacement process was a little fiddly, but described in the user guide, and

I managed the process without any problems.

Yet when it comes to other modern mobile audio devices, how often is this true? Yes, if you own an iPhone you can visit an Apple Store in person and pay for a new battery to be fitted. Or

send the device to an Apple Repair Centre and wait up to eight days for its return.

But as with most modern phones, there appears to be no way to open it yourself in order to replace a failing battery. Thus – unless you know how to 'break in' without doing unrepairable damage – the device will have to be discarded once the battery fails.

That may well suit those who are happy to purchase a new phone. However, the prospect does bother me given my preference for using and maintaining electrical items for many years after I've bought them.

### CHARGE TO RECHARGE

Mains-powered equipment can generally be assumed to work for years because the power supply shouldn't easily 'wear out'. But rechargeable batteries do. So – given the concern for the environment and the discarding of high-tech 'waste' – should it not become expected that all portable consumer items that rely on an internal battery – and not just phones – be constructed in a way that enables the user to replace that battery for a period of some years? That would avoid having to bin items before their useful life ends.

Should makers also not have to give a reliable indication as to how long you should expect a battery to last? My understanding is that periods of a few years or a few hundred recharge/discharge cycles are common. Being not so young myself, my own batteries may fail before those in my portable player! But if you expect to last more than a decade or two, shouldn't the items you buy and use be able to do the same? ☺

*'I don't want to look like a character from Star Trek'*

# STOP PRESS: ST40 MKIV voted Hi Fi World "BEST VALVE AMPLIFIER 2019"



Hi Fi World  
"Best Valve Amplifier"

NEW Stereo 40 MK IV £2499

designed by  
David Shaw

**NEWS UPDATE:**  
Through these difficult times our Leicester Offices remain open. Contact us by phone/email. Our listening room is currently closed, but collection & drop off is possible. Delivery couriers are working so uplift and return repairs to your home is possible. Please stay safe!  
David Shaw CEO

NEW HP205D DHT Headphone Amplifier £2999

Innovative Designs  
From Icon Audio



New Upgraded Model. Now With Headphone Socket

High Definition With The Relaxing Sound Of WE Vintage Directly Heated Triodes



MB90 MK II Monoblock Power Amplifiers many features



Sublime Sound From Vintage 300B Triodes



Stereo 25 MKII from £1399



Single Ended Pure Class A, 28W UL, 18w Triode



PS1 MKII MM/MC £1549

Our fantastic value pure valve phono stage. MC and MM



PS3 MKII MC/MM £2699



HP8 MKII £999



NEW ST 60 MK IV £3799

Pure Valve Phono Pre-amplification At Its Best! Smooth non-fatiguing Triode Sound, Match 8-600 Ohms Outstanding Performance 80w UL, 50w Triode

Buy direct from us or through one of carefully chosen dealers or worldwide distributors:

Audio Gold  
Crouch End, London  
Tel: 0208 341 9007  
Web: www.audiogold.co.uk

Wilkinson's Hi Fi  
Nelson, Lancashire  
Tel: 01282 612901  
Web: www.wilkinsonsonline.tv

Shropshire Hi Fi  
Shrewsbury SY2 5EF  
Tel: 01743 232317  
Web: www.smcsoundandvision.co.uk

Audio Affair  
Birmingham, B9 4AA  
Tel: 0121 224 7351  
Web: www.audioaffair.co.uk

Analogue Seduction  
Whittlesey Peterborough  
Tel: +01733 350878  
Web: www.analogueseduction.net

Lighting Sound & Vision  
Coleraine, Northern Ireland  
BT52 1BE  
Tel: 028703 42354

Canada: Audioarcan  
Barrie, Ontario, Canada  
Tel: +1 905 880 5040  
Web: www.audioarcan.com

Denmark: High End Sound  
Vodskov 9310, Denmark  
Tel: +45 9829 2448  
Web: www.highend-sound.com

Germany: TCG Handels GmbH  
Nordhorn 45831, Germany  
Tel: +49 (0) 5921 78849 27  
Web: www.tcg-gmbh.de

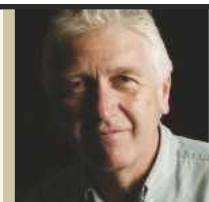
Netherlands: Hi Fi Matters BV  
Rijswijk 2280EV, Netherlands  
Tel: +31 (0) 70 3193936  
Web: www.hifimatters.nl

Spain: Union Musical Casa Werner  
Barcelona 08010, Spain  
Tel: +34 933 021 792  
Web: www.werner-musica.com

USA-Music Direct  
Chicago IL 60660 USA  
Tel: +1 800 449 8333  
Web: www.musicdirect.com

**0% APR Interest Free Credit**  
Purchases over £1120 ask for a quotation\*

**Up to 20% off B grade & Ex-demo**  
Technically perfect Fully Guaranteed. Audition in our  
Leicester showroom. Most models available.  
See our website, email or ring for availability.  
Subject to availability\*. Prices vary.



## 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

# Silver survivor

Too much Beethoven on Radio 3? **Steve Harris** suggests you'd best avoid the accompanying chat by sticking to your music collection. And there's a wealth of it still coming out on SACD

If you've listened to Radio 3 even for five minutes recently, you won't need reminding that 2020 is the Beethoven 250th anniversary year. He wasn't born until December 1770, but the BBC's week-in, week-out celebration has been going on since January.

If you'd rather immerse yourself in the music without all the chit-chat, you can invest in the various CD editions [see Classical Companion, *HFN* Apr '20]. But of course, there's plenty of Beethoven to be had in every music format, even Super Audio CD. SACD has sometimes been written off as defunct but, as Mark Twain might have said, reports of its death were greatly exaggerated.

### FORMAT WAR

The definitive listing website, *SA-CD.net* (latterly re-invented as *HRAudio.net*) gives details of something like 10,000 titles, with classical strongly in the majority, and hundreds of Beethoven discs.

Launched by Philips and Sony in 1999, the Super Audio Compact Disc was conceived as a higher-quality, two-channel-only replacement for the Compact Disc. Five-channel surround capability was added later in response to the emergence of DVD-Audio.

Neither format took off, and neither actually replaced CD, while in any case the Internet was by then providing new ways of accessing recording music. As Bob Stuart of Meridian put it at the time, 'We had a format war, and the iPod won'.

But paradoxically, although the demise of DVD-Audio seemed to prove that music listeners didn't want multichannel surround sound, they've continued to consume multichannel SACDs, mainly from classical labels including BIS, Chandos, Channel Classics, LSO Live, Pentatone and Reference Recordings.

**'Pentatone's SACDs are genuinely DSD mastered'**



ABOVE: The Marantz SA-10 is one of the leading SACD players on the market, but for those with a more limited budget, some Sony Blu-ray machines are capable of SACD reproduction as well

Perhaps the label most wedded to SACD is Pentatone, founded in 2001 in the wake of a Philips reorganisation by three former Philips executives, Dirk van Dijk, Job Maarse and Giel Bessels. As the name suggests, the aim was to bring forth five-channel SACD recordings, making the most of the new format and continuing the heritage of the former Philips classical recording studios. Today, the catalogue includes remastered Philips recordings as well as new ones.

For 2020, Pentatone has continued to issue genuinely DSD-mastered multichannel SACDs, for example the recent second set of Handel's *Concerti Grossi* Op.6 from the Akademie für Alte Musik, Berlin.

Channel Classics, like Pentatone, is based in the Netherlands and has built up a large catalogue of SACDs, also offering the highest-rate DSD

downloads. To take one example, the Beethoven Symphonies Nos 1 and 5 with the Budapest Festival Orchestra under Hungarian conductor Iván Fischer [*HFN* Apr '20] costs £16.99 as an SACD disc.

You can have an MP3 download for half that price, or pay progressively more to get stereo or multichannel FLAC files at 44.1kHz, 96kHz or 192kHz, DSD64 (equivalent to the SACD), DSD128 or 256

versions. Or you can have all the digital formats, from MP3 upwards, in stereo and multichannel, for £49.58!

But apart from a special-price *Gramophone Editor's Choice* compilation SACD, the physical versions of Channel Classics' 2020 releases so far are offered as CD and download only.

### UNIVERSAL APPEAL

However, British label Chandos is still actively releasing SACDs, recent releases including the second volume in a CBSO Schubert cycle, or Shostakovich's No 11, *The Year 1905*, with the BBC Philharmonic under John Storgårds. Downloads available are MP3, as lossless FLAC/ALAC or as 96kHz/24-bit, with surround as an option on these.

So what about a player? Starting at the top, you could spend £6000 or so on the luxurious Marantz SA-10 [*HFN* Mar '17], or settle for the less expensive SA-KI Ruby [*HFN* Jan '19]. Or perhaps the Denon DCD-2500NE [*HFN* Jul '16] or one of Pioneer's universal players, which will handle Blu-ray discs and pretty much everything else. Or, at less than £1000, you could sensibly choose Arcam's CDS50 player-streamer [see Budget Esoterica, p66]. Finally, Sony's inexpensive Blu-ray players will also play SACD. It looks as if the physical SACD has done more than survive into the online era: it might even outlast Blu-ray Audio. ☺



# **North West Audio Show 2020**

## **Saturday 21st and Sunday 22nd**

## **November 2020**

**The very best in audio set in the wonderful  
surroundings of the De Vere Crantage Estate,  
Holmes Chapel, Cheshire**

- Free Entry & Free Parking**
- Over 200 brands**
- Live Performances**
- Informative Lectures**
- Free Mobile App**

**For more information & to secure your free ticket  
visit**

**[www.audioshow.co.uk](http://www.audioshow.co.uk)**

Media Partner  
**Hifi Pig**  
[www.hifipig.com](http://www.hifipig.com)

## YOUR VIEWS

# Sound Off!

Correspondents express their own opinions, not those of *Hi-Fi News*. We reserve the right to edit letters for publication. Correspondents using e-mail are asked to give their full postal address (which won't be published). Letters seeking advice will be answered in print on our Sound Off pages, but due to time constraints we regret we're unable to answer questions on buying items of hi-fi or any other hi-fi queries by telephone, post or via e-mail.

## LOCKDOWN LETTERS AN AUDIO ODYSSEY FROM 'WIND-UP' TO SME

I'm sure editor Paul Miller's invitation in his May 'Welcome' page to readers to describe their 'hi-fi journey' will draw a hearty response. Here's mine...

It stretches over 70 years, starting with my mum and dad's wind-up gramophone and records by comedian Sandy Powell as well as various classical pieces.

Before long I was buying my own discs: George Shearing, Bob Crosby, Woody Herman and The Nat King Cole trio, all on 12in 78s. But with three minutes a side, there was never enough variety. Thank goodness the LP came into existence! Now playing time was longer and a mass of records were being produced, though this outstripped my ability to afford them. There were so many top musicians – Stan Getz, Gerry Mulligan, The Modern Jazz Quartet, Oscar Peterson, Basie, Ellington – the list seemed endless. Only now am I catching up with all the reissues coming out.

My first receiver was made by Pioneer, which I thought looked great. I then added a Connoisseur turntable and a pair of oversized floorstanders built by myself – the

first steps on what was to be a long road, now that I had caught the 'upgrade bug'. A Cyrus One amp and power supply followed, then a Linn LP12 turntable and a pair of Mission 753 floorstanders – the sound was certainly improving. Next move was to Hyperion speakers and a Musical Fidelity M3 amplifier. It was a monster, but thanks to Ken Kessler for his great review – it was much appreciated.

Retirement can bring greater spending power and so now I have Devialet 440 amps, and more recently my current system of SME 10 turntable, SME V tonearm with a DS Audio DS002 cartridge, with the latest acquisition being a pair of secondhand B&W 802D speakers. This set-up has given me the kind of sound I have always looked for.

So, no more upgrades? Never say never. For me, vinyl is the place to be, and with all the choice available today my record collection has grown considerably, and I am rediscovering old gems. I feel sorry for those who seem unable to appreciate good sound. Music can find its way to places even a certain beer cannot reach!

Mike Turner, via email



ABOVE: Mike's system with SME turntable, Devialet electronics and B&W speakers

Send in your views to:  
Sound Off, Hi-Fi News, AVTech Media Ltd,  
Suite 25, Eden House, Enterprise Way, Edenbridge, Kent TN8 6HF  
or email your views to: letters@hifinews.com –  
please use 'Sound Off' in your subject field

## Altered States

STRANGE TIMES MEAN BLUE NOTE JAZZ FOR ONE US READER

Greetings from New York! I'm also in lockdown at home, where I'm listening to free live classical and jazz music streams in between purchasing various CDs online, as well as Blue Note Tone Poet LPs. I've been accumulating gear since my teenage years when I hustled neighbourhood landscaping gigs to earn money to purchase LPs and stereo equipment. My system currently includes Classé Delta electronics, a McIntosh C2600 preamp, Rega RP10 turntable [HFN Aug '15] and Kharma Elegance dB7 speakers.

M Robinson Sr, via email



ABOVE: The listening room of reader M Robinson Sr

## WhitWorld

OUR HI-FI WORLD THROUGH THE EYES OF WHITWORTH



"CANNOT GET TOO MUCH  
OF A GOOD THING..."



## Can a £39 insect make all your CD files sound better than Hi-Res?

Yes and no: Using the same equipment and a quality DAC, a 24/96 file (for example) will always sound better than a CD 16/44.1 file ... but, even a single JitterBug will often allow a CD file to be more musical and more emotionally stimulating than a Hi-Res file without the benefit of a JitterBug.

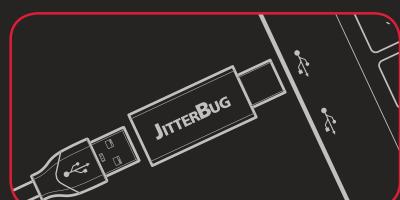
**Noise** is the problem. Real noise—the kind you can't hear directly. Most often, the word "noise" is used to describe tape hiss or a scratch on a record, but these sounds aren't noise; they are properly reproduced sounds that we wish weren't there.

**Problem noise** is essentially random, resonant or parasitic energy, which has no meaning. It can't be turned into discrete sounds, but it does compromise signal integrity and the performance of everything it touches.

**JitterBug's dual-function** line-conditioning circuitry greatly reduces the noise and ringing that plague both the data and power lines of USB ports, whether on a computer, streamer, home stereo or car audio front-panel USB input.

A single JitterBug is used in between devices (i.e., in series) as shown below. For an **additional "wow"** experience, try a second JitterBug into another USB port on the same device (such as a computer). Whether the second port is vacant, or is feeding a printer or charging a phone, JitterBug's noise-reduction ability is likely to surprise you. No, the printer won't be affected—only the audio!

While a JitterBug helps MP3s sound a lot more like music, high-sample-rate files have the most noise vulnerability. Try a JitterBug or two on all your equipment, but never more than two per USB bus. There is such a thing as too much of a good thing.



**audioquest**

## My voyage into vintage

CLASSIC SOUNDS AS READER SHARES HIS TALES OF SPEAKER, TURNTABLE AND AMP RESTORATION

Following PM's invitation in his editorial in the May issue to 'share your stories' I thought a description of what I have been engaged in recently might be of interest to other readers. I greatly enjoyed reading Tim Jarman's article on building a vintage system in the March issue, especially as I have been engaged in something of a similar adventure myself.

It all began last year with a pair of Quad ESL57 loudspeakers. Mine were working reasonably well when I bought them a few years ago, but they had deteriorated with time, so I set about first changing the bass panels, then more recently the mid-treble ones, using new panels sourced from One Thing Audio [[www.onethingaudio.org](http://www.onethingaudio.org)].

I then turned my attention to my Radford STA15 power amp, as I thought this would a good match for the Quads. I would have liked to have used one of the Radford valve preamps to drive the STA15, since these were among the better vintage designs. But as I don't possess an SC2 or SC3 I did the next best thing and used a valve preamp I built about 25 years ago, which has a phono stage based on the Radford circuitry.

My most recent project has concerned the turntable – a venerable Thorens TD150, which was given to me some time ago by my brother. After fitting a new belt and applying a bit of lubrication it now works beautifully. I decided to replace the deck's original TP13 arm with a Rega 250, and for a time I used this with a vintage Ortofon SL-15E cartridge.

However, I agree with Tim Jarman when he says that vintage cartridges are probably best avoided unless originality is paramount, so I later



ABOVE: One of reader David's Quad ESL57 speakers (top) and with its grille removed

replaced the SL-15E with a spare Ortofon Cadenza Bronze, which itself had been upgraded to an Ortofon Cadenza Black after having done sterling service in my main system.

However, the Cadenza Bronze needed a step-up unit, so I pressed into service an old 'Blackhead' transformer that I had purchased from the HFN Accessories Club many moons ago. Remember them?

I also dug out my old Marantz CD80 for CD playback. All it needed in the way of attention was for the muting relay contacts to be cleaned. It didn't sound too bad, but just as the use of a modern cartridge can improve vinyl performance, so adding a modern DAC will almost certainly improve an old CD player, provided of course, that it has a digital output. I found that a Cambridge Audio DacMagic 100 hooked up to the CD80 made things much better.

So how does this system of very mixed origin sound? Pretty darn good I'd say. If I had to, I could live happily with this set-up long-term, though I consider the success of the project has largely been down to my refurbishing the Quad ESL57s, which was not especially difficult to do

David Lord, via email



ABOVE: A contemporary solution too, in Cambridge Audio's DacMagic 100



Six Audio

INTRODUCING SERIOUSLY GOOD HIGH FIDELITY

t. 01403 713125

m. 07950 274224

e. info@sixaudio.co.uk

w. www.sixaudio.co.uk

## Our speakers are different for all the right reasons



## Duevel Omnidirectional high-end loudspeakers

Unlike conventional loudspeakers, Duevel's omnidirectional loudspeakers can be placed more flexibly in your living environment and will create a stunning sound-stage.



Model	Price (SRP)
Planets	£950
Enterprise	£2,600
Venus	£4,000
Bella Luna	£10,000
Sirius	£28,000
Sirius BE	£40,000

An affordable range of excellent high-end loudspeakers to fit with todays modern living environment.

*Signature*  
AUDIO SYSTEMS

### Dealers:

Audio Affair - 0121 224 7300

Midland HiFi Studio - 01902 380083

Distributed by Signature Audio Systems, call: 07738 – 007776  
or by e-mail to: [info@signaturesystems.co.uk](mailto:info@signaturesystems.co.uk)  
Web: [www.sbooster.com](http://www.sbooster.com)

## YOUR VIEWS

# The sounds of solitude

EXPLORING OLDER MUSIC, NOW REMASTERED AND RE-ISSUED, KEEPS ONE READER SANE

The pandemic and subsequent lockdown in the UK has accelerated my retirement from work by some three years. I had saved a couple of hundred pounds for a project to resurrect a Revox reel-to-reel recorder, but sadly I think the full cost may soon prove out of reach for this (now) pensioner! On a happier note... well, let me give you the context first.

Born in Liverpool in the mid '50s, by the time I started to listen to local radio it was Beatles, Beatles, 'Ferry Across The Mersey' then more Beatles. As a result, I never bought any 'Fab Four' records. If I wanted to hear them, I just turned on the radio.

Then at 15 I was lucky to see The Who, then Led Zeppelin and my musical taste was set. Concerts such as Joni Mitchell supporting CSN&Y at Wembley Arena followed, while on another occasion I remember vividly the singer in the support band to Mott The Hoople running about the stage with half the mic stand. Yes, it was Freddie Mercury in full flight!

I've followed many suggestions from Ken Kessler and I am indebted to him for his recommending Little Feet who are now a firm favourite of



ABOVE: 'Rediscovered' gem – The Beatles' *Sgt Pepper*'s album, remastered on CD

mine. His waxing lyrical over the remastered *Sgt Pepper*'s album intrigued me so much that I recently bought the same disc to try on my humble system. I have a Marantz CD/SACD player feeding a Musical Fidelity tube stage hooked up to the preamp section of an Arcam AV amp. This drives a pair of active MartinLogan Vista loudspeakers.

The music on the *Sgt Pepper*'s album was both familiar – I could sing all the words – but different. There is much more going on than I recall, while the sound is not at all dated or recessed, as can be the case with recordings from the period. Instead, the sound is dynamic and has great energy. I intended to sample a track or two from the disc and then go off to get a bite to eat. I stayed hungry and enjoyed the whole album. I'm now looking to buy more of the remastered Beatles albums! So perhaps the one silver lining of this lockdown is that I have the time to rediscover older music.

Finally, congratulations to all at *HFN* for the continuing quality of your work. Like many, I often dream of what to spend 'that lottery win' on, and have been doing so since I first encountered your magazine. I bought it for a three-way amp comparison between Musical Fidelity's A1 and models from Audiolab and a Sugden – a 'shoot-out' I was able to replicate at Doug Brady Hi-Fi in Liverpool. I bought and loved the MF A1, and immediately subscribed to *HFN*.

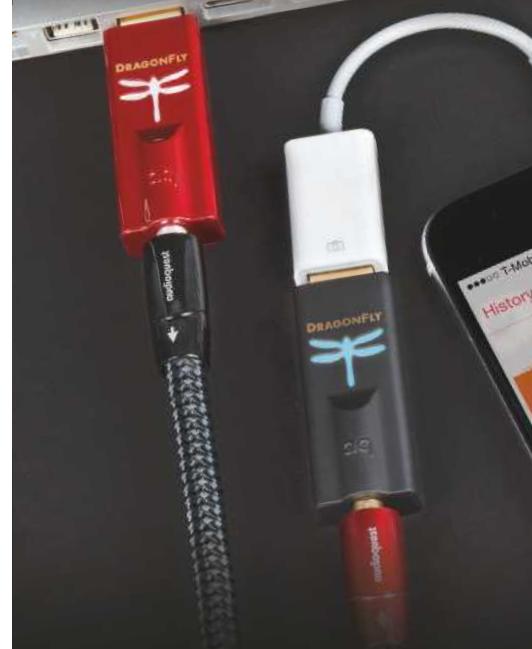
Stephen Bell, via email



ABOVE: MartinLogan's XStat-equipped Vista loudspeakers, launched in 2006

## New DragonFlys! £89 Black & £169 Red

Powerful, Immersive Sound from Computers and Mobile Devices!



Four years ago, AudioQuest shook the hi-fi world with our first DragonFly DAC-Preamp-Headphone Amp—the rare audio product that brought more compelling sound to *all* music lovers, playing high-res files to MP3s on perfectionist systems and modest laptops.

Now, the new DragonFly Black and DragonFly Red exceed their predecessor in every way, delivering more beautiful music, boasting software upgradability, and providing compatibility with **Android** and **Apple iOS** mobile devices.

While **Black** offers more clarity, depth and category-defining value than ever before, the take-no-prisoners **Red** provides even more finesse, resolution, torque and more than enough power to drive even the most demanding headphones.

The word is out: DigitalAudioReview.net's John Darko calls DragonFly Red and Black "the finest examples of everyday hifi to ever grace these pages. Their value quotients explode the dial."

Let the joyful experience begin!

**audioquest**

# From Rogers to VTL...

SEVEN DECADES OF SOUND AS A REVEREND SHARES HIS UPGRADE TALES

I am coming up to my 74th birthday and thought it would be good to share my story in response to the editor's request for readers' journeys into hi-fi. Mine began in my early 20s with my first system: a Rogers Cadet III valve amplifier with matching tuner, and Lenco turntable fitted with an extremely flimsy arm. Speakers were KEF Celeste bookshelf models. I graduated to a Goldring Lenco GL75 turntable fitted with, I believe, a Grado cartridge. The problem with this turntable was that I just couldn't get the spring-tensioned idler wheel to drive the 8lb platter at the correct speed! At this time I worked on the coal face, having completed my Mining Engineering studies. The journey speeded up....

An increase in income meant I could think about upgrades, though I still had to go cap in hand to the bank manager for the money to purchase Boothroyd Stewart 105 pre and power amplifiers, a 103 tuner and a Linn LP12 turntable with a Grace/Supex arm and cartridge combination plus a pair of KEF 105 speakers. I think the bank manager was an enthusiast as he remarked, 'That's a good system'. On returning home from work I would immediately fire it up. That system kept me sane for 31 years.

The LP12 has had a number of upgrades over its 43-year history. It is presently fitted with an Ekos arm and Akiva cartridge, and a Lingo power

supply. A Linn Linto phono amp was replaced a few years ago with a Trilogy 907 [HFN Dec '10] with excellent results. By this time I was living in a new home. Then a strange thing happened.

Redundancy from British Coal in 1993, where I was a ventilation engineer, allowed me to take a different direction. After taking an access course I embarked on a four-year theology degree at Edinburgh University. Returning home after graduation I decided to treat myself and purchased a new system. This comprised a Meridian 502 preamp and a pair of 557 power amps, a 588 CD player, 504 tuner and a pair of PMC FB1 speakers.

It was around this time I began to listen to what reviewers were saying about cables. This saw Atlas interconnects and Isotek power cables purchased and today the front-end is fed from an Isotek Nova mains conditioner with good results. Also, a ring main fed from a dedicated consumer unit supplies the system.

Just before PMC ceased production of its EB1s, I traded in my FB1s. It was then that I discovered to my cost, standing waves. Joan Armatrading produced a wave that was, as a friend put it, 'migraine music'. Drastic action was needed so I removed the walls between the bedrooms of my bungalow to create a dedicated listening room. This was the best upgrade I ever made.



ABOVE: Beethoven looks on enviously at reader David's set-up, which includes VTL and Bryston amps, a dCS Puccini SACD player, Magnum Dynalab tuner, Linn LP12 deck and PMC EB1 speakers



ABOVE: All analogue – Magnum Dynalab MD 107T tuner (top) and Linn LP12 with Ekos arm

The wave that Joan produced was in fact several notes played on her guitar!

Influenced by what some reviewers were saying about high-power amps being more effective at handling transients, I made a further upgrade. The Meridian gear went and was replaced with Bryston 7B SST<sup>2</sup> power amps [HFN Jul '10] and a BP26 preamp. I also bought a Magnum Dynalab MD 107T FM valve tuner. It was around this time I also addressed the room's acoustics, installing Acustica Applicata devices at the front wall and GIK acoustic treatment on the rear, both to good effect.

In my desire to better things further, I then purchased a dCS Puccini SACD player [HFN May '08] and external clock. And yet I was still not comfortable with the sound. My dealer suggested I try a VTL 5.5 Series II valve preamp. After I had picked up my jaw from the floor I knew I wanted one.

I am truly enjoying my music at the moment and do not foresee further upgrades in the near future. Though, since discovering the resurgence of vinyl I have purchased more black discs in the last ten years than I could ever have afforded when I began my journey in the '70s. So perhaps I should consider changing the turntable. SME or VPI... there are so many.

*Rev David Bond, via email*

# Journey into sound

THINKING ABOUT ORGANISING YOUR MUSIC COLLECTION? NOW'S THE TIME...

Now that we have time to spare during the lockdown, my wife and I are taking an indoors journey through our combined CD collection. We have had three themed weeks to date, pulling together discs into collections of Blue Note, Bob Dylan, and Columbia Jazz.

Today I have sought out discs having 'better than CD' mastering technology and have dug out Rubinstein's Schubert from 1965 on RCA Victor, remastered with UV22 super encoding in 20-bit in 2003; Robert Casadesus plays Mozart, remastered from 1965 Columbia 'Stereo 360 Sound' with Sony DSD and SBM Direct in 2010; Murray Perahia and Radu Lupu play Mozart in 1984, again with Sony DSD and SBM but from a digital recording; and the Miles Davis album *Sketches Of Spain*, recorded in 1959 and remastered in 20-bit in 1997.

Then there's Eric Bibb & Needed Time's *Good Stuff* from 1997, recorded on vacuum tube mics and mastered with Pacific Microsonics High Definition Compatible Digital, no less! They are all crystal clear and very enjoyable. I shall play our small collection of SACDs next time.

Our audiovisual system consists of a matching Pioneer VSXS-520D AV receiver and BDP-X300 Blu-ray player, with Wharfedale Diamond 210 stereo speakers, a Boston Acoustics SoundWare centre speaker and KEF T101 surrounds. All very living-room



ABOVE: From Miles to Mingus – Philip and his wife's Columbia discs, all sorted

friendly. I have listened in Stereo Direct and Extended Stereo (five channel, no subwoofer) modes where appropriate, and have thoroughly enjoyed the experience.

Philip Lloyd, via email

Paul Miller replies: Thank you Philip and to all our wonderful readers who have sent their pictures and letters from lockdown. I mention in my Welcome page [p15] that our hi-fi hobby and access to high quality music reproduction can be singularly fulfilling at this extraordinary time, and will likely remain so as 'social distancing' segues into 'social disruption' in the months ahead.

This is also a theme shared by my EISA staff and member colleagues as, every two weeks, we have our collective Skype or Zoom video meetings. Across some 30 countries, everyone is working from home offices with many enduring more stringent lockdown rules than are imposed in the UK. But all are becoming more immersed and appreciative of their respective disciplines. Even the editors of EISA's photography magazines are finding a way through – still life studies and long-lens compositions through open windows are becoming very popular!

But hi-fi is our focus and so, back on home turf, we thought it would be fun to catch up with some of our long-term readers who featured in HFN's system series that ran through the Noughties. First out the gate is Mike Mattingley who first appeared in 2008. See p28.



ABOVE: The couple's Bob Dylan discs, now all collated and in one place

A close-up of a Wharfedale Diamond 210 speaker and a Diamond 210 subwoofer, with a Diamond 210 center channel speaker visible in the background.

**EXTREME?**

**IT IS NOW!**

**audioquest**

# Great savings

when you subscribe to *Hi-Fi News* today

**SAVE 75%  
ON DIGITAL  
SUBSCRIPTIONS\***  
Offer ends  
5th June 2020

JUNE 2020

**hi-finews** THE HOME OF REAL HI-FI & Record Review

**Exclusive**

## MAJOR CHORDS

ULTIMA 2 pre/power amps – finer than its flagships?

**PrimaLuna EVO 100 DAC – digital and the magic of tubes**

**Sumiko Pearwood II high-end MC**

**Scansonic MB5 B floorstanders get a radical rework**

**INVESTIGATION**  
**Hi-Fi@ Home**  
We revisit HFN readers' systems

**Bricasti M3**  
Network DAC & headphone amp

**Solitaire P**  
Exclusive test of T+A's PM headphones

18 PAGES of Music Reviews & Features

www.hifinews.co.uk

Hi-Fi @ Home revisited

maLuna EVO 100 Tube DAC

MARY CHAIN Psychocandy

UK £5.25 US \$13.00 Aus \$13.50

9 771472 256257



**IN EVERY ISSUE** Exclusive high-end equipment reviews, vinyl, CD and hi-res downloads rated, show reports, your letters, in-depth investigations, vintage tests and so much more...

**SUBSCRIBE TODAY**

**SUBSCRIBE SECURELY ONLINE**



<http://hfn.secureorder.co.uk/HIFI/HFN0620P/>

DIGITAL ONLY  
SUBSCRIPTIONS  
AVAILABLE  
ONLINE...

**TERMS & CONDITIONS:** Offer ends 5th June 2020. \*This digital discount is only available when you subscribe to the print + digital package. You can still get a great discount on the digital package, please visit the URL stated above for more information. Please see [www.hifinews.co.uk/terms](http://www.hifinews.co.uk/terms) for full terms & conditions.

**Save 34%**

**PRINT +  
DIGITAL  
SUBSCRIPTION  
£54.05**



### PRINT + DIGITAL SUBSCRIPTION

13 Issues *delivered to your door*

*Great savings* on the shop price

*Download* each new issue to your device

A *75% discount* on your Digital subscription

Access your subscription on *multiple devices*

Access to the *Online Archive* dating back to January 2008

**Save 34%**

**PRINT  
SUBSCRIPTION  
£45.75**



### PRINT SUBSCRIPTION

13 Issues *delivered to your door*

*Great savings* on the shop price

Never miss an issue

**CALL OUR ORDER LINE** Quote ref: HFN0620P

**0344 243 9023**

Lines open Mon - Fri - 8.00am - 8.00pm GMT & Sat - 9.30am - 3.30pm GMT

Calls are charged at the same rate as standard UK landlines and are included as part of any inclusive or free minutes allowances. There are no additional charges with this number. Overseas calls will cost more.

## hi-fi news SUBSCRIPTION ORDER FORM

### DIRECT DEBIT SUBSCRIPTIONS UK ONLY

**Yes, I would like to subscribe to Hi-Fi News**

Print + Digital: £54.05 annually (Save 34%)

Print Subscription: £45.75 annually (Save 34%)

### YOUR DETAILS MUST BE COMPLETED

Mr/Mrs/Miss/Ms..... Initial..... Surname.....

Address .....

Postcode ..... Country .....

Tel ..... Mobile .....

Email ..... D.O.B .....

### I WOULD LIKE TO SEND A GIFT TO:

Mr/Mrs/Miss/Ms..... Initial..... Surname.....

Address .....

Postcode ..... Country .....

### INSTRUCTIONS TO YOUR BANK/BUILDING SOCIETY

Originator's reference 422562



Name of bank.....

Address of bank.....

..... Postcode .....

Account holder.....

Signature..... Date .....

Sort code ..... Account number .....

**Instructions to your bank or building society:** Please pay MyTimeMedia Ltd. Direct Debits from the account detailed in this instruction subject to the safeguards assured by the Direct Debit Guarantee. I understand that this instruction may remain with MyTimeMedia Ltd and if so, details will be passed electronically to my bank/building society.

Reference Number (official use only) .....

Please note that banks and building societies may not accept Direct Debit instructions from some types of account.

### CARD PAYMENTS & OVERSEAS

**Yes, I would like to subscribe to Hi-Fi News, for 1 year (13 issues) with a one-off payment**

#### UK ONLY:

Print + Digital: £56.05 (Save 31%)

Print: £47.75 (Save 31%)

Inclusive of £2 card surcharge

#### EUROPE & ROW:

EU Print + Digital: £77.29

EU Print: £68.99

ROW Print + Digital: £78.29

ROW Print: £69.99

### PAYMENT DETAILS

Postal Order/Cheque  Visa/MasterCard  Maestro

Please make cheques payable to MyTimeMedia Ltd and write code HFN0620P on the back

Cardholder's name.....

Card no: ..... (Maestro)

.....

Valid from..... Expiry date..... Maestro issue no.....

Signature..... Date .....

**TERMS & CONDITIONS:** Offer ends 5/06/2020. AV Tech Media collects your data so that we can fulfil your subscription. We may also, from time to time, send you details of AV Tech Media offers, events and competitions but you always have a choice and can opt out by emailing us at [unsubscribe@hifinews.com](mailto:unsubscribe@hifinews.com). Please select here if you are happy to receive such offers by Email  Post  Phone  . We do not share or sell your data with third parties. Details you share with us will be managed as outlined in our Privacy Policy here <http://www.mytimemedia.co.uk/privacy-policy>.

**POST THIS FORM TO: HI-FI NEWS SUBSCRIPTIONS,  
MY TIME MEDIA LTD, 3 QUEENSBIDGE, THE LAKES,  
NORTHAMPTON, NN4 7BF**

Please visit [www.hifinews.co.uk/terms](http://www.hifinews.co.uk/terms) for full terms & conditions

HFN0620P

# Technics SL-J33 turntable

A mid '80s deck designed to boost vinyl replay at a time when the convenience of CD was making all the news. Did it succeed, and how does it compare today?

Review: Tim Jarman Lab: Paul Miller

The products we usually seek to feature in our Vintage Review pages are those that were among the first to introduce a new format, function, level of performance or design theme. However, this month our subject is the Technics SL-J33 turntable of 1986, one of the *last* in a series that had a footprint the size of an LP sleeve, which began with the SL-10 [HFN Apr '19].

Staying true to the original concept, the SL-J33 employed a linear-tracking arm mounted in the player's lid and a quartz-locked direct-drive motor, despite the fact that since the launch of the SL-10 in 1979 many cheaper models had appeared that lacked both these features.

## RIGHT ON TRACK

Still, to a public that was by then highly aware of CD and all the user-convenience it could bring, even this configuration could have been viewed as a tad lacklustre in its appeal. So, in order to keep the business of playing records feeling both modern and relevant, a really effective track finding and programming system was also incorporated into the SL-J33.

Of course, turntables able to identify the position of tracks on a record and access them directly were nothing new in 1986. The ADC Accutrac 4000 [HFN Mar '13] could do it, and by then this

**Technics**

**SL-J33**

**Hertz Direct-Drive Fully Automatic Turntable**  
P jacket size turntable with 8-band random access programming to allow up to 8 tracks to be played in any order. Near tracking tonearm with T4P plug-in cartridge system. Automatic record sensor, record size and speed selection with manual override for non-standard records. High speed programme listing with LED track indication. PC-P30 MM cartridge supplied.

**DIRECT DRIVE** 315

ABOVE: When it came to turntables the size of an LP sleeve, the SL-J33 was tops in Technics' 1987 catalogue while the SL-P1200 CD player on the cover shows the high standards of the range

was a design that was ten years old. But better microprocessors and the use of linear tracking made the facility easier to include in the SL-J33. Indeed, during 1980 Technics introduced the SL-15, which was a modified SL-10 with track-sensing systems added in lieu of the MC cartridge

and integral head amplifier. Although it never really captured the imagination of British audiophiles of the time, the SL-15 did demonstrate that a track-sensing system could be fitted to a performance-orientated turntable without degrading its sound. The SL-J33 was directly descended from the SL-15, but re-engineered to suit the market conditions of the late 1980s.

## ARM MECHANICS

Where the SL-15 had employed die-cast alloy in its construction the SL-J33 used mostly moulded plastic. This gave it a cheaper, less substantial, appearance but what was inside was still of high quality. The mechanics of the arm and the manner in which it was integrated with the lid hinge had changed little over the years. SL-10 designer Yosumi Toshikazu's solutions to the original problems inherent in this layout clearly could not be improved upon.

LEFT: Three slide switches control the track search and automatic speed selection system. Note the T4P badge for the cartridge connector





Matsushita, the parent company of Technics, had spent a lot of time and money developing direct-drive motors for video applications and the benefits of this spilled over into the design of the SL-J33. A quartz-locked servo with both frequency and phase-control loops to ensure absolute speed stability and accuracy was employed, along with the established Technics idea of assembling the rotating part of the motor as an integral part of the platter.

As before, the platter was effectively damped by a thick rubber mat, although there was no mat bonded to its underside as was the case with the SL-10. To compensate for the rigidity lost in the upper plinth structure the base of the SL-J33 was cast in TNRC (Technics Non Resonant Compound), a proprietary material used in many of the top Technics decks of the period. A basic EPC-P30 MM cartridge was supplied, but thanks to the T4P mounting system this was easily upgraded if the owner so desired.

In common with virtually every turntable that includes track-searching facilities, the SL-J33 employs an optical sensor mounted next to the arm which can detect the more widely spaced grooves between the tracks of a record. Infra-red light is shone onto the record surface at an oblique angle and then received by a closely mounted photocell. As the arm

scans the record the microprocessor notes the position of every pulse of correctly reflected light, measured by counting the number of revolutions of the motor that drives the linear-tracking system.

#### RULE OF THUMB

As with all such schemes, a method for adjusting the exact relationship between the stylus tip and the sensor is necessary so that the music always starts 'on cue' when a selection is made. This is frequently a mechanical arrangement that shifts

the sensor in respect to cartridge. However, in the SL-J33 a different method is used. The sensor and cartridge are mounted next to each other at a fixed distance and the internal software is coded to always set the stylus

down slightly early, *i.e.*, a few grooves to the right of the selected track's start point.

As the previous track plays out, the output to the amplifier is muted by a relay for a short, but adjustable, period. Using a thumb wheel that is located at the rear of the plinth, the user simply sets the length of this period so that the end of the previous track is effectively silenced and the chosen one is not cropped.

The key to how the SL-J33's automation operates is an innocuous little slide switch next to the platter labelled 'size'. Setting this to 'auto' is what makes the magic

**ABOVE:** Eight keys enable up to eight tracks to be accessed in any order. Power cueing and arm traverse meant that the lid never had to be lifted once a record was on the platter

happen. Once the lid is shut, the arm travels to the centre of the platter and back at a brisk pace. As this takes place, the sensor determines whether there is a record present and, if this is the case, it registers its size, how many tracks it has and where they are located.

As tracks are found, a row of up to eight red LEDs light up. These are the available selections, and it works just like a CD player reading a disc's table of contents (TOC). If a 12in record is detected the speed is automatically set to 33.33rpm while if a 7in one is found then 45rpm is chosen.

#### REVERSE PLAY

There is a manual override for this automation, which can be used when playing discs such as EPs and 12in singles. Also, if no record is found, all the controls are locked until the lid is opened again. Tracks can be set to play in any order just by pressing the keys underneath the relevant red LED and you could play everything on one side of an LP in reverse order, should the mood take you. Alternatively, just press 'play' and the deck will play the whole side. Setting the size switch to 'manual' disables all these functions, but now use must be made of the speed switch, the arm traverse keys and the cueing button.

A two-speed traverse function is included, but unlike that of the SL-10 there isn't a half and full pressure position on the keys. Instead, the arm always moves slowly at first and then speeds up after a couple of seconds, just as the search function ↗

**'Set the "size" switch to "auto" and watch the magic happen'**



**LEFT:** Rubber buffers seen at the front corners of the turntable's lid and integral arm extend underneath, providing isolation from the chassis



# audience

HAND-CRAFTED HIGH PERFORMANCE AUDIO COMPONENTS

## Every great performance deserves an **audience.**

Audience cable products are the end result of years of research into what matters most in an audio system. True fidelity to the signal without artificial embellishments or unwarranted voicing. Audience cables have been designed to authentically preserve the audio signal. "Neutral" or "natural" are the terms we hear most often when customers describe their performance.

**Our OHNO, SX and FrontRow cable lines represent the highest level of performance in audio cable products today.**



DEALER ENQUIRIES WELCOME

*Signature*  
AUDIO SYSTEMS

Distributed by Signature Audio Systems, **call: 07738 – 007776**  
or by e-mail to: [info@signaturesystems.co.uk](mailto:info@signaturesystems.co.uk) Web: [www.audience-av.com](http://www.audience-av.com)

## VINTAGE HI-FI

**RIGHT:** Close-up view of the EPC-P30 cartridge and track sensor [inset]. The offset between the two was taken care of by software. Stylus cleaning and inspection could not be easier

of a CD player operates. It all works well and gets things right most of the time – a three-position switch giving different settings for the sensitivity of the sensor is provided for records where the tracks are initially misplaced or miscounted.

My only criticism is that the delay before the music starts after the arm has been set down can be frustratingly long due to the action of the muting system. The manual states ‘about ten seconds’, but sometimes it seems much more!

### TIM LISTENS

Despite being regarded with more than a little suspicion by a number of my audiophile friends, the Technics SL-J33 revealed itself to be an excellent turntable in my listening tests. However, as with the SL-10, it proved to be sensitive to positioning. That TNRC base aside, the sprung rubber feet do not provide much in the way of isolation while the lid, being somewhat lighter and less stiff than the one used for the SL-10, can also pick up airborne vibrations and direct them towards the cartridge. So setting the turntable up in a well sheltered location in the listening room is recommended.

After the deck had been loaded and scanned, I punched up ‘The Logical Song’, which is the second track on Supertramp’s 1979 album *Breakfast In America* [A&M AMLK 63708]. The deck as a whole put in a predictably bright and punchy performance while the EPC-P30 pick-up tracked securely, delivering a pleasing tonal balance even during the song’s more energetic sections.



However, what really impressed the most was the way in which cymbals retained their clarity even when there was a great deal else going on in the mix. I’ve known many a lesser turntable to stumble at this point. Indeed, I had braced myself for the sort of hard, splashy treble one usually hears from basic cartridges, but the problem never arose. Yes, the presentation can sound a tad well-lit, but a nice plump bassline helps to balance this off.

Meanwhile, issues such as speed stability and bearing rumble, which are determined by the performance of the motor [see PM’s Lab Report, p119], were as good as they ever need to be. In this area the Technics SL-J33 was an impressive machine.

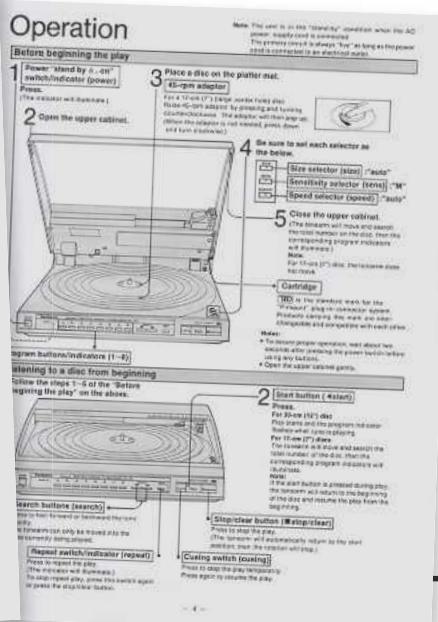
A more exacting challenge was set by Mussorgsky’s *Pictures At An Exhibition* [Victor LSC-2201]. Filled with sustained notes, long silences and sudden bursts of energy and excitement, it is the ideal recording to explore the limits of turntable performance. The first of these challenges poses no problem to a Technics direct-drive deck, but would the silences expose the SL-10 bugbear of a bump-thump noise coming from the tracking motor?

To a point, yes. The noise is still there but in greatly reduced form. This is one key improvement over the older design, though I did get the impression that the SL-10 could produce greater depth in its soundstage than the SL-J33 can.

With the EPC-P30 pick-up fitted, the effect seemed to be that of a strip of sound, extending well beyond the loudspeakers but lacking in perceived space vertically as well as fore and aft. It is an odd observation, but I was aware of it over a wide range of material.

### FULL MEASURE

Returning to Mussorgsky, the bright sound of the SL-J33 highlighted the record’s surface noise during the various musical silences in a way that, for example, the big B&O linear-tracking decks don’t. It is easy to obsess about such things when the music is soft, such as at the close of the ➤



**LEFT:** Set-up and operation is straightforward, as this page from the instruction manual shows. It is virtually impossible to accidentally damage the stylus or the record with this design

**ONLY  
£2.54  
Per Issue**

# Have you tried... **hi-finews Digital?**

Did you know that you can now download issues of *Hi-Fi News* direct to your mobile device or smart phone?\*

For just £2.54 per issue you can download digital issues of *Hi-Fi News*, allowing you to:

- Read your magazine without an internet connection
- Keep your issues forever without needing lots of storage space
- Receive your magazine before it hits the shops – regardless of your location
- **PLUS** you can access our Online Archive of back issues, dating back to January 2008!\*\*



## SUBSCRIBE TODAY

Visit: [www.hfn.secureorder.co.uk/  
HIFID/DG20](http://www.hfn.secureorder.co.uk/HIFID/DG20)  
Call: 0844 243 9023  
and quote ref. DG20



## IN EVERY ISSUE

Exclusive high-end equipment reviews, vinyl, CD and hi-res downloads rated, show reports, your letters, in-depth investigations, vintage tests and so much more...

\*Digital downloads are currently available on iPad, iPhone, Android & Kindle Devices. You can also download to an Offline Reader on PC Computers.

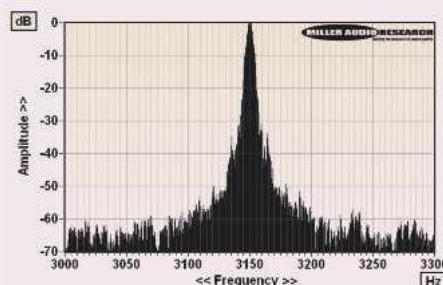
\*\*Please note terms & conditions apply – visit [www.hifinews.co.uk/terms](http://www.hifinews.co.uk/terms) for full terms & conditions. MyTimeMedia Ltd reserves the right to withdraw this offer at any time without prior notice. Calls are charged at the same rate as standard UK landlines and are included as part of any inclusive or free minutes allowances. There are no additional charges with this number. Overseas calls will cost more. We do not share or sell your data with/to third parties. Details you share with us will be managed as outlined in our Privacy Policy here <http://www.mytimemedia.co.uk/privacy-policy>

## LAB REPORT

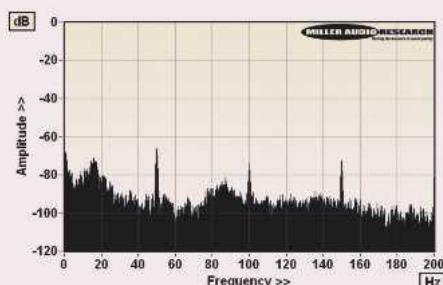
### TECHNICS SL-J33 (*Vintage*)

Comparisons with another recently-reviewed compact direct-drive deck, complete with integral linear-tracking arm, are instructive. I say 'recent' but Sony's SL-PF7 [HFN Mar '20] was also serving the market for highly automated vinyl-spinners alongside the Technics SL-J33 at a time when CD was really gaining traction among progressive audiophiles. Both turntables employed quartz-locked, brushless DC motors and brought their respective platters – both also relatively lightweight diecast alloy affairs – up to speed within 1-2 seconds. In each case the decks used an integral rubber mat that afforded some further isolation from direct motor/bearing noise, but Sony's SL-PF7 demonstrated a 1dB advantage over the Technics SL-J33 which registered -69.2dB (DIN-B wtd) for through-groove rumble. It was impossible to measure a through-bearing figure because power to the SL-J33's motor is cut once the integral lid is lifted...

Speed stability, on the other hand, was rather more the SL-J33's forte, this vintage deck boasting an absolute speed error of just -0.03% and with a peak wow and flutter of just 0.07% [see Graph 1, below]. The W&F spectrum shows some low rate wow, visible as a broadening of the main peak, along with a discrete set of flutter sidebands at  $\pm 15\text{Hz}$ . These contribute to the 0.04% peak flutter and are also visible on the unwtd. rumble spectrum [see Graph 2, below] as bearing noise, the latter at least partially boosted by the arm/cartridge resonance. The short (105mm) linear-tracking arm has a rated effective mass of 9g including the 6g plug-in MM cartridge. Some slight hum pick up is also revealed, but this is relatively low at -65dB (re. 1kHz/5cm/sec) and barely visible as a component of the W&F spectrum. PM



ABOVE: Wow and flutter re. 3150Hz tone at 5cm/sec (plotted  $\pm 150\text{Hz}$ , 5Hz per minor division)



ABOVE: Unweighted rumble from DC-200Hz via silent LP groove re. 1kHz at 5cm/sec. Note correlation with peaks around 15Hz on W&F spectrum [Graph 1]

### HI-FI NEWS VERDICT

Don't let its humble looks put you off, for the Technics SL-J33 has the best track-search system of any turntable I've ever used, and that it plays the tracks it finds to such a high standard is more than a pleasant surprise. Just pipped by the older SL-10 in terms of atmosphere, it is still capable of a level of performance that belies its ease of use and current low price on the secondhand market. I'm keeping this one!

Sound Quality: 80%



### HI-FI NEWS SPECIFICATIONS

Turntable speed error at 33.33rpm	33.32rpm (-0.03%)
Time to audible stabilisation	~1-2sec
Peak Wow/Flutter	0.03% / 0.04%
Rumble (silent groove, DIN B wtd)	-69.2dB
Rumble (through bearing, DIN B wtd)	See text
Hum & Noise (unwtd, rel. to 5cm/sec)	-65.1dB
Power Consumption	5W
Dimensions (WHD) / Weight	315x88x315mm / 4.1kg



ABOVE: Red socket on the far left allows the unit to interact with a remote control or synchronise with a cassette deck. RCA connectors require a separate ground cable

first 'Promenade'. However, as the whole orchestra springs to life at the opening of 'Gnomus', an event given its full measure of vitality by the little Technics deck, the large dynamic range of this piece puts this little problem more into perspective.

Refined though it is, the SL-J33 is a modest fit for the hobby of 'hi-fi' (as opposed to that of listening to records, for which it is very useful indeed). Those who enjoy visual drama and delicate manual interactions as part of their listening experience will find it lacking, as it makes spinning a record no more involving than playing a CD. It won't impress your friends much at your next dinner party either, which if the styling of many modern turntables is anything to go by, is an important consideration for many – and rightly so! Nevertheless, the Technics SL-J33 is ever so good at turning those funny little squiggles on the surface of a record back into music. I'm convinced. I'm sure you will be too.

### BUYING SECONDHAND

For such a complex product, the SL-J33 has proved to be remarkably reliable in service, but after over 30 years of use some common problems are beginning to emerge. Failure of the arm to move correctly (or at all), often accompanied by the noise of a frantically spinning motor at the lefthand rear corner of the lid, points to a worn belt in the



ABOVE: CD simplicity with LPs from a deck with a total width of just 315mm

# Hi-Fi Choice

PASSION FOR SOUND

[www.hifichoice.co.uk](http://www.hifichoice.co.uk)

Fuel your  
passion for  
sound and make  
your music sing  
**OUT NOW!**

## THE ESSENTIAL GUIDE...

to getting the best possible sound  
from your hi-fi, whether you're  
buying, tuning or tweaking



Follow us:



[twitter.com@HiFiChoiceMag](https://twitter.com/HiFiChoiceMag)  
[facebook.com/hifichoice.co.uk](https://facebook.com/hifichoice.co.uk)  
[hifichicemagazine](https://hifichicemagazine.com)





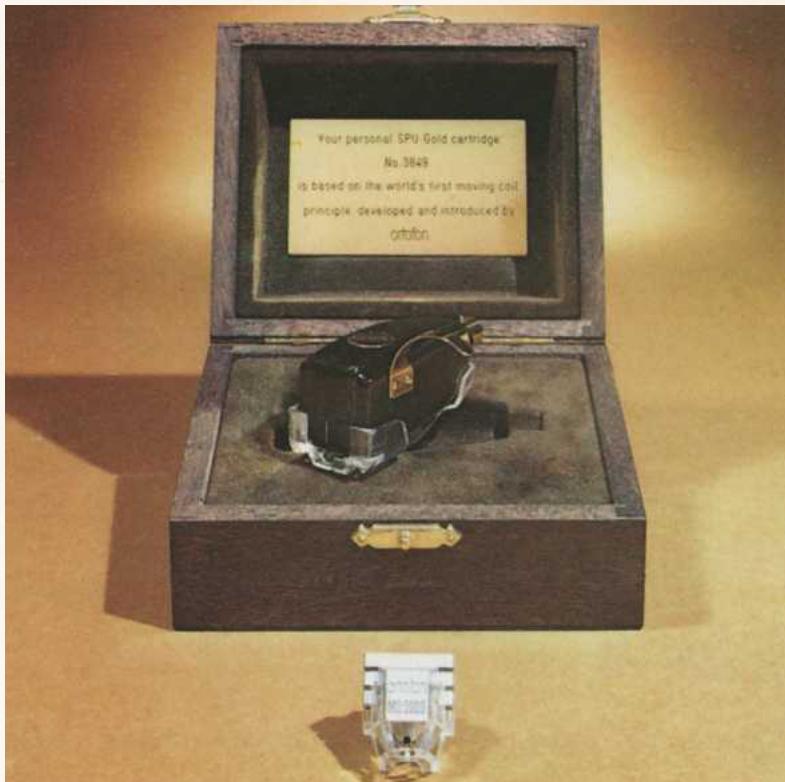
# Going for gold

Ortofon's SPU cartridge has reappeared. Ken Kessler gives it a whirl

**P**aranoia is not a condition to which I subscribed prior to entering the brotherhood of audio writers. Ignorant of my near-leper status, it came as something of a shock to find myself the only valve-loving, moving-magnet cartridge supporter in the immediate vicinity. Thankfully, editor John Atkinson tends to offer advice and make suggestions, rather than threaten my physical well-being for failing to embrace the solid-state, and so decided that a review of a moving-coil cartridge would be a subtle way of sowing the seeds for my conversion. And he knows my weaknesses well: anachrophilia.

### GUILTY PLEASURES

'Ken, it's about time that you reviewed an historic cartridge, some milestone of a transducer' were his words. Goody, I thought. JA wants me to write about Denon 103 cartridges, some of the few MCs I can tolerate *and* which have been around long enough to qualify as



anachrophilic. But no... 'You shall write about the Ortofon SPU Gold, direct descendant of the original SPU and the longest-running 'coil in continuous production.'

Blowing the cobwebs off a copy of the *Hi-Fi Yearbook* of pre-Beatle vintage, I sought to refresh my memory. It became clear that my brief was to review a cartridge that served as the state-of-the-art for longer than any other single design, its security not threatened until it had been around almost a decade.

'You'll love it, Ken – it's the world's only valve cartridge.' That was but one of the cracks that preceded its arrival. Others included: 'You'll love it, Ken – it's got nothing over 10k' and 'You'll love it, Ken – it can't be used in Ittoks' and 'You'll love it, Ken – it's got more colorations than a Jackson Pollock'.

Ah, what the hell; I can take a joke. Then I found out that the cartridge weighs 32g and its minimum tracking force is 3g. And, no, JA wouldn't loan me any LPs for the session. I stopped laughing.

ABOVE: The Ortofon SPU Gold MC and (foreground) flagship Ortofon MC2000

The Ortofon SPU Gold is a slightly tweaked version of a cartridge that first appeared in 1959. It differs mainly from its ancestors in that it now bears an elliptical tip of less than half the mass of the earlier version, and the folks at Ortofon are doing a Midas impersonation and coating everything in gold or substituting gold, full stop. Except, that is, for the internal leads, and the coil wires, which are now silver.

### LITTLE CHANGE

I didn't bother to rip apart its integral headshell (with SME-type collar) to see if the cartridge body is gold-plated as stated in the literature, but I have no reason to believe otherwise for the cantilever, fingerlift, collar, and nameplate appear in an auric hue. And any company with the chutzpah to gold-plate so many non-sonic features of a cartridge's anatomy is highly likely to plate the bits that can't be seen.

Hi-Fi  
News  
Jan 1984

Each month  
*HFN* will bring  
you an article  
from our vast  
archive of  
features and  
reviews from  
yesteryear



Referring back to the *Yearbook*, I learnt that not a lot has changed beyond the cosmetics and the modern profiled stylus. Output has dropped from 0.5mV to a ludicrous 0.2mV, and impedance has gained an ohm, up to 3 from 2. Aah! What's in an ohm? Both share a tracking force range of 3-5g and the stated frequency range on both models is 20Hz-20kHz. *Plus ça change...*

### **SWARF CITY**

But the price – and here's the rub – has gone from £23 in '62 to £269 in '84. Which creates a problem: do I treat this with the same suspension of values I'd exercise in light of its age, or do I treat it as a high-end MC, vintage be damned? A quick perusal of my earlier scribblings revealed that I had discussed the subject matter in terms of today's offerings, so I forgot that the SPU Gold was a 25-year-old design and treated it as a cartridge available right at this very moment, from people that could just as easily sell you an Asak or a Kiseki or any one of a hundred cartridges costing close to £300.

This was difficult to do, though. Here I had what some people claim is the first-ever moving-coil. And I knew that the Japanese – no slouches at MC production – buy every one of these they can lay their hands on, and that their devotion to the Ortofon SPU has kept it alive for over two decades.

Enough of the misty-eyed musings, though; a listening test was in order. But when a cartridge

weighs in at 32g and only fits SME-type arms and I don't happen to own one of the three or four arms that will actually balance it out, a listening test is easier to say than to do. My original intention was to try this with as many of its contemporaries as possible, but I only got so far as turntable (Thorens TD-124), amplifier (the Radfords) and program material (Ella Fitzgerald). I know that my trusty Radford TriStar speakers are an old-ish design, so that was okay for verisimilitude, but the arm choice was limited.

Indeed, the only arms in the house with the correct fitting were the Linn Basik LV-V and the Audio-Technica AT-1100 with optional S-shaped tube. The former arm was simply out of the question for at least 19,980 good reasons, so it was the A-T 1100 I turned to,

with an extra-heavy counterweight and a good lump of modellers' clay serving as extra ballast.

It's a shame that Ortofon doesn't make a 1984 version of the SPU-GT, an SPU with built-in transformers, as I'd like to hear just how lousy MC boosters were back then (if anything could be worse than today's boosters, that is). Alas, this is not the case, so I used the only booster I could think of with enough gain, Ortofon's T30 transformer.

After an hour or so of fiddling about, I mustered up enough courage to subject my discs to 3g of playing force. You know, swarf city and all of those other snappy remarks I used to make when selling

someone a stylus for a BSR flip-over job. Ah, what's £4.99 against the adventure of finally hearing the legendary SPU?

In keeping with the spirit of things, I took *The Incomparable Ella* out of its sleeve, immediately cueing up the sublime track, 'The Very Thought Of You'. Returning to my seat, I turned to the speakers just in time to hear the first notes.

It was Time Machine stuff all the way. I was expecting Joe McCarthy followers lingering through the '50s' dying gasps to burst in and call me 'pinko'. I had visions of Captain Kangaroo and Howdy Doody (sorry, gang, but I spent the Eisenhower years in the country over which he presided) and pink-and-beige two-tone cars and pony-tails. Very odd, I thought, and no doubt due to the age of the recording.

So it was out with some material of more modern times. The damned thing worked the same spell on various bits of reggae, a lone heavy metal cut, some techno-pop, and other post-digital recordings. The effect was the same: pure romance. A moving-coil Cartland. Or Barbara Cartridge if you prefer.

### **SWEET SOUNDS**

The Ortofon SPU Gold is a real marshmallow. It's more more-ish than a box of Bahlsens, like all of those sweets that you know won't do much good for your waistline, but so what? Fat and gooey and positively embraceable, turning all the music into David Hamilton prints, with sepia added just in case a rough edge wants to rear its ugly head. It's audio's answer to rose-tinted spectacles and I can see why this thing is so popular in Japan.

I suppose that, in latter-day purist terminology, the SPU is a dumb cartridge, but to pass that judgement is to deny the right to personal taste. We're supposed to drink red wine with meat, but plenty of people prefer white at all times. The SPU is not 'correct' by today's standards, for it adds so much to the sound; either that or certain records that I've played on 20 or more different systems have all been played on 'incorrect' systems.

But I don't quite think so. I'm pretty sure that there's only so much ambience on Record A, so much 'bloom' on Record B, so ↗

'I had what some people claim is the first-ever MC'

**BELOW:** 'A cartridge for the connoisseur' – the Ortofon SPU Gold was a deluxe version of the original SPU, launched in 1959. Modifications included a 'true' elliptical diamond stylus and the use of silver wire for the coil windings. What really set this iteration apart was that the cartridge body, cantilever, plug and finger lift were plated with 24k gold



# HOME CINEMA

## Choice

HIGH PERFORMANCE SOUND & VISION

Helping you  
make the  
most of your  
home cinema  
**OUT NOW!**



## IN EVERY ISSUE

Kit reviews, movies & TV, accessories, systems, insight, opinion, competitions & more



## FROM THE VAULT

much shimmer on Record C. The SPU Gold makes the Human League sound, well, *human*. It makes all those remarks from solid-statists about valves' artificially-induced atmosphere seem positively insignificant compared with the way they'd have to describe the fairy-godmother effect of the SPU.

Because that's what it's like. Take it out of your set-up and the system turns into a pumpkin. I've got this crazy notion that anyone raised exclusively on the sound of the Ortofon SPU would kill in the presence of an Asak, a CD player, or an AKG-P8ES. On the other hand, anyone used to any of those three items would wander around, if faced with the SPU, muttering 'Who disconnected the tweeter?'.

### BACK TO REALITY

The only way to come to terms with this cartridge is to see what it does in your system. I'd just love to hear it through Stax Electrostatics, or through some amplifier that's lean to a fault, or with recordings from a certain Memphis studio that always sounded like someone forgot to switch the Dolby decode on during mastering. The SPU is unique, and it deserves the patronage of those who really do want to get away from the spit and sizzle of The System.

And if your snooty magazine-reading acquaintances criticise you for buying this *outré* device, you can tell each and every one of them that they wouldn't have *their* prized MCs if not for the SPU.

To get back to reality, we thought it would be nice to hear what Ortofon's 1984 flagship sounds like in comparison. (The SPU is not the cartridge that Ortofon considers to be its current definitive statement.) Ortofon kindly loaned us an MC2000 and the T2000 transformer. The T2000 was a must, as it just may be the only booster with enough gain to turn 0.05mV into a usable signal.

In its own way, the MC2000 has a lot in common with the SPU, though sound is not one of the similarities. While it tracks like a bloodhound at 1.5g and is built with as much care as the SPU, it weighs a lot by today's standards (though its 11g makes it seem like a featherweight next to

'The SPU should stay in production forever'

its grandaddy) and needs careful matching. Still, it's hard to believe that – a quarter century difference aside – these two products come from the same factory.

If the SPU didn't jar so much with my conditioning about heavy tracking forces (I do think that 3g-plus is a bit high) I could live with it. If the MC2000 didn't present such a naked picture – if it were any more analytical, it could be nicknamed 'the Freud' – I could revel in its ultra-low distortion, near-total lack of coloration, and de Sade-like authority. As for the former, I'm sure a learned text about the durability of vinyl could sway me. As for the

latter, a steady supply of perfectly pressed LPs, an Audio Research D-70 amplifier, and a pair of Staxes would make the MC2000 most inviting.

### GOING GAGA

Unfortunately, I choose to remain an outcast, though I can see why the vast majority of 'serious audiophiles' go gaga over MCs. You forgive me my tube-y colorations, lack of deep bass, and whatever Deccas are supposed to do wrong, and I'll forgive you the spit-and-sizzle of solid-state gear and the inescapable detriment of MC boosters.

Either way, I think the SPU should stay in production forever. It's the only audio device I can name that lives up to the true meaning of 'nice' without any of the damning-with-faint-praise connotations that word has acquired. The Ortofon MC2000 is tonic for the brain – the SPU is tonic for the soul. ☺



EQUIPMENT REVIEW  
EQUIPMENT REVIEW



**TOP:** Original pages from the Jan 1984 issue of *HFN* in which Ken Kessler's allegiance to valve equipment and Decca cartridges is challenged by time spent with a pedigree MC from Ortofon in the form of the SPU Gold. The cover sees in the New Year with a gift-wrapped amp that promises audiophile sound for £250. It's the Audiolab 8000A...

**Also in *HFN* this month in 1984**

### AUTOMATED BROADCASTING

Robert Follis reports from Tokyo on a radio station that can dispense with live broadcasters.

### HI-FI WRITERS – PROSE & CONS

John Seabury examines what readers want from reviewers.

### BEETHOVEN, BLUES AND BARREL ORGANS

Peter Turner looks at the work of British enthusiast record company Saydisc.

### BRYDEN THOMSON

The Scottish conductor in discussion with Andrew Keener.

### DIGITAL PROCESSOR

Martin Colloms passes a critical glance over Sony's PCM 701ES.

### FOUR HIGH-END MOVING-COILS

Martin Colloms auditions the van den Hul (EMT) MC-1, Kiseki Purple Heart, Audio-Technica AT37E and Koetsu Red.

### AFFORDABLE AUDIOPHILE AMP

Martin Colloms reviews the new Audiolab 8000A amplifier and, along with Paul Messenger, talks to its designers Derek Scotland and Philip Swift.

### DRIVING THE M10

Alvin Gold takes a listen to Meridian's awesome top-line active loudspeaker.

# hi-finews Dealer Directory

ORANGES & LEMONS

[oandlhifi.co.uk](http://oandlhifi.co.uk)  
02079242040 - London SW11  
bowers & wilkins rega sonos linn naim atc pmc arcam tellurium q  
chord co neat dynaudio rotel rega sennheiser chord electronics

**IAN HARRISON HI FI**

**HEADPHONES:**  
**SENNHEISER, BEYER, ERGO, GRADO, PSB, AUDIOQUEST, Audeze, ULTRASONE**

**HEADPHONE AMPLIFIERS:**  
**CREEK, FIDELITY AUDIO, GRAHAM SLEE, ICON AUDIO, LEHMANN, PROJECT, SUGDEN**

**PLEASE PHONE OR EMAIL ENQUIRIES TO:**  
[ian.harrison@mercian.myzen.co.uk](mailto:ian.harrison@mercian.myzen.co.uk)  
**TEL: 01283 702875**

(6) Six Audio t. 07950 274224

Audio Physiks Scorpio II speakers	exdem	£1499
Ayon Spark integrated amp	exdem	£1599
Ayon CD-1s cd player	exdem	£1599
Electrocompaniet EMC 1 UP cd player	used	£1699
Electrocompaniet EC 4.8 preamplifier	used	£1099
Electrocompaniet AW2x120 power amp	used	£1249
Stello AI500 integrated amplifier	new	£899
Stello CD 500 cd player	new	£899
Vivid Audio K1 speakers	exdem	£7749
Vivid Audio B1 speakers	refurb	£6899
Vivid Audio V1.5 SE speakers	new	£call

VISIT [WWW.SIXAUDIO.CO.UK](http://WWW.SIXAUDIO.CO.UK) FOR MORE

**hifi lounge** here to listen...

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

[www.hifilounge.co.uk](http://www.hifilounge.co.uk)  
01767 448121  
[www.highendheadphones.co.uk](http://www.highendheadphones.co.uk)

Uk's only dedicated demo facility for high-end headphones

**Highend Headphones** closer to the music...

new location, better facilities,  
same people.  
hey, two out of three isn't  
bad!

arcam | chord | focal | innuos | kudos | linn | levinson  
| melco | naim | pmc | rega | russell k | + + +

**signals**  
hi-fi for grown-ups  
01394 672464 / 672465  
[www.signals.uk.com](http://www.signals.uk.com)

Stockists of:  
• Arcam • B&W • Focal  
• Linn • Naim • PMC  
• Rega • Rotel and MORE

**Infidelity**  
INDECENTLY GOOD HI-FI

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

Tel: 020 8943 3530  
Open: Tues - Sat 10am - 6pm  
[www.infidelity.co.uk](http://www.infidelity.co.uk)

**Radlett Audio**  
Sensible hi-fi since 1973

- Rega
- Harbeth
- Croft
- Spendor
- Luxman
- Michell
- EAR

Saffron Walden [www.radlettaudio.co.uk](http://www.radlettaudio.co.uk)  
01799 599080 [radlettaudio@hotmail.co.uk](mailto:radlettaudio@hotmail.co.uk)

**The AUDIOPHILES CLINIC**  
REEL TO REEL EXPERTS  
ANY • BRAND • MODEL • AGE

[& VINTAGE AUDIO SPECIALISTS](http://www.audiophilesclinic.co.uk)  
[petronel@audiophilesclinic.co.uk](mailto:petronel@audiophilesclinic.co.uk)

**IAN HARRISON HI FI**

<b>HARBETH</b>	<b>MICHELL</b>
MONITOR 40.2 £POA	ORBE £POA
SUPER HL5PLUS £POA	ORBE SE £POA
MONITOR 30.1 £POA	GYRO £POA
HLC7ES-3 £POA	GYRO SE £POA
P3ESR £POA	TECNODEC £POA
40th ANNIVERSARY MODELS £POA	TECNOARM £POA
	ACCESSORIES £POA

**FREE UK DELIVERY!!**

[ian.harrison@mercian.myzen.co.uk](mailto:ian.harrison@mercian.myzen.co.uk)  
**TEL: 01283 702875**



For over 15 years, Audiography has created hundreds of adverts for Hi-Fi Manufacturers, Distributors and Dealers all over the world.  
Why not get in touch to see how Audiography can help you.

**audiography**

To advertise in this section  
please call Sonia Smart on 01689 869 919

**Is this your problem?**

It's a common problem. The usable range of the volume control is all down at the bottom end and fine control at low listening levels is either difficult or impossible. The noise floor may be audible, too. There is a simple and effective solution – the **Rothwell In-Line Attenuators**. They can be used with pre/power or integrated amps to cure the problem of excess gain and bring sonic benefits with even the most expensive equipment.

01204 366133  
[www.rothwellaudioproducts.co.uk](http://www.rothwellaudioproducts.co.uk)

**Here's your answer**

"this accessory is heartily recommended" *Gramophone*  
£39/pair

**020 7226 5500**  
[www.grahams.co.uk](http://www.grahams.co.uk)

**GRAHAMS**

"One of the five best hi-fi shops in the world"  
ARENA Magazine

**Grahams Hi-Fi**  
Canonbury Yard  
190a New North Road  
London N1 7BS

**IAN HARRISON HIFI**  
**SALE! UP TO 40% OFF!**

TEL: 01283 702875 [ian.harrison@mercian.myzen.co.uk](mailto:ian.harrison@mercian.myzen.co.uk)

ACAPELLA	HELIUS	QED
ACOUSTIC SIGNATURE	HIFI RACKS	QUAD
ACOUSTIC SOLID	ICON AUDIO	QUADRASPIRE
AIR TIGHT	IKEDA	REED
ALPHASON	INSPIRE	ROKSAN
AMAZON AUDIO	IXOS	ROTHWELL
AMG	KOETSU	SENNHEISER
ATACAMA	KUBALA-SOSNA	SOUNDSMITH
BENZ MICRO	LEHMANN	SOUNDSTYLE
BEYER	LUXMAN	SRM TECH
BLACK RHODIUM	MICHELL	SUGDEN
BLUESOUND	MOERCH	SUMIKO
CABASSE	MOTH	SUPRA
CARTRIDGE MAN	MUNARI	T+A
CREEK	MUSIC HALL	TAYLOR ACOUSTICS
CUSTOM DESIGN	MUSIC TOOLS	TECHDAS
DECCA LONDON	MY SONIC LAB	THORENS
EAR YOSHINO	NAGAOKA	TOM EVANS
EMT	NORSTONE	TRACK AUDIO
EPOS	OPERA AUDIO	TRANSPARENT
ERGO	ORIGIN LIVE	TRICHORD
FIDELITY AUDIO	ORTOFON	VALVET
GOLDRING	PARASOUND	VAN DEN HUL
GRADO	PEERLESS	WHEST AUDIO
GRAHAM	PRO-JECT	WIREWORLD
GRAHAM SLEE	PSB	ZENSATI
HANA	PURE SOUND	ZYX

**SPECIAL OFFERS!!**

VAN DEN HUL MC10 SPECIAL	£775
ORTOFON CADENZA BLUE	£950
ORTOFON 2M BLACK	£445
ORTOFON 2M BLUE	£160
ORTOFON QUINTET BLUE	£299
ORTOFON QUINTET RED	£210
MICHEL ORBE	£POA
MICHEL ORBE SE	£POA
KOETSU	£POA
WHEST AUDIO TWO.2	£POA
WHEST AUDIO THREE SIGNATURE	£POA
WHEST PS40RT	£POA
EAR/YOSHINO	£POA
BLACK RHODIUM	£POA
TRANSPARENT	£POA
PRO-JECT	£POA
GOLDRING	£POA
BEYER	£POA
LEHMANN AUDIO	£POA
SENNHEISER	£POA

PLEASE PHONE TO CONFIRM PRICE & AVAILABILITY PRIOR TO ORDERING.  
ALL GOODS ARE BRAND NEW & BOXED WITH FULL U.K. GUARANTEES.  
NO EX-DEM OR EX-DISPLAY GOODS. NO GREY IMPORTS. GOODS ARE NOT  
SUPPLIED ON APPROVAL. SORRY NO GENERAL CATALOGUES  
PLEASE PHONE OR WRITE FOR SPECIFIC REVIEWS, BROCHURES OR PRICES.  
\* CALL FOR DETAILS ESTABLISHED 1986

MAIL ORDER ONLY FROM: IAN HARRISON, 7 MILL HILL, REPTON, DERBY, DE65 6GQ  
TEL: 01283 702875 9am-9pm INCLUDING SUNDAYS

**Mavros**  
Streaming

DESIGNED & HANDMADE IN SCOTLAND

Precision audio engineering.

**ATLAS**  
the performance connection  
[atlascables.com](http://atlascables.com)

# hi-finews Dealer Directory

## AUDIO DESTINATION

Where Music Matters

Moon | VPI | Esoteric | Entreq  
Stillpoints | REL | Audioquest  
Totem | Auralic | Hegel  
and more....



01884 243584  
[info@audiodeestination.co.uk](mailto:info@audiodeestination.co.uk)  
[www.audiodeestination.co.uk](http://www.audiodeestination.co.uk)

## All You Need In One Place

- ▶ Premium Loudspeaker Drivers
- ▶ Highest Quality Crossover Parts
- ▶ Crossover Parts and Assembly
- ▶ DIY Speaker Kits
- ▶ Cable and Terminals
- ▶ Expert Advice

### Some of our Brands:

- ▶ Accuton
- ▶ Audax
- ▶ Aurasound
- ▶ Eton
- ▶ Fostex
- ▶ HiVi Research
- ▶ Peerless
- ▶ SB Acoustics
- ▶ Scan-Speak
- ▶ Seas
- ▶ Raal



**madi**sound

Your Worldwide Provider of  
High End Loudspeaker Parts

[madisound.com](http://madisound.com)



**WANT TO  
ADVERTISE IN  
HI-FI NEWS?**  
Print\*Digital\*Online

Please contact:  
**Sonia Smart**  
**01689 869919**  
[sonia.smart@hifinews.com](mailto:sonia.smart@hifinews.com)

**hi-finews**  
THE HOME OF REAL HI-FI  
& Record Review

### EDITORIAL TEAM

- Editor** • Paul Miller  
**Art Editor** • Steve Powell  
**Features Editor** • Patrick Fraser  
**Reviews Editor** • Chris Breunig  
**Test & Measurement** • Paul Miller

### PHOTOGRAPHY

Andrew Sydenham

### MANAGEMENT TEAM

- Group Editor** • Paul Miller  
**Group Art Editor** • John Rook  
**Subscriptions Manager** • Kate Hall  
**Chief Executive** • Owen Davies

### ADVERTISEMENT TEAM

- Advertising Sales** • Sonia Smart  
Tel • 01689 869 919  
[sonia.smart@hifinews.com](mailto:sonia.smart@hifinews.com)

### SUBSCRIPTIONS

- New, renewals and enquiries...**  
**UK:** Tel • 0344 243 9023

(Calls are charged at the same rate as standard UK landlines and are included as part of any inclusive or free minute allowances. There are no additional charges with this number)

**USA/Canada:** Tel • (001) 866 647 9191

**Rest of World:** Tel • +44(0)1604 828 748  
Email: [help@hfn.secureorder.co.uk](mailto:help@hfn.secureorder.co.uk)

### WE LIVE AT...

**AVTech Media Ltd,**  
Suite 25, Eden House, Enterprise Way,  
Edenbridge, Kent TN8 6HF  
**UK and Overseas:**  
Tel • +44 (0) 1689 869 840

[www.hifinews.co.uk](http://www.hifinews.co.uk)



HI-FI NEWS & RECORD REVIEW, ISSN 2042-0374, is published monthly with an additional issue in October by AVTech Media Ltd, a division of MYTIME MEDIA Ltd, Suite 25, Eden House, Enterprise Way, Edenbridge, Kent TN8 6HF, UK. The US annual subscription price is 70GBP (equivalent to approximately 100USD). Airfreight and mailing in the USA by agent named Air Business Ltd, c/o Worldnet Shipping Inc., 156-15, 146th Avenue, 2nd Floor, Jamaica, NY 11434, USA. Periodicals postage paid at Jamaica NY 11431. US Postmaster: Send address changes to HI-FI NEWS & RECORD REVIEW, Worldnet Shipping Inc., 156-15, 146th Avenue, 2nd Floor, Jamaica, NY 11434, USA. Subscription records are maintained at [dsb.net](http://dsb.net), 3 Queensbridge, The Lakes, Northampton, NN4 7BF. Air Business Ltd is acting as our mailing agent.

# Audio Venue

bespoke audio visual consultants

# Serving Berkshire & London

Trade ins and interest free  
credit available

27 Bond Street, Ealing, London W5 5AS  
T 020 8567 8703 E w5@audiovenue.com

36 Queen Street, Maidenhead, Berkshire SL6 1HZ  
T 01628 633 995 | E info@audiovenue.com

[audiovenue.com](http://audiovenue.com)

**BRANDS INCLUDE** Anthem, Arcam, Audeze, Audio Research, Audiophile Base, Audioquest, Auralic, Astell & Kern Dagastone Inc, Bowers & Wilkins, Chord, Classe, Control, Control 4, Devialet, Esoteric, Focal, Hana, JL Audio, Kaleidescape, KEF, Koetsu, Krell, Luxman, Mark Levinson, Martin Logan, Michell Engineering, Musical Fidelity, Naim Audio, OPPO, PMC, Primula, Proac, Project, PS audio, Quadraspire, Questyle, Rotel, Ruark Audio, Sennheiser, SONOS, Sonus Faber, Spectral Furniture, Vertere Acoustics, Wilson Audio, Yamaha, and many more...

# new arrival



# signals

hi-fi for grown-ups

tel (01394) 672464

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

studio AV

# SURREY'S LEADING HI-FI DEMONSTRATION LOUNGE

Listening to music has never sounded so good.



# **UNRIVALLED BRANDS COUPLED WITH UNRIVALLED CUSTOMER SERVICE**

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

Home demonstration and part exchange welcome.

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



**Demonstrations by appointment at  
our studio in Elstead, Surrey**

07423 603035  
steve@ultimate-stream.co.uk ultimate-stream.co.uk

AWARD WINNING MUSIC SERVERS AND ACTIVE SPEAKERS



## LAST WORD

# OFF THE LEASH!

KEN KESSLER TELLS IT LIKE IT IS...

Tape masters destroyed and lacquer supplies cut by fires: **Ken Kessler** looks for a phoenix rising

**B**y now, those of you addicted to vinyl LPs will surely be aware of two unrelated but equally devastating developments that threaten both the future of the LP specifically, and of future remastering in general. For the latter, the 2008 fire that destroyed the 'vaults' owned by Universal Music Group obliterated the master tapes of countless artists – so far we don't yet know what was lost forever.

### UP IN SMOKE

Estimates range from 120,000 to 175,000 audio master tapes consumed in the conflagration. Among the artists whose back catalogues were decimated were Judy Garland, Bing Crosby, John Coltrane, Brenda Lee, Slim Harpo, Elmore James, Ella Fitzgerald, Duke Ellington, Count Basie, Elton John, Chuck Berry, Dizzy Gillespie, Peggy Lee, Bryan Adams, Nirvana, Tom Petty, Max Roach, Art Blakey, Doc Pomus, Johnny Ace, The Moonglows, Ricky Nelson, Petula Clark, Otis Rush, Miriam Makeba, Hugh Masekela, The Who, Joe Cocker, Billie Holiday, Pat Boone, Sidney Bechet, Betty Carter, Roland Kirk...

Deep breath (there's more): The Dixie Hummingbirds, The Carter Family, Dolly Parton, Glen Campbell, Sandy Denny, Three Dog Night, Charles Mingus, Crosby & Nash, Buffy Sainte-Marie, Phil Ochs, Joan Armatrading, Peter Frampton, Olivia

Newton-John, Barry Gibb, The Pointer Sisters, George Benson, Styx, Boston, Cher, Tom Jones, The Damned, Joe Jackson, Squeeze and too many others to list.

### COPY-CUTS

My personal all-time fave rocker is Buddy Holly. Almost all of his masters were lost. To reduce this to something more specific, to impress upon you the gravity of this catastrophe, the losses included the masters for classic singles including 'Rock Around The Clock', by Bill Haley And His Comets, Bo Diddley's 'Bo Diddley/I'm A Man' and 'Louie Louie' by The Kingsmen. We are talking about cultural milestones. It's like the loss of a great painting, leaving only extant reprints.

What does this mean? Clearly, the music isn't lost forever, as many millions of copies exist in myriad formats, and music lovers in the years to come can access all of the music on LP, CD, assorted tape formats, downloads, *et al.* But years

from now, when perhaps some mind-boggling new digital format is devised, labels will not have the original masters to access for the finest quality reissues. At best, they may have safety copies if they were kept off-site, but those are exactly that: *copies*.

What is more devastating in some ways is the wealth of unreleased material now never to be heard, including a rumoured load of Prince recordings. All of those 50th

'At best they might have safety copies: but just copies'

anniversary sets that have been taxing our disposable income of late, the ones with whole LPs or CDs full of worthy, fascinating, unreleased matter? Forget 'em. Unlike The Beatles, whose masters reside in the UK, and which were the source of phenomenal, extra musical pleasure for devoted fans by a long-defunct group, artists whose unreleased work was lost in the fire will never reach our ears.

Irony of ironies: those pre-recorded open-reel tapes I've been scoffing up by the dozens these past few years? They may one day perform a public service as the closest thing you can access to the original commercially-released sound...

Less devastating than the total loss of master tapes but certainly of great concern was another fire. It destroyed the Apollo/Transco factory in Banning, California, on the 6th of February. This was one of only two companies in the world producing the lacquers necessary for pressing LPs. The other, smaller concern, MDC in Japan, is already overstretched. Apollo/Transco is believed to account for 80% of lacquer production. And it gets worse: it was also one of only two companies producing the cutting styli, the other also in Japan.

### INDIES WILL LOSE

While Direct Metal Mastering is an alternative – it eliminates the lacquer stage – there are few facilities in Europe able to provide this, and there are those who simply prefer the sound of lacquer-based discs. Whatever role DMM might play, it looks like there'll be a shortage of lacquers for the foreseeable future, and it's likely that small, indie releases will suffer most.

As one industry veteran explained, when you have a back-up supply of a dozen fresh lacquers and a list of 20 new albums to prepare, of which a handful are only to be pressed in runs of 100 or 200 copies, which are you going to sacrifice? Those indie pressings, or a title by Adele or David Bowie issued in the many thousands?

Will Apollo/Transco arise from the ashes? You'd better hope so. If not, then expect a rush in the sales of LP cleaning machines, because we may have only used records to feed our addiction. ☺

**July Issue  
on sale 5<sup>th</sup> JUN**

### EXCLUSIVE TESTS:

- ➔ Goldmund Prana Wireless Speaker System
- ➔ T+A HA 200 DAC/headphone amplifier
- ➔ Vinnie Rossi L2i-SE tube amplifier
- ➔ Lumin D2 network-attached DAC
- ➔ Audio-Technica Kokutan headphones

### PLUS:

- ➔ Vintage Review: Philips CD960 CD player
- ➔ Hi-Fi@Home: Where are they now?
- ➔ Classical Companion: Seiji Ozawa, conductor
- ➔ From The Vault: We crack open HFN's archive
- ➔ Vinyl Icon: Eurythmics' 'Touch'



P S A U D I O

Pioneering world class audio products

**FREE  
UPGRADE**  
for all DirectStream DACs  
from PS Audio Windom  
now available!!

# PS Audio releases Windom firmware for DirectStream



**Windom is the newest upgrade for DirectStream and elevates the DAC's performance way beyond anything yet heard.**

**If you own a DirectStream DAC.**

Go to [www.psaudio.com/support/downloads/](http://www.psaudio.com/support/downloads/) and download either the DS or DSJ version of Windom and be prepared for awesome. Instructions for installing Windom on your DAC are there as well, It's that simple.

PS Audio's DirectStream DAC is the only DAC in the world that keeps on giving back to its owners for free. If you haven't yet experienced how great a DS is, it's easy enough to try one in your home.

*Signature*  
AUDIO SYSTEMS

Distributed by Signature Audio Systems, **call: 07738 – 007776**  
or by e-mail to: [info@signaturesystems.co.uk](mailto:info@signaturesystems.co.uk) Web: [www.psaudio.com](http://www.psaudio.com)

# ENOUGH SAID...

"Setting a new standard for tube amplification."

Jeff Dorgay - TONEAudio

EVO 400 Tube Preamplifier & EVO 400 Tube Poweramplifier

"Tube Magic."

Vade Forrester - The Absolute Sound

EVO 100 Tube Digital Analogue Converter

"It is in combination that the PrimaLuna Evo 300 duo shine. This isn't magic synergy or tweaking the response of one to suit the other."

Alan Sircom - HiFi Plus

EVO 300 Tube Preamplifier & EVO 300 Tube Poweramplifier

"The PrimaLuna EVO 400 Integrated surpasses its predecessor, the DiaLogue Premium HP Integrated, thereby inheriting the throne of the best integrated tube amplifier in the world"

Max Delissen - Music Emotion Magazine

EVO 400 Tube Integrated Amplifier



 **absolute sounds ltd.**

International Distributors & Consultants of Specialised Hi-End Audio & Video Systems

58 Durham Road, London, SW20 0TW

T: +44 (0)20 89 71 39 09

[absolutesounds.com](http://absolutesounds.com) [info@absolutesounds.com](mailto:info@absolutesounds.com)

 **PrimaLuna®**

For Your Nearest Dealer Please Visit

The **Absolute Sounds** Website