

# HI-FI WORLD

FEBRUARY 2021

UK £4.50

www.hi-fiworld.co.uk

**FREE READER CLASSIFIED ADS IN THIS ISSUE!**



## KEF LS50 META loudspeakers

**COMPETITION**



WIN A PAIR OF  
**WHARFEDALE EVO  
4.3 LOUDSPEAKERS**  
WORTH £999!  
(UK ONLY)

**FYNE AUDIO FI-5**  
loudspeakers **EXCLUSIVE!**



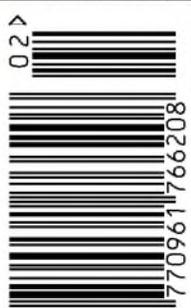
**ROTEL A11/ROTEL CD11 TRIBUTE**  
amplifier & cd player



**YAMAHA GT-5000**  
turntable



FEBRUARY 2021



9 770961 766208

- LONGDOG AUDIO LDA P6100M MONOBLOCK AMPLIFIERS
- KEITH MONKS PRODIGY RECORD CLEANING MACHINE
- ASTELL&KERN KANN ALPHA HI-RES PLAYER
- ESPRIT BETA LOUDSPEAKER CABLES



**ROHDE & SCHWARZ  
MEASUREMENT**



**SIX PAGES OF LETTERS - THE BEST WINS A PAIR  
OF KEF Q150 LOUDSPEAKERS! (UK ONLY)**

# Winning performance



**CHORD**<sup>TM</sup>  
COMPANY



## Audiophile quality at a realistic price

The multi-award-winning Chord Company cables feature the latest high-performance shielding and our unique ARAY technology, first introduced on our flagship products and now benefiting all ranges.

A wide variety of analogue and digital interconnects are available alongside high-performance speaker, tone arm, mains power and HDMI cables. We also supply stand feet, contact cleaner and the acclaimed English Electric 8Switch.

Proudly designed in England since 1985 by a dedicated team of music, cinema and game lovers. Used and recommended worldwide by a host of professionals, including record producers, studio engineers, musicians and hi-fi manufacturers.

Ask your nearest Chord Company retailer for a home demonstration/loan. Find out more: [www.chord.co.uk](http://www.chord.co.uk)



## EDITOR

Noel Keywood  
e-mail [editorial@hi-fiworld.co.uk](mailto:editorial@hi-fiworld.co.uk)

## DESIGN EDITOR

Faiza Chunara  
tel: +44 (0) 20 8206 6018  
e-mail: [adproduction@hi-fiworld.co.uk](mailto:adproduction@hi-fiworld.co.uk)

## PRODUCTION EDITOR

David Noble  
tel: +44 (0) 20 8206 6017  
e-mail: [classifieds@hi-fiworld.co.uk](mailto:classifieds@hi-fiworld.co.uk)

## SALES MANAGER

Louise Palfrey  
mob: +44 (0) 7917 047 548  
e-mail: [louise@hi-fiworld.co.uk](mailto:louise@hi-fiworld.co.uk)

## ADVERTISING EXECUTIVE

Rose Williams  
mob: +44 (0) 7956 885 189  
e-mail: [rose@hi-fiworld.co.uk](mailto:rose@hi-fiworld.co.uk)

## PUBLISHER

Noel Keywood  
e-mail: [publisher@hi-fiworld.co.uk](mailto:publisher@hi-fiworld.co.uk)

## FREE READERS CLASSIFIEDS

tel: +44 (0) 20 8 206 6017  
e-mail: [classifieds@hi-fiworld.co.uk](mailto:classifieds@hi-fiworld.co.uk)

## SUBSCRIPTIONS

tel: +44 (0) 1442 820 580  
fax: +44 (0) 1442 827 912  
e-mail: [hifiworld@webscribe.co.uk](mailto:hifiworld@webscribe.co.uk)

## PHOTOGRAPHY

David Noble  
tel: +44 (0) 20 8206 6017

## WRITERS

Paul Rigby, Martin Pipe, David Tutt,  
Chris Frankland, John Pickford,  
Kulwinder Singh Rai.

## hi-fi world

Audio Web Publishing  
Studio 204,  
Buspace Studio,  
Conlan Street,  
London W10 5AP  
[www.hifiworld.co.uk](http://www.hifiworld.co.uk)

## verdicts

●●●●●	<b>OUTSTANDING</b>
●●●●	<b>EXCELLENT</b>
●●●	<b>GOOD</b>
●●	<b>MEDIOCRE</b>
●	<b>POOR</b>
£	<b>VALUE</b>



**S**mall loudspeakers get ever larger in ability. And that's just as well because I suspect an increasing number of today's music listeners find large loudspeakers unacceptable in the home. I suppose it is all a case of floor space, of which there is little in the average UK home.

Small speakers are the answer to small rooms and this month we have two of them. One is a successor to the Tannoy marque, from Scottish company Fyne Audio – the beautifully finished FI-5s that you'll find reviewed by John Pickford on p44. Not only is this 'speaker suitable for small rooms, it is a 'point source' where treble fires out from the centre of the bass cone, giving focus and image coherence.

Another small but acclaimed loudspeaker is KEF's LS50. It too is a 'point source' with tweeter at centre of bass/midrange cone. But KEF have just upgraded this little rocker with Meta Material behind the tweeter – and it works. Big thumbs up from the Hi-Fi World staff and likewise from reviewer John Pickford, in a review that appears on p10.

Acclaimed Japanese Marantz engineer Ken Ishiwata was tweaking Rotel products before he died recently. Rotel finished the process and have released a Tribute amplifier and CD player that you can read about on p58, reviewed by Chris Frankland. As always with Rotel, affordable but reliably good.

Talking about Japanese products brings me to Yamaha's high-end GT-5000 turntable that I review on p82. Bit of a strange one here. Not really what it appears, with a curious tone arm and bluffly simple yet extremely effective belt-drive system. All on an MDF plinth. Yamaha have a fabulous reputation for delivering fine sound and the GT-5000 did just that, in spite of its technological curiosities. Showing how today's products can still surprise.

As we head into 2021 – hopefully redeemed by vaccines – time at home can be enjoyable courtesy of fine hi-fi products that give musical enjoyment. I hope you enjoy reading about them in our great February 2021 issue.

**Noel Keywood**  
**Editor**



## testing (see [www.hifiworld.co.uk](http://www.hifiworld.co.uk) for full explanations of all our tests)

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

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

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

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



## ELECTRONIC MAGAZINE

Go to our website [www.hifiworld.co.uk](http://www.hifiworld.co.uk) to buy an electronic version of this magazine, individual issues, back issues or a subscription.

Distributed by Select Publisher Services Ltd. P.O. Box 6337, Bournemouth, BH1 9EH UK Tel +44 (0) 1202 586848  
Printed by Precision Colour Printing Halesfield 1, Stirchley, Telford TF7 4QQ, United Kingdom Tel: +44 (0) 1952 585585

Our Agents in Malaysia Millennium Hi-Fi & AV Simon Chang Showroom & office, 500-1-3 First Floor Wisma Indah (Shen Court), Jalan Tun Razak 50400 Kuala Lumpur, Malaysia  
Tel: 603 9283 8171 Fax: 603 9281 3762 e-mail: [info@millennium-audio.com](mailto:info@millennium-audio.com)

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

# contents



## LOUDSPEAKERS

### KEF LS50 META LOUDSPEAKERS 10

John Pickford looks at a new, small coaxial point-source 'speaker using Meta Material.

### FYNE AUDIO FI-5 LOUDSPEAKERS 44

Another small, concentric, point-source loudspeaker gets John Pickford's attention.

## DIGITAL

### ASTELL&KERN KANN ALPHA PLAYER 21

Noel Keywood looks closely at a high quality digital audio player featuring two ESS DACs.

### ROTEL A11 TRIBUTE AMPLIFIER/ ROTEL CD11 TRIBUTE CD PLAYER 58

Chris Frankland reviews a Ken Ishiwata Tribute tuned amplifier and CD combo.

## AMPLIFICATION

### LONGDOG AUDIO LDA P6100M MONOBLOCK AMPLIFIERS 16

New compact power amplifiers from a UK specialist have Noel Keywood intrigued.



# FEBRUARY 2021

VOLUME 30 : NO. 12

## CABLES

### 41 ATLAS AILSA RCA CABLES

From Atlas in Scotland come RCA interconnects, reviewed by Martin Pipe.

### 56 ESPRIT BETA LOUDSPEAKER CABLES

Kulwinder Singh Rai listens to cables with Gallic charm.

## OLDE WORLDE

### 35 VIDEOLOGIC DRX-601E DAB TUNER

Martin Pipe looks at an old DAB tuner from Vidologic.

## VINYL

### 80 NEWS

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

### 82 YAMAHA GT-5000 TURNTABLE

A high-end design with straight arm. Noel Keywood investigates.

### 89 KEITH MONKS PRODIGY RCM

Martin Pipe puts his LPs through a new bamboo Record Cleaning Machine.

### 93 AUDIOPHILE BOOK

Little White Wonder, a book on the Dutch bootleg business, reviewed by Paul Rigby.



## REGULARS

### 7 NEWS

Words from the world...

### 26 MAIL

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

### 25 COMPETITION

Your chance to win a pair of Wharfedale EVO 4.3 loudspeakers worth £999.

### 38 SUBSCRIPTIONS

Ensure your copy every month and save money too!

### 50 WORLD STANDARDS

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

### 64 AUDIOPHILE VINYL

Paul Rigby rounds up the latest audiophile vinyl releases.

### 67,69,71,73 OPINION

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

### 74 WORLD CLASSICS

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

### 95 CLASSIFIEDS

Second-hand bargains.

### 96 NEXT MONTH

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

### 97 ADVERTISERS' INDEX

### 98 CLASSIC CUTS

Summerteeth, an 1999 album from Wilco, reviewed by Paul Rigby.



Hi Fi World "Best Valve Amplifier" NEW Stereo 40 MK IV £2499

*designed by David Shaw*

Innovative Designs From Icon Audio

option available

NEW HP205D DHT Headphone Amplifier £2999

New Upgraded Model. Now With Headphone Socket

High Definition With The Relaxing Sound Of WE Vintage Directly Heated Triodes

60 + 60 Watts Triode  
115 + 115 Watts UL  
New Tung Sol KT150  
£4299 pr

Stereo 300 MK II £3999

MB90 MK II m Monoblock Power Amplifiers many features

Sublime Sound From Vintage 300B Triodes

Stereo 25 MKII from £1399

Stereo 30se £2499

PS1 MKII MM/MC £1549

Simplified ST40 30W UL, HQ Headphone Socket

Single Ended Pure Class A, 28W UL, 18w Triode

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:

<p><b>Audio Gold</b> Crouch End, London Tel: 0208 341 9007 Web: www.audiogold.co.uk</p>	<p><b>Wilkinsons Hi Fi</b> Nelson Lancashire Tel: 01262 612901 Web: www.wilkinsons.tv</p>	<p><b>Shropshire Hi Fi</b> Shrewsbury SY2 5EF Tel: 01743 232317 Web: www.smcsoundandvision.co.uk</p>	<p><b>Audio Affair</b> Birmingham, B9 4AA Tel: 0121 224 7351 Web: www.audioaffair.co.uk</p>
<p><b>Analogue Seduction</b> Whitlsey Peterborough Tel: 01733 350878 Web: www.analogueseduction.net</p>	<p><b>Lighting Sound &amp; Vision</b> Coleraine, Northern Ireland BT52 1BE Tel: 028703 42354</p>	<p><b>Canada: Audioarc</b> Barrie, Ontario, Canada Tel: +1 249 880 5040 Web: www.audioarc.com</p>	<p><b>Denmark: High End Sound</b> Vodskov 9310, Denmark Tel: +45 9829 2448 Web: www.highend-sound.com</p>
<p><b>Germany: TCG Handels GmbH</b> Nordhorn 45831, Germany Tel: +49 (0) 5921 78849 27 Web: www.tcg-gmbh.de</p>	<p><b>Netherlands: Hi Fi Matters BV</b> Rijswijk 2288EV, Netherlands Tel: +31 (0) 70 3193936 Web: www.hifimatters.nl</p>	<p><b>Spain: Union Musical Casa Werner</b> Barcelona 08010, Spain Tel: +34 933 021 792 Web: www.werner-musica.com</p>	<p><b>USA: Music Direct</b> Chicago, IL 60660 USA Tel: +1 800 449 8333 Web: www.musicdirect.com</p>

**0% APR Interest Free Credit**  
Purchases over £1120 ask for a quotation\*

**B GRADE & EX-DEMO BARGAINS!**  
Technically perfect Fully Guaranteed. Addition in our Leicester showroom. Most models available. See our website, email or ring for availability. Subject to availability\*. Prices vary.

We are open and working normally (as far as possible). Visitors are welcome please contact first for up to date Covid 19 information.

UK Prices only inc 20% VAT\* Limited stock subject to availability UK only. Some models show upgraded valves. E&OE.

www.iconaudio.com sales@iconaudio.com



(+44) 0116 2440593 351 Aylestone Rd Leicester LE2 8TA UK

email:news@hi-fiworld.co.uk

# news

## DON'T DILLY DALI

Danish loudspeaker manufacturer Dali has updated its popular OPTICON range.

The OPTICON MK2 series comprises six models, all fully manufactured in-house in the DALI factory in Denmark. The series introduces a new in-house designed and manufactured 29mm soft dome tweeter surrounded by a new die-cast aluminium faceplate, which has been derived from the CALLISTO series to ensure a consistent sonic signature across the range.

Other improvements include newly developed wood fibre cones with the darker signature colour, while the drivers incorporate SMC (Soft Magnet Compound) technology derived from the DALI EPICON series.

Four of the new models feature Dual Flare reflex ports to ensure a smooth non-turbulent flow through the speaker. The crossovers have been completely redesigned due to the changes with the new tweeters, drivers and the revised porting system. Further details [uk@dalispeakers.com](mailto:uk@dalispeakers.com)



## ARE YOU EXPERIENCED?

Leak's new Stereo 130 amplifier is featured in a recreation of Jimi Hendrix's late 1960s hi-fi system. Since the exhibition of the Hendrix Flat opened permanently to the public in 2016, visitors from all over the world have been making the pilgrimage to 23 Brook Street in London to see the place the greatest guitarist of all time called home. Up until now the exhibition has never had functioning models of Hendrix's original audio setup but now it will be possible to play records from Jimi Hendrix's collection inside the very room where the '60s icon himself used to listen to and write music.



For this project Bang & Olufsen donated a fully-functioning original 1960s Beogram 1000 turntable; Lowther supplied a set of their restored Acousta 115s developed in the 1960s, the exact model owned and used by Jimi Hendrix. To complete the setup, Leak sent one of their new Leak Stereo 130 integrated stereo amplifiers, modelled on the classic Stereo 30 from 1963 that Hendrix used.

Further details: <https://handelhendrix.org/learn/about-hendrix/recreating-jimi-hendrixs-home-audio-setup/>



## SIX OF THE BEST

Six new products showcase Cyrus's dedication to power, performance and world-class sound quality. The XR series is positioned towards discerning audio enthusiasts, featuring two integrated amplifiers with DACs (the i7-XR and i9-XR), a preamp (Pre-XR), two CD players (the CDt-XR transport and the integrated CDi-XR) and an external power supply (the PSU-XR).

We are told "a fundamental step change in design approach for XR series has been possible due to an accumulated understanding of DAC technologies and power supply designs, combined with recently updated manufacturing processes and the availability of higher-grade components. While faithful to the Cyrus core acoustic philosophy, the XR series is designed to provide remarkable sound quality benefits and substantially increased dynamic range".

Simon Freely, Managing Director of Cyrus said "Our unique approach to power, coupled with the many innovations in DAC design, circuit topology and a whole new user interface, catapult Cyrus into a whole new level of performance and quality". Prices TBA

Further details [www.cyrusaudio.com](http://www.cyrusaudio.com)



## CLOSE TO THE EDGE

Cambridge Audio has added the Edge M monoblock power amplifier to its acclaimed high-end Edge series to celebrate their 50-year history and the company's mission of creating products that bring the "Great British Sound"

The new Edge M (£3,999) takes the principle designs of the existing Edge W power amplifier and applies it to a monoblock design, delivering twice the power with less distortion. Edge M retains the characteristics of its Edge W stereo counterpart but as each unit drives a single speaker, the power output is doubled to 200W RMS into 8 Ohms.

Cambridge Audio's unique Class XA amplification format used in Edge A and Edge W amplifiers is also found in Edge M Class XA amplification technology, offering the sound quality of a Class A design, but is more efficient as it produces less heat, and shifts the crossover point out of audible range.

Edge M uses opposing symmetry twin toroidal transformer design, which cancels out stray electromagnetic interference. With Edge M fully balanced from input to output, this helps make it immune from noise and distortion.

Further details: [www.cambridgeaudio.com](http://www.cambridgeaudio.com)



## WELL IT'S 1959 OKAY

Fans of retro sound equipment are in for a treat as Danish audio brand Eltax takes a nostalgic look back at the imposing monitor speakers of the '70s, to create their new 'vintage' design loudspeaker.

A 3-way bass reflex, twin front-ported loudspeaker, the Vintage PWR 1959 is equipped with a newly designed 38cm diameter cellulose bass driver, a 16cm diameter cellulose midrange and two horn tweeters with 25mm diameter domes.

The floor-standing walnut veneer cabinet benefits from multiple reinforced braces including a separate enclosure for the midrange drive unit. With high sensitivity and very large power handling, this new Eltax loudspeaker explores the lower frequencies with impact down to the lowest bass notes, supported by accuracy within the midrange and effortless clarity of its treble, allowing the

listener to experience the music with live concert-like audio reproduction expected of a large, true monitor speaker. Priced at £899 per pair.

Further details: [www.neil@ioscompany.co.uk](mailto:www.neil@ioscompany.co.uk)

## IN SEARCH OF THE LOST CHORD

Chord Company has launched C-jack, a mini jack (3.5mm) audio cable, designed to bring famous Chord Company quality to any device with a 3.5mm line output. C-jack connects everyday devices including phones, tablets, laptops and DAPs.

C-jack distils 35 years of British A/V cable manufacturing expertise into an affordable music cable that's not just for audiophiles.

The new cable uses many Chord Company proprietary technologies, including the coveted ARAY conductor tech, first developed for the company's flagship Sarum T interconnect (from £2,100). C-jack's high-specification cable is also shielded to reduce high-frequency noise pick-up from today's wi-fi congested homes and spaces.

Further features include high-quality over-moulded gold-plated plugs, a narrow-profile mini jack design (for difficult-to-access 3.5mm sockets).

C-jack is available now in 3.5mm-3.5mm and 3.5mm-twin RCA configurations and a choice of three standard lengths: 0.75m (£40), 1m (£50) and 3m (£70).

Further details: [www.chord.co.uk](http://www.chord.co.uk)



## STOLEN GOODS

Beware if you are offered a Project Audio Systems turntable at a knock-down price as it may well be stolen. Sixty eight turntables went missing in transit and Henley Audio's Operations Director Simon Powell has issued the following statement:

"Unfortunately some level of theft is common in our industry, however, the sheer quantity of product stolen in one time on this occasion has meant we need to make others aware of the situation. The models affected are amongst our best sellers, so we have a duty of care to ensure our customers are aware when they may actually be purchasing stolen goods.

We always encourage customers to only purchase from authorised resellers – and generally that message works. However, it is likely now some illegitimate sources will begin to appear at a time when stock supply is generally short as part of the ongoing effects of the pandemic".

Serial numbers of the stolen turntables are published on Henley Audio's website.

Further details [www.henleyaudio.co.uk](http://www.henleyaudio.co.uk)

## TOP TEN

Absolute Sounds is launching a new distribution concept called Ten – a hand-selected portfolio of extraordinary sonic creations curated by company MD Ricardo Franasovici.

Ten will not necessarily carry a featured maker's full range. Instead, each piece is selected for its outstanding individual attributes.

The first piece selected for Ten comes from New York City's DeVore Fidelity – a loudspeaker named Orangutan 96, or O/96 for short. A wide-baffle, high-sensitivity loudspeaker, the '96 in its name alludes to its quoted sensitivity of 96dB, making it an ideal match for low-powered valve amplifiers.

The O/96 incorporates a bespoke mid/bass driver with a 25cm wood fibre cone and a motor system developed from DeVore Fidelity's Silverback Reference drivers. This combines with a 25cm silk-dome tweeter built into a concave flange that lends a subtle horn-loading effect, driven by a powerful double-motor magnet system with a tuned chamber at the rear.

The baffle is fronted by a choice of richly patterned veneers and paint finishes are also available. Priced from £13,500 including stands.

Further details: [www.absolutesounds.com](http://www.absolutesounds.com) + 44 (0)20 8971 3909, [www.devorefidelity.com](http://www.devorefidelity.com)



## BEST FOOT FORWARD

Bassocontinuo, the Italian specialist equipment support manufacturer, has launched Ultra Feet, the world's first fully lab-tested isolation feet, offering measurement backed vibration protection for audio replay devices.

Ultra Feet have been designed to reduce the damaging effects of vibration in audio equipment. Placed beneath devices (available in sets of three or four), they use advanced energy-absorbing materials that disperse vibration as heat.

Engineered to protect and enhance almost any piece of audio equipment, Ultra Feet are available in four different 'levels' or load-rated options (Levels 2-5) and are priced from £127 (set of 3) and £159 (set of 4).

Ultra Feet's upper-level models use Technogel®, a unique 'soft-solid' polyurethane material that combines the 3D deformation properties of a fluid and the memory-shape properties of a solid body, offering consistent performance over its lifespan. Bassocontinuo has once again partnered with Vicoter, the Italian vibration-control consultant, in collaboration with the prestigious University Politecnico in Milan, to conduct accelerometer-based laboratory testing, the results of which can be seen on the company's website: [www.bassocontinuo.biz/ultra-feet/](http://www.bassocontinuo.biz/ultra-feet/) or [info@finesounds.uk](mailto:info@finesounds.uk)



## SONUS FABER TO THE MAX

Iconic Italian loudspeaker manufacturer, Sonus faber, has launched the Maxima Amator, a new two-way design that echoes many of the classic Sonus faber two-ways of the past, yet introduces contemporary speaker technology.

The new floor-stander benefits from a solid walnut cabinet, which has been designed using modern woodworking methods. The speaker uses the same drivers as the Electa Amator II: a 28 mm D.A.D. (Damped Apex Dome) tweeter with Neodymium magnetic motor system and a solid spruce wood acoustic labyrinth rear chamber, plus a 180mm mid-range unit with an air-dried membrane made of cellulose pulp and natural fibers, mounted on a Sonus faber original design die-cast aluminum basket. Sonus faber has developed a new crossover technology especially for the Maxima Amator. The IFF Crossover (Interactive Fusion Filtering) design foregoes a conventional first order design, with non-academic transfer functions based on the company's accelerated progressive slopes. Price £14,500.

Further details: [www.info@finesounds.uk](http://www.info@finesounds.uk)



# Meta Made

KEF's popular LS50 gets a facelift to Meta form. John Pickford pricks up his ears.

**K**EF's Uni-Q driver array has been the centrepiece of the LS50 for ten years, the original model first appearing in 2011. I had the privilege of hear-

ing the Uni-Q driver system slightly earlier than that – when it featured in KEF's Concept Blade loudspeaker, launched at the Bristol Hi-Fi Show in 2010. I didn't book myself in for the show demo – never an ideal

listening environment – as I knew they would later be heading to the show organiser's acoustically tailored listening room and an invitation would be forthcoming. Attached to top-of-the-range Naim electronics,





**The 12th generation Uni-Q unit now incorporates MAT technology to absorb 99% of unwanted sound from the rear of the tweeter.**

they produced a full-range yet utterly focused sound that remains one of my all-time favourite listening experiences; I'll never forget it.

When the first LS50s became available I made it my business to hear a pair and shortly thereafter recommended them to a friend who still uses them with no intention of changing.

The new LS50 Meta shares the visual style of the older model but there have been many significant improvements, not least in the Uni-Q driver array, now in its 12th generation. The word Meta is important here. One definition of Meta is 'referring to itself or to the conventions of its genre; self-referential', which makes perfect sense when you look at the lineage of this new loudspeaker, however that's not the reason for its appendage here.

Metamaterial Absorption Technology (MAT) is the main improvement in the Uni-Q design and is a joint development with the Acoustic Metamaterials Group. I could provide a lengthy explanation of this technology but it would make your eyes water. I'll leave it to KEF to give the concise report: "Metamaterials are specially developed structures that use existing materials in such a way that they exhibit new, desirable properties that are simply not found in naturally occurring substances". All clear? In practice, MAT works by absorbing

99% of the unwanted sound produced at the rear of the tweeter, reducing distortion to vanishingly low levels, for a cleaner and more accurate sound.

Other improvements are evident in both the cabinet and the rear-firing flexible port, making use of state-of-the-art technologies, three of which also boast their own 3-letter acronyms.

"A superb example of point source performance, a master-class in coherence, articulation and focus."

Technical innovations aside, the LS50 Meta remains a 2-way bookshelf loudspeaker inspired by the legendary BBC LS3/5a monitor. KEF produced the drivers for that classic design but that's where comparisons end. Most LS3/5a wannabes follow its conventional design principles - separate woofer and tweeter housed in a traditionally styled infinite baffle (sealed box) cabinet. The Meta is no ordinary foursquare box design; its curved dimensions are not only sleek

and stylish but also ensure ultimate performance.

Available in four silky matte finishes; black, grey, white and the Royal Blue Special Edition of our review samples, the LS50 Meta sports a contemporary modern look quite unlike wooden BBC-type designs. Those who find the form and finish of the LS3/5a to be dull or even dowdy will appreciate the more

high-tech visual appeal. They certainly look cool in blue with champagne-coloured Uni-Q drivers, though my friend's original black and copper LS50s have earned themselves a 2-word nickname from me too rude to print here. Let's just say they remind me of the rear view of one of our feline friends with its tail raised.

Dedicated stands are available but not supplied for review so the LS50s replaced my LS3/5as atop Target stands, 7-inches from a rear



**The flare and profile of the offset port is calculated to delay the onset of turbulence and the flexible port walls prevent resonances from colouring the midrange.**



**Foam port bungs are provided to tailor bass to room. Useful when positioned close to a rear wall, reducing possible room boom.**

wall and toed-in just enough for the cabinet's inner surface to be visible.

**SOUND QUALITY**

Auditioned primarily in the all-analogue domain – Goldring Lenco GL75, Denon DL103, Leema Elements Ultra phono stage and the current Naim Nait – I eagerly cued-up my first LP.

Out And In from The Moody Blues' To Our Children's Children's Children (Threshold 1969) is a lovely Decca studio recording with a surprisingly modern sounding stereo mix – no wacky hole-in-the-middle 60s stereo here. Through the LS50s, the track was masterfully delineated in perfect proportion, presenting a wide and deep soundstage that betters the LS3/5a's imaging capabilities by some degree. Filigree detail was revelatory, allowing me to hear a strummed acoustic guitar usually buried beneath a sea of Mellotron, while tonal balance was spot-on. Bass, aided by near rear wall placement, was deep and expressive yet also fast and fluid with no boom or audible overhang. Midrange clarity was outstanding too, with no disconcerting honks or artifice of any kind, while integration of bass, middle and upper frequencies was seamless; a brilliant performance.

Laura Marling's Alexandra from her 2020 album Song For Our Daughter (Partisan Records) is a recording in the style of singer/songwriters from the Moodies' era (think Joni Mitchell) but with a modern, up-front production style. Here, the LS50's impeccable timing and control was on display, with no smearing of the leading edges of acoustic guitar and percussion. This wasn't at the expense of body and soul as these speakers can play a tune and cut a rug with the best of them.

Playing some forward thinking

(for 1959) jazz courtesy of Ornette Coleman's The Shape Of Jazz To Come (Atlantic 1959) confirmed the LS50's ability to faithfully replay acoustic music convincingly. I welcomed some honk in the midrange listening to this LP; that's how the recording should sound. Smooth as they are, the LS50s do not smooth over tone or dynamics present in the original recording.

**CONCLUSION**

For my money the new LS50 Meta is the best small speaker currently

**MEASURED PERFORMANCE**

Our frequency response analysis of KEF's LS50 Meta clearly shows this is a very well engineered loudspeaker, running almost academically flat from 80Hz to 16kHz. The lack of peaks and dips indicates low level of narrow band mechanical/acoustical resonances, so low colouration. That makes the LS50 Meta technically a very accurate reproducer. There is some slight lift around the 4kHz-5kHz region, enough to ensure a sound on the bright rather than dark side, but with strong delivery of detail. A modern forward sound balance rather than a traditional one.

The port output (red trace) is tuned to 50Hz, extending output down to 40Hz, so deep bass is possible. The forward response has been proportioned for near wall use, rolling down below 80Hz to lessen the effect of room resonances (room boom). The KEFs are for small to medium sized rooms, no larger than 16ft long or so. They are not bass heavy our analysis show.

Sensitivity was as expected at 84dB sound pressure level from one nominal Watt (2.8V) of input; a 100 Watt amplifier would be best. As a load the LS50 Metas measured 6 Ohms with

available at the £1,000 price point. They are playing as I write and the LS3/5a pair shall remain silent until it's time for them to go. A superb example of point source performance, they offer a master-class in coherence, articulation and focus. That's not a keyhole surgery, small-scale type of focus though, as they effortlessly fill a (smallish) room with a wonderfully all-of-a-piece sound. The best just got better.

**NOEL SAYS -**

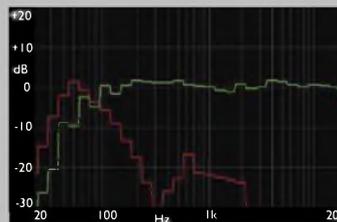
I listened to the LS50 Meta's and was immediately drawn to fabulous filigree detailing in the treble; the benefit of Meta technology is quite obvious. As measurement suggests they do not have a warm sound, but are lively and vivacious in modern fashion, spectacularly clean and revealing. Impressive, especially at the price.

pink noise, dropping to a minimum of 4 Ohms (dcr). The impedance trace shows crossover to the tweeter occurs at 2.5kHz and also a port tuned to 55Hz, somewhat asymmetrically. Inserting the foam bung supplied negated port action, raising drive unit resonance to 85Hz.

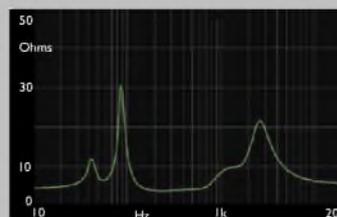
The LS50 Meta is very accurate in tonal balance, but it will come across as bright. Smoothness at high frequencies suggests quality treble. **NK**

**FREQUENCY RESPONSE**

Green - driver output  
Red - port output



**IMPEDANCE**



**KEF LS50 META £999**



**OUTSTANDING - amongst the best.**

**VALUE - keenly priced.**

**VERDICT**  
Superb sound far beyond their size and price.

- FOR**
- coherence and articulation
  - accuracy of tone
  - robust bass quality
  - uncoloured midrange
  - clean and extended treble

**AGAINST**  
- nothing at the price

KEF  
+44 (0)1622 672261  
www.Uk.kef.com



website: [www.jordanacoustics.co.uk](http://www.jordanacoustics.co.uk)

tel 01202 911 886 email [ask@jordanacoustics.co.uk](mailto:ask@jordanacoustics.co.uk)

*Sonus faber*

MAXIMA AMATOR



**NEW**  
model from  
Sonus faber



**Sonus faber Maxima Amator**

Floorstanding  
Loudspeakers (pair)  
**£14,500**

**0% FINANCE EXAMPLE\***  
Initial 20% deposit of  
**£2,900**, then **£386.67**  
per month for **30 months\***

\*0% Finance examples shown are subject to status & conditions



## Awarded Best Hybrid Amplifier of the year by Hi-Fi World

“The MA352 is an amplifier that we thought was glorious in both appearance and sound; it had to be an Award Winner for 2020.”



### McIntosh MA352

Hybrid Integrated Amplifier  
**£8,495**

**0% FINANCE EXAMPLE\***  
Initial 20% deposit of  
**£1,699**, then **£226.53**  
per month for **30 months\***

Visit [www.jordanacoustics.co.uk](http://www.jordanacoustics.co.uk) to find out more

# The Long Doggies?

Monoblock power amplifiers from specialist LongDog Audio capture Noel Keywood's attention.



**H**ere's a specialist 100 Watt power amplifier that isn't specialist. It's an audiophile design that uses latest developments in transistors but is right down the line in electronic engineering terms, even in front – that's why it measured so well and sounded so good. There's a price to pay – £3500 per pair – but it's not possible to say the Longdog Audio LDA P6100M monoblock power amplifiers cannot justify that.

What Longdog's Nick Gorham says about the P6100M is that it follows conventional design practice but instead of using multiple pairs of low power output transistors in load-sharing arrangement, it uses single devices that do a better job. These transistors are high power MOSFETs from Ixys, linearised to be suitable for audio. And that's unusual. High power MOSFET transistors are common in heavy switching circuits to control big electric motors and suchlike, but not in audio because they produce too much distortion.

Since heavy power switching is a larger market

than audio, there's little commercial incentive to produce a high power MOSFET with what is termed a 'linear transfer characteristic'. But as the production technology of such devices has progressed Ixys have come up with suitable devices – first used by Longdog Audio in their P6 power amplifiers (£7500) we reviewed in the April 2018 issue. The new P6100Ms produce similar power but in a much smaller case and at half the price.

MOSFETs are wide bandwidth transistors, so when feedback is applied as much is available at high frequencies as low frequencies, allowing high frequency crossover distortion to be suppressed. That's why MOSFETs are popular in audio use; distortion can be virtually eliminated, albeit by use of heavy feedback.

But using multiple devices introduces matching and thermal tracking problems. All such matters are dealt with internally in the particular Ixys MOSFETs within the P6100M, Longdog say. So there are only two devices per amplifier, one to push, the other to pull.

I have spoken to Nick Gorham many times at The Bristol Show where he enthusiastically

heads up the Longdog stand and know he is not only a knowledgeable electronics engineer but also an audiophile able to understand the subtleties of amplifier behaviour that affect sound quality, plus the skill to make subjective assessments of sound quality – as you have to in real life with audio equipment. It isn't all about theory and measurement. Explaining the fact that these power amplifiers are not just heavy sloggers able to deliver high volume, they are audiophile designs using appropriate components and design techniques.

A useful 100 Watts is available, plenty enough for most situations, but case size is kept within acceptable domestic proportions of 430mm wide, 260mm deep and 110mm high, and weight an easily handled 8.5kg. Since a 19in standard rack is 482mm wide, they will fit, but only one per shelf. The cases are non-magnetic aluminium to avoid hysteresis distortion being induced by magnetic fields. The output stages run in Class A at low output and the heatsinks get gently warm, so Class A on normal running but Class A/B on musical peaks, as per usual. But the MOSFETs used are linear over a broad power range so there was no change in distortion pattern from low to high power, measurement showed.

The rear panel carries balanced XLR inputs and unbalanced phono socket inputs, a small toggle switch choosing between them. Input sensitivity is a standard nominal 1V into both, making any preamplifier suitable. The internal power supply is a conventional linear design (not switch-mode) with toroidal mains transformer. There are protection circuits and long-stop slow-blow fuses.

What's missing? You get only one pair of loudspeaker terminals so bi-wiring is awkward, and there is no headphone output, no remote control and no volume control.

## SOUND QUALITY

I connected the P6100Ms to our Martin Logan ESL-X hybrid electrostatic loudspeakers through Chord Company Signature Reference cables. They were fed from the balanced outputs of our Oppo UDP-205D universal player from its internal ESS ES9038PRO DAC, for a clean source, using Chord Company Epic XLR terminated cables. Hi-res was fed in, via optical connection (QED Quartz), from an Astell&Kern AK120 portable



AUDIO ANALOGUE  
soundpleasure



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

- James Parker/Paul Miller, HiFi News

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

t: +44 (0) 56 0205 4669  
e: [info@decentaudio.co.uk](mailto:info@decentaudio.co.uk)  
[www.decentaudio.co.uk](http://www.decentaudio.co.uk)

**DECENT AUDIO**  
sound distribution  
OFFICIAL UK DISTRIBUTOR



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

- Chris Martens, HiFi+



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

t: +44 (0) 56 0205 4669  
e: [info@decentaudio.co.uk](mailto:info@decentaudio.co.uk)  
[www.decentaudio.co.uk](http://www.decentaudio.co.uk)

**DECENT AUDIO**  
sound distribution  
OFFICIAL UK DISTRIBUTOR



**A large toroidal mains transformer (bottom left) feeds smoothing capacitors on the supply board (above).**

player run from its battery to avoid ground noise.

With the Pink Panther Theme (uncompressed CD) the saxophone was well fleshed out and crisp in outline. Fine cymbal taps were made obvious and I got the sense of strong inner detailing. A dry, controlled sound, rather than big and warm, but very nimble.

With Loreena McKennitt's The Gates Of Istanbul, the introductory bass line was held in vice-like grip, coming across as strong but not overblown. The P6100Ms are not warm in balance, so much as crisp and vivid. The pounding bass synth in Safri Duo's Samb Adagio rocketed from the 'speakers, with no overhang or waffle: the word "grip" came to mind.

When I spoke to Nick Gorham about these amps and his design philosophy, he told me that a subtle difficulty he tries to minimise is that of memory effects in devices and I have to say that the sheer bass speed and resolution of high frequency detail – the spacing between transients – was a stand out feature our ESL-X electrostatics made plain. So with these amps think clear and forward upper mid-band, an open and detailed sound, not glassy or hard but strongly etched all the same. Cuddly – no. Vivid – yes.

Time for LP I thought – to introduce some analogue warmth. For this the amps were fed direct from our Icon Audio PS3 Mk2 valve phono stage (which has a volume control), via Chord Company Epic phono interconnects. Turntable was our Timestep Evo Technics SL-1210 Mk2 Direct Drive with SME309 arm and Audio Technica VM750 SH (Shibata) moving magnet cartridge. A totally silent system with no sign of

hum or hiss, and the P6100Ms were completely silent at switch on and off.

Spinning Dire Straits 'So Far Away', on Mobile Fidelity's 45rpm cut of

'Love Over Gold' again brought out the incisive speed of these wideband amplifiers. I could hear every fine intonation within Mark Knopfer's vocals and the drum rolls raced along. His guitar cut out strongly. My notes say "incredibly fast and tight"; the warmth of this LP was exchanged for precision.

**CONCLUSION**

The Longdog Audio LDA P6100M monoblock power amplifiers are speedy in their sound and highly analytic. With enormous insight and massive grip they certainly impress. I found them very easy to set up and use, with absolutely no foibles: just press and play. You then get to hear it all. They lack warmth, making them best suited to fulsome loudspeakers, but their superb grip and insight more than make up for this, to those that want to hear it all.



**A neat rear panel with IEC mains input at left, one pair of sturdy gold plated loudspeaker sockets and, at right, phono socket and XLR inputs.**

**MEASURED PERFORMANCE**

The Longdog Audio LDA P6100M power amplifier produced 100 Watts into 8 Ohms and 156 Watts into 4 Ohms – enough power to go very loud. Output impedance measured 0.1

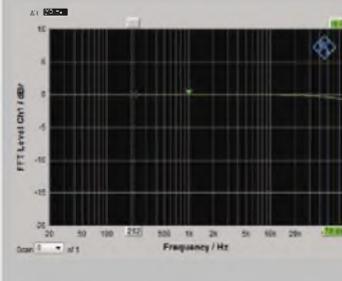
Ohm, giving a high Damping Factor of 80.

Distortion measured 0.006% in the midband and 0.01% at 10kHz at 1 Watt output; there was no crossover distortion. At high power (-1dB below full output) the figure dropped slightly to 0.004% across the audio band, due to relatively lower noise at high output. Distortion harmonics were barely in existence.

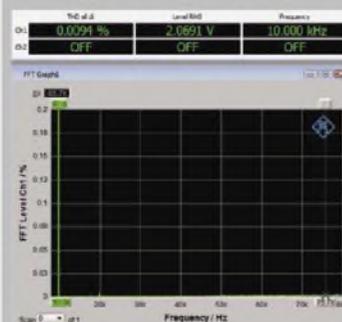
Via the balanced XLR analogue input frequency response measured flat from 3Hz to 120kHz (-1dB), so this is a very wideband amplifier. Wideband amps lack warmth but sound 'faster' and apparently more detailed. The unbalanced phono-socket input gave identical results.

An exemplary set of results from a wideband amplifier. **NK**

**FREQUENCY RESPONSE**



**DISTORTION**



<b>Power</b>	<b>100W</b>
<b>Frequency response (-1dB)</b>	<b>3Hz-120kHz</b>
<b>Distortion (10kHz, 1W)</b>	<b>0.01%</b>
<b>Separation (1kHz)</b>	<b>96dB</b>
<b>Noise (IEC A)</b>	<b>-103dB</b>
<b>Sensitivity</b>	<b>1.1V</b>
<b>Damping factor</b>	<b>80</b>

**LONGDOG AUDIO P6100M £3500**



**EXCELLENT - extremely capable.**

**VERDICT**

Insightful and speedy sound with tight bass. A refined design that digs out detail.

**FOR**

- clean and precise
- tight bass
- handy size

**AGAINST**

- lack facilities
- cool sound balance

MCRU  
+44 (0)1422 250590  
www.mcruc.co.uk

# T1

**Project**  
AUDIO SYSTEMS

## T1

The classic T1 offers the basic turntable experience, simply plug into an external phono stage and let the pre-fitted OM 5E cartridge sing.

## T1 Phono SB

T1 Phono SB takes the T1 and adds a high-quality phono stage and automatic speed change for even greater comfort and convenience, while still sounding first class

## T1 BT

T1 BT takes the T1 design and adds a built in phono stage with added Bluetooth connectivity to wirelessly transmit your record playback to supported devices.

All T1 models are available in high-gloss black, satin white or a luxury walnut wood effect to suit your style and home décor



Distributed by Henley Audio

T: +44 (0) 1235 511 166 | E: sales@henleyaudio.co.uk | W: www.henleyaudio.co.uk | f: HenleyAudioUK | y: HenleyAudio

# In The Kann

Astell&Kern release their Kann Alpha high-end portable player. Noel Keywood goes walkabout.



**A**stell&Kern (Korea) made their reputation with the small AK100 player, a tiny device able to fit a shirt pocket, but with vivid sound quality: fast and punchy. It predated all others. I use an update, the AK120, so know the sound well. The new Kann Alpha reviewed here (£1090) sort-of reminds me of the original AK100. It looks compact, has a great sound and is fairly easy to use.

Portability is a key issue, so let me look at this property first. The Kann Alpha's black livery makes it look small, like an AK100 but inflated. Depth is a substantial 25mm (1in) and weight "about 316gm"; on our scales 318gm. That makes it heavy and unsuitable for a shirt pocket, bulky in a trouser pocket unless you wear cargoes as a mobile comms centre with phone etc, but OK elsewhere, like a bag or rucksack. Width measured 70mm and height 118mm, using our vernier caliper gauge. Not a small player by any means and bulkier by far than an iPhone.

Reason being that the player has a large 5,600 mAh Li-polymer re-chargeable battery to feed its two current hungry ESS ES9068AS top-quality DACs, a quad-core CPU and somewhat ambitious output amplifiers that deliver 12V maximum, where 2V is common and 1V necessary. The suggestion here is it can deliver 18Watts into a loudspeaker. Hmm...

I didn't try this as it might overheat the output devices, resulting in a large bill.



**The base carries a single microSD card slot (1TB), plus a USB C socket. At top left are transport buttons.**

Instead of driving loudspeakers direct, the player is best used to drive headphones or a hi-fi system from its standard 3.5mm headphone jack or from its balanced outputs,



**The main Play screen with album artwork, transport controls and track data at top.**

"the synth kick drum had enormous presence and dynamic punch"

both 2.5mm and 4.4mm. These give identical drive, but through different socket types, 4.4mm being the best for its physical strength. High volume from headphones means 1V



**The volume control has an illuminated bezel that changes colour according to mode.**

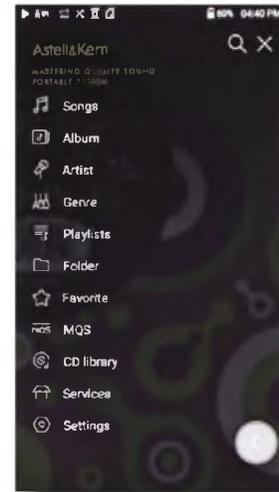
maximum, but there are magnetic planars that need 2V. Not certain why the output amps deliver 12V but Astell&Kern suggest this gives them "headroom". Whatever, the Kann Alpha has massive drive ability, way beyond most other players that max out around 2V. And it is beautifully built and finished, machined from solid aluminium.

There is a massive 64GB of on-board memory, plus a single microSD card slot with 1TB read capacity. Enough for ripped CDs at 0.65GB apiece but single-track DSD files can reach 1GB so the external card slot will come into use here perhaps, with avid DSD users.

Playback time is quoted as 14.5 hours under light use (screen off etc) and charge time 3.5 hours from a fast charger. I found charge time lengthy from a 5V iPhone charger, 5 hours being quoted – about right. Start time was 25 seconds – tardy. The player usefully enters last-played track at start, rather than main menu, but it's just one step back to main menu with Songs, Album, Artist etc, standard defaults taken from meta-data.

The clear, sharp, touch screen was easy to read I found and the menu system easy to navigate.

This is an Android device so came up quickly on my



**The home screen, with meta-data info.**

an optical output within the 3.5mm headphone jack. Both can be used to drive a hi-fi system of course, as an alternative to analogue connection.

### SOUND QUALITY

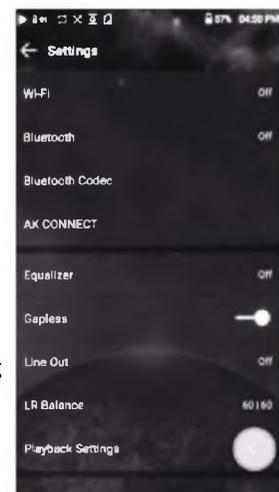
I ran the Kann Alpha with Oppo PM-1 magnetic planar headphones, using an Audiolab M-DAC+ connected



**At top the on/off button (left) and headphone jacks: 3.5mm unbalanced, 2.5mm and 4.4mm balanced. A rotary volume control too (left).**

Windows 10 PC when connected through the supplied USB C lead. Hooked up to my Mac however (OSX Mojave) the green-man Android loader pops up – and there's always a small wrestling match between us as I try to load up files. But do-able all the same and I populated internal memory with a wide variety of files for measurement and listening purposes, including DSD.

Wi-fi connection gives access to on-line services such as Deezer and Tidal, and the player can be used as a DSD DAC using the DoP protocol over USB link to a computer. Nowadays, and at the price, all this is to be expected. There's also Bluetooth for connection to wireless headphones or a hi-fi, and S/PDIF digital from



**The Settings screen with wi-fi and Bluetooth options. There's also an equalizer and digital filters.**

optically as a reference.

And as I guessed, the twin DACs and large battery in this player give it enormous bass grunt, on par or even slightly greater than the M-DAC+ – a real surprise. Normally,



**Astell&Kern alleviate brick-like proportions by sloping the sides at rear.**

portable players fall down in bass quality, having enough of it but not with the rhythmic push of a mains powered DAC where more current is available. But with Safri Duo's thunderous Samb Alegro the synth

played by Jasper de Waal (DSD 64, .dsf) there was the lovely sense of space and analogue smoothness DSD possesses, violins were sweet and glossy whilst horn came over as rich and fruity centre stage.

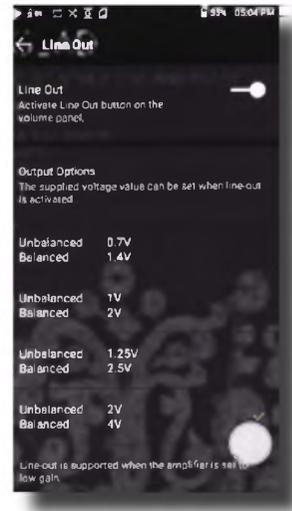
Like all ESS DACs those in this player were delightfully revealing and atmospheric rather than hard edged – but that's the ESS sound. So the fast strummed strings of Nils Lofgren's guitar in Keith Don't Go were fast and superbly delineated, but not lacerative. High frequency transients here were less challenging than from M-DAC+ though, that was crisper and of harder definition in the treble, giving strings more guts in their bite. I suspect this is why M-DAC+ gave a better defined sound stage. A small minus for the Kann, but it was every bit an equal over the midband and bass.

**CONCLUSION**

If you want the bass power and dynamic punch of a top mains powered DAC, but from a portable

player, then Astell&Kern's Kann Alpha is one to hear. It has plenty of visceral wallop, plus the smooth yet deep revelation of ESS DAC chips. Also, the player can be used as an external DAC connected to a computer, or a digital player feeding a hi-fi system. Headphone users have a standard output and two balanced outputs.

I found this an easy player to get along with but the big issue is just that – it is big. This is no compact lightweight. Beautifully built and finished though, so for those of sturdy disposition and appropriately sized pockets – a top player.



**Line Out voltage limiting options to prevent possible down-line overload.**



**The high resolution touch-screen gives a clear display of cover art.**

kick drum had enormous presence and dynamic punch. There was also the smoothness of the M-DAC's ES9038Pro converters and that glorious sense of silky openness that ESS tease out of CD digital (44.1kHz/16bit). I fancied here that the stereo sound stage was a tad wider and more stable from M-DAC+ but this didn't detract from the massively powerful sound of the Kann Alpha.

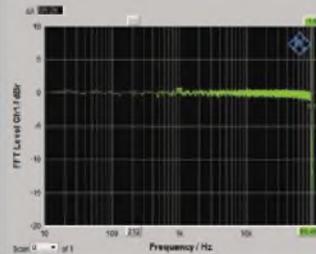
The player's clear midrange came over well with Sinead O'Connor's vocals in The Foggy Dew, where she stood out clearly, especially with the phrases "Britannia's Huns" (!) and "gaze with amaze", whilst the bodhrans of the Chieftains pounded out a marching tune behind her with suitable thunder. A fine rendition here.

With Haydn's Concerto for Horn

**MEASURED PERFORMANCE**

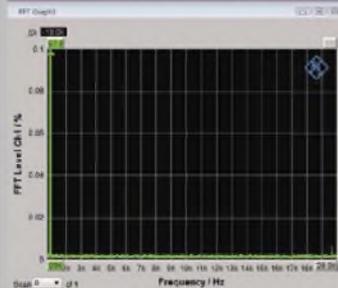
Frequency response measured flat to 92kHz with 192kHz sample rate PCM our analysis shows, using the default fast filter. There's a brick wall roll-off to the 96kHz upper theoretical limit. The Slow filter and Hybrid fast filter made little difference, reducing the upper limit to 80kHz. Even with CD the filters made little difference, reducing bandwidth from 21kHz to 18kHz (-1dB).

**FREQUENCY RESPONSE**



**DISTORTION**

Total HD	Level (dB)	Frequency
0.0141 %	11.992 mV	996.99 Hz
OFF	OFF	OFF



Output from the 3.5mm unbalanced headphone jack measured 2.3V, 4.3V and 6.3V at Low, Mid and High output settings. These figures double from the balanced outputs. Since most headphones go shatteringly loud from 1V the Kann Alpha's headphone amplifiers deliver massive output, way past what is normally needed, except for a few insensitive magnetic planar types. The Line Out can be used to drive a hi-fi system, but again only 1V is needed by most amplifiers.

EIAJ Dynamic Range of the ESS ES9068AS DAC measured an excellent 123dB from the unbalanced 3.5mm headphone jack and from balanced 4.4mm jack – superb results up with the best hi-fi DACs. Distortion at -60dB (24bit) was also very low at just 0.01%, a figure that is not bettered by any mains powered hi-fi DAC.

The Astell&Kern Kann Alpha player delivered exemplary measured performance. The huge maximum output levels are academic, but the headphone amps certainly have plenty of headroom, plus low noise for high dynamic range.

**NK**

<b>Frequency response (192kHz,-1dB)</b>	
<b>4Hz-92kHz</b>	
<b>Distortion (-60dB, 24bit)</b>	<b>0.01%</b>
<b>Dynamic Range (EIAJ)</b>	<b>123dB</b>
<b>Output (unbalanced)</b>	<b>2V - 6V</b>
<b>Output (balanced)</b>	<b>4V - 12V</b>

**ASTELL & KERN KANN ALPHA £1090**



**OUTSTANDING - amongst the best.**

**VERDICT**

Great sound with powerful, punchy bass. Easy to use, but large and heavy.

**FOR**

- strong bass
- vocal clarity
- ease of use

**AGAINST**

- slightly soft treble
- depth
- weight

Armour Home Electronics  
+44 (0)1279 501111  
www.armourhome.co.uk

# Bricasti Design



M3 DAC



M20 PRE  
M25 AMP



M3 DAC



Full range available for demo in the UK via selected retailers.

Experience Bricasti's stunning range of networkable DACs and power amplifiers now.



WWW.BRICASTI.COM  
Distributed exclusively in the UK and Ireland by **SCV Distribution**  
www.scvdistribution.co.uk | 03301 222500



**H**ere's your chance to win the superb Wharfedale Evo 4.3 loudspeakers we reviewed in the August 2020 issue. Read the review excerpt below and answer the questions.

"Wharfedale use a modern 2in (50mm) soft fabric dome in the EVO 4.3 that you can see in our pics and it suffers no large peaks or dips, our measurements show – important for a smooth sound at high volume.

The other problem of a dome is that it only covers the mid-band; a bass and treble unit are needed to

# WIN

**A PAIR OF WHARFEDALE'S  
SUPERB EVO 4.3  
LOUDSPEAKERS WORTH  
£999 IN THIS MONTH'S  
GREAT GIVEAWAY!**  
[www.wharfedale.co.uk](http://www.wharfedale.co.uk)

complement it, meaning the 'speaker must be a three-way design, adding considerably to build cost.

Wharfedale have opted to use a small folded ribbon tweeter (Air Motion Transformer, or AMT) to extend response smoothly up to the human hearing limit of 20kHz. And for bass there are two 5in (130mm) Kevlar cone drivers, loaded by a chamber with slot reflex port in the base.

In all that's four drive units instead of the usual two common in budget floorstanders. Quite a line up and as you'd expect with a sound different to the norm. They are housed in a cabinet standing 875mm high, slightly lower than the usual 1 metre. Width is 210mm and depth 285mm but with terminals that extend it to 295mm. Bare wires or spade terminals will extend this no further, but 4mm banana plugs will add to depth as always. There are sturdy adjustable feet and bi-wire terminals with links for mono wiring".

For a chance to win this great prize, just answer the four easy questions at right. Send your entries on a postcard only, by 5th February 2020 to:

**February 2021 Competition,  
Hi-Fi World magazine,  
Studio 204,  
Buspace Studio,  
Conlan Street,  
Notting Hill,  
London W10 5AP**

## QUESTIONS

**[1] The dome is made from -**

- [a] titanium
- [b] soft fabric
- [c] stiffened cardboard
- [d] wrought iron

**[2] The tweeter is -**

- [a] metal dome
- [b] Ionophone
- [c] electrostatic
- [d] folded ribbon AMT

**[3] Bass unit cones are -**

- [a] treated paper
- [b] copper alloy
- [c] Kevlar
- [d] polyurethane

**[4] The port is in the -**

- [a] base
- [b] rear panel
- [c] front panel
- [d] dispersed

## RULES AND CONDITIONS OF ENTRY

- ONLY ONE ENTRY PER HOUSEHOLD
- MULTIPLE ENTRIES WILL BE AUTOMATICALLY DISQUALIFIED
- PURCHASE OF THE MAGAZINE IS NOT A PRE-CONDITION OF ENTRY
- NO CORRESPONDENCE WILL BE ENTERED INTO
- THE EDITOR'S DECISION IS FINAL
- NO EMPLOYEES OF AUDIO WEB PUBLISHING LIMITED, OR OF ANY COMPANIES ASSOCIATED WITH THE PRODUCTION OR DISTRIBUTION OF THE PRIZES, MAY ENTER

**ENTRIES WILL BE ACCEPTED ON A POSTCARD ONLY  
PLEASE ENSURE YOU PUT A TELEPHONE CONTACT NUMBER ON YOUR ENTRY**

**NOVEMBER 2020 WINNER: EAT E-GLO PETIT PHONOSTAGE  
Mr. Gareth Jones of Penarth, Wales**

# Mail

Visit our website at [www.hi-fiworld.co.uk](http://www.hi-fiworld.co.uk) or send your emails to [letters@hi-fiworld.co.uk](mailto:letters@hi-fiworld.co.uk). Letter of the month wins a pair of KEF Q150 bookshelf speaker

Answers by: **NK** - Noel Keywood; **PR** - Paul Rigby; **MP** - Martin Pipe; **DT** - Dave Tutt; **JP** - John Pickford.

## LETTER OF THE MONTH PRIZE



### KEF Q150 BOOKSHELF SPEAKER

<https://uk.kef.com/products/q150-bookshelf-speaker>

[subject to availability - Satin Black / Satin White]

**A PAIR KEF Q150 LOUDSPEAKERS are on their way to SID MURPHY, Letter of the Month winner in our January 2021 issue.**

## Letter of the Month

### ON THE BANDWAGON

I felt compelled to bandwagon with my comments on this ongoing topic of the state of BBC radio. I read Dave Tutt's original comments and those of several readers with great interest and almost total agreement.

From the outset though, I would like to say that not enough has been mentioned of one relatively good quality stream of programming: BBC6 Music. Compared to the likes of Radio1 and Radio2, this station (sorry, it's probably deemed a network by modern Beeb-speak) is pretty damn good. The variety of genres, often contained within the same presenter's time-slot, is commendable. The broadcasts of Marc Riley, Cerys Matthews, Guy Garvey, Tom Robinson, just to name a few and not forgetting Stuart Maconie's Freakzone, are the output that can only come from true music aficionados who have also had direct experience of making Pop/Rock music and all the sub-genres therein.

I would also give a special mention to guest presenters - particularly the actor Cillian Murphy. If you ever have listened to his slots, I am sure you were thoroughly impressed by not only his deep and passionate knowledge of a wide variety of artists and styles, but



**The classic McIntosh MC275 valve amplifier. Superb sound and a suitable replacement for an OTL (output transformerless) amplifier, having lower distortion but equal clarity.**

also by his totally egoless and calmly enthusiastic style of presenting.

He and those others I just mentioned, are completely forgiven for talking a lot between tracks. It can't be

called wittering though. Why? Because they actually talk about relevant content and context that makes the music more interesting and enjoyable to listen to and appreciate.



**"I wonder if I should just go for a McIntosh MC152" amplifier says James Douglas.**

Now, enough praise! I can only add further criticism to the woeful state of Radio2 and its output. In addition to what annoys Dave Tutt and other readers, what I find so irksome these days is the playlists. The total lack of invention and personal effort these CJs put into their programming. And the continual promotions and plugging of other BBC output. It's almost a travesty at times, when hearing one of those who steward the weekday afternoons, that they just cannot leave their fingers off the plug-another-CJ's programme button. Plus, I guarantee they must be sharing playlists. It is just ridiculous that you can go for 20 years of not hearing a track that was in the Top 20 in 1979 ... and for some reason, possibly a listener's request, the track is played. All good and nostalgic. Then – low and behold – you will hear it on just about every other Radio2 programme for the next 3 months! Plus, a certain CJ who comes on straight after Jeremy Vine, goes through months on end of always playing a combo of Ed Sheeran, George Ezra, or Miley Cyrus within the first 15 mins of every one of his broadcasts. And you will hear the same non-current songs several other times within the next few days.

On a slightly different topic. Has anyone else noticed the use of what were once classic, or even edgy, rock songs now being used in TV advertising? And used completely out of context and bearing no relation to the goods being advertised? For example, Hendrix with All Along The Watchtower used to advertise a perfume. Beach Boys Wouldn't It Be Nice for a blinking mobile phone advert. Or one line of 21st Century Schizoid Man used in the closing shot of a car advert via a Kanye West song? And was it a tyre advert

that used Venus in Furs some years ago? What do these ad agencies feed their creative directors? I can just about forgive M&S using Fleetwood Mac's Albatross for its food ad though.

I shall sign off by saying another thank you for keeping the magazine going so well this year. I would also like to ask Dave Tutt if he ever comes across and repairs OTL valve power amps? I have Croft Series 3s that might need looking at. But at the same time, I wonder if I should just go for a McIntosh MC152 and say goodbye to the sweltering heat and childish temperament of the PL519 valves of my Crofts. Appreciate your thoughts on a power amp that is as transparent as an OTL but more reliable and cool. Regards,  
**James Douglas,  
Northwood,  
Middlesex.**

Hi James. The wows of BBC output on all their channels – be it music or TV – continue to be an issue and more and more people by the day are cancelling their license fee – which I completely understand.

The remit of the BBC under

Reith seems to have been pushed to one side and that in turn has led to a woke agenda that does not mesh well with the majority of the public.

The music content and the DJs are, I'm afraid, a sign of the demise of the organisation.

On the Croft, I have never had one here, although some very old and odd radios that were rather more primitive than your amp did have a similar output but it was never reliable.

I have to say that I do not recommend this way of driving a loudspeaker. The impedances at the anode of whatever valve they use were never suitable for driving an 8 ohm load and the valve itself always sounds poor as a result. As such a transformer here is the only option – one that always worked perfectly well. The transformer is of no detriment to the sound and removing it for the sake of taking out a crucial component has to rate in my book as total madness! Save the PL509 and the like to the old TV restorers, as they are no longer made. Ah the memories! I would plump for the MC152 any day! **DT**

Hi James. The PL509/519 were sturdy valves if manufactured well, but often were not it seems and have a reputation for unreliability as a result. Few hi-fi amps use these television line flyback valves; they were not purposed for audio, being non-linear, producing distortion. I think I am right in saying they can be operated at low voltages and have low internal impedance (Ra), hence their choice for an output-transformerless (OTL) circuit with capacitor coupling. The OTLs I have heard in the past had a hard sound not to my liking (they don't measure well) and so the shock of an amp change may not be great. Conventional valve amps have much lower distortion.



**"Keep it sweet and simple by buying an Audiolab 8300 CD player with its ESS ES9018 DAC and great sound" we suggest to David Slama.**

The McIntosh MC152 is solid-state, not valve-like in its sound, so may be a large step subjectively. I'd suggest you try and audition a McIntosh MC275 with KT88s. Great McIntosh transformers, fine valves with a modern, fast sound (reviewed October 2006 issue). For less cash you may like to check out Icon Audio's fine range, or have a listen to a PrimaLuna, with its automatic biasing and protection circuits. **NK**

### CD IN OZ

*I'm writing to you from Australia. If at all possible I would like to ask for your advice in selecting a CD player for the system I list below. I'm also open to the idea of a CD Transport and DAC. I cannot audition anything where I live but thought you may point me in the right direction. I do like female vocals and listen to a variety of music from Cold Play to Yanni.*

*My system...Unison Research S6 Amplifier - Sonus Faber Auditor M Speakers.*

*Any suggestions would be much appreciated.*

*Regards,*

**David Slama.**

Hi David. The last great CD player was the Oppo UDP-205 with ESS ES9038Pro DAC chip, once sold in Australia and possibly available second-hand. Otherwise, I'd suggest keep it sweet and simple by buying an Audiolab 8300 CD player with its ESS ES9018 DAC and great sound. The ESS DACs suit vocals, having



**The Cyrus Icon loudspeaker – an early (2001) NXT panel, combined with conventional bass unit.**



**World Audio Kit 34 valve amplifier. "Would the auto bias circuit in this amplifier accommodate a changeover to KT88s" asks Colin Alford.**

deep midband resolution and an easy organic sound lacking hardness. **NK**

### THE END OF NXT

*It is strange that distributed mode (NXT) panels or drive units did not catch on in the UK, even as a niche product. Perhaps they were launched too soon and might now catch on? I see distributed mode speakers (without the NXT logo) are still available in the US but now they are wireless:*

*Cambridge Audio made the Aero range of speakers with distributed mode drivers a few years back and I think Mission also made some speakers with distributed mode drive units.*

*I would have thought that wireless NXT panels plus subwoofer would be ideal for AV surround sound in small rooms or where space is tight for floor standers. Perhaps they will return one day?*

**Mike Tartaglia Kershaw.**

Hi Mike. There's a big story in there, NXT distributed mode panel loudspeakers having great sound and many unique strengths. Sadly, the one constraining problem was that as open panels they had to be big to develop deep bass. Also, sound radiated backwards as well as forwards – always a difficulty.

One day in the late 1990s the 'phone rang at Hi-Fi World and it was DERA, Britain's Defence Evaluation and Research Agency. They asked "did we know anyone in the hi-fi business who might be interested in developing, for commercial use, a sound radiating panel used in military helicopters to cancel noise?".

An obvious candidate at that time was Mission loudspeakers, whose founder Farad Azima would comprehend and appreciate the

technology, also be able to get funding for its development. I told 'em to phone Farad. And so it was, Mission taking on the huge commercial challenge of commercialising NXT distributed mode panels and marketing them world-wide. An early example was their Cyrus Icon loudspeaker, reviewed in our July 2001 issue.

I found large NXT panels (Podium Sound etc) sounded superb – neutral, open and clean. But they went the way of all large panels. **NK**

### GARRARD POWER

*I bought my Garrard 401 turntable second-hand from a friend forty years ago and finally had money to spend on serious updates. A granite plinth from Peak HiFi, a service from Classic Turntable and finally to address the old weakness of an AC motor, a quartz-locked power supply again from Peak HiFi. Fluctuations in the AC supply frequency can only adversely impact*



**Garrard 401 on granite plinth from Peak HiFi.**

*speed stability and the resulting sound. I suspect that with changes to the electricity supply grid with wind, solar power and the like, maintaining the AC frequency is more difficult in these modern times. Thus a dedicated power supply is needed more than ever.*

*I've had a lot of fun playing through*

my LP collection as a result of these latest upgrades, I know that most folk wouldn't understand – but it's worth every penny to me. If you have a 301 or 401 and haven't got a dedicated power supply in my view you are missing out. Regards,

**David Bond.**

Hi David. Interesting that adding a frequency-locked stable a.c. power supply to the dear old Garrard brings it right up to modern method: an a.c. motor working from a quartz-locked supply. You must still use a good idler wheel but Peak HiFi know all about this and I'm sure you are enjoying a sound from LP few others have heard. As you say "worth every penny". **NK**

### BEST BIAS

In your article on the PrimaLuna Evolution 400 valve amplifier in the December 2020 Hi-Fi World magazine you mention that you prefer the more solid sound of the KT88 over the EL34 valves. The article also states they can be easily changed over in the PrimaLuna due to their auto biasing circuitry.

I use a World Audio upgraded Kit 34 amplifier. Would the auto bias circuit in this amplifier accommodate a changeover to KT88 valves or would the auto bias require altering?

Yours faithfully,  
**Colin Alford,**  
**Tamworth.**

Hi Colin. There is inherent confusion here between classic 'auto-bias' and modern 'automatic biasing'. You have an amplifier with classic 'auto-bias' and it will easily accommodate a change from EL34s to KT88s.

The PrimaLuna amplifiers use solid-state automatic biasing circuits quite different and more comprehensive than the classic 'auto-bias' arrangement. They can accommodate a wider range of valves and get more power from them, as well as having protection circuitry to cope with valve failure. **NK**

### ANALOGUE ISSUES

Hi Noel, I enjoy your editorials.

This month you were suggesting an integrated amp can sound a bit more lively and interesting compared to a pre-power combination, with all the potential loss of leads, plugs and all the connections within.

I would suggest it might be time for you to try a few preamps. I have recently tried Audiolab DAC and Oppo Blu-ray players direct to power amps.

Although the sound kinda ticked all the boxes it never quite hit the spot. I think I would prefer an integrated amp to the sound I got. But when I put a decent analog preamp in the chain the sound moved up a level or two.

Over many years I have tried many combinations but have always come back to a good analog preamp in a digital system.

Kind regards,  
**Phil Bull,**  
**Locks Heath.**

Hi Phil. The point I was trying to make is that modern DAC chips are best connected directly to an amplifier by the shortest and simplest route to keep noise down, meaning within an amplifier's case. External DACs, even when connected through balanced XLR cables, are theoretically less than ideal: there are too many intervening buffer amps and noisy cables.

At present measurement shows that 'digital' amplifiers with an internal DAC commonly give worse results than an external DAC simply because the internal DAC chips being used are of mediocre quality. Adding digital to an amplifier is seen as a convenience factor and makes for a good selling point.

But as manufacturers move to using top quality DACs inside 'digital' amplifiers, like the ESS ES9018 or

one with 6SN7 valves or a step-up transformer (magnetic preamp). **NK**

### ESL-X POWER

As a user of Martin Logan ESL-X loudspeakers I thought you may be interested in the following observation.

I have owned my pair for the last year and been well pleased with their performance. However the odd shape of their power supply wall-warts made it impossible to plug them both into a standard dual socket outlet at the same time. So I replaced these supplied units with some more orthodox shaped 15v 2A SMP wall-warts that did fit a dual socket at the same time!

The resulting change in the sound was astounding, raising the sonic quality of the speakers to a whole new level. Considering I thought these units only provided the raw input to energize the electrostatic plates I was surprised at how much effect they could have on the sound. Subsequent A/B comparisons would indicate that this is not some figment of my imagination!

I do wonder if M/L are supplying their wall warts on their ability to be adapted to pan European socket types rather than sound quality?

I do wonder if a linear power supply or battery pack would increase the sonics of the M/Ls even further; it is all very strange.

A bewildered  
**Bill Martin.**



**For totally lucid preamplification (+6dB) the Music First Audio passive magnetic preamplifier has no equal.**

ES9038Pro, the situation is changing. An external DAC using such chips, connected through buffer amps and analogue cables, is then at a distinct disadvantage. And that is what I am beginning to detect in listening tests.

This is about high performance digital and how to optimise its sound, rather than the merits of analogue preamps and power amps – another ball game. As you say, there's nothing quite like a good preamp, such as

Hi Bill. Very interesting – and that is what we have found. A cheap switch-mode supply should not be affected by source, but ours were when connected into a mains regenerator where sound quality obviously improved. The d.c. supply quality to the internal energising supply should – in outline theory – make no difference to sound quality, but it does seem to do so. Like you, we were taken aback by this. **NK**

LS50 Meta

Every note. Every word.  
Every detail.



### LS50 Meta

Introducing the successors to the iconic LS50. Building on the brilliance of the originals, the LS50 Meta speakers provide an even purer sound, which brings out subtle nuances and details you may never have noticed before. That's because our unique Metamaterial Absorption Technology eliminates the high-frequency distortion inside the speaker. So at last, you can hear music as its creators intended.



Listen and believe





**Martin Logan's ESL-X loudspeakers use a wall-wart power supply. Changing them "raised the sonic quality to a whole new level" says Bill Martin.**

I'm glad you have found similar, as I thought I must be going mad. The difference in separation and imaging is not subtle. For reference the units I purchased were "Dixietree" wall warts from Amazon.

I did work on updating CISPR 14 some years ago now and was somewhat horrified by the emissions from SMPS PSUs. However they are supposed to be "green" compared to linear supplies, so the environmentalists love them. I do wonder if these emissions intermodulate with the audio signal, but alas I no longer have access to the necessary test equipment.

Regards

**Bill Martin.**

Hi Bill. Low cost Switch Mode Power Supplies (SMPS) are technologically clever and very cheap, but as you say their RF emissions are strong, contributing to the general level of background noise in our homes. **NK**

### MANSFIELD MUSINGS

Returning to Richard Barton's letter in particular, on the Tannoy Mansfields. Not being sure of their history I wonder what condition the drive units are in? Particularly the cone surrounds. If the Mansfields have had a previous owner I would have a look and see what the

drive units condition is like. This link is Lockwood audio and they are the Tannoy approved service agents, which includes re-coning: <http://www.lockwoodaudio.co.uk/tannoy.htm>.

My 315s were re-coned by Tannoy at Coatbridge; I gather they no longer offer this service. No doubt that other companies do, but as the saying goes, beware of cheap imitations.

I see on Lockwood's website that they offer an upgraded crossover for the HPD 385 which was Tannoy's recommendation for my 315s – and well worth it! Richard uses a small amount of bass boost for organ recordings, which is okay providing the tone controls are designed well. Installing a sub woofer ensures that only the bass comes at a given point and doesn't intrude and colour the rest of the sound. This can be achieved by careful adjustment of the sub.

However, Richard may not want a third box, but he would soon forget its visual presence, but he would definitely would notice its audio presence when called upon!

I would certainly stay with a sealed box design, but then again I'm somewhat biased I suppose, having lived with Chatsworths for around 46 years! I wish that there were more modern infinite baffle designs, I believe from ATC and Spondor for example. Perhaps we will see more reviewed in HFW!

Regards,

**Mike Bickley.**

Richard Barton says -

Following Mike Bickley's suggestion, I re-checked the Mansfields (with HPD385s) last night, and they are clean and have relatively new-looking rubber surrounds – none of the scungy dark green, sticky, papery flaking surround horrors, which came on with age on many of the older 385s and 15in Golds. However, one of the Mansfield drivers has a minor treble fault, which sounds like grit in the voice coil, or perhaps is due to a dry joint in the crossover board. I'll go check myself before going to ask Lockwood Audio about it, if needed.

There seem to be only a few Tannoy repairers about. I have only dealt with Lockwood but there is Wembley who I know nothing about (<http://www.wembleyloudspeaker.com/>) in London, and also a small business in East Grinstead who advertises less, but I believe does a great job.

I have personally been to Lockwood's workshop, when I drove 5 hours to Taunton to collect my Ardens. It was quietly mentioned that the bass seemed to be down in one speaker – an applied ear revealed a dead big cone! Interesting how ears + brain correction + a big speaker pair with only one bass unit running can mimic a full stereo system.

I sent both units to Lockwood and during the autopsy it was found that one HPD385 had had a home solder job for a fractured bass voice coil and this had again failed. Soldering preparation looked suspect and who wants poor soldering anywhere in a high-vibration environment?

I had sent both drivers for surround + cone replacement so that they would still be a match, as Lockwood recommended. I still also have the old cones with coils for edification. I have been very happy with these repaired pair of 385s – duly perfect and



**Tannoy Mansfields: "I wish that there were more modern infinite baffle designs" says Mike Bickley.**

# nucleus

by

roon



## SIMPLY THE BEST WAY TO EXPERIENCE ROON

Nucleus is the center of your Roon music system. It's the housekeeper, the traffic cop, and the brain that takes care of the music in your life. Using Nucleus, Roon manages all your music – on hard drives, NAS, and streaming content – and allows you to play it on all the audio devices around your home. Nucleus is the best way to run Roon, at any price. For a more advanced solution, the Nucleus+ is perfect for complex or high-end environments and for lightning-fast handling of larger music libraries.

\*Reviews of the original Nucleus+, which has the same technical performance of the 2019 revision but with a different look.



NOW INCLUDES 1 YEAR FREE ROON SUBSCRIPTION



Distributed by Henley Audio

T: +44 (0) 1235 511 166 | E: sales@henleyaudio.co.uk | W: www.henleyaudio.co.uk | f: HenleyAudioUK | : HenleyAudio

**Project Tube Box S phono pre amp. "Why have I taken 50 years to buy a tube/valve phono pre amp?" says Mike Tartaglia Kershaw.**



matched in a delicate shade of purple. Since then they have been tested for robustness with some good pedal organ music.

With regard to the crossover question, quite a while back I bought hard-wired (no switches etc) new crossovers for the Ardens from the eBay seller Mainlytannoy, who carries a good range of Tannoy products. There are various superior and pricey capacitor options for the crossovers and I believe his service is very professional. I also bought Tannoy flash badges from him to fit to my LSU/HF/III.LZ cabinet units – lovely 10in Gold drivers in sealed box.

Reflex loading always involves time-delay, due to requiring resonant booting – which takes time to get going. Bass can be low, but better not to be slow: 20Hz is a long wavelength to accommodate, so rooms and their modes and needs need to be considered.

I agree with you Mike that subwoofers are a good way to go: you can tweak the placement of the bass unit(s) for room loading, and you need not fiddle with the signal to the Tannoys.

As noted previously, due to the low Q of the HPD385, a Thiele-Small optimised reflex box will not achieve what I need for my organ music but I can see that bigger sealed cabinets, well-braced and damped, would help the HPD385s do even better!

Best regards,

**Dr Richard H Barton,  
Imperial College, UK.**

### WANTED LIST

Following your review and award the Magneplan LRS has gone to the top of my wanted list. The Project Stream Box S2 is number two on the list (to pair with my matching Project Pre Box S2 Digital DAC). I would also love to know how the PrimaLuna Evo 400 compares to my Prima Luna Dialogue Premium HP. They seem almost identical

but I guess they have made some improvements.

You may be interested in this fascinating electro acoustic analysis of the Magneplan LRS (link below): <https://www.audiosciencereview.com/forum/index.php?threads/magneplan-lrs-speaker-review.16068/>. The Magneplan LRS is very hard to find in the UK with very few dealers (unless you live in Kent).

I have just connected a new Project Tube Box S phono pre amp to the Prima Luna – a glorious sound. Why have I taken 50 years to buy a tube/valve phono pre amp?

Best wishes,

**Mike Tartaglia Kershaw.**

Hi Mike. Please arrange to hear the Magneplan LRS and let us and others know what you think. Quite different and very impressive at an amazingly low price of £995.

The forward response of a large panel is very sensitive to microphone position and distance but our alternative response of the LRS (not published) accords with the audiosciencereview.in-room plot, as I would hope. The listening experience has to prevail though and open panels have their own presentation that measurement cannot fully explain in subjective terms. Lack of delayed sound from a box is a big subjective factor: box loudspeakers radiate sound for up to 0.5 seconds after an event as 'overhang' (delayed echoes); panels don't do this. You can hear the difference and how the LRS sounds inter-transiently clean as a result.

A valve Phono pre-amp for LP opens up the analogue space in wondrous fashion. That's why we use Icon Audio's PS3 Mk2 all-valve phono stage at Hi-Fi World. A difficult act to get past. If you play LP, get a valve preamp! **NK**

### PMC OB1

I am a reader of your magazine from 1992 to 2012 monthly and after whenever I find it. You have this speaker as one of your favourites. I still have the issue with the test but I can't drive it right. I use Audio Research Pre LS25/2 and the power D 240 from the same company, 2x100 Watts.

I like the mid and highs but not the low frequency ... it's not driven right, it misses the strong lower bass.

Can you tell me what you tested it with? Can you suggest an Integrated amplifier or a power that drives it right in the lower frequencies too? My listening room is 4.7 x 3.6 metres, low ceiling – that's strange not to be driven properly. I heard that Exposure 3010 was ok for a later model of the same company. Please answer me. Thank you.

**Yiannis Karanastasis.**

Hi Yiannis. Our review in the April 2008 issue shows output falls away below 100Hz and bass output is tailored for near-wall placement. Your room is reasonably suitable for a loudspeaker like this, because at 4.7 metres (15.4 ft) long it has a main mode at 37Hz and a second order mode at 73Hz, both of which will lift lower bass if you site the loudspeakers against one end wall and sit at the other, 'speakers firing down the room, not across it. If bass is still insufficient then you may need to supplement it with a subwoofer or swap the PMCs for a loudspeaker with stronger bass. **NK**



**The PMC OB1i. "I like the mid and highs but not the low frequency" says Yiannis Karanastasis.**

# SOUND WITH STYLE

WORLDWIDE  
DISTRIBUTORS  
WANTED!!!

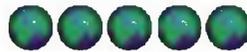
info@quadral.com

www.quadral.com

quadral 

**HI-FI WORLD**

ISSUE MARCH 2016



5 OF 5 GLOBES

Test: HI-FI WORLD, 03/2016

„Verdict:

A refined sound from a sophisticated product.

**Superb!”**

## CHROMIUM STYLE

CHROMIUM STYLE unites form and function in to an incredibly convincing sound experience. The elegant cabinet fulfils highest design standards and their rounded sides reduce sound divergence through the sound conduction.

Get more information on [www.quadral.com](http://www.quadral.com).



LEGENDARY GERMAN  
ENGINEERING



www.quadral.com Phone: +49 (0)511 7904-0



# A Videolog tune

Martin Pipe recalls 2000's Videologic DRX-601E – the first affordable DAB tuner.



Let us not forget, 2020 marked 25 years of DAB radio. The first DAB products were tuners intended for hi-fi systems. The Cymbol DAB I and Arcam's Alpha 10 were launched at about the same time in 1998. In 2000 chip developer Imagination Technologies launched the DRX-601E, which was sold under the 'Videologic' banner. Like the Cymbol and Arcam offerings, the DRX-601E was a British-made DAB-only tuner. What gained public attention was its breakthrough £300 selling price, which brought DAB within the reach of more listeners. Solidly-built and rather businesslike in styling, the front panel of this tuner is dominated by a green-backlit alphanumeric LCD screen. On the right is a tuning knob for station selection and buttons that select display brightness, manual autotune, display mode (programme-specific information, programme genre, multiplex name/frequency) and 'information' (bitrate or signal strength).

Additional functionality is available through a tiny infra-red handset – up to nine 'preset' stations, DRC (dynamic range compression, where supported by the broadcaster), audio muting and toggling between 'primary' and 'secondary' (split) services. Among the latter was the occasional 'Sports Extra' service from BBC Radio Five; a red LED informs listeners when secondary services are available. Other front-panel LEDs confirm mains power, stereo services and that

the remote is working. Powering up invokes autotuning, which seeks out services on the multiplexes within range.

For connecting the DRX-601E to hi-fi equipment there are stereo analogue and optical/coaxial S/PDIF digital outputs. A nice touch is the analogue input, which will accommodate an existing tuner. This is connected to the 'normally-closed' contacts of a changeover relay; when the Videologic is turned off, your FM tuner's output is automatically-routed to the relay's 'common' terminals and thence the DRX-601E's phono outputs. Simple, but effective.

Something else that's absent from

sure if any compatible 'add-ons' ever made it to market. A DAB+ adaptor would have been useful – the DRX-601E does not support this newer standard, which employs a more efficient audio codec. It's strictly 'old school' DAB and the MPEG-I, Layer 2 standard. DAB+ stations are listed, but can't be selected.

Also round the back of the DRX-601E is the VHF (Band III) 'F' aerial socket. Videologic bundled a simple wire dipole aerial, for good-coverage areas. That said, when I first copped hold of a DRX-601E twenty years ago I found it to be reasonably-sensitive – acceptable results were achieved here in South Essex, even



**The heart of the DRX-601E is its tuner front-end module, which lives in this screened PCB-mounted enclosure. It's hard-wired and cannot be software-upgraded to support any changes to broadcasting standards (such as DAB+).**

newer digital tuners is an optical RDI (Receiver Data Interface), on which you'll find the raw multiplex bitstream. This provided an upgrade path for other services, but I'm not

with the wire.

To make the most of this exciting new medium, though, I aimed a rooftop-mounted Antiference DAB aerial at the Crystal Palace

Every note. Every word.  
Every detail.

LS50 Wireless II



### LS50 Wireless II - The Ultimate Wireless HiFi

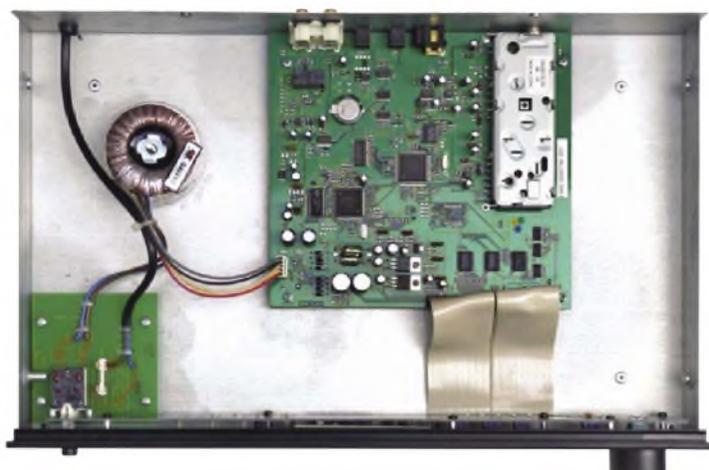
When you first listen to the new LS50 Wireless II, close your eyes. You'll find it hard to believe that a sound so pure is coming from such compact wireless speakers. That's because our unique Metamaterial Absorption Technology eliminates the high-frequency distortion inside the speaker. So keep your eyes closed and keep listening; there's a whole world of streamed music to enjoy.

AirPlay2, Spotify, Tidal, Qobuz, Internet radio, HDMI, and more.



Listen and believe





**Inside, the DRX-601E is remarkably well-constructed and neatly-designed for a £300 product. Most of the tuner's circuitry lives on a single board that makes extensive use of surface-mounted components.**

transmitter. Internal construction is of a high standard. The power supply is a good old-fashioned 'linear' one, based around a toroidal transformer. Dominating the single circuit board is the Imagination-developed tuner front-end, which plucks the DAB signal out of the ether. One of its key components is the MN66710, a specialist DAB chip sourced from Panasonic/Matsushita. Also found in the Technics ST-GT1000 DAB/analogue tuner amongst others, it demodulates the DAB COFDM signal and decodes the MPEG audio.

The result is simultaneously passed to the digital audio outputs and the DRX-601E's internal DAC, a Wolfson WVM8733 sigma-delta type. In the tuner's heyday, I listened to DAB radio via a Naim Nait 3 amp and Acoustic Energy AE109 floor-standers; compared to FM, the sound quality could be revelatory. At the time, Radio 1 on DAB was considerably cleaner than its FM counterpart because severe Optimod-type compression had not been applied. I could hear more detail, especially at the higher end,



**The remote control accesses some functions that cannot be invoked via the front panel – among them nine 'presets' of favourite stations. However, some are DAB+ and cannot be received by the DRX-601E.**

and bass was more controlled. I still have DAT recordings of Radio 1 shows like Mary Anne Hobbs' 'Breezblock' and they sound good today. In fact, these tapes show up just how bad DAB has been allowed to become in the pursuit of 'quantity over quality'. With more revealing material – Radio 3 for example – the tuner also acquitted itself well. And as the BBC dare not doctor its audio for fear of complaints, Radio 3's evening concerts can still sound good

today via the DRX-601E.

Since this tuner was launched though, the number of DAB stations has mushroomed – at the expense of bitrate. Radio 1 has gone from 192kbps to 128kbps, and even Radio 3 switches from 192kbps to 160kbps when it's not broadcasting live music; I wonder what might have happened had the BBC used 256kbps for its serious music service?

Pop-type DAB stations now rely heavily on audio compression to make them sound louder – and from a quality perspective the results are dire, usually to the point of unlistenability. In one regard my DRX-601E does sound better than it once did – thanks to improved encoders, wider coverage and more powerful DAB transmitters, there's less low-level burbling and background 'chatter'.

During the intervening two decades, Videologic changed its name to 'Pure' and its emphasis to portable DAB radios – among the UK's most successful. Internet radio and streaming have begun to make DAB look irrelevant today, but I still use the DRX-601E in my home office. My old DATs prove just how good DAB could sound, if only broadcasters had the sense to use it properly. DAB's future certainly looked rosier in 2000, and as a result, this piece of radio history sold well. Indeed, there are still plenty of DRX-601Es around today – expect to pay £50 or so for one in good nick.



**The audio input accommodates an external analogue tuner; the DRX-601E is digital-only. The optical RDI (Receiver Data Interface) carries the raw multiplex bitstream but no compatible add-ons were ever marketed.**



**An 'F' socket accepts the VHF Band III (174-230MHz) DAB radio signals from the aerial. As well as the analogue outputs (and inputs), digital audio is available in both optical and coaxial form, to feed an external DAC.**

# THE IDEAL ANTIDOTE

VISIT OUR WEBSITE: [www.hi-fiworld.co.uk](http://www.hi-fiworld.co.uk)

**A SUBSCRIPTION TO HI-FI WORLD  
MAKES THE PERFECT GIFT FOR  
YOUR NEAREST AND DEAREST.**

**SAVE**

...up to

**26%**

Subscribe today and you will get a special discounted rate giving a **saving of 15% to 26%** off the cover price. That's an amazing **£3.83 - £3.33** per issue including postage.



***So don't delay, take out a subscription today!***

FOR BACK ISSUES ENQUIRIES PLEASE CALL

**01442 820580**

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

**+44 (0) 1442 820580**

**SO WHAT ARE YOU WAITING FOR? CALL NOW!!!  
SUBSCRIPTION HOTLINE 01442 820 580**

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

FOR OUR  
ON-LINE MAGAZINE  
GO TO [WWW.HI-FIWORLD.CO.UK](http://WWW.HI-FIWORLD.CO.UK)

email:  
[hifiworld@webscribe.co.uk](mailto:hifiworld@webscribe.co.uk)

# TO WINTER BLUES

## WHY SUBSCRIBE TO HI-FI WORLD?

- 12 issues a year delivered straight to your door.
- Be first to grab a bargain in our "Free Reader Classified Ads" section.
- Run by dedicated hi-fi engineers and enthusiasts.
- Subscribers receive a minimum 10% Discount annually.
- Hi-Fi World has become famous for its informative reviews and radical kit designs.
- **PLUS!** Subscribe by Direct Debit and receive a 16.5% discount on a yearly subscription (UK only).

### Instruction to your Bank or Building Society to pay by Direct Debit



Please fill in this form and send to:

Originator's Identification Number

Hi-Fi World, Subscriptions Department, Unit 4 College Road, Business Park, College Road North, Aston Clinton HP22 5EZ

4	2	7	0	4	9
---	---	---	---	---	---

#### Name and full Postal Address of your Bank/Building Society

To: The Manager	Bank/Building Society
Address	
Postcode	

#### Name(s) of Account Holder(s)

Name(s) of Account Holder(s)	
------------------------------	--

#### Branch Sort Code

--	--	--	--	--	--

#### Bank/Building Society Account Number

--	--	--	--	--	--	--	--	--	--

#### Reference

HF
----

#### Instruction to your Bank or Building Society

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

Signature(s)
Date

Bank and Building Societies may not accept Direct Debits Instructions for some types of accounts  
The guarantee should be detached and retained by the Payer

#### The Direct Debit Guarantee

- This Guarantee is offered by all banks and building societies that accept instructions to pay Direct Debits.
- If there are any changes to the amount, date or frequency of your Direct Debit, Webscribe Ltd will notify you 10 working days in advance of your account being debited or as otherwise agreed. If you request Webscribe Ltd to collect a payment, confirmation of the amount and date will be given to you at the time of the request.
- If an error is made in the payment of your Direct Debit by Webscribe Ltd or your bank or building society you are entitled to a full and immediate refund of the amount paid from your bank or building society.
- If you receive a refund you are not entitled to, you must pay it back when Webscribe Ltd asks you to.
- You can cancel a Direct Debit at any time by simply contacting your bank or building society. Written confirmation may be required. Please also notify us.



**TERMS & CONDITIONS:** You will receive 12 issues per year. Minimum subscription term is 12 months. Prices include P&P and are correct at the time of going to press. All prices are quoted in sterling. Offer available for UK subscribers, only. For enquiries relating to overseas pricing call + 44 (0) 1442 820 580.

I would like a years subscription to Hi-Fi World and receive a discount off the cover price (I have read and accept the terms and conditions).

I would like to pay for my 12 issues by:

6 monthly Direct Debit: Pay £22.00 every 6 months saving 19% off the yearly subscription rate of £54.00

Annual Direct Debit: Pay £40.00 every 12 months saving 26% off the yearly subscription rate of £54.00

Annual cheque/credit card: Pay £46.00 saving 15% off the yearly subscription rate of £54.00

Cheques made payable to Audio Web Publishing Ltd.

### Your Details

Title \_\_\_\_\_ Forename \_\_\_\_\_

Surname \_\_\_\_\_

Address \_\_\_\_\_

Post Code \_\_\_\_\_

Daytime Tel: \_\_\_\_\_

Email: \_\_\_\_\_

Please debit my  VISA  MASTER  MAESTRO  AMEX (SWITCH)

Security No:    (last three digits printed on the signature strip)

<input type="text"/>																			
----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------

Valid from Date: \_\_\_\_/\_\_\_\_/\_\_\_\_ Expiry Date: \_\_\_\_/\_\_\_\_/\_\_\_\_

Switch card issue No:

Cardholder Signature: \_\_\_\_\_

### Outside UK:-

**EUROPE** Airmail **£50.00**

**OVERSEAS** Airmail **£70.00**



## Send this form to:

Hi-Fi World, Subscriptions Department Unit 4 College Road, Business Park, College Road North, Aston Clinton HP22 5EZ

# Klipsch®

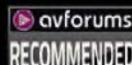
**THE ENTERTAINMENT  
ID HI-FI  
R CONNECTIVITY  
T HOME**

**ALL NEW | THE FIVES  
POWERED MONITORS**

THE FIVES are the first powered monitors on the market with HDMI-ARC to connect directly to a TV for high resolution, discrete 2-channel TV sound. Immensely improve your TV's sound with THE FIVES - easy-to-use, powered, high def speakers that connect directly to your TV - and virtually anything else.



OCTOBER 2020



AWARD 2020  
Klipsch The Fives  
OCTOBER 2020



OCTOBER 2020



LEGENDARY KLIPSCH SOUND



SIMPLE SETUP



BLUETOOTH®  
WIRELESS TECHNOLOGY



HDMI®  
HIGH DEFINITION MULTIMEDIA INTERFACE  
HDMI READY



COMPATIBLE WITH  
YOUR SMARTPHONE



AUDIO

Distributed by Henley Audio

T: +44 (0) 1235 511 166 | E: sales@henleyaudio.co.uk | W: www.henleyaudio.co.uk | f: HenleyAudioUK | y: HenleyAudio

# Love island

Atlas has delivered a new mid-range baby. Martin Pipe gets connected by the Ailsa.

**T**he substantial looking Ailsa coaxial RCA/phono interconnect (£350 for a 1m stereo pair) is the first product of a mid-market range from Scottish cable specialist Atlas.

Named after Ailsa Craig, an uninhabited 240-acre island in the Firth of Clyde that can be seen from the vantage point of Atlas' Kilmarnock factory, the new cable sits precisely midway between the entry-level element and the esoteric Asimi Luxe.

You get some idea of where Atlas is coming from through its use of the word "achromatic" - literally, free of colouration). To fulfil this, Atlas uses some of the same techniques of more expensive interconnects. Solder is avoided, Atlas instead cold-welding (precision-crimping) conductors - with calibrated tools - to connectors. Also conspicuous by its absence is silver-plating, which Kelly believes is responsible for an 'impressive' presentation that fatigues after a while. For the signal carrying core conductor of the Ailsa's proprietary 8mm-diameter coaxial cable, Atlas has specified grain-free OCC (Ohno Continuous Cast) copper; this has been claimed by some listeners to offer audible benefits, in terms of transient delivery and resolution.

The outer shielding makes use of high-purity OFC copper wire and copper/Mylar foil. In between the two concentric conductors is the dielectric layer that is carefully built-up by applying layers of microporous PTFE tape, using proprietary Atlas techniques. By wrapping the tape in a particular way, the air thus trapped forms part of the dielectric.

At either end of the Ailsa you'll another 'Atlas special' - the

Achromatic phono plug, described as a "low-mass, non-magnetic, cold-weld connector". As well as an insert containing the central signal-carrying pin, it consists of two 'half-shield' barrel plates that are secured to the plug's plastic outer housing with grub screws. The plugs mated comfortably with all of the phono sockets I tried. Contact was evidently good, yet the plugs could be removed without a tug of war.

Atlas recommends that its cables are treated to a 72 hour burn-in period at room-temperature before use, and said advice was followed. To achieve this, a Cambridge Audio Edge NQ Network streamer was attached to an Arcam A49 integrated amp via the Ailsas; an Internet radio station provided a constant and effort-free source of audio! Interstation pink noise, from an FM tuner, is probably even better. Speakers were Quadral Aurum Wotan VIIIIs.

The burn-in complete, critical music listening could begin. Even older recordings fared well with the Ailsas in circuit; greater definition was bestowed on the tambourine that is

so prominent in Iggy Pop's *The Passenger*. I also found that Iggy's characteristic vocal contribution was teased a little further out of the mix.

A greater sense of atmosphere and percussive 'snap' was perceptible when listening Joy Division's *'She Lost Control'*. I could also make out more space in large-scale orchestral works; furthermore, the

percussive crashes of Liszt's *Faust Suite* (Hungarian State Symphony Orchestra/Francesco D'Avalos) were accommodated dynamically, while at the same time managing to convince in terms of the subtleties.

Analogue sources fared well too. I hooked up my Systemdek IIXE900 belt-drive turntable (fitted with Alphason Opal arm and Denon DL304 MC cart) to the Arcam; here, the Ailsas connected the output of my phono stage (a Pro-Ject Phono Box S2 Ultra) to a spare line input. The *Are You Sphongled?* double album suggested a hint more bass depth and control. Yet for all this, no tonal imbalances are evident; the "achromatic" claims that Atlas makes for the Ailsa are, to my ears, justified. What you're actually hearing is more of your music being conveyed from source to amp.

## CONCLUSION

The intelligently-designed Atlas Ailsa phono interconnects may add nothing to your music, in terms of tonal or imaging shifts, but they do help to bring out the finer details. Well worth a trial.

### ALSO AVAILABLE:

0.5m	- £250
0.75m	- £300
1.5m	- £450
2m	- £550
3m	- £750

### ATLAS AILSA £350 (1M PAIR, AS TESTED)



**OUTSTANDING** - amongst the best.

### VERDICT

A mid-range cable that can take you just that little bit closer to the music.

### FOR

- "nowt added, and nowt taken away"
- design is practical
- well-constructed

### AGAINST

- nothing at the price

Atlas Cables  
+44 (0)1563 572666  
www.atlascables.com





**Hybrid Valve & Solid State Amplifier  
McIntosh MA12000**

- 350 Watts per channel
- 8-band tone control
- DA2 Digital audio module
- McIntosh MA9000 also available



**£16,500**

3 Year  
Warranty

**JUST  
LAUNCHED**

**McIntosh**

AVAILABLE TO ORDER

**Valve Preamplifier & Controller  
McIntosh C1100**

- 12 Analog inputs
- A choice of balanced & unbalanced outputs
- Extremely low distortion
- 6 x 12AX7a and 6 x 12AT7 vacuum tubes



**£15,600** /package

3 Year  
Warranty

**McIntosh**

IN STOCK

**Stereo Integrated Amplifier  
McIntosh MA352**

- 200 Watts per channel
- Retro all analogue design
- 5-band tone control
- 2 x 12AX7a and 2 x 12AT7 vacuum tubes



**£8,495**

3 Year  
Warranty

**JUST  
LAUNCHED**

**McIntosh**

IN STOCK

**Solid State Preamplifier  
McIntosh C49**

- 7 Analogue & 6 digital inputs
- Decode & play back high fidelity DSD files via USB
- Decode digital music at up to 24-bit/192kHz



**£5,495**

3 Year  
Warranty

**McIntosh**

IN STOCK

**A/V Processor  
McIntosh MX100**

- 5 HDMI ports
- 4K Ultra HD; Dolby Vision
- 11.2 Audio Channels; eARC; Dolby Atmos, DTS: X
- 2U Rack mountable



**£6,495**

3 Year  
Warranty

**JUST  
LAUNCHED**

**McIntosh**

AVAILABLE TO ORDER

**Valve Preamplifier and 2 x Monoblocks  
McIntosh C8 and 2 x MC830**

C8 Valve Preamplifier  
**£4,295** /each

MC830 Monoblocks  
**£9,990** /pair

3 Year Warranty



**JUST  
LAUNCHED**

AVAILABLE TO ORDER

**HARD TO FIND Hi-Fi**

Complete McIntosh Hi-Fi System



**McIntosh MT2**  
Belt Drive Precision Turntable

**McIntosh MP100**  
Phono Preamplifier & USB DAC

**Sonus Faber Lumina III**  
Loudspeakers - Available in Walnut, Wenge or Black

**McIntosh MHA150**  
50-Watts per channel Amplifier

**McIntosh MB50**  
Wi-Fi Streaming Audio Player

**Atacama Evoque Eco SE2**  
4-Shelf Hi-Fi Stand

**£20,000** /package

INCLUDES 6 x HTFH CABLES AVAILABLE IN  
MCINTOSH BLUE OR MCINTOSH GREEN

**McIntosh**

**2-Channel Valve Power Amplifier  
McIntosh MC1502**

- 150 Watts per channel
- 8 x KT88, 4 x 12AX7A and 4 x 12AT7 vacuum tubes
- Unity Coupled Circuit output transformer technology



**£13,995**

3 Year  
Warranty

**JUST  
LAUNCHED**

**McIntosh**

AVAILABLE TO ORDER

**Solid State Preamplifier  
McIntosh C53**

- DA2 digital audio module
- Supports up to DSD512 files
- 8-band analogue equalizer
- 9 Analogue & 7 digital inputs



**£9,995**

3 Year  
Warranty

**McIntosh**

AVAILABLE TO ORDER

**Dual Mono Amplifier  
McIntosh MC901**

- A monoblock amplifier that is two amplifiers combined into one
- 300 Watts vacuum tube to mids & tops and 600 Watts solid state powering bass



**£39,995** /pair

3 Year  
Warranty

**JUST  
LAUNCHED**

**McIntosh**

AVAILABLE TO ORDER

**Hard To Find Hi-Fi  
AUDIOPHILE CABLES**

Available in McIntosh Green,

McIntosh Blue and Black

[www.hardtofindhifi.com/htfh-cables](http://www.hardtofindhifi.com/htfh-cables)

**Technics Direct Drive Turntable**  
**SL-1000R / SP-10R**

- Coreless direct drive
- Separate control unit
- Probably the best DD turntables in the world



**IN STOCK**

SL-1000R <b>£15,995</b>	SP-10R <b>£8,995</b>	2 Year Warranty <b>Technics</b>
----------------------------	-------------------------	------------------------------------

**Technics Direct Drive Turntable**  
**SL-1210GAE**

- 55th Anniversary limited edition
- 1000 Units worldwide
- Special badge inscribed with a serial number



**IN STOCK**

<b>£3,999</b>	2 Year Warranty	<b>Technics</b>
---------------	-----------------	-----------------

**Technics Direct Drive Turntable**  
**SL-1200G / 1200GR / 1210GR**

- The legendary turntable reborn
- Coreless direct drive motor
- Free Vinyl included



**IN STOCK**

SL-1200G <b>£3,495</b>	SL-1200GR <b>£1,299</b>	SL-1210GR <b>£1,299</b>
---------------------------	----------------------------	----------------------------

2 Year Warranty **Technics**

**SME Turntable**  
**Model 12 + Series 309 Arm**

- Crystal Cable audio lead and internal wiring
- Available in three colour variants



**IN STOCK**

<b>£8,550</b>	2 Year Warranty	<b>SME AUDIO</b>
---------------	-----------------	------------------

**SME Turntable**  
**Model 6**

- Improved SME M2-9 tonearm
- Optional Crystal Cable package available
- New generation speed control



**AVAILABLE TO ORDER**  
**JUST LAUNCHED**

<b>£5,995</b>	2 Year Warranty	<b>SME AUDIO</b>
---------------	-----------------	------------------

**Ultrasonic Record Cleaner**  
**Degritter**

- 120kHz ultrasonic cleaning system
- Active filtering solution
- Drying fans
- Also available in silver



**IN STOCK**

<b>£2,450</b>	2 Year Warranty	<b>Degritter</b>
---------------	-----------------	------------------

**Vinyl Click & Pop Removal Processor**  
**SweetVinyl SugarCube**

- 2.0 Non-destructive click & pop algorithm
- Listen & record in real-time



**IN STOCK**

SC-1 Mini <b>£1,395</b>	SC-1 Mini / Phone <b>£1,895</b>	SC-2 Mini <b>£2,295</b>
----------------------------	------------------------------------	----------------------------

1 Year Warranty **SweetVinyl**

**Mytek**  
**Brooklyn Bridge**

- WiFi Streamer / DAC / Preamp all-in-one
- Reference headphone & phono stage
- Also available in silver



**IN STOCK**

<b>£2,395</b>	2 Year Warranty	<b>MYTEK</b>
---------------	-----------------	--------------

**Atacama 4-Shelf Hi-Fi Stand**  
**Evoque Eco SE2**

- High density carbonized bamboo
- Sonic Isolation System Technology
- Evoque Eco SE1 also available



**IN STOCK**

Natural Bamboo <b>£800</b>	Medium Bamboo <b>£880</b>	Dark Bamboo <b>£880</b>
-------------------------------	------------------------------	----------------------------

2 Year Warranty **Atacama**

**Sonus Faber Passive Loudspeakers**  
**II Cremonese Ex3me**



- 3.5-Way floorstanding reference loudspeaker
- New Beryllium DLC tweeter
- Dual bespoke side-firing 'infra-woofers'
- Totally redesigned mid-high crossover network
- Limited to 50 pairs worldwide

**IN STOCK**

<b>£48,500 /pair</b>	5 Year Warranty	<b>Sonus faber</b>
----------------------	-----------------	--------------------

**Sonus Faber Passive Loudspeakers**  
**Olympica Nova V**



- 3-Way floorstanding loudspeaker
- 32 Hz – 35,000 Hz frequency response
- Olympica Nova I, II & III also available

**AVAILABLE IN WALNUT OR WENGÉ**

**IN STOCK**

<b>£14,900 /pair</b>	5 Year Warranty	<b>Sonus faber</b>
----------------------	-----------------	--------------------

**Sonus Faber Passive Loudspeakers**  
**Sonetto V**



- 3-Way floorstanding loudspeaker
- 38 Hz – 25,000 Hz frequency response
- Sonetto I, II, III & VIII also available

**AVAILABLE IN BLACK, WHITE, WALNUT OR WENGÉ**

**IN STOCK**

<b>£4,300 /pair</b>	5 Year Warranty	<b>Sonus faber</b>
---------------------	-----------------	--------------------

**Sonus Faber Passive Loudspeakers**  
**Lumina III**



- 3-Way floorstanding loudspeaker
- 40 Hz – 24,000 Hz frequency response
- Lumina I also available

**JUST LAUNCHED**

**IN STOCK**

<b>£1,999 /pair</b>	5 Year Warranty	<b>Sonus faber</b>
---------------------	-----------------	--------------------

**Sonus faber**  
**TRADE UP PROGRAM**

Receive the full original value of your existing speakers against a new pair of Sonus Faber speakers.

**CONTACT US FOR FULL DETAILS**

TERMS & CONDITIONS APPLY.

**Avantgarde Semi-Active Loudspeakers**  
**UNO XD**



- 2-way horns system speakers
- 18 Ohm high-impedance voice coil design
- Active crossover programmable by built-in DSP

**CUSTOM COLOUR OPTIONS AVAILABLE**

**IN STOCK**

<b>£25,000 /pair</b>	3 Year Warranty	<b>avantgarde</b>
----------------------	-----------------	-------------------

☎ Mon - Fri: 10:00 - 17:30

☎ 0121-448 84 84

✉ sales@hardtofindhifi.com

**Next Day Delivery Available**

**McIntosh Reference Dealer**

**Flagship Sonus Faber Dealer**

Fast worldwide shipping with tracking provided

The majority of the McIntosh range in stock

We stock the UK's largest range of Sonus Faber





# Fyne Fare

**High-end bookshelf loudspeakers from Scotland. John Pickford listens to Fyne F1-5s in the lap of luxury.**

It's hard to look at these compact speakers and not think 'tiny Tannoy'. You wouldn't be too far from the truth if you did, because Fyne Audio is a company founded in 2017 by ex-Tannoy employees.

The company offers several ranges with the F1 series sitting at the top of the tree, which means the F1-5s are expensive; a penny shy of three grand to be precise. Still, that's a snip compared to the two floorstanders that complete the range and cost circa £22k and £28k respectively. They are beautifully finished in Piano Gloss Walnut, giving them an antique appearance that belies the

**FOCAL**<sup>®</sup>

&

**naim**

**MUSIC**  
SOUNDTEST  
**BEST BUY**

**ovforums**  
**EDITOR'S CHOICE**

*"the Aston Martin  
of the audio world"*  
Uniti Star - Forbes



**ovforums**  
**EDITOR'S CHOICE**

**Hi-Fi**  
**CHOICE**  
RECOMMENDED

*"an unqualified success  
I would recommend to anyone"*  
Aria 926 - Hi-Fi Choice



**CABLES INCLUDED**  
worth £400

## Sophisticated Hi-Fi system | **ARIA 926 & UNITI STAR**

Enjoy more from your CDs, music-streaming services, radio stations - even a boost to your TV sound - with the multifunctional Naim Uniti Star player, perfectly paired with Focal Aria 926 loudspeaker. Made to thrill; built to last.



**FOR ONLY**  
**£4,999**

Save up to £1,100

\*Black speaker finish only. Offer subject to stock availability. See conditions with participating stores.



**The tweeter features a rigid titanium diaphragm and fires from the centre of the multi-fibre paper cone woofer to provide point-source sound.**

modern hi-tech componentry inside the box. All inductors, resistors and capacitors are premium grade items, while the Neotech internal wiring attaches to WBT Nextgen gold plated terminals. There is a third terminal that grounds

produced. Rather than having two or more drivers situated on the front baffle, like most conventional loudspeakers, the IsoFlare's 'high frequency unit' – tweeter to you and me – fires from the centre of the mid/bass driver (woofer) to create a point source. I've always liked this type of design for its excellent phase coherence and focus, hence the huge 15-inch Dual Concentric Tannoys I regularly use.

Unlike those big Berkeleys, the FI-5's IsoFlare drivers do not make use of a protective dust cap covering the HF unit, as it's naked for all to see. There is plenty of high technology on board though, such as the tweeters' titanium diaphragm, Neodymium magnet with vented rear chamber and edge-wound aluminium voice coil.

The multi-fibre paper mid/bass section of the IsoFlare unit features the

then; the machined aluminium plinth attached to the 'heavily braced' cabinet must be another high-cost component.

## SOUND QUALITY

First impressions were a bit disconcerting as the speakers have a noticeable mid-forward balance. No one could reasonably expect the sort of bass weight and depth you get from a larger cone yet I was quite impressed by their low-end quality, so no problem there. No, my initial concern was the lack of top-end sparkle, giving the FI-5s an obviously dark tonal character. As I had previously been listening to the brighter-balanced KEF LS50s, I switched back to my LS3/5a monitors to get my bearings, so to speak.

Once accustomed to the Fynes' more muted character over a wide range of music, I was able to appreciate their strengths,

"I was able to appreciate their strengths, such as their extremely articulate sound."

the driver chassis to prevent RF interference, an uncommon feature, which I found unnecessary in my system.

The most obvious Tannoy-like feature is the IsoFlare drivers, which look and perform along the same lines as the classic Dual Concentric drivers Tannoy

company's proprietary FyneFlute surround, designed to terminate cone energy and reduce colouration, while the whole unit is built into a cast aluminium chassis and coupled to the cabinet's internal bracing spars.

More proprietary technology – well, patent pending anyway – is evident with the Speakers' BassTrax Tractrix low-frequency diffuser system, which features "a twin cavity cabinet design with a tuned waveguide port firing downwards from the reinforced lower panel of the cabinet". Phew! And did I mention that the crossover is Deep Cryogenically Treated (frozen)?

No wonder this compact bookshelf design is so costly



**The Basstrax Tractrix profile LF diffuser system incorporates a twin cavity cabinet design with a tuned waveguide port firing downwards.**

such as their extremely articulate sound. Dynamic expression was also strong and the combination of midrange detail and micro-dynamics made for a startling rendition of familiar material.

Richard Thompson's guitar work on Fairport Convention's *Who Knows Where The Time Goes* was reproduced with all the delicacy I've experienced through Quad electrostatic speakers, however Sandy Denny's vocals sounded a little on the cuppy side,



**A front panel Presence control allows +/- 3dB of adjustment in the lower treble 2.5kHz - 5kHz region.**

# Black Rhodium SUPERCHARGED 'S' RANGE

Black Rhodium has SUPERCHARGED 'S' its range of audio cables utilising the very latest technical advances developed during the design of Charleston loudspeaker cable.

All cables in the Black Rhodium products range have been divided into collections that contain cables of similar performance. So that for best value, a system can include a full range of cables from the same collection.

The collections are:

## Opus Collections

- Perfect for upgrading cables supplied 'in the box' with purchased Hi-Fi components.



## Calypso & Operetta Collections

A cost effective upgrade for mid range Hi-Fi systems.



## Minuet Collections

Entry level for systems composed of foundation level separate Hi-Fi components.



## Revelation Collections

Superlative cables using our finest materials and design techniques to extract the very best sound from high end audio systems.



Hear the performance your system is really capable of, shop now at:

[www.Black-Rhodium.co.uk](http://www.Black-Rhodium.co.uk)



**The F1-5's cabinet has a furniture-standard finish and is attached to a heavyweight machined aluminium plinth. Adjacent to the gold-plated speaker terminals is an earth terminal that grounds the driver chassis to avoid radio frequency interference.**

with a tendency towards aggression during louder passages, especially at higher volume levels. I missed the sense of air and space around cymbals and turning up the front panel presence control (+3dB at 2.5kHz – 5kHz) impaired midrange accuracy without adding any useful gloss.

Listening to poorly produced pop music was pointless. However, Dave Holland Quartet's *Conference of the Birds*, beautifully recorded for the ECM label, played to the F1-5s strengths, sounding nimble yet fulsome with a gorgeous bass tone. Imaging was precise and focused, as you might expect from a point source design, if not particularly panoramic.

Jose Feliciano's version of *California Dreamin'* was also successfully reproduced, proving the speakers can replay rhythms as well as deliver delicacy and detail. The smooth string sound coated in a dark reverb suited the F1-5s tonal balance well and, for once, I didn't

**NOEL SAYS -**

In our large room (6550 sq ft) the first thing that hit me from these speakers was their glorious Tannoy-like sound staging. I know and love Tannoys and these little things were trying their darndest to be dimensionally impressive in similar fashion. This seems to contradict John's comments but I suspect room acoustics are the confusing factor here. Otherwise, the bass/mid cones have a well damped (dark) sound but the treble horn is forward, making for incohesion. Super-high treble (the hissy bit) is missing too. I thought "characterful and engaging but could usefully be tweaked for a more svelte result"

miss atmospheric at the highest frequency extremes.

**CONCLUSION**

Many potential users will love the immersive insight on offer here with the Fynes sounding convincingly communicative and dynamically expressive. For me, the lack of high frequency extension coupled with a slightly papery midrange character make them too music dependant to be a truly satisfying long-term listen.

Well worth auditioning with your favourite test-tracks but beware of side-by-side comparisons that will show how much brighter the competition is.

**SYSTEM USED**

- Thorens TD124 mkII/Michell
- TechnoArm A/Benz Micro Ace
- Icon Audio PS1
- Leak TL12+
- Naim Nait XS3
- iTunes via iFi Audio Nano DAC

**MEASURED PERFORMANCE**

Frequency response of the Fyne F1-5 extends reasonably flat from 60Hz to 5kHz our analysis shows (green trace) before slowly rolling down toward 16kHz, with front panel control at central zero. The high frequency roll-down was consistent at all forward positions, being slightly less pronounced off-axis. Symmetrical high frequency horns are smoothest slightly off-axis and our trace shows this. The front panel control introduced +2dB plateau lift from 2kHz to 5kHz, enough to raise midband detail and add in some brightness. Turning the control down made no difference at all, so it adds lift but not cut.

The port is tuned to 55Hz the impedance trace shows by the port imposed dip, and the frequency response shows in the red trace. The width of the red trace of port output suggests good acoustic damping and well controlled bass as a result. The F1-5 reaches down to 60Hz, the port helping extend this down to 40Hz.

A peak in the midband at 1kHz coincides with a peak in port output (red trace), suggesting a strong internal cabinet resonance at this frequency, likely from the rear panel, causing brightness colouration.

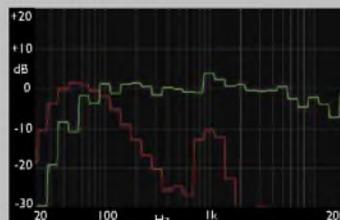
Sensitivity was fair at 84dB sound pressure level from one nominal Watt

(2.8V) of input; a 100 Watt amplifier may be best. As a load the F1-5s measured 7 Ohms with pink noise, dropping to a minimum of 4.7 Ohms (dcr). The impedance trace shows this – and that crossover to the tweeter occurs at a very high 6kHz, so it covers little of the audio band; the single bass/midrange driver does most of the work.

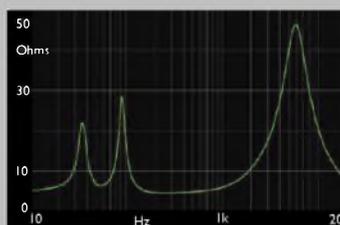
The Fyne F1-5 is reasonably accurate in balance, but has a mid-band peak and lacks upper treble. **NK**

**FREQUENCY RESPONSE**

Green - driver output  
Red - port output



**IMPEDANCE**



**FYNE AUDIO F1-5**  
**£2,999**



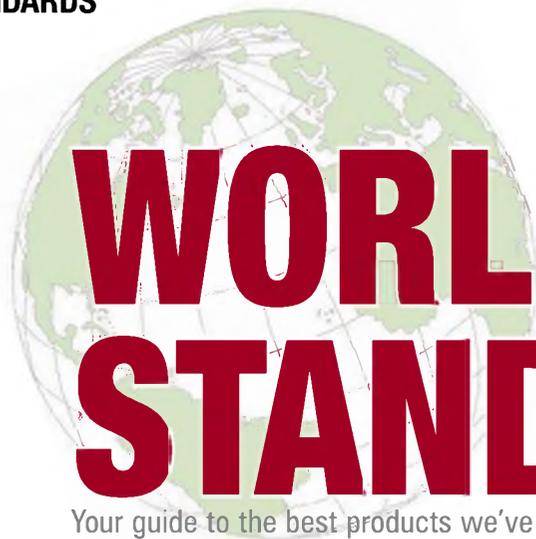
**EXCELLENT - extremely capable.**

**VERDICT**  
Articulate and expressive with a tonal balance darker than most. Unforgiving of poor recordings.

- FOR**
- detail and delicacy
  - decently large soundstaging
  - strong yet fluid bass

- AGAINST**
- lack of top-end sparkle
  - forward midrange
  - expensive

Fyne Audio  
+44 (0)141 428 4008  
enquiries@fyneaudio.com



# WORLD STANDARDS

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

## TURNTABLES

**AVID INGENIUM** £800  
Great bass response and upper midrange detail allied to clarity makes this a must-hear at its price-point.



**CLEARAUDIO INNOVATION** £6400  
Expensive, but offers great results from a finely honed and beautifully finished belt drive turntable, with servo control from the platter to keep a grip on tempo like few others. Can be fitted with a Clearaudio tangential arm, or any conventional design. Awesome.



**INSPIRE MONARCH** £4,350  
A rebuilt from the ground up Technics Direct Drive, having blistering pace and dynamics allied with smoothness, sophistication and purity of tone. A true reference.



**LINN LP12SE** £3,600  
The UK's most iconic turntable, the legendary Sondek goes from strength to strength. New Keel sub-chassis and Radical DC motor add precision and grip to one of the world's most musical disc spinners. Expensive though.

**MICHELL GYRO DEC** £1700  
Wonderful styling coupled with great build and finish make this turntable a delight for friends and family. It has an attractive clear acrylic dust cover, and you can mount just about any arm. A current design standard.



**PRO-JECT ESSENTIAL DIGITAL** £300  
A budget turntable that turns in a great analogue performance, but also has a hi-res digital output. Send 24/96 across your lounge via optical cable to a DAC and get great audio quality. Or record LP to your laptop.



**REGA RP3** £550  
The first of the super-quality Regas, little compromised by price and featuring Rega's outstanding RB303 tonearm, suitable for MM and MC cartridges. A standard at the price point.

**TIMESTEP EVO** £2100  
The famous Technics SL-1210 MkII Direct Drive but with improved plinth, isolation, main bearing and power supply, plus an SME arm (add £1500). DD convenience, rock steady pitch and fab sound at a great price. Our in-house reference.



## TONEARMS

**ORIGIN LIVE ENCOUNTER MK3C** £1,745  
Origin Live combines carbon fibre and ebony to marvellous effect in its new 12-inch arm. Creamy and rich in presentation, the Encounter dives deep into the mix for a satisfying listen.

**HADCOCK GH-242 EXPORT** £810  
Consummately musical, lyrical sounding tonearm, but needs the right turntable.

**ORIGIN LIVE ONYX** £450  
Easy, smooth, creamy nature that reminds you why you're listening to vinyl in the first place. Essential audition at the price.



**REGA RB303** £300  
A one piece tapered casting makes this arm's structure almost unrivalled. Great dynamics and superb imaging, for MM and MC. Reference quality for peanuts.

**SME 312S** £1,600  
Twelve inch magnesium alloy tapered arm tube plus SME V bearings. An insightful yet smooth and relaxed sound. Superlative build completes the package. Our Editor's steed.



**SME 309** £1500  
A one-piece tapered 9in arm finished like a camera and sleek to use. Superlative SME quality and sound at affordable price.

**SME V** £3000  
Offers rapid fire timing and a sense of precision, plus rock solid dynamics. Top dollar for deep pockets.

## CARTRIDGES

**AUDIO TECHNICA AT-OC9 MLIII MC** £420  
A fine sounding MC with strong bass and super fine treble from a great stylus – yet inexpensive.



**AUDIO TECHNICA AT-F3/III MC** £150  
Great value entry level moving coil with detail and grip you just can't get from similarly priced moving magnets.

**BENZ MICRO ACE SL MC** £595  
Smooth, lucid and full-bodied, award-winning, hand-made cartridge from Switzerland.

**BENZ MICRO WOOD SL MC** £945  
Highly finessed Swiss moving coil that plays music with riflebolt precision.

**DENON DL-103** £180  
A popular and much loved budget MC with big bass, smooth treble and deep sound stage. Fantastic value.



**LYRA TITAN I MC** £3,500  
Breathtaking speed and dynamics from LP, helped by diamond coated, boron rod cantilever.



**ORTOFON 2M MONO SE MM** £80  
A mono cartridge purposed for The Beatles in Mono microgroove LPs. Fitted with a top quality Shibata tip. Fab for the four.



**ORTOFON 2M BLACK MM** £400  
As good as it gets from MM. Fabulous detail and insight from a Shibata stylus, good bass and excellent tracking.

**ORTOFON CADENZA BRONZE MC** £1,400  
A mid-price MC with a slightly livelier presentation than the super smooth Cadenza Black. High-end sound at midband price – great value.



**ORTOFON CADENZA BLACK MC** £1,800  
Ultra smooth and dimensional moving coil with bass and punch aplenty. Lovely stylus.

**ORTOFON A95 MC** £3,750  
Fast and extremely detailed, this is an MC cartridge that sets standards.

**REGA CARBON MM** £35  
Budget price for a competent cartridge with a fairly unflappable nature. Ideal for beginners.



**GOLDRING 1012GX MM** £250  
A glorious sounding cartridge with solid bass and strong dynamic punch, plus excellent treble from its Fritz Geiger stylus. Fun and affordable.



**SHURE M97XE** £80  
Big warm sound, but great tracking and bullet proof stylus protection from damped guard. A survivor.

**VAN DEN HUL DDT-II SPECIAL MC** £995  
Long-established cartridge from Holland with an open and dynamic sound

**PHONO PREAMPS**

**CAMBRIDGE AUDIO 651P** £200  
Clean, concise sound from MM and MC cartridges at a very low price. A real bargain.

**ICON AUDIO PS3 MKII** £2,500  
All valve MM phono stage with MC transformer option, graced by big, spacious and relaxed sound.



**LUXMAN EQ-500 PHONOSTAGE** £4,495  
A fully-equipped phonostage from Japanese manufacturer Luxman that offers comprehensive cartridge matching allied to superb sound



**LEEMA ACOUSTICS ELEMENTS ULTRA** £1,199  
Smooth and detailed sound with the ability to accommodate most modern cartridges. Exceptional value for money.



**PRO-JECT TUBE BOX DS** £425  
Compact MM and MC phonostage with valve output circuit and a big sound.



**QUAD QC24P** £995  
MM and MC, oodles of gain, a volume control – and valves! Looks superb and sounds even better: smooth, atmospheric and big bass.

**TIMESTEP T-01MC** £995  
New, minimalist phonostage that sonically punches well above its weight.

**PREAMPLIFIERS**

**ICON AUDIO LA-4 MKIII** £1,400  
Uses early 6SN7 triodes for liquid sound. Has plenty of gain and a remote control into the bargain.



**MF AUDIO CLASSIC SILVER** £4,500  
One of the best preamplifiers we've heard at any price, this transformer-coupled marvel does very little wrong. It's powerful, clean and open, yet delicate. Its sound is unmatched at or near the price.

**MING DA MD7-SE** £1,520  
A valve preamplifier with an open, effortless sound and a big soundstage. It has plenty of gain so will accept any source and drive any power amp. A real beauty.



**INTEGRATED AMPLIFIERS**

**ARIAND PRO845SE** £1,499  
Pure single-ended valve magic. Low-powered but immediately gorgeous, easy-going yet forcefully dynamic at the same time.



**AUDIO RESEARCH VS160** £3,500  
Power house sound with enormous pace and punch from traditional U.S. muscle master Audio Research. Breathtaking, but expensive.



**CAMBRIDGE AUDIO AZUR 651A** £350  
Dual-mono construction and meaty toroidal power supply combine to produce a solid and sharp sound with sonics far beyond its price point

**CREEK EVOLUTION 100A** £1,500  
Superb build and smooth confident sound make this powerful amplifier a benchmark.



**CYRUS 8DAC** £1,400  
Trademark shoebox-sized Cyrus integrated now offering 88Watts per channel, plus DAC. Svelte delivery from a dainty case that fits in anywhere – and isn't Class D!

**EXPOSURE 1010** £495  
Entry-level integrated from Exposure has excellent upper mid-performance with an almost valve-like sound



**ICON AUDIO STEREO 60 MKIII** £2,800  
Excellent tube integrated with plenty of power and an expansive soundstage, plus KT150 tube option and bias meter for easy adjustment.



**NAIM NAIT 5Si** £925  
Naim's fabled entry-level integrated amplifier is updated to si status. Demos Naim's superbly muscular sound at entry level.

**SUGDEN A21SE** £2,480  
Class A amp with fantastic sound quality producing hard, sculpted images, deep detail and tight bass. Just don't expect disco-like sound levels!



**POWER AMPLIFIERS**

**AUDIO RESEARCH VS175** £7,498  
Powerful, fast valve sound that makes everything else look weak at times. Needs careful matching but well worth the effort.

**AUDIO RESEARCH VS115** £5,000  
Oodles of power with enormous punch. Rafael Todes said it provided "shock and awe" while retaining incredible smoothness and texture.

**ICON AUDIO MB845 MKII** £7,600  
With 120W from big 845 valves right down to low frequencies, this power amplifier has massive dynamics and bass swing, yet is easy on the ear.



**ICON AUDIO MB81PP** £15,000  
Big Russian transmitter valves deliver 200W from these massive monoblock amplifiers. Frightening in every sense.

**MCINTOSH MC-152** £4,995  
Stunningly insightful sound with enormous bass punch from a uniquely designed transistor amp. Amazing audio, a league up, if expensive.



**QUAD ELITE QMP MONOBLOCKS** £2400 PR  
The proverbial iron fist in a velvet glove. Plenty of power but delivered with an assured and confident nature. Smooth on top and easy on the ear but can rock out when needed.

**QUAD II-EIGHTY MONOBLOCKS** £6,000 PR  
Powerful and expansive sound from modern design monoblocks that also look lovely. Superb – used by us as a reference.



**LOUDSPEAKER FLOORSTANDER**

**B&W 803 D3** £12,500  
B&W's updated statement floorstanders deliver depth and definition with breathtaking speed and authority, aided by a diamond coated tweeter. Expensive – but enormously impressive.

**CASTLE AVON V** £1,600  
A big floorstander at a modest price that suits the average room. Refined ribbon treble and deep bass give it a great delivery.



**EMINENT TECHNOLOGY LFT-8B** £2,500  
Excellent U.S. planar magnetic loudspeaker at bargain price. Utterly superb - a must hear.

**EPOS K2** £1,000  
A fun sound that is tidy all round and very engaging, with solid bass. Music as you hope it to be.

**FOCAL ARIA 926** £1,400  
Simple, clean, neutral sound – easy going but well engineered and affordable.

**MARTIN LOGAN SUMMIT X** £16,698  
Matches Martin Logan's XStat electrostatic panel to a powerful subwoofer to provide extended, powerful bass. Dramatic sonic purity. Awesome – all but unmatched.



**MARTIN LOGAN ELECTROMOTION** £2,500  
Martin Logan's budget baby XStat hybrid electrostatic. Fits into any lounge to give electrostatic levels of clarity and imaging.



**QUADRAL CHROMIUM STYLE 8** £1,700  
A supremely smooth yet open sounding loudspeaker. Clean and detailed treble from a fine ribbon tweeter. Accurate yet informative and enjoyable. Pure class.

**QUADRAL ORKAN VIII AKTIVS** £6,200  
Active loudspeaker with tight, powerful bass, perfect accuracy and detailed treble from a ribbon tweeter.



**Q ACOUSTICS 2050i** £480  
A large floorstander at a budget price. Offers high sensitivity and big sound and has very few flaws for the price.

**SPENDOR SP100 R2** £6,495  
Retro looks but a sound that's hard to match. Spendor's 12" bass unit provides massive low-end grunt with a room-filling sound.



**SPENDOR A3** £1,300  
Fine little floorstander with a smooth, natural midband and even tonal balance. Ideal for smaller rooms.

**TANNOY DEFINITION DC10 Ti** £6,000  
Enormous power with great projection. Glorious subsonics too. Need little power to go very loud and have superb finish into the bargain.



**TANNOY KENSINGTON** £9,950  
Big but not overpowering, punchy modern sound from classic cabinetry. Need little power to go very loud and suit a traditional home, or castle.



**LOUDSPEAKERS STANDMOUNT**

**ACOUSTIC ENERGY NEO 1 V2** £225  
Civilised sounding speaker with fast and tuneful bass.

**ACOUSTIC ENERGY AE1 CLASSIC** £845  
Brilliantly successful remake of an iconic design; not flawless, but surely one of the most musical loudspeakers ever made.



**ELAC BS243** £1,000  
More transparent and spacious than they've a right to be at this price, these refined mid-price standmounters represent top value.



**EMINENT TECHNOLOGY LFT-16A** £1,200  
U.S. planar magnetic bookshelf loudspeaker with unrivalled mid-band and treble. Hear it before all else.

**WHARFEDALE DIAMOND 220** £200  
Builds on the success of previous Diamond ranges with better bass, more detail and a greater sense of scale.



**KEF LS50** £800  
Supremely musical mini-monitors which sound much bigger than they look



**MARTIN LOGAN MOTION 35** £1,300  
Folded Air-Motion tweeter gives a taste of Martin Logan's electrostatic sound in a standmount. Different from the standard mini-monitor and all the better for it.



**PMC TWENTY.21** £1,575  
Transmission line loaded standmount with a big box sound from a compact cabinet. Punches well above its weight.



**Q ACOUSTICS 2020i** £165  
Great little bargain-priced stand-mounts with a friendly, fun yet surprisingly refined sound. Hard to better for a pair of starter loudspeakers.

**WHARFEDALE DENTON** £500  
A beguiling mixture of retro looks with modern, high-technology drive units. The Denton has an easy-going, big-hearted sound with a touch of trad warmth that should appeal to many.



## HEADPHONE AMPLIFIERS

**CREEK OBH11** £150  
Designed specifically for low to medium impedance (30 Ohm – 300 Ohm) headphones the little Creek has a marvelously well-judged sound.

**CHORD MOJO** £399  
Class leading portable DAC and headphone amp with ability beyond all else. Big, open spacious sound.



**EPIPHANY EHP-02** £99  
FP3 battery-powered portable gives great sound quality at an almost giveaway price. Happy with the output from an iPod or CD player, the little epiphany is a true bargain.



**ICON AUDIO HP8 MKII** £650  
The HP8 MKII valve-based headphone amplifier brings the spacious sound of valves to headphones. And it matches 'em all.



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

**MUSIC FIRST PHONE BOX** £276  
Brings a big stage, plenty of detail and rich, deep colours to the sonic spectrum.



**OPPO HA-2** £250  
Remarkable performance and sound from ESS Sabre32 DAC in a slim portable package.



## CD PLAYERS

**AUDIOLAB 8200CDO** £949  
Inspired CD player and DAC with price-performance ratio like no other. Capable of matching designs costing much more.



**CANOR CD2+** £3,100  
Musically coherent and tuneful valve-driven CD player from Slovakia. Lovely liquid sound.



**CAMBRIDGE AUDIO AZUR 651C** £410  
Snappy modern presentation from this budget CD player. Cracking audiophile entry point for any digital fan.

**CHORD RED REFERENCE MKII** £16,000  
A unique and massive engineering exercise that could well be the best CD player available. Chord's Pulse Array DAC technology produces a musical experience like few others. A true reference player



**ESOTERIC K-03** £9,495  
Superb high-end silver disc spinner that is beyond criticism. Devoid of its own character but has a flawless presentation



**EXPOSURE 101** £395  
Detailed player with fine sense of timing should be an automatic entry on any demo list at this price.

**ELECTROCOMPANET EMP-1/S** £4,650  
Epic in scale, lavish in tone and exuberant in its musicality - this is a memorable SACD spinner. Quirky in operation and modest in finish, though.



**OPPO BDP-105D** £1200  
Universal player and DAC that makes CD and Blu-ray (+DVD) sound deep, spacious and full bodied. Reference quality that's affordable.



**REGA APOLLO-R** £550  
Rega comes up with a fine CD player again. Tremendous detail and an easy, unforced sound at all times. Few bells and whistles but made up for by its superb sonic ability.



**ROKSAN KANDY K2** £900  
A charmingly musical performer at the price - this is a surprisingly sophisticated CD player for the money.

**TUNERS**

**CAMBRIDGE AUDIO AZUR 651T** £299  
Value-packed AM/FM/DAB and DAB+ ready tuner. Precise and detailed with excellent resolution of spoken word.



**CREEK DESTINY 2** £550  
Creek's tuner expertise shines through in the Destiny 2. This AM/FM receiver is wonderfully three-dimensional and smooth.



**MAGNUM DYNALAB MD-90T** £1,900  
Exceptionally able, but commensurately priced, audiophile tuner that cannot fail to charm.



**DACS**

**AUDIOLAB M-DAC** £600  
Excellent sound from ESS Sabre32 DAC and impressive flexibility with a unique range of filter options make this a stand-out product. Low price is the icing on the cake.



**AUDIOLAB Q-DAC** £250  
Stripped-down version of Audiolab's M-DAC loses some features but retains much of the sound, making it a veritable bargain.

**ANTELOPE ZODIAC GOLD/VOLTIKUS** £3,095  
DAC/preamp/power supply combination majors on detail but has a remarkable un-digital sound. One of the best at its price.



**CHORD 2QUTE HD** £990  
Superb build quality and exceptional sound from this compact unit. Boasts the ability to handle DSD direct via USB and has an exceptional soundstage. One of the best DACs you can buy.



**DCS DEBUSSY** £8,000  
DCS's bespoke 'Ring DAC' circuit gives a beautifully-fluid, almost analogue sound that encourages long listening sessions. Not cheap but worth every penny.

**NORTHERN FIDELITY DAC** £650  
Packed full of features, including Bluetooth and USB, this ESS Sabre32 equipped DAC offers crisp insightful sound at low price.



**METRUM OCTAVE** £729  
Unique two-box digital-to-analogue convertor with great sound at a great price. Cuts upper treble, though.

**NAIM DAC** £2,400  
Superb high-end digital convertor with a probing, punchy and forensically-detailed sound.



**TEAC UD-501** £699  
Feature-packed DAC with benefit of DSD playback. Superb sound means little to touch it at the price.



**RESONESSENCE INVICTA MIRUS** £4,499  
One of the most highly spec'd DACs available, with a smooth yet enthralling presentation. Few approach it.



**NETWORK PLAYERS**

**CHORD DSX100** £7,500  
Chord's proprietary DAC circuit shines in their top-of-the-range streamer. Hear-through clarity with a sound rich in detail, dynamics and soundstage.



**CAMBRIDGE AUDIO NP30** £399  
Budget offering from Cambridge offers a great introduction to network streaming.

**CYRUS STREAM X** £1,400  
Gorgeous sound quality even from compressed digital music. New control app makes everyday operation a doddle.



**CONVERT TECHNOLOGIES PLATO** £2999.00  
A network player with amplifier that does it all, including turn LP to hi-resolution digital, and add cover artwork from the 'net.



**NAIM NDX** £2,995  
Clean, incisive and very detailed sound with Naim's traditional pace and timing make this one of the best network music players around.

**NAIM ND5XS** £2,175  
Great sound quality with traditional Naim heft. A wonderful DAC with full 24/192 handling. Only the display could be better.

**NAIM NAC-N172 XS** £1,650  
A pre-amp/DAC/streamer package provides a taut, rock-solid presentation with a tonally rich midband and a superior sense of rhythm.



**PRO-JECT STREAM BOX RS** £1,095  
Unusual valve-based streamer/preamp with variety of inputs and a lovely liquid sound. Not the most detailed but compensates with sheer musical verve.

**QUAD PLATINUM DMP** £2,500  
Combined CD/network player has all the usual Quad elements but with added zest and detail that brings life to everything you care to play.



**DIGITAL SOURCES**

**ASTELL&KERN AK100 MKII** £569  
Portable high-definition digital player with superb sound quality. Punchy and fast.



**FiiO X3** £150  
Fabulous value player with nice easy sound and full range of abilities. Small and light. For newbies.

**LOT00 PAW GOLD** £1,500  
Reference quality sound; it's like carrying your hi-fi in your pocket. Equivalently large too, but stunning headphone quality.



**NAIM HDX** £4,405  
Interesting one-box network-enabled hard-disk music system that gives superb sonics together with impressive ease of use.

**NAIM UNITILITE** £1,995  
A 50W amplifier with traditional Naim heft, a CD player and vhf/fm radio, plus network input and Bluetooth make this a great all-in-one.



**PORTABLE SPEAKERS**

**BYAN SOUNDBOOK** £149.99  
Superb design and great sound make for one of the best portable Bluetooth speaker/radios on the market. Not the cheapest – but worth every penny.



**IRIVER IBA-50** £69  
Big, warm sound with plenty of volume and clean at high levels. Muscular sound compared to many rivals.

**CABLES**

**BLACK RHODIUM TWIST** £71/3M  
Twisted to fight off radio frequency, the Black Rhodium speaker cable is easy on the ear with a fine sense of clarity and focus. A remarkable performer at the price.



**MAINS CABLES R US NO.27** £95  
Offers a sprightly pace with a precise nature. Fast performance enhance frequencies and beautifully etched detail.



**CHORD SIGNATURE REFERENCE** £900  
Majors on timing, detail and openness. Capable of getting the best from most systems and a recommended upgrade.



**TELLURIUM Q BLACK** £280/3M  
A deep, dark, velvety performer that's nevertheless highly musical, it represents excellent value as mid-price cables go

**TELLURIUM Q SILVER DIAMOND** £804/M  
An open, natural and transparent sound that is difficult to beat, from these great loudspeaker cables



**HEADPHONES**

**AUDEZE LCD-3** £1,725  
A planar magnetic 'phone that offers monitor quality. Strong sound with silky, dark quality that others struggle to match.



**B&W P3** £170  
Beautifully presented headphones from the loudspeaker specialists. Feed them a good quality source signal and they reward with excellent sound.

**JAYS V-JAYS** £49  
Wonderful little budget over-ear portable 'phones with a clean, clear sound to beat the best of the rest at the price.



**NOBLE K10 INC. FITTING** £1,279  
Custom fit in-ear phones with 10 drivers deliver a sound that is out of this world. Personal and perfect



**OPPO PM-1** £950  
Planar magnetic phones with a warm, easy but big bodied sound that draws you in. Need a lot of drive, but deliver superb bass.



**SENNHEISER HD700** £599  
Tremendously fast with a strong, focussed, lower-frequency range and a firm bass punch.



**YAMAHA HPH-MT220** £150  
Purposed for indoor monitoring yet light and comfortable enough to be used on the move. Excellent sound quality marred only by a slight warmth to vocals.

# Beta By Design



**There's Gallic charm aplenty on offer with Esprit's Beta loudspeaker cables – as Kulwinder Singh Rai discovers.**

**E**sprit is a new name to me (and so probably will be to many of you) but it turns out this French manufacturer has been hand-crafting cables for audio enthusiasts for the last 24 years. It's got form.

The Beta speaker cables tested here are drawn from an eight-series line up, Beta being second from bottom in the series ranking, one above the entry-level Alpha offer. With pleasing logic, each series offers interconnects, loudspeaker cables and mains power cables, allowing a coherent and comprehensible approach to selection and upgrading.

Our review cables came with banana connectors but can, alternatively, be supplied with spades. Whichever style of termination you opt for they'll be fashioned from copper, plated with a 20 micron layer of silver and soldered with silver (4% content) solder.

Unpacked, these progressively screened cables are flexible but feel substantial and built to last. Underneath the black braided jacket you'll find high purity, multi-stranded (700 strands of 0.07mm diameter, to be precise) 5N OCC copper – procured from a quality Japanese source – and wrapped in a polarised dielectric (it's proprietary tech so

Esprit is keeping the details under its chapeau).

In acknowledgement of the electrically dirty environments so many of us find ourselves living in these days, a RFI/EMI countermeasure in the form of a 35mm long ferrite choke has been wrapped around the cable, positioned about 30cm before the plugs at the speaker end. Usefully, this is screen-printed with a large, unmissable arrow, signifying correct signal directionality.

## SOUND QUALITY

Languid and refined, Beta's midrange is, if you'll forgive the linguistic appropriation, its piece de resistance,



an object lesson in natural tonality and balance.

Affixed to a Naim SuperNait 3 and driving Dali Epicon 2s, it conveyed vocal character beautifully, delivering the goods with entirely believable body, projection and weight.

Tasked with Melody Gardot's *If You Love Me* (Tidal, MQA) the Beta also successfully communicated the depth perspectives present, her honeyed, close-miked vocals taking precedence in the soundstage, with the RPO palpably placed behind her and Till Bronner's trumpet appearing closer.

The timbre and delicacy of instruments with more complex material were also faithfully conveyed, the flute at the opening of the adagio in Rachmaninoff's Piano Concerto No.2 in C Minor (FLAC, 16-bit) proving utterly spellbinding.

No doubt about its qualifications when it comes to rhythm and timing, either. Paloma Faith's *Kings and Queens* had all the fluidity, ease and driving speed I could hope for. Ditto Creedence Clearwater's *Fortunate Son* (Tidal, MQA) which had just right degree of rolling aggression and bite: Beta knows how to rock when it has to.

Downsides? Some minor ones. Dynamically, this cable might seem slightly too relaxed in unsympathetically matched systems and - fractionally - subjectively slow. And while the soundstage has acceptable depth (and better width) it's focussed a little behind the plane of the speakers.

Lastly, there's a slight but audibly obvious reticence to explore the very farthest reaches of upper and lower frequencies. But – and this

is important - the cable's inherent ability to convey a convincing musical picture seems in no way compromised because of those traits. It's just that you're always aware that, primarily, you're soaking up whatever musical message there is courtesy of that communicative midrange.

### CONCLUSION

Esprit's Beta loudspeaker cable isn't cheap but it's categorically entry-level high-end in performance terms. It manages to tread a beautifully judged path, pleasingly expressive, adding little in the way of colouration and mercifully free of any glaring idiosyncrasies. Yes, doubtless there's more bandwidth and insight to be gained as you progress further up the Esprit series ladder, but this is a more than enjoyable second rung to park yourself on.

### ESPRIT BETA £580 FOR TERMINATED 3M PAIR



**OUTSTANDING** - amongst the best.

#### VERDICT

An immensely likeable, tonally well-balanced cable that preserves musical flow.

#### FOR

- fluent and natural perspectives
- midrange its greatest strength
- excellent build quality

#### AGAINST

- doesn't explore the frequency extremes

Midland Audio Xchange  
+44(0)1562 731100  
[www.midlandaudiox-change.co.uk](http://www.midlandaudiox-change.co.uk)



# A fitting tribute

Shortly before he died, legendary hi-fi engineer Ken Ishiwata teamed up with Rotel to rework their A11 integrated amplifier and CD11 CD player. Chris Frankland assesses these Tribute models.



**F**ew figures in the world of hi-fi reach the almost celebrity status enjoyed by the late, flamboyant engineer Ken Ishiwata. He spent 41 years at Marantz, where he was brand ambassador, and enjoyed a great following for his demonstrations at hi-fi shows.

But what he was best known for was his talent for identifying products worthy of being modified and then suggesting component changes that would take their performance to a higher level. The KI Signature products he developed for Marantz won many admirers.

The A11 and CD11 Tribute models celebrate Ishiwata's partnership with Rotel after he left Marantz in May 2019. Rotel's chief technology officer Daren Orth had known Ishiwata for many years, as had the Tachikawa family, who founded and own Rotel. For this

collaboration, they decided to focus on the A11 amplifier and CD11 CD player, which had already won the company several awards.

The A11 Tribute amplifier is a 50 Watt Class A/B design and was given the Ishiwata treatment with the goal of delivering a "richer, more expressive and true-to-life experience", to which end six capacitors in the preamp section were upgraded, which is half of the components in the signal path. The six resistors in the volume stage were also upgraded, while the amplifier was also given a large, custom-designed, in-house developed toroidal mains transformer. In the power amplifier stage, all 10 capacitors and two resistors in the signal path were changed for specially selected components that Ishiwata believed would improve the amplifier's performance.

In addition to these component

changes, damping materials were added to the chassis to help reduce ringing and vibrations.

In the CD11 Tribute CD player Ishiwata identified eight capacitors and one resistor in the DAC stage that needed to be changed, at the same time as upgrading the capacitors in the power supply. Changes were also made to the mechanical and electrical grounding of the player and damping material was added to the top cover to eliminate vibrations and ringing.

Sadly, Ishiwata died in November 2019 before this project reached completion, but the Rotel team worked on to bring it to fruition.

The A11 integrated amplifier



*A11 remote control allows finer adjustment over the tone controls and loudness contour.*

measures 93mm high, 430mm wide and 345mm deep and has a linear power supply with custom-made toroidal mains transformer, visible through the cooling slots in the top plate, giving a reassuring weight of 6.85kg. There are four line-level analogue inputs and a moving magnet Phono input for LP. There's digital too, in the form of Bluetooth, decoded by a 24-bit, 192kHz Texas Instruments DAC. But no USB or S/PDIF digital inputs.

Unusual is the inclusion of tone controls, which provide a claimed adjustment of  $\pm 10\text{dB}$  at 100Hz and 10kHz (see test results). These can be completely bypassed, however, which is how I used the amp.

Connections are provided for two pairs of loudspeakers, which can be selected with push-buttons on the front panel to the left of the digital display. Input selectors reside under the display, while to its right the menu button offers other options such as balance, adjusting the tone controls or bypassing them and setting the brightness of the display. A remote control is also provided.

### A11 SOUND QUALITY

To assess the sound quality of the A11 on its own, I used as my sources an Audio Note CD4.1x CD player, TT3 turntable with Arm2/lo1 cartridge and S9 transformer, as well as a Pro-Ject Stream Box Ultra streamer.

The speakers I chose were the excellent Definitive Technology D9 stand-mounts at around £800. These were driven effortlessly by the A11, not surprising when you see



**Ken Ishiwata changed many internal components for the A11 Tribute and specified a large, custom-made mains transformer.**

that in the lab tests it delivered an impressive 78 Watts into 8 Ohms.

On hand for a direct comparison was the Audiolab 8000A integrated amp, which is similarly priced (£599).

I kicked off with the title track from Sleepwalk, my favourite CD from ace guitarist Larry Carlton. This is a superb recording where Carlton showcases his virtuosity on a variety of guitars from his signature Gibson ES335 (he is known as Mr 335) to a Guild Blues Bird and, for the title track I was listening to here, his beautiful Valley Arts Stratocaster.

The A11 captured the wonderfully plaintive voice of his strat really well and the Fender Rhodes piano was well conveyed, although perhaps lacking a little sparkle in the upper registers compared with the Audiolab. The bass line was well controlled and powerful, but could have been tighter and a bit more tuneful, I thought.

Moving onto the track Mexico

from James Taylor, again the A11 could hold its head high, conveying his guitar and vocals well. It gave the song a good rhythmic impetus, although drums were a bit snappier and vocals a little more articulate on the Audiolab. Its sound, however, was weighty, detailed, well balanced and lacking any obvious nasties and it is after all £100 less than the 8000A.

On Sunny Side of the Street from my favourite jazz/bebop pianist/crooner Ben Sidran, the song moved well and vocals were open and articulate, the bass line weighty and drums well conveyed. However, I felt that, by comparison with the Audiolab, the bass line could have had more rhythmic grip and drums more dynamics. On balance, though, a good performance, if not, in my view, a class-leading one.

Finally, sax player Eric Marienthal's rendition of that great Van Morrison song Have I Told You Lately was next up. Did it capture



**Inputs on rear of the A11 Tribute are via RCA phono sockets and include a moving magnet Phono option for LP. Connections are provided for two sets of 'speakers.**

the virtuosity and sheer power of his alto sax play well? Yes, it did, and David Benoit's piano was nicely resolved, although I felt the bass line of the track was a little woolly. Sax could have had more bite, but again the feel of the track came across very well.

I quickly switched to the Audio Note TT3 turntable to check out the A11's phono stage. And here I can report it worked extremely well, conveying the qualitative leap forward going from the CD11 to the TT3. It was detailed, dynamic and musically compelling. A very good performance.

It also performed

"the clean and dynamic sound of the CD11 well suited the equally poised and well balanced A11"

very well on Bluetooth using the Pro-Ject streamer, proving that the A11 is indeed an extremely versatile performer on a number of sources. Using the Rotel CD11 as a source through the A11 and D9 speakers did not change my thoughts on the amp.

**CD11 CD PLAYER**

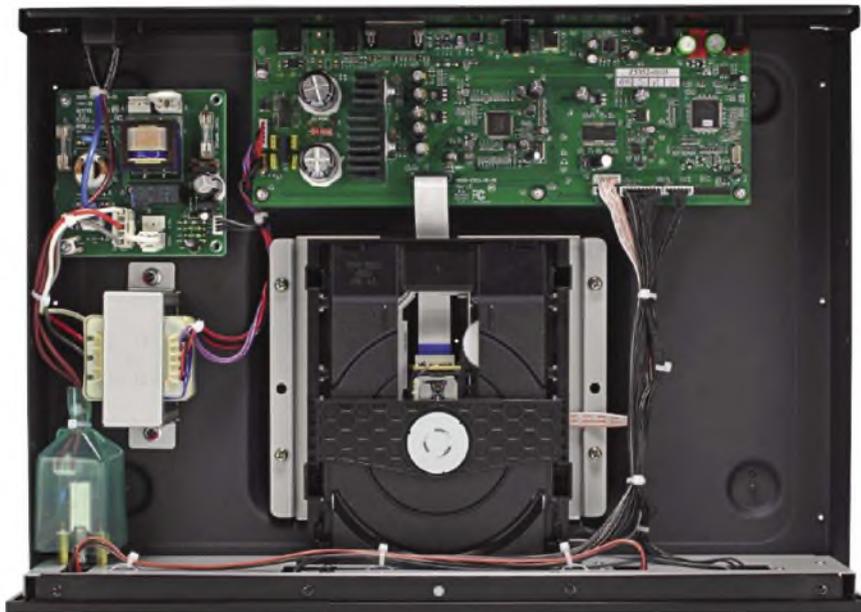
The CD11 matches the A11 in width but is slightly taller at 98mm and 41mm less deep, but it will still stack neatly on top of the A11 if required.

Using a Texas Instruments DAC, this tray-loading CD player offers an analogue and a digital output, as well as a Rotel Link socket, which

means it can be used with Rotel network-enabled products. This allows the attached Rotel products to communicate with each other and be controlled via the Rotel App.

The player sports the usual front-panel controls to open and close the CD drawer, select play and skip between tracks. Or you can use its infra-red remote control.

In the CD11, Rotel says that critical changes to the power supply, DAC circuits and precise selection of components in the audio signal path have given the player "an increased sense of space and improved accuracy". So let's see if that is true.



**CD11 Tribute CD player uses a Texas Instruments DAC and benefits from numerous component upgrades specified by Ken Ishiwata.**

**CD11 SOUND QUALITY**

To listen to the CD11 in its own right, I ran it through my Audio Note Meishu Tonmeister amplifier and AN-J LX Hemp speakers. I also had the excellent Marantz CD6006 CD player standing by for comparison.

Starting off with the Ben Sidran track, I was very impressed by the openness and articulation of his vocals and piano, while the DX7 synth had excellent note shape and bite. The CD11 also kept up very well with the twists and turns of the bass line, showing the CD6006 a clean pair of heels.

Larry Carlton's Valley Arts stratocaster on Sleepwalk was very well portrayed while the Fender Rhodes piano had great incisiveness and sparkle. Pops Popwell's bass line was



**CD remote control gives you all the functions you would expect.**



**A digital output is provided on the CD11 so it can be used with an external DAC. Rotel Link socket allows it to communicate with other similarly-equipped Rotel products.**

# *Sonus faber*

## MAXIMA AMATOR



The NEW Maxima Amator is the latest member of the Sonus faber Heritage family. Blending precious materials in pure harmony, the Maxima Amator reproduces music with pure heart, soul and accuracy. And for the first time, you can see that soul, with the IFF (Interactive Fusion Filtering) crossover, proudly displayed through a beautifully transparent panel on the rear of the loudspeaker.

**Maxima Amator. Italian luxury.**

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

To find your nearest dealer, please visit:  
[finesounds.uk/dealers](http://finesounds.uk/dealers)

tuneful and moved well and subtle cymbal detail was very well captured. A good performance.

On the Van Morrison song by Eric Marienthal, his alto sax came across with verve and power, while the bass line was full, weighty and very well controlled. The emotion, control and power in his play came across convincingly and it was becoming clear that the CD11 was a cut above the Marantz, which itself is among the more high-regarded models at this price.

James Taylor's Mexico underlined this, with a great openness and vibrancy to his vocals and guitar,

with backing vocals well separated and intelligible. The various instruments in the mix were well defined and separated. The CD11 is a class act.

The A11 and CD11 also worked well as a combo, with the clean and dynamic sound of the CD11 well suiting the equally poised and well balanced A11.

**CONCLUSION**

These two Tribute products from Rotel acquitted themselves very well. The A11 amplifier is well made, offers line level, phono and Bluetooth inputs for true versatility

and sounds good into the bargain. It is powerful, its sound is quite neutral, lacking any nasties and it does not draw attention to itself in any way. It is, however, perhaps lacking the ultimate finesse and performance of the very best-in-class at this price. But that is not to detract from its excellent performance.

The CD11 performs especially well and I think impressed me even more than the A11. Its sound is detailed, dynamic, musically coherent and lacking any major downsides. I believe it is among the very best at the price and should most certainly be included on your shortlist.

**MEASURED PERFORMANCE**

The Rotel A11 produced 78 Watts into 8 Ohms and 100 Watts into 4 Ohms – powerful considering its small size and light weight. At full power into 4 Ohms the A11's protection circuits came into operation after a few seconds, so it is well protected against current overload. Output impedance measured 0.09 Ohms giving a very high damping factor of 90, suggesting tight bass.

This is a very wideband amplifier, frequency response stretching from a low 3Hz to 120kHz (see our analysis) suggesting strong feedback. In keeping with this, distortion was very low at 0.007% in the midband. At 1 Watt, 10kHz – a measure of crossover distortion – it was a low 0.03% as our distortion analysis shows. The suggestion is from these results, a clean sound that is open and bright, rather than enclosed or warm.

The tone controls were 'interesting'. Maximum bass lift was excessive at +15dB at 20Hz, but there was good low level resolution, allowing just +2dB to be dialled in at the +1 setting (of a 1-10 range). The treble control gave +10dB lift maximum (20kHz).

Two loudness contours are provided, labelled Boost and Boost Max. The former gave a gentle +2dB bass and treble boost to liven up the sound at low levels, the latter increased bass boost to +5dB for more obvious effect. These controls are on the remote control unit only.

The MM phono stage was sensitive, needing just 2.8mV for full output (suitable for high output MCs) and overload was high at 52mV. A subsonic filter below 20Hz introduces -10dB gain reduction at 5Hz to lessen loudspeaker cone flap caused by LP warps, but there's +1dB lift at 40Hz to ensure bass weight is not compromised.

The CD11 CD player had a ruler flat response to 21kHz, distortion measured

0.24% at -60dB and EIAJ Dynamic Range was 98dB – all standard figures for CD. Output was 2V, as set by Philips in the Red Book standard.

With very wide bandwidth, low distortion and high damping factor the Rotel A11 will likely have dry and tight bass, plus a clear open presentation (not warm). High measured power and a well engineered MM phono stage contribute to a fine overall measured performance. The CD11 CD player gave a standard measured result. **NK**

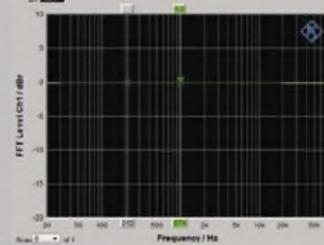
<b>A11</b>	
<b>Power</b>	<b>78W</b>
<b>Frequency response (-1dB)</b>	<b>5Hz-120kHz</b>
<b>Distortion (10kHz, 1W)</b>	<b>0.03%</b>
<b>Separation (1kHz)</b>	<b>91dB</b>

<b>Noise (IEC A)</b>	<b>-102dB</b>
<b>Sensitivity</b>	<b>220mV</b>

<b>PHONO (MM)</b>	
<b>Frequency response (-1dB)</b>	<b>20Hz-20kHz</b>
<b>Distortion (1kHz, 5mV in)</b>	<b>0.02%</b>
<b>Separation (1kHz)</b>	<b>68dB</b>
<b>Noise (IEC A)</b>	<b>-76dB</b>
<b>Sensitivity</b>	<b>2.8mV</b>
<b>Overload</b>	<b>52mV</b>

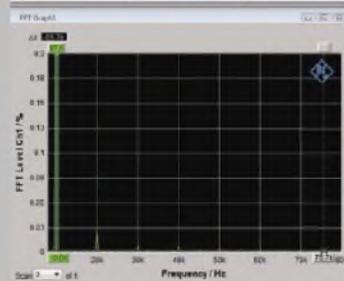
<b>CD11</b>	
<b>Frequency response (-1dB)</b>	<b>5Hz-21kHz</b>
<b>Distortion (1kHz, -60dB)</b>	<b>0.26%</b>
<b>Separation (1kHz)</b>	<b>82dB</b>
<b>Noise (IEC A)</b>	<b>-101dB</b>
<b>Dynamic range (EIAJ)</b>	<b>98dB</b>
<b>Output</b>	<b>2V</b>

**ROTEL A11 AMPLIFIER  
FREQUENCY RESPONSE**

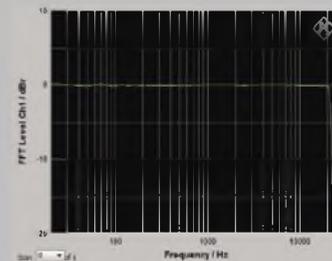


**DISTORTION**

THD at 0dB	Level (dB)	Frequency
0.0290 %	2.0492 V	10.000 kHz
OFF	OFF	OFF

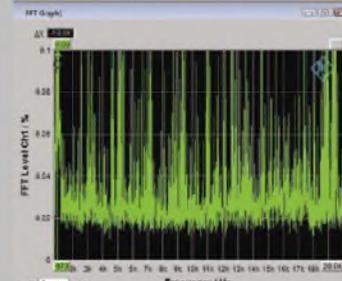


**ROTEL CD11 CD PLAYER  
FREQUENCY RESPONSE**



**DISTORTION**

THD at 0dB	Level (dB)	Frequency
0.2631 %	2.0847 mV	1000.1 Hz
OFF	OFF	OFF



**ROTEL A11  
TRIBUTE £499**



**EXCELLENT - extremely capable.**

**VALUE - keenly priced.**

**VERDICT**

Good sound quality and plenty of inputs A strong performance with plenty of welly.

**FOR**

- Bluetooth
- phono input
- well balanced sound
- power to drive a wide variety of speakers

**AGAINST**

- menu can be confusing

**ROTEL CD11  
TRIBUTE £399**



**EXCELLENT - extremely capable.**

**VALUE - keenly priced.**

**VERDICT**

Excellent sound in a simple, well thought-out player.

**FOR**

- great sound
- ease of use

**AGAINST**

- tray sometimes a little sluggish to open

Rotel  
www.rotel.com



THE PYE GIRLS

Coloured My World  
Music on Vinyl

Subtitled '32 Brit Girl Tunes of the Swinging Sixties', the 1968 cover illustrates "a model". I have no name to offer, I'm afraid. Plus two policemen who are no doubt considering arresting the said young lady for daring to wear a two-piece skirt and jacket in a built-up area and is in the process of defacing council property.

Included in this colourful gatefold is an exclusive print of... another model. Which is becoming a habit.

Both this and the cover are very nice as a piece of cultural and fashion history but a waste of an opportunity in terms of this compilation. I would have preferred to see snapshots of the included singers and more artist information on the featured insert. Especially on the more obscure singers in this collection.

You'll find thirty-two tracks in this compilation featuring a

host of well known names such as Petula Clark, Helen Shapiro, Sharon Tandy and Jackie Trent, plus lesser but no less fascinating names such as Antoinette, Tammy St John, Val McKenna and Glo Macari.

Yet even the well known names insert a few intriguing slices here. Take Petula Clark. She includes 'Gotta Tell the World', a song from the album 'I Know A Place' a surprisingly Northern soul-ish outing, issued in 1965.

There's another thumping, dancing Northern soul groove addition from, of all people, Jackie Trent. She offers a quite superb rendition of 'You Baby' as a fresh, energetic, hip swinger.

So don't make the mistake of ignoring the big names on this one. Highlights there include The Very First Day I Met You by Judy Cannon. Why? Because it was a Joe Meek production, an excellent beat outing and a very rare original single.

AUDIOPHILE VINYL



DELANEY & BONNIE & FRIENDS

On Tour with Eric Clapton  
Speakers Corner

Delaney and Bonnie Bramlett were husband and wife and

purveyors of some top quality blues, country and roots-based fare. Their approach to music soared towards the poles. On one side of the coin, the pair had an open and relaxing relationship with their music. If you had the chops, you were welcome to join the gang and enjoy yourself at your pace, without any pressures or hassles. With space to breathe and to express yourself in creative terms. This is the main reason why the pair attracted a series of famous friends to join their troupe.

On the other side of the coin, the Bramletts - or maybe that should be termed Brawling Bramletts - fought like cat and dog with many people in the area, being hit by the shrapnel.

Despite the arguments, the music they and their friends produced was of high quality. This

1970 outing only lasted forty-two minutes and spanned eight songs but the album is tightly packed with quality.

The fact that Clapton felt free of the pressures of fame meant that he could spread his wings and he certainly does that on tracks such as 'I Don't Want to Discuss It' and 'Coming Home'.

One item of note: Clapton enjoyed himself so much that, if you take a look at the rear sleeve and peruse the line up, you'll notice Bobby Whitlock, Carl Radle and Jim Gordon all listed. The three of them would later become part of the Derek & The Dominoes outfit.

In addition, you'll also find Dave Mason, Rita Coolidge and Bobby Keys (associated with The Rolling Stones) on sax and Tex Johnson (who appeared on Clapton's Crossroads) on drums. Mastering, as ever with Speakers Corner releases, is excellent. A superb edition.

Presented in a pizza-style box, this collection can be bought as a CD set – but I took a look at the 6LP vinyl edition here. The LPs come in simple black sleeves, but thank goodness they are coated in soft plastic to protect the vinyl. Also in the box is a full colour, four sided insert. Its outer sides offer a melange of performer mugshots 'doing their thing' while within, there's track breakdown.

This leaflet talks very briefly about the background to the boxset and why it exists. The drug and Crossroads Centre in Antigua is a centre to treat drug and alcoholic addiction. The boxset is a method to drum up finance to keep this facility operating.

Other information is pretty short and sweet, including the artists and their songs. Those artists include Sonny Landreth, Andy Fairweather Low, Bonnie Fair, Keb' Mo', Tendeschi Trucks

Band, Buddy Guy, Sheryl Crow, John Mayer, Robert Cray, Los Lobos, Jeff Beck, Peter Frampton, Vince Gill, Jerry Douglas, Mr Clapton himself and many more. It's quite a line up of famous faces and a blur of guitar-picking fingers.

This isn't the first time I've said this about a Crossroads box set but, if this set exists to support this drug and alcoholic treatment facility then why aren't we seeing and hearing more about it? What it does, how it does it, a few non-intrusive, non-personal images, interviews with doctors and other clinicians, its hopes and goals and its history. Even a DVD profile. Why isn't Clapton talking about his involvement? Why isn't more being made of this invaluable marketing and educational opportunity? This set should include a 100 page book on the subject.

The music is excellent, the performances are good, fans will be pleased – but why give this facility short shrift?



## ERIC CLAPTON

Crossroads Guitar Festival 2019  
Reprise

# AUDIOPHILE VINYL

Released by the Parisian label, this French big band is lead by the drummer André Charlier and pianist/organist Benoît Sourisse. But it is Biréli Lagrène who has the unenviable task of assuming the Pastorius role here, and Lagrène isn't even a bassist, he's more of a guitarist. That said, he is but a few degrees from greatness because Lagrène did play and recorded with Pastorius. You'll find his moniker on the 1986 release, 'Stuttgart Aria'.

We'll get to the music itself in a moment but I must pay tribute to the band here who perform magnificently in their own right, Pastorius or no. The clarinet work from Stéphane Chausse and the guitar chops from Pierre Perchaud are worthy of this collection – amongst other fine contributions from their colleagues. More than that, this work is a true collaboration because the music here has four arrangers from

within the band itself.

Special mention should be made of the track, Fannie Mae, sung by Yannick Boudruche who belts out the lyrics with energy and verve.

As for the music? It looks towards Pastorius' solo entries but also his work with Weather Report. So that means, for example, the likes of Continuum and Kuru/Speak Like a Child from his solo outing and Teen Town from Weather Report's 'Heavy Weather' LP.

Peter Erskine adds some spoken word excerpts in between the tracks which I think are fine for live concerts where you only have to hear this text once. It might even add to the atmosphere but slapping it over three of the four sides of vinyl here ruins the musical flow. It would even be fine in a documentary. But not here. He's no Gil-Scott Heron.

Apart from that, this is a fine collection and a worthy remembrance.

## REMEMBERING JACO

*Charlier / Sourisse*



FEAT. BIRÉLI LAGRÈNE

## CHARLIER/SOURISSE MULTIQUARIUM BIG BAND

Remember Jaco  
Naïve

# MUSICAL FIDELITY



INTRODUCING THE:

## M2 si

The M2si integrated amplifier takes our peerless premium amp experience and applies it to a more affordable price point. It boasts trickle-down technology from our mighty and legendary Titan flagship, plus other high-end touches such as solid metal controls, keeping its clean style easy to maintain.

Don't Settle for anything less than perfect Musical Fidelity.



# "We are looking at progress backward here"



Noel Keywood

It's not for no reason I choose to use a panel loudspeaker – and an electrostatic at that. Using such a loudspeaker highlights that today's box loudspeakers are going nowhere in terms of accuracy, and now have started to regress. I hear things that just should not be there. Here are problems to watch out for when auditioning a loudspeaker.

This is all about frequency response and the many troubles that arise from a wonky one – which many still are. What you get to hear strongly colours sound – the ear is very sensitive to frequency response but interprets variations in entirely different ways subjectively.

Loudspeakers from long ago – circa the 1950s – sounded soft, warm or woolly because the bass/midrange was incapable of reaching high enough to match the treble unit – leaving a gap in output between the two. It's this drop in output that the ear interprets as an easy or even warm sound (depending upon how severe the effect). Detail in the sound seemingly recedes.

Wind the clock on and now we have the technology to build drive units able – potentially – to bridge the gap, giving flat frequency response. And believe me it isn't difficult to engineer this. Our World Audio Design loudspeakers of the early 1990s were engineered flat using a Brüel&Kjær measuring microphone (£3k second-hand at the time) and Hewlett Packard 3561A spectrum analyser (£9k new in 1984). Nowadays the same items come at a fraction of the price; you can't not get this parameter right. But I measure and listen to ever more loudspeakers where the gap of 1950s-70s loudspeakers has become a peak. In other words, they are still wrong. Why?

I have been told it is for best

effect in the showroom, based upon what Sales are feeding back to Engineering. What the customer wants is what Engineering must produce. And whilst I admire this approach in some ways – you know, freedom of choice and all that – in practice it is a disaster. The pop consensus is that tight, powerful bass and vivid detail equal excitement, so that's what Engineering must produce for Sales, for showroom success.

To achieve this we are now experiencing a wave of loudspeakers with raised upper midband and treble. This throws out detail, giving enhanced 'insight'. In a short showroom demo the product will seem more explicit and communicative, delivering clearer vocals for example – but there's a subtle yet important downside.

Adding lift at high frequencies serves to emphasise distortion harmonics. Biologically, the human ear is very sensitive in this region and it will readily detect raised distortion. So the last thing any loudspeaker designer should do is make distortion more obvious. But that's just what is happening right now.

Such loudspeakers shout vocals and make every vocal nuance obvious. Great in a dem. where only good quality material will be played. But at home you will be playing all manner of music, not music manicured for low distortion. And this is where the problems creep in. Why does that track sound coarse when it didn't before? Because the loudspeaker has drawn your attention to the distortion that's in there.

The brain directs attention to and interprets events in this frequency region, perhaps as a defence mechanism (twig snapping in forest etc). The ear is most sensitive at 7kHz, Fletcher Munson curves show. Raising a loudspeaker's output

here is a disaster. Vulgarly impressive with high quality review tracks, an increasing strain with all else where the effect can be wearing over time. Old time loudspeakers may have been a tad woolly or warm, they may not have dug out every fine nuance and inflection of voice, but at least they were easy going. Not any more.

Raising upper midband output has become popular with designers: it's a recent fashion. But I disagree. Fiddling the frequency response of a loudspeaker for such effect is a bias that detracts from the technical accuracy we can easily achieve nowadays, and the long-term listening pleasure a loudspeaker should give.

How to assess this yourself? Very difficult. We all get accustomed to a sound and it can be difficult to be weaned off what we know. Forget 'reference monitors' most don't deserve the title. Probably best to take CDs into a demo that you know are sharp sounding and see how it goes. If you cannot stand listening to them, then perhaps not. What's the point of buying a loudspeaker that throws it all out so hard you can't stand to listen!

So there's the conundrum. Do you buy a 'modern' loudspeaker tuned to reveal all in brutal form, or go for a gentler sound that is more amenable over the long term. Often one that is more accurate too. That treble dip in response of old loudspeakers was no less inaccurate than the treble rise of modern designs. Which inaccuracy to go for then?

Meaning modern loudspeakers have not become better, just different. And if the difference makes distortion more apparent and listening more selective, then I'd say that we are looking at progress backward here. Hence my use of an electrostatic drive unit that doesn't suffer such deliberate anomalies. ●

# THE VINYL REVOLUTION



**The EVO and the new EVOke** Now you have a choice of *any* SL-1200! The new EVOke has world beating performance figures that are comparable with the world's most expensive turntables. The ability to fit any arm or cartridge to any SL-1200 new or old, means you can now have the EVO that you want at the price you want.

The EVO was used by Hi-Fi World to evaluate the Beatles In Mono records and is now used as their everyday reference. The EVO comes fitted with a tonearm of your choice and a cartridge of your choice.

We have worked with direct drive turntables and moving coil cartridges for nearly 40 years. We can supply completely new units with 6 year guarantees, used ones with 5 year guarantees, or we can convert your own.

**Technics SP-10R & SL-1000R** Many combinations available  
**Hi Fi World said:**

This is a spinner of vinyl for the serious, where you just want to punch a button and get on with it. It offers a degree of unarguable perfection for professional studios and anyone working with vinyl. If you want such unerring focus on the basics of playing LP it's time to check the piggy bank.

**Hi Fi News said:**

Any great turntable gives you a certain frisson when you hear it. It's that old 'shivers down the spine' feeling, a sense of being let into a world to which you had previously not been privy. This is a remarkable turntable, and arguably the apex of vinyl playback. It's difficult to see how the SP-10R motor unit can be improved upon. It is a definitive statement of engineering prowess, and marks the return of direct drive to the top tier of turntables.

Miyajima - Stereo - Mono - Denon DL-103 - Audio Technica AT33 & OC9

Turntables & Tonearms - Technics SL-1200 & SP-10R - Furutech - Klipsch - 78rpm - SL1200 Mods

Tax free best prices for World wide mail order by Fed Ex

Sound Hi Fi Dartmouth Devon 01803 833366 [www.SoundHiFi.com](http://www.SoundHiFi.com)



TRANSFORM YOUR SYSTEM WITH A  
MUSIC FIRST AUDIO PREAMPLIFIER

**CALL TODAY 01424 858260**

[www.mfaudio.co.uk](http://www.mfaudio.co.uk) [info@mfaudio.co.uk](mailto:info@mfaudio.co.uk)

# "Like losing the keys to your car, your turntable becomes an art installation"



Paul Rigby

**S**taring out of the window recently. Slurping a coffee and I thought "They're weird." Turntables that is. Got to be some of the weirdest tools ever invented.

And they are just a tool. Let's get that straight. A tool to extract music from a vinyl disc.

But, yea. Turntables. They have to be one of the strangest of things. On the face of it, they represent pure engineering prowess. With formed pieces of metal sitting, cheek by jowl, with delicate constructions resulting in a hi-fi version of a Faberge egg.

So you have parts working in harmony, often with clockwork precision. Pieces of different shapes, moving in contrasting directions and formed from quite exotic variants of steel and aluminium and delicately crafted pieces of brass topped with an exquisitely formed element like tungsten – and there are even precious stones like ruby. Reading that, you'd think I was talking about a construction from the Victorian age. Possibly steam powered.

Yet these tools, even though they are built to do one job, can look incredibly different from one another. You wouldn't get that with a pair of carpenter's chisels.

If you took two chisels slapped with different price points, the more expensive version might offer a finer blade. Maybe the blade had been formed using more exacting tolerances. Maybe that blade is tougher, more resilient to constant wear. Something to last a lifetime.

The handle itself might be turned with a flourish, utilising rarer hardwoods with more attention to how that handle might more easily sit in the hand for greater comfort.

The cheapo version might have none of these things. Yet, you place one next to the other and they would still look pretty similar.

Not turntables. If you look at a Pro-Ject Primary, for example, it sits there, looking like it fell off the back of an IKEA truck. A piece of MDF, a metal tube and a frisbee. £179. Bob's your uncle. Cheap at twice the price, guv'nor.

Then look at the AVID Acutus Reference which appears to be currently occupied by Lord Of the Rings' baddie, Sauron. It's three legs are like forbidding towers holding the spring-loaded suspension system. Its chrome plated... everything, glinting in the sun, blinding those who dare to lay their eyes upon it.

And then there's that extra box, the external power supply. Something the Primary doesn't even offer. The AVID's power supply looks like a place to hold your valuables. A container that would defeat even the canniest cracker with three sticks of 'jelly'.

You put that Acutus Reference and the Primary next to each other and you might hear "OK, this one here. The Primary? That's a record player? Yes. But this one 'ere [AVID]? What does that do then?"

Some turntables might look fragile while others might resemble a piece from a battle tank but all – ultimately – perform the same task. They all extract information from a vinyl groove.

And that's where the bizarre contrasts of turntables live. Here's a construction, built from often exotic materials, put together with care and connected using the finest of tolerances and what's it supposed to do?

It's one job is to do this. Picture this bit carefully. It's there,

sometimes all £100,000 of the thing, to support a tiny piece of diamond measuring around 0.7 mils.

Let me remind you. A 'mil' is basically equal to one thousandth of an inch. So then 0.7 of that.

So you might have a turntable weighing oh, I don't know, 30, 40, 50kg or more – sometimes much more. All to support a piece of industrial stone that would get lost in a sugar bowl.

More, this piece of industrial stone is so fragile, it will snap off if you even clean it in the wrong way, flick it with your finger and it will disappear forever. You can even tag it with the sleeve of a sweater.

The cartridge a tool. A tool mind you, even at lowly £179 or perhaps less, that risks utter collapse if you do so much as sneeze at it too strongly.

At least a CD's laser is provided with some sort of protection because it's hidden from view as it sits inside its protective chassis while it performs its duties. At least a CD player can be protected from that oh so dangerous enemy the er, sweater. Not a turntable though.

So again, let's review the contrasts here. 0.7mil of delicate fragility? 30-50kg or more of pure muscle.

And if you do lose your stylus tip, the rest of the turntable, right there and then, is basically useless.

It's like losing the keys to your car. Your turntable becomes a piece of instant sculpture or an art installation for all the good it will do you.

It's a wonder that any vinyl fan has the gumption to approach this thing without his breath quickening, heartbeat racing and hands shaking. Just in case it blows up in his face before he even touches it.

So, yea. Turntables. Weird. Just weird. ●

# STEVIE RAY VAUGHAN

## COULDN'T STAND THE WEATHER

ORIGINAL MASTER RECORDING



Ltd Edition UltraDisc One-Step  
45rpm Vinyl 2LP 180gm Box Set

PREORDER NOW  
**£180<sup>.00</sup>**

Mobile Fidelity - UltraDisc - 180 Gram Virgin Vinyl - AAA 100% Analogue - Ultradisc One Step Pressing UD1S

Mastered from the Original Master Tapes and Pressed on MoFi SuperVinyl - Lavish Packaging Includes Opulent Box, Foil-Stamped Jackets, and MoFi SuperVinyl LPs: Deluxe Audiophile Set Strictly Limited to 6,000 Numbered Copies

Order now to secure your copy

Visit [www.thevinyladventure.com](http://www.thevinyladventure.com)

# "I regularly use Internet Radio UK"



Martin Pipe

**T**hroughout this pandemic, we have been encouraged to work from home – 'WFH' – if at all possible. If you're spending more time in your 'home office' why not pay attention to its sound system? Better audio will improve the intelligibility of Zoom sessions, and your working day can be enlivened by the joys of music. Even before the pandemic, I was using an old Yamaha amplifier coupled to a pair of wall-mounted Acoustic Energy speakers.

Originally, these were fed directly by the line output of my desktop PC. Soon tiring of its mediocre sound, I pressed into intermediary service a Edirol Firewire multichannel audio interface. It may have been noticeably better, but behaviour under Windows 10 was unpredictable; furthermore, there was a small but annoying background 'buzz' that I couldn't eliminate. I then noticed that a motherboard TOSlink optical output lurked on the back of the computer. This was hastily connected to my amp via an Arcam rDAC. Electrical isolation, no IT interfacing necessary...and superior sonics!

As it's my own PC, I have complete freedom over how I use it. If you're reliant on a 'work' computer, though, your IT manager almost certainly won't allow non-approved software to be installed on it for security reasons. It therefore follows that you won't be able to install drivers for external audio devices like USB DACs. Could this be a problem, if your machine lacks TOSlink (and can you think of any laptop that's equipped with one)? Not in my experience. All of the USB DACs I have tried over the past half-decade can operate in a basic

16-bit 'Class 1' mode, without the need for third-party drivers. Sure, the full benefits of 24-bit and DSD will be denied to you – but even in 16-bit mode, pretty much every USB DAC will trounce the alternative i.e. hooking up the analogue line-output of the computer's integral soundcard directly to your amp and speakers. Not that you need the latter; some USB DACs also feature audiophile-grade headphone amps.

If you're playing music, CDs can be enjoyed via the computer's optical drive (if it has one). Accessing music collections held on NAS boxes is trickier, as a work PC would use your home network merely as a 'tunnel' through which the office IT systems can be accessed via a VPN (Virtual Private Network). Features like network discovery and file sharing are disabled. In other words, you won't be able to 'see' your music...even though the computer and NAS are physically on the same network.

There is however nothing to stop you playing music on 'local' USB storage devices, assuming that USB functionality hasn't been deliberately fettered by the IT department. And if it hasn't? For your sake, as well as your employer's, please remember to check that any USB device containing music you intend to play is free of viruses.

There are of course alternatives to 'physical' pre-recorded music – streaming subscription services and radio stations are competing for your ear-time too! Services like Spotify offer web players, so you don't need to mess around with software installation if all you want to do is listen to music while you work. You can enjoy BBC Sounds via a web browser too.

As regards 'live' radio, there

are a number of 'aggregator' sites – I regularly use Internet Radio UK ([internetradiouk.com](http://internetradiouk.com)) – that bring together the Internet streams of radio stations in one convenient location. They have an integrated player, so you can start listening straight away. Among the services to which Internet Radio UK can 'shortcut' are the BBC nationals, Planet Rock, Magic, Jazz FM, Classic FM, Capital, Absolute, Virgin, Smooth and – for those who fondly-remember the off-shore days – Caroline.

They are usually 16-bit 48kHz, compressed into low-bitrate MP3 streams – and their sonic shortcomings will soon be apparent on decent audio equipment.

So much for the broadband age; have any serious broadcasters, I wonder, tried 24-bit lossless radio streams? Even Radio 3 went no further than a 16-bit FLAC trial, which was killed after the BBC discovered that most listeners couldn't distinguish it from 320kbps AAC!

However, the latter is an everyday reality for national BBC radio services – the respective streams for 6Music, Radio 3 and Radio 4 FM are <https://bit.ly/3a5kpi1>, <https://bit.ly/2IGET6e> and <https://bit.ly/3oO0vwK>. I usually 'tune in' via the excellent VLC 'freeware' player, but the software that comes with the Windows operating system you'll find on the majority of 'work' computers (Windows Media Player) will also accept them. Right-click on the top of the program window (>Library >Music...) and choose 'Open URL' from the 'File' option. Into here, you can plug the URL of the desired stream. It helps to have a list you can copy and paste from... that said, you can easily add it to a 'playlist' for speedy future access. ●



Metamaterial Absorption Technology (MAT)  
**Innovation of the Year**  
What Hi-Fi? Awards 2020

## LS50 Collection - The World's First Speakers with MAT

A truly revolutionary tool in the KEF acoustic armoury, MAT is a highly complex maze-like structure that absorbs 99% of unwanted sound from the rear of the driver, eliminating the resulting distortion and providing purer, more natural sound. MAT breaks completely new ground in speaker design.



LS50 Meta

LS50 Wireless II



Listen and believe



# "I was thinking that £50 was a bargain"



Dave Tutt

In the dim and distant past I used to be a regular subscriber to a magazine that is no longer published – but is a flashback to an age where British technology was just about the only thing you could buy in any field of electronics. The magazine was *Television* – made for those of us who ended up repairing all manner of TV and video machines to watch favourite BBC programmes. Like the first showing of *Dad's Army* for example. Owning hundreds of copies of this magazine is a glimpse of how things were when I first started in electronics.

There are some things though that haven't changed. One of the columnists was Les Lawry-Johns who, while writing about his latest repairs, also had a very wry way of commenting on the customers and their attitudes to him and his work.

It seems to me that nothing changes when dealing with the public. I don't mind at all if people want to ask me questions about what I do and how I do it. I doubt very much that they could steal my knowledge and make use of it. Thing is that some of my customers are more than a little difficult to deal with.

My example this month is a repair I had to do at a customer's house because they couldn't possibly disconnect it and bring it to my workshop. My initial inspection didn't result in me hearing the fault. If no amount of wiggling and altering things brings the fault to the fore then you can only work on what the customer says. A little check of connectors suggesting you might have solved it is about all you can do.

When the request to return comes along a few days later the analysis of the equipment on the first visit means that you are more

prepared to challenge the fault and fix it with the parts you bring to the party! Twenty year old plus hi-fi is going to have quirks that need addressing, especially like this amplifier that came from the USA but was of Japanese origin. It had a 120 Volt U.S. mains transformer and a Maplin step down transformer (240V:120V) to make it work, so there were things that need to be checked and replaced.

The main smoothing capacitors didn't look too bad but to be sure I took one out and it rattled as I removed it (!) so the innards had evaporated, but the case showed no signs of the event. The second capacitor was the same so two new ones went in. At that point the discussion began.

Why are they a different colour? That can't be right. Are these from the manufacturer? If not why not? Do you know what your doing?

Ten minutes later having described what the capacitors do, why these new ones are better than the old ones and why they were a different voltage, 63 Volt not 50 Volt and were bigger because they were high grade, high ripple quality items, not the poor ones that came out, we then got onto another issue.

The mains suppression capacitors had burst, probably because they were American standard ones and someone had plugged the amp into the UK Mains without the external transformer. Why are you doing that? I only wanted the fault fixed and I didn't want you poking around looking for things to do. Will it make any difference?

While the little power board was out I replaced the spark suppression caps across the mains switch. That was wrong too. And all the time this woman was practically sitting on my shoulders even though

I had had to wear the Covid mask and use hand cleaner three times before I got through the door.

Every component she had to have a picture of and she said she would be sending the pictures off to her brother in law in India to check I had done it right. Every component had to be inspected and photographed and she kept the old ones.

I then noticed that the transformer in the amp did indeed have two primary windings so I changed the amp to 230 Volt use so she could take out the Maplin brick transformer sitting on the floor. A new British mains plug finished the repair.

Putting the amp back together showed that the repair had drastically improved the sound. The nasty frequency dependent compression was gone and the 80 Watts or so of power was back.

Despite my trials so far I was happy with the result but they were not over. She was going to try and contact the manufacturer to see if they thought I had done it right. I didn't tell her they went out of business over ten years ago. She was also going to try and get the right components for those battery things from them. That still wasn't the end though.

For my two visits, each lasting over 90 minutes – she lived in the middle of nowhere – I was thinking that £50 was a bargain. She didn't think so as I was a rip off artist who had no idea what I was doing.

As Les Lawry-Johns said in one of his columns, your plumber charges £120 to change a tap washer, your hairdresser £40 plus for a cut. Dentists are fantasy money. Technical stuff is of course worthless. She was one customer I will not be returning to. You have to have a tough skin sometimes. ●

**HI-FI SERVICE & REPAIR**  
**Dave Tutt**  
 +44 (0)7759 105932  
 dave\_london@hotmail.com  
 www.tutt-technology.co.uk

We do not sell these products. It is for your information only.

# WORLD CLASSICS

Here is our list of the great and good from audio's glorious past, products that have earned their place in hi-fi history. You'll also see some oddities which aren't classic as such, but are great used buys. The year of introduction is given, alongside the original UK launch price.

## TURNTABLES

**EAT FORTE** 2009 £12,500  
Lavishly finished two box, two motor turntable with gorgeous Ikeda 407 tonearm bundled. Exceptionally stable and unfussy performer with a relaxed but highly enjoyable gait.



**FUNK FIRM VECTOR II** 2009 £860  
Innovative engineering gives a nimble, pacy and musical sound that's one of the best at the price.

**REGA P2** 2008 £300  
Excellent value for money engineering, easy set up and fine sound.

**MICINTOSH MT10** 2008 £8,995  
Big, expensive, controversially styled and glows more than some might consider necessary, but an astonishingly good performer.

**REGA P3-24** 2008 £405  
Seminal affordable audiophile deck with fine bundled tonearm. Tweakable, and really sings with optional £150 outboard power supply.

**ACOUSTIC SOLID ONE** 2007 £4,050  
Huge turntable, both in terms of sheer mass and sonic dynamics. Fit up to three arms and enjoy, just don't damage your back moving it...

**AVID VOLVERE SEQUEL** 2007 £4,600  
Stylish high end vinyl spinner with industrial strength build quality and a sound to match. Sound is edge-of-the-seat stuff.

**MICHELL GYRODEC SE** 2005 £1,115  
Design lean with superlative build. Sound is beautifully smooth, effortless and exceptionally expensive.

**MARANTZ TT-15S1** 2005 £1,299  
Cracking all in one deck/arm/cartridge combination, this must surely be the best sound/plug and play package at this price point.

**MICHELL TECNODEC** 2003 £579  
Superb introduction to Michell turntables - on a budget. Top quality build and elegant design mean it's still the class of the mid-price field.



**MICHELL ORBE** 1995 £2,500  
The top Michell disc spinner remains a superbly capable all rounder with powerful, spacious sound that's delicate and beguiling.

**SME MODEL 10A** 1995 £4,700  
Exquisitely engineered deck and SME V tonearm combo that's an extremely accomplished performer with classical music.

**LINN AXIS** 1987 £253  
Cut-price version of the Sondek with LVX arm. Elegant and decently performing package. Later version with Akito tonearm better.

**ROKSAN XERXES** 1984 £550  
Super tight and clean sound, with excellent transients. Less musical than the Sondek, but more neutral. Sagging plinth top-plates make them a dubious used buy.

**DUAL CS505** 1982 £75  
Simple high quality engineering and a respectable low mass tonearm made for a brilliant budget buy. Polished, smooth and slightly bland sound.

**MICHELL GYRODEC** 1981 £599  
Thanks to its stunning visuals, this bold design wasn't accorded the respect it deserved. Clean, solid and architectural sound.

**TOWNSHEND ROCK** 1979 £ N/A  
Novel machine has extremely clean and fluid sound. Substantially modified through the years, and capable of superb results even today.

**MARANTZ TT1000** 1978 £ N/A  
Beautiful seventies high end belt drive with sweet and clean sound. Rare in Europe, but big in Japan.



**REGA PLANAR 3** 1978 £79  
Brilliantly simple but clean and musical performer, complete with Acos-derived S-shaped tonearm. 1983 saw the arrival of the R3300, which added detail at the expense of warmth. Superb budget buy.

**SONY PS-B80** 1978 £800  
First outing for Sony's impressive 'Blotracor' electronic tonearm. Built like a tank with a clean and tidy sound, albeit lacking involvement. Scarcily complicated and with no spares support - buy with caution!

**TRIO LO-7D** 1978 £600  
The best 'all-in-one' turntable package ever made. Clean, powerful and three-dimensional sound, ultimately limited by the tonearm.

**ADC ACCUTRAC 4000** 1976 £300  
Bonkers 1970s direct drive that uses an infra red beam to allow track selection and programming. More of a visual and operational delight than a sonic stunner.

**PIONEER PLC-590** 1976 £600  
Sturdy and competent motor unit that performs well with a wide range of tonearms. Check very thoroughly before buying due to electronic complexity and use of some now-obsolete ICs.

**PIONEER PL12D** 1973 £36  
When vinyl was the leading source, this bought new standards of noise performance and stability to the class, plus a low friction S-shaped tonearm. Later PL112D was off the pace compared to rivals.



**TECHNICS SP10** 1973 £400  
Seminal Japanese engineering. Sonics depend on plinths, but a well mounted SP10/II will give any modern a hard time, especially in respect of bass power and midband accuracy.

**LINN SONDEK LP12** 1973 £86  
For many, the Brit superdeck; constant mods meant that early ones sound warmer and more lyrical than modern versions. Recent 'SE' mods have brought it into the 21st century, albeit at a price.

**ARISTON RD11S** 1972 £94  
Modern evolution of Thorens' original belt drive paradigm. Scotland's original super-deck was warm and musical, albeit soft. Still capable of fine results today.

**GOLDRING LENCO GL75** 1970 £15.65  
Simple, well engineered motor unit with soft, sweet sound and reasonable tonearm. Good spares and servicing support even today.

**GARRARD 301/401** 1953 £19  
Tremendously strong and articulate with only a veiled treble to let it down.



**THORENS TD124** 1959 £ N/A  
The template for virtually every 1970s 'superdeck', this iconic design was the only real competition for Garrard's 301. It was sweeter and more lyrical, yet lighter and less impactful in the bass.

**TONEARMS**

**REGA RB251** 2009 £136  
Capable way past its price point, the new 3-point mount version of the classic RB250 serves up a taut and detailed sound. A little lean for some tastes, but responds well to rewiring and counter-weight modification.

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

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



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

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

**MICHELL TECNOARM A** 2003 £442  
Clever reworking of the Rega theme, using blasting, drilling and rewiring!

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

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

**SME SERIES V** 1987 £2,390  
Vice-like bass with incredible weight, ultra clear midband and treble astound, although some don't like its matter of factness!

**NAIM ARD** 1986 £875  
Truly endearing and charismatic performer - wonderfully engaging mid-band makes up for softened frequency extremes.



**ALPHASON HR100S** 1981 £150  
First class arm, practically up to present-day standards. Buy carefully, though, as there is no service available now. Totally under priced when new, exceptional.

**SME SERIES III** 1979 £113  
Clever variable mass design complete with Titanium Nitride tube tried to be all things to all men, and failed. Charming nonetheless, with a warm and inoffensive sound.

**TECHNICS EPA-501** 1979 £ N/A  
Popular partner for late seventies Technics motor units. Nice build and Titanium Nitride tube can't compensate for middling sound.

**LINN ITTOK LVII** 1978 £253  
Japanese design to Linn specs made for a muscular, rhythmic sound with real dynamics. The final LVIII version worth seeking out.

**AUDIO TECHNICA AT 1120** 1978 £75  
Fine finish can't compensate for this ultra low mass arm's limited sonics - a good starter arm if you've only got a few quid to spend.

**HADCOCK GH228** 1976 £46  
Evergreen unipivot with lovely sweet, fluid sound. Excellent service backup.

**ACOS LUSTRE GST-1** 1975 £46  
The archetypal S-shaped seventies arm; good, propulsive and involving sound in its day, but ragged and undynamic now.

**SME 3009** 1959 £18  
Once state of the art, but long since bettered. Musical enough, but weak at frequency extremes and veiled in the midband. Legendary serviceability and stunning build has made it a cult, used prices unjustifiably high.

**PHONO STAGES**

**CREEK OBH-8 SE** 1996 £180  
Punchy, rhythmic character with oodles of detail makes this a great budget audiophile classic. Partner with a Goldring G1042 for an unbeatable budget combination.

**MICHELL ISO** 1988 £ N/A  
This Tom Evans-designed black box started the trend for high performance offboard phono stages. Charismatic, musical and punchy - if lacking in finesse.



**LINN LINNK** 1984 £149  
Naim-designed MC phono stage built to partner the original Naim NAIT - yes, really! Fine sound, although off the pace these days.

**INTEGRATED AMPLIFIERS**

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

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

**SUGDEN A21A S2** 2008 £1,469  
Crystalline clarity, dizzying speed and forensic detailing. Power limited so needs sensitive speakers.

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

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

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

**NUFORCE P-9** 2007 £2,200  
Impressive two box preamp with superb resolution and an engaging sound.

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

**AUDIOLAB 8000S** 2006 £400  
In another life, this sold for three times the price, making it a stand-out bargain now. Very clean, powerful and tidy sound.

**MCINTOSH MA6800** 1995 £3735  
Effortlessly sweet, strong and powerful with seminal styling to match.

**DELTEC** 1987 £1900  
Fast, dry and with excellent transients, this first DPA integrated is the real deal for eighties obsessives. Ridiculously punchy 80W per channel from a tiny, half-size box. Radical, cool and more than a little strange.

**EXPOSURE VII/VIII** 1985 £625  
Seminal pre-power, offering most of what Naim amps did with just that little bit extra smoothness. Lean, punchy and musical.



**AUDIOLAB 8000A** 1985 £495  
Smooth integrated with clean MM/MC phono stage and huge feature count. Extremely reliable, too. Post '93 versions a top used buy.

**VTL MINIMAL/50W MONOBLOCK** 1985 £1,300  
Rugged, professional build and finish allied to a lively and punchy sound (albeit with limited power) make them an excellent used buy.

**MUSICAL FIDELITY A1** 1985 £350  
Beguiling Class A integrated with exquisite styling. Questionable reliability.

**MISSION CYRUS 2** 1984 £299  
Classic 1980s minimalism combines arresting styling with clean, open, lively sound. Further upgradeable with PSX power supply.



**NAIM NAIT** 1984 £350  
Superb rhythms and dynamics make it truly musical, but tonally monochromatic. Fine phono stage, very low power.

**CREEK CAS4040** 1983 £150  
More musical than any budget amp before it; CAS4140 loses tone controls, gains grip.

**MYST TMA3** 1983 £300  
Madcap eighties minimalism, but a strong and tight performer all the same.

**ROTEL RA-820BX** 1983 £139  
Lively and clean budget integrated that arguably started the move to minimalism.

**NAD 3020** 1979 £69  
Brilliantly smooth, sweet and punchy at the price and even has a better phono stage than you'd expect. The archetypal budget super-amp.

**ROGERS A75** 1978 £220  
Lots of sensible facilities, a goodly power output and nice sound in one box. The later A75II and A100 versions offered improved sonics and were seriously sweet.

**A&R A60** 1977 £115  
Sweet and musical feature-packed integrated; the Audiolab 8000A remains a classic.



**SUGDEN C51/P51** 1976 £130  
Soft sounding early Sugden combo with a plethora of facilities and filters. A sweet and endearing performer but lacking in power and poor load driving ability.

**SUGDEN A21** 1969 £ N/A  
Class A transistor integrated with an eminently likeable smoothness and musicality. Limited inputs via DIN sockets.

**ROGERS CADET III** 1965 £34  
Sweet sounding valve integrated, uses ECL86 output valves, even has a half useable phono stage, sweet, warm a good introduction to valves.

**CHAPMAN 305** 1960 £40  
Smooth pre/power combo with a sweet and open sound. Not quite up to Leak/Quad standards but considerably cheaper secondhand.

## POWER AMPLIFIERS

**ELECTROCOMPANET NEMO** 2009 £4,995 (EACH)  
Norwegian power station as cool as a glacier tonally, yet impresses with sheer physicality and fleetness of foot. 600W per channel.

**NUFORCE REFERENCE 9SE V2** 2006 £1,750  
Brilliant value for money monoblocks with massive power and super-clean, three dimensional sound.

**QUAD II-80** 2005 £6,000 PER PAIR  
Quad's best ever power amplifier. Dramatic performer with silky but dark tonality, blistering dynamics, serious power and compellingly musical sound.



**QUAD 909** 2001 £900  
Current dumper has a smooth and expansive character with enough wallop to drive most loads. Not the most musical, but superb value all the same.

**NAIM NAP 500** 2000 £17,950  
Flagship amplifier will drive just about any speaker with ease. Factor in the company's trademark pace, rhythm and timing and it all adds up to one effortlessly musical package.

**MARANTZ MODEL 9** 1997 £8000  
Authentic reproduction monoblocks still more than cut the sonic mustard. Highly expensive and highly sought after.

**MICHELL ALECTO** 1997 £1989  
Crisp, clean and beautifully controlled with gorgeous styling. Partnered with the £1650 Orca this sounds delicious!



**MUSICAL FIDELITY XA200** 1996 £1000  
200W of sweet smooth transistor stomp in a grooved tube! Under-rated oddity.

**PIONEER M-73** 1988 £1,200  
Monster stomp from this seminal Japanese power amplifier, complete with switchable Class A and Class B operation. Clean, open and assured sounding, albeit a tad behind the pace on high speed dance music. Rosewood side cheeks and black brushed aluminium completes the experience.

**KRELL KMA100 II** 1987 £5,750  
Monoblock version of the giant KSA-100 is one of the seminal 80s transistor power amplifiers. Massive wallop allied to clean and open Class A sound makes this one of the best amplifiers of its type.

**RADFORD STA25 RENAISSANCE** 1986 £977  
This reworking of Radford's original late sixties design was possessed of a wonderfully rich, old school valve sound with enough power (25W) and lots of subtlety.

**QUAD 405** 1978 £115  
The first of the current dumpers is a capable design with smooth, effortless power and a decently musical sound. 606 and 707 continue the theme with greater detail and incision.

**HH ELECTRONICS TPA-500 AMPLIFIERS** 1973 £110  
Simple design with easily available components, solid build quality and fine sound make for a surprisingly overlooked bargain.

**LECSON AP1** 1973 £ N/A  
Madcap cylindrical styling alluded to its 'tower of power' pretensions, but it wasn't. Poor build, but decently clean sounding when working.

**QUAD 303** 1968 £55  
Bullet proof build, but woolly sound. Off the pace, but endearing nonetheless. Some pipe smoking slipper wearers swear by them!

**LEAK STEREO 20** 1958 £31  
Excellent workaday classic valve amplifier with decent power and drive. Surprisingly modern sounding if rebuilt sympathetically. Irrepressibly musical and fluid.



**LEAK STEREO 60** 1958 £N/A  
Leak's biggest valve power amp offers 35 Watts per channel and more low end welly than the smaller Stereo 20. Despite concerns over reliability rarity value means high price.

**QUAD II** 1952 £22  
The all-time classic valve amplifier, with a deliciously fluid and lyrical voice. In other respects though, it sounds hopelessly dated. Low power and hard to partner properly.



**LEAK POINT ONE, TL10, TL12.1, TL12 PLUS** 1949 £28  
Early classics that are getting expensive. Overhauling is de rigueur before use, using original parts if possible. Surprisingly crisp and musical. Deeply impressive in fine fettle.

## PRE AMPLIFIERS

**AUDIOLAB 8000C** 1991 £499  
Tonally grey but fine phono input and great facilities make it an excellent general purpose tool.



**CROFT MICRO** 1986 £150  
Budget valve pre-amp with exceptionally transparent performance.

**CONRAD JOHNSON MOTIV MC-8** 1986 £2,500  
Minimalist FET-based preamplifier is brilliantly neutral and smooth with a spry, light balance in the mould of Sugden. Something of a curio, but worthwhile nonetheless.

**AUDIO RESEARCH SP-8** 1982 £1,400  
Beautifully designed and built high end tube pre-amplifier with deliciously sweet and smooth sound. Not the last word in incision or grip.

**LINN LK-1** 1986 £499  
A brave attempt to bring remote controlled user-friendliness to hair-shirt audiophile hi-fi. Didn't quite work, but not bad for under £100.

**NAIM NAC 32.5** 1978 £ N/A  
Classic high end pre. Brilliantly fast and incisive sound that's a joy with vinyl but a tad forward for digital.

**LECSON AC-1** 1973 £ N/A  
Amazing styling courtesy of Allan Boothroyd can't disguise its rather cloudy sound, but a design classic nonetheless.

**QUAD 33** 1968 £43  
Better than the 22, but Quad's first tranny pre isn't outstanding. Responds well to tweaking/ rebuilding though...



**LEAK POINT ONE STEREO** 1958 £ N/A  
Good for their time, but way off the pace these days. Use of EF86 pentode valve for high gain rules out ultra performance. Not the highest-fi!

**QUAD 22** 1958 £25  
The partner to the much vaunted Quad II monoblocks - cloudy and vague sound means it's for anacrophiles only.

**LOUDSPEAKERS**

**WHARFEDALE DIAMOND 10.3** 2010 £290  
Great small standmounters for audiophiles on a budget; dry punchy sound with impressive sound-staging at the price.



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

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



**SPENDOR A5** 2009 £1,695  
Multi-talented floorstanders with generous scale and punch and Spendor's classic mid-range detail. Deliver a sound that thoroughly engages whatever you care to play

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



**MARTIN LOGAN SOURCE** 2008 £1,600  
Brilliant entry level electrostatics, giving a taste of loudspeaker esoterica for the price of most moving coil boxes. Tremendous clarity, evenness and delicacy, although not the world's most powerful sound.

**PMC OB11** 2008 £2,950  
Cleverly updated floorstanders give scale and solidity in slim and well finished package.

**ISOPHON GALILEO** 2007 £2,100  
Big standmounters that really grip the music and offer quite startling dynamics and grip

**ONE THING AUDIO ESL57** 2007 £1,450  
One Thing Audio's modifications keep the good old ESL57 at the very top of the game.

**MOWGAN AUDIO MABON** 2007 £3,995  
Massively capable loudspeakers that offer dynamics, scale and clarity in an elegantly simple package. Wide range of finishes, too.

**B&W 686** 2007 £299  
Baby standmounters offer a sophisticated and mature performance that belies both their dimensions and price tag

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



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

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

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



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

**USHER BE-718** 2007 £1,600  
Beryllium tweeters work superbly allied to a fast and punchy bass driver. The result is subtle, smooth and emotive

**USHER S-520** 2006 £350  
Astonishingly capable budget standmounters that offer detail and dynamics well beyond their price and dimensions

**ACOUSTIC ENERGY AE1 CLASSIC** 2006 £845  
Brilliantly successful remake of an iconic design; not flawless, but surely one of the most musical loudspeakers ever made



**MISSION X-SPACE** 1999 £499  
The first mass production sub and sat system using NXT panels is a sure-fire future classic - not flawless, but a tantalisingly unboxy sound nevertheless!

**MISSION 752** 1995 £495  
Cracking Henry Azima-designed floorstanders combined HDA drive units and metal dome tweeters with surprisingly warm results. Benign load characteristics makes them great for valves

**TANNOY WESTMINSTER** 1985 £4500  
Folded horn monsters which sound good if you have the space. Not the last word in tautness but can drive large rooms and image like few others.



**CELESTION SL6** 1984 £350  
Smallest two way design complete with aluminium dome tweeter and plastic mid-bass unit set the blueprint for nineteen eighties loudspeakers. Very open and clean sounding, albeit course at high frequencies and limp in the bass. Speakers would never be the same again...

**HEYBROOK HB1** 1982 £130  
Peter Comeau-designed standmounters with an amazingly lyrical yet decently refined sound. Good enough to partner with very high end ancillaries, yet great with budget kit too. A classic



**QUAD ESL63** 1980 £1200  
An update of the ESL57, with stiffer cabinets. Until the 989, the best of the Quad electrostatics.

**MISSION 770** 1980 £375  
Rack in its day, it was an innovative product and one of the first of the polypropylene designs: warm, smooth, clean and powerful sound,

**ACOUSTIC RESEARCH AR18S** 1978 £125  
Yank designed, British built loudspeaker became a budget staple for many rock fans, thanks to the great speed from the paper drivers, although finesse was most definitely not their forte...

**YAMAHA NS1000** 1977 £532  
High tech Beryllium midband and tweeter domes and brutish 12" woofers in massive sealed mirror image cabs equals stunning transients, speed and wallop allied to superb transparency and ultra low distortion. Partner carefully!

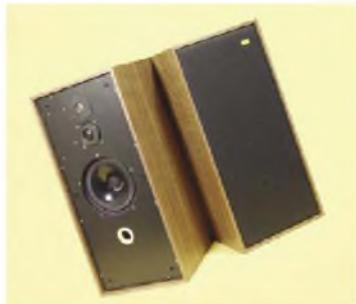


**JR 149** 1977 £120  
Cylindrical speaker was ignored for decades but now back in fashion! Based on classic KEF T27/B110 combo as seen in the BBC L53/5a. Doesn't play loud, needs a powerful transistor amplifier, but has clarity and imaging

**KEF R105** 1977 £785  
Three way Bextreme-based floorstander gave a truly wideband listen and massive (500W) power handling. A very neutral, spacious and polite sounding design, but rhythmically well off the pace.

**IMF TLS80** 1976 £550  
Warm and powerful 1970s behemoth with trans- mission loading and a mixture of KEF and Celestion drive units. Impressively physical wideband sound but rhythms not a forte.

**SPENDOR BC1** 1976 £240  
 Celestion HF1300 tweeter meets bespoke Spendor Bextrene mid-bass unit. The result is a beautifully warm yet focussed sound. A little bass bloom necessitates careful low-stand mounting.



**HH ELECTRONICS TPA-50D AMPLIFIERS** 1973 £110  
 Simple design with easily available components, solid build quality and fine sound make for a surprisingly overlooked bargain. Not exactly stylish, however.

**BBC LS3/5A** 1972 £88  
 Extremely low colouration design is amazing in some respects – articulation, stage depth, clarity – and useless in others (both frequency extremes). Came in wide variety of guises from various manufacturers building it under licence.

**LEAK SANDWICH** 1961 £39 EACH  
 Warm sounding infinite baffle that, with a reasonably powerful amplifier can sound quite satisfying.

**QUAD ESL57** 1956 £45 EACH  
 Wonderfully open and neutral sound puts box loudspeakers to shame. Properly serviced they give superb midband performance, although frequency extremes less impressive. Ideally, use in stacked pairs or with subwoofers and supertweeters.

**SYSTEMS**

**MERIDIAN SOOLOOS 2.1** 2010 £6,990  
 Crisp styling, bright, colourful touchscreen, plus excellent search facilities. This is one hard disk music system with a difference. Best partnered to Meridian active loudspeakers.



**NAIM UNITIQUE** 2010 £995  
 Great little half width one-box system with truly impressive sound allied to a wealth of source options.

**ARCAM SOLO MINI** 2008 £650  
 Half the size and two-thirds the price of a full-sized Solo, the Mini gives very little away in terms of performance to its bigger brother.

**MERIDIAN F80** 2007 £1,500  
 Fantastically built and versatile DVD/CD/DAB/FM/AM unit, designed in conjunction with Ferrari. Ignore nay-sayers who sneer that it isn't a 'proper' hi-fi product. Just listen.

**MARANTZ 'LEGEND'** 2007 £22,000  
 The combination of SA-7S1 disc player, SC-7S2 preamp and MA-9S2 monoblocks delivers jaw-dropping performance.

**SHANLING MC-30** 2007 £650  
 Quite possibly the cutest all-in-one around with fine performance from the CD player, tuner and MP3 player input. Very low power, though.



**AURA NOTE PREMIER** 2007 £1,500  
 Lovely shiny CD/tuner/amplifier with fine sound quality and dynamic abilities.



**ARCAM SOLO NEO** 2006 £1,100  
 Excellent all-in-one system, with a warm, smooth and balanced sound to match the features and style.

**PEACHTREE AUDIO IDECCO** £1,000  
 Excellent sounding iPod dock, impressive DAC and fine amplifier section make this an excellent one box style system.



**TUNERS**

**ARCAM FMJ T32** 2009 £600  
 Excellent hybrid FM/DAB+ tuner with a smooth, engaging sound. Factor in its fine build and it's a super value package.



**MAGNUM DYNALAB MD-100T** 2006 £1,895  
 One of the best ways to hear FM that we know; superbly open and musical sound in a quirky but characterful package.

**MYRYAD MXT4000** 2005 £1,000  
 Sumptuous sound and top-notch build quality make for a tempting AM/FM package. Warm and richly detailed on good-quality music broadcasts.

**NAIM NAT03** 1993 £595  
 The warm, atmospheric sound is further proof of Naim's proficiency with tuners.

**CREEK CAS3140** 1985 £199  
 Excellent detail, separation and dynamics - brilliantly musical at the price. T40 continued the theme.

**QUAD FM4** 1983 £240  
 Supreme ergonomics allied to a pleasingly lyrical sound with plenty of sweetness and detail made this one of the best tuners around upon its launch.



**NAD 4040** 1979 £79  
 Tremendously smooth and natural sound allied to low prices and good availability make this budget analogue esoterica.

**MARANTZ ST-8** 1978 £353  
 Marantz's finest radio moment. Warm, organic sound plus an oscilloscope for checking the signal strength and multipath.

**YAMAHA CT7000** 1977 £444  
 Combines sleek ergonomics, high sensitivity and an explicit, detailed sound.

**SONY ST-5950** 1977 £222  
 One of the first Dolby FM-equipped tuners, a format that came to nought. Still, it was Sony's most expensive tuner to date, and boasted good sound quality with brilliant ergonomics.



**ROGERS T75** 1977 £125  
 Superb mid-price British audiophile design, complete with understated black fascia. Smooth and sweet with fine dimensionality.

**SANSUI TU-9900** 1976 £300  
 A flagship Japanese tuner. It boasts superlative RF performance and an extremely smooth and lucid sound.



**TECHNICS ST-8080** 1976 £180  
 Superb FM stage makes for a clean and smooth listen.

**REVOX B760** 1975 £520  
 The Revox offers superlative measured performance although the sound isn't quite as staggering as the numbers. Fine nonetheless, and surely the most durable tuner here?



**SEQUERRA MODEL 1** 1973 £1300  
 Possibly the ultimate FM tuner. Massive in terms of technology, size and features dedicated to extracting every ounce of performance from radio, including impressive multi-purpose oscilloscope display.

**LEAK TROUGHLINE** 1956 £25  
 Series I an interesting ornament but limited to 88-100MHz only. II and III are arguably the best-sounding tuners ever. Adaptation for stereo easy via phono multiplex socket. Deliciously lucid with true dimensionality.

## HEADPHONE AMPLIFIERS

**GRAHAM SLEE NOVO** 2009 £255  
Dynamic headphone amplifier with a great sense of timing. Crisp, clear treble and warm midrange gives an involving sound.



**MUSICAL FIDELITY X-CAN V8** 2008 £350  
Open and explicitly detailed sound plus serious bass wallop. A great partner for most mid-to-high end headphones.

## CD PLAYER/RECORDERS

**MUSICAL FIDELITY TRIVISTA** 2002 £4000  
When playing SACDs, the sweetest, most lucid and lyrical digital disc spinner we've heard. Old school stereo, pure DSD design. CD sound is up in the £1000 class, total Future classic.

**MARANTZ SA-1** 2000 £5,000  
The greatest argument for SACD. This sublime Ken Ishiwata design is utterly musically convincing with both CD and SACD, beating most audiophile CD spinners hands down.



**SONY MDS-JE555ES** 2000 £900  
The best sounding MD deck ever, thanks to awesome build and heroic ATRAC-DSP Type R coding.

**PIONEER PDR-555RW** 1999 £480  
For a moment, this was the CD recorder to have. Clean and detailed.

**MARANTZ DR-17** 1999 £1100  
Probably the best sounding CD recorder made; built like a brick with a true audiophile sound and HDCD compatibility.



**CAMBRIDGE AUDIO CD4SE** 1998 £200  
A touch soft in the treble and tonally light, but outstanding in every other respect.

**SONY TCD-8 DATMAN** 1996 £599  
Super clean sound makes this an amazing portable, but fragile.

**LINN KARIK III** 1995 £1775  
The final Karik was a gem. Superb transport gives a brilliantly tight, grippy dynamic sound, albeit tonally dry.

**NAIM CDS** 1990 £ N/A  
Classic Philips 16x4 chipset with serious attention to power supplies equals grin-inducing sonics.

**TECHNICS SL-P1200** 1987 £800  
CD version of the Technics SL-1200 turntable. Massively built to withstand the rigours of 'pr' use and laden with facilities - a great eighties icon.

**SONY CDP-R1/DAS-R1** 1987 £3,000  
Sony's first two-boxer was right first time. Tonally lean, but probably the most detailed and architectural sounding machine of the eighties.

**MARANTZ CD73** 1983 £700  
A riot of gold brushed aluminium and LEDs, this distinctive machine squeezed every last ounce from its 14x4 DAC - super musical!



**MERIDIAN 207** 1988 £995  
Beautifully-built two-box with pre-amp stage. Very musical although not as refined as modern Bitstream gear. No digital output.

**CAMBRIDGE AUDIO CD1** 1986 £1500  
Inspired Stan Curtis redesign of Philips CD104, complete with switchable digital filter. Lean but tight and musical performer.



**MERIDIAN MCD** 1984 £600  
The first British 'audiophile' machine was a sweeter, more detailed Philips CD100. 14x4 never sounded so good, until the MCD Pro arrived a year later.

**SONY CDP-701ES** 1984 £890  
Sony's first bespoke audiophile machine used a 16x2 DAC to provide a clinically incisive sound; supreme build quality allied to the pure unadorned luxury of a paper-book-sized remote control.

**YAMAHA CD-X1** 1983 £340  
Nicely built 16x2 machine with a very sharp and detailed sound; sometimes too much so. Excellent ergonomics, unlike almost every other rival of the time.

**SONY CDP-101** 1982 £800  
The first Japanese CD spinner was powerful and involving. Brilliant transport more than compensated for 16x2 DAC, and you even got remote control!



## ANALOGUE RECORDERS

**AIWA XD-009** 1989 £600  
Aiwa's Nak beater didn't, but it wasn't half bad nonetheless. Massive spec even included a 16x4 DAC!

**NAKAMICHI CR-7E** 1987 £800  
The very best sounding Nakamichi ever - but lacks the visual drama of a Dragon.



**SONY WM-D6C** 1985 £290  
Single capstan transport on a par with a Swiss watch, single rec/play head better than most Naks. Result: sublime.

**PIONEER CTF-950** 1978 £400  
Not up to modern standards sonically, but a great symbol of the cassette deck art nonetheless.

**YAMAHA TC-800GL** 1977 £179  
Early classic with ski-slope styling. Middling sonics by modern standards, but cool nonetheless!

**SONY TC-377** 1972 £N/A  
A competitor to the Akai 4000D open reel machine, the Sony offered better sound quality and is still no slouch by modern standards.

**REVOX A77** 1968 £145  
The first domestic open reel that the pros used at home. Superbly made, but sonically off the pace these days.

## COMPACT DISC TRANSPORTS

**ESOTERIC P0** 1997 £8,000  
The best CD drive bar none. Brilliantly incisive, ridiculously over-engineered.

**TEAC VRDS-T1** 1994 £600  
Warm and expansive sound made this a mid price hit. Well built, with a slick mech.

**KENWOOD 9010** 1986 £600  
The first discrete Jap transport was beautifully done and responds well to re-clocking.

## DACs

**DCS ELGAR** 1997 £8500  
Extremely open and natural performer, albeit extremely pricey - superb.

**DPA LITTLE BIT 3** 1996 £299  
Rich, clean, rhythmic and punchy sound transforms budget CD players.

**CAMBRIDGE AUDIO DAC MAGIC** 1995 £99  
Good value upgrade for budget CD players with extensive facilities and detailed sonics.

**PINK TRIANGLE DACAPD** 1993 £ N/A  
Exquisite: the warmest and most lyrical 16bit digital audio we have ever heard.

**QED DIGIT** 1991 £90  
Budget bitstream performer with tweaks aplenty. Positron PSU upgrade makes it smooth, but now past it.

## CABLES

**MISSING LINK CRYO REFERENCE 2008** £495/0.5M  
High end interconnects, with deliciously smooth, open and subtle sound without a hint of edge.

**TECHLINK WIRES XS** 2007 £20  
Highly accomplished interconnects at an absurdly low price. Stunning value for money.

**VDH ULTIMATE THE FIRST** 2004 £250  
Carbon interconnects that help you forget the electronics and concentrate on the music. Miraculous transparency. Tight and tuneful bass mixed with air and space.



**WIREWORLD OASIS 5** 2003 £99/M  
Excellent mid-price design with a very neutral, silky and self-effacing sound. Superb value for money.

**TCI CONSTRICTOR 13A-6 BLOCK** 2003 £120  
Top quality 'affordable' mains outlet block, with fine build and good sonics. Well worth the extra over standard high street specials, which sound coarse and two-dimensional by comparison.

# vinyl section

## contents

FEBRUARY 2021

[www.hi-fiworld.co.uk](http://www.hi-fiworld.co.uk)**VINYL NEWS 80**

The latest vinyl releases for you, from Paul Rigby.

**YAMAHA GT-5000 TURNTABLE 82**

Noel Keywood on an unusual high-end record spinner.

**KEITH MONKS PRODIGY RCM 89**

A record cleaning machine, spun by Martin Pipe.

**LITTLE WHITE WONDER 93**

Paul Rigby reads a book about Dutch bootlegs.

**EMBRACE**

Two reissued LPs from this UK outfit via Craft ([www.embrace.co.uk](http://www.embrace.co.uk)) including the 2005 release 'Out of Nothing' featuring the sublime single, 'Gravity' (co-written with Coldplay's Chris Martin). This is a symphonic, uplifting LP.

Released in 2006, 'This New Day' includes the No.2 hit single 'Natures Law' and a similar anthemic approach to the presentation. Both albums work well as a pair.

# news

**DEMON ON SONG**

New from the audiophile UK outfit ([www.demonmusicgroup.co.uk](http://www.demonmusicgroup.co.uk)) is a Greatest Hits LP from The Bangles. Called 'Gold' the twelve tracker includes classics like 'Manic Monday', 'Walk Like an Egyptian' and 'Eternal Flame'.

From Heaven 17 comes 'How Live Is' (1999), the first time the band had played live, coming from a tour the group did with Erasure. Includes 'Temptation', '(We Don't Need This) Fascist Groove Thang', 'Crushed By The Wheels Of Industry' and Human League's 'Being Boiled'.

The Average White Band's 'Soul Tattoo' (1996) might not have been up there with their best but there was enough horn-driven funk vibes to still tingle the soul of fans.

Finally, check out Glass House's 'Thanks I Needed That' (1972), a Holland-Dozier-Holland project, a studio group of individuals but they provide an attractive soul/funk blend.

**WHITESNAKE**

Called 'Love Songs' (Rhino, [www.whitesnake.com](http://www.whitesnake.com)) this double album gatefold with an embossed sleeve art is part two of the red, white and blues trilogy.

Featuring a lyric sheet, remixed and remastered tracks including 'No You're Gone' and 'Is This Love', the LP includes the previously unreleased 'Yours For the Asking' and 'Let's Talk it Over'.

**MADNESS**

There are musical anniversaries all over the place – three in this column alone – and this is a 40th of 'Absolutely' for you – from Madness. A little more polished than the debut, this second album release included the singles 'Baggy Trousers', the vastly under-rated 'Embarrassment' and 'The Return of the Los Palmas 7'. This is fun – packed with energy and grin-worthy music.



## BEAR FAMILY

A new 10" from the German audiophile outfit ([www.bear-family.com](http://www.bear-family.com)) includes 'Taylor Made' from King Size Taylor over twelve tracks, plus an included 27-track CD.

Twenty-five of the twenty-seven songs on the CD were recorded in 1957-58 in the living room of Sam Hardie, the Dominoes' pianist, Taylor's band. It's legally available for the first time on this particular release.



## KRAFTWERK

The group's catalogue (*Parlophone*; [www.kraftwerk.com](http://www.kraftwerk.com)) has been reissued as limited-edition coloured vinyl. I took a closer look at 'Tour de France' which arrives in a single sleeve and comes pressed on blue and red vinyl with a pull-out booklet.

Look out for German editions too: five German language versions and 'Radio-Activät' featuring German song titles but the same audio as the UK pressing.

## EDDIE PILLER PRESENTS...

Called 'The Mod Revival' (Demon), this double album of twenty-eight tracks features a compilation of bands and tracks from the late seventies and early eighties.

So you'll find Madness' 'The Prince', The Jam's 'I Got By In Time', The Chords' 'The British Way of Life', Lambrettas' 'Go Steady', Dexy's Midnight Runners' 'Dance Stance' and a whole lot more.



## DONNA SUMMER

A 40th anniversary release, 'The Wanderer' (1980) spans two discs and includes new remixes by Le Flex and Figo on disc two, plus a pull-out booklet including essays and interviews. More electro than disco – with the help of Giorgio Moroder. Offering a change of pace and direction, it failed to find the success of her earlier releases but it's a real grower and worthy of your attention.

## SUN RA

On Strut ([www.strut-records.com](http://www.strut-records.com)) comes 'Swirling' from the Sun Ra Arkestra "...under the direction of Marshall Allen" says the sleeve sticker. This is actually a new album, part of the band's 'rebirth' apparently.

Tracks include new arrangements of 'Angels And Demons At Play', 'Satellites Are Spinning' and 'Door Of The Cosmos'.



## ...AND FINALLY

From The Pineapple Thief (*Kscope*; [kscopemusic.com](http://kscopemusic.com)) comes 'Versions of the Truth', a prog-tinged rock out that remains tinged, with leader and principal songwriter Bruce Soord preferring focused and driving rock structures.

Farmer Dave & The Wizards of the West's self-titled LP ([bigpotatorecords.bandcamp.com/album/farmer-dave-the-wizards-of-the-west](http://bigpotatorecords.bandcamp.com/album/farmer-dave-the-wizards-of-the-west)), the good Farmer's first in ten years, offers a fusion on varied genres including psychedelic, space rock, pop smatterings. Intriguing and innovative.

From Ninja Tune, Simon Green's Bonobo has a birthday. It's the 10th anniversary release of 'Black Sands' (2010; <https://bonobomusic.bandcamp.com/album/black-sands-10th-anniversary-limited-edition-red-vinyl>) which means a limited-edition release on red vinyl and spanning two discs. Offering electronic beats and soundscape flavours, it kicks into the classic Ninja Tune ethos.

Finally, here's Shaky! 'Singled Out' is the name of Shakin' Stevens' singles collection over two discs and curated by the man himself. From 1977's 'Never' to 2016's 'Last Man Alive' it spans twenty-six tracks but includes a download card to access all fifty-four tracks from the CD version.



# In A Spin

**A high-end turntable from Yamaha puts Noel Keywood in a spin. Read about their new GT-5000.**

**A** slightly unusual high-end turntable is how I'd describe the Yamaha GT-5000 – and expensive too at £7000. But Yamaha build a quality

product and this barely-liftable turntable is no exception. It's a high-end design finished in deep gloss black lacquer, as our pictures show. And it had me a bit baffled.

Bafflement came when we

opened the large box to find no acrylic dust cover. Have they left it out? No, a cover is available at – er – £760 extra. Absence of a dust cover for a turntable as standard is a puzzling omission.



The GT-5000 is a heavyweight able to match my Garrard 401 on Martin Bastin plinth – meaning barely liftable. Enormous mass stabilises a turntable, making it immune to vibration and acoustic feedback and here Yamaha go all out to match old classics. It weighs a massive 26.5kgs with 5kg platter installed, so needs a firm platform. I use a specially built low table for my Garrard to avoid rocking motion, and it sits on a 'quiet' floor. The GT-5000 would need a similarly firm surface.

There are two speeds, 33rpm and 45rpm, with no option for 78rpm. Drive to the platter is via

belt from an a.c. synchronous motor, fed from an internal crystal-locked sine wave power supply for both speed stability and adjustability. Speed can be varied in 0.1% steps over a +/-1.5% range, by turning a knurled wheel that sits beside the platter in a pillar. Unfortunately, the pillar carries no stroboscope light to set speed, nor a cue light as in Technics Direct Drives. To set speed Yamaha supply a strobe disc and strobe light that plugs into a rear power socket – for set up procedure, not everyday use. This leaves the GT-5000 looking visually dull: there are no lights to liven things up, as with Garrard or Technics

classics, or many others. A lovely feature of high-end turntables always was – and still is – their meaningful light displays, something the GT-5000 sadly lacks.

The power supply is internal, a mains lead plugging into rear – no wall-warts or external supply boxes here. It makes for a neat set up. With dimensions of 546mm wide, 411mm deep and 221mm high the GT-5000 is big as you'd expect. Since a standard 19in rack is 483mm wide it should fit; it just squeezed onto ours. Contributing to weight is a substantial two-part platter comprising heavy brass hub and solid



## VINYL SECTION

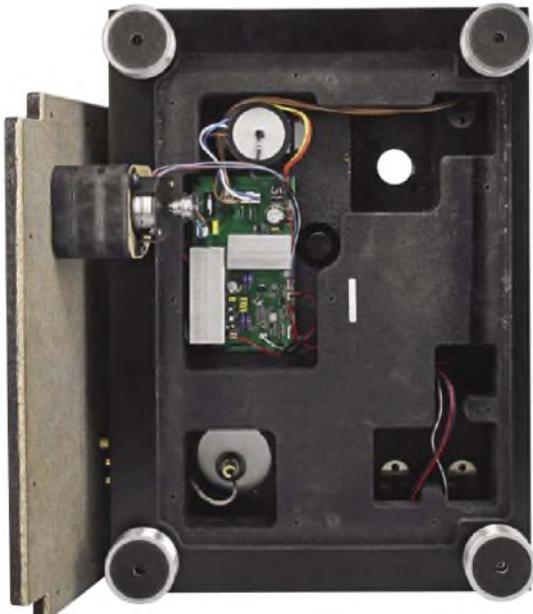


**The plinth pillar (left) carries a knurled speed adjustment roller that moves in click-steps. At right a start/stop button and 33/45rpm button with small green LEDs to indicate speed-lock.**

aluminium outer rim. Unfortunately, its mass makes start up very slow; at times I wondered whether it would start, the initial delay was so long. But small green (33/45) LEDs on the speed button flash until correct speed has been achieved, turning steady green typically after 12



**Yamaha supply a strobe disc and small external light, plugged into a rear supply, to set speed.**



**A simple but sturdy MDF plinth supports the motor (top left), arm (bottom left) and power supply/power button on base board.**

seconds.

The arm uses wrapped carbon fibre construction for rigidity and light weight, having a tapered cross-section – a precedent set by Rega long ago. The headshell is removable, using a standard bayonet fitting. What comes as a surprise with this arm is that it is straight, increasing lateral tracking error but making bias correction unnecessary; there is no anti-skating mechanism as a result. More on this complex subject in the Arm Geometry box out.

Two balance weights are supplied, covering a very wide cartridge weight range of 2gm - 9.5gm and 9gm - 20gm. The arm can be adjusted for height by raising or lowering the arm pillar, with a hex. key grub screw acting as a clamp. It would appear that the arm plate can be removed

flared connectors and Litz cables of appropriate quality, that are easier to use. You can of course buy and fit replacement cables – and they come in many varieties: copper, silver, stranded, Litz. As an example see Audio Technica's picture here of their AT6108 'leadwires' price £29.99, using 29 strand 6N OFC wire – and note the quality connecting pins. Then look at the GT-5000 pins to see why I was disappointed. The instruction manual should explain these connectors and their attachment methodology, but there is no mention.

A pleasant surprise came in seeing balanced XLR outputs, in addition to the usual RCA phono sockets. Cartridges are inherently balanced sources (if not ground referenced) and should ideally see a



**The rear carries balanced XLR outputs, plus standard unbalanced phono-socket outputs (left). At right is an IEC mains power input.**

to fit an alternative arm but there may well be difficulties in wiring one in and I'm uncertain about geometry; a replacement would need a short effective length of 223mm. But somehow I don't see many people spending so much on the GT-5000, only to replace its arm.

Another difficulty came with the pin connectors in the headshell leads. Our review sample had seen previous use, the pin connectors were enlarged it seemed and slipped straight off the pins of our cartridges. There were also graunch marks on the sleeves, caused by pliers. So I tried to close the pins slightly using jewellers pliers and a bench clamp/magnifier. This did not work. Using fingers rather than pliers I felt the pin connectors only clicked into place when pushed home hard, so they're 'difficult' connectors. Our office SME309 and my home SME312S have

balanced-input phono stage (where they can be ground referenced). This minimises induced hum and noise – a major problem when looking for high-end performance. Trouble is, there are very few phono amps around with balanced inputs, even though they are nowadays easy to implement using dedicated audio mic preamp silicon chips (THAT Corporation etc). The handbook shows a generic matching amplifier with balanced phono inputs, but there are none.

Or are there? The £4999 Yamaha



**The headshell supplied is solid and sturdy, attached by a standard bayonet connector.**



**The single-diameter motor pulley (front) and tapered main bearing at rear.**

A-S3200 I reviewed in our November 2020 issue did not have them but there is a matching C5000 preamp (£6500) that is fully balanced throughout, including balanced Phono stage input. Definitely worth looking at for glorious pictures of its extreme high-end construction (copper

screened transformers etc). Or there is Aqvox of Germany with their Phono 2 Ci MkII. A further opening of wallet is needed to exploit this feature.

Note that the GT-5000 has no internal preamplification: these are passive outputs. A fully balanced internal preamp delivering balanced Line output would have been a real plus-point I feel, achievable at this price level and an elegant way to maximise sound quality from the whole.

## SOUND QUALITY

I fitted the Yamaha GT-5000 with Ortofon A95 and Audio Technica OC9X SH (Shibata) moving coil (MC) cartridges. The phono preamplifier was an Icon Audio PS3 Mk2 (valve) with input transformers. Amplifiers were an Audiolab 6000A Play and

an Icon Audio Stereo30 SE (valve, single-ended). The amps fed (alternatively) Martin Logan ESL-X hybrid electrostatic loudspeakers through Chord Company Signature Reference screened cables.

Both cartridges have boron cantilevers and a cool, analytical sound. I was surprised to hear the opposite to what I am used to from using them in many turntables. With Dire Straits Brothers in Arms (Mobile Fidelity, 12in, 45rpm), Money for Nothing came over as full bodied, dark to the point of sounding warm, yet dynamically powerful: the drum rolls thundered out and the bass line was massive. This rather surprised me but it was a consistent trait after many LPs had rolled by; I suspect the arm material, not being a metal, has a lot to do with it.

With Two Countries, One Heart (HiFi Direct, Italy) Fanfare For The Common Man similarly sounded dynamically bold, opening kettle drum strikes had power and there was wonderful timbral resolution – I got to hear the character of the drum better than usual. My end-of-side test on this LP, where Rosella Caporale sings Time To Say Goodbye, the GT-5000 moved up to full points, sounding absolutely glorious. She came over in more believable human form than I have heard before – bit of a shock. There was not only resolution of every vocal nuance but great insight into vocal texture as well: I was left thinking perhaps we should not be listening to metal tonearms.

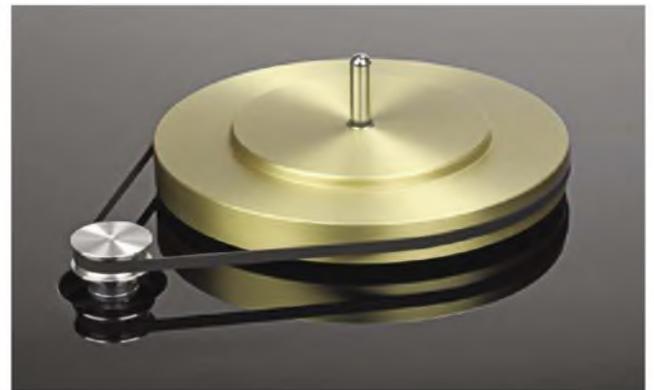
And the other issue that surprised me was both Ortofon

A95 and Audio Technica OC9X MCs sounded less dry and remorseless (boron cantilevers) than I am used to. I was again puzzled. The Audiolab 6000A Play best suited this presentation, bringing in more speed than the Icon Audio Stereo30 SE, whose smoothing qualities were not needed here.

I had a feeling the GT-5000 might get an interesting result from our Audio Technica VM750SH moving



**Yamaha's unusual straight tonearm. With no angular offset of headshell and cartridge, bias correction is unnecessary. A manual lift/lower lever is fitted for cueing. There are no auto-systems.**



**Belt drive is to a brass hub, on top of which sits an alloy platter. Different materials to lessen resonant signature.**



**The heavy main platter is lifted into place on the hub with the aid of two screw-in eyes.**

magnet cartridge, with its tapered aluminium cantilever and Shibata stylus. And this was so. Connected to the Audiolab's MM phono stage bass was a tad shy; connected to our Icon Audio PS3 Mk2 valve phono stage feeding the Audiolab's Aux I line input I hit a sweet spot. Now there was even more body and strength to vocals (boron be gone) and tight powerful bass: Hugh Masekela's trumpet blared out on Uptownship, from his LP Hope, hand drums at the intro were vivid and the slow kick drum strikes had heft. At this point the GT-5000 was showing it had clean dark sound, massive bass power

# IAN HARRISON HI-FI SALE!

HIFI AT DISCOUNT PRICES. FREE NATIONWIDE DELIVERY  
Email: [ian.harrison@mercian.myzen.co.uk](mailto:ian.harrison@mercian.myzen.co.uk)

**SPECIAL OFFERS!! SALE! UP TO 40% OFF!!**

**CARTRIDGES UP TO 30% OFF PHONOSTAGES UP TO 25% OFF TURNTABLES & TONEARMS UP TO 25% OFF CABLES UP TO 40% OFF**

VAN DEN HUL MC10S £775, ORTOFON CADENZA BLUE £950, ORTOFON QUINTET BLUE £299

#### TO NEARMS

AMG  
CARTRIDGE MAN  
GRAHAM  
HADCOCK  
HELIUS  
MICHELL  
MIDRICH  
MOTH  
ORIGIN LIVE  
ORTOFON  
PRO-JECT  
REED  
ROKSAN  
SUMIKO

#### HEADPHONE AMPS

CREEK  
FIDELITY AUDIO  
GRAHAM SLEE  
ICON AUDIO  
LEHMANN  
PRO-JECT  
SUGDEN

#### AMPLIFIERS

CREEK  
EAR/YOSHINO  
ICON AUDIO  
QUAD  
SUGDEN  
TOM EVANS  
VALVET

#### ACCESSORIES

DIGITAL STYLUS GAUGES, RECORD CLEANING MACHINES, CLEANERS, AUDIO CASSETTES

#### CARTRIDGES

AIR TIGHT  
BENZ MICRO  
CARTRIDGE MAN  
DECCA LONDON  
EMT  
GOLDRING  
GRADD  
HANA  
IKEDA  
MY SONIC LAB  
NAGAOKA  
ORTOFON  
SUMIKO  
VAN DEN HUL  
ZYX

#### SPEAKERS

ACAPPELLA  
CABASSE  
EPOS  
HARBETH  
ICON AUDIO  
OPERA AUDIO  
Q. ACOUSTICS  
QUAD  
TAYLOR ACOUSTICS

#### CD PLAYERS

CREEK  
EAR/YOSHINO  
ICON AUDIO  
QUAD  
SUGDEN

#### PHONOSTAGES

EAR YOSHINO  
GRAHAM SLEE  
ICON AUDIO  
LEHMANN  
MUSICAL  
SURROUNDINGS  
PARASOUND  
PRO-JECT  
PURE SOUND  
QUAD  
ROTHWELL  
TOM EVANS  
TRICHORD  
WHEST AUDIO

#### CABLES

BLACK RHODIUM  
IXOS  
KUBALA-SOSNA  
PEERLESS  
PRO-JECT  
QED  
SUPRA  
WIREWORLD  
ZENSATI

#### RECORD CLEANING

PROJECT  
MOTH  
WIRELESS  
BLUESOUND

#### TURNTABLES

ACOUSTIC SIGNATURE  
ACOUSTIC SOLID  
AMAZON AUDIO  
INSPIRE  
LUXMAN  
MICHELL  
MUSIC HALL  
PRO-JECT  
REED  
ROKSAN  
SRM TECH  
THORENS

#### HIFI FURNITURE

ALPHASON  
ATACAMA  
CUSTOM DESIGN  
HI FI RACKS  
MUNARI  
MUSIC TOOLS  
NORSTONE  
QUADRASPHIRE  
SOUNDSTYLE  
TRACK AUDIO

#### HEADPHONES

AUDEZE  
BEYER  
ERGO  
GRADD  
SENNHEISER  
ULTRASONE

\* PHONE FOR TERMS. PLEASE PHONE TO CONFIRM PRICE & AVAILABILITY PRIOR TO ORDERING. ALL GOODS ARE BRAND NEW & BOXED WITH FULL U.K. GUARANTEES. NO EX. DEM OR EX DISPLAY GOODS. NO GREY IMPORTS. GOODS ARE NOT SUPPLIED ON APPROVAL. SORRY, NO GENERAL CATALOGUES. PLEASE PHONE OR WRITE FOR SPECIFIC REVIEWS, BROCHURES OR PRICES. SUPPLIER OF HIFI PRODUCTS & ACCESSORIES SINCE 1986 MAIL ORDER ONLY FROM: IAN HARRISON, 7 MILL HILL, REPTON, DERBY, DE65 6GQ. TEL: 01283 702875. 9am - 9pm INCLUDING SUNDAYS.

criterion audio



Criterion Audio is a premium hi-fi dealer in Cambridge. From vinyl and valves to the latest in streaming and headphones, we can help you find the perfect audio system to suit your budget and needs. Call us on 01223 233730 to arrange a demo.

Criterion House, Oakington Road, Cambridge CB3 0QH  
[www.criterionaudio.com](http://www.criterionaudio.com) [info@criterionaudio.com](mailto:info@criterionaudio.com)

*Emporiumhifi.com*

**EMPORIUM HIFI IS BACK - bigger than ever**

**- WE WANT YOUR HIFI -**

and we will come and get it - now with 5 branches - world take over next

Emporiumhifi established 30 years ago is looking to buy your used Hifi equipment either as a straight purchase or against new or used Hifi

See [www.emporiumhifi.com](http://www.emporiumhifi.com) to see our extensive stock over £1,000,000 of used hifi available and something for all budgets whether its a 1970s tuner amp or a modern £20k+ high end valve amp

#### CONTACT

##### The Warehouse

The Emperor himself

(Nick) 01508 518542, 01508 518468

[admin@emporiumhifi.com](mailto:admin@emporiumhifi.com)

##### Wales, South West and West Midlands

(Paul) 07783 336158

[emporiumhifiwales@gmail.com](mailto:emporiumhifiwales@gmail.com)

##### London East and North

(Jim) 020 8586 0099

[pegasus1999@hotmail.co.uk](mailto:pegasus1999@hotmail.co.uk)

##### Kent and South East

(Hughie) 01843 842948

[emporiumsouth@yahoo.co.uk](mailto:emporiumsouth@yahoo.co.uk) - with new custom built demo room

##### London West and South

(Peter) Oxon, Bucks, Hants,

Surrey, Sussex

07423 039 464

[emporiumhifiwestlondon@gmail.com](mailto:emporiumhifiwestlondon@gmail.com)

bricks and mortar shop

##### North

Where are you ??? apply for vacancy actually we have man in Wigan who will collect

##### Europe

Next year we hope

TRUE PATH



A new destination Hi-Fi shop with an outstanding range of highly regarded brands

mark levinson  
by HARMAN

LUXMAN

aurender

avantgarde  
WOODVILLE

Asvik

PATIOS

MARTIN LOGAN

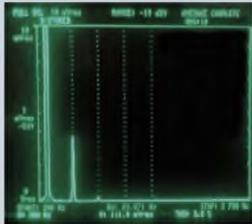
LINN

Please visit our website for details  
[www.truepathaudio.co.uk](http://www.truepathaudio.co.uk)

## YAMAHA ARM GEOMETRY

A straight arm with no angular offset of the cartridge – I was intrigued. Plugging the data into my spreadsheet that uses Stevenson's equations gave a graph you can see here (right). Distortion due to lateral tracking error (blue) reaches 4% – and more on inner grooves. Results are not comparable to a conventional arm that manages less than 1%, as our analysis shows (lower right). So, approximately x4 more distortion than a geometrically optimised arm.

If this was the case then the typical 0.8% distortion figure I measure when testing cartridges in our SME309 arm would be 3.2% in the Yamaha arm – and it was exactly that under measurement – see the analysis. Angling the cartridge in the head shell by approximately 10 degrees reduced distortion from 3.2% to 0.5%, showing what is possible from optimised geometry. This measurement also confirmed both cartridge (AT OC9X SH) and test disc (CBS STR-112) are capable of such low distortion, test discs in particular being a limiting factor when measuring distortion.



**Distortion (3.2%) due to tracking error. Second harmonic only.**

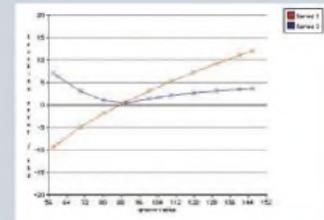
As a rough guide then, Yamaha's straight arm produces x4 more distortion than a conventional arm. Sounds horrible and certainly isn't wanted, but we're talking innocuous sounding second harmonic here (see the analysis) – so no subjective disaster. At about 5%-10% second harmonic becomes just audible as a lightening of tone, rather than the graunching noise associated with modulated higher harmonics.

Quite why Yamaha have decided to use non-optimal geometry in a top tone-arm is difficult to fathom however. Was it to eliminate the cost of a bias correction system, or to give a shorter, stiffer arm? Yamaha's arm is short at 223mm effective length and the cartridge has what is known as underhang (-17mm) where the stylus traces a path that crosses behind the turntable spindle – most arms have +17mm overhang. So totally different geometry. Whilst a shorter arm should be stiffer, Yamaha's was not stiff at all measurement with an accelerometer showed. The structure could certainly be improved.

Yamaha's literature stays resolutely silent about reasons they decided to go straight, where everyone else is bent – if you'll pardon the pun. It is all a tad baffling.

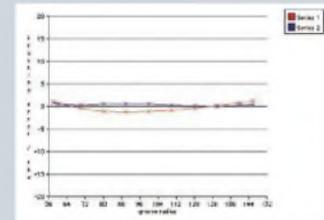
I found this arm gave good sound quality but it needs technical development to lessen structural resonant modes and improve image definition. An angled headshell would reduce tracking error at no extra cost too. **NK**

## YAMAHA STRAIGHT ARM



**TRACKING ERROR - RED  
DISTORTION - BLUE**

## CONVENTIONAL ARM



and superb resolution of instrumental and vocal timbre.

What was wrong? There was some mellifluous-ness. Stereo images were soft around the edges, not chiselled in stone as in Rega's Planar 10, and bass was on the warm and fulsome side; kick drums had power but a soft edge; I suspect the arm's resonance is responsible for this (see Measured Performance). All the same, I ended up loving the sheer richness of revelation here and the sense of

power in the sound. Deeply exciting and very convincing: this turntable would make anyone love LP.

## CONCLUSION

Yamaha seemed to have pushed the boat out here, fitting a very unusual arm to a high-spec belt drive turntable in massive plinth. In engineering terms the arm is left-field, but for peculiar reason – non-metallic construction I suspect – it works very well in subjective terms,

delivering a sound that is full bodied and organically exciting – meaning convincingly realistic. Fabulous sound quality then, if not perfect. The turntable and plinth add in powerful bass and great dynamics.

With poor instructions, many practical problems and no dust cover except as an extra, the GT-5000 is not a fully worked out product at practical level: Yamaha can and need to do better. All the same I loved its sound.

## MEASURED PERFORMANCE

The 3150Hz test tone of a DIN 45-452 test disc was reproduced as exactly 3150Hz on our Wow&Flutter meter (after adjustment), with no wander around nominal. The GT-5000 was eerily stable for belt drive, looking more like a Direct Drive.

Low speed wander results in low Wow (low rate speed variation), the GT-5000 hovering around 0.08% and Flutter 0.04% – good results. Total Wow&Flutter (DIN weighted) measured 0.05%, a very good result. Measured to the Japanese JIS Standard total Wow&Flutter (wtd) was 0.03%, JIS always giving a lower reading than German/European DIN. Our analysis shows the usual peak at 33rpm (0.55Hz), at low-ish level, plus harmonics and minimal flutter (right).

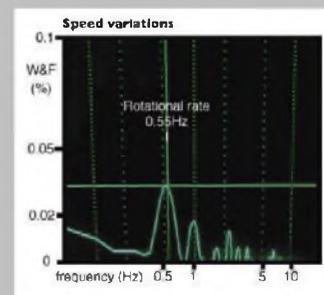
The arm, in spite of what appears

to be wrapped carbon fibre construction and a tapered shape, had a strong first bending mode at 150Hz, our analysis of vibration, using a Bruel&Kjaer accelerometer on the head shell, shows. This is a classic tube resonance – not expected from modern arms. The head shell is reasonably free of severe high frequency resonances.

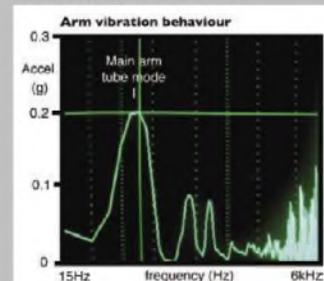
The turntable measured well but the arm was poor by modern standards, due to a strong main bending mode resonance. **NK**

<b>Speed error</b>	<b>0%</b>
<b>Wow</b>	<b>0.08%</b>
<b>Flutter</b>	<b>0.04%</b>
<b>Wow &amp; Flutter (DIN wtd.)</b>	<b>0.05%</b>

## SPEED VARIATION



## ARM VIBRATION



## YAMAHA GT-5000 £7000



**EXCELLENT - extremely capable.**

**VERDICT**  
Great sound, but imperfect at the price.

**FOR**  
- rich powerful sound  
- strong bass  
- revealing

**AGAINST**  
- dust cover optional  
- hazy imaging  
- slow start up  
- poor headshell wires  
- bereft user manual

Yamaha Music Europe GmbH (UK)  
+44 (0)1908 366700  
www.uk.yamaha.com



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.



# Big bamboo!

**Martin Pipe cleans his records (and CDs) with the Keith Monks Prodigy, and discovers that heritage counts for a lot.**

In the 1960s, BBC FM radio began to take off. It was far more revealing than the 'steam radio' of old, and the condition of records played on-air was often embarrassingly laid bare. A gentleman by the name of Keith Monks presented his prototype of a record cleaning machine (RCM) to the Beeb, whose engineers refined the design. The fruits of their joint labours came to be installed in BBC record libraries up and down the country. Keith Monks' machines became legendary, being installed in public libraries and hi-fi retailers as well as the premises of broadcasters. One was even presented to the Queen in 1977, during her Silver Jubilee. However, for all their effectiveness these bulky pieces of hardware weren't exactly domestic propositions...even in Buckingham Palace.

A decade later, Keith Monks' son was giving thought to a 'home RCM'...after all, other companies had

by now cottoned onto the things. Fifteen years later and Jon Monk's vision has finally been realised – and I am reviewing it here.

As you might expect, the £795 'Prodigy' is very different to the other RCMs out there. Made primarily out of tough and environmentally-friendly bamboo rather than flimsy balsa, the coffin-shaped Prodigy uses a threadless variant of the Keith Monks single-point suction technique instead of the "tube-and-lips" approach adopted by other manufacturers. It will clean not only vinyl and shellac records of all sizes, but digital discs (CDs, DVDs and Blu-rays) too. Jon assured me that the proprietary DiscOvery 33/45 cleaning fluid – two bottles of which accompany the Prodigy – is safe to use on all such media. A different 'blend' of DiscOvery is sold for use with shellac.

Most obvious is the in-built

light show. This, Jon told us, is part of a "conscious effort to appeal to a younger audience, who complained the older boxes were too industrial... home-friendliness is important to



***Uplighting of the bottle recess/drip-tray and spent-fluid reservoir adds to the Prodigy's character. On the latter is a valve that allows the user to strike a balance between "suck" and "stick" during the cleaning operation.***



**The Prodigy in its coffin-like glory. A bamboo box cover can be placed over when the cleaner is in use.**



**The Prodigy's LED lighting – colour and behaviour – can be changed with this credit-card remote.**

families, who will have to share their lounge with a machine". The lighting, which is controlled by a credit-card remote, can change colour as well as fade and flash; it is certainly an attention-grabber, but can be turned off altogether. The Prodigy is designed



**CD, DVD and Blu-ray discs can also be cleaned by the Prodigy, adding to its versatility.**

to be serviced at home, and a spare nozzle is supplied – they are good for as many as 2000 LPs, according to Jon.

You don't get an instruction manual, online videos instead fulfilling this role. I was however told that a manual was in preparation. This is perhaps just as well; although the basic cleaning procedure is straightforward, I could find nothing about maintenance, or how to use the rather fiddly adaptor needed for 7in. EPs with enlarged centre holes. For the benefit of those who prefer their instructions to be 'moving', though, those online videos are regularly updated or complemented.

**USE AND PERFORMANCE**

So how does one harness the power of the Prodigy? You place your record on the turntable, which is topped by a synthetic rubber mat, and secure it in place with the threaded clamp. Note that CDs fit over this clamp, label side down - they're pushed until they meet its ridge, and the assembly then screwed onto the turntable.

The turntable is directly-driven, at 60rpm or so, by a motor that's energised via a front-mounted switch. Jon Monks reveals his motor is of

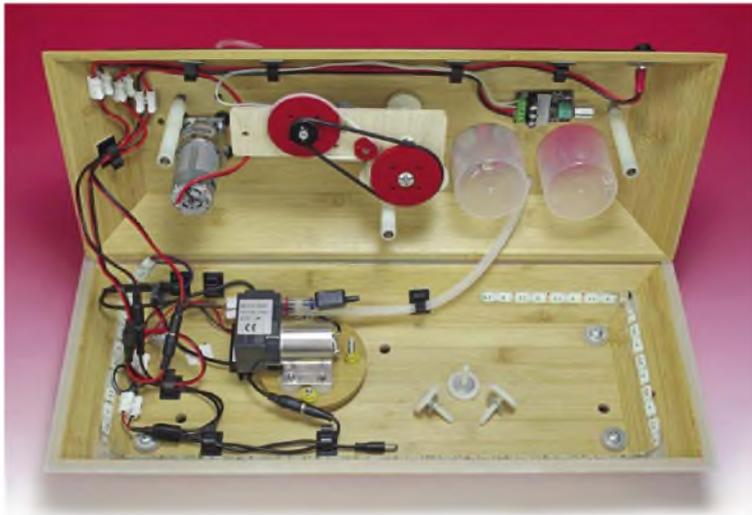
industrial quality - it was originally intended, he told me, for machines that populate circuit boards in electronics factories. Motor power is independent of the LED illuminations,



**The turntable and the cleaning arm. Seeing dirty fluid disappearing up the tube and into the reservoir is quite satisfying! A spare nozzle is supplied; each is good for 2000 hours.**

which also underlight - to stunning effect - the bottle recess/drip-tray and 'spent reservoir' pot. Both are powered by a fairly-substantial external DC supply unit.

If the Prodigy hasn't been used for a while, its retractable microfibre brush - called Eco Roller, living in a tubular bamboo shell - must be primed with a few drops of cleaning fluid. The next step is to deposit said fluid onto the top-half of the record surface - and no further, to prevent the stuff from being flung off the record onto your furniture!



**Inside the Prodigy. The motor is of industrial quality. There is a vacuum-pump, belt-drive for the arm and LED strip-lighting that gives the Prodigy its glow.**

Using the Eco Roller, fluid is then drawn outwards from the label. If sufficient quantities have been applied, the record should take on a 'glossy' appearance. The Prodigy's pivoted suction arm - which is made of bamboo - is then manually-swung over the record's label and lowered.

The arm sucks up moisture and dirt, automatically-moving outwards towards the record's rim until it harmlessly drops off the edge altogether; the procedure is then repeated for the other side of the record.

You can see the contaminated fluid travelling through the tube towards the spent reservoir, which needs to be emptied periodically. This pot is made of clear plastic - there is undoubted satisfaction in seeing the dirt in there, and not on your records!

Also on this pot is a valve that allows a balance to be struck between "suck" and "stick". Cleaning takes less than 3 minutes for an LP side, and only 15 seconds for a CD-sized disc. The Prodigy's arm is coupled to the drive motor via a belt-clutch and no damage will be caused if you move it manually. This might be necessary if there are deposits of excess fluid on the rim to remove, or the arm needs a nudge to free it from the occasional RCM equivalent of a 'locked groove'.

On the whole, the Prodigy worked exceptionally well. Even some records that had - literally! - been thrown away responded successfully to treatment. A badly-treated Jeff Wayne War of the Worlds double-LP became surprisingly playable, surface noise largely disappearing.

Mistreated records - ones that have been abused by DJs for example - might need to be processed twice. However, I did find that some non-audiophile thin LPS could slip on occasions. That might be an issue with the review sample, if Jon's feedback is anything to go by.

Other record cleaners have a more substantial clamp that covers the label - this was considered for pre-production prototypes, but then rejected on practicality grounds.

The Prodigy revitalised singles; my own cleaner (a Project VC-E) requires an expensive aftermarket clamp that allowed

me to clean laserdiscs - the 12in. analogue precursors of DVDs. Doing so also yielded benefits; I hope that such a clamp will be offered as an accessory.

## CONCLUSION

On the whole, I found using the Prodigy a rewarding experience. It did a thorough job of cleaning records - the reduction in shlooshes, crackles and other unwanted background noise was dramatic. It may not be completely silent in operation, but the Prodigy is certainly quieter than some of the RCMs I've come across.

The overriding impression I get of this machine is that design and production alike are a labour of love; Jon Monks has clearly put heart and soul into the thing. The light show is an added bonus...one I think will be particularly appreciated by old-time ravers as they breathe new life into their cherished old records.



**You get a lot with the Prodigy - a remote to tailor the lightshow, two bottles of DiscDiscovery 33/45 cleaning fluid, a spare nozzle, a 45rpm adaptor, the retractable Eco Roller microfiber wand and the clamp.**



**With cover in place, the Prodigy looks coffin-like.**

**KEITH MONKS  
PRODIGY £795**



**OUTSTANDING - amongst the best.**

**VALUE - keenly priced**

### VERDICT

A flexible and likeable RCM that has much going for it.

### FOR

- cleans just about anything round!
- personality
- a well thought-out design

### AGAINST

- no instructions.
- some 'sillies'

Keith Monks Audio Works  
www.vinyldiscovery.com

華  
UMAMI RED



HANA Designer Maseo Okada-san has created a new masterpiece



E Series



S Series



M Series

《AIRaudio》  
UK Distributor for Hana Cartridges

INFORMATION AND UK DEALER LIST  
[www.hana-cartridges.co.uk](http://www.hana-cartridges.co.uk)

TELEPHONE  
01491 629 629

# Enjoy the Music.com<sup>®</sup>



Reviews News Show Reports And More...



# Going Dutch

**Birth of the Dutch bootleg industry, a book reviewed by Paul Rigby.**

## LITTLE WHITE WONDER

**Author: Charles Beterams**

**Publisher: Permafrost**

**Price: £40.79**

I know Charles Beterams (aka Crazy Diamond) more for his work with his label Tonefloat. Packed with top artists such as Robert Fripp, Judy Dyble, Roger Waters, Ron Geesin, Steven Wilson, Soft Machine, Porcupine Tree and many more, Tonefloat has been responsible for a host of significant musical releases over the years. Beterams has also spent many years dealing in rare records and memorabilia. Hence, his background and knowledge of the music industry and its history is both impeccable and impressive, respectively.

That Beterams should write a book about its goings on is not surprising but that he should pen a tome on bootlegs is only more interesting. Especially as this relative niche sector of music dissemination is too little understood and really does need further study. Which is why I welcome this book.

Actually, the content is a niche within a niche because it discusses the Dutch bootleg industry (it was a major player back in the day) and the legal loopholes that allowed the industry to thrive. Well 'white records', the Dutch prefer that term to the word 'bootleg'.

This book looks at the records, the people behind it (who often talk for the very first time about their involvement) and focuses on the birth - as per the title - taking us through to the mid seventies.

The book starts with the first bootleg, published in the USA with

Bob Dylan as its subject and called 'Great White Wonder' (1969). The Netherlands responded to that by issuing Little White Wonder in 1970, featuring rare studio material from a local radio broadcast.

From that point, we're off. Significant bootlegs are looked at in turn and in detail with lots of excellent information in terms of their origination and creation.

So let's take Crosby Stills Nash & Young's double album 'The All American Phonograph Record Album' published in 1971, taking material from a live concert at The Forum, Los Angeles. You'll see a sleeve and label images of the same plus any catalogue number, matrix sleeve information, label information, full track listing and place of recording.

Here we find that this album is a repress of an American bootleg via Rubber Dubber Records in 1970.

By the same group, 'Wooden Nickel' features a Big Sur Festival recording from 1969, from the American original via Trade Mark of Quality, a noted bootleg label in the USA. We learn that there are two Dutch flavours of this original with different front sleeves.

What these recordings provide is valuable insight, especially when it's allied to words from noted commentators like Barend Toet, who was writing for respected magazine, Muziekkrant OOR at the time. He commented on how uneasy Young sounded on this recording and how little his colleagues understood his



music, "...especially Stills, who quacks throughout like an idiot - so much so that a song like Down by the River becomes a joke and Sea of Madness has to be started all over again due to the far too fast pace that the guys start off with. It is all too clear why Young is not crazy about performances with his famous friends anymore".

And on we go with a widely varied collection from The Rolling Stones to Little Richard to music festivals and more.

There are tales of how suppliers sold their wares, the people who bought them, the struggles with the law, tales of police raids and the tussles with Stemra, the trade agency set up to protect artist copyright and collect fees for the same, interactions with other European countries and lots more.

In short, don't see this book as a parochial piece of navel gazing that's only of interest for those who know what 'illegale kopie' means. See this book as the Dutch perspective of an international business and the internal shenanigans that were being repeated all over the world at that time.

Featuring a usable index and list of sources, it can be read as a general history and is a significant piece of work for anyone interested in bootlegs and the people who created, dealt and bought them.

# Buying Hi-Fi With Clarity



Buying hi-fi is all about the emotional connections with the music. What you buy depends upon what you want from your music. You'll find the answers at your local specialist retailer.

Members of The Clarity Alliance, the trade association for the UK hi-fi industry, are independent retailers trained to industry agreed standards to give you unparalleled levels of advice and service. They'll offer expert guidance on a selection of equipment, letting you study and audition each piece to see how it makes you feel.



Look out for the Clarity Trusted Retailer tick and buy with confidence

## **EAST**

Basically Sound  
Norwich  
[www.basicallysound.co.uk](http://www.basicallysound.co.uk)  
01362 820800

Martins Hi-Fi  
Norwich  
[www.martinshifi.co.uk](http://www.martinshifi.co.uk)  
01603 627010

**LONDON**  
Billy Vee Sound Systems  
Lewisham  
[www.billyvee.co.uk](http://www.billyvee.co.uk)  
020 8318 5755

Grahams Hi-Fi  
Islington  
[www.grahams.co.uk](http://www.grahams.co.uk)  
020 7226 5500

Infidelity  
Kingston-on-Thames  
[www.infidelity.co.uk](http://www.infidelity.co.uk)  
020 8943 3530

Oranges & Lemons  
Clapham  
[www.oandlhifi.co.uk](http://www.oandlhifi.co.uk)  
020 7924 2040

Unilet Sound & Vision  
New Malden  
[www.unilet.net](http://www.unilet.net)  
020 8942 9567

**MIDLANDS**  
Frank Harvey  
Coventry  
[www.hifix.co.uk](http://www.hifix.co.uk)  
02476 631707

**NORTH WEST**  
Acoustica  
Chester  
[www.acoustica.co.uk](http://www.acoustica.co.uk)  
01244 344227

Peter Tyson  
Carlisle  
[www.petertyson.co.uk](http://www.petertyson.co.uk)  
01228 546756

Russ Andrews  
Kendal  
[www.russandrews.com](http://www.russandrews.com)  
01539 797300

**SOUTH EAST**  
Home Media  
Maidstone  
[www.thehomeofhifi.com](http://www.thehomeofhifi.com)  
01622 676703

Soundcraft Hi-Fi  
Ashford  
[www.soundcrafthifi.com](http://www.soundcrafthifi.com)  
01233 624441

**SOUTH CENTRAL**  
Nintronics  
Welwyn Garden City  
[www.nintronics.co.uk](http://www.nintronics.co.uk)  
01707 320788

Oxford Audio Consultants  
Oxford  
[www.oxfordaudio.co.uk](http://www.oxfordaudio.co.uk)  
01865 790879

**SOUTH WEST**  
P J Hi-Fi  
Guildford  
[www.pjhifi.co.uk](http://www.pjhifi.co.uk)  
01483 504801

**SCOTLAND**  
Glasgow Audio  
Glasgow  
[www.glasgowaudio.com](http://www.glasgowaudio.com)  
0141 332 4707

Holburn Hi-Fi  
Aberdeen  
[www.holburnhifi.co.uk](http://www.holburnhifi.co.uk)  
01224 585713

Supported by these major brands:

Arcam Auralic AVM Bryston Cabasse Cyrus Audio Focal  
GIK Acoustics HiFi Pig Hi-Fi+ Heed Audio KEF Kimber Kable  
Martin Logan Manor Drive Audio Naim Parasound PMC  
Russ Andrews Stereonet What Hi-Fi?



/clarityalliance



@clarityalliance

[www.clarityalliance.co.uk](http://www.clarityalliance.co.uk)



# free reader Classifieds

**TERMS AND CONDITIONS:** Only one advert per reader. No Trade adverts. This section is strictly for readers selling secondhand hi-fi equipment only. Maximum length per advert is 30 words, Adverts over 30 words will not be accepted. Telephone numbers and E-mail addresses are treated as one word. Model numbers are treated as one word i.e. Quad 303 = two words. Email your advert to; [classifieds@hi-fiworld.co.uk](mailto:classifieds@hi-fiworld.co.uk) or fill in the form on page 97 and post it to Hi-Fi World Free Readers Ads, Studio 204, Buspace Studio, Conlan Street, Notting Hill, London W10 5AP. Sorry, we cannot accept adverts over the telephone. The Publisher reserves the right to judge submissions.

Q ACOUSTICS 3050i loudspeakers, mint condition, can demo. Unfortunately no original packaging so buyer will need to collect from North Yorkshire. £300. Tel: 07400 006 347 or Email: [jonathanhurlock375@icloud.com](mailto:jonathanhurlock375@icloud.com)

WANTED: BASS mid range driver for Technics SB301 speaker, circa 1970's, in working order. Tel: 01623 232 2933 (Notts)

LUXMAN C-02 preamp. M-02 power. Owned from new. Haggle from £1500. Collect only. Sony SLVD900G VCR/DVD combination. Not DVB. £80. Pioneer PL550 Direct Drive 1970's turntable, £400. Tel: 01708 457 691

AUDIOLAB 8000Q line level preamp (drive your monoblock amps), boxed, manual, remote control, silver, good condition, 6 inputs, under estimated preamp bargain, £250 ono. Arrange collection, post? Tel: Murray 01245 473 054 (Essex)

WANTED: Top quality Hi-Fi separates and complete systems, Naim, Linn, Cyrus, PMC, Audio Research etc, fast, friendly response and willing to travel/pay cash. Please call me on 0781 5892458 or Email me at [pogsonp@aol.com](mailto:pogsonp@aol.com)

WANTED: ANY of the following vintage units: Leak tuner 2300, Rogers amp A75-II, Rogers tuner A75. Working or not but complete. Tel: Gareth 01938 553 559 (Welshpool)

KORA A.N.T. 3T phono preamp. MM only. £100. 100-240 volts, includes box and instruction manual. Email: [johndyson@johndyson.com](mailto:johndyson@johndyson.com)

ICON AUDIO Stereo 25. All new valves fitted 2015. Beautiful sound £400. Michell Iso/Hera phono stage £250. Vermouth Audio RCA Interconnect, 4 metres length £100. Icon Audio amp collection only. Tel: Nottingham 07922 513810

LEAK 2000 system. 2300 tuner, 2100 amplifier, Delta/G75 turntable boxed, 2020 speakers, set of manuals. Repaired Delta cover, cabinets excellent. Must go, offers invited. Collection only. Tel: Ken 01323 500174 or 07989 423813 (Eastbourne).

NAIM72 preamp with SNAIC interconnect for power unit and Chord Chorus CD lead. An appreciating classic in fine condition £365 includes UK delivery. Tel: 01825 722936 (Sussex).

QUAD 66 Preamp & Control Unit serviced by Quad. 3 interconnects, MM and MC phono boards £300. Quad 606 Poweramp £350. Excellent condition, manuals, boxes Tel: 01204847404 or Email: [john@jjshaw.co.uk](mailto:john@jjshaw.co.uk)

CREEK EVOLUTION 50A amplifier. black finish. Very good condition, no marks, or scratches. Recently fitted with Sequel Mk4 phono module. original packaging. £425. Berkshire. Tel: 07398 642 586. [johnakeanelangley@gmail.com](mailto:johnakeanelangley@gmail.com)

NAIM NAIT XS3 amplifier. Mint condition. All packaging and paperwork present. Stored and not used since July. Cash on collection. £1500. Tel: 07505583615 (Nottingham.)

CYRUS 8Vs2 Amplifier Black finish excellent condition upgrade forces sale. £430 o.n.o. Cyrus 3 Amplifier Black finish good condition £80. Tel: 07913121771 or Email [nigelsach42@tiscali.co.uk](mailto:nigelsach42@tiscali.co.uk)

NAIM NAP100 power amplifier £250. Michell Technoarm in box £150. No offers, Buyer Collects (M25 Junc A21) Tel: Bill 07535 734 283

NAIM CDX2 CD player, recent factory service, complete with all accessories very good condition. £1325. Chord Company Anthem interconnect 1m. DIN/DIN, very good condition. £75. Nakamichi BX300E cassette deck, recent new drive belts and full service vgc. £375. Tel: 07584 358210 or Email: [martind.home@btinternet.com](mailto:martind.home@btinternet.com)

NEAT MOTIVE 1 Loudspeakers Cherrywood excellent speakers, condition and sound bargain, only £475! London, 07957384795 (Evan)

FOR SALE: EAR 834L line pre-amp by Tim de Paravicini. Excellent and well looked after condition. £650 ono. Tel: 07505 057 414 or Email: [zylandaroya@yahoo.com](mailto:zylandaroya@yahoo.com)

CANADIAN GUTWIRE Synchrony 3 metre length speaker cables. Superb - totally new condition. £700. (Synchrony Interconnects available separately). Email: [stephen.adolphus@gmail.com](mailto:stephen.adolphus@gmail.com). Tel: 07787 574784.

WANTED FAULTY or non working Nakamichi 581 or 582 cassette deck. Contact Mike 01758 613790.

# NEXT MONTH MARCH 2021 ISSUE



## B&W 603 S2 ANNIVERSARY EDITION LOUDSPEAKERS

B&W bring their high-end loudspeaker technologies to an affordable floorstanding loudspeaker. A Continuum cone bass/midrange unit from the flagship 800 Series has a “cleaner and more accurate performance” they say, whilst a decoupled Double Dome tweeter extends treble out to 38kHz. But how does it sound? Find out in our sizzling March 2021 issue.

Also, we hope to bring you —  
TRIANGLE BOREA BR08 LOUDSPEAKERS  
GOLDRING ETHOS MC CARTRIDGE  
LUXMAN D-03X CD PLAYER  
NOVAFIDELITY N25 HI-FI AUDIO STREAMER AND PLAYER  
ANTHEM STR PRE AMP/ANTHEM STR POWER AMP  
FUNK FIRM HOUDINI CARTRIDGE DE-COUPLER  
PRO-JEKT PHONO BOX RS2 PHONO STAGE  
EARMEN SPARROW POCKET DAC/  
EARMEN EAGLE HIGH-PERFORMANCE POCKET DAC  
CHORD C-SCREEN X SPEAKER CABLE  
ESPRIT BETA RCA INTERCONNECT  
ATLAS HYPER ACHROMATIC BI-WIRE SPEAKER CABLE  
...and much more.

This is a selection of what we hope to bring you, not a complete list. We regret that due to a wide range of issues, we cannot guarantee that all products listed above will appear.

**PICK UP THE MARCH 2021 ISSUE OF HI-FI WORLD ON SALE JANUARY 31ST 2021,  
OR SUBSCRIBE AND GET IT DELIVERED TO YOUR DOOR: SEE PAGE 38**

ADVERTISERS INDEX

Absolute Sounds OBC  
 Air Audio 86  
 Black Rhodium 48  
 Clarity 94  
 Criterion 92  
 Decent Audio 18  
 Emporium Hi-Fi 92  
 EnjoyTheMusic 86  
 Fine Sounds 62  
 Hard To Find Hi-Fi 42,43  
 Henley Audio 20,32,66,40,88  
 Ian Harrison 92  
 Icon Audio 6  
 Jordan Acoustics 14,15  
 KEF 30,36,72  
 Music First 68  
 Naim 46  
 Quadral 34  
 SCV 24  
 Select Audio IBC  
 Sound Hi-Fi 68  
 The Chord Company IFC  
 True Path 92  
 Vinyl Adventures 70

# FREE READER CLASSIFIED ADS ORDER FORM

**STOP PRESS**

**TERMS AND CONDITIONS:** Only one advert per reader. Maximum length per advert is 30 words, Adverts over 30 words will not be accepted. No Trade Adverts. This section is strictly for readers selling secondhand hi-fi equipment only. Telephone numbers and E-mail addresses are treated as one word. Model numbers are treated as one word i.e. Quad 303 = two words. Sorry, we cannot accept adverts over the telephone. The Publisher reserves the right to judge submissions.

You can email your advert to us at: [classifieds@hi-fiworld.co.uk](mailto:classifieds@hi-fiworld.co.uk) or write or type your advertisement copy in block capitals with one word per box and post it to us at:

Hi-Fi World Free Readers Ads,  
 Studio 204,  
 Buspace Studio,  
 Conlan Street,  
 London W10 5AP

**We cannot accept adverts over the telephone**

1	2
3	4
5	6
7	8
9	10
11	12
13	14
15	16
17	18
19	20
21	22
23	24
25	26
27	28
29	30

Name: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 \_\_\_\_\_  
 Post Code: \_\_\_\_\_  
 Daytime Tel: \_\_\_\_\_

**FREE READER CLASSIFIED ADVERT COPY DEADLINE FOR MARCH 2021 ISSUE 14TH JANUARY 2021**

# WILCO

SUMMERTEETH  
RHINO

**W**hat I like about any music artist is seeing them evolve. Not all do. Some believe that the mere act of issuing music to the masses means that their style and format must remain in stone if that following is not to be 'offended'. Especially if that fan base is to grow. Hence, some artists can produce music from a place of fear. A fear to change.

Wilco did evolve. Which showed a certain amount of courage on their part. They also moved genres, which showed additional musical integrity and dignity in their art. The shift from country or rather alt. country to an indie rock base could have been disastrous for their sense of business but, thank goodness, art won out. Their self belief also brought financial success. So, win-win then.

But this band had an advantage in that they were not fresh from the egg. Wilco emerged from the collapse of another: Uncle Tupelo, back in 1994. While that band's Jay Farrar formed Son Volt, Jeff Tweedy and the rest of the chaps started Wilco.

Wilco's first album 'A.M.' was really more of the same. The guys hadn't broken with their past – yet.

That finally happened in 1996 with the second album, 'Being There'. Country vibes were decreased. More pop entered the fray. There was also something else in there, a sense of exploration. That was aided by the addition of a new band member, Jay Bennett. His instrumental skills were a boon for the sound of future Wilco but his ideas also aided their quest for a new direction.

It was this new and refreshed combo that set forth to create 1999's *Summerteeth*. A Wilco masterpiece, if ever there was one.

Speaking about the album's release in 1999, Tweedy reflected on the change in his band's musical direction and why it was important to change: "More often than not, when I listen to a lot of the newer bands in whatever this alternative-country movement thing is, I get a sense that a lot of people are nostalgic for an imagined past – and that doesn't interest me. It's got nothing to do with the music, which I think is pretty damn fine.

But that's what I associate with that type of music, and it doesn't make any sense to me. I probably know less about Gram Parsons than the people in Smashing Pumpkins do".

So the new direction of *Summerteeth* felt natural for Tweedy and the rest of the band. He felt more able to explore a range of emotions, so there is plenty of light and shade on this indie rocker. Both dark and light play a part here "I'm not interested in shock value" he said. "Those were the things that came out of me, things I thought were powerful to sing. I can imagine that some people will be turned off by the darkness of some lyrics. I can also imagine that some people will understand that it's not meant to be dark. The outlook of the record is hopeful".

It was here that the band were at their most courageous because the musical change in direction lost them a lot of fans. But gained so many more in the process.

So this album is strong and uncompromising. A decision has been made, heads are set in determination yet there are elements of The Beach Boys here. There's a melodicism that carries you through.

And that album has been reissued as a deluxe, 4CD set and the one I grabbed, a 5LP box delivered in a slip case.

Apart from the original album (via the mastering of Bob Ludwig) you also get an entire disc of unreleased studio outtakes, alternative versions and demos that chart the making of the album from songwriting demos to alternative studio arrangements to finished masters.

The LP version contains a special, exclusive performance from early 1999 titled *An Unmitigated Disaster*, a previously unreleased live in-store performance at Tower Records on 11 March 1999, just two days after the album was released. The 10-song set, which was broadcast on Chicago radio station WXRT-FM, highlights several tracks from 'Summerteeth' ('We're Just Friends', 'How To Fight Loneliness' and 'Can't Stand It').

Get this version while you can, though. It's limited to 6,000 copies. Collectors should note that the CD version of this set features a wholly different live recording, from 1st November 1999, in Colorado at The Boulder Theatre. **PR**



"this album is strong and uncompromising; heads are set in determination"

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

# 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](http://Absolute Sounds Website)