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JULY 2021

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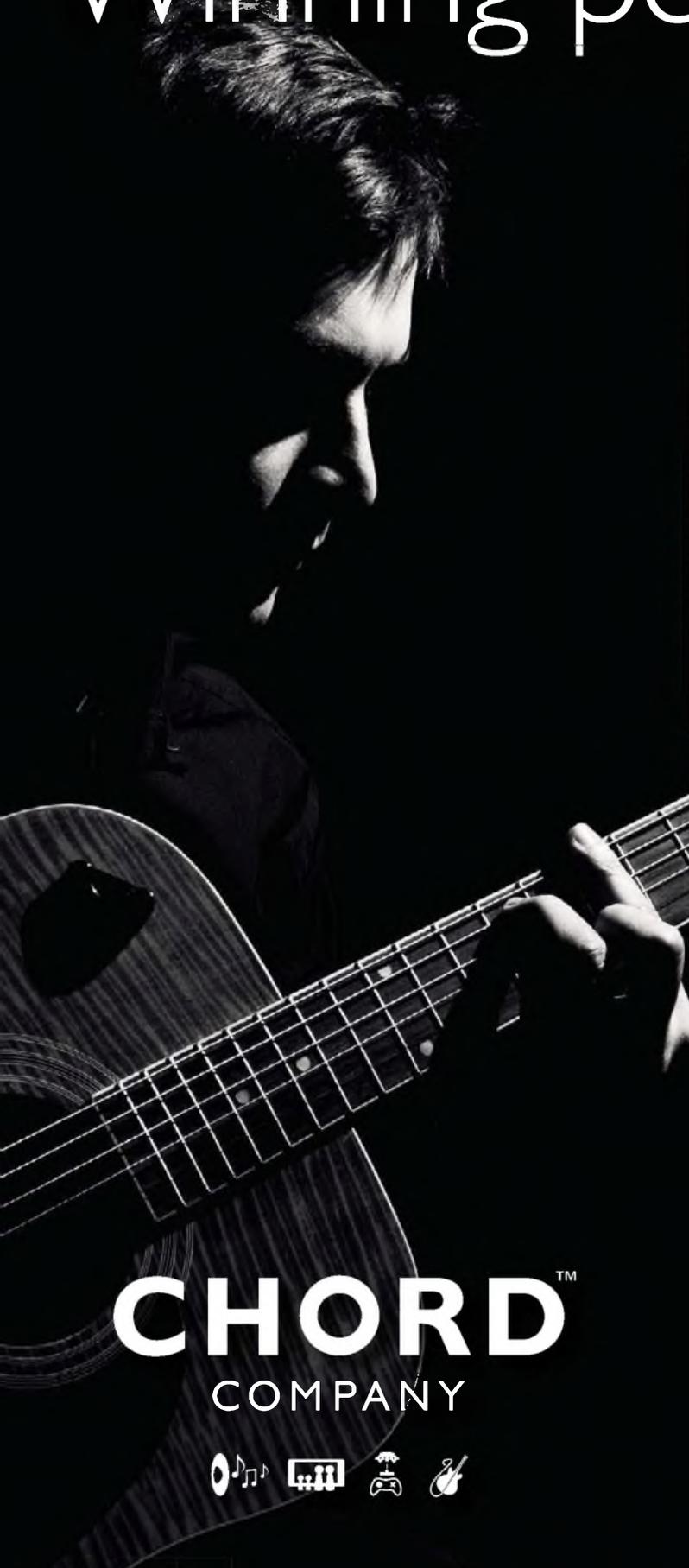
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## verdicts

●●●●●	<b>OUTSTANDING</b>	amongst the best
●●●●○	<b>EXCELLENT</b>	extremely capable
●●●○●	<b>GOOD</b>	worth auditioning
●●○●●	<b>MEDIOCRE</b>	unremarkable
●●○●○	<b>POOR</b>	flawed
£	<b>VALUE</b>	keenly priced

## ELECTRONIC MAGAZINE

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



**B**ig loudspeakers like Triangle's Antal reviewed on p10 are usually a gripping experience. As in gripping the side of the settee as they shake the room with seismic bass. And that's what we all want to hear, because it brings a sense of scale to the sound, making music big and bold. The really deep bits are, with Rock music, mostly concentrated in the 30Hz region our spectrum

analysers shows, for the simple reason recording engineers commonly raise level here to give their mix some weight. The Antals reached this low and really thundered at times. I mention Leak 3090s in the review but in truth they were a tad overwhelming compared to the Antals, being designed at a time pre-dating computer optimisation.

After a lot of running in I was surprised to hear deep bass rumbling from the compact Mission LX-4 MkII loudspeakers as well. Again, computers are used nowadays to match drive unit to cabinet for optimum results – and that's why the compact Missions you can read about on p46 delivered strong bass too. Not quite as low perhaps but you'd have to play a recording of a pipe organ able to reach down to 33Hz to notice the difference I suspect. Mission always made an affordable product and its founder Farad Azima was ever keen to embrace new technology, like NXT. Mission continue that tradition today.

Britain's traditional hi-fi brands reliably turn out high quality products that are a delight to review – enter Naim with their Uniti Star that you can read about on p36. An almost curious blend of old values and new technology, this app controlled all-in-one system was unusual in its sound, there was so much sheer strength in there. A peek inside shows why. Great to see values maintained.

A good hi-fi system should be exciting. In this month's great issue we have products that manage to be just that, whilst staying affordable. I hope you enjoy reading about them.

**Noel Keywood**  
Editor



## testing (see [www.hi-fiworld.co.uk](http://www.hi-fiworld.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.



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# news

## A BED OF ROSES

New to the UK and Ireland, courtesy of Henley Audio, are 'HiFi Rose' streaming products from South Korea. Henley's decision to carry them was swung by a touchscreen-driven user experience that its

MD Laurence Armstrong described as "truly exceptional...although there's also a full-feature 'Rose OS Music' app". Those unique touchscreens are indeed something to behold, dominating the front panel.

Arriving first are the £1,749 RS201E integrated streamer and flagship £3,899 RS150 streamer/pre-amplifier. Both are hi-res compatible (PCM 32bit/768kHz and native DSD512, in the case of the RS150) and feature HDMI video outputs, provision for onboard SATA storage, Bluetooth (remote-control/audio), CD playback/ripping with an external

USB drive and integrated support for a wide range of services (including Airplay, Roon, Spotify, Qobuz and Tidal). The RS201E has an 8.8in. touchscreen, external inputs and a 100W

amplifier. No amps in the 14.9in. touch screened RS150, which is a premium source with six-core CPU, linear PSU and AK4499EQ DAC.

Details: *Henley Audio, (01235) 511166. www.henleyaudio.co.uk*



## AUDIO ART

The latest press-release from high-end distributor Absolute Sounds could have come from an art gallery. We learn from it that a new piece has been added to the hand-selected 'Ten' collection of "sonic creations", personally-curated by founder and MD Ricardo Franassovici. It is the Takumi K-15 EX line-preamplifier from Japanese maker Robert Koda, joining an esoteric pair of speakers from Brooklyn-based DeVore Fidelity.

The hand-wired K-15 EX, built into a layered copper chassis with individually-screened compartments, is as much a work of art as it is an example of no-expense-spared electronics. There are no circuit boards, the balanced-mode volume control is an L-pad attenuator built from 256 specially-made resistors, over 145dB of dynamic range is claimed and the amplification features a proprietary topology known as ITC (Inverted Transconductance Coupling). Oh, and it costs £60k...

Details: *Absolute Sounds, www.absolutesounds.com*



## IN YER EAR

You can now buy IEMs (in-ear monitors) in all shapes and sizes, from cheap and nasty to extraordinarily expensive works of electroacoustic art! Some of them connect via Bluetooth, enabling users to listen to music stored on smart devices without being trapped by cabling. Among the latest are the 'True Sound' P15 (£199) and P17 (£349) – the long-awaited wireless IEMs from speaker specialists Bowers & Wilkins. The P15 specifies aptX TVWS+ technology for correct earbud-to-earbud synchronisation, bespoke full-range 9.2mm drive units, aptX codec support, two-mike noise cancellation, phone mode, app control and 4.5hrs. of use from a single charge. Paying a premium for the P17 also gets you aptX Adaptive for hi-res audio, an additional balanced-armature driver for improved treble, three-mike automatic noise-cancellation and a clever 'smart charging case' that will accept external audio via 3.5mm analogue or USB.

Details: *Bowers & Wilkins www.bowerswilkins.com*

## HOLD DAC THOUGHT...

Astell&Kern's PMP onslaught continues with the distinctive £1,399 SE180, the third model in its oddly-named A&futura series. The hi-res SE180 builds on the multi-DAC SE200, but here the DAC takes the form of an interchangeable 'SEM' module. Two of these (ESS ES9038PRO, as supplied, and a £319 Asahi Kasei AK4497EQ) are currently available, but more will be added in future. Users can thus "customise" the sound of their players, and there's also an upgrade path. One hopes that A&K will exploit this feature to extend the useful life of its product; important in these eco-friendly times. The 100-gram SE180 also features 'Teraton Alpha', a patented architecture that optimises "power, noise, signal conversion, circuit structure", and can drive both balanced (2.5mm) and unbalanced (3.5mm) headphones. Also on offer are 256GB of onboard storage, a full-HD screen, widespread codec support (including MQA and DSD), 10.5hr. battery-life, Wi-Fi file transfer and Bluetooth 5.0.

Details: *Astell&Kern*, [www.astellkern.co.uk](http://www.astellkern.co.uk)



## DRIVE AWAY!

Pitched to users of its RG-1, SG-1 and MG-1 turntables is Vertere's £2850 Tempo, a motor-drive unit that's claimed to bring the vinyl listening experience "closer to the original master". Connecting to your turntable via a locking 7-pin connector, the two-speed (33/45rpm) Tempo uses digital techniques to ensure "smoother drive, with lower noise and lower distortion". Synchronous motors, including those fitted to Vertere's turntables, require a low-frequency sinusoidal drive voltage. This was traditionally mains power, although Vertere and other belt-drive loyalists use quartz-referenced electronics to do the job – and provide convenient speed switching, so that listeners don't have to switch motor pulleys. In the Tempo, though, it's generated by a microprocessor and DAC – a bridged amplifier then brings the voltage up to the necessary level. This circuitry is based on the 'reference motor drive' offered as a £30k upgrade for the RG-1 (which is now supplied with Tempo 'as standard').

Details: *Vertere*, (0203) 176 4888. [www.vertereacoustics.com](http://www.vertereacoustics.com)



## LAB TECH

You'd expect something different from a Bang and Olufsen wireless speaker, especially one that costs £10,750 – and that's what you get with the Beolab 28. Each elegant column contains a subwoofer built around a long-excursion 6.5in. driver, three "full-range" 3in. drivers and a 1in. tweeter backed up by over 600W of Class-D tri-amplification. The Beolab 28's onboard DSP compensates for room acoustics and, if part of an AV set-up, lip-sync errors. As B&O's "most advanced connected speaker to date" it's multiroom compatible and can stream music from your "favourite services" via Chromecast, Bluetooth 5.0 or Airplay. What's really cool, though, is the system's 'beam-width control', which changes the system's imaging properties to suit your listening. Motorised shutters change position, depending on whether the Beolab 28 is in 'wide' or 'narrow' mode. The flexibly-installed Beolab 28, which is available in five colour schemes, can be remotely-controlled via the B&O app or an optional £700 'Halo' remote.

Details: *Bang and Olufsen*, [www.bang-olufsen.com](http://www.bang-olufsen.com)



## LIVE MUSIC'S BACK...WITH HELP FROM VAN DAMME

No, the Belgian action hero isn't explosively-tackling the coronavirus in an upcoming movie... as far as we're aware. This Van Damme is the cable manufacturer, whose products were used to wire up Osafestivalen – a Norwegian music festival that went ahead last October, despite Covid. Occupancy of the venue, a gymnastics hall with over 500m of seating, was however limited to 200 people – others could enjoy performances, from over 30 acts including Stormzy and FKA twigs, via live-streaming. In order to give the space a more 'intimate' feel, production company Voss Lyd created a 'room-within-a-room' and suspended hundreds of tungsten-filament lights from the ceiling. The latter were connected to dimmers via Van Damme's Ecoflex speaker cable, as this was lighter than conventional wiring. Other Van Damme products – including multicore assemblies, 3G HD-SDI coax and cables for mikes and guitars – were used in a rather more orthodox manner. The result was an Osafestivalen that, according to Voss Lyd's Yngve Høyland, "provided much joy and optimism, amidst the pandemic backdrop".

Details: *Van Damme*, [www.van-damme.com](http://www.van-damme.com)



## TWO-POINT TURN

If you've got £800 to spend on a turntable, Technics presents you two direct-driven choices – the SL-1200MK7, latest in the classic line of quartz-locked pro DJ spinners, or the audiophile-oriented

SL-100C. Although the SL-100C lacks that iconic pitch slider, it does come with a pre-fitted MM cartridge – an Audio-Technica AT-VM95C with conical stylus. With the DJ friendly 'Twelve Ten' the cartridge is extra, so that DJs can fit their favourite.

The 'plug-in-and-play' SL-100C, described to me by a Technics spokesman as an "entry-level hi-fi turntable", borrows from the existing SL-1500C. Under a two-piece platter lurks a cog-free coreless motor, while that AT cart is fitted to the bayonet-fit headshell of a familiar-looking S-shaped aluminium tonearm. To save your stylus, though, the SL-100C boasts a handy end-of-record auto-lift. But the SL-100C is only available from that renowned hi-fi outlet Amazon...

Details: [Technics](http://Technics.com), [www.technics.com](http://www.technics.com)



## ROTEL ROLLS ON

Three Rotel integrated amps have been given the Mk.II treatment. The firm's engineers have borrowed circuit-design elements and component choices from existing Michi and Tribute models to provide "acoustic and performance" upgrades. For the A14MKII (£1,195), the key difference is a major overhaul of its onboard DAC. Rotel has specified a new TI 32-bit/384kHz chip, and 25 changes to its filtering electronics, for improved results from Bluetooth and 'wired' digital sources. Power-supply changes have also been made. A similarly-specced TI DAC is also fitted to the £1,595 RA-1572MKII, the USB port of which is now 'Roon Ready'. Over 30 other component changes contribute to a "richer and fuller audio performance". The £2,295 RA-1592MKII, which now offers 200W output (8 ohms), also benefits from a new TI DAC and "upgrades to all critical circuits". All three have plenty of connectivity (including MM phono and switching for two pairs of speakers) and are available in silver or black.

Details: [Rotel](http://Rotel.com), [www.rotel.com](http://www.rotel.com)



## GILDING THE LILY

Southend-based Ruark Acoustics made its name with speakers, although its emphasis has in recent years shifted to high-quality "one-box" music systems. Of these, the latest is a £1,250 'Signature' version of its R5. As one might expect from a product destined for John Lewis stores, Ruark has paid considerable attention to its 'premium' design and appearance. The piano finish, which is accentuated by "rose gold detailing", involves "multiple layers with hand-sanding between coats...followed by wet sanding and hand-buffing to a glass-like finish". Also exclusive to the R5 Signature is STEREO+, a proprietary soundstage-enhancing algorithm. Although the 'legacy' R5's amps and neodymium drivers are also used in this 'premium' version, Ruark has enhanced the signal path and specified internal wiring of higher quality. You do however get the R5's long-throw subwoofer, multiple inputs (USB, line and MM phono), Wi-Fi, multi-format CD player, DAB/FM, Bluetooth HD and streaming support.

Details: [Ruark Audio](http://Ruark Audio), (01702) 601410. [www.ruarkaudio.com](http://www.ruarkaudio.com)



# French Addition



**Triangle launch their large Antal loudspeaker in 40th Anniversary Limited Edition form. Noel Keywood listens.**

**S**adly, the days of broom cupboards are over. Leak 3090s were the last I ever owned but I regret to say there was nowhere in my terrace house of Victorian dimensions to store them. I could well have swapped them for the Triangle Antal 40th Anniversary Limited Edition loudspeakers (£3000) I am reviewing here, I muse. They similarly give powerful bass and have looming presence, yet more easily fit 'the smaller home'.

I first reviewed the French company's Antal back in the February 2011 issue – it was their 30th Anniversary Edition at the time, fitted with titanium dome tweeter. A decade later the 40th Anniversary version comes with a magnesium dome tweeter and a tweaked crossover network, but otherwise the basic formula remains. What we have here is a large-volume cabinet, two bass drivers for plenty of cone area to move air, a single midrange unit of large cone diameter able to cover a lot of the mid-band and a horn loaded tweeter able to handle the highs.

The twin bass drivers, large cabinet and big front port together suggest the Antal will deliver powerful lows – and that's the way it was. Triangle use two 140mm bass units with wood fibre, flax

and carbon fibre composite cones that they claim are extremely rigid. Measurement showed they work up to a low 185Hz as Triangle state, loaded by a shared rear chamber that is vented by a front port.

Above this frequency the large 140mm white coloured midrange driver takes over. This covers a very wide range, extending right up to 3kHz before handing over to the horn tweeter. The importance of this is that the most critical part of the audio band is handled by one drive unit in effect, keeping the sound consistent. The white

cone is of untreated cellulose paper, with a stationary central phase plug that prevents interference around the cone's base by randomising high frequencies (a common technique). Behind it lies a large sealed chamber.

Above 3kHz Triangle's magnesium dome horn loaded tweeter kicks in to extend output smoothly up to 20kHz, with the aid of a phase plate and phase plug too. Triangle keep its output smooth and even, so as not to emphasise distortion within recordings, this very much concerning CD harshness (although there's graunch to be heard in LP too).

Measuring 200mm wide the Antals are not broom cupboards. They stand quite high at 1090mm though, but at a solid 26.8kg can be moved around by one person, if not easily lifted. Depth including terminals is 360mm. The cabinets are attractively finished with a deep gloss lacquer over veneer, in our samples a dark Santos Rosewood. Lighter hued Blonde Sycamore is also available. There are black grilles with a very light, acoustically transparent cloth that can be used if preferred. Also supplied are heavy glass plinths and an array of spikes, plus floor protectors.

### SOUND QUALITY

Representing a standard system of good quality I drove the Triangles from a Creek Voyage iA20 amplifier, but with their very high sensitivity felt obliged to wheel in our Icon Audio Stereo30 SE single-ended valve amplifier (30W) too. Connection was through Chord Company Signature Reference cables.

For CD I used our Oppo UDP-205D Universal Player as a transport, feeding the AKM DAC within the Voyage through a QED Quartz glass optical cable. Hi-res came in through a USB connection from a MacBook Pro laptop to the Voyage, allowing high sample rate PCM as well as DSD, the



**The magnesium dome tweeter comes with a combined phase plate/plug assembly to control output, buried in a short horn to project energy forward.**

latter being most important since a lot of 'hi-res' is up-sampled CD code (16bit) my measurements (and rough sound) suggest.

I like to paint the broad picture first with loudspeakers, because there always is one. The Antals are technically and sonically accurate, meaning no screaming treble, a naturally balanced sound that doesn't try and attention grab. In other words, they let the music through unmolested. It's an important point to make because too many modern loudspeakers have treble lift for "added insight". Triangle don't pull this stunt with the Antals: they are smooth and accurate.

And that's just what I heard. With my standard treble torture tracks such as Nils Lofgren's Keith Don't Go (CD), the close-miked lacerative guitar strings that send harmonics up to 20kHz into the loudspeaker didn't hurt my ears through the Antals. Those harmonics with their sharpness were there but I could tolerate them as part of the recording, rather than something pushing pins into my ears. Not quite the finesse of a ribbon tweeter, but thoroughly acceptable, the Antals did well here. When Willy DeVille shouted into the microphone singing Spanish Harlem (CD) the spitch was tolerable; likewise Fleetwood Mac's Dreams (24/96) slid past without its treble too challenging.

But with Dreams the repetitive bass line loomed large in the room, full bodied and



**A thick glass stabilising plinth must be screwed on and spikes or floor-protecting feet attached.**

# MUSICAL FIDELITY



INTRODUCING THE:

## M8 xi

The M8xi is a preamp with two monobloc power amps combined. Each has its own heat sink and separate transformer. The preamp has its own dedicated power supply that is mounted close to the input sockets; consequently, PCB tracks are very short. This elegant idea ensures that both channels signals are ultra low impedance the instant they get into the amplifier. Each channel has twelve bipolar transistors - 200 amps peak to peak is easily achievable. The front panel is a custom made fine line extrusion of milspec aluminium keeping its clean style easy to maintain.

**Don't Settle for anything less than perfect Musical Fidelity.**



powerful. When a sudden break from repetition came with a few doodles on the strings the Antals captured the event fluently. I had no problems with Stevie Nicks vocal either: it was clear and seemingly forward.

The Antals' ability to drive heavy but fluid bass into my room (17ft long) was underlined by Josefine Cronholm's Gates of Istanbul where the massive bass line started and stopped at discrete points rather than droning on: these 'speakers played a bass tune like few others, displaying controlled power. If you want bass the Antals have it, but not in wallowy excess.

With Korsakov's Dance of the Tumblers, from Snow Maiden (24/96) the Minnesota Orchestra loomed large in my room, horns sounding crisp yet solid. Kettle drums thundered in large fashion, putting weight into the performance. There was plenty of insight and a well laid out sound stage that convinced with big-hall dynamics; this was no small sound. At this point it was time to move to the valve amplifier.

To run our Stereo30 SE I had to swizzle things around a bit. Hires from the MacBook Pro was fed into the Oppo's ES9038Pro DAC via USB, the player's phono-socket analogue outputs going to the Icon – a minimalist and pure signal path.

Unsurprisingly, the Antals moved up a step in this set-up, or should I say the signal going into them did – but they resolved differences in appropriate fashion. Now the Minnesota Orchestra was more vivid and their playing had a smoother, more coherent flow to it. The crisp insight of the 'speakers well served to serenade the sound of a single-ended valve amplifier; this was a very interesting match indeed. The violin of Marianne Thorsen had a lovely sheen as she played Mozart's Violin Concerto No4 (24/96), backed by the Trondheim Soloists; I completely enjoyed this.

Classical fared well and bass-heavy Rock track lows loomed a tad larger. Thunderous subsonics moved my lounge and frightened the cat. The reason is that – as with all valve amps – the Icon has a low damping factor and this made bass grow a little, but the 4 Ohm tap kept a tight grip all the

same.

The Antals have very strong deep bass then, if a dry balance overall: they are not 'warm' in sound character. A fabulous match for valve amplifiers I would say and if bass is a little heavy in a resonant room then a few old socks in the ports should help at a pinch, until foam bungs (not supplied) can be secured. I thoroughly enjoyed them with our Icon Stereo30 SE valve amplifier.

**CONCLUSION**

Triangle's large Antal loudspeakers have grown subtly better over the years. Their sound is as large as their cabinets – if not quite up to the dimensions of yesteryear's broom cupboards! These 'speakers have a superbly clear and cohesive midband, powerful deep bass and well lit but not excessive treble. A



*Triangle's large, white midrange unit, made of uncoated cellulose paper, covers much of the audio band. At centre lies a stationary phase plug to prevent interference at the cone base.*

muscular yet accurately balanced and insightful delivery then, from a beautifully finished loudspeaker. I thoroughly enjoyed Triangle's 40th Anniversary Antal in Limited Edition form. Whether you want an orchestra in the room, or Atom Heart Mother, the Antals oblige. An engaging loudspeaker.

**MEASURED PERFORMANCE**

Our near-field response analysis shows a fundamentally flat and smooth result down to 60Hz, confirmed by a third-octave pink-noise analysis. Triangle don't attempt to raise treble at all, the unusual dome tweeter with horn and phase plug running flat and smooth from 3kHz right up to 20kHz. This means it will sound less bright than most in a showroom, but it is technically more accurate. There is no lower-midrange lift to add warmth either, so the sound balance may well be dry.

Bass extends down to 30Hz then cuts off sharply. The port is tuned to 36Hz (red trace response analysis), as the impedance trace confirms by its dip. This is low enough to give strong deep bass but the 'speaker won't respond to warp subsonics from LP. Although it runs low, the Antal has no bass lift so will not sound bass heavy.

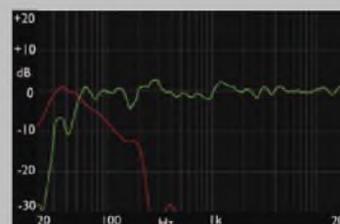
Measured using pink noise overall impedance was a low 4.7 Ohms, where most are 6 Ohms nowadays. Higher current draw results in greater voltage sensitivity, a massive 91dB sound pressure level being produced by one nominal Watt (2.8V) of input. Consequently, the 'speaker needs no

more than 40 Watts to go extremely loud and amplifiers down to 10 Watts will suit.

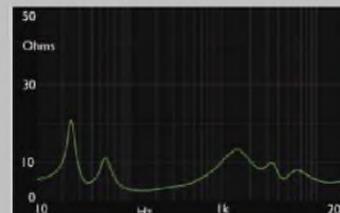
This is a technically accurate loudspeaker, rather than a 'tweaked' one with raised bass or treble. It will sound drier than many, but also very smooth and easy in treble delivery. High sensitivity makes it suitable for low power amplifiers. **NK**

**FREQUENCY RESPONSE**

*Green - driver output  
Red - port output*



**IMPEDANCE**



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**OUTSTANDING - amongst the best.**

**VERDICT**

Clean, clear and with powerful bass. Large yet accurate sound.

**FOR**

- balanced and clear sound
- strong low bass
- well finished

**AGAINST**

- slightly hard treble
- need optional foam bungs

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# There's no stopping Topping

**Its styling may be rather bland, but will Topping's entry-level headphone amplifier have hidden charms to convince Chris Frankland it is worth the £125 asking price?**

**H**eadphone sales and usage have taken off in recent years, driven largely by the popularity of portable devices. Unsurprisingly, there is also a bigger choice than ever of headphone amplifiers and the Topping L30 we look at here is at the entry level at just £125.

Many who use headphones purely on the move have graduated from cheaper in-ear models to over-ear models that offer better quality. They will be looking to use those at home too. And that's where products like the L30

come in. It is also useful for those wishing to listen without disturbing the rest of the household.

The L30 headphone amplifier from Chinese brand Topping is only the second of their products that I have listened to, the first being the E30 DAC I reviewed in the last issue. Although it can be used on its own as a headphone amplifier fed from the line output of a CD player, it is really intended to be paired with the £115 Topping E30 DAC (or indeed any such DAC), which means that the user could hook up a low-cost streamer, such as the iFi Zen Blue at £129

(Topping does not offer its own streamer) and so add Tidal or Qobuz to the mix. The L30/E30 could also be hooked up to an active speaker.

The L30 is visually a little underwhelming, housed in an anonymous-looking black aluminium sleeve with a black Perspex front panel. It measures 32mm high by 100mm wide by 134mm deep. On the left of the front panel are two toggle switches. The left most turns the unit on and then selects either Headphone or Preamp mode, while the other selects



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Rear panel has RCA phono connectors for a single analogue input and output, which means L30 could be connected to an active speaker when switched to preamp mode.

the gain setting according to the headphones you are using – 0dB, +9dB or -9dB. Right of that is a 6.3mm headphone jack and then a large rotary volume control. There is no balanced output, but then you would not expect it at this price point. The back panel has RCA phono connectors for a single input and output and a power input socket on the far right.

I have to say that the power supply transformer seemed larger and heavier than is often the case, suggesting the power supply may be better than some switch-mode items often supplied.

As with the E30 Topping describe the L30 as 'a small hot hatch'. You'd think their copywriter could use a bit more imagination, but so be it. I get the idea – small on price, but big on performance. More of that later.

So let's look under the bonnet. The L30 is said to use the same NFCA (Nested Feedback Composite Amplifier) module as the £449 flagship A90. This is said to ensure low distortion of 0.00007% THD at 1kHz (A-wtd) at 500mW output into 32 Ohms. Dynamic range is quoted as 141dB, frequency response as 20Hz to 40kHz ± 0.5dB and output power of 3,500mW. Topping says it will drive power-hungry headphones with a wide range of impedances.

**SOUND QUALITY**

Having lived with some very nice, but pricey headphone amps, I have recently been exploring the lower end of the market, including in the last issue the iFi Zen CAN at £149. Now it's the turn of the Topping L30 at just £125. I hooked it up to the excellent Pro-Ject Stream Box S2 Ultra streamer and PreBox RS2 Digital DAC to stream from Tidal. Headphones used were the Sennheiser HD599 and Focal Clear.

I set the gain at 0dB and that gave me plenty of volume with both 'phones.

I kicked off with Hey Nineteen from Steely Dan's Gaucho album. The track was conveyed very well rhythmically on the L30 and the bass line was tight and tuneful. It also handled the dynamics of the track well. Vocals were open and articulate – maybe a little on the thin side sometimes, but nothing that worried me.

Moving on to my favourite track of the moment from guitarist Peter White, Groovin' from the album of that name, I have to say the Topping made a really good job of conveying the character, note shape and body of his acoustic guitar and the bass line was tuneful and tight.

To finish, I played Don't It Make My Brown Eyes Blue from Crystal Gayle – not an easy track to make sound really good. The L30 did a fine job with good emotion and articulation to her vocals, while piano was open and had good weight and dynamics.

**CONCLUSION**

The L30 impressed me. It was detailed, dynamic and lacking serious flaws. Not perfect, but then it's only £125. My fear was that a headphone amp at such a low price might not be worth considering. That fear has been dispelled and, after reviewing the iFi Zen CAN in the last issue, I have been pleasantly surprised by the level of performance the L30 offers in comparison.

**MEASURED PERFORMANCE**

The Topping L30 provides a maximum of x3 gain (+9dB) from analogue input to both Pre output and Headphone (HPA) output. Gain can be reduced to 0dB or -9dB and there is a volume control.

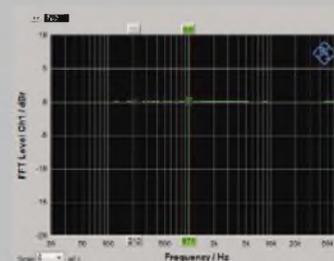
Maximum output measured 9.2V for both Headphones and Line inputs – more than enough, especially as headphones go very loud from just 1V.

Frequency response measured flat from 3Hz to 100kHz and distortion was extremely low at 0.0004% at 1V in / 3V out. Noise was also very low at -121dB relative to 9V output.

The L30 measured well in all areas. It has limited gain at x3 (+9dB) but this should be adequate, where for example a 300mV input will give nearly 1V output to headphones. **NK**

<b>Frequency response (-1dB)</b>	<b>3Hz-100kHz</b>
<b>Distortion (10kHz, 1W)</b>	<b>0.0004%</b>
<b>Separation (1kHz)</b>	<b>98dB</b>
<b>Noise (IEC A)</b>	<b>-121dB</b>
<b>Gain</b>	<b>+9dB/0dB/-9dB</b>
<b>Max output</b>	<b>9.2V</b>

**FREQUENCY RESPONSE**



**DISTORTION**



**TOPPING L30 £125**



**OUTSTANDING - amongst the best.**

**VALUE - keenly priced.**

**VERDICT**

Offers great performance and the power to drive most headphones. Performs well and is very competitively priced.

**FOR**

- good sound
- easy to use
- plenty of power

**AGAINST**

- under-whelming looks
- lack of info provided with it

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**H**ere's your chance to win a pair of superb Audiovector QR1 ribbon loudspeakers we reviewed in the April 2021 issue of Hi-Fi World. Read the review excerpt below and answer the questions.

"Ribbons have always had a good reputation for sound quality and I see Audiovector label this one an AMT in their specs, short for

Air Motion Transformer (invented by Oscar Heil). It's a slightly different way to use a ribbon, concertina form adding mass to give better downward frequency extension – and that's what the QR1 exploits. Audiovector state crossover frequency as 3kHz, meaning their AMT reaches down as low as a dome tweeter – and our measurements confirm this.

Accompanying the tweeter in this compact design from Denmark is a "6in" (152mm) bass/midrange that sits below. Because ribbon tweeters use a lightweight alloy foil they're commonly

matched to an alloy midrange unit and that's what Audiovector have chosen to do in the QR1. They say this unit has a three-layer "sandwich" construction comprising alloy layers with damping membrane between them, for piston motion. The difficulty here has always been to get a midrange unit able to reach high enough to match a ribbon,

The bass/midrange unit is loaded by a cabinet measuring 325mm high, 190mm wide and 232mm deep, with a slot port on its front face.

At rear there are single terminals that negate bi-wiring. With no rear port the loudspeakers can be used against a rear wall".

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## QUESTIONS

**[1] AMT is short for -**

- [a] Absolutely Massive Tweeter
- [b] Air Motion Transformer
- [c] Annular Mica Trim
- [d] Anti-Matter Technology

**[2] The AMT reaches as low as -**

- [a] the floor
- [b] a dome tweeter
- [c] a 12in bass unit
- [d] a coal mine

**[3] Audiovector are from -**

- [a] Deutschland
- [b] Denmark
- [c] Denisova
- [d] Djibouti

**[4] The bass/midrange has -**

- [a] plastic construction
- [b] mains power
- [c] square shape
- [d] sandwich construction

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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

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**A PAIR KEF Q150 LOUDSPEAKERS are on their way to KEVIN YOUDE, Letter of the Month winner in our June 2021 issue.**

## Letter of the Month

### OPPO ALTERNATIVE

My question is you use the Oppo BDP-205D Universal player as your reference when testing other equipment. Unfortunately you can no longer purchase that player. Is there any equivalent you can purchase today?

**Many Thanks,  
Chris Sanders,  
Milton Keynes.**

Hi Chris. Many readers ask us about this. Alternatives are difficult to find.

There is the Gryphon Ethos – if you can afford it. Or the Cocktail Audio X45 Pro. We have not measured or reviewed either so cannot comment on their merit.

More obviously – and affordably – is Arcam's CDS50 CD/SACD player, price just £750 (reviewed Jan 19 issue). It has a switch-mode power supply rather than the Oppo's preferable linear supply, but this apart it sort-



**Arcam's CDS50 CD/SACD player uses the top ESS DAC chip, an ES9038Pro – just like Oppo's now-unavailable UDP-205D Universal Player.**

of gets close. There is no USB connection for computer. Nor is there a remote volume control, as with the Oppo. Arcam have given this player network functions and a control app instead, strongly differentiating it from the Oppo. So similar but different, but with good sound quality and – for what it is – very low price. It does not play Blu-ray or DVD of course.

If you forgo the ES9038Pro

DAC chip used by Oppo and accept the less expensive ES9018 then choice opens up. IAG group CD players commonly use the ES9018 so take a look at Quad, Audiolab and Leak CD players. I've not heard big differences between the two chips with CD replay, likely because 16bit generates so much quantisation noise it dominates the sound of CD.

**NK**

## ARMS RACES

I have been prompted to write to Hi-Fi World after needing a small lie down following reading Martin Pipe's review of the Technics SL7!

Chuck the P202 cartridge? Oh no Mr Pipe – no! There is an excellent stylus replacement for this. Skip forward in this same issue to Noel Keywood's review of the Ortofon 2M Black LVB250 and you see something rather similar to what is available, with its boron rod set into a tapered aluminium cantilever and advanced Shibata stylus tip! Interestingly, as an aside, the tip on this looks quite like the original elliptical diamond tip on the P202 ... in how it is set onto the end of its cantilever. When viewing these close up stylus photos, it is refreshing to see something that does not resemble corrugated iron!



**Jico of Japan make this stylus, the EPS-202ED, for the P-mount cartridge in Technic's SL7 turntable, Simon Meneely tells us.**

Maybe I am not as romantic as Noel Keywood in tastes but I think boron cantilevers allow a designer to engineer a particularly 'etched' sound – but this does not need to be the case. Boron can sound smooth and natural, even if not in 'high end' moving coils engineered to be impressive. I have heard quite 'cool' sounding aluminium cantilevered cartridges it must be said too.

I think if anything the weakness of the SL7 today lies in the captive tonearm cable and (possibly) the lack of modern P-Mount cartridges. A user today must either strike gold with a special vintage item in excellent condition ... increasingly rare ... or delve into the dark art of re-tippers, or be rescued by a cartridge body compatible with a Jico SAS stylus assembly. The SL7 happily has such a cartridge. I don't know who the reviewer was who suggested the SL7 sounds better than the SL10 and SL15 all those years ago, but that is not my experience.

My hi-fi firmament was shaken a few years ago by the chance purchase of Technics SL10 deck equipped with a P-205 Mk 3 with its boron tube cantilever but, before I continue, I would just like to say that this is not a homage to vintage tangential decks and no longer available cantilever technology.

Noel Keywood alludes to the closing gap between digital and analogue in his opening editorial. I found myself experiencing this, but with this jaw-dropping vintage record deck and cartridge. This led me to

experiment, and the tangential decks made experimentation within my financial means possible, and I had a lot of fun.

My digital converter was 'out' ... my Goldring 1042 on Nima Arm on Technics deck was also 'out'. 'In' came the Technics 205 body (same mount as the Ortofon Black) with a Jico SAS. I had to understand this whole 'new' thing.

My digital was then upgraded to an ES9038Pro equipped DAC with lossless digital volume control. I could walk into the room and listen happily to what the recording engineer had, well, engineered, and performers performed... I became quite agnostic (for a while) really, coming to the conclusion that it depends on the source material. While on the one hand my digital solutions are modern, the record playing competition had become a strange mix of vintage and modern. Both could sound remarkably similar on certain recordings, and sing in their own ways on others.



**The Technics SL-7 turntable has an EPS-202ED removable stylus, available from Jico of Japan, Simon Meneely says.**

Still, I am hoping that Hi-Fi World might investigate just how far one of these tangential decks can, in fact be taken. You won't get far with a rather bright and jangly new P-Mount cartridge if you are thinking of trying that SL7 with one ... or a dull muddy sounding "warm" variety. Spare me vinyl warmth...

I have been reading Hi-Fi World since, I am pretty sure, the first issue and have been happily influenced by it over the years. I loved my World Audio Design KLPP1, lovingly built by me, until it slightly fell apart after a house move.

I did not regret in the least my move from Linn Sondek to the aforementioned Technics SL1210, though I did slightly miss the Dynavector 10x5 I'd previously played in the Linn's Ittok. The Technics played in time, whatever the weather, and never needed a service. The Linn was temperamental.

My KLPP1 was replaced by an Icon Audio PSI Mk1 ... the latter just needed me to transfer over the National Panasonic volume pot I had been using in the former, and I was happy. There is a little magic with that volume pot with the Technics (in particular) moving magnets.

So to conclude. I am with Paul Rigby 'in' this issue and 'on' this issue.



**A Jico boron rod cantilever stylus. The rod is bonded into a carrier at its base.**

EPS-202ED

USD 65.00

JICO Number: E005004

Category: National/Technics



**"My hi-fi firmament was shaken by a Technics SL10 deck equipped with a P-205 Mk 3 cartridge with boron cantilever" says Simon Meneely.**

I'm playing a vintage Shure M110 cartridge with Jico SAS stylus (I just had to see about this one too) and it just sings on an SL15. Goodness but vinyl is 'alive' when you have the right combination; 'dynamically engaging' is another way of putting it. I don't think however, that it is all about modern, and when it comes to P-Mount cartridges, thank heavens for vintage like the Shure combined with the SAS.

I hope that Martin Pipe might try a couple of advanced stylus options on the SL7, treating the P202 / P22 cartridge as he might a vintage music centre ... and maybe call up Dave Tutt about what could be done with a phono connector for non captive cable ... maybe even balanced? It's something I was tempted to ask him about myself ...

Finally, I wonder just how far we need to go with regard to tonearms on traditional pivot decks to really make it all about that stylus diamond tip on the end of a cantilever. I came to the conclusion that the Roksan Nima was the base line. To experiment, I put the original Technics tonearm back on the SL1210, and I just wanted to play the old SL10... The Nima held its own and let the stylus sing. I could listen to those cantilevers and tips!

I'd guess a Rega would do the trick. Still, I'd be tempted by something longer because no matter what I played I was aware of just how 'right' the tangential got the imaging at both the start and end of albums.

But I am just pondering. At the end of the day, the thing a modern

stylus has, is a modern tip, in un-aged suspension, that can cut through surface noise in a way that an elliptical can't. I do wonder what a re-tipper might do with my old moving coil though! This also had that famed tubed boron cantilever (MK2).

Thank you for decades of enjoyment! I hope my ponderings might bring some answers in the coming months (or years), with a little help and ongoing experimentation.  
**Simon Meneely.**

Hi Simon. One point to note is that manufacturers such as Audio Technica and Ortofon use solid boron rods (not tubes) and their ends are unformed as far as I can see, likely because boron is not malleable, although may have a ground-on flat or a laser cut hole for the stylus that is bonded on. The bonding material hides such details.

The 'boron' stylus assemblies Jico picture look somewhat different, similar to formed alloy tubes, so I wonder whether they use an alloy or a coating (or perhaps the pics are wrong). Very

interesting though that they offer a wide range of replacement styli for popular cartridges.

Vintage MM cartridges sound warm because their electrical output into a 47kHz load falls above 1kHz; replacing the stylus won't change this. Modern MMs run flat because they have stronger magnets and fewer coil turns. This gives a more CD-like sound balance, one that is also more revealing of surface noise and less kind to (my) old records. I quite like a bit of vinyl warmth. **NK**

### IS LRS THE HOLY GRAIL?

Yes indeed – but not as supplied: they break the first rule of 'speaker placement as the cabinet sits directly on the floor. Floor coloration is quite apparent, they require lifting, 2 inches is fine. I made new feet with strong L brackets and pine. What a difference, they sound more open.

Next the thorny issue of power – a Rega Brio and a Musical Fidelity M3i. The poor Maggies nearly died laughing at me!

So in with the big guns; now the Maggies love me and the feeling is mutual! I don't care what the audiophile police think about my Crown Drivecore XLS 1002, delivering 350 Watts per channel. There is a decade of research behind Drivecore and the Maggies are lapping it up.

With the M3i as pre-amp, my CD player comprising Arcam CDS50 with Audiolab M-DAC, what made it really sing was a LongDog power supply for the M-DAC. To complete the near perfection i've just added a pair of B.K. Subs. rolling in at 45 Hz. Nirvana. As a Jazz and Classical fan I'm in audio heaven.

Supporting cast include my turntable: 2 inch Birch ply lacquered plinth, Project acrylic platter-motor, Audio- Mods kit arm, Ortofon Rondo Red cartridge and transformer head-amp. Also a Ben Duncan balanced mains transformer. Sublime.

And finally my new pair of Titan Nyx six-way extensions. If you cannot



**"I don't care what the audiophile police think about my Crown Drivecore XLS 1002, delivering 350 Watts per channel. The Maggies are lapping it up" Wilfred Mosley says.**



**Magneplanar LRS.** "I made new feet with strong L brackets and pine. What a difference, they sound more open" says Wilfred Mosley.

stretch to a Ben Duncan I can recommend Airlink: I use a BPS 1500 in my second system. I've been on balanced mains now for 12 years and would not go back to regular mains – dirty, dirty, dirty. Thank you, Wilfred Mosley.

Hi Wilfred. Good to hear about the floor stands for LRS; the supplied bent iron feet are rudimentary. But where's the picture? Always good to see home built mods.

The first M-DAC had a switch-mode power supply block that LongDog replace with a decent

linear supply; M-DAC+ has a linear supply.

And interesting that you are a convert to balanced mains power, courtesy of Ben Duncan. He was my intro to LTSpice for valves, a bit of a hero and certainly a fount of knowledge.

I too use balanced mains, from a huge transformer sitting on the floor. With many products, it makes a substantial difference. **NK**

### IMPORTANCE OF VINYL

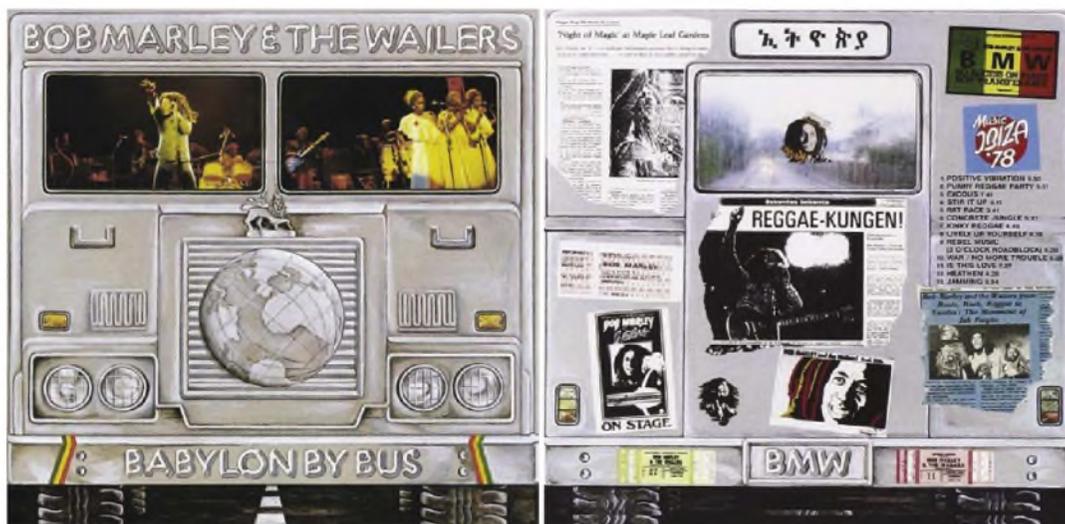
My thanks to Paul Rigby for his last two articles talking about the importance of vinyl. I have been amused and entirely agree with all the points made so far. I would like to pass on a few personal points, if I may.

The 20 minute side of a record seems ideal for my attention span, getting up to change the side of a record usually keeps me going for a whole album. I have rarely been able to sit through a full CD with the same degree of attention (I suspect the activity of changing the record has something to do with this).

When CDs started out in the 80s there seemed to be a desire to fill the whole CD, many tracks at the end of albums were never listened to as a result. I have looked into the neuroscience evidence for the 18-20 minute attention span (resulting in the 18 minute length of TED talks), but there is no hard evidence for this.

In my 50s, even with reading glasses, a CD cover is difficult to read. Not so a 12in album cover.

Gatefold sleeves. I just love them. Bob Marley's "Babylon by Bus" springs



"Bob Marley's 'Babylon by Bus' springs to mind as one of the pinnacles of Gatefold Sleeve Art" says Dr Tom Tidswell.

to mind as one of the pinnacles of Gatefold Sleeve Art.

Sound quality. Just recently I helped get a friend's Thorens TD160 deck up and running (replacing and soldering in new signal leads, new power cable and earthing to get rid of hum, bending the motor spindle straight); with the stock Thorens arm and cartridge but with a new needle the sound was very close to my own vinyl playback system (Garrard 401, SME IV arm and Lyra Etna MC cartridge through World Design Phono 3 and Pre 3 into Audio Research 75SE and World Design 25 speakers). The difference was in soundstage width and frequency extension, but not noticeable from an enjoyment point of view.

Similar findings when comparing vinyl on the Thorens vs digital recordings (my CD player/digital hub is from dCS and it is excellent, but I did wonder why 40-50 years of development have not resulted in a wider difference in sound quality).

My friend is really happy with his updated deck. For the record (sorry), I find that the difference between a vinyl LP on my own deck vs MQA or CD on the dCS is minimal.

Please keep up the good work with the magazine, I look forward to its arrival every month.

With kind regards,  
**Dr Tom Tidswell,**  
London NW5.

### TIME TO ACCLIMATISE

Dave Tutt's piece on reference kit in the May issue reminded me of my philosophy when in particular listening to loudspeakers, with the possibility of buying a pair. I use a pair of modified Tannoy Chatsworth loudspeakers which have the HPD 315 dual concentric drive unit, bought in the early/mid 1970s. I say this because it will be somewhat relevant. These have become my reference.

Over the years I have attended audio shows and thought: I would like to listen to loudspeaker X in a more controlled environment than a hotel bedroom. So I find a dealer who stocks X and book say an hour in the dealer's demonstration room, remembering to take an assortment of LPs and CDs. One hour isn't enough in my opinion, it will give you a snapshot of what sound to expect.

My point is that a particular sound grows on you, so that when auditioning anything in the audio chain, you need time to acclimatise to the change in the presentation of



**The KJF Audio SA-01 power amplifier. "You praised its huge power and light weight, cool running, great sound quality and value for money" says Alex Gaskill.**

the result of that change. I always ask a dealer if I can buy the item in question on a sale or return basis – typically 30 days. They usually agree, providing you don't have any pets! I bought my Tannoys on these terms.

Over the years, I have had other loudspeakers in the lounge on extended loan but I still use the Tannoys. The above will apply to other items, amplifiers etc. It is important that you listen to them in the environment in which they will be used, to avoid disappointment.

Regards,  
**Michael Bickley.**

### SATAN'S SWITCH MODE

I have enjoyed improving my LPI 2 with various upgrades, Linn Krystal MC cartridge to replace my ageing Troika. Origin Live DC motor and power supply to replace a failing Valhalla and more. For me sound quality and value for money are paramount hence my choice of Exposure amplification with I1 preamp and I2 power supply and 2 Super 8 amps configured as monoblocks to Bi Amp a pair of TDL Studio 3 transmission line speakers all of which are still giving great performance after 30 plus years of use.

I also added Cambridge Audio's Alva Duo phono preamp which performs way beyond its price range. But it has a switch mode power supply which worried me after noting your major criticism of this technology. A year later and the phono stage just gets better with use, inky black silences. Full range highly dynamic sound.

In the April 2021 issue of Hi-Fi World I noted David Tutt's further condemnation of switch mode power supplies in answer to Jens Neilsen's proclamation that they are the invention of Satan. David adds further condemnation by stating that it is worse than Covid and spreading its electrical noise.

Using the wonderful Internet it seems that more manufacturers are moving from linear power supplies to switch mode, stating that they are quieter and more reliable. These include high end manufacturers like Linn and Benchmark amplifiers.

I then noted your great review of the SA-01 power amplifier from KJF Audio in the same April issue condemning switch mode power supplies. You praised its huge power and light weight, cool running and great sound quality and value for money. Imagine my shock in looking



**"I added Cambridge Audio's Alva Duo phono preamp which performs way beyond its price range. But it has a switch mode power supply" says Alex Gaskill.**

at the top photo narrative on page 25. The power supply is none other than Satan's Switch Mode.

Is your stance on Switch Mode power supplies outdated or am I just confused? I look forward to your response.

**Alex Gaskill**

Hi Alex. Switch-mode power supplies are light, small and cheap to produce in quantity, as in Chinese quantity – huge. They so alter the electrical landscape their use has become almost obligatory, world-wide. Small, efficient, and able to accept 110V-240V input these things are taking over.

Superficially, they are "green". However, running highly stressed and susceptible to failure by their very nature, heaven knows how many TVs and such like modern products have been discarded due to switch-mode collapse. This is what Dave Tutt complains about. And it is far from "green" of course after taking failure into account.

Manufacturer's inevitably claim their switch-modes are reliable, something we cannot assess. Chord Electronics, for example, have always used switch-mode power supplies of their own design and are happy to do so. Creek have recently gone down Satan's path too in the Voyage i20 amplifier I am currently using. It's a beefy looking supply. I presume these supplies are reliable, as well as screened to suppress RF interference and smoothed to avoid contamination of power lines – classic switch-mode problems.

The benefits of switch-mode power supplies, mostly produced in China, are so great manufacturers use them to stay competitive. Whether they are reliable depends upon individual design I suspect. Having just chucked out an Apple computer switch-mode power block, after a Samsung TV whose switch-mode power supply unit (SMPS) wrecked itself, I'm not inclined to view these things with much affection. Seems to me they account for a lot of electronic junk.

But as you say about the KJF amplifier "you praised its huge power and light weight, cool running and great sound quality and value for money". You must take into account "value for money here". The KJFs reflected the benefits of lowered cost these supplies bring. **NK**



**Power Inspired's AG1500 mains regenerator will eliminate transformer buzz suffered by Andy Rawlins and improve sound quality.**

### GOING TO THE WALL

In addition to your, very well made, answer to Dean A Taylor's Downsizing letter I would suggest the poor way to make a wall shelf for a Linn LP12 that I made for mine.

I bought an Ikea Besta frame 60x40x64cm. I've used the top and bottom of it only. I bought a pair of 30x30cm wall brackets and attached them to a structural wall. The top of the Besta frame screwed to it with plastic washers leaving a gap between the frame and the wall to 1) isolate the shelf from the wall, 2) to let enough room for the cables to run in between. Added the bottom frame with adjustable feet onto the top frame. The LP12 on top of it. Finally adjusted the adjustable feet of the bottom frame to level up the turntable.

Mounted on a structural wall this isolates the turntable from floor vibrations. You can walk and dance on your floor without mistracking or causing subterranean low frequency (look at your woofers, if they flap while walking or dancing that's no good).

Two layers of Ikea filled with air honeycombed frames on top of one another separated by adjustable feet made of steel and plastic provides a cheap but efficient way of isolating a suspended turntable like the LP12. You can further

tweak it ad infinitum with cork, Sorbothane and all.

Best regards,

**Jean-Christophe Xerri**  
**Radio 5 MBS Recording Team**  
**Australia**

### BANISH BUZZ

My system is based around Cyrus amps – Cyrus Pre-VS2 and X-Power, each with a PSX-R. Main sources are: a Rega Planar 3 (1990 vintage, belt replaced for the first time last year, made no difference) with Goldring 1042 cartridge playing through a Rega Fono MM; and a Naim CD5X/Flatcap. I also have a Marantz NA7004 network player, Yamaha KX-580 SE cassette deck, Sony MDS-JB940 SE, AV input plus a spare for computer/portable etc. All get used so I need a lot of inputs.

This lot would usually play through a pair of PMC FBI +



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floorstanders but at present my hi-fi is relegated to the study until we move house. As an interim solution, I bought some Q Acoustics Concept 20s which sit on the windowsill either side of my desk. They sound great!

I was thinking that a 'cheap' upgrade for all my sources would be to get another X Power/PSXR second-hand and run them as mono blocks. I have no idea what sort of difference this makes but it is a not inconsiderable change so I would assume a significant improvement?

On the downside, the existing four boxes use 40W even on standby and buzz a bit, and I'd be adding another two (the Naim buzzes too). The amps were bought in 2009 so are quite long in the tooth and amplification must have come on a good way since then?

So to my question: would you think that upgrading to mono-blocks would be a good idea or are there better options in this day and age for similar cost? Many amps these days don't have many inputs, or not many analogue ones, so I am further constrained. What do you think? Or should I spend my money elsewhere? Many thanks in advance.

**Andy Rawlins,  
Bournemouth.**

Hi Andy, I would not say amplification has come a long way since 2009: Class D modules have improved and switch-mode power supplies too, but this is more about size and cost reduction, plus "green" efficiency, rather than sound quality. The EU has mandated less than 1W in standby, so now we are seeing computer-style standby circuits that switch the amplifier off after a period of inactivity, so as not to burn the 40W your amps consume.

As you say, you will end up with a lot of boxes by adding another X Power/PSXR and you have a problem – that buzzing. This strongly suggests you have a dirty mains supply and a mains regenerator might be worth considering, such as the popular Power Inspired AG1500 we reviewed in the September 2018 issue.

An alternative is a balanced supply with mains filtering, such as the range from Airlink transformers. There is less mains isolation here, but some argue better regulation. Where a regenerator will definitely get rid of



### **Audiolab 6000A has three analogue line inputs, phono input and Power Amp in – just enough for Andy Rawlins.**

the buzz, the Airlink will suppress it. Go to Advanced Filter Balanced Power Supply and read Further Information to see a YouTube video on the subject. They also have clearly written FAQs where you will find transformer buzz is well covered.

Cyrus amplifiers have always sounded svelte and easy on the ear. They are a lovely listen. But I cannot help feel there are plenty of options that will offer at least equal quality, with far fewer boxes and wires. An Audiolab 6000A, for example, has three line inputs, a power amp input and a phono input – five in all, enough to cover your needs. Sound quality is right up to best modern standards. **NK**

### **CHEAP DACS**

My fascination with cheap DACs continues. I spotted the Tibo 'Smart Streamer' / DAC / pre-amp on Amazon for £100 and I could not resist trying it out. The Tibo SIA 75 is similar but adds a built-in amplifier. I was truly astonished by the sound quality through a Quad Artera power amp and KEF Q150 speakers.

The unit is heavy and well built and looks way more expensive than it costs, and the app is easy to use.

Tibo are UK based and have been making mobile hi-fi for 30 years. They seem to have branched out into hi-fi separates only recently. It seems they are not good generally at

customer support or manuals or other information but the unit feels well made and sounds brilliant. However, there is a PDF Start Guide and Manual for this unit on their website.

I have now hooked up the Tibo Smart Streamer to my Prima Luna Dialogue Premium HP (HT power amp section) and Magneplanar LRS and it is streaming HD files from my PC. I remain astonished by the superb sound quality for £100.

The sound is clean and open and powerful and is not rolled off at the extremes. Indeed the bass is powerful in classical and rock. The stereo separation is good and the speakers produce a wide and believable sound stage.

Separation of instruments and sense of space around each instrument is not as good as more expensive units (Audiolab 8300 CD player) but this is balanced by the Tibo tying the threads together into a believable rendition of voices, instruments and venue. It even manages to convey changes in rhythm and dynamics and the overall scale of orchestral recordings such as Mozart Piano Concertos. The overall sound is very musical and easy to listen to and enjoy.

I am told by the boss himself, Bo Wurtz, it uses an AKM AK4388 DAC chip. It is well worth a review. They are based in Eversholt MK17 9EA England: [www.tibo-audio.com](http://www.tibo-audio.com).

Regards,

**Mike Tartaglia Kershaw.**



**Tibo Smart Streamer.**

### Smart Streamer (Pre-AMP)

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1 Add to basket

# When In Rome...

... run a Synthesis Roma 96DC+ amplifier. Noel Keywood checks out the logic.



**S**pecialised valve amplifiers like single-endeds commonly produce little power: think 9 Watts. One step up come a slew of 25 Watters using push-pull to give usefully more power – and that is what Synthesis offer here in their Roma 96DC+ valve amp, price £2649. But they bring a different take to things: this amplifier is digitally equipped and will play LP as well. It's a surprisingly comprehensive package; how they fitted it all in I will come to explain.

If your suspicions are already aroused I will confirm them: yes, there are transistors inside. Don't faint yet though, because they do a good job, especially when it comes to negotiating a USB stack so the amp can link into a modern thingy known as a computer. Best not to use valves for this purpose or you'll end up with something that might have been created by Bletchley Park. With USB socket on rear and AKM 4495SEQ DAC inside, the amp can accept and play DSD

from a computer – an interesting proposition. No external DAC needed.

But I'm getting ahead of myself here. Back to the bits that glow and get hot, the valves. On clear, open display – once a safety cover is removed – sit two pairs of EL34 power valves working in push-pull, one pair per channel. These are popular and inexpensive power pentodes, price £20 or so each. They are auto-biased, so no need to adjust bias, but this does reduce power slightly. It is possible to get up to 40 Watts from EL34s in push-pull with fixed bias, but this works them hard. The valves are run conservatively here, making for longer life (and smaller transformers). They should be good for 3000 hours run at such low power. EL34s have a good reputation, having what I would say was a delicate quality with plenty of fine detail. Much loved in the Far East.

Sitting in front of the EL34s are two ECC82 low noise double-triodes, but alone they are unable to do all that is done in this amplifier; a phono stage

alone would need at least two per channel. The '82s act as preamplifier and phase splitter valves, feeding the power valves. All the digital work is done by transistors and a JRC4580 op amp in the phono stage handles analogue LP, catering for moving magnet (MM) cartridges.

As if all this was not enough, there's even a solidly hewn alloy remote control that can alter volume, select inputs or mute, but it cannot switch power on or off. Other things missing are a headphone output and balanced XLR input. Otherwise, Synthesis have missed out little from a compact chassis measuring 260mm wide, 415mm deep and 204mm high. The rear black box screens the mains and output transformers, as usual with valve amplifiers.

The front fascia panel is an unusually thick slab of machined alloy that certainly feels solid. At centre the large volume control moves in ghostly fashion under remote control, likely being an Alps Blue motorised potentiometer. Whilst the thick slab of a fascia looks good, especially in silver livery, it conceals the input legends viewed from above; better to use the remote.

The 96DC+ has two line inputs, a phono input, USB, and S/PDIF digital input via optical and electrical (phono) sockets. Optical worked up to 96kHz sample rate with our leads, including a QED Quartz glass optical cable. The electrical input worked up to





**At bottom left a densely populated digital board full of chips. At middle big power supply capacitors, then valve bases and at centre-right the motorised Alps volume control.**

192kHz and USB up to 384kHz sample rate. The latter accepts DSD via DoP, which means to play DSD from a computer a software player able to package it into DoP is needed; I use Audirvana+ on a Mac for this and the Roma played DSD64 and DSD128 happily. Otherwise, it's PCM and there's little the AKM DAC inside won't accept from a computer.

Synthesis fit a sturdy push-button power switch at left on the front panel, but this function is manual only: no standby mode, no HT-off function to lengthen valve life, no remote control of power.

The rear panel is inevitably a little cramped, there is so much on it. Those who know their valve amps will spot straight away there is just one pair of output sockets per channel, not the usual 4 Ohm and 8 Ohm options. Most loudspeakers nowadays are nominally 6 Ohms and Synthesis

match their transformers accurately to this load, measurement showed. But that meant power declined into either 4 Ohm (16W) or 8 Ohm (20W) loads. Since most 6 Ohm (nominal) loudspeakers hover around 4 Ohms at low frequencies that is

what the amplifier effectively sees much of the time – such as with heavy bass lines etc.

This amplifier is no power house but with sensitive loudspeakers it has enough to go loud, if not shatteringly loud. There is a fixed level Rec Out that could feed a larger power amplifier with volume control (e.g. Icon Audio) as a future upgrade but since the power amp cannot be disabled such an arrangement would be inefficient. The phono stage is very sensitive and will suit 'high output' moving coils designed to feed an MM stage.

In spite of being jammed in with valves, the digital section measured better than I dared hope. There can be strenuous hum and noise induction problems from valves but the earthing and screening works well here. S/PDIF inputs suffered some noise but USB was quiet.

### SOUND QUALITY

I connected the Roma 96DC+ to our Martin Logan ESL-X hybrid electrostatic loudspeakers through Chord Company Signature Reference loudspeaker cables. Also tried were the Mission LX-4 MkII's that potentially suit due to high sensitivity. For the most part I used a variety of CD and hi-res tracks playing from a MacBook Pro, working from battery for isolation and connected via USB. The software player was Audirvana+, to send DSD as well as PCM digital.

The Roma 96DC+ was immediately distinctive, its characteristics clearly audible. Cymbal crashes from Mick Fleetwood in

Dreams (24/96) fairly leapt from the 'speakers at stage right – it sounded like he'd just been to the gym. Vocals from Stevie Nicks were hard etched but very clear, jumping from the mix: the EL34s were doing a good job here I felt. This is what to expect from them. Down at the low end drums were large, full bodied and powerful, bringing weight to the sound beyond what anyone would expect from an amplifier of such small size and modest valve complement.

The presentation was larger-than-life, but lively at low and medium volume, if a bit fierce with mediocre digital at high volume. And this is what I heard over a wide variety of everyday CD, if not quality recordings.

With quality hi-res like Fasten Seat Belts (DSD128) from Wager Astrund I was pinned backward by triangles and metal percussion that rang out clear as a bell, with thunderous drums as accompaniment. Again, the performance seemed larger than life, dramatic



**An ECC82 EH double-triode preamplifier tube from Electro-Harmonix.**

and engaging – DSD quality treble not sounding fierce like (old?) PCM, where the music has been mangled in the recording process by poor ADCs.

Fed quality digital the little Roma 96DC+ was superb, but with some of the poorer stuff it got a bit edgy because of subtle treble emphasis (imposed by the output transformers measurement showed).

How about analogue? For this I connected up our Timestep Evo modified Technics SL-1210 Mk2 Direct Drive turntable, with SME309 arm and Audio Technica VM750 SH moving magnet (MM)

**An Electro-Harmonix EL34EH power output tube, one of four.**





**The rear carries 6 Ohm loudspeaker output terminals, analogue and digital inputs. There's even a Phono input for LP (MM).**

cartridge.

Spinning Sing, Sing, Sing from the Syd Lawrence Orchestra, on Big Band Spectacular, the rolling drum work was quite obviously weaker than I know it, lacking presence and depth. Oh dear!

Looking at the measurements made weeks earlier I was reminded why; low frequencies roll down and deep bass is heavily attenuated by a not-so-good warp filter.

With quite a bright edge to treble as well, the overall impression wasn't very analogue-like, making this phono stage sound like a peremptory add-on. With a bit of tweaking of the RIAA curve (318µS) to increase low frequency gain – a five second job – this could be remedied easily, making me suspect Synthesis haven't much bothered with the MM phono stage here. Especially since their Roma

79DC phono stage has emphasised bass for a heavy sound.

All the same, when I span warm balance LPs like Mark Knopfler's Kill To Get Crimson, tracks like True Love Will Never Fade remained deliciously clear, fluid and laden with a feeling of stage depth. Knopfler's guitar strings chimed out with melodious sweetness: I could not help but say "EL34" in my mind. As I worked through LPs though, the light balance didn't favour most. A track like Lovely 2 CU from Alison Goldfrapp's SuperNature lacked the low end strength it thrives on for a sense of presence. Goldfrapp's vocals were supremely clear but this alone wasn't enough to convince.



**CONCLUSION**

There's not much around like the Roma 96DC+ amplifier. Compact in form, valves inside and a lively, clear sound make it a vivid listen. No hassle with bias adjustment, cheap to run and can play DSD direct from a computer, plus hi-res PCM and CD of course, it does it all. Only the MM phono stage was disappointing. For the price, all around ability and vivid sound though, this amplifier is definitely worth hearing. An impressive thermionic all-in-one.

**MEASURED PERFORMANCE**

The Roma 96DC+ produced 25 Watts into 6 Ohms (1% thd) as claimed, but 21 Watts into 8 Ohms and 16 Watts into 4 Ohms, so claimed output is correct but will be less in real life where loudspeakers commonly dip to 4 Ohms.

The output transformer peaks slowly toward 16kHz (+0.7dB) before rolling away to -1dB at 62kHz, making this a very wide bandwidth amplifier as valves go. There was a small (+2dB) subsonic peak at 10Hz as well. So a bright-ish sound rather than a warm one.

Distortion measured 0.3% at 1W, 1kHz and 40Hz, rising to 1% at the power limit, a reasonable result for a compact valve amplifier with small output transformers.

The optical S/PDIF digital input worked to 96kHz sample rate only, but electrical to 192kHz and USB to 384kHz. Frequency response rolled down slowly with 192kHz sample rate digital (-1dB at 50kHz) a wideband result.

Distortion (24bit, -60dB) measured 0.05% and EIAJ Dynamic Range a respectable 112dB – very good figures.

The MM phono stage was sensitive, needing 2.3mV for full output. There was some overall emphasis to high frequencies, with treble +0.5dB up at 10kHz and bass -1dB down at 40Hz, due partly to a slow warp filter. Noise was acceptably low at -75dB.

The Roma 96DC+ packs a lot into a small case and it worked well enough under test, with no major weaknesses. **NK**

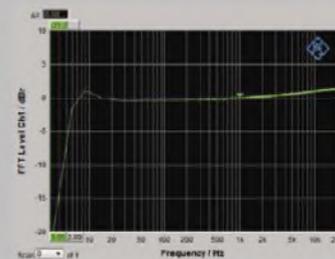
<b>Power</b>	<b>25W</b>
<b>Frequency response (-1dB)</b>	<b>8Hz-62kHz</b>
<b>Distortion (1kHz, 1W)</b>	<b>0.3%</b>
<b>Separation (1kHz)</b>	<b>88dB</b>
<b>Noise (IEC A)</b>	<b>-112dB</b>
<b>Sensitivity</b>	<b>330mV</b>

<b>DIGITAL</b>	
<b>Frequency response (-1dB)</b>	<b>8Hz-50kHz</b>
<b>Distortion (-60dB, 24bit)</b>	<b>0.05%</b>
<b>Dynamic range</b>	<b>112dB</b>

<b>PHONO (MM)</b>	
<b>Frequency response (-1dB)</b>	<b>40Hz-20kHz</b>
<b>Distortion (1kHz, 5mV in)</b>	<b>0.1%</b>
<b>Separation (1kHz)</b>	<b>68dB</b>

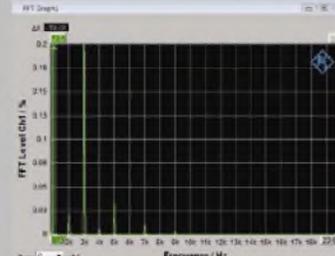
<b>Noise (IEC A)</b>	<b>-75dB</b>
<b>Sensitivity</b>	<b>2.3mV</b>
<b>Overload</b>	<b>28mV</b>

**FREQUENCY RESPONSE**



**DISTORTION**

THD all	Level [dB]	Frequency
0.3302 %	2.8331 V	1000.0 Hz
OFF	OFF	OFF



**SYNTHESIS ROMA 96DC+ £2649**



**OUTSTANDING - one of the best.**

**VALUE - keenly priced**

**VERDICT**

Vivid sound and broad range of ability, from digital to LP. Fine value.

**FOR**

- vivid clear sound
- strong bass
- facilities

**AGAINST**

- mediocre phono stage
- dull appearance
- low power

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# Star Light

Noel Keywood enjoys the twinkling ability of Naim's Uniti Star all-in-one system.

**N**aim's Uniti was first launched in 2009, being their popular all-in-one solution – a complete hi-fi including streamer, in one box.

And a Naim hi-fi too, with all the thinking that made Naim famous. By this I'm alluding to amplifier sound – one with smoothness but heft, for a dynamic listen. No weedy stuff here, by method I'll come to explain. Uniti has since gone through many changes, being upgraded to Star status in 2017. I am reviewing their latest update here, price £3499.

Naim quote power of the Uniti Star as 70 Watts but our measurements show it has now reached 90 Watts (the precise figure depending upon load – see Measured Performance). Inside is a conventional Class A/B analogue amplifier – not Class

D – fed by a massive toroidal power transformer. And here we get straight to Naim philosophy: the ability to deliver big transient current to a loudspeaker, unfettered by a switch-mode power supply of limp ability. Penalty – the Uniti Star is compact but also heavy at 13kg, largely due to that transformer. Naim have had to pack a lot in tightly around it to keep dimensions down to 432mm wide, 265mm deep and 95mm high.

And there certainly is a lot in there. At left on the front panel is a slot loading CD player mechanism, at right a colour display screen – but it is not a touch screen. The expectation is owners will use either the supplied remote control or app. from the settee. Inputs can be selected by an illuminated control button at right – but not CD or USB I was surprised to find: these are only available from

the remote or app., so if both go walkies neither CD nor USB can be fully accessed. Once CD is up and spinning however there is a Pause/Play button here; hold it down to Eject. If the Uniti is programmed to play CD automatically it can do so but track skip is unavailable on the player alone.

The CD player is also able to rip (copy) tracks to an external Flash drive. Playing ripped tracks can then be accomplished by selecting USB, to reveal full track listings on the app and the front panel display, together with song and artist info.

Because the Star is best controlled by the app or remote, its massive volume control at top will likely see little use in practice, since volume can be changed by the remote or the app.

To play music from a Flash drive (memory stick) there are



front and rear USB 'mass storage' ports that can read up to 128GB. An SSD disc drive (1TB max) can also be hooked up to them. Naim additionally fit an SD card slot at rear, capacity up to 32GB.

Being an app controlled streamer, Uniti Star must be hooked into the domestic network, whereupon it can stream music from a PC, using UPnP. Naim define this as hi-res streaming, but since a USB Flash drive can similarly deliver hi-res including DSD into the Star, an active PC isn't essential to play hi-res. Mac owners be aware that a paid-for app like EyeConnect is needed to provide UPnP streaming, since it's a Microsoft technology. And PC owners must turn streaming on in Windows Media Player to avoid frustrating silence, something that – as an occasional PC user – always catches me out!

Always best to hook into a network with an ethernet cable, but wi-fi is available too, the aerial now being concealed inside the player.

As with previous Naims, the Star was easy to get up and running on the network. It identified itself as UnitiStar on my BT Smart 2 hub (some streamers provide no ID) and on my PC (Windows 10). The Naim app picked it up immediately and its high contrast white text on black screen, uncluttered by spurious graphics, was easy to read. I did suffer an initial hiccup of downloading from Apple an app from 'Naim' that worked but would not see inputs. I deleted it and downloaded from 'Naim ltd' and this worked perfectly – a strange issue. But then if you have an app in the app store, as Hi-Fi World does, trying to get a grip on it through

"she had vivid presence in front of me and I was transfixed."

the world's largest company is a prodigious experience.

Lots of functions in the app of course, including on-line music services such as Tidal, Spotify, Qobuz and Internet radio. Then there is Apple Airplay, Chromecast Built-In and the ability to work with Roon (Roon Ready). An audio return channel links to a TV though HDMI to pipe over TV sound.

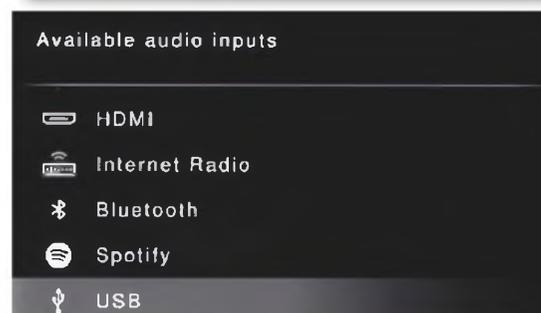
passing through a digital volume control before being converted back to analogue – but I checked this carefully and distortion was minimal here. However, there's a 2V overload limit imposed by the ADC so a high gain/output swing Phono stage would not suit (most swing 10V, valves 40V); a 40/60dB (MM/MC) stage is best here.

There are no balanced XLR

inputs either. Plus no USB direct computer connection, since there's network connection instead.

You don't get radio as standard

**Internally the Uniti Star is dominated by a massive toroidal mains transformer (left). At top right is the CD transport. Around these large components sits a complex array of electronics.**



**The app shows radio stations available within the internet tuner, plus a list of audio inputs, including HDMI for TV sound, and Bluetooth.**

but DAB/VHF/FM is available as an option. With internet radio fitted I don't see much point in this though.

Build quality and finish were superb, a step up on most else. The remote was also very good, lighting up immediately upon being lifted, but it lacks a numerical keypad for CD track number entry. There is a 3.5mm stereo headphone jack on



**The slot loading CD transport can barely be seen. Below lies a brightly illuminated Naim logo.**

the front panel. The app was, over the review period of weeks, stable, easy to understand and use.

**SOUND QUALITY**

The Uniti Star was hooked up to our Martin Logan ESL-X hybrid electrostatic loudspeakers with Chord Company Signature Reference screened cables. For the most part I played CD and hi-res from Flash memory since this is a significantly cleaner digital source than any cable feed, where jitter and noise arise.

And from the word "go" the Uniti Star was a sonic star. Josefine Cronholm's In Your Wild Garden (CD) had sumptuous strength, its bass line providing supple background power. There was an enveloping ease to Ms Cronholm's vocals, but also a sense of

subtlety and insight. Naim get the tonal balance absolutely right: there was neither warmth nor rasp to highs; it all came across as natural and easy, yet dynamically vivid.

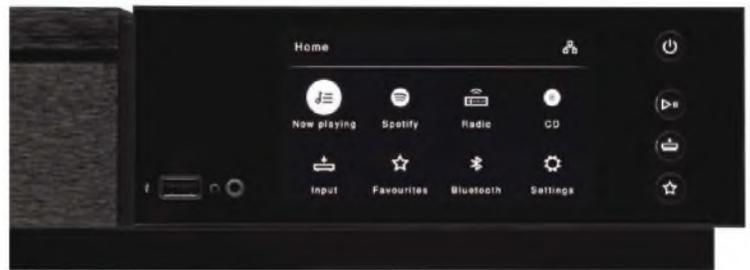
With Skunk Anansie's Hedonism (CD) I could turn volume up and hear no strain, Skin's vocals holding steady centre-stage whilst the jangling guitars stayed unmuddled and palatable. Again, powerful bass marked out by big presence and a sense of unrestrained depth. Here I believe the Naim's low-ish damping factor was

coming into play: the Uniti Star doesn't sound dry and retentive like so many amplifiers, reminding

for Horn (DSD64) loomed large in the room, strings of the Royal Concertgebouw Orchestra



**As well as globally available radio stations the Uniti Star offers local BBC radio as you might hope, and even Naim's own radio station.**



**The front panel screen carries a comprehensive display of inputs, sources and settings. There's a USB mass storage socket and 3.5mm stereo headphone jack too.**

me of my various valve amplifiers I have to say. The lovely quality of its treble but the total lack of rasp or bite was also a bit valve-like and here the fast cut-off above 20kHz may well be a contributory factor.

Across a wide variety of tracks, good and bad, old and new, there was a more muscular sense of definition and strength than comes from most amplifiers out there. Jasper de Waal's horn in Haydn's Concerto



**The app can show sources such as Spotify, CD or Servers (left) or the rear input sockets (right). It selects between them with a finger tap.**





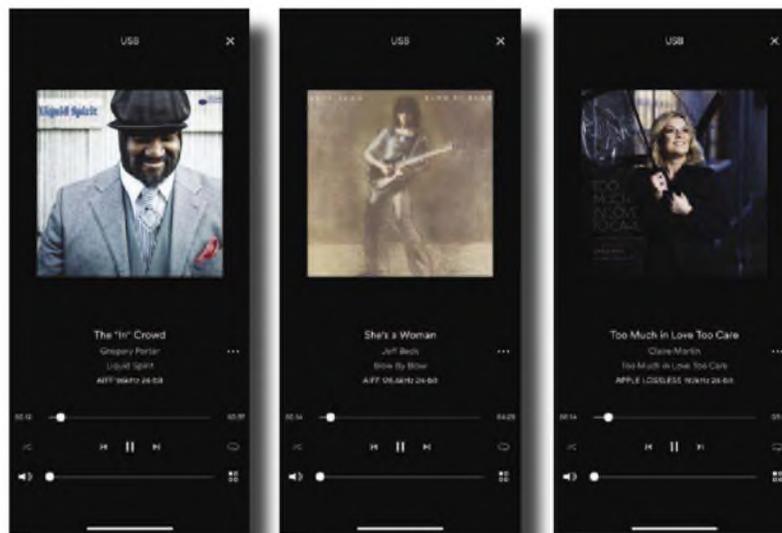
The rear has 4mm loudspeaker sockets for banana plugs only; Naim supply custom plugs to fit. At centre RJ45 ethernet and USB mass storage sockets. Digital and analogue inputs at right, including a DIN input and a Phono input for a turntable. All analogue is converted to digital.

sounding suitably lush around him, DSD and our electrostatics together suiting the full bodied nature of the Naim.

Similarly the soaring voice of Johanne Zomer singing Lascia Ch'io Pianga (DSD64) was solid and powerful from the Naim, etched up in large form; she had vivid presence in front of me and I was transfixed. An undeniably exciting sound that our XStat electrostatic panels again lapped up and threw out.

**CONCLUSION**

What you get here is a one-box hi-fi that does it all, except handle LP. Naim keep a firm grip on sound quality by shoehorning in a classic Naim-formula power amplifier, meaning Class A/B backed by a massive linear power supply. This is how the Uniti Star differs from most else – as trying to lift it demonstrates. You get an equally



A selection of cover artworks on the app screen, with hi-res specs clearly readable. White-on-black text made for easy legibility.

solid sound with powerful bass, a smooth easy midband and clear treble that doesn't offend – "proper

high fidelity" in other words. It's an impressive package that offers a great hi-fi experience.

**MEASURED PERFORMANCE**

The Naim Uniti Star produced 78 Watts into 8 Ohms and 121 Watts into 4 Ohms. Upper response limit (-1dB) was a low 19kHz (see below) and distortion low at 0.04% (1W, 10kHz).

The Uniti Star is digital at heart, like an A/V receiver. Analogue inputs are converted to digital through an ADC then converted back to analogue through a DAC.

Fed a digital input the DAC (Burr-Brown PCM1791A) had a 30kHz hard limit, imposed by a brick wall filter, measuring -1dB at 19kHz. As with the Unitilite we measured in April 2015 issue, EIAJ Dynamic Range of this DAC chip was poor at 105dB – CD quality, even with 24bit hi-resolution digital. Distortion was acceptably low at 0.1% (24bit, -60dB).

Analogue bandwidth imposed by the input ADC measured 23kHz; the quoted -1dB frequency being 17kHz. As expected, with a low level (100mV) input to generate quantisation noise in the ADC (notched out during measurement) noise was a little

high at -84dB – a penalty of A/V topology.

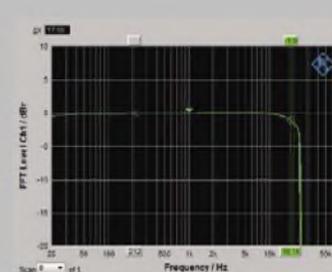
USB mass storage input gave the same result as S/PDIF (as expected) and CD was similar, with a brick wall at 21kHz, 0.24% distortion at -60dB and 101dB EIAJ Dynamic Range.

Performance of the Uniti Star was determined by the DAC that gave CD figures even when fed high resolution digital. Analogue inputs were constrained by an ADC of similar performance. The amplifier is powerful and measured well. **NK**

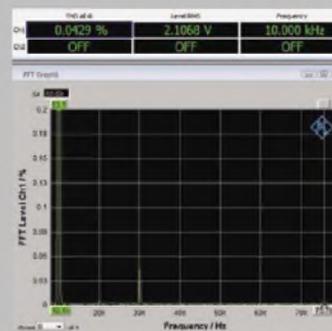
<b>Power</b>	<b>92W</b>
<b>Frequency response (-1dB)</b>	<b>10Hz-19kHz</b>
<b>Distortion (10kHz, 1W, 4Ω)</b>	<b>0.04%</b>
<b>Separation (1kHz)</b>	<b>87dB</b>
<b>Noise (IEC A)</b>	<b>-84dB</b>
<b>Sensitivity</b>	<b>430mV</b>

<b>DIGITAL</b>	
<b>Frequency response (-1dB)</b>	<b>10Hz-19kHz</b>
<b>Distortion (-60dB, 24bit)</b>	<b>0.1%</b>
<b>Dynamic range</b>	<b>105dB</b>

**FREQUENCY RESPONSE**



**DISTORTION**



**NAIM UNITI STAR £3499**



**OUTSTANDING - amongst the best.**

**VALUE - keenly priced.**

**VERDICT**  
Gutsy Naim sound quality from a well built and finished player that does it all.

**FOR**  
- big, dynamic sound  
- breadth of ability  
- compact

**AGAINST**  
- sparse album/artist info  
- no full user manual  
- poor app download available

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# iBasso profundo

Martin Pipe reckons that if its SR2 is anything to go by, we'll be hearing more from iBasso in future.

**F**rom what I can gather iBasso is an established Chinese company that mostly makes personal digital audio players (DAPs) and in-ear monitors (IEMs). Its products have occasionally been reviewed in this magazine, if not the \$499

SR1, an imposing pair of open-back headphones with dynamic drivers that make use of 'bio-cellulose' diaphragms and 'Tesla magnetic design'.

The SR1 was well-received but after two years it is now 'discontinued', being a limited-edition, total production amounting to 500 pairs. Could this pair of headphones have been a 'trial run' to

test the market? At the time of writing, the iBasso website shows no replacement so when I was offered the chance to review the iBasso SR2 it came as a surprise!

Although their styling is rather different, the SR2 (£449) is also rather imposing in size, with generously-padded cups that easily fit around the ears. Internally too, the similarly open-back SR2 shares much in common with its predecessor – "silicone suspension, Tesla Magnetic Flux Technology and bio-cellulose dome diaphragms".

As with the SR1, the SR2's 1.8m unbalanced headphone cable is detachable – here, conventional 3.5mm stereo jack plugs are used instead of the SR1's MMCX types (which I've found to be less than totally reliable). The use of a 3-pole connector on each earcup means that a balanced upgrade is possible. These earcup plugs and the 3.5mm stereo jack plug at the player end of the woven cable are gold-plated. So too is the screw-on 6.3mm adaptor.

Not much information, beyond a bare spec, is available for the SR2. It would appear that the 'silicone suspension' refers to the drive-unit's surround. Silicone is tough but very elastic, ensuring that the diaphragm remains secured and free of distortion.

Removing the perforated earpads (iBasso include a spare set) reveals that the drivers have a diameter of approxi-



mately 40mm. I could not see the diaphragms as they are covered with a fine mesh. The bio-cellulose material they are made of combines rigidity and low mass, with potential benefits for transient response; other manufacturers, among them Sony and Fostex, have also used it to make headphone drivers.

Whatever the specific details of the tech lurking inside those earcups, the SR2 is remarkably-sensitive at 108dB/1mV @ 1kHz – if iBasso's spec is to be believed. That's even more sensitive than the Focal Clear Mg I reviewed recently. The low impedance (24 Ohms) of the SR2 will likely be responsible for this, causing them to draw current. Most 'phones are 40 Ohms or above. Driver power-handling capacity is rated at 50mW.

## USE AND PERFORMANCE

Large this pair of headphones may be, but at 395g the SR2 is actually lighter than many high-end headphones I've tried. With the headband suitably adjusted, I found them to be fairly comfortable to wear. Those soft faux-leather pads enclose your ears, and although there's a good seal they can get rather hot and sweaty over long listening periods. Maybe that's why a second pair of pads are included! Also supplied is a carrying case, which despite its solid construction is a bit too ungainly to fit into a rucksack or briefcase.

With a name like iBasso I feared the worst – a presentation built



**The simple but effective headband of the SR2 can be adjusted to comfortably-fit most people. The semi-open back transducers rotate on their pivots for a comfortable fit around the head.**



***iBasso's package includes a neat custom case and a removable 1.8mm woven cable with balanced 3.5mm stereo jack plug and screw-on 6.3mm adaptor. Unusual but welcome is a spare set of earpads, which are soft and covered in perforated synthetic leather.***

around a superficially impressive but bloated low-frequency performance. Fortunately, that couldn't be further from the truth. In bass terms the SR2 was instead coherent and tuneful, never going off the rails. Every bass guitar performance, whether it was Andy McCluskey's or Sam Beam's, to reference a couple of the albums (OMD's Organisation, and Iron and Wine's The Shepherd's Dog) I listened to via the SR2 retained the individual character of performer, instrument and recording. The SR2 goes deep enough to satisfy lovers of rap, organ recitals and electronic music, without excess flab or muddiness evident.

Clarity was also excellent I found, high frequencies being crisp and well-defined. Vocals were distinct and free of colouration, nicely defined by good imaging. For the asking price, the sheer detail on offer was difficult to beat.

This amount of revelation worked well at all levels – and could overwhelm. Yes, the SR2 brought me closer to the performance, but it also laid bare problems with recordings, such as faint background hum that somehow managed to elude the record company's QC process, and tape hiss from the multiple dubbing 'generations' needed to realise complex album projects in the pre-digital 1970s/early 1980s.

I also noticed, to give another

example of the SR2's resolving power, that the cymbals of some recordings sounded distinctly 'splashier' than others.

The SR2's analytical ability could well endear it to professional users. With a revealing headphone DAC like Prism's Callia, these 'phones could be used to assess recordings prior to distribution and release.

Thanks to its sensitivity, the SR2 was easy to drive – the Callia and a Chord Electronics headphone amp in Hugo TT proved to be worthy partners. Not even a Pixel 3a Android smartphone, with the bus-powered Ikko Music Patch (as reviewed last month), showed signs of strain at sensible listening levels; quite an achievement. Most of my listening was, however, done with an Astell&Kern SR25; the result was a satisfying levels of engagement, no matter what music was being played.

## CONCLUSION

iBasso's SR2 may be revealing but music was no less enjoyable for that; it helps that the company has struck a natural tonal balance and, through excellent sensitivity, ensured that the SR2 can be driven by the majority of devices. By any standards, the SR2 is a worthy achievement for the price being asked. No wonder the website of its UK retailer Advanced MP3 Players shows it as 'out of stock'. I was however reassured that it will be on sale again before long.

**iBASSO SR2 £449**



**OUTSTANDING - amongst the best.**

**VALUE - keenly priced.**

### VERDICT

Analytical but not at the expense of musicality, the SR2 represents excellent value.

### FOR

- detailed and tonally-balanced
- very sensitive
- detachable cables and spare earpads

### AGAINST

- a little too analytical at times
- cable long for mobile use

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# Programmed with artificial ambience



**Martin Pipe unearths the 'Model 1000 Digital Time Delay' from Audio Pulse. It endowed recordings with digitally-constructed ambience...in 1979.**

**B**y the mid-1970s it had become clear that four-channel sound – quadraphonics – was dying. To blame were a number of reasons, including confusion over mutually-incompatible formats (SQ/QS/CD-4...), performance issues, the need for more 'speakers and the sheer expense of the kit required.

However, it was acknowledged that some quad recordings worked well. Here, musicians were heard in the front channels while the rears carried the natural 'ambience' of the concert hall. EMI used this system for its 'single inventory'

SQ-encoded classical LPs, a pair of microphones being set up at the back of the venue to capture natural ambience during the recording sessions. These LPs, marketed until the late 1970s, could be remarkably-convincing through a decent quad system.

Various degrees of ambience – a complex combination of echoes (early reflections from room surfaces) and reverb (delayed reflections) that decays over time – could also be produced artificially in the radio or recording studio, for creative purposes. Techniques ranged from dedicated rooms with a speaker at one end and a

mike at the other, to arrangements that used plates or springs to implement such effects through electromechanical means.

Then came the use of electronics, like Charge Coupled Devices (CCDs) to produce the necessary delays. All such technologies were entirely analogue.

Quadraphonics may have been on the wane, but in contrast digital technology was not. It wasn't long before someone had the brainwave of converting the audio signal into digital form, where it could be stored in (and therefore delayed by) memory chips before being



**By today's standards the Model 1000's pioneering digital technology looks primitive. It's implemented using traditional through-hole components, mounted on double-sided circuit boards. There's alas minimal use of IC sockets.**

converted back to analogue. 'Digital reverbs' became common sights in recording studios – they took up less space than the older tech. Over time, they improved and

drive speakers located behind the listener, simulating a concert hall's ambience. Any record could benefit – not just quad-encoded ones.

In 1976, a Californian firm called Audio Pulse launched such a device – the Model One Digital Time Delay. Modestly billed as 'possibly the greatest advance in sound reproduction since stereo' the \$600 Model One was followed by a version with inbuilt amplifiers to drive the rear speakers. Three years later came the more sophisticated Model 1000, as featured here. Without onboard amps it sold for \$1,000 – approximately \$3,500 today. The same money would have bought an American audiophile one of the enormous Japanese 'muscle receivers' then in vogue.

An impressively heavy bronze box, the Model 1000 looked more like a piece of hi-fi equipment than its predecessors. Unfortunately, I could find little information about it – no instruction book or service manual, even on Hi-Fi Engine. Evidently

designed to be inserted into a tape loop (or between pre and power amps) its fascia is dominated by large knobs for input/output selection, adjusting the delay duration/simulated venue size (between 53 and 95ms, confirmed by 7-segment LEDs) and modifying 'ambience' which alters the amount of signal 'recirculating' through the delay, and hence the overall effect time.

According to the scant information I could unearth, six internal delay paths combine at different settings to produce natural-sounding combinations of echoes and reverb. The concentric input/output selector allows the front and rear channels to be fed with the direct or delayed signal, or turned off altogether (presumably for setup and 'stereo-only' purposes). Two knobs adjust the input and output levels; a simple LED bargraph aids the former, while the latter would be set to suit associated power amps; there's also an output balance control.

Sensibly, Audio Pulse replicated the lost tape loop – hence the 'tape' button. What's not so obvious is the purpose of the adjacent 'FM' button. This, as far as I'm able to determine, engages a phase-cancellation system that prevents announcers' voices from being heard with off-putting reverb in the rear speakers by exploiting the fact that such voices are usually positioned centrally within the stereo image.

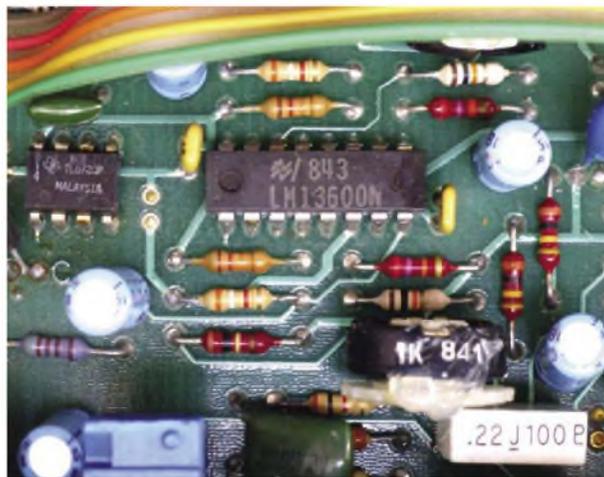
Also interesting is an 'expander' knob, which is itself a piece of audio history. It attempts to undo the processing applied to LPs and



**Launched in 1979, the Audio Pulse Model 1000 Digital Time Delay was modestly-billed in this advert as "possibly the greatest advance in sound reproduction since stereo".**

became more flexible.

Some wondered if a such a product, adapted for consumers, could benefit home listening. Stereo music could be fed into a digital processor and its output used to



**Audio Pulse included an 'expander' to restore the dynamic range of vinyl LPs and radio broadcasts. It was based around this National Semiconductor LM13600N dual 'transconductance' op-amp chip.**



**The rear panel restores any lost tape loop. There were rear channel outputs with synthesised ambience, plus 'short tap' and 'long tap' outputs containing the shortest and longest of the six internal delays.**

FM radio, yielding subjectively improved dynamic range; three yellow LEDs indicate the extent to which the circuit is operating. In the US, McIntosh and Phase Linear respectively sold amps and tuners with similar features; standalone dynamics processors were marketed by Pioneer and dbx, amongst others. It works sometimes, but get the adjustment wrong and the sound is 'pumpy' and unnatural.

Around the back are the restored tape loop and inputs and outputs. The ambience output for rear 'speakers is accompanied by two more sets of outputs, marked 'short tap' and 'long tap'. Available here are the longest and shortest of the aforementioned six delays. These would feed extra pairs of speakers located around the room, to increase still further the ambient effect. All pretty clever stuff for the 1970s!

Lack of a circuit diagram made it difficult for me to find out how the Model 1000 works in detail – Audio Pulse has however kept visible the IDs of the chips, of which there are many. Apparently its design makes use of 'delta modulation', implemented using op-amps and CMOS logic chips. I could also make out nine Texas

Instruments RAM chips, each of which offers a whopping 4,096 bits of capacity! There are also numerous TL072 dual op-amps, while the expander circuit is based on a LMI3600 device.

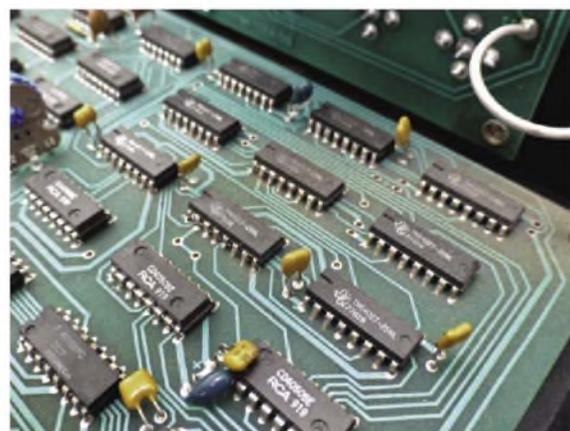
My Model 1000 was picked up at the Tonbridge Audiojumble for a tenner, more out of curiosity than anything. It didn't work properly and I discovered that one of the 78-series voltage regulators had failed. After replacing it, I could get ambience through one channel; the expander circuit was also completely dead.

I fed the one working channel to both channels of an amp feeding a pair of rear speakers and even in this state it worked surprisingly well. The delayed signal has been restricted in frequency range (in concert halls the high-frequencies of reverberant sound are naturally-attenuated) and, relative to the unprocessed signal, sounded grittier. I also noted that noise was more intrusive with longer delay times. Twiddling the delay during playback yielded a weird 'bending' effect that might have proved creatively beneficial to musicians and dramatists!

Unfortunately, even that fettered functionality came to an end when the machine suddenly died (does any reader have a schematic?). The Model 1000 pushed primordial digital technology of its day to its limits, and doing so must have impacted reliability because in the 'small ads' of mid-80s Stateside hi-fi mags there were companies offering to repair or modify Audio Pulse boxes.

Given their expense, these units weren't particularly common in the US – coming across one in the UK, where it would have sold for the price of at least two Linn Sondeks, was pure luck. They do however crop up on eBay from time to time.

Although the Model 1000 made little impact on the hi-fi scene at the time, its underlying concept was to become much more important in the 1990s. More



**Each of these Texas Instruments TMS4027 RAM chips had 4,096 bits of capacity. Nine join forces to provide 36,864 bits (0.0000043GB!) within which the Model 1000 managed to implement its digital delay.**

powerful chips provided a range of DSP modes to simulate the natural ambience of real-world venues, Yamaha specialising in this. Audio Pulse was ahead of its time.



**My Model 1000 was clearly intended to be exported as its power supply can be switched from 110V to 230V as used in the UK/Europe. Note also the switch that matches the level of the front output (-15dB/0dB/+15dB) to power amps.**



# 4 On The Floor

**Mission's LX-4 MkII floorstanding loudspeaker gets Noel Keyword's close attention.**

It was a hot evening back in the late 1970s when I quietly melted in a restaurant listening to a charming and enthusiastic Farad Azima explain his first loudspeaker, the Mission 770. Farad has gone but Mission lives on and here is one of their latest loudspeakers, the LX-4 MkII compact floorstander, price just £399.

Designed by Peter Comeau, another habitué of that period, the recently introduced LX-4 MkII carries on Mission tradition, they say, by placing tweeter beneath bass/midrange unit to give a classic Mission inverted array. After a bit of measurement and head scratching I suggested it was a classic D'Appolito arrangement of drive units and Peter agreed. I suspect it was meant to be an inverted array, judging

by the grille (more later) but this idea got cancelled. As a result the LX-4 MkII uses two bass/midrange units covering the audio band equally up to where the tweeter cuts in, being positioned symmetrically above and below it.

The idea here is to give the same sound balance irrespective of whether you are sitting down or standing up; the speaker remains consistent in its sound as you move around – and I've found this arrangement works very nicely, exactly as claimed.

Each bass/mid driver has a 130mm (5in) composite (mixed) fibre inverted dome. Point to note is that they are non-metallic, so none of the bright zing that can come from metal cones, especially when they have a metal 'dust-cap' that acts as a high frequency radiator (rather than anything to do with dust).

Complementing these units is a 25mm tweeter with microfibre dome, so again no metal here, for consistent sonic flavour. Crossover is quoted as 3kHz and our impedance trace confirms this as the frequency where it contributes fully.

The cabinet is sturdily built, weighing 15.5kgs – solid but liftable. The two bass/mid drivers are reflex loaded by two rear ports, Mission stating a lower frequency of 40Hz and this was confirmed by measurement when the port is taken into account. This corresponds to a room 14ft long, so add 1ft at each end for seating and loudspeaker distance from rear wall and you come in at around 16ft as a target room size. Or in other words, a medium sized living room. Much past 18ft you might want something a bit larger. If bass is too heavy, which may happen in a small-ish (12ft) square room, then there are foam bungs to damp things down.

What is a surprise in the specs is sensitivity. Mission suggest the LX-4 MkII goes very loud (89dB) from just one Watt. Normally, only larger floorstanders reach this sort of sensitivity but indeed the LX-4 MkII did go this loud, so low power amplifiers will do fine, around 40 Watts being plenty enough for most users and their neighbours. This brings into the picture smaller amplifiers from the IAG stable such as Quad Vena II, Leak Stereo 130 and Audiolab 6000A, making for a

relatively compact system – also an affordable one. The LX-4 MkII has been designed for use close to a rear wall where at 265mm deep, 200mm wide and 920mm high it's unimposing. Finishes are Walnut Pearl, Lux White and Lux Black.

Whilst head scratching over the drive unit arrangement I noticed that the grille, that attaches magnetically, has large and small apertures – it is asymmetric yet attaches either way around – and which way around is not explained in the handbook. I checked with Mission and as expected the large aperture is top, putting a divider bar between tweeter and lower bass/midrange unit. This is correct for Mission's classic inverted tweeter arrangement, but not ideal for a D'Appolito where there should be no obstruction between



**The rear panel carries twin ports to acoustically control the bass drive units. The connection panel accepts 4mm banana plugs, spades or bare wires. Gold plated links can be removed for bi-wiring.**

the drivers. Take the grille off though and the issue disappears. It's a small point: there will be minor interference effects at a low seating position, a phenomenon difficult to aurally detect.

There are height adjustable spikes to stabilise the cabinet and anchor it down, and cups to prevent floor damage. Rear connection is through bi-wire terminals, with shorting links for mono-wiring.

## SOUND QUALITY

I ran the LX-4 MkIIs from our Creek Voyage iA20 amplifier, via Chord Company Signature Reference screened cables. The Creek's internal AKM digital convertor was fed CD through a QED Quartz glass-fibre optical cable. Hi-res and DSD digital came from a MacBook Pro running on battery for electrical isolation, feeding an Oppo UDP-205D via USB (from an Audirvana+ software player) to exploit its ESS ES9038Pro DAC.

Small side note: the iA20 has isolated digital inputs to avoid earth noise currents infecting and affecting the digital convertor, as can alarmingly happen our measurements show. So I need not run from battery with the iA20 Mike Creek says, but generally it is the safest option.

Clearly hearing the difference between DSD and hi-res of poor quality (as much is) through the Missions, I wheeled in LP courtesy of our Timestep Evo Technics SL-1210 Mk2 Direct Drive turntable, its SME309 arm fitted with an Audio Technica OC9X MC cartridge feeding a Pro-Ject Phono Box RS2 via balanced input, balanced output going to the iA20 through Chord Company Epic cables. All-balanced LP then.

To jump straight in, after a long run-in of 80 hours (important) the LX4 MkII had a full balance with strong bass and – at times – obvious upper mid-band. The "at-times" bit alludes to my Fleetwood Mac hi-res (24/96) test tracks where there was tizz in the cymbals and hi-hats from Mick Fleetwood's drum kit.

As Audirvana+ worked its way through a list of compiled review tracks it was obvious that the Missions were fine with high quality CD, the vivid guitar strings of Nils Lofgren's acoustic guitar



**The tweeter face plate has been profiled to allow the bass/mid units to get close, minimising phase problems at crossover.**

in Keith Don't Go (CD) sounding acceptably bright, the bells and triangles in Cyndee Peters' House of the Rising Sun (DSD | 28) stabbing out strongly yet sweetly. There was a wealth of treble insight, grilles off. With poorer quality CD I resorted to putting the grilles on to slightly damp down highs.

Josefine Cronholm's vocals came over as natural and easy with In Your Wild Garden (CD), plucked acoustic bass behind her sounding strong yet controlled; firm, rumbling lows moved the room nicely. The LX-4 MkIIs had a dark neutral flavour from their woven fabric drivers, free of metallic zing.

Spinning LP the Missions suited high quality cuts such as High Masekela's Hope, and the latest Abbey Road re-master. Cymbals in Dire Straits Walk of Life (Mobile Fidelity 45rpm re-master) were a tad obvious, as were Carol Kenyon's vocals in Dance With Me (12in 45rpm single) that became a little harsh, the tweeter making obvious recorded limitations I suspect (this is a 1980s disco 12in, 45 with severe wallop).

I got a second view from my son who, without any prompting, thought they were well balanced if a little dense with vocals and occasionally a bit sharp up top. They were impressive at the price though (he plays acoustic guitar and electric with valve PA cabinet, having a keen young ear).

The picture moved up a notch with our Icon Audio Stereo 30SE single-ended valve amplifier in the driving seat. There was more apparent bass, giving a larger,

warmer low end, almost certainly due to lower electrical damping in the amplifier. This brought even more weight to the sound and, as usual with an SE, there was a liquid sense of musical progression, plus better lucidity across the midband that made vocals float freely. Some of the sense of midband warmth or denseness that I thought came from the fibre drive units eased with LP feeding the valve amp. in an all-analogue system.

Treble, whilst still obvious, gained some lustre.

The amplifier's output level meter showed just a few Watts being used even at high volume. The Missions suited this amplifier: we were both impressed by their sense of scale and dynamic life. If you have a low powered valve amp this 'speaker is a worthy partner.

**CONCLUSION**

The Mission LX-4 MkII floorstander is a lot of loudspeaker for the price. It has plenty of bass power, deep rumbling lows being common.

Vocals were set against a dark background and upper treble was strong, bringing plenty of apparent detail. They did not sound overly bright with well recorded material, but with poor CD or LP there was some edginess at times.

Fed decent digital or quality analogue from LP, especially from a valve amplifier, the LX-4 MkIIs managed very well all the same and at the price are amazing value.



**The grille will attach and hold either way around but the large aperture should be at top for a classic Mission array. The handbook omits to mention this issue.**

**MISSION LX-4 MKII £399**



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**MEASURED PERFORMANCE**

Our third-octave analysis of pink noise shows frequency response extends from 50Hz up to 20kHz. The rear ports (red trace) are both tuned to around 45Hz, as the impedance trace dip confirms. There is some slight lift across the lower midband to add a sense of body to the sound, bass extending smoothly downward (without foam bungs supplied) to 60Hz.

There is a rise in tweeter output as it comes into play above 3kHz, relatively mild at +1dB or so across the upper midband, increasing to a 3dB peak at 9kHz. Lack of a dip at crossover and this treble lift will give the LX-4 MkII a bright balance, the grille offering slight reduction.

Bass output has been tailored for use close to a rear wall in small to medium rooms, up to 16ft long or so, optional foam bungs pulling level down for use in a room that booms. The LX-4 MkII is not a bass heavy loudspeaker, being balanced for accuracy after taking into account room gain.

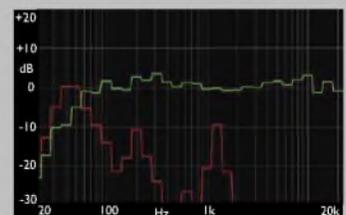
The LX-4 MkII's 4 Ohm bass unit is relatively sensitive, giving 89dB sound pressure level for one nominal Watt

(2.8V) of input. It needs no more than 40 Watts to go very loud, suiting low power amplifiers.

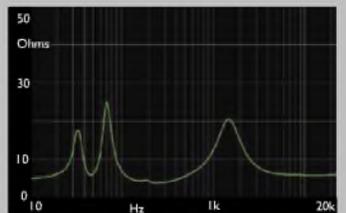
High sensitivity is an outstanding feature of Mission's LX-4 MkII. Raised treble will give a bright balance and make it critical of poor recordings though. **NK**

**FREQUENCY RESPONSE**

**Green** - driver output  
**Red** - port output



**IMPEDANCE**



# "The Russian factory workers were determined to keep the plant running and fought back"



Noel Keywood

Last month I mentioned the mysterious Mike Matthews twice; for some reason this man has adopted mythical status in my head since I was told he funded Hendrix's move from New York to the UK, accompanied by Chas Chandler.

Don't know whether this is true but in the process of trying to find out I've managed to clarify much about current day valve (tube) production for hi-fi amplifiers, plus the curious story behind Mike and the Sovtek factory in Saint Petersburg, Russia, that he bought.

This is a story worth telling, since it brings us into strange territory concerning the break up of Russia after 1991 and how Mike Matthews (born 1941), who owns and runs New Sensor Corporation, based in New York, ended up buying a Russian tube plant.

I've heard obliquely about all this from people in the UK, discovering for myself only recently that the man appears in a number of YouTube videos where he gives first-hand accounts of his exploits. For the most part however he talks about guitar pedals – a subject beyond me – which I sat through to extract the hi-fi related stuff here and clear my own confusions about all the different brand names and how they relate to him, the Russian factory, or both.

Mike comes at the subject of tubes from a music industry perspective: he says around 80% of the tubes sold by Electro Harmonix go into FA amps for stage use by musicians. The rest go to the hi-fi business, after which he assures the interviewer that there's nothing better than a tube amplifier – and it's a fallacy that transistor amplifiers can sound as good. Which helped me write this column!

What I also note is that in interviews he wears an Electro

Harmonix tee shirt and talks predominantly about its products, yet this is just one of New Sensor's brands – and many associated names.

It seems New Sensor buy in tubes from the Russian Sovtek factory and sell them on under various brand names they have bought and own, notably Tung-Sol, Electro Harmonix, Svetlana, Sovtek and Gold Lion. What the difference is between these brands – if any at all – is a mystery to me. I see, for example, Tung-Sol is a registered brand name of 'Electroharmonix' on their website but the data sheet has New Sensor Corporation printed on it, together with their New York contact info. No mention of where the tubes are made, nor that Tung-Sol was an old US brand name.

In his videos Mike explains that tube design is carried out at the Saint Petersburg plant and "they have plenty new designs coming up". He also describes it as a small plant, presumably in comparison with China's Shuguang factory, rather than JJ of Slovakia. I heard no information on the popular KT150 that is a recent design from Sovtek, sold under the Tung-Sol brand name.

Gold Lion tubes were originally linked to Marconi-Osram in the UK, as you might guess from the 'Lion' bit, the prefix Genalex being used in the USA. They too are made either by Sovtek or Reflektor, depending upon which website you read – and here is yet another confusion, one that Mike explains in an interview about his "tube problems". It's here we get to hear how, as a native New Yorker, he got to acquire a Russian tube plant.

In 1991, when the Russian economy collapsed, the Reflektor plant largely served the military. Tube production was just part of what went on there, in its own separate factory. Losing their military market the company took out loans they

were unable to repay, so faced collapse.

Informed of this Mike says he chose to buy the tube plant to continue production. But it didn't go smoothly. The other part of the Reflektor factory was bought by a Russian group that wanted the tube plant closed, so they could take over the entire site.

Mike refused to sell to them, so they resorted to strong-arm tactics, such as shutting off electrical power. The factory workers, however, were as determined as Mike to keep the plant running and fought back.

Backed by publicity in the US from NBC and the New York Times (that presumably he organised) Mike complained about harassment to a department of the Russian Government headed by president Vladimir Putin and was given their full backing, bringing his problems to an end.

This brought stable independence to valve production and a new name for the plant, Sovtek.

Sovtek today is part of what Reflektor was long ago. In interviews there was little from Mike on new products from Sovtek, leaving me to wonder how much interest and involvement he has with them today. Are they now an independent Russian company outside his control?

Mike isn't mysterious at all, as I said earlier. He's a tough and determined businessman and muso, as he makes clear in interviews – well known, even adulated, in the USA. How he fought to maintain valve production in Russia I found totally absorbing and the unravelling of all the brand names and their heritage an education.

But on Hendrix there was little. But not to worry, what Mike Matthews does say is worth hearing. Especially to anyone who worships Hendrix and valves! ●

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# "She saw Mott guitarist Mick Ralphs bending car aerials in Germany"



Paul Rigby

I've always had a sneaking admiration for Mott The Hoople. It was David Bowie's fault of course. Everything in my early to mid teens was David Bowie's fault. He was in and around the fabric of my existence like a never-ending roll of bubble wrap.

And I remember Mott's hit single 'All the Young Dudes' pouring into the family car from the radio during a sudden outing. This was one of my dad's Sunday 'runs'.

"Do you fancy a run?" Would be his early Sunday query to us all, as he jingled the car keys. My sister and I eagerly agreeing because there was a 50:50 chance of an early-evening cafe visit, quite possibly somewhere within the Monaco of the Welsh Riviera, Rhyl.

Whereupon my Dad would scoot out of the city, head for Wales and skip across border. He would roar (as only a Morris Marina can roar) into the country and, like Apollo II during re-entry, the edge of the bonnet turning white hot with enthusiasm, career down any random country lane that took his fancy. For no other reason than to see what might be around the next corner.

"You're lost, aren't you Brian?" Would ultimately be my mother's pithy question to him, voiced through a frown and a sigh.

It was on such a journey, while we were in the process of becoming lost, that I heard Mott The Hoople's finest. And then the DJ's revelation that David Bowie was involved in the song's creation. Him again.

But Mott The Hoople stuck with me. As did the question, "Why doesn't he take his glasses off?" when on TV. Along with "Surely he can't see anything in those dim studio lights." And "Are they there to hide an embarrassing scar, perhaps?"

That was my associated fascination with the lead singer, Ian Hunter and his shades, which never left his face.

What also got me was the band's names. Pretty amazing for a boy of thirteen. They remain so to this day. Names like Verden Allen and Peter Overend Watts were plucked ripe, directly from a Victorian book of horrors penned by Edgar Allan Poe or, possibly more aptly, HP Lovecraft.

But what of Ariel Bender? What, indeed, of Ariel Bender? His real name was Luther James Grosvenor – a name that, oddly holds surprising gravitas of its own. This was a moniker suggested by teeny, tiny wholly lovely singer-songwriter, Lynsey de Paul (now there's an under-rated song writer) because she saw Mott guitarist, Mick Ralphs bending car aerials in Germany. As you do.

It was when the camera of my life began to pan backwards that I realised the music business is packed with fantastic names that suit music but possibly not plumbing or fronting the Women's Institute.

Would you buy a pot of jam from a little old lady named Laura Nyro?

Staying with ladies. How about Vashti Bunyon? In my naive youth, I always thought she was possibly dragged from Indian descent. To

find out that she comes from Newcastle didn't quite have the same cache.

So why do these names even exist? Why do singers insist on calling themselves names that could only possibly emerge from the fevered brain of JRR Tolkien?

Because no one thinks they will 'make it' if they bounce onto the stage at the Hammersmith Odeon to the strains of, "Ladies and Gentleman, the one, the only, Reg Dwight!"

It still confuses me, though. Mainly because Ariel Bender's real name really does sound rather good indeed, for any musician. I actually think that Luther had a good thing going for him there and might have taken an unnecessarily wrong turn. But hey, what do I know?

But it can cause issues. It can cause problems. It can even have an effect on one's money-earning potential and a chap's image.

Take Thelonious Monk. That genius of the jazz piano. The problem with fancy-dan names is that people, who might not be readily in the know, can miss hear. It can confuse.

Bill Smith, to take a label at random, is pretty straightforward and direct and easy. It's easy to say and also easy to hear. Thelonious Monk is not.

Which is why one record shop, based in London, UK received a call from an older lady asking for a new record from "The Loneliest Monk". A name, like Luther Grosvenor, I actually quite like and frankly prefer.

Like Ariel, I think Thelonious may have slipped up there. ●

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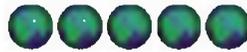
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"It appears to be 3D printed by a Polish seller and is an excellent copy"



Martin Pipe

**M**any years ago, I was the proud owner of a Digital Compact Cassette (DCC) deck. I felt the format bridged the gap between the analogue and digital worlds, being able to play my existing tapes (surprisingly well, it has to be said) while making pristine digital recordings free of hiss and pitch instability.

DCC was an early application of 'lossy' digital compression, the technology (PASC) employed by the format's inventor Philips being almost-identical to what underpins DAB radio.

When launched nearly thirty years ago, DCC sounded better than its rival – Sony's MiniDisc, an arguably more elegant format that used ATRAC digital compression. Its CD-like random-access to music was a definite draw.

The audible gap between ATRAC and PASC closed, and the final generations of MiniDisc decks managed to surpass DCC in sonic terms. By then though, I had moved over to making uncompressed digital recordings with solid-state portables, PC HDD recording and CD-R.

However, I acquired DCC decks as opportunities arose. Just as well; I had amassed a collection of DCC recordings, ranging from interviews (captured with a DCC170 'personal') to concerts taped off-air.

The problem with these and other obsolete formats is that you can't pop down to your local retailer and buy replacement hardware because it hasn't been made for years. Only formats that will appeal to high-end audiophiles – reel-to-reel decks, for example – are being renovated or re-built,

prohibitively-expensive for most tape enthusiasts. With old Teacs, Revoxes, Sonys and Akais of 1960s and 1970s their electro-mechanics need ingenuity and 'substitution surgery' that – with a little luck – will allow them to carry on playing the recordings of yesteryear.

Such fixes are less likely with the more sophisticated consumer products that followed, among them VCRs, fax-machines, CD players and of course digital recorders. Designed with the aid of computers, they relied increasingly on purpose-designed components like application-specific chips, head-drums and intricate gears. If such a machine is broken because one or more of these parts has failed, you're stuck if 'new old stock' replacements or 'second-hand spares', removed from donors, are unavailable.

If not retained for use as parts donors, broken products tend to join modern consumer goods in the recycling centre. I've seen them – and rescued them! – but I'm in the minority. In most instances, a second-hand working machine is then acquired to continue playback of the obsolete media, preferably for transfer to newer media.

Which brings me back to my DCCs. One of my favourite decks is the Philips DCC300, a robust midi-sized machine with coaxial input/output and sideways-in mechanism. It doesn't use the horrible surface-mounted capacitors that blight other gear of this era.

However, there's a problem with the DCC300 and other second-generation decks. Basically, it suddenly stops working – in my case, halfway through a transfer. The tape isn't taken up, leading

to loops; rewind/fast forward no longer function. Reason is a rather complex two-piece gear that couples the reel motor to the spool carriers fails; basically, the plastic chosen by Philips goes brittle over time. It cracks, or teeth are lost.

So, an otherwise-serviceable DCC machine is rendered useless for want of a part that's no longer available? Not if I can help it!

Google brought me to a video made by the Californian 'DCC Museum' that could come to my rescue with a newly-made part. No mention of price was made, and so I enquired by e-mail. I was told it would cost nearly £30 including postage, and that I'd also have to subscribe to the museum via Patreon for at least a year (another £30 or so). You're forced to do this (apparently, it "keeps the Digital Compact Cassette alive") rather than donate voluntarily. Yet I was happy to buy the part, on which a profit is presumably made.

The museum (which, I was told, is run by volunteers) also preserves equipment – and 'produces new music' on DCC.

But why would you want the latter? Better, surely, to use what life remains in obsolete (and surpassed!) gear to save existing recordings?

Luckily, I found what seems to be exactly the same (distinctively-red) part on eBay for just under £30 all-in. From a commendably-responsive Polish seller, it appears to be 3D printed and is an excellent copy.

My Philips DCC300 digital cassette recorder is now working again. Hurrah! Maybe 3D printing will, by similar method, save other hi-fi gear too. ●

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HI-FI WORLD



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# "The original set up was packed with old elastic bands"



Dave Tutt

**T**urntables. Its funny but sometimes I don't see one to repair for a year then they turn up all at once. I have had a few recently.

First simple one was a Dual 503 with some missing bits including the belt and a counterweight for the arm. A new stylus for the Ortofon disco cartridge and a raid in the scrap box for the other parts put it back together. The counterbalance was a bit of a pain until I looked in the right box.

Second one was a Thorens TD124 with vibration; the owner told me he had swapped the motor bearings. Running the thing suggested the fault was still motor related.

The bottom motor bearing had been replaced but was loose in its cup and the cup itself was not located on the bottom plate. Rather than a tight fit well located with rivets, it was held by undersize nuts and bolts. The bearing itself was a loose fit with the shaft too – so not a good starting point.

With the motor in bits I found the top bearing hadn't been changed. It's a bit of a time consuming job as there are plenty of wires to remove and you have to ensure you get it right when they go back.

There also seemed to be something missing inside the motor as the float of the armature was huge – almost 0.6mm which was stealing some of the torque. Top bearing was loose too so worn out I guess.

Drilling out the rivets and putting new bearings in made things slightly better but the cup and its new bearing didn't really go well together. A little

adjustment to the shape of the top plate with a vice and a socket put things right.

I could not do much else here as there are no replacement motors so I had to work with what I had.

With the correct spacers on the motor shaft and everything reassembled the issue of its mountings came into question. The original grommets were worn; adding in some better, softer buffer pieces improved things no end.

The big test is the replacement of the belt and seeing if it will spin up. It didn't really like that – but then the motor had stood for a long time and as usual with these sorts of motors if stalled for any length of time they become magnetised and will no longer start. A manual spin of the motor with it powered got the thing running.

I left the motor running, well oiled, for a couple of days just to be sure. I have a 2 litre bottle of sewing machine oil which is ideal for both sewing machines and light duty motors such as turntable types. A test of speed stability suggested it was working fine.

The supplied mounting plate was a nice piece of slate cut oversize with large spiked feet – giving a skeletal look. The feet were somewhat short as the bolts to locate the turntable and the motor itself both hit the desk when assembled. Not ideal even with the legs and spikes sitting in the anti scratch cups – it wasn't quite right. The motor should hang on its mounts – not rest on anything.

The original set up was packed with old elastic bands so with these removed the motor sat better on the bed plate but I did

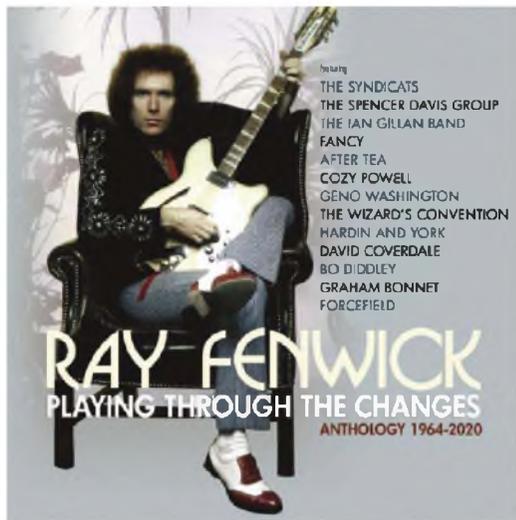
modify the mountings as it was likely that the weight of the motor would pull the bushes out. I fitted large rubber washers on one side of the motor and used soft Garrard 401 bushes on top of the existing ones. This set the pulley height correctly and stopped the bottom of the motor sitting on the table. Possibly part of the vibration issue as there were rubber feet on the bottom of the motor installed by the owner. Minor adjustment of the magnet in the speed control and it was ready to play.

I now had a working turntable with minimal vibration so the next job was the strobe. Thorens fitted a small bayonet bulb of around 1 Watt to illuminate the underside of the platter, fed 120 Volt AC from a centre tap on the motor windings via a 33k 2 Watt resistor. The bulb was blown so where to find a replacement? It realistically had to be a filament type rather than LED as it had to sync / flash with the mains frequency. There are a few available but tend to be rather bigger and hence higher wattage and thus much hotter. Difficult. I think this is a 12 volt bulb too.

Alternatives are of course LED but would have to be re-engineered and with no plinth to hide it it's going to be obvious. Then my own light bulb lit up. Change the resistor to 10k fit a series diode and four white diffused 5mm LEDs in what remained of the bulb and let it flash to the incoming mains frequency. Bingo! Heat shrink to make it safe and all was well.

It remained to tidy up and fit the supplied SME 3009 fixed pickup arm and arm board and fit a temporary cartridge to test it. Result! ●

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RAY FENWICK

Playing Through the Changes:  
Anthology 1964-2020  
Lemon

And some of you will no doubt be saying, who? While others will be asking if he played in the defence for Queen Park Rangers? (that was Terry). Ray wasn't a star. He was an essential part of rock, though.

He started in the sixties with a band called the Syndicates, replacing superstar Steve Howe. He joined the Spencer Davis Group – after Stevie Winwood left. Is there a pattern beginning to form here? Played along with the Ian Gillan Band and slightly obscure outfits filled with star names like Forcefield (who featured Jan Akkerman and Cozy Powell) plus the Guitar Orchestra (including Procol Harum guitar man, Mick Grabham). Put it this way, the man has been around, in the nicest possible sense.

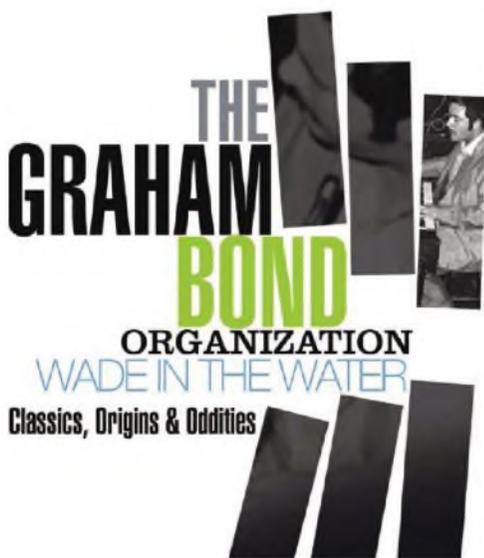
And because of that, because of the sheer variety of people he's teamed up with, the places

he's been, the experience he's racked up and the fact that this was a guy who was wanted by all of these people tells you something about the man's calibre and his guitar chops.

This 3CD career overview (plus booklet) is a fascinating compilation in its own right, filled with obscure tracks from obscure bands, little heard numbers and fascinating teams of creatives, doing their thing. For goodness sake, the man co-wrote the theme tune for the children's TV show 'Maggie'. Playing it with the rest of the Spencer Davis Group under the pseudonym The Murgatroyd Band. In my eyes, our Ray achieved legendary status right there and then (and that track is included here).

This is a compilation so mastering quality varies according to the source but, in general terms, Lemon has done a great job to keep the noise floor low and the sound quality high.

AUDIOPHILE CD



THE GRAHAM BOND ORGANIZATION

Wade in the Water  
Repertoire

The GBO, as it was often known, emerged from the Alexis Korner Blues Inc. The first four members of the GBO had all played in the combo. To play with Korner was a risk because Bond, for example, was seen as a jazz man and had even won awards for his early work as a youngster but the UK jazz scene of the time was a mite straight-laced and stern and Bond wanted more. Jazz players didn't play in blues bands, so Bond had to use a pseudonym.

On his own, fronting his own band, he continued this mindset and served as a host for a forum of talent. People came, they went but they were always notable and they always added something to the collective.

So you're talking about people like Jack Bruce and Ginger Baker (this set includes

Baker's first vocal, incidentally), John McLaughlin, Keith Emerson, Rick Wakeman, Jon Hiseman, Dick Heckstall-Smith, Big Jim Sullivan and more.

This 4CD set is quite a collection, covering a variety of Bond-related line ups across its ninety-six tracks, split across two jewel cases, both of which are held within an outer slip case.

The set has been processed by Pete Brown (ex-Cream) and Dick Heckstall-Smith (Colosseum) from the original 4-track masters. Concentrating on the period between 1963-1967, the set features demos, live tracks and previously unreleased work.

In mastering terms the compiled songs vary in quality. There's plenty of boosted mids here with a slight clinical edge to many but, overall, Repertoire has done a good job retaining sonic discipline.

**I**t was originally a side line for Jefferson Airplane chaps, Jack Casady and Jorma Kaukonen. Hot Tuna were formed while the Airplane was going great guns, which meant that Hot Tuna concerts were quickly arranged in between Airplane work.

Apart from the two, the group was enhanced by Will Scarlet plus occasional appearances by Airplane members Marty Balin and Spencer Dryden.

The group's self-titled, low key jamming debut appeared in 1970 filled with restrained blues and creative expansion. Recorded live at the New Orleans House in Berkeley, Kaukonen and Casady, both childhood friends, show their obvious connection on this fruitful and tight record.

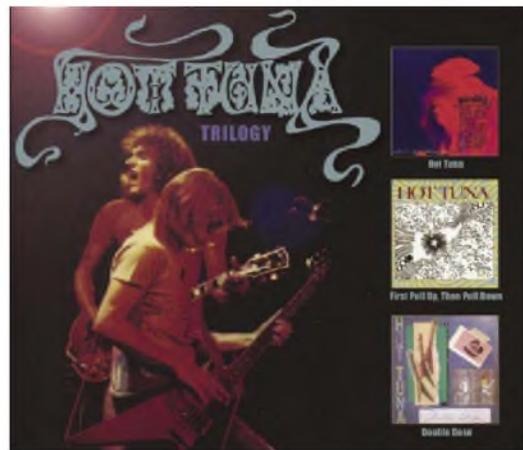
The band were an eager bunch and another LP followed the year after. 'First Pull Up, Then Pull Down' was possibly less interesting yet remains a fun

outing. It was more rock oriented and flew nearer to their Airplane work outs. It featured violinist Papa John Creach in the line up and drummer Sammy Piazza.

Both of these albums feature in this 3CD set, that's held in a large jewel case along with an informative booklet.

But there's a third album here too. 'Double Dose' appeared later, in 1978, a year before the band split. A 'live' double album (with studio enhancements), this outing played into the band's jamming strengths. Because it's a double, this album runs over the later part of CD2 and all of CD3.

As for mastering? I like it. There's a slight 70s glow around the soundstage. A cosy, slightly warming feel from the vocals and bass guitar but that's balanced by the broad soundstage. The upper mids don't appear to be rolled off, though. There's real steel-like insight from acoustic guitar picking for example.



## HOT TUNA

Trilogi  
Floating World

# AUDIOPHILE CD

**D**espite his pioneering efforts, Scott is largely forgotten as a figure in music.

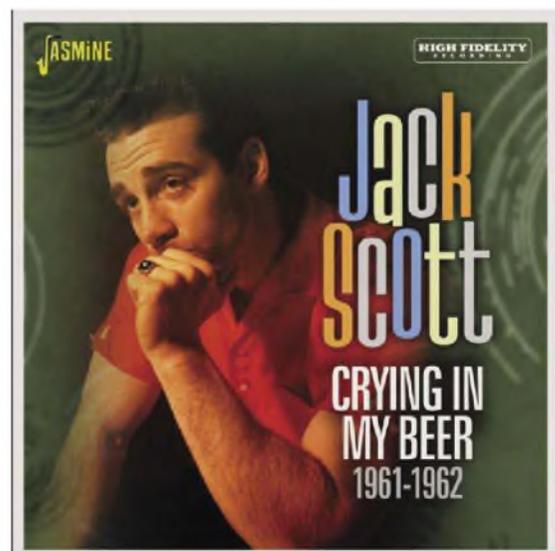
Why? After all, he had a great voice. He was right up there with Elvis Presley and Roy Orbison. He also had a superb backing group known as The Chantones which were as accomplished as Elvis' Jordanaires. Scott wrote his own songs, Elvis didn't – and Scott was a talented guitarist (ok, Elvis was a decent rhythm guitarist, according to Johnny Cash).

Was Scott's problem, as Goldmine Magazine's Phill Marder explained, that he never courted scandal or died before his time? Jack Scott "...never created headlines by dying in plane or car crashes, by marrying an underage relative or transporting underage females across state lines, by quitting to become a minister or committing suicide or anything

else guaranteed to garner attention, even before today's 24-hour news blitz".

This is a fascinating CD because it's filled with Scott's work at Capital, a torrid time for the man. "It wasn't me any more" Scott said. "When I was with Carlton and Top Rank, they let me do what I wanted to do. They built the records around me. On Capital the producer would get the wild track going and say 'this is the trend of music that's happening today' and try to get me to do it. It might have been happening but it wasn't good for me...there were songs that I had no business doing".

A collection full of tension then. From the single 'A Little Feeling (Called Love)' to 'My Dream Come True' this is the sound of an artist in conflict with his record label. The cover art tells the story in a single frame of anguish.



## JACK SCOTT

Crying In My Beer, 1961-1962  
Jasmine



# 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 comprised 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 delves 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 slick 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 finished 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 phono stage 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 phono stage 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 phono stage 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 VS16D** £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 VSI75** £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. Spondor'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  
PP3 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 8200CDQ** £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 MKIII** £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.

**ELECTROCOMPANIET 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 converter with great sound at a great price. Cuts upper treble, though.

**NAIM DAC** £2,400  
Superb high-end digital converter 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 entrancing 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 taught, 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.

**LOTOD 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

**BAYAN 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.

# Playing a Waltz

**Martin Pipe discovers an unexpected ingredient in the 'S' upgrade of an existing Black Rhodium 'speaker cable.**

In recent months, Derby-based cable specialist Black Rhodium has been upgrading (or, to borrow its phraseology, 'supercharging') its hand-assembled products. This work – which has its roots in the exotic £5k-per-3m-pair Charleston loudspeaker 'super-cable' I reviewed last year – involves "developing components, materials and design techniques to minimise all forms of audio distortion in cables...in accordance with the laws of physics". Sometimes products are completely-re-designed before they are awarded the 'S' suffix. This is certainly true of the Waltz S, which – at £900 for a 3m pair – sits roughly halfway in Black Rhodium's current range of speaker cables.

MD Graham Nalty's research

efforts have yielded some interesting outcomes. Over ten years ago, Black Rhodium sold a relatively-inexpensive speaker cable (£200 per 3m pair) called the Jive. It performed very well, and indeed won this magazine's 'Best Loudspeaker Cable' award back in 2009. At the core of the Jive are signal-carrying wires consisting of 30 0.25mm-diameter tinned-copper conductors, "held in a silicone rubber sheath". These very same conductors, I was told, also run through the significantly more-expensive Waltz S as featured here – the 2018 predecessor of which appears to have been based on an enhanced version of the midrange Quickstep. Nalty confirms that the 2018-model Waltz was "constructed differently, using separate screens and vibration-

reducing braid for each core".

How did this odd situation arise? In his own hi-fi system, Nalty used a speaker cable that was "very similar" to what became the Waltz S – specifically "a high-end version with extra components". As originally-conceived, its more exotic conductors were the ones he was considering for the then-in-prototype Waltz S. During listening tests, he got the impression that despite being "very clear", the overall presentation veered towards "bass-lightness and prominence in the treble". He therefore decided to switch to the Jive implementation as it "delivered a more neutral sound". Nalty evidently spends much of his time carrying out this sort of evaluation, as part of his "extensive testing of many different cables and



components”.

The original Waltz differed from the Quickstep insofar that tightly-braided screening was used to reduce the “distortion effects of high-frequency interference”. Likewise, the Waltz S also benefits from such considerations; Nalty explained that there are “additional screens to reduce RFI/EMI”. Like the original Waltz, the ‘S’ version is fitted with the GN-1 “Straight Line Contact” 4mm banana plugs, which are claimed to deliver “cleaner” sound than traditional ones made with “full circumferential contact” (spade terminations are also available). These plugs, unavailable elsewhere, feature a screw that clamps to the cable’s outer insulation.

They are specially manufactured to Black Rhodium’s specifications. Rhodium-plating of the signal pins (and spades) ensures a cleaner and less corrosion-prone contact, the benefit being a “livelier and more exciting sound”. The conductor is attached to the plug by a tightly-crimped ferrule to ensure intimate contact; also inside the plugs are small ferrite beads that are intended to prevent high-frequency interference from being transmitted through the

cable. Plenty of interesting design factors, then; “Waltz S,” I was told, “is essentially the sum of its parts, assembled in a way that gives customers the very best sound for their money”.

I used 3m review samples of the Waltz S to connect Quadral Aurum Wotan VIII speakers to my Cambridge Edge W, which is fed with digital source material via the matching NQ streamer/pre-amp. The build quality of these cables, which are covered by an unusual woven jacket, befits the not-inconsiderable price. Those GN-1 plugs proved to be good positive fits with the sockets of power amp and speakers alike.

Also positive were impressions of sound quality – after the recommended 100-hour burn-in. Listening to a 2018 recording of Mozart’s Piano Concerto No. 21 (Yeol Eum Son, Academy of St Martin in the Fields/Sir Neville Marriner) I found that they made a worthwhile contribution to a natural and detailed soundscape.

A lot’s going on there; with comparatively stripped-back Blue Coast-type DSD content, the Waltz S was capable of laying bare the subtleties – one of the reasons for this is a perceptibly

‘blacker’ background silence, which is probably the effect of Black Rhodium’s attention to RFI matters.

Apart from slightly-reduced impact at the lowest frequencies, revealed by tracks like Boards of Canada’s An Eagle in your Mind, and Wide Open by the Chemical Brothers and Beck, I feel that Black Rhodium claims of neutrality are substantiated. Everything’s as it should be in tonal terms, no performer or instrument being given undue prominence. Fast and propulsive rhythms (e.g., Talking Heads and Kraftwerk) were also conveyed well.

**CONCLUSION**

Odd though Black Rhodium’s design rationale may be – base your new midrange speaker cable on the core element of a ten year-old budget audiophile product – it does appear to work, due to the soundness of the original design and the enhancements that have been added. Worth a listen.

**CABLE LENGTHS**

£1,300 (5m pair). Terminated in either GN-1 plugs or ‘spades’. Custom lengths also available.



**BLACK RHODIUM WALTZ S £900 (3M PAIR, AS REVIEWED)**



**EXCELLENT - extremely capable.**

**VERDICT**  
Another cable gets the ‘S’ treatment.

**FOR**  
- detailed and clean presentation

**AGAINST**  
- a slight reduction in lowest-frequency impact

Black Rhodium  
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# vinyl section

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JULY 2021

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A hybrid valve/FET phono stage captures the attention of Noel Keywood.

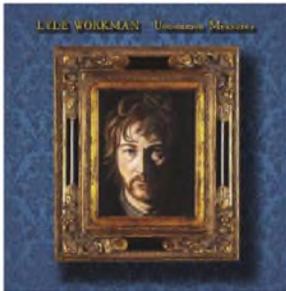
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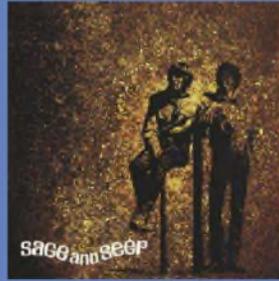


**LYLE WORKMAN**

...offers 'Uncommon Measures' (*Blue Canoe*; [www.bluecanoerecords.com](http://www.bluecanoerecords.com)). A US-based guitarist, film composer, session musician and music producer – that's where this album comes from. An impressive instrumental rock outing fusing a range of orchestral and electronic themes. There's a bit of Steve Hackett in there, some Jan Akkerman...

**MARIANNE FAITHFULL**

...is joined by Bad Seeds man Warren Ellis, combining music and poetry from Shelley, Keats and Byron on 'She Walks in Beauty' (BMG). Here, Faithfull reads, backed by sonics from Ellis. Bottom line? It's an attractive ambient album. Anyone who loves the art of delivering fine diction will warm to the voice.



**WAH WAH**

This superb selection from the Spanish audiophile outfit begins with 'Sage and Seer' (*Wah Wah* [www.wah-wahsupersonic.com](http://www.wah-wahsupersonic.com)), a psyche-pop outing with strong harmonic folk flavours: it has been reissued for the first time since the original 1969 release. Including baroque and acoustic arrangements, this is a fascinating pastoral curiosity. Includes a booklet and two, non-LP, bonus tracks.

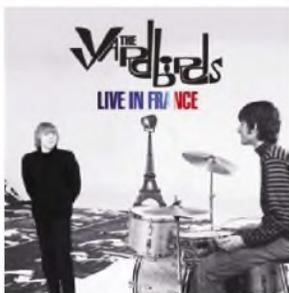
Another reissue and on the same pathway is France's prog/psyche release with experimental folk elements 'Kännlich'. It ploughs a pastoral furrow but there are Krautrock-esque other-worldly elements to spice the fun.

Hardcore krautrock, Between's 'And The Waters Opened' was originally released on Vertigo in 1972 via Peter Michael Hamel. A series of instrumental drones, complex Eastern-influenced melodicism and synth work. Think Popol Vuh or Ash Ra Tempel.

Also look out for Bazali Bann's 'Action', an afro-funk release, via Almon Memela, from 1975.

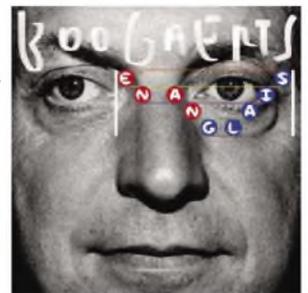
**YARDBIRDS**

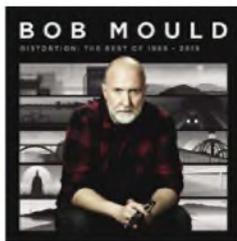
Including booklet notes by Chris Welch and interviews with Jim McCarty and Paul Samwell-Smith, 'Live in France' (*Repertoire*; [www.repertoirerecords.com](http://www.repertoirerecords.com)) is a mono pressing, featuring both Jeff Beck and Jimmy Page in live recordings from 1965. Namely: Europe I, Palais des Sports broadcast, 20 June 1965; Live At Grand Spectacle de Jeunes, 30 April 1967 and Live on French TV Bouton Rouge, 9 March 1968. Classic fare.



**BOOGAERTS**

...has just released (en Anglais) – with brackets apparently. Mathieu Boogaerts (for it is he) offers a delightfully quirky, rather sweet, inherently gentle but basically melodic LP of delicacy and thought. Beautiful.





### DEMON

Four from Demon ([www.demonmusicgroup.co.uk](http://www.demonmusicgroup.co.uk)) includes a reissue of Suede's 'The London Suede' (1993).

Hüsker Dü and Sugar man, Bob Mould's 'Distortion: The Best of 1989-2019' features twenty-four tracks from a two disc-gatefold sleeve. Most are solo efforts although two are from his bands, Sugar and LoudBomb. Full of melodicism and hard alt-rock, the man is still full of rage (witness his recent 'American Crisis': not on this collection unfortunately).

Also look out for The Young-Holt Unlimited's 'The Beat Goes On' (Brunswick) a soul/jazz LP from 1967.

While the Aussie pranksters, Mental As Anything offer 'Surf & Mull & Sex & Fun' a 'Classic Recordings' 2LP hits package. You'll remember 'Live it Up' from their regular Top of the Pops appearances. I always thought they had an ABC feel to them.



### EVE

A slice of reissued hip-hop now over two LPs, Eve's 'Scorpion' (2001; Ruff Ryders/Interscope) includes the single 'Let Me Blow Ya Mind', a duet with Gwen Stefani. With a strong, feminist core running through the LP, the album can sound like her own reality TV programme.



### JULIA ZAHRA

The youngest ever singer to audition and win 'The Voice of Holland', the Dutch edition of 'The Voice' – an achievement that would normally ban her from these pages – this LGBT artist does, to her credit, offer an appealing soulful melodicism via 'Remedy' (Zip; [www.ziprecords.com](http://www.ziprecords.com)).

Hopefully she can put her misdemeanours behind her and concentrate on singing. Worth monitoring.



### CLARK

'Playground in a Lake' is Clark's first original album for Deutsche Grammophon. Examining the state of the Earth in ecological terms, the album plays with sonic space, widely varies electronica textures – some pastoral some aggressive – with voices playing their part too. It's a grand sweep of an album.



### MATT BERRY

The Mighty Boosh and I.T Crowd comic actor play serious when it comes to producing music. This new album is no pastiche. 'The Blue Elephant' (Acid Jazz) combines psyche pop in a sixties wrapper. Berry plays all the instruments too...except the drums.



### ALEX CHILTON

Ex-Big Star man and established solo act, Chilton released 'Boogie Shoes: Live on Beale Street' in 1999 with the Hi Rhythm Section in Tennessee at the New Daisy Theatre. An album of covers (from Wilson Pickett to KC & The Sunshine Band) this is a real 'good time' LP.



### RINGO!

Ringo Starr's latest EP, 'Zoom In' (Universal) is out and about and includes contributions from Paul McCartney, Dave Grohl and Finneas. He's got quite a phone book has Ringo.



### SILVER SYNTHETIC

From Third Man ([thirdmanrecords.com](http://thirdmanrecords.com)) the band's new, self-titled debut has a vintage, West Coast, smooth harmonic vocal aesthetic. It sounds like long hair, big moustaches, coats with arm frills, a lazy demeanour and long sunsets. This one's for the Woodstock generation who yearn for the old days.

# 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.



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



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# BOBBY WOMACK

THE POET

BMG

"I was at Ronnie Woods's house," said Womack. "Ronnie said to me 'You ever meet Bob Dylan?' I said 'I've seen him but never really met him. I would love to meet him'. Ronnie said 'I'll call him and maybe you can play something together'".

"I'll never forget that when we played, I was looking at him and the whole time he was looking at the wall. I couldn't believe that he would be shy of me. If anything it should've been the other way around, me in awe of him, cuz you know, Bob Dylan is history".

They never talked. Womack did a few things on guitar and Dylan smiled once or twice. That was it. Imagine that.

But then, Bobby Womack worked with the likes of Janis Joplin, Ray Charles, Gabor Szabo, James Brown, Elvis, Wilson Pickett, Ike Turner, Aretha Franklin, George Benson, Patti LaBelle, Wilton Felder, he was there with Sly Stone on the There's A Riot Goin' On sessions...even Damon Albarn. The man was everywhere. Knew everyone. He was part of music. When he wasn't singing it, he was writing it for others. Ask The Rolling Stones who had a decent hit with the Womack song, 'It's All Over Now'.

Then there was the day he bought a brand new Mercedes 600 after a divorce and Janis Joplin saw it (she then owned a Porsche). She said "How did you pay for a car like this?" Womack said "From people like you paying me for the songs I write". She said "Boy, this is a beautiful car". She was laughing and just on the spot started singing, "Oh Lord won't you buy me a Mercedes Benz. My friends all have Porsches, I must make amends..." She wanted to go back to the studio immediately to cut it. The producer Paul Rothchild said "Janis, can't this wait until tomorrow?" She replied "There might not be no tomorrow".

She got her way and cut the tune as 'Mercedes Benz' for the 1971 album, 'Pearl'. Womack again you see.

You would think that Womack would be happy enough creating for others but no. He

produced a range of his own albums.

Womack released 'The Poet' in November 1981 on Otis Smith's independent Beverley Glen label. The album, his debut release for Beverley Glen, made it to No.1 on the Billboard Top Black Albums chart largely on the strength of the enormously popular single, 'If You Think You're Lonely Now'. The single spent several weeks on the Hot Soul Singles chart, reaching as high as No.3.

'If You Think You're Lonely Now' held a significance because it was an old school soul record that was released at a time when dance music was dominating the charts, and R&B music was being eclipsed.

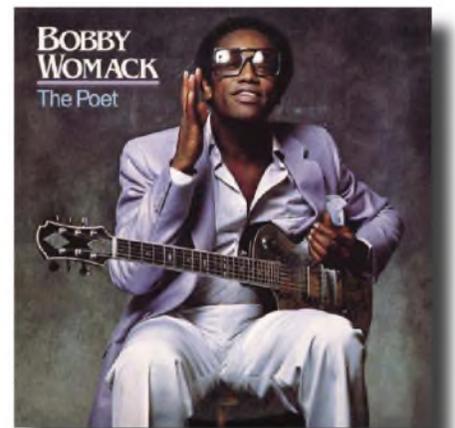
But Womack was all about the past. He was constantly tugged by his gospel roots, when he and his siblings formed a gospel quartet back in 1950s. Which is how he got to know the legendary Sam Cooke. Womack would constantly refer to his friend. Constantly reaffirm Cooke's greatness. He referred to the man and the music he sang. It infused his own works and it infused 'The Poet'.

This album reinvigorated Womack who was suffering from depression, a lasting effect after Cooke's murder in the sixties but more personally the death of his infant son in the late seventies.

The shiny production values of this album aids the romanticism of the songs and aids the long-form nature of some of the songs. 'Where Do We Go from Here' is a prime example with its long intro and outro while Womack's own vocal, which can get a little gruff and textured at times, is pleasantly contrasted by the smooth delivery of the female backing vocals. And I have to say, the sleeve art is quite iconic within the soul genre.

'The Poet' has just been reissued by BMG as a 40th anniversary edition on 180gm vinyl, newly remastered from the original tapes and arriving with expanded liner notes.

And while we're here, also look out for the sequel, conveniently monikered 'The Poet II' (1984), which included duets with Patti LaBelle, including the R&B hit, 'Love Has Finally Come at Last' and arriving with the same specs. **PR**



"the shiny production values of this album aids the romanticism of the songs"

# Roma Play

From Italy the Synthesis Roma 79DC tube phono stage, reviewed by Noel Keywood.

**"A** tube phono preamplifier", as Synthesis of Italy call it, gives the best from LP – but they are rare. To capture the romance of vinyl, the Roma 79DC (£2099) I am taking a close look at here, is just such a rarity – one suitable for both moving magnet (MM) and moving coil (MC) cartridges.

There's a reason a tube (valve) phono preamp is rare – valves are noisy, too noisy for low output moving coil cartridges. There are two work-arounds: use an input transformer or use an input transistor. Transformers are super-quiet but expensive; transistors are quiet enough and less expensive.

Synthesis go the transistor route, so with MC this is effectively a hybrid design fitted with "ultra low noise JFET" transistor input

say Synthesis. With MM however, it's a pure all-valve phono stage.

What to make of this? The transformer route with MC is preferable – it's my choice – but the FET transistor route produces a very nice result and it doesn't require a transistor bias current to be passed through the cartridge, as it is through most silicon chip (non-FET) phono stages.

But how about MM? Treated as a poor cousin to MC, today's MMs are far better than most give them credit for. The gap between the Audio Technica VMS-750SH I like to use and moving coils isn't so great. In the 79DC MM gets connected straight into an ECC83, known for its rich sound. If you want to run MM through valves then, the Roma 79DC looks promising.

That's the basic proposition on offer here. Synthesis package three valves, plus transistors and

other components, onto one circuit board in a case 260mm wide, 380mm deep and 95mm high. Weighing 5kg it's a sturdily built package, with 20mm thick machined alloy fascia. Behind sits a conventional folded steel chassis with folded steel top cover.

Synthesis have their own unusual control methodology, but it's hassle free – no mechanical DIP switches to change. A single push button on the front panel cycles through MM, MC or MC+. The first two settings provide standard gain, whilst the last adds extra gain to MC to cope with low output designs.

Select MM and the left control knob, a rotary actuator, offers a range of parallel input capacitance values. This was a useful way to brighten up warm sounding cartridges in the 1970s but is all but redundant now, modern



designs not sounding warm.

Select MC and the actuator then alters input resistance in eight steps from 25 Ohms up to 1000 Ohms (1k Ohms). The standard of 100 Ohms is provided and 330 and 1000 Ohm options suit high output moving coils. Values below 100 Ohm are experimental: they damp the electrical generator a bit more and can sound slightly 'darker' but differences are slight I've found.

All this loading information is shown on a small luminescent screen populated by blocky low-res characters, but they're large and easily legible in a dimly lit room. You won't be looking from far away though because there is no remote control, nor a volume control. No balanced XLR inputs or outputs either: this is a simple unbalanced stage with phono sockets, as a glimpse of the rear reveals. The chassis houses a linear power supply to feed plenty of volts to the valves, so no external wall-wart power supply either.

Mains earth is connected directly to chassis and the earth terminal, there is no ground lift switch. A simple and safe arrangement but the cartridge/arm will need to be earth isolated or the earth cable not connected to avoid hum. One ECC83 twin-triode provides gain for MM on each channel, whilst an ECC82 twin-triode acts as a cathode

follower output stage, one half on each channel.

A JFET transistor provides gain on each MC input, around x10 being needed here – easy enough to provide. It's likely the JFET stage feeds the ECC83 valve stage so you get hybrid amplification for MC but pure valve amplification for MM, as mentioned earlier.

### SOUND QUALITY

The Synthesis Roma 79DC was connected to our Creek Voyage i20 amplifier that in turn fed Martin Logan ESL-X hybrid electrostatic loudspeakers through Chord Company Signature Reference loudspeaker cables. Signal input came from our Timestep Evo modified Technics SL-1210 Mk2 Direct Drive turntable, with SME309 arm. For MM I used an Audio Technica VM750 SH moving magnet (MM) cartridge and for moving coil (MC) an Audio Technica OC9X SH.

Measurement had shown

significant bass lift (see Measured Performance) so I kicked off with an album that has steady strong lows from synthesiser, Alison Goldfrapp's *Supernature*, since you have to use an album that has deep bass before you can hear what is happening to it. And here the Roma 79DC came across as very obviously bass heavy, to the extent that there was a dominant low drone. Worse, Ms Goldfrapp's voice became thick and dense

sounding because the lift was affecting her lower vocal frequencies, as well as deep bass. Further up the band the sound cleared to become pleasantly open and detailed, as expected from the valve line-up. There was a nice sense of air and space, but this was overwhelmed by what was happening lower down the scale.

With Hugh Masekela's *Uptownship*, from his LP *Hope*, opening kick drum was big and fat sounding and the rolling bass line that followed overly obvious. Yet the man's trumpet work shone out beautifully and highs were strong and sonorous. Ignoring the bass – difficult at high volume – the Roma



**Two Electro Harmonix 12AX7 (ECC83) double-triode preamp tubes and one ECC82 (12AU7) cathode follower output tube provide amplification for MM cartridges. JFET transistors provide further amplification for MC cartridges.**



**From above the Roma 79DC looks dense and complex. At left its toroidal mains transformer is able to deliver high voltage to the valves, through on-board power supply circuitry. Discrete components and small-signal relays are used for best sound.**

# 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

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**The rear panel carries only RCA phono-socket inputs and outputs, lacking balanced connections. All switching is carried out electronically, helping free the 79DC from user-operated mechanical parts such as DIP switches.**

79DC sounded as lovely as valves can sound in this role.

Turning volume down let bass fade backward (due to the ear's lessening sensitivity at low levels) so it became less obvious, or even a benefit as a form of 'loudness control'. But this is a bit of an ad-hoc benefit.

LPs without bass, such as the Trondheim Soloists playing Mozart Violin Concertos, fared differently. Here strings had a delicious lushness to them, yet were vividly clear, and Marianne Thorsen's violin fairly soared in front of them. There was nothing not to like here; quite the opposite I heard what is possible from a good MM cartridge feeding straight into an all-valve phono stage.

The picture did not change much with MC. Again, bass overwhelmed with Supernature and Alison Goldfrapp's voice was thickened. The presence of a warp filter here wasn't obvious subjectively; I heard higher frequencies where the ear is more sensitive.

Spinning Here Comes The Sun from the 2019 re-master of Abbey Road bass was again excessive in level and soft in quality, whilst vocals were thickened in texture and not as I know them from this classic album. Unfortunately, when a product introduces fundamental alteration to a classic track like Here Comes The Sun I have to object.

For edification and relief I fired up our Icon Audio PS3 MkII all-valve phono stage, then a Pro-Ject RS2 transistor phono stage – and got to hear The Beatles as I know them – and this track as I know it. The Roma 79DC's interpretation wasn't acceptable to me and that

rather wrapped it all up. Spinning albums that lacked recorded lows the MC stage was nice enough, but I am scrabbling to find a plus point here.

## CONCLUSION

Well built and easy to use, this hybrid FET/valve phono stage from Synthesis of Italy has the potential to sound very good. There's nothing quite like listening to LP through valves – and some I span sounded suitably lovely through

the 79DC. However, not many: bass level was so high as to make low frequencies intrusive, even affecting vocals, due to inaccurate RIAA equalisation. Making this a phono stage I could not live with, but I guess some may like it; Synthesis obviously seem to think so.

## THE ISSUE OF LIFT

There's an argument for lifting LP bass slightly, to add a little heft. I've done it by using the third-order subsonic filter tuned to provide +0.5dB lift at 40Hz, adding subtle extra weight. Lifting bass by +2dB is however excessive and blights this design in obvious fashion subjectively. At low listening levels some may like the effect, but turn volume up and it overwhelms.

The bass lift introduced by Synthesis in this phono stage is obvious and skews the intentions of artists and producers; I know how Abbey Road the album I used has been balanced by Abbey Road the Studio, since I live close by and have talked to them about it. I feel sure they would not appreciate this new mix. Huge amounts of knowledge and effort went into getting the re-master truthfully accurate and the 79DC altered it all.

Technically, the RIAA 318/3180 $\mu$ S time constants need correction here, usually just a matter of altering a few component values. It's easy for Synthesis to get this right.

## MEASURED PERFORMANCE

Frequency response with both MM and MC had bass lift below 200Hz, reaching a maximum at 50Hz of +2dB – enough to be easily audible. This amount of lift is strong and almost certainly intentional, rather than a component tolerancing error. Additionally, MM has no subsonic filter, gain reaching flat to 4Hz, whilst MC does have a filter, gain falling rapidly below 16Hz to be -8dB down at 5Hz. This will more alleviate cone flap caused by raised bass gain than suppress LP ripples, but there is some useful attenuation below 10Hz for MC.

Gain values were reasonably conventional at x136 (43dB) for MM, x925 (59dB) for MC and x1675 (65dB) for MC+.

As always with phono stages overload was set by output swing which with valves is very high, in this case 40V. That translated into very high input overload values – no less than 24mV for MC+ for example.

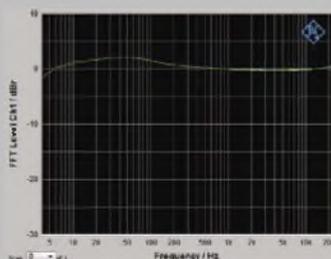
Equivalent input noise – a true measure of perceived noise – was high at 0.8 $\mu$ V for MM, but reasonably low at 0.2 $\mu$ V for MC and MC+. Although MM is high due to the direct valve input, MMs produce around 32 $\mu$ V thermal

noise, making the preamp's input noise inconsequential. **NK**

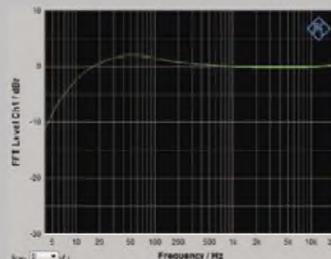
### PHONO (MM/MC)

Frequency response (-1dB)	100Hz-20kHz
Distortion (1kHz, 5mV in)	0.2%
Separation (1kHz)	86dB
Noise (IEC A)	-78 / -75 / -71dB
Gain	x136 // x925/ x1675
Overload	40V out

### FREQUENCY RESPONSE MM



### FREQUENCY RESPONSE MC



## SYNTHESIS ROMA 79DC £2099



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### VERDICT

A valve/FET phono stage that's easy to use, but with excessive bass.

### FOR

- ease of use
- suits low output MMs
- multiple load options

### AGAINST

- excessive bass
- no balanced connections
- no volume control

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### SOUNDECK DC1 'CARTRIDGE ENABLER', £49

A couple of issues ago, I shared my impressions of the £95 Soundeck PM. The job of this unusual CNC-machined turntable mat is to reduce the effects of unwanted vibration, using a high-tech metal sandwich in which the filler is a thin (65 to 80

microns) coating of polymer damping material. A principle known as 'constrained layer damping' converts unwanted energy into tiny amounts of heat, which are dissipated by the metalwork. Hi-fi buff and Sound Damped Steel's head honcho, Les Thompson, then wondered if his material could also benefit the vinyl-playing chain elsewhere.

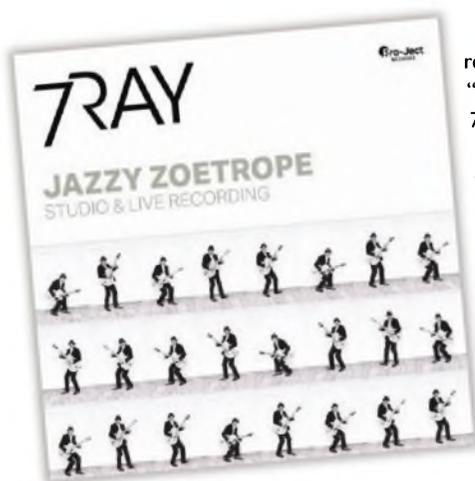
In recent times, we've seen the appearance of 'cartridge enablers'. These devices, which range from the £19 Origin Live to Funk Firm's £300 Houdini, sit between the cartridge and the headshell. They provide a degree of isolation between the two - and can yield a dramatic improvement. Hence SDS's take on the idea - the £49 DC1. Thompson explained that the "difficult-to-machine" DC1 is made from "two layers of 0.5mm aluminium that sandwich the magic vibration-absorbing polymer". Your

money buys the DC1 itself, a small square plate with holes for the supplied cartridge-fitting bolts (and associated nuts).

With their 15mm length, these bolts were too long for one of my cartridges (an AT440MLb, fitted to an ADC magnesium headshell) and too short for another! After drawing Thompson's attention to this, I was told that three different sizes of bolt would in future be supplied, together with an Allen key of appropriate size. Fortunately, I was able to use my existing hardware - and I was then back in business! As the DC1 is only 1mm thick, it's unlikely to compromise VTA. However, perfectionists might want to compensate by slightly-raising the tonearm base. I found that the device does have a positive effect. The Jazzy Zoetrope double LP (also featured here) was rewarded with a touch more percussive 'snap'. Deep bass seemed to gain the most benefit, though, being perceptibly tighter. **MP**

[Soundeck, [soundeck.co.uk](http://soundeck.co.uk)]

# SOUNDBITES



### 7RAY JAZZY ZOETROPE DOUBLE-LP, £35

I was intrigued to learn of Austrian musician's 7Ray's Jazzy Zoetrope LP. This 'all-analogue' double-LP, pressed by Austrovinyl on 180g vinyl, is published by the recording wing of Pro-Ject. No digits anywhere in the signal path; Jazzy Zoetrope was

recorded and mixed with an "analogue-only workflow", as 7Ray himself confirmed.

Capturing the magic were valve mikes, a vintage Cadac desk plus 2- and 8-channel tape machines; the gear used was, recording engineer David Küblböck told me, mostly the same for both sessions. No foldback, editing or overdubs were involved, while the only effects employed were an AKG spring reverb, EMT 'plate' and Cadac equalisers.

The music is split between studio and live albums, which were recorded - respectively - at the Studio Baumgarten in Vienna and Pro-Ject's Mistelbach HQ. It consists mostly of familiar jazz standards - among them Nature Boy, My Baby Just Cares for Me and Blue Moon - as well as a 7Ray composition, I've been missing you.

7Ray himself contributes vocals

and guitar, and he's backed by Triple Ace (piano, double-bass and drums) and trumpeter Simon Plötzeneder. Four of the tracks are performed on both LPs, making for interesting 'live/studio' comparisons.

This small ensemble playing light jazz, coupled with relatively-simple 'back-to-basics' recording techniques, delivers praiseworthy sound. All of the instruments are superbly-defined, the trumpet being endowed with due 'bite' while the double-bass has depth and articulation.

Unfortunately my copy, which reached me via a circuitous route, had slightly-warped vinyl and higher-than-expected surface noise. You'll hopefully be luckier...and if you're richer? Jazzy Zoetrope is also available on a £445 pair of 15ips half-track tapes that were copied from the master in real-time. **MP**

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# Going Walkabout

One for the globetrotters amongst you, Paul Rigby takes a gander at the world's music festivals.

## FESTIVALS

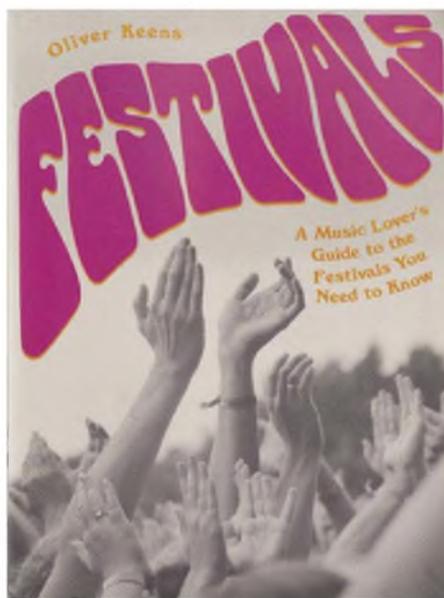
A Music Lover's Guide to the Festivals You Need To Know

Author: Oliver Keens

Price: £18.99

Pages: 224

Publisher: Frances Lincoln



**T**he weather is getting warmer, many of us have itchy feet, there might even be a key to the latest lockdown and although the world is far from getting back to normal, there may, just possibly, be some live music in the offering. Possibly. With a following wind.

And if that's the case then this book, sitting between a tough, Flexi-type of outer binding, could be a guide.

I said it "could be a guide". I didn't say it would be a useful guide. And maybe 'guide' is pushing it. It might be a guide for some but the cover information leaves a lot of loopholes unfilled. So you don't really know what you're letting yourself in for. I could say the same about the content.

Firstly, is this a book about legendary festivals? Is this a history book? To an extent. Although it doesn't go far enough.

Is it a guide to current festivals? A sort of Rough Guide to festivals in terms of where to go and what to do? To an extent. Although it

doesn't go far enough.

So, taking an example, if you look at Woodstock – the legendary occasion that took place in the USA in 1969 – this is a historical piece. No more than that. It offers nothing to the active festival visitor, of course. In fact, you waste time flicking past it every time you want to get to Glastonbury, for example. More than that, the information assigned to Woodstock is mostly banal, regurgitated copy.

Also, if there didn't happen to be an on-page scan of Woodstock tickets, I'd still have no idea exactly what dates Woodstock occupied. Just over two pages of text and a little over two pages of colour images and a substandard, rather spurious data file entitled 'About The Festival' gave me, as a fan of historical festivals, absolutely nothing at all in terms of information or spectacle.

Other historical festivals suffer too while many others failed to even make the book. Where's the UK's Tribal Gathering, for example?

OK, what about current festivals then? Festivals that are

still active and doing their thing? At random, let's take Rock in Rio which sounds rather exotic and is illustrated by a close up of Freddie Mercury to show that big names appear (appeared) there.

Well, apart from the large, single image of Freddie, you're given a single page of text. Why does Rio get a total of two pages while Donington's Download gets six?

That wouldn't matter if the entry included useful background, some practical hints, contacts, dos and don'ts, anecdotes from past events and artists, travel information and a hundred other points I could think of but don't have the word count to write here.

This book falls between two stools. It's neither a history book nor is it a practical guide. Hence, its audience is an undefined target. It is certainly a beautifully produced publication, offers jaunty and colourful images and is bound to withstand coffee table perusing. To avoid muddy shoes that is where Festivals should live. On the coffee table.



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## AUGUST 2021 ISSUE

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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.

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# MADNESS

7

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"Such were the almost theatrical narratives that combined a sense of fun and often a dramatic message"

It's odd. I sometimes feel sorry for Madness. Maybe it's the image and the fact that they had to live up to it. Then they felt trapped by it. Yet the image quickly became who they were so it eventually started to pull them around music by the nose.

"People remember us for the whole overplayed nutty image but we were never particularly nutty in real life. It was just an image foisted on us – we were just like everybody else" said Mark Bedford.

Mike Burson offered "The only regret I have is that some people saw us as this gross cartoon band. You can appreciate why people may have thought that, but I think that's missing the subtlety of what we did".

And finally Suggs "We spent so many years with people saying we were a joke. I remember in the '80s they'd be taking New Romantics seriously because they brought in a bit of Caravaggio or whatever or they've spent 20 grand on a video".

Every artist wants to be taken seriously. Even those that play for laughs at some point want validation for their art. For those enveloped within an image, the act can become a prison.

The fear behind an image, the madness of Madness especially, was that it would not only dominate their music but it would rule it. The fear was that the public would tire of it. Would tire of the band.

"I used to get right sick about it, really worry about it, said Bedford. "I used to think, 'we're all washed up, we're past it', but I don't really worry any more – we've passed that point now".

And that's because the music finally overcame that image. It transcended the funny, nutty persona and the on-stage larks. When this album appeared in 1981, it was really make or break because most music artists only have one good album in them. A minority have two. Hardly anyone has three or more.

Madness quickly became one of those exceptions. The remarkable thing about the art that they created – and I'm here to tell you that it was and is art – is that it remained grounded in normality. That was the band's

core appeal, their normality. The audience could easily relate to the work, even though the song writing and performance was projected with consummate skill.

Speaking in 1981, Suggs tried to explain his thoughts on the matter "I think the main object of the band is just to stay the same as we are and stick to our original aims. Which is why Adam And The Ants and the New Romantic thing worries me sometimes, though I do have a lot of respect for Adam. It's just that it's all getting so mega-star-ish again... losing touch with reality. All I've got to say is – hopefully, we will never be 'popstars' and Madness will always be normal people".

This album is full of normality. It does inject creative chrome, witness the almost elegiac tones of Grey Day but the feet are plonked on the ground. A big candidate for that is 'Shut Up'.

As Suggs described "The song is about inexperienced burglars being caught and trying to waffle their way out of it. Petty crime was a vaguely glamorous thing to be involved with as a kid, then you thought of all the lives it affected and the coppers themselves, chasing after criminals. The original song went on for a few more verses; I think they were about the policeman and his family and him running around after these burglars and then at the end they both meet up in the courtroom with this copper saying 'shut up'. Unfortunately these bits ended up on the rehearsal room floor".

A great example of ordinary life becoming a creative resource. More than that, the band's videos proved to be events in themselves. Such were the almost theatrical narratives that combined a sense of fun, an often dramatic message ('Cardiac Arrest' is a great example of that) and fantasy. The band often played in a range of costumes and slightly bizarre environments.

This particular album not only combined the above into one creative force, not only did it convince the public that this band was here to stay – but it convinced the group itself that they not only had the talent to stay the course but that talent was unique in the field of pop. **PR**

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