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MAY 2020

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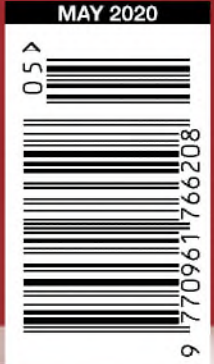
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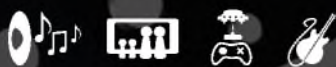
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welcome

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Paul Rigby, Martin Pipe, David Tutt



It's been said many times there's no innovation in loudspeakers any more: we get the "same old same old", endlessly regurgitated. You know – cone bass/midrange unit in a box, plus tweeter. The reason being it works and it is cheap. Conventional drive units are mass produced: just look at China's Swan loudspeaker drive unit range (www.swanspeaker.com/drivers/).

But not everyone wants to follow this path and the dear old US of A likes to make its own way, seemingly oblivious to what's across the Atlantic or Pacific. And thank heavens for that. They produce electrostatics, magnetic planars and hybrids not seen elsewhere.

Hi-Fi World relies on Martin Logan's (USA) X-Stat electrostatic panel for a definitive view of the products we test, and Magneplanar step up to the table with similar insight from their magnetic planar panel in the new LRS – reviewed on p12. It isn't easy to build unique drive units – but that's what Magneplanar do and that's what the LRS boasts. I hope you enjoy our in-depth view, based on measurement, listening and long experience with such 'speakers.

Dare I mention the word (no!), but that virus is going to have us all staying at home a bit more. Time to dust off the old LPs, crank up the turntable and relax to the glorious sound of vinyl LP – not usable on public transport or in an aeroplane, but fine at home. The Luxman PD-151 turntable on p83 and Ortofon Quintet Bronze moving-coil cartridge on p89 both make a strong case for staying home and chilling out.

Or equally, don that mask and power out with the latest from FiiO, their BTR5 Bluetooth headphone amplifier that Martin Pipe covers in deep detail on p20. It's a high quality ESS DAC at extraordinarily low price.

Sad final note. Our ace contributor Jon Myles, who worked with us closely for many years – part of the team – passed away suddenly in February 2020. You will be well missed, rest in peace Jon.

Noel Keywood, Editor



testing (see www.hi-fiworld.co.uk for full explanations of all our tests)

To ensure the upmost 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.

hi-fi world

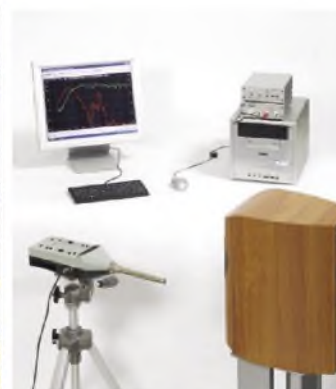
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verdicts

🌟🌟🌟🌟	OUTSTANDING	amongst the best
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🌟🌟	GOOD	worth auditioning
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🌟	POOR	flawed
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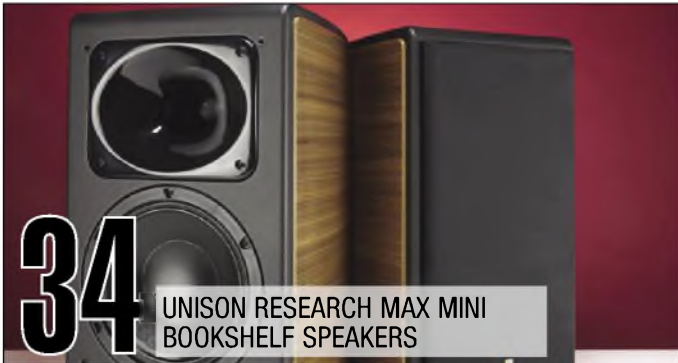
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news

NOT JUST FOR THE AFTERLIFE...

Here in the UK, Wharfedale - one of our most established 'speaker brands' - has announced new flagship models. Named after the heroic resting-place of Greek mythology, Wharfedale's two new Elysian models are the fruit of a "special three-year R&D project". The stand-mounted Elysian 2 (£4,500 per pair) and floorstanding Elysian 4 (£6,500 per pair) take their places above the recently-launched EVO4 Series.

As with the EVO4 models, the two new Elysians are three-way designs with sophisticated drivers. Wharfedale told us they achieve premium status through cost-no-object engineering to the very highest standard. Their Air Motion Transformer (AMT) tweeter is claimed to combine low distortion, musical detail, speed and dynamics. It features a lightweight pleated diaphragm in which rows of metallic strips are embedded. Immersed in a strong magnetic field, these pleats contract and expand with the audio signal to shift air. Said to be "spellbindingly-clear", Elysian's AMT tweeter is larger than EVO4's.

The Elysian midrange driver is a more conventional moving-coil unit, with 150mm woven glass-fibre cone and a central phase-plug. At the bass end of the spectrum, 220mm bass units - one in the 30.5kg Elysian 2, two in the 49.5kg Elysian 4 - are loaded by an advanced version of Wharfedale's proprietary slot-loaded profiled port (SLPP). The hand-finished cabinets feature a multi-layer Panel Resonance Optimisation System. They are available in a piano-lacquered choice of high-gloss black, white or walnut.

Contact: Wharfedale, 01480 452561. www.wharfedale.co.uk



GET INTO ORBIT

Rega has announced the Aphelion 2 "reference" moving-coil cartridge, which sells for the same £3149 as the model it replaces. It is described as "the perfect partner for the Planar 10 turntable". An ultra-rigid boron-rod cantilever is fitted with Rega's "most advanced" fine-line nude-diamond stylus. The generator comprises a neodymium magnet and a coil hand-wound onto an iron micro-cross. These elements are housed within a rigid anodised-aluminium body of lower weight than before.

Contact: Rega, (01702) 333071. www.rega.co.uk

KNOCKING ON WOOD

Audio-Technica has added two new closed-back dynamic headphones, the Kokutan and Asada Zakura, to their range.

The company is using striped ebony with a half-gloss finish for the flagship £1,700 Kokutan, and ostrya japonica for the £1,300 Asada Zakura. These high-density hardwoods are prized for their efficient acoustic damping and pure sound in pianos and woodwind instruments.

The 405-gram Kokutan features Audio-Technica's proprietary Double Air Damping System (DADS) for smooth bass reproduction, a 48 Ohm 53mm driver with "Permendur magnetic circuitry", ergonomic headband and sheepskin earpads. It's supplied with two 3 metre A2DC cables - one with a 6.3mm plug, and one with a balanced XLR connector.

So too is the 395-gram Asada Zakura, which also features DADS and 40 Ohm 53mm drivers. Instead of sheepskin, though, the earcups and headband are made of "smooth synthetic leather for a comfortable fit".

Further details: eu.audio-technica.com





ELIP-TICAL COURSE

One of France's oldest audio firms, Elipson, launched a new flagship speaker, the floor-standing Legacy Series 3230, at the Bristol Show. Priced at £7,490 per pair it's the top model of a three-speaker range, all built from "bespoke components, cabinetry, loudspeaker drive units and filters".

In addition to the 50kg 3230 a smaller 3220 floorstander and the Legacy 3210 stand-mount/bookshelf speaker will follow shortly.

The Legacy Series 3230 seen by Bristol show goes is a handsome 3-way design dominated by a large wood-veneered bass-reflex lower enclosure. Set into this enclosure are two 21cm aluminium/cellulose-pulp coned drivers that work together to cover frequencies below 400 Hz.

The remainder of the audio spectrum is covered by a spherical section fashioned from 15mm-thick silica-resin, housing a 15cm ceramic cone mid/bass unit with neodymium magnet, and a top-mounted AMT ribbon tweeter.

High 200W power handling, 91dB sensitivity and 25Hz–30kHz frequency response are claimed. A choice of walnut, black satin and silver oak finishes are available.

Further details: *Elipson*, +33 155 091830 www.elipson.com

UNIVERSAL CHOICE

Improving the sound quality of audio systems that rely on USB connections, iFi has launched two USB 3.0-compatible products.

The first, iSilencer 3.0, is a device that prevents interference from polluting the USB port of a computer or music server through the use of "Active Noise Cancellation" technology. iFi describes the £49 device as a "USB filter that also reduces jitter, responsible for cold and aggressive audio". In physical terms it's an intermediary adaptor that plugs into any USB port "removing noise from the signal as it passes through to the DAC". It can also act as a filter between a stand-alone player and a USB storage device containing music.

iFi's second offering, iDefender3.0, is a ground-loop eliminator for a computer's USB port. Also priced at £49, it detects the presence of more than one earth path and under such circumstances "intelligently-disconnects the computer earth for a cleaner sound". iDefender3.0 has another application - "blocking" the 5-volt DC power supply derived from the computer, so that the output of an external USB-C power supply of higher performance can be injected. Doing so significantly-reduces noise and ensures "better dynamic contrast, warmth and resolution".

Versions catering for various USB permutations - USB-A to USB-A, USB-C to USB-A and USB-C to USB-C - are available.

Further details: www.ifi-audio.com



KISSING YOUR MUSIC

County Durham-based Kudos Audio is now selling its KS-1 loudspeaker cable through retail channels. This cable was specifically developed for use in Kudos speakers. It is now available separately following enquiries by distributors and retailers.

In Kudos' words "the right materials, well-executed, win over fancy marketing-related engineering every time". There are nineteen 0.3mm diameter strands of silver-plated oxygen-free copper. Performing insulation duties is fluorinated ethylene propylene (FEP), which "shares PTFE's ideal low dielectric constant...but is a little softer, for improved mechanical damping".

The wires thus produced are subjected to a "slow twist" and covered by a hard PVC outer jacket "for protection, physical damping and simplicity of use". Supplied to retailers on 100m drums, Kudos KS-1 is expected to sell for £30 per metre (plugs extra).

Contact: *Kudos Audio*, (08454) 586698. www.kudosaudio.com



STRIKING ANOTHER CHORD

Described as the “perfect accompaniment to the Ultima 2 and Ultima 3 advanced dual-feed-forward mono power amplifiers launched last year”, the “modernised” £12,500 Ultima Pre 2 from Chord Electronics (Kent) features a redesigned fascia built around 28mm-thick aircraft-grade aluminium. The chassis forms a “non-resonant enclosure for the electronics”. There is a proprietary ultra-high-frequency switching power-supply with circuitry unimpaired by noise problems (below -130dB, Chord assures us).

There are four pairs of balanced inputs and four pairs of unbalanced inputs, each of which has six microprocessor-stored levels of gain to prevent large changes in volume when switching between inputs. There's no vinyl input but what you do get are two completely independent recording loops, a pair of low-distortion 6.35mm headphone outputs, a balanced bypass feature for integration into AV systems and 12V trigger outputs for processors and power amps.

The Ultima Pre 2 is available in jet-black or argent-silver finishes and is compatible with Chord's “Integra Leg” stacking system; highly-polished black-acrylic side-blocks are however offered as an alternative.

Contact: *Chord Electronics*, (01622) 721444. Web: www.chordelectronics.co.uk



IT TAKES TO... ('TO' IS NORWEGIAN FOR 'TWO')

Electrocompaniet has introduced a MKII version of its ECP 2 phono stage. It features a “brand new chassis and frontplate design”. Inside there are “state-of-the-art instrumentation op-amps” and audiophile-grade discrete components through the DC-coupled signal path.

The unit is said to “accommodate any imaginable pick-up and cable combination”.

Both MM and MC cartridges are supported, gain being adjustable in 5dB steps. Furthermore, capacitive and resistive loading can be optimised, using rear-panel DIP switches. There's a steep low-frequency filter to suppress warp signals.

Inputs are unbalanced, but both unbalanced and balanced outputs are provided. Priced at €2199, the ECP 2 MKII is reckoned by Electrocompaniet to “make any LP player and cartridge combination sound even better”.

Further details: www.electrocompaniet.com



THE HEAT IS ON!

Leema Acoustics, the Welshpool-based firm founded by two ex-BBC sound engineers in 1998, claims to be one of very few UK hi-fi firms making printed circuit boards (PCBs) in Great Britain. It also points out that “component suppliers are UK-based, and all metalwork is either sourced in Wales or neighbouring counties”. This is being underpinned by the purchase of a highly-advanced £45,000 ‘super-oven’ from the USA. The Heller Industries Model 1707 Mk5 ‘fuses’ the solder that connects delicate surface-mounted electronic components to PCBs destined for Leema's products. This significant investment will “minimise waste, be kinder to the environment and improve reliability to produce Leema's best-ever quality”.

Further details: *Leema Acoustics*, www.leema-acoustics.com

A PLATE OF RAVIOLI

Hailing from Scotland is a new range of products designed to subtract noise from your system. The intriguing “Black Hole” system modules from Black Ravioli are said to “get you further into every performance” by “removing spurious energy from music servers, streamers, active speakers and almost any electronic device that interfaces a music system”.

The modules connect to your equipment via “approved interfaces” - spare USB, HDMI and RCA sockets, earth terminals, 4mm/spade speaker connections or mains supplies.

Black Ravioli continue to make pads for placement underneath hi-fi equipment; these are claimed to bring “a startling transformation in sound quality to many users”. Black Hole modules start at £500. Sensibly, a 30 day money-back guarantee is offered.

Contact: *MCRU (distributor)*, 01422 250590. <https://www.mcruc.co.uk>, www.blackravioli.com





Available in:



X2 TURNTABLE

The X2 is fine-tuned to focus on audio excellence. It has all the features needed for convenient day-to-day use, but no superfluous add-ons that start to negatively impact the sonic character. The end result is a highly engaging, musical turntable that delivers deep, detailed lows, crisp high frequencies and an engaging well-presented midrange. Thanks to Pro-Ject's advanced manufacturing experience, while delivering great sound the X2 is also a beautiful piece of engineering that can stand proud as the focal point in any home environment.

The X2 is available in four finishes; a premium walnut wood veneer, a luxurious black 8-layer high gloss paint, or black or white eight-layer hand-polished satin paint.



Includes pre-installed Ortofon 2M Silver



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High quality resonance-free acrylic platter

JON MYLES

5th April 1961 - 20th February 2020

We regret to say that our contributor Jon Myles passed away on Thursday 20th February, shortly before the Bristol Show. Jon's health had been variable for years; often well but sometimes not. But he had strength and made it across London by train and foot to Hi-Fi World simply because he loved listening to music and hi-fi equipment. For him it was a pleasure as much as a passion. So come rain, snow or sunshine Jon made it from West London into deepest Notting Hill (North Kensington) – not an easy journey in his condition. He was also keen to visit manufacturers around the UK, which he did often by train; cars were not his interest.

Hi-Fi World readers will know that Jon loved Naim products and had a deep interest in streamers and digital in general. The only thing he avoided was LP: it looked daunting to him! Making for an easy distribution of products to discuss and review in the office.

Born in Ireland, Jon told me he was raised in the UK, where he went to Urmston Grammar School (Manchester), followed by John Moores University (Liverpool) to study Business and Accounting. Musically, he was in love with London's urban rock, The Clash being a special favourite. Partly explaining why he moved south to the Big Smoke, to become editor of the Irish Post and enjoy London life (such as it is).

Curiously – to me – he made little of being Irish, having a gentle Southern

accent, but otherwise wondering why I liked Jackie Leven. Being Celtic wasn't his thing, although Sinead O'Connor he counted as a friend.

By January 2020 it was becoming apparent that Jon was having difficulty with his journey into our offices, one he had been making for years. We realised that his health was deteriorating severely. He had hoped to be with us at the Bristol Show, an event he loved, but sadly did not make it. He will be missed by all of us at Hi-Fi World.

Noel Keywood, Editor



I have two major passions in life – one is hi-fi and the other is watches.

Jonathan Myles



Magnetic

A panel loudspeaker with magnetic properties. The Magneplanar LRS loudspeaker is a uniquely attractive, thinks Noel Keywood.

Long ago Quad converted me to the open panel loudspeaker. Yes, they have drawbacks but also unbeatable strengths. And then there is the magnetic planar drive unit now becoming popular in headphones. Put them together and you have a Magneplanar loudspeaker, from Magnepan of the USA – an open panel using magnetic planar drive units. Different.

Magnepan's bigger models never won me over but the new LRS I am reviewing here has extraordinary sound quality, yet UK distributor Decent Audio are asking just £999.50 for a pair. This is a loudspeaker you should know about.

The new LRS is so good I would bill it as a step up on the traditional box loudspeaker. But there are drawbacks, as I will explain. It isn't going to happen – or is it? The LRS makes a strong argument for the panel loudspeaker, one made in the past – see my column this month.

As you can see from our pics, this new mini from Maggie is a slim, flat panel. Sound radiates equally from front and back, there is no rear cover to prevent sound getting out rearward. Inside there is a magnetic planar bass panel and a narrow vertical ribbon tweeter, positioned at side. They come in handed pairs but are not obviously marked as such: the rear Serial Number identifies 1 as Left speaker and 2 as Right speaker, Magnepan say, placing tweeters on the outside – but I preferred them on the inside – more later. Because the drivers stretch from bottom to top the sound stage is vertically larger than that of cone loudspeakers: think big sound staging.

In the past open panels have carried cone drivers (Wharfedale) and electrostatic drivers (Quad) but in a Maggie you get a flat, lightweight Mylar film with surface conductors, reacting against fixed

bar magnets – a 'magnetic planar' drive unit. In the 0.7 it works up to 700Hz. It is an electric motor like a cone driver, albeit one laid out flat. Making this a loudspeaker like few others. Eminent Technology (USA) come close with their superb magnetic planar hybrids, where deep bass is handled by a box driver – something the 0.7 lacks.

Absence of a box bass unit keeps cost down by avoiding cabinet making – an expensive business – and it also reduces weight. The 0.7s were easily liftable.

I would like to say this panel is small – as the 0.7 seemed to me – but this depends literally on how you view it. Sideways on the 0.7 is vanishingly small, just 32mm (1.25in) deep. But an open panel must have large surface area to develop bass, to reduce the frequency at which the rear wave cancels the front wave. That's why the 0.7 measures 1.2m (48 in) high and 37cm (14.5 in) wide, looking like a large box loudspeaker from front.

In an 18ft long room – which would be ideal – they'd fit in easily enough, bearing in mind there should be one metre or so behind to allow the rear wave to disperse. Rear absorption panels, curtains or soft furnishings help; at one time I hung a curtain of thick natural carpet felt 15cm behind my Quad ESL-63 open panels – but moths ate it!

To support the 0.7, Magnepan provide a pair of rudimentary feet made from bent iron sprayed black that spring backward and forward alarming. There are no feet nor spikes, but optional "flippers" to tilt them forward. The feet are rudimentary, especially when compared to the cast alloy sub-assemblies used by other manufacturers to keep their loudspeakers firmly planted. Rigid side supports with spikes/pads, as an option package, would be a good idea I can't help thinking. And the

LRS is best tilted backward, not forward, measurement suggested and listening confirmed.

The standard of finish is adequate, if without any attempt at detailing – not even a company name badge or model ID at front.

The rear connecting panel is also a pretty basic affair that accepts 4mm banana plugs or bare wire – with locking grub screws turned by a hex key (supplied) that can be used to clamp plugs – but one of my plugs would not fit in any case there's so little clearance. An adaptor is available for spades.

Polarity markings are small and there is no red/black colour coding. However, a removable link can be replaced by a supplied 1.2 Ohm resistor to attenuate output from the treble unit if desired – see Measured Performance for more details. I found no need for a warmer sound and left the link in place.



Just 32mm or 1.25in deep, the LRS is slim, even by panel loudspeaker standards. Magnepan say do not use against a side wall, to increase panel area and strengthen bass – a trad trick with panels. But in a narrow room, worth trying.



The Magneplanar's unusual connecting panel. Hex key grub screws tighten banana plugs or bare wires in the 4mm sockets.

Replacing the tweeter terminator link with a 1Ω resistor lowers treble by 2dB.

Small lettering and no red/black colour coding – not easy to see.

Magneplan allude to the need for a powerful amplifier to drive the 0.7 – and they are right. Magnetic planar drive units are insensitive, because of the clearances needed in their motors, but with the 0.7 small panel size also reduces sensitivity. However, a 100 Watt amplifier is sufficient and there's no shortage of good ones able to drive the

obviously. Peer closely or use a rear torch shining forward and you can see the tweeter as a vertical strip of finer conductors, the dark patch possibly a connector panel.

And in addition to Finally: "cats will sometimes use Magneplanars for scratching posts" Magnepan say. "We suggest cat repellent from your local pet shop". So cats like 'em – if for the wrong reasons!

SOUND QUALITY

I ran the 0.7s from our Creek Evolution 100A (100 Watt) transistor amplifier and – alternatively

– Icon Audio Stereo 30SE (30 Watt) valve amplifier, both connected through Chord Company Signature Reference cables. Sources were our Oppo BDP-205D CD player, an Astell&Kern AK-120 portable player feeding in hi-res digital from its fully floating battery supply through optical cable, for digital. Analogue came from a Timestep Evo modified Technics SL-1210 MkII turntable with SME309 arm and Audio Technica OC-9X SH (Shibata stylus profile) moving coil cartridge, feeding Icon Audio PS3 MkII valve phono stage with silent input transformers.

First, the sound stage. The vertical line treble unit gives

strong upper treble. Review tracks I know as forward, such as Willy DeVille singing Spanish Harlem (CD) into a close microphone, were slightly warmer than correct, but there was still strong upper treble. Bear in mind here that nowadays loudspeakers are balanced to make Mr DeVille shout; the 0.7s offer a more old fashioned balance you could say. They are no less accurate, or inaccurate, than the current crop of cone loudspeakers and, for long term relaxation, I prefer 'warm and easy' to 'bright and projective', mainly because source distortion is not highlighted. All the same, I would have preferred the option of more output from the ribbon tweeter, not less.

But all this is not about what I loved from these 'speakers. From the off they had a devastatingly clear sound with almost rudely absent overhang and muddle between notes. In fact, they had a gloriously pure quality quite beyond box loudspeakers. I was meant to check out bass quality with Josefine Cronholm's Gates of Istanbul (CD) but ended up locked onto her vocals. She had the same generous

"gloriously pure quality quite beyond box loudspeakers"

0.7s; modern designs drive their 4 Ohm load with ease. So do valve amplifiers with a 4 Ohm tap, for which the pure resistance of these 'speakers is a perfect load. But the power meters of our 30 Watt Icon Audio Stereo 30SE flicked toward their end stops before I could annoy the neighbours. I would like to say a big McIntosh or Audio Research would be great, as would an Icon Audio MB90 monoblock – but for a £1k loudspeaker? Seems daft but these speakers deserve a top quality valve amplifier.

Finally, there is a dark patch behind each grille, indicating the side treble is strongest from front (in addition to Serial Number) and this affected the sound stage quite

unusually stable and focussed images over great height – around 1 metre. Singers and instruments take on large form as a result and they are rock stable. As expected I found the sound stage most intense with the tweeter (patch) on the inside, in keeping with the tweeter of a handed pair of conventional loudspeakers being on the inside. The other way around gave softer images and warmer sound stage: there was a big difference – and tweeter on outside makes the 0.7s sound overly warm.

After getting over my initial shock at just how good these loudspeakers sound, as I acclimatised it became apparent they have a mild balance, if with



A tall, slim panel supported by two bent iron feet that flex.

form in front of me as I get from our Martin Logan ESL-X electrostatic panels, with solid presence and enormous insight into low level detail such as surrounding echo decays.

Should you be wondering, the LRS has a warmer balance than an electrostatic, mainly because it doesn't radiate as much high frequency power (smaller high frequency radiating area). But at the same time magnetic planar drive units have a wonderfully dark, damped quality that is alluring. Eminent Technology loudspeakers from the brilliant Bruce Thigpen taught me that.

Box loudspeakers suffer sound from inside coming out through the cone, delayed by up to half a second. Open baffle loudspeakers don't suffer this and you get subjectively obvious cleanliness, where singers are not singing through subliminal delayed background muddle. I locked into the pristine clarity of gong strikes on Safri Duo's Samb Adagio: they glowed in pure space. But this is a bass test track and is what I must talk about next.

In our large listening room the LRS lacked deep bass, in spite of Magneplanar's efforts to overcome this drawback of open panels. A smaller, more bass resonant room than ours (6550 cu ft) would help, but then the room starts to affect bass quality. The opening bass line



At left the narrower tracks of the vertical line tweeter. From front, the dark patch at lower left identifies this unit.

in Gates of Istanbul was firm and clean, with more inner detail than that from box loudspeakers, but it lacked the low end rumble that is usually there. There was a sense of light low bass and no deep bass.

Little difference between our Creek Evolution 100A transistor amplifier and our Icon Audio Stereo 30SE, other than the latter could go only loud-ish. The Creek kept its composure at high volume, underlining the need for a powerful amplifier.

The sound stage is not only

large and perfectly focussed, but also cohesive. There was a sense of solid weight to singers that was a small step up on even an electrostatic. Add in enormous resolution of background atmosphere picked up by the mic and I heard a sound that was beyond any cone driver, box loudspeaker. I was beyond impressed: the LRS is ahead of most loudspeakers, whatever their price, except for absence of deep bass. Dare I suggest a box subwoofer could be used? It's like invoking Satan in this context!

CONCLUSION

Magneplanar's new LRS is a loudspeaker that you really should hear. It is very obviously a step up on all around it in terms of clarity, smoothness and insight. Stereo sound staging and image sharpness are also better than all other loudspeakers at this price. Only the tall Martin Logan electrostatic panels match the LRS here, but you pay more.

I suspect lack of deep bass will be a deal breaker for many, something a small subwoofer would alleviate. The LRS could usefully be better finished too, it is drab and idiosyncratic; an option pack would help.

These issues apart, the LRS is arguably the best loudspeaker available under £1,000 and it would be in contention for that title at £10,000. Well worth hearing.

MEASURED PERFORMANCE

Panel loudspeakers lack warmth if engineered for flat frequency response. Lift at low frequencies is applied to give subjective balance and this can be seen in our frequency response analysis. Output of the bass panel rolls down above 350Hz to meet the treble unit just above 700Hz.

Tweeter level is effectively -4dB down but output lifts in the 6kHz-10kHz region, adding presence to upper treble. The upper midrange around 3kHz is not as strong as that from modern cone loudspeakers, so the 0.7 will sound warmer.

At rear a removable link can be replaced by a resistor to pull down high frequency output. A 1 Ohm resistor reduced treble by 2dB.

Panels can suffer uneven dispersion due to cancellations. Here the 0.7 was reasonably consistent vertically but is smoothest low down, around 1ft above

the floor – likely why it has a backward tilt.

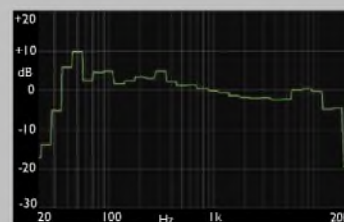
A vertical line tweeter has good lateral dispersion and that was the case with these 'speakers.

Interestingly, there is a bass peak around 50Hz to enhance low bass – another area where open panels are lacking due to side cancellation by out-of-phase front / rear waves, especially in a panel as narrow as the 0.7.

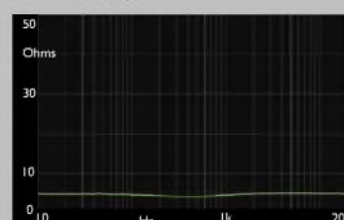
Although impedance measures a low 4.7 Ohms, causing heavier current (and power) draw, the 0.7 is insensitive, producing a low 77.4dB sound pressure level (SPL) at 1 metre. Box loudspeakers are typically 10dB more sensitive. Amplifiers of at least 40 Watts are needed and 100 Watts is best for high volume. Our impedance trace shows the 0.7 is purely resistive right across the audio band – ideal as there is no reactive energy storage.

The 0.7 has been well tailored to give a reasonably smooth forward response but it will sound warmer than most loudspeakers. It is insensitive and needs plenty of power to go loud. **NK**

FREQUENCY RESPONSE



IMPEDANCE



MAGNEPLANAR 0.7 LRS £999.50



OUTSTANDING - amongst the best

VALUE - keenly priced

VERDICT

Mild sound, but superb quality. Needs power.

FOR

- deep insight
- big, precision sound stage
- clean and clear

AGAINST

- lacks bass strength
- needs power
- poor standard of finish

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A Merry Dance



Martin Pipe samples a super-cable from Black Rhodium. Wallets out!

Moderately-described by its Derby-based maker Black Rhodium as the “ultimate speaker cable” and a “quantum leap in sound quality”, the designed-from-scratch Charleston DCT++ CS - a 3m pair of which will set you back a not-insignificant £4,800 - was

proudly-ushered into the public consciousness with a press-release taglined “all cables obey the laws of physics”.

Black Rhodium proved its point by listing several factors that will affect the wires carrying music. Every metal has a different molecular structure, and is alleged to sound different; listening tests

conducted by the firm suggested that, of a group of metals used to convey audio signals, rhodium proved to be the best in musical terms. Hence, one presumes, the firm’s name. Furthermore “impurities and irregularities in the molecular structure” of your chosen metal can impair electron flow, thereby distorting those crucial signals.

Metals, then, are not perfect - and neither are the materials used to insulate them. According to Black Rhodium, these insulators

order". Unfortunately, its press puffery stops short of describing in detail the specific steps Black Rhodium is taking. Some are,

my amps was a Cambridge NQ streamer/pre-amp, part of the same state-of-the-art Edge range as the W amp. It could access a wide range of CD rips, painstaking vinyl transfers and hi-res material as well as the BBC radio services in 320kbps AAC form.

SOUND QUALITY

Yes, the Charlestons do seem to have a positive effect - proving that the 'science-first' approach (can there be any other way?) of Black Rhodium has merit. Compared to run-of-the-mill cabling, there was a definite improvement in terms of clarity. During a recent Radio 3 concert (the stream of which was captured for repeated



can "absorb electrical charges from the wire, and return them to the wire causing a time-smeared distortion called Dielectric Absorption".

It is then claimed that friction between some types of insulation and the (outer) screens frequently-encountered in cable construction can generate electrostatic charges; these can be heard as noise.

Another source of noise is the wide gamut of radio-frequency signals in the air - RFI (Radio Frequency Interference) that, we are told, "modulates the music signal in your cable". Magnetic fields caused by electric currents passing through adjacent wiring are no better, as they can "alter the flow of electricity in your cable".

Finally, mechanical vibrations (from, amongst other sources, speakers) can also "modulate the sound...the resultant effect is distortion".

"To counteract these distortions", Black Rhodium explains, "many different solutions have been tested". Some are "standard practice", while others have been specially-developed for the hand-built Charleston.

In pursuit of Black Rhodium's commendable 'distortion-busting' goals, Charleston cables "encompass several layers of insulation, screening and vibration-damping, assembled stage by stage in the optimum

however, plain to see. Vibration-damping O-rings have been fitted to the plugs at either end of the cable, and large ferrites - the purpose of which is to stop RFI - are visible too.

Black Rhodium told us that the stranded silver-plated copper conductors have been "deep cryogenically-treated" and that the braided screen has been "vibration-damped along its whole length".

The substantially-built rhodium-plated 4mm banana plugs are also worth a mention. Their pins are split, and by rotating the collar their four sections are splayed outwards. Do so with the plugs inserted into the sockets of your amp and speakers and you get a satisfyingly-tight fit that equates to a connection that will leave nothing to chance reliability-wise. Rhodium-plated spade terminations are also available; the manufacturer can supply pairs of Charlestons with spades on one end, bananas on the other.

No practical problems were encountered when bridging my Quadral Aurum Wotan VIII speakers to, at various stages, the amplifiers at my immediate disposal - an Arcam A49 and Cambridge's top-of-the-line Edge W. In all cases, Black Rhodium's precision-made locking bananas worked impeccably; in contrast, the plugs of other cables I've come across can be removed with disturbing ease.

The source feeding both of

playback) Catherine Ennis played a selection of pieces - notably by Bach, Mendelssohn, Parry and Britten - on a restored Peter Collins organ. I could make out the noises of stops being pulled and chair creaks, as well as the ambience of the venue (St. Bartholomew's Church in Suffolk) and - of course - the remarkable tonal colours of the instrument.

Furthermore, The Collins organ's lower notes sounded palpably firmer and deeper with the Charlestons in circuit.

Such bass prowess also benefitted more popular fare, if my listening sessions with albums like Mogwai's Rave Tapes (24/96) and Air's Moon Safari (CD rip) were anything to go by. Into the bargain, the sound seemed more open and rhythmically-agile too.

But then again, it should always be borne in mind that the Charlestons are very expensive cables. What hidden musical virtues might the Charlestons reveal after being plumbed into superfi setups?

CONCLUSION

Part of Black Rhodium's aptly-named 'Revelation' premium range, the Charlestons are incredibly-expensive speaker cables. Just as you'd expect, they perform flawlessly and are impeccably-made. That science is evidently vindicated...

BLACK RHODIUM CHARLESTON DCT++ CS
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FOR
 - build quality
 - superb banana plugs
 - clear, clean and dynamic

AGAINST
 - expensive...

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Blue reception...

Martin Pipe discovers that the FiiO BTR5 Bluetooth DAC is a pocket Hercules.

FiiO's latest Bluetooth device is the BTR5 "Portable High-Fidelity Bluetooth Amplifier". Despite being described as a flagship model it is priced between £90-£150. As its name suggests, the basic job of the BTR5 is to wirelessly pair with a Bluetooth device like a mobile phone and reproduce any of

its audio through headphones. As I'll explain though, there's more to its talents. A nicely-finished black lozenge measuring 72 x 32 x 11.3mm and weighing less than 50g – that includes the built-in 550mAh lithium-polymer battery, able to deliver up to 9 hours of Bluetooth playback from a single charge – the BTR5 is supplied with a practical snap-in cradle with integrated belt-clip.

The unit's front-panel is glossy, because it's made of "2.5D" (contoured) glass. Behind it discreetly-lurks an OLED display, which under normal circumstances tells you the current volume level and what sort of Bluetooth connection exists between the two. On the side are buttons for standby, volume adjustment (which is independent of your host device's) and a button that, under normal circumstances, pauses music or answers calls (the BTR5 has an in-built mike for hands-free use).

The buttons have multiple functions, according to how long they're pressed. Hold the volume keys down, for example, and they'll select tracks (this worked fine with VLC, as running on my Google Pixel 3a). The pause button (again, VLC-compatible) also engages Bluetooth pairing, and straightforward Pixel 3a operation. Even easier, if your gear supports it, is one-touch NFC pairing.

But things don't always behave as expected. Apparently, holding down the standby button for two seconds reveals the menus that allow the BTR5 to be configured – digital filter (permutations of slow/fast/minimum-phase/aperiodic/hybrid), gain, preset equaliser (jazz/pop/rock/dance/R&B/hip-hop/classical/user/off), display dimmer and USB mode.

Huh? Yup, the BTR5 doubles as a USB DAC (driver-free USB1, or hires USB2.0) for your computer. What the frankly inadequate documentation – a single quick-start sheet – doesn't make clear is that you can also use the BTR5 as a DAC with USB OTG-type Android devices. I was able to use it with my Pixel 3a on this basis, although you need to provide your

own USB-C to USB-C cable (FiiO include a stubby USB-C to USB-A cables for charging and PC DAC use). This gives the best sound quality, as you avoid the compression associated with Bluetooth.

The menu has the option of turning off USB-charging mode, to avoid draining your phone's battery. There's also a 'car mode', which may be useful when the BTR5 is being powered from a USB cigarette-lighter adaptor. Here, the device is only active when a voltage is sensed on the USB port. Unfortunately, such menu-related functionality was a moot point – because I could not, for the life of me, gain access to it – no matter how long I pressed that standby button (hold it down for too long, and the darn thing turns off). Maybe a firmware upgrade will work? And yes, there's indeed firmware available from FiiO's website - which warns you "not update the firmware again if your BTR5 is using the latest". And how do you discover what version of firmware the BTR5 is using? Um...it's a menu option...

Many functions are however available via FiiO Music, a free player app for iOS and Android devices. As well as menu-accessible functions like the digital filters, charging configuration, firmware identity – the latest 1.0.6, as it happens – and car-mode are others that aren't available – channel balance, USB/Bluetooth priority selection, auto power-down, convenient setting of the mysterious 'user' equaliser with manual 10-band control, various phone call-related functions and even Bluetooth codec selection.

Oh, and there's more. Working my way through FiiO Music's options, I also discovered that my particular BTR5 had been set so that menus were accessed via a double-click of the standby button – an eventuality not mentioned in the quick-start guide, or for that matter the relevant FiiO YouTube video!

That's the software, then – more on the hardware. Although the BTR5 lacks conventional digital connec-



tivity, it is equipped with both 3.5mm (unbalanced) and 2.5mm (balanced) headphone outputs – unexpected, given the price. The electronics making it all possible is surprisingly well-specified too. Running the whole shooting-match, and providing the USB interface, is an XMOS XUUF208 multi-core controller working in conjunction with a custom-designed FPGA chip and – to keep jitter at bay – precision crystal oscillators. To look after wireless connections, FiiO has specified a comprehensive Bluetooth 5-capable Qualcomm CSR8675, the 120MHz DSP of which supports 24-bit audio processing and support for AAC, SBC, aptX, aptX-L, aptX-HD and LDAC codecs. Responsible for the audio side of things, meanwhile, are two ESS SABRE ES9218Ps. Combining the functions of balanced

driven, with no audible signs of strain at sensible listening levels. Even via the latter high-end 'phones, the BTR5 did not disgrace itself – admirable, for a complex piece of audio kit that sells for less than £100.

Resolution was sufficient to lay bare the differences between Bluetooth modes; hardly surprisingly, aptX-HD and LDAC mode (mercifully supported by the Pixel 3a) tend to come out best, in terms of transparency and openness. USB mode ups the ante further, but under most day-to-day circumstances the FiiO Bluetooth connection should suffice. It's certainly the most practical option.

In terms of timing and retrieval of detail, the BTR5 punches well above its weight - percussive electronic music (for example,



The BTR5 caters for both balanced (3.5mm) and unbalanced (2.5mm) headphones. Each channel is driven by the headphone amplifier of a dedicated ESS SABRE ES9218 DAC chip.

Coast recording 'Looking For A Home' (DSD64) helped to impart a degree of 'you-are-there' realism. Between my earpieces, I also got some insight into the acoustics of the venue where the performance took place.

I was equally impressed with the BTR5's handling of another familiar recording, Britten's War Requiem (LSO Live/Nosedá, 24-bit/48kHz). String sections were as brooding and ominous as the composer intended, choral forces given sufficient room



Thanks to this USB-C connector the BTR5 can double as a USB DAC with a computer. Both driver-free (USB1) and hi-res (USB2.0 driver needed) modes are supported.

Directly connect BTR5 to a compatible phone with a suitable cable and it becomes a wireless-free USB DAC for 'on-the-go' listening. This gives best sound quality by avoiding lossy Bluetooth compression.

32-bit/DSD DAC and headphone amplifier, one chip is allocated to each channel. "Under balanced output with its 2 DACs working in conjunction", claims FiiO, the BTR5 is "capable of 220mW output at 32 Ohms; and 7.6Vp-p at 300 Ohms".

SOUND QUALITY

I tried the BTR5 with various PCs (you need drivers, freely available from FiiO's website, if you want to get USB 2.0's benefits – asynchronous mode and 32-bit 384kHz PCM/DSD256 hires support) and the aforementioned Google Pixel 3a, via both Bluetooth and direct USB connection.

Headphones used included IEMs (FiiO's own FH7s as reviewed last month, and the Lime Audio Model Xs covered elsewhere in this issue) and – via an adaptor – full-sized headphones like the Focal Utopias and Meze Empyreans. All could be

Étapes 1 to 3 of my Kraftwerk Tour de France Soundtracks CD FLAC rip) demonstrates how agile this little unit is. Sticking with electronic music for a moment, I found that the lushly-organic analogue synths and distinct atmospheres of Boards of Canada's Reach for the Dead (Tomorrow's Harvest, CD FLAC rip) and Pye Corner Audio's The Mirror Ball Cracked (Sleep Games, CD FLAC rip) were competently-handled. Another Tomorrow's Harvest track, Palace Posy, reveals that the BTR5's low-end is correct-proportioned and well-defined. Overall, I would judge the unit as tonally-neutral across the audio band - if brightness and bloated bass are heard, blame your source material or choice of headphones!

And hi-res? Thanks to the BTR5's not-insignificant resolving power, the individual vocal breaths and string noises of Keith Greeninger and Dayan Kai's back-to-basics Blue



On the side of the BTR5 are four buttons with multiple functions, according to how they're pressed.

and brass endowed with attack and bite. This 2011 recording, live from London's Barbican, also demonstrated the BTR5's ability to deliver a strong dynamic performance.

CONCLUSION

The BTR5 achieves a lot for its asking price. A standard tablet or smartphone, especially one with support for the latest Bluetooth standards, is in essence converted into a hi-res portable music player. What lets down the BTR5 is a poor standard of documentation; needs improvement here.

**FIIO BTR5
BLUETOOTH DAC
£89.00**



OUTSTANDING - amongst the best.

VALUE - keenly priced.

VERDICT
Transforms the sound of smartphones and tablets, to a standard that audiophiles can appreciate

FOR
- fulsome, detailed and natural
- can be used as USB DAC

AGAINST
- buttons have multiple functions
- inadequate documentation

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Here's your chance to win a superb Rega Ania Pro cartridge we reviewed in the April 2020 issue. Read the review excerpt below and answer the questions.

"Into an exotic world of micro-manufacturing Rega have produced a range of moving coils whose bodies and motor assemblies (magnet, coil, etc) are made in-house. At top comes the Aphelion with a boron rod cantilever, then Apheta 3 (£1250) and just below the new Ania Pro (£750) that I'm reviewing here. It's up against stiff competition from Ortofon's Quintet range of budget moving coils and Audio Technica's recent OC9X

series that top out at £660 (reviewed October 2019 issue). But Rega have their own ideas on how hi-fi should be engineered and how it should sound, so Ania Pro differs from much else.

This cartridge is very light at 6gm, due to use of a lightweight moulded body with aluminium internal mounting block. Our SME309 test arm barely managed to dial on 2gms downforce before the rear weight hit its forward end stop, so arm compatibility is a potential issue.

Then there is use of a third fixing screw ahead of the traditional screws (M2.5) set half-an-inch apart. The only arm that can accept this screw to give three-point fixing is a Rega arm. But it fits all other arms too.

Blind captive nuts are moulded into the body to make fitment easy and Rega supply three short stainless steel screws for them. Suitable for a Rega arm but otherwise – with thicker non-countersunk headshells – you'd need to buy a screw set with longer screws.

The Ania Pro comes in a small clear acrylic case with its three fixing screws holding it to the packaging. There was a short hex key for them too.

The Ania Pro had obvious low end strength and control, delivering a big-bodied sound. I liked what I heard and it is different from most rivals".

For a chance to win this great prize, just answer the four easy questions at right. Send your entries on a postcard only, by 8th May 2020 to:

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QUESTIONS

[1] Ania Pro is made –

- [a] in Russia
- [b] in-house
- [c] in a cold room
- [d] at night time

[2] Ania Pro has –

- [a] a third fixing screw
- [b] Blu-tak fixing
- [c] riveted fixing
- [d] super-glue fixing

[3] Its case is –

- [a] steel
- [b] wood
- [c] bitumen
- [d] acrylic

[4] The screws need a –

- [a] monkey wrench
- [b] hammer
- [c] hex key
- [d] blow torch

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**FEBRUARY 2020 WINNER: AUDIO TECHNICA OC9X SL CARTRIDGE
Mr. D.A. Sheard of Leeds, West Yorkshire**

LETTER OF THE MONTH PRIZE

Mail

Visit our website at www.hi-fiworld.co.uk or send your emails to letters@hi-fiworld.co.uk. Letter of the month wins a pair of KEF Q150 bookshelf speaker

Answers by: **NK** - Noel Keywood; **JM** - Jon Myles; **PR** - Paul Rigby; **MP** - Martin Pipe.



KEF Q150 BOOKSHELF SPEAKER

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

[subject to availability - Satin Black / Satin White]

A PAIR KEF Q150 LOUDSPEAKERS are on their way to TONY BILNY, Letter of the Month winner in our April 2020 issue.

Letter of the Month

PRICE OF AN LP

I really enjoyed taking part in The Beatles discussion with Guy Hayden and Miles Showell on Saturday, at the Bristol Show, in the Wharfedale room. It was great to talk to a packed room of very enthusiastic and knowledgeable Beatles fans

Afterwards, we had a chat about the price of albums in the 1960s I was right! I did pay 32 shillings and six pence for Sgt. Pepper.

Here are the prices from a book that says the figures come from the BPI:

Prices for 12 Pop LPs (Classical LPs were more expensive)

1960	1.14s 3d	(£1.71)
1961	1.14s 3d	(£1.71)
1962	1.14s 6d	(£1.72)
1963	1.12s 3d	(£1.61)
1964	1.12s 3d	(£1.61)
1965	1.12s 3d	(£1.61)
1966	1.12s 3d	(£1.61)
1967	1.12s 6d	(£1.62)
1968	1.16s 9d	(£1.83)
1969	1.17s 6d	(£1.87)
1970	1.19s 11d	(£1.99)

Factor in inflation and albums in 2020 have never been so cheap!

All the best,

Kevin Howlett



Abbey Road studios, now owned by Universal Music Group. At this year's Bristol Show Kevin Howlett, Guy Hayden and Miles Showell together gave a talk about The Beatles tapes produced and held there.

Hi Kevin. Thank you for your talk at the Bristol Show, explaining how The Beatles master tapes are handled by Abbey Road studios – by you personally it seemed. I desperately wanted to ask what those tapes were valued at. But everyone else had more important questions! You deal with the Crown Jewels of music.

Wharfedale's room was historically in context and they were happy to let us use it. I guessed Head of Acoustics engineer Peter Comeau would be there to enjoy your talk,

and others interested in musical history, such as Peter Thomas, founder of PMC loudspeakers.

What you guys have to tell us in the world of hi-fi about how such music is retrieved and re-released by the music business is unique information. It's not as if the 'net can carry anything insightful about the internal workings of Abbey Road and how The Beatles are handled at the broadest level, both sonically and commercially. Modern audio playback equipment is plenty good enough



"I was right! I did pay 32 shillings and six pence for Sgt. Pepper" says Kevin Howlett.

to reveal the quality issues, so what is going on at the 'front-end' in the studio matters.

Sad to say that many studios are sniffy about the replay process and its intricacies, preferring to avoid the issues and the audience – their customers. Good to see the total opposite approach from Abbey Road and Universal Music Group. I hope we hear from you all much more as there's so much more you can tell an eager audience (just look at that zebra crossing).

To update readers who haven't seen the ongoing discussion in Letters about the price of an LP back

for original price, to which we can use the Bank of England inflation calculator to come up with today's equivalent price. The 32 shillings and six pence you paid for Sgt. Pepper (released 1967) works out to £29.63 today. That makes the cost of today's LPs look pretty good. Especially when they are of better quality, meaning on heavy, flat vinyl like Quiex VR, with very low surface noise.

Since the best modern LPs are a spectacular listen on a good hi-fi, dwarfing digital, that seems to make them more than good value. **NK**

THAI TROUBLES

I am looking for a very good integrated amp with a remote control to run my beloved Rogers LS3/5a. Now I have a Quad 405. I like a warm sound not too bright.

Thank you very much for your help. Love your magazine – read it for many years. I live in Thailand.

Best regards,

**Reinhart Frais
Thailand**

Hi Reinhart. Quad amplifiers have sounded smooth and easy since the 33/303, or even valve 22/II that came before, so I suggest you stay with them. Consider the Vena II (45 Watts) with remote control of volume and input selection or, for more power,



"My beloved Rogers LS3/5a" loudspeaker.

something that is affecting my system building (lack of decent sized rooms and mainly concrete walls/floors/ceiling).

My question: I am in need of a new DAC/preamp for my system and feel totally lost despite having a decent knowledge in electronics, both analog and digital. What I am looking for is essentially a DAC with volume control, requirements would be a good USB input (currently fed by a VERO4k+/KODI unit with music stored on a NAS. Other inputs would be 1 Toslink, 1 RCS (BNC) (one analog in would be good but not essential) as well as balanced output.

My speakers are KEF R500, connected to a Rogers RH-6 power amp by SUPRA XL Arrorum and Furutech Spades / Bananas (bi-wired). The Rogers power amp was a pleasant surprise a while ago when I asked a couple of friends where to look for serious dealers in used hi-fi to buy a new power amp and one of them had the Rogers RH-2/RH-6 combo in storage which he gave me! I had intended them to be a temporary replacement until I bought something new, but they seem to work very well in my system.

Looking around now, trying to find a good preamp has been incredibly difficult, the market seems swamped and the functionalities differ in a way that it's very hard to get an over-view, so I have to try with those who would know far better.

**Stefan Gutehall
Hong Kong**

Hi Stefan. A DAC that suits your needs is the Audiolab M-DAC+. It has no analogue input, but all you have listed except a BNC electrical input, but you can use a BNC-to-phono lead or adaptor. The Audiolab has a filter set with options developed by John Westlake that add greatly to its functionality. Factor in an ESS DAC and linear power supply, plus balanced outputs and it would suit your requirements. Available in Hong



"I like a warm sound not too bright" says Reinhart Frais. We suggest a Quad Vena II amplifier.

in the Sixties, compared to one today (are they a rip-off? etc) your retrieval of an LP's original price is valuable. In my searches the 'net did not have this info. My memory said 'thirty shillings' (£1.50) for Help and that looks about right.

Your list gives us a firmer anchor

an Artera Solus. Their use of an ESS Sabre32 DAC keeps the digital sounding smooth and easy too, so right up your Thai street! **NK**

HI-FI IN HONG KONG

I am Swedish and have been living in Hong Kong for the last 11 years,



"I am in need of a new DAC/preamp for my system and feel totally lost" says Stefan Gutehall. An Audiolab M-DAC+ is one obvious contender, great quality and also service, in Hong Kong.

Kong, helped by IAG Group manufacturing in Shenzhen, just across the border from you. **NK**

LIFE IN A POWER STATION

I read with some amusement your description of the aesthetic quality of the Icon Audio Stereo 40 MkIV amplifier in the January 2020 issue of your mag. You quite rightly described it as looking like something out of an old power station. This aesthetic is irresistible to me because, I grew up in a 1930s power station (kind of). I spent a lot of time in my childhood following my grandfather around. He lived in an isolated rural location, ran his own sizeable business, and so logically had to generate his own electricity

His generating equipment was mostly 1930s vintage – huge Lister diesel engines, the generators themselves, banks of huge storage batteries that had either come out of a ship or train, and old switchboard gear that would flash and arc. It was all either an industrial green or black colour. He had wired it all up himself.

He could on occasion be a bit theatrical with the stuff, so there was definitely an element of Frankenstein's lab to it. It was all wonderfully sinister and really quite dangerous by modern standards, and it left an indelible impression on me. Imagine my surprise and lusty excitement when I found out that there were companies now manufacturing hi-fi in this style!

Many thanks also for your championing of big loudspeakers, particularly Tannoy speakers, and SET (Single-Ended Triode) amps over the years. My lounge is now cluttered up with this heavy, bulky and strangely comfortable equipment. The 'speakers

do blot out some of the natural light but the glow from the 805 valves is compensation enough. You are at least partly responsible for my goofy obsession. What a terrible thing to do to a callow, impressionable youth of – well, I was 43 at the time.

Also partly responsible are the staff from the Hi-Fi Emporium, Bungay, who let me take stuff home to try out. Many thanks to them also, for tolerating and even helping this primitive soul in his hi-fi adventures. Who else would let you

tweeters and experimenting with others.

Swapping out AX7s for 575 Is in the Ming-Da pre-amp stages can reduce gain and compression and add even more detail.

I have also got an Icon Audio L4 pre-amp and Vincent power-amp that I also use with the Tannoys, which is better for a lot of modern music (those dodgy 80s/90s digital reverbs, modern mastering distortion).

I still marvel at the dynamics, detail, transparency and astonishingly lifelike quality – vocals in particular – of representation that I can get out of this SET/Tannoy system. The very breath of the music can survive better through the technology. It can also generate tremendous wallop in the lower midrange/upper bass region and rocks pretty good for an SET setup. Jimi Plays Monterey' is currently burning up my eardrums and melting my brain as I write this. I live in a detached bungalow so I can play gloriously loud. I am going slowly (rapidly?) deaf and I don't know if it is a fair trade but sure is fun. I love my stereo.

The problem is this. Like so many hooligans of my generation, I grew up with tone controls and crave more low bass at times – hip-hop, dub, funk, Black Sabbath etc. My system does produce a remarkable quality of bass – tight, melodic and tonally accurate and can



Icon Audio Stereo 40 MkIV amplifier. "You quite rightly described it as looking like something out of an old power station. This aesthetic is irresistible to me" says Richard Beane.

take a giant set of vintage Tannoys home to test drive?

I have a Lector CD player, upgraded Ming-Da 3008 ABSE integrated SET amp (with 300Bs driving 805s in the power amp stages) and 15 inch Tannoy Mansfield speakers of 1973 vintage. I am currently using a pair of Morduant-Short tweeters as super-

go very low, producing awesome dry, controlled sub-bass that I can feel as well as hear. Things in the room vibrate and fall over when I crank it. But you have to turn the volume up to hear it.

What I crave sometimes is more bass at low volume. I am reluctant to get another amp with tone controls. I love the pure sound of the single-ended



Tannoy Mansfield. A massive 15in Dual-Concentric drive unit in a relatively small, sealed enclosure of 5 cu.ft. "What I crave sometimes is more bass at low volume" says Richard Beane.

amp and don't want to futz up the signal path. I am also impressed with the build quality of the amp and the point-to-point wiring. I don't want to buy some other amp with regular circuit boards that can't be fixed when it goes wrong.

I have hooked up the Tannoys to an old (troublesome) Luxman, with tone controls and loudness feature, and this will give me the volume of bass I want. I have also been experimenting with an old REL sub that integrates well. But I prefer the bass sound of the SET through the Tannoys – big, dry, clean (non-distorted) bass – that you can hear on recordings with bass mixed overly loud.

Reading your old articles about 'Tannoying' it is clear that you have encountered problems with bass response from Tannoys in smaller rooms. It has occurred to me that these speakers might be too large for my modest living room (22ft x 12ft) with a modest ceiling height. However I would be interested to know if any of the following ideas has any merit?

Porting the speakers. The old Mansfields are not even ported. Front or back. Should I port them? If so, front or back? How big should the ports be and how many? What frequencies are amplified by porting? I know from playing with the Luxman and the REL that I want more volume from approx. 150Hz down. As they are the original 70s cabs, and in decent condition, I am unsure about cutting them up.

Should I build larger, more sophisticated speaker cabinets? I would enjoy doing this – I have some woodworking skills – but it would be extremely frustrating to build the cabs – especially more complicated ones like a transmission line or horn loaded speaker – and then find out that the bass is no bigger, or too big, or woofy and indistinct.

It is difficult to know which cabs to go for. Horn? Transmission line? Or just plain huge simple box cabs? I am not limited by size, so they could be big, and as heavy as one sturdy fellow with a sack barrow can fit through a conventional door frame. Is there a book you can recommend on speaker design for idiots?

I could send the Ming-da back to Ming-da UK and get the amp modified so pre and power amp can be separated if necessary, and I can then get a valve pre-amp with tone controls – possibly a Vincent if I can afford it – to boost bass levels on select recordings. I have contacted Mark Mainwaring-White before and he has been very decent and I have no doubts that he knows his business.

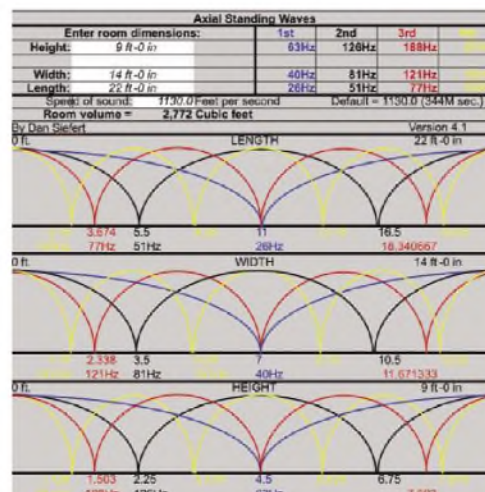
My room is 22ft x 12ft. I am firing down the length of the room. The speakers are about one metre from the rear (shorter) wall. I have experimented with speaker placement – moving them closer/further from the walls, and it is about as good as it gets.

Thanks again for your most excellent magazine, which has helped to get me more interested in the science of hi-fi, and also to get me to try out SET amps and Tannoys. I realise I am extremely lucky to have the Hi-Fi emporium in my home county, as otherwise Tannoys would be unavailable to me to hear without ordering first. Thanks Again,
Richard Beane,
Norfolk.

P.S. Before reading your articles, I really did not know about Tannoy

– or I absently thought of them as FA manufacturers. But I had craved bigger speakers ever since running music through an old Fender Twin – a gorgeously big, warm, if not overly detailed sound.

Modern 'hi-fi' speakers, however sophisticated, lacked scale and a certain grunt. With the big speakers you can actually feel them bossing the air in the room around. Imagine – a British company – a veritable household name! no less – making giant speakers that I had never seen in a hi-fi store. This was to change upon visiting the Emporium, a bewildering and overwhelming experience rather like wandering into the International History Museum of hi-fi. I wish you could write a book about hi-fi science and history for dippy non-techy beginners like myself who need a bit of help. Hi-Fi World has been a great help, and your articles in particular.



This simple JBL room mode calculator, available on the 'net, shows a 22ft long room has a first mode at 26Hz (top graph, blue trace). The Mansfield is unlikely to reach such a low frequency.

Hi Richard. Great that you are enjoying the 'Tannoys with valve amplifier experience' – that's an awesome set-up.

Your room, at 22ft long and 12ft wide is relatively large and should suit big Tannoys. I suspect the Mansfield, as a 'compact' Tannoy with a 5 cu ft enclosure, does not go low even though its large 15in Dual-Concentric drive unit will deliver massive bass power higher up the audio band from a few Watts.

Here's what I suspect is your difficulty. The lowest resonant mode of your room (half wavelength) is 26Hz – very low and likely well below what the Mansfield can usefully energise. In a nutshell then, your room is too big for your

Tannoy. I'd like to suggest you get a bigger Tannoy, like the 7cu fit, 12in Dual-Concentric Yorkminster that educated me about what a big Tannoy could do (move the body!). But prices for these 'speakers are eye watering at £12k or so. Look around for a bigger Tannoy, or speak to Emporium, since they know about all this. You really need an in-room demo.

Modifying your Mansfields by fitting ports is unlikely to work. I cannot say without having the Thiele-Small drive unit parameters for computer analysis. A sealed-box loudspeaker takes on ported characteristics even with a small air leak, so you could well try and loosen the rear connecting panel slightly – or greatly – and listen to what happens. If bass increases then just leave the rear panel loose. It's a nice simple mod that does not damage the cabinet. Adding ports would then work but tuning them is not a simple process. And the value of your Mansfield will go south.

Can you build larger cabinets? Possibly. Again you need the Thiele-Small parameters of the drive unit to work out how large it would need to be. There is no simple solution. Try talking to Falcon Acoustics about this if you want to pursue the issue.

Methinks your are best off colluding with Emporium about searching for/listening to big Tannoys – which truly were extraordinary. Not just ground shaking, but focused and accurate – from just a few Watts. The down side is they go up in price, not down. But that means if you buy an expensive Tannoy it can be sold for no loss, perhaps even a profit. Bit like an old Land Rover.

Meanwhile, enjoy proper hi-fi – as delivered by a 1930s power station! **NK**

VINYL HYPE

The hype is on the vinyl now and I think people are misled by media and magazines. I owned several turntables since my addiction to hi-fi: Technics, Pioneer, Thorens, Linn, Prject and now again Technics, but when it comes to serious listening and relaxation I turn to my faithful Esoteric SACD and CD player. No need to stand up every 20 minutes to change the side of the record, to clean the disc, to put the needle on the groove. Maybe this process is interesting for some fetishists but for a sound without scratches and pops, in my view the best experience is from CD replay.



Topping D70, made in China. Available on Amazon for around £450 and uses an AKM DAC chip.

So maybe your readers will like to hear and read about a digital converter no magazine talk about, it is a nice item using an AKM velvet series chip, fitted with AES, coaxial, optic and HDMI inputs, alongside XLR and RCA outputs. I use one myself and it can compare with more costlier products. Oh, by the way, its name is Topping D70 and it costs less than £600.

**Remi Balestie
France**

Hi Remie. If 'tick and pops' are your only criterion then you are right, LP even in best modern form still has them and you can only choose digital. However, a tick or a pop is a short term event; long term it is sound quality that counts and here modern LPs are glorious. But it is acknowledged that cutting an LP introduces degradation and in principle at least a good digital transcription has to be better, as well as more convenient. SACD with its DSD code always sounded good, and today's DSD files, derived from modern recordings, sound superb. Keep enjoying CD and SACD and consider DSD downloads. They sound even better. **NK**

ESS or AKM?

I have been banging on about the ESS9038 DAC. I just can't get over the spaciousness and ambience and vocal and instrumental separation and wide sound-stage and deep bass and even some analogue warmth – even with MP3 files (Pro-ject Pre Box S2 Digital)!!

But there is a new kid on the block – the AKM AK4497 DAC from Topping Audio: see <https://topping-audio.com/produkt/d70-full-balanced-dac>. A review says: "The Topping D70 came dangerously close to unseating every other DAC. Its full output distortion is a few dB worse than the best so it didn't get there. But in all other respects, the D70 produces exceptional measured performance. Its crown jewel is exceptionally quiet noise floor that creates one of the best dynamic ranges

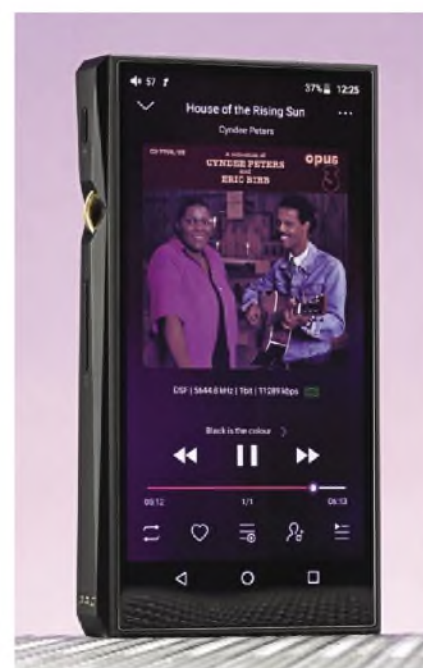
I have measured. Use of AKM chip takes advantage of that to produces exceptionally clean performance where your volume control normally would be. Unless my memory is hazy, the D70 produces the best measured performance of any Topping DAC. So if you are a fan the brand and want the best DAC in their product line, the D70 is it".

Come on Noel - test both and let us know.

Mike Tartaglia Kershaw

Hi Mike. We have measured and listened to many of AKM's (Japan) Velvet Sound DACs, for example in FiiO's M11 Pro portable player reviewed in the February 2020 issue. They are right up there with the ESS (USA) ES9018 and later 9038 Pro DAC chips. In my experience slightly smoother and warmer than the ESS Sabre32 Series, meaning they are very smooth and warm. They measure just as well too.

Upcoming is the Cirrus Logic



FiiO's M11 Pro portable player uses a smooth sounding AKM AK4497EQ DAC chip.

CS43198 (USA) DAC, that appeared late 2017 and has yet to be commonly seen or adopted. It was used in the iBasso DX-160 player, reviewed in our March 2020 issue. Cirrus claim 130dB dynamic range.

Then finally, don't forget Chord Electronics (UK) own DAC that can be found on the Mojo upward. It out-measures just about all others. Both the Cirrus and Chord Electronics DACs have a brighter sound than ESS or AKM.

Whilst the Topping may look good at £450 or so, an Audiolab 6000N streamer with ESS DAC is that price too and an M-DAC+ £680. **NK**

NEW REFERENCE

I currently have a Naim Uniti Atom streamer paired with the KEF LS50 speakers. I would like to upgrade my speakers and have considered the KEF Reference 3. I note the Naim has output power circa 40 Watts and I would welcome your advice if this would be sufficient for the KEF R3. I play for example Pink Floyd at moderate volume in a medium size living room. You assisted my choice some 30 years ago when buying Heybrook speakers so please assist me now.

Regards

Ivan Swales

want to go a bit further up the ladder to a small floor stander like the R5. This will give you a bigger sound all round. **NK**

IN YOUR EAR

I wonder if you can help me to understand how my ears and brain fool me into thinking that headphones and in particular in-ear headphones generate bass. Everyone knows and accepts that to generate real bass in a room big floor standing speakers are necessary and the bigger the bass drivers the deeper the bass response generated.

We are talking 10in, 12in or 15in bass drivers to generate bass down below 30Hz yet ear buds claim, and seemingly deliver, almost equivalent deep bass from drivers around 5mm across.

I guess the proximity of headphones and ear buds to the ear canal has some effect but why is this so and what makes my ear / brain interface believe and hear deep bass from these tiny drivers?

Thanks

Bob Stares



"I have a Naim Uniti Atom streamer with an output power circa 40 Watts" says Ivan Swales. "Will it suit a KEF R3?"

(sound power) in a room and it has to be high to hit your ears, of small pickup area, to give enough sound pressure level for them to register with your brain as loud. That's the basic mechanism.

What you also hear from loudspeakers is reverberant energy from the room, making them sound bigger and more fulsome – seemingly a more natural representation of the real world – than that from ear buds. But you can argue that ear buds, by cutting out surrounding 'noise' are more accurate.

Difficult to take a position on this. Buds would seem to be correct, loudspeakers perhaps more enjoyable. The difference between headphones/ear buds and loudspeakers is one of those lovely, often amusing subjective/objective arguments. **NK**



KEF's standmount Reference 3 loudspeaker has 87dB sensitivity.

Hi Ivan. The KEF R3 has a sensitivity of 87dB (loud) at 1 metre distance from one Watt. That's good for its size, as you'd expect from KEF, and 40 Watts from your Naim Uniti Atom will be enough to make it go loud in a medium sized room, of 16ft long maximum. You will be happy enough with this combo. Just be aware that your LS50 is very good by any standard and to get past it you may

Hi Bob. Some fundamental questions in there. Ear buds couple directly into your ears with no acoustic loss. They will drive your ears down to any frequency they (the buds) can reproduce, meaning you will get clean, deep bass from ear buds if they can deliver it and they need not produce high acoustic power to sound loud.

Loudspeakers generate energy



Ear buds couple direct to the ear drum, cutting out room reverb and the effect of the ear, head and upper body that influence what we hear. The sound will never be like that of a loudspeaker.



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The Unison Research Max Mini is big in many ways, Noel Keywood thinks.

More Than Mini

We've reviewed many Unison Research (Italy) valve amplifiers in the past and they sounded lovely – silky smooth, full bodied and atmospheric, in true valve style. Making the arrival of their Max Mini loudspeakers designed for valves welcome in our offices. Would they suit a valve amplifier is the obvious question? What does "Designed for valves" mean?

The Max Minis are heavy, weighing 15kg each. I found them challenging to lift. The cabinets are sizeable at 495mm high, 285mm wide and 360mm deep so you'd need a sturdy bookshelf for them. Stand mounting is more suitable and that's how I reviewed them. Just as Unison Research say, these loudspeakers deliver massive volume from a few Watts, as our measurements showed, but to achieve this using an unusual design approach impacts cost – a healthy £2849.

Dominating the front panel is a large horn driven by a 1in (25mm) titanium dome tweeter that works from 1.5kHz up to 20kHz Unison Research say – and our measurements confirm. A horn like this delivers very high volume from little input and is difficult to match into a bass unit in terms of sensitivity. To do so Unison Research use a large 8in (203mm) bass driver loaded by what is a big volume cabinet to get sensitivity up to that of the horn. And it works, matching well enough down to 200Hz, before deep bass falls away. Enter room.

In a medium to small room, and placed close to a rear wall, the room will boost bass to give a balanced sound. So although on the large side the Max Mini is for medium to small rooms up to 16ft (circa 5m) long, and for near-all placement. It may well be this is why they are labelled bookshelf

from just one measly Watt of input – up to big Tannoy levels. Here's where the Max Mini scores: it offers the sensitivity of a big floorstander in a compact cabinet – quite a feat. That means a specialist amplifier like a single-ended 300B design delivering 9 Watts would suit, and so would a Quad Vena II solid-state design (45 Watts). Bigger amplifiers in the 100 Watt herd would be fine with volume turned down but a loudspeaker as sensitive as this does not need such power. The claim "designed for valves" comes into focus here.

The cabinets are solidly built and superbly finished with a deep gloss lacquered veneer of Cherry, Walnut or Mahogany. The front grille is removable and acoustically transparent, having no affect upon the sound on or off. Wide dispersion makes positioning uncritical: they can point straight down the room or be toed in – no difference.

At rear a large toggle switch can be set at a centre neutral position, or down for Solid-State and up for Valve. Centre and Solid-State gave identical results under measurement and listening but Valve raised the lower midrange for a slightly warmer sound. It was a fairly subtle change and I was happy enough with the central neutral position.

SOUND QUALITY

I ran the Max Mini first from our Creek Evolution 100A amplifier and then from our Icon Audio Stereo 30SE single-ended valve

linear power supply and smooth sound. Hi-res came from a fully floating battery driven Astell&Kern AK120 portable player connected via the optical digital input. Cables were Chord Company Signature Reference for loudspeakers and Epic for interconnects.

At first listen the Max Minis were, by consensus in the office, sharp and edgy. We gave them a long run in to smooth things out and the edginess disappeared, but they are strongly midband forward so remained vivid with our relatively relaxed Creek amplifier. Josefine Cronholm loomed large in front of me singing Gates of Istanbul (CD) – so forward and clear it seemed someone had put a magnifying glass on her vocals.



At the centre of the horn lies a titanium dome tweeter surrounded by protective grille.

This is the new balance: 'speakers of yesteryear had a crossover dip that made them sound soft and easy; now a lift replaces the dip for a sound that's dramatically forward. This makes the Max Minis different to what you may expect from a valve friendly loudspeaker: they are not in themselves soft or warm.

Set to 'Solid-State' and driven by our Creek the deep bass from Bazouki in Gates of Istanbul that I know from this review track was on the light side in our large room, clean but lacking low end weight. In a smaller room however, meaning less than 16ft long, room gain at low frequencies due to resonant modes in the bass region would lift this shortfall nicely to give a sense of balance and fast if not deep bass.

"Images loomed large: the Max Minis constructed a massive sound stage"

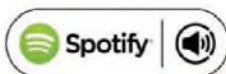
designs, and have put ports on the front, not the rear.

Unison Research claim these 'speakers produce a loud 93dB

amplifier, so it got both solid-state and valve (tube) drive. Up front as a source was our Oppo BDP-205D CD player with its ESS9018 DAC,

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The big flared horn with its wide dispersion set up a capacious sound stage, one with width that extended beyond the loudspeakers – and there was plenty of height too. Images loomed large as a result: the Max Minis constructed a massive sound stage, just like the Klipsch R-51PM I reviewed in our April 2020 issue and also like big Tannoys.

Tannoys – like their Fyne Audio successors – fire treble out through the horn of a bass unit to build a massive sound stage – and the Max Minis perform a similar acoustic trick. Wide dispersion bounces sound off walls, floor and ceiling (boundaries) to give a feeling of scale – and that's what the Max Minis did for me. Great for classical music in particular, the Chicago Symphony Orchestra filling the room with Mahler's Symphony No8, Veni Creator Spiritus (24/96).

I love big Tannoys but violinist Rafael Todes (Allegri String Quartet) poked me in the eye – no ear! – with a brutal truth:



The large horn at top gives wide dispersion and a large sound stage. It also provides high efficiency: little power is needed to go loud.

"it sounds like singers are in a phone box". I hadn't noticed that. What Rafael identified was the known 'cuppy' sound of a midrange horn and just as this effect did not worry me with Tannoys, it did not with the Max Minis, but all the same it was there; drums and percussion in the Pink Panther Theme (CD) had a slightly

enclosed sound. Not a major issue and a trade off against high sensitivity, but there in small amount all the same.

Switching to our Icon Audio Stereo 30SE single-ended valve amplifier (4 Ohm) brought little change. There was the greater stage depth valves bring, a tad more warmth and body – and throwing the big rear switch to valve (tube) added to this effect, but I preferred the drier sound of Solid-State. Valve EQ is for bright transistor amplifiers, adding a bit of warmth – unnecessary for a valve amplifier.

CONCLUSION

The Unison Research Max Minis need just a few Watts to go massively loud. It usually takes a big floor stander to do this but this is a bookshelf loudspeaker Unison Research claim, albeit you'll need a strong bookshelf! Fast and forward in sound quality, throwing vocalists out into the room and making orchestras loom large on a massive sound stage, they're sonically impressive. With so much insight, plus a bright sound balance, a smooth



A large toggle switch on the rear panel selects Valve or Solid State EQ.

A single pair of gold plated terminals accept 4mm banana plugs, spades or bare wire. Bi-wiring is not possible.

amplifier is required, solid-state or valve. This is a finely tuned and somewhat esoteric design, if at a price where there is plenty of competition from sensitive floorstanders of less dramatic balance.

MEASURED PERFORMANCE

Our frequency response analysis of the Unison Research Max Mini shows a broadly flat characteristic across the audio band from 60Hz to 20kHz, within 3dB limits. Above 2kHz output is strong to 6kHz, giving more upper midband

output than is usual, meaning the Max Mini will sound forward and bright against other loudspeakers.

Bass rolls down below 150Hz to best suit placement against a real wall. The forward firing ports, tuned to 60Hz (red trace) will add some extra heft and power to low bass. Cut off below 50Hz is fast, so no sub-sonics. This is not a bass heavy design.

Sensitivity was very high for a compact loudspeaker, delivering 91.5dB sound pressure level at 1metre, from 1 Watt input – comparable to big floor standers. Amplifiers of 9 Watts or more would suit and 40 Watts enough to go very loud.

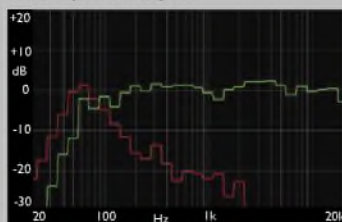
Impedance was high at 9 Ohms when measured with pink noise, so the Max Mini is an easy load, undemanding of current.

Raised upper midband output will give a bright and forward sound. Bass has been tailored for use close to a rear wall. Sensitivity is extraordinarily high, just a few Watts needed to go very loud.

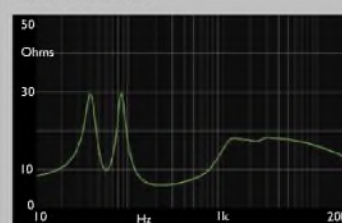
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FREQUENCY RESPONSE

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



IMPEDANCE



UNISON RESEARCH MAX MINI £2849



EXCELLENT - extremely capable.

VERDICT

Need just a few Watts to go very loud, have insight and great sound staging. But expensive.

FOR

- need little power, 40W max.
- capacious sound stage
- insightful

AGAINST

- bright and forward
- lack deep bass
- need a strong bookshelf

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Bristol 2020

Noel Keywood goes walkabout at the Bristol Show and brings you his report.

Britain's Bristol Show is a long running go-to for the UK's hi-fi industry. Meaning it has consistency in its breadth of exhibitors and depth of interest, albeit with some limitations that I was made aware of from readers visiting our stand – and bending my ear!

All the same, this year's show was a busy one, little assailed by February weather. No snow storms; mild but windy outside as Atlantic clouds whistled over, dumping heavy rain everywhere except Bristol, the news said. Result: a busy show full of happy visitors, including us.



Just before the doors opened, the Hi-Fi World stand was peaceful – but not for long.

"What is it we should go and see?" I was asked. With music now coming in from the 'net via streaming services Chord Electronics 2go mini server for Hugo2 DAC was a significant new product that caught a lot of interest – see our show report shot.

Digital sources like CD players are not making show headlines anymore, but analogue turntables and cartridges had good presence, if with no new product launches. Timestep and Technics were there, SME were not. Open reel recorders were being used to play back music in some rooms: the Rogers room for example with two Revox B77 MkIIs.

Missing this year was A/V



– and with it the noise of car crashes, explosions and all else, making the four floors more serene than in previous years but also eliminating sturdy exhibitors like Yamaha.

Also in short supply, readers noted, were valve amplifiers, Icon Audio, Ming Da and World Design all missing. This apart, just about every other UK amplifier manufacturer from Quad through to Linn and Cyrus were there, plus plenty from overseas.

Loudspeakers were everywhere however. Britain does 'em well and the Bristol Show this year

carried every name you could think of, from Fyne Audio's massive new designs – see below – to the small but lovely Neat Ministra that readers told me I must hear (I did!). America came in with Martin Logan and Magneplanar, France with Focal and Germany with Voxative.

Saturday at 2pm and lasting for one hour in the Wharfedale room, Abbey Road Studios (Universal Music Group) gave a talk about their work handling The Beatles re-releases from what are now 60 year old analogue master tapes. Organised by Hi-Fi World, this fascinating talk gripped the room as Guy Haden, Miles Showell and Kevin Howlett explained the issues of

dealing with the world's most famous band.

As always, it was a great show that uniquely attracts most British manufacturers, giving a nice homely feel to proceedings, where you get sensible answers to any question – even if it isn't so sensible!

Here's a selection of what we saw at the Bristol Show 2020.



Everyone who bought a subscription to Hi-Fi World at the show not only took home a Quadral Bluetooth BreezeQ loudspeaker for free, but entered our prize draw for a pair of Quadral Chromium Style 2 (£700) loudspeakers. Here's the lucky winner, Mark Armitage (at left) from Bristol. Volker Schwerdtfeger, CEO Quadral, Germany, flew in to present the prize.



...and the other panel loudspeaker at the show was Magneplanar's new LRS (little ribbon loudspeaker). Unlike Martin Logan's electrostatics the LRS uses a conductive ribbon to drive a flat panel 48in (1.2m) high. It sounded as smooth as Maggies usually do. Imported by Decent Audio, price a very reasonable £999.50 – see review in this issue.



Build a good loudspeaker and they will come. Martin Logan's ESL-X hybrid electrostatic loudspeaker (£5000), used by Hi-Fi World as a reference monitor, on demo in the PMC room (importers). Interesting that this top electrostatic panel should attract so much attention; UK audiophiles know the issues.



Chord Electronics 2go (£995) links Hugo2 with internet streaming music services and can play music from microSD card, whilst 2yu (£449) is a plug-in digital interface for 2go that provides S/PDIF and USB digital outputs for alternative DACs.



Monitor Audio were demo'ing their new Bronze 500 loudspeakers (£770), driven by Roksan amplifier, CD player and lovely Roksan Radius turntable at top. Punchy and fast, they sounded good.



Spendor were keen to tell us about their new Classic 4/5 mini, price £1600. It was hidden in a back room so at present is unrevealed. We hope to be reviewing it soon.



One of the few valve amplifiers at the show, the Voxative T-211 single-ended design uses one 211 valve per channel. Not much power available here, 12 Watts per channel being quoted, but Voxative have suitably sensitive loudspeakers using their own full-range drive unit. Lively sound with confident clarity.



Spotted at one side in Wharfedale's room was their new Evo 4.3 small floorstander with woven carbon-fibre bass units, dome midrange unit and AMT tweeter, price £999.95. We hope to be reviewing them soon.



The massive – and impressive – F704 loud-speaker from Fyne Audio, with co-axial drive unit at top and bass unit below, said to deliver a shattering 96dB from 1 Watt. Price £10,999.



Two readers praised the sound from Neat's Ministra loudspeakers and – sure enough – their demo was one of the best of the show. Naturally balanced, sweet and clean, these little Iso-baric loudspeakers with ribbon tweeter were deeply impressive.



A Revox B77 MkII tape recorder was being used as an analogue source for Rogers LS3/5a and LS5/9 loudspeakers. On static display was a Rogers E20a/III valve amplifier using 6L6 power valves, and with remote control. Classic products with classic sound.



Kerr Acoustic (Cambridge, UK) were showing their K300 Mk3 loudspeaker, with ribbon tweeter and bass transmission line, all in a compact cabinet. Good looking display and fine sound with pin sharp treble. Price £4995.



Proac were showing their massive K10 loudspeakers with ribbon tweeter and two midrange domes either side, sitting in short-flare horns. Massive sound at similar price – £33995.

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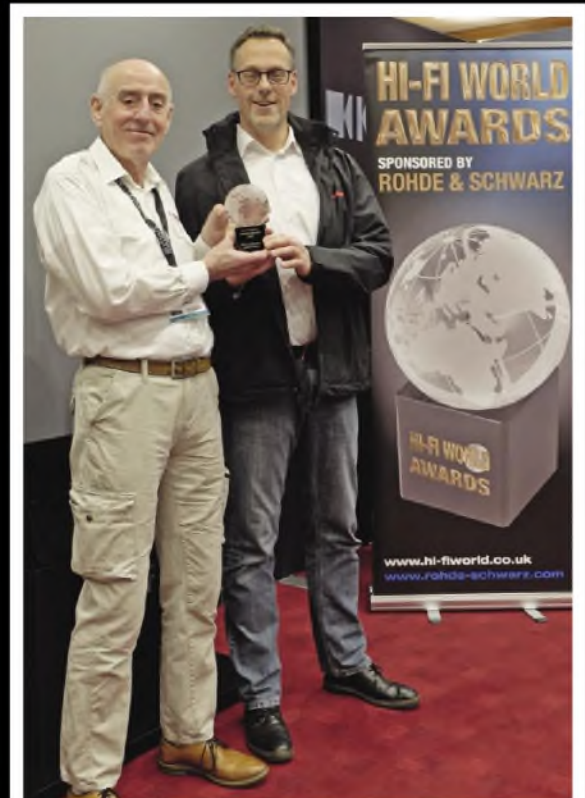


World Awards

Britain's Bristol Show attracts most of the country's hi-fi manufacturers, plus their top people – representing a wealth of weight and knowledge. Our Awards ceremony report reveals the faces behind these companies.



Richard Stevenson (right) gives a light hearted presentation. Amused editor Noel Keywood at left.



Volker Schwerdtfeger (right), Quadral, Germany – best Loudspeaker (Orkan 9).



David Shaw (right), Icon Audio – best Valve Amplifier (Stereo 40 MKIV).



At the end of a busy two days, at Friday evening's Awards ceremony there is needed food for hungry exhibitors.



Peter Comeau, IAG – best amplifier (Quad Vena II).



Richard Stevenson RSPR (left) and Dan George, Dan George Communications, both with a long history in hi-fi.



John Franks (right) Chord Electronics, UK – best DAC (Hugo TT2 & Hugo M Scaler).



Jan and Geoff Merrigan MD of Tellurium Q – best cable.

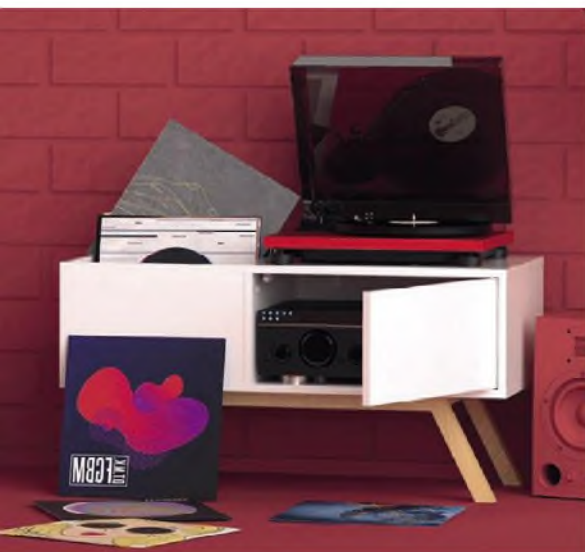


Chris Laidler, Advanced MP3 Players – best in-earphones (FiiO FH5).



Volker Schwerdtfeger (left), MD of Quadral, and Adrian of Icon Audio.

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Dave Cawley (left) Timestep MD, and David Shaw, Icon Audio MD.



Charlie Henderson, Naim – best network player (Naim NDX2).



Mark Williamson, Advanced MP3 Players – best hi-resolution player (Cowon Plenue D2).



John Franks, Chord Electronics MD.



Geoff Merrigan, Tellurium Q – best loudspeaker cable (The Statement Q).



Charlie Henderson, MD Naim, and Claire Newsome, Marketing Director.



Mark Williamson (right) MD and Chris Laidler, Office Manager of Advanced MP3 Players.

An X factor with merit?

Martin Pipe tries out some unusual high-end IEMs from Poland.

They may be new to us, but the Model X IEMs (in-ear monitors) from EU-backed Polish operation Lime Ears have – if its website is to be believed – been around for over two years. One step below

the €1200 Aether Rs, the Model Xs sell for a still-significant €890 (likely to be £799, I was told, by the time they arrive here). Model X makes do with four balanced-armature drivers, while the Aether Rs have six. They work in conjunction with

a acoustic design feature called 'VariBore', in which "sound bores of different diameter are used for each frequency band. Another of these bores features Lime Ear's FAR (Passive Acoustic Resonator), which is "tuned carefully in terms of





The ‘sound bores’ of the aluminium nozzle are visible here, as is the unusual input socket of the right earpiece. You can’t see the bass-boost switch, which protrudes from the body and is therefore vulnerable. Replacement is unlikely to be an option, as these buds appear to be sealed.

length, diameter and volume...to provide numerous resonant effects that help even the frequency and impulse response of the transducers”.

Both models differ from the average IEMs insofar that they have a switch to change the low-frequency characteristic of the device. Bass can be boosted to restore subjective balance at lower listening levels, or if external noise levels are high enough to mask the lows. A decent ear-seal will help to reject unwanted external noise, and to this end the Model Xs – which come in a marvellously-OTT machined pot, with screw lid – are supplied with no fewer than nine sets of tips. Of different materials, sizes and colours (none of which are described in the online PDF I resorted to in the absence of a paper manual).

A supplied (unbalanced) cable attaches to the side of each bud, using a tiny plug with tight-fitting gold-plated pins. At the other end, it's terminated in a standard 3.5mm plug – sensibly right-angled so it doesn't protrude from a music player. No 6.3mm adaptor is provided, but Lime Ears does give you a brush to sweep away wax and other nasties.

When I first tried these IEMs – with a number of devices, including Pixel 3a/FiiO BTR5 and Cambridge CXN/Prism Callia combinations – I didn't like them one little bit. They were an awkward fit, while their sound was thin, anaemic and coloured. In other words, not worthy of the asking price by a long shot.

Hang on...shouldn't those

lead-in wires curve around your ears? Could it be that whoever assembled the review-sample Xs put the plugs in the wrong way round? As they're not polarised, this is also possible. Holding my breath, I tugged in turn the tiny connectors until they broke free of the buds and flipped them round. Voila! Not only did they sit in the ear and stay put – providing a good fit with the black foam tips I tried – but the sound was transformed into a standard befitting price. There was a lot more body, although in terms of deep bass the Xs aren't quite up there with some competing models – even with the bass-boost switch in their upper position. If anything, the Model X's balance tends to favour the treble end of the scale.

But to their credit the Xs are

wonderfully-revealing, a property that doesn't in any way compromise their ability to convey music in a compelling yet accurate manner. I was surprised with the number of musical layers they could peel back from recordings, among them 808 State's Transmission Suite. Percussion was fast and clean, and I was left with no ambiguities when it comes to the organic tonality of the analogue synths favoured by the duo. But although what I got was deftly-articulated, a little more low-end would nevertheless have been appreciated.

Classical recordings also passed the test. A 1973 recording of Sibelius' Second Symphony, as played by the Philadelphia Orchestra under the baton of Eugene Ormandy (24/96 transfer) was presented with palpable space, imaging and dynamics coupled to a natural spectral balance. Strings were lush and rich, while brasses had bite. Vocal material was marked by even character, no untoward colouration being noted – demonstrating that in the key midrange region, the Model Xs are commendably-neutral.

CONCLUSION

All power to Lime Ears for daring to be different. The Model Xs are almost holographic in their imaging prowess, and chances are they'll reveal subtleties you may have missed before. What a shame the 'bass boost' function doesn't go far enough...



You get a lot for £799 – nine sets of ear-tips to cover most (if not all) eventualities, a tangle-resistant 1.2m cable of acceptable standard with twisted OFC conductors terminated in a standard (unbalanced) 3.5mm plug, a brush to clear away detritus and a substantial machined-metal pot in which these precious items can be stowed. There's a lightweight everyday carrying pouch for the IEMs and cables too.

LIME EARS MODEL X 890 (EST. £799 IN UK)



EXCELLENT - extremely capable.

VERDICT

Revealing and musically-adept, but bass-shy.

FOR

- clean, crisp and detailed
- customisable at purchase
- comfortable and excellent acoustic isolation

AGAINST

- make sure yours are assembled correctly!
- somewhat bright
- moulded construction makes repair difficult

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Going down a storm

Martin Pipe braved the elements to bring us this report on February's Audiojumble.

Trouble, they say, comes in threes. However, the combined forces of the coronavirus outbreak, part-closure of the A21 and the dismal weather dealt out by storm Dennis failed to stop the February Audiojumble from proceeding at its usual venue – the Angel Centre in the Kentish town of Tonbridge.

These unpleasantities did however have an effect on attendance, some tables being bereft of goodies and visitor numbers obviously down. A side-room, frequently used for demos, was empty. However, Audiojumble's founder John Howes gained plenty of attention by driving his home-constructed Voigt horn with a Lowther driver in the second hall.

Those who could make it enjoyed spectacles such as these, with plenty of opportunities for banter and bargain-grabbing. It could all have been much worse; Tonbridge

are musts for anyone with an interest in hi-fi, musical instruments, electronic components (including valves), collectables of various sorts, cine projectors, cameras, vintage radios, recorded music in every conceivable format, studio gear and recording equipment.

The pace of an Audiojumble is slower than that of a typical hi-fi show, and it's a friendlier affair with plenty of opportunity to discuss relevant subjects with other enthusiasts.

You're almost guaranteed to find something of interest, from speaker drive-units and cheap 'scrap' chassis for cannibalisation, to rare LPs and virgin reel-to-reel tape.

Some equipment, sold cheaply as 'not working' or temperamental, will



system for less than £100 – or for that matter indulge yourself in superfi heaven! A surprising number of rarities turn up at these shows.

Those prepared to stay until the bitter end can haggle themselves a real bargain. Sometimes, the stuff is even given away as the stallholders (many of whom are enthusiasts) don't want to cart it all home again.

At the opposite end of the scale, rare and desirable items are snapped up early – frequently by dealers arriving at 7.45am to populate their tables (an Audiojumble pitch is £35). They also go to 'super early birds' paying £20 to get in at 8.30am, when some of the stands aren't even ready!

The vast majority of visitors, however, can still find plenty of interest when they come in at 9.30am (£12) or 10.30am (£6). A bargain in itself – especially since parking at the Angel Centre is free.

The next Audiojumble takes place on Sunday 27th September 2020 at the Angel Leisure Centre, Tonbridge, Kent TN9 1SF. www.audiojumble.co.uk Hope to see you there!

Words and pictures:
Martin Pipe



was badly-affected by flooding shortly thereafter.

There are two Audiojumble events annually – one in the winter (usually February) and another in the autumn (usually October, but this year the second event will be taking place in late September). They

need attention. But if you're a dab hand at electronics, you can often put it right and enjoy the results; many of the items I feature in *Olde Worlde* came into my possession via this route.

Shop around and you can assemble a complete vinyl-playing

SHOW REPORT



One of the first turntables made by Rega. In good condition with clean cover, instruction manual and contemporary Shure M75EJ cartridge, this collectable could have been yours for £400...or near offer.



This is a Braun 308S receiver/turntable combo from the mid-1970s – a rare sight in this country. Complete with matching 'speakers and in immaculate condition it was being offered for £300.



This Brenell ST400 open-reel tape recorder was an uncommon sight. It's a four-track machine with a three-speed, three-motor deck able to accept 8.25in. spools.



A valved Troughline 2 mono tuner that was immaculate and in original Leak packaging. A fair buy for the £120 being asked.



Fisher's 'Statesman' 202-T high-end tuner-preamplifier from the late 1950s. This one – restored but with an incorrect knob and lacking a stereo decoder – was being offered for a not-unreasonable £300.



A QX-949A, Pioneer's final top-of-range quadrasonic receiver circa 1976. In good physical shape, and at £60. According to the seller, it needed some work. Snapped up very quickly indeed...



This 1980s-vintage LT-20 from Mitsubishi is a linear-tracker. It had been overhauled. With service and instruction manuals, it could have been yours for £350.



A Roost SSR-12 mixer that had possibly experienced life on the road. You could have picked it up for a mere £18. It remained unclaimed at the end of the day.



This Sharp VZ-2000 ghetto-blaster has a belt-driven linear-tracking turntable with separate tonearms and cartridges for each side of the record. Although in fair condition, apart from missing knobs, this one was 'sold as seen' for £50. It took a while to shift...



With JVC's HM-200E headphone/microphone combo you could make your own binaural recordings with the onboard omnidirectional electret-capsule mikes. £100 was being asked for this particular HM-200E, in excellent condition and complete with documentation and original box, but offers were being accepted.



These bass-reflex speakers with tatty chipboard cabinets and £80 price tag came from a scrapped Yamaha Electone organ. The drive units – a 12in woofer, plus domed midrange and treble – look similar to those of classic NS1000M speakers. Good for parts it appeared. Surprisingly, there were no takers.



The Amstrad 'Executive Series' EX330 featured phono input sockets, 2-pin DINs for the speakers and National Semiconductor preamp chip. I had one many years ago and it didn't sound great. This one, offered for £40, was in good condition. For collectors rather than listeners?



A Technics 7500 3-head Elcaset deck complete with a handful of tapes – a rare sighting. Given its rarity and claimed working condition, the £150 being demanded for this specimen wasn't unreasonable.



A WMP-1 'wrist audio player' from Casio in the late 1990s. Played MP3s and can be used as a watch but of little practical use today. £20 asked for the one seen here.

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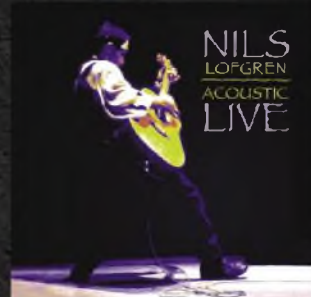
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Punch Perfect

Avid's Integra amplifier packs a mighty punch. Noel Keywood is concussed.



Once upon a time, transistor amplifiers came big, from Crown for example. Nowadays McIntosh keep the idea going with models like the MA352 that we reviewed in the February 2020 issue (£8495). Avid have stepped up to the mark with their massive Integra I am reviewing here. It isn't as glitzy as a big McIntosh nor as powerful as models of similar price, but it has similar sonics. The Integra comes in at a sturdy £7000, so let's look at what is on offer.

First of all you get size. Measuring 470mm wide and 495mm deep the Integra would not fit our nominally 19in wide rack – one of few products not to fit. Our rack's front clearance width is 18in (457mm) and the Integra's rear case at 459mm wide was a few millimetres too large to slot in with fascia overhanging. At 459mm deep it would not easily fit this way either. And at 22.9kg I struggled to place it anywhere on my own; for the most part two of us man/woman-handled it. Reason being inside there is a massive toroidal

power transformer, held down to the base with a huge bolt. It feeds a classic linear power supply; no puny switch-mode supply here. This is a very big amplifier then, some planning being needed to accommodate it.

The case has a conventional steel bottom tray with folded steel cover, fronted by a heavy machined alloy fascia. A rotary input selector chooses one of four Line inputs or Phono for turntable.

And that's it. There are no digital inputs, no XLR balanced inputs, no Bluetooth input; Line and Phono



The Phono input for turntables. A single pair of RCA sockets, plus small slide switches to set gain for MM, or MC high / low. The LOAD sockets at left take MC loading resistors.

inputs are via unbalanced RCA phono sockets only.

There is no remote control: input selection and volume are manual only – surprising considering price. It's common to fit at least an Alps motorised volume control with associated remote nowadays.

The front panel carries a 1/4in (6.3mm) headphone socket, a Mono button and a Mute button, both accompanied by blue warning LEDs.

Avid's phono stage accepts moving magnet (MM) or moving coil (MC) phono cartridges. At rear lie a single pair of RCA phono-socket inputs, alongside which are a pair of small switches to select MM cartridge, high or low output MC cartridges. For a high output MC – which most are – MC gain is set to Low, and for Low output MC it is set to High – a common confusion. The handbook does not make this issue clear unfortunately.

Input impedance of the Phono



A single pair of gold plated loud-speaker terminals accept bare wires, spades or 4mm banana plugs.

stage is 47K as standard, for MC as well as MM, but a pair of supplied 500 Ohm input loading resistors can be inserted into RCA Load sockets to bring MC down to 500 Ohms (100 Ohms is standard). Other values are available Avid say, "contact your dealer", so 100 Ohms is possible. At the price I would expect a simpler

– very loud – with alacrity. I played it loud most of the time because that is where its sweet spot lies. As suspected from measurement this amplifier is evenly balanced tonally, neither smooth and warm, nor bright and sharp.

The Integra has massive bass grip and power. The heavy introductory

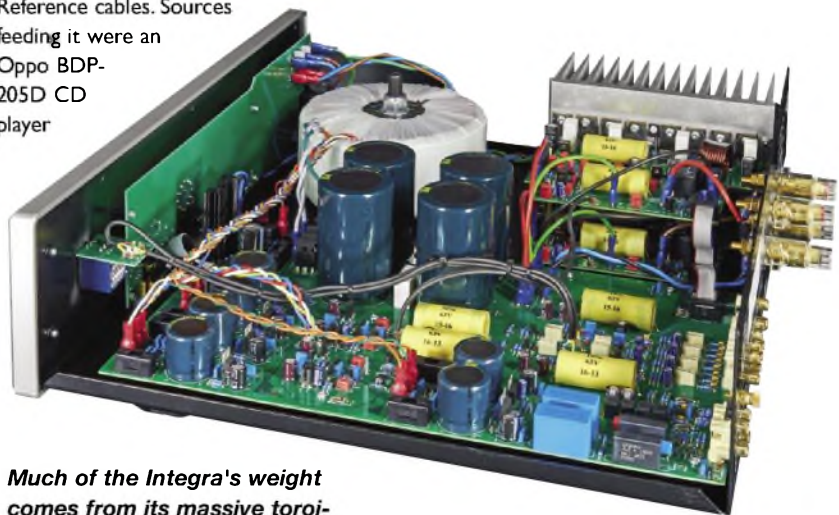
"If you want to get blown away – this is an amplifier worth hearing"

and clearer system than this. In its favour, Avid have given the phono stage massive gain, so it is able to match very low output (high quality) MC cartridges.

The huge machined fascia of the Integra and its large rotary control knobs give it a good feel, although the controls were not as silky in movement as I would have liked at the price.

SOUND QUALITY

The Integra was connected to our Martin Logan ESL-X hybrid electrostatic loudspeakers with Chord Company Signature Reference cables. Sources feeding it were an Oppo BDP-205D CD player



Much of the Integra's weight comes from its massive toroidal mains transformer, finished in white protective tape. Beside are four large electrolytic capacitors (blue) to store charge.

acting as transport for its easy going but deep sound. I also hooked up a Chord Electronics M-Scaler and Hugo DAC for an alternative, brighter balance. Supplying LP was the Luxman PD-151 turntable with Audio Technica's OC-9X SH Shibata MC cartridge, reviewed in this issue.

The Integra has a larger-than-life sound in keeping with its size and weight. Most obviously it goes loud

bass line of Gates of Istanbul from Loreena McKennit (CD) powered up our room like few others, courtesy of the ESL-X bass units. Drum tight and seemingly without dynamic limit the Integra kept an iron grip on pace and timing. But also obvious was that fine detail from string instruments had similarly stable presence and images were bolted into place on the sound stage.

Running through a host of Rock tracks showed the Integra has seemingly unlimited dynamic punch. Skunk Anansie's Hedonism (CD) burst out of the loudspeakers, Skin in fine form before me, sounding large,

solid and stable as she ploughed through the vocal part. Behind her the band was freer of muddle than is common: the Integra has grip and composure under pressure. More so than most.

Unsurprisingly, I heard a similar presentation with LP. Lack of a warp filter means there's ample deep bass (more than you can get from CD I will note as an aside), the strong repetitive bass intro of Kate Bush's King of the Mountain fairly thundering out. Rhythm guitars cut in cleanly, with a nice bright edge to them – and then came well lit background vocals. The Integra has



At left on the rear panel the Phono stage input for turntables. Then (going right) four Line inputs and a Line out. At centre, Left and Right loudspeaker output sockets.

sonic vigour.

Unlike everyone else, I love classical on LP – in spite of the strange graunches and noise that should not be there in our pristine pressings used for review. It's the natural analogue tone that counts and the Weiner Philharmoniker took on smooth form in our room, playing Mozart Symphony No39, an old all-analogue Decca recording re-mastered and pressed by Pallas in Germany (importers Henley Audio). There was good dynamic scale and a sense of strong light on violins.

All of which was more obvious with Marianne Thorsen playing Mozart Violin Concertos on an LP from 2L of Norway. Backing Trondheim soloists had clear presence and Thorsen's violin was beautifully lit, sounding bright and clear, fine inner detail from strings apparent. Every time I hear this track my wonder at her playing only rises; she's a beautiful violinist and the Integra made a good job of revealing it.

Downsides? The amplifier has a dry sound that is characterless – but lack of character also means uncoloured. Perhaps 'academically neutral' is the best description I can raise here.

There was no great sense of front-to-back perspective. The Integra is certainly no valve amplifier, so much as an arch exponent of the transistor craft where massive power and bandwidth collude to drive music out with force. Also with supreme confidence.

I enjoyed it, admiring in particular just how clean and composed every instrument on the sound stage remained, no matter how far I cranked up volume. If you want to get blown away in the best possible fashion, this is an amplifier worth hearing for Rock Concert level with

hi-fi standards of insight. I heard subtle cymbal strikes whilst being pounded by cataclysmic bass lines.

CONCLUSION

Avid's Integra is fast, drum tight and muscular. If you crave Rock with dramatic punch at high level, this is likely the one. Not only is it a

Schwarzenegger, it has composure and insight too.

Not an amplifier for those who want lush sound. But if you want it big, bold and powerful, then the Integra meets that need. Its lack of remote control is bewildering at the price though, and absence of digital no help either.

MEASURED PERFORMANCE

Power measured 91 Watts into 8 Ohms and 156 Watts into 4 Ohms. Avid quote 8 Ohm power as 90 Watts so the spec. is met.

With a 6 Ohm load (as most loudspeakers now are) 112 Watts, making this a nominally 100 Watt amplifier.

Frequency response was very wide via Line inputs, extending from a low 6Hz flat up to 100kHz (-1dB); there is no band limiting so the sound is likely to be fast rather than mellow. Distortion levels were very low at all frequencies, with

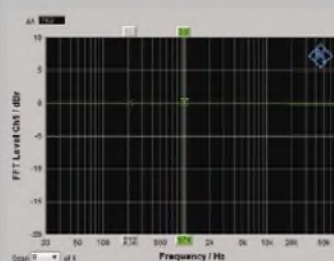
minimal crossover distortion at 10kHz of just 0.03% – and this was mostly second harmonic. Input sensitivity measured 320mV, sufficient to cope with most sources.

The Phono stage has massive gain, making it enormously sensitive. Just 1.4mV was needed from an MM cartridge for full output, where 4mV is common. MC Low (gain) increased this to 0.4mV and MC High to a tiny 0.1mV, more than enough for even the lowest output MC cartridges. Frequency response was flat from a low 6Hz up to 20kHz; there is no warp filtering, so LP warps may cause cone flap.

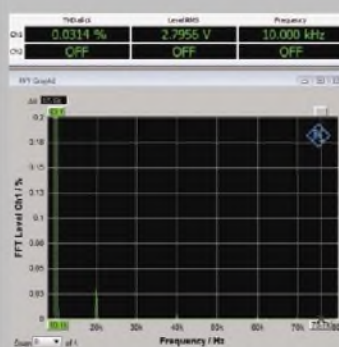
The equivalent input noise value (e.i.n.) for MC at high gain was 0.24µV, 6dB higher than is possible (0.1µV), but at this level still not especially hissy.

A good set of results but the Phono (turntable) input needs honing at the price. NK

FREQUENCY RESPONSE



DISTORTION



Power (8 Ohms)	91 Watts
CD/tuner/aux.	
Frequency response	3Hz-100kHz
Separation	88dB
Noise	-108dB
Distortion	0.03%
Sensitivity	320mV
Disc	
Frequency response	6Hz-20kHz
Separation	66dB
Noise (MC ein)	0.24µV
Distortion	0.12%
Sensitivity (MM/MC L H)	1.4 / 0.4 / 0.1 mV
Overload	44 / 12 / 3mV

AVID INTEGRA £7000



EXCELLENT - extremely capable.

VERDICT

Powerful, clean and insightful. Rock stable imaging too. But much missing at the price.

FOR

- tight, strong bass
- stable imaging
- good insight

AGAINST

- extremely large and heavy
- no remote control
- no digital

AVID HI-FI Ltd
+44 (0)1480 869 900
www.avidhifi.com



WORLD STANDARDS

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

TURNTABLES

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



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



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



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

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



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



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

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



TONEARMS

ORIGIN LIVE ENCOUNTER MK3C £1,745
Origin Live combines carbon fibre and ebony to marvellous effect in its new 12-inch arm. Creamy and rich in presentation, the Encounter 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 phonostage from Japanese manufacturer Luxman that offers comprehensive cartridge matching allied to superb sound.



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



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



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

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

PREAMPLIFIERS

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



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

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



INTEGRATED AMPLIFIERS

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



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



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

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



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

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



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



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

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



POWER AMPLIFIERS

AUDIO RESEARCH 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.

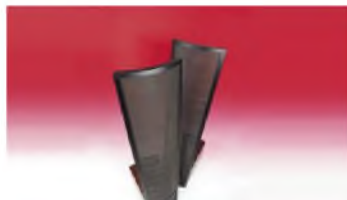


EMINENT TECHNOLOGY LFT-8B £2,500
Excellent U.S. planar magnetic loudspeaker at bargain price. Utterly superb - a must hear.

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. Spendor's 12" bass unit provides massive low-end grunt with a room-filling sound.



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

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



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



LOUDSPEAKERS STANDMOUNT

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

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



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



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

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



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



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



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



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

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



HEADPHONE AMPLIFIERS

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

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



EPIPHANY EHP-02 £99
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.



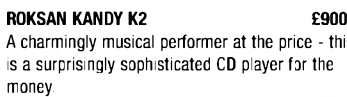
OPPO BDP-105D £1200

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

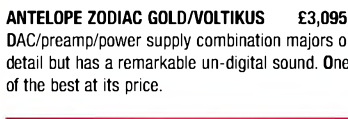
AUDIOLAB M-DAC £600

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.



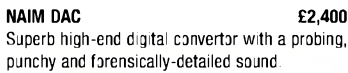
NORTHERN FIDELITY DAC £650

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 enthralling presentation. Few approach it.



NETWORK PLAYERS

CHORD DSX100 £7,500

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



CAMBRIDGE AUDIO NP30 £399

Budget offering from Cambridge offers a great introduction to network streaming.

CYRUS STREAM X £1,400

Gorgeous sound quality even from compressed digital music. New control app makes everyday operation a doddle.



CONVERT TECHNOLOGIES PLATO £2999.00

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



NAIM NDX £2,995

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

NAIM ND5XS £2,175

Great sound quality with traditional Naim heft. A wonderful DAC with full 24/192 handling. Only the display could be better.

NAIM NAC-N172 XS £1,650
A pre-amp/DAC/streamer package provides a 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.

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



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

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



PORTABLE SPEAKERS

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
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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.



PALE SAINTS

The Comforts of Madness
4AD

Formed in 1987 in Leeds, the band's third demo recording attracted the attention of 4AD's Ivo Watts-Russell who saw the group play in 1989. And what a show that was: Pale Saints and that other legendary shoegaze outfit, Lush, on as support! Blimey. Three months later, the band was recording a session for John Peel. How quickly fame comes upon us.

Sometimes referred to as 'dream pop' but I like the old fashioned shoegaze tag myself – that combined a whole host of influences from West Coast USA to post punk to classic indie to psychedelia. But hey, that's shoegaze for you.

'The Comforts of Madness' (1990) became the band's debut LP including the tracks 'Sight of You', 'You Tear The World In Two' and a cover of Opal's 'Fell From the Sun'.

It's been thirty years – how time flies – and the band's lead vocalist, Ian Masters, revisited the

sessions where they demoed the album at their Woodhouse Studio before heading to the Blackwing Studios in London to record it. These unreleased album demos, plus the band's only John Peel Session (recorded 23rd of July 1989 at Maida Vale studios in London) help to create a bonus disc of material for this double LP edition.

The music itself contrasts wildly between Masters' almost choral lead vocal and the often manic, complex instrumental backing, before slotting into a more rhythmic yet still energetic and often atmospheric musical flow that's full of ideas.

Mastering is excellent. Low in noise, high in terms of clarity and transparency, there's a real sense of the soundstage here, offering a layered array of instruments and voices. The effect is to provide a nicely three dimensional area to the stereo image. Frequency discipline is retained too, nothing misbehaves. This is a fine reissue.

AUDIOPHILE VINYL



"they're off and rolling," says Archie

THE EVERLY BROTHERS

The minute *Bye-Bye Love* hit, the Everlys were in, Frails sent mail by the bale. The same thing happened with *Wake up Little Susie* – only more so. Their pickin' and singin' won everybody with an ear to hear. The whole country woke up and spoke up for the Everlys. That's why Archie Bleyer brings you more of the kind of music that made them famous on this LP.

THE EVERLY BROTHERS

The Everly Brothers
Demon

The duo's debut release proved to be incredibly successful for the Kentucky brothers – as well as providing a touchstone for future music stars. Everyone from The Beatles to The Beach Boys and Simon & Garfunkel were influenced by the brother's work.

The pair were influenced themselves, of course. In their case it was from the likes of The Delmore Brothers. Don Everly also noted rhythm and blues: "The first time I heard the song Bo Diddley in 1955, it just nailed me" he said to the BMI's Save Simons. "I remember thinking I'll never be able to have that type of rhythm in any kind of country music".

But – oh yes – they got there. As I write these words the strains of 'Bye-Bye Love' drift around the room. It hit No.1 in the country charts and it's easy to see why. Hooks a-plenty, the song is spare, direct and to the point. It never

out-stays its welcome either. You could say the same about the rest of the album, which trots along at quite a pace. Full of energy, life, ideas and aided by a tight production with just enough instrumental backing that allows the vocal harmonies to remain dominant, this is a special LP.

"We were told not to throw away our soap and towels because you never knew when you'd be back at the carwash". After this LP, their soap and towels would be used to polish their gold discs.

In mastering terms? Within the restrictions of the original source and the natural compression that appears to have been part of that pressing, the Demon reissue has been well implemented.

Also check out another Everly Brothers LP release from Demon: 'Songs Our Daddy Taught Us' (1958) and the compilation 'Singles'.

Ah yes, this was the one. This was the album that really set the post-Fish group onto a new and steady path-way. It provided a new sound, it showed a new template for making music and established a new impetus for the future. This album was a sort of 'ground zero' for Marillion 2.0. It also showed the now established lead singer, Steve Hogarth's credentials. And it all happened in 1995.

The album itself was a concept piece and the band's final outing on EMI. It looked at celebrity culture and how the same can and has run off the rails on more than one occasion. Songs like 'Gazpacho' references Elvis, Cannibal Surf Babe ropes in Brian Wilson, Beyond You links Phil Spector – and so on.

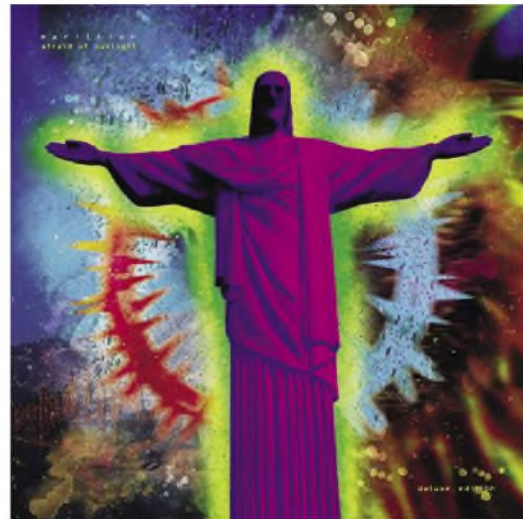
A beautifully produced album, this true blue prog rock creation is a work that starts well and improves with each track. Melodic beauty, backed by strong instru-

mental talent, it offers light and shade and pins you to your seat until the final tonal strains fade into the distance.

This new box set is similarly lovely. There is a 4CD/Blu-ray set but I checked out the 5LP vinyl collection.

It includes the original album remixed earlier this year by Michael Hunter alongside Marillion's concert at the Rotterdam Ahoy arena on 29 September 1995, three months after the album's release.

As for the mastering quality on this release? I like it. There's enough air and space across the midrange to reveal a swathe of information and detail. The latter is also focused, not too much to betray any obvious compressive techniques but enough to place an accent on the vocal delivery and the articulation of the same. There's also a nice blend of high and low frequencies here. When power is needed, there's plenty on offer.



MARILLION

Afraid of Sunlight
Parlophone

AUDIOPHILE VINYL

It's a group without any original members. A combination of living memorial and pension scheme for the estate of founder, Edgar Froese. As such, I would normally look upon such a set up with a measure of disdain and derision.

However. The members of the current Tangerine Dream group include major electronica talents: Thorsten Quaeschning, Ulrich Schnauss and Hoshiko Yamane. All were hand picked by Froese as musical collaborators. He worked with them all, coached them all and bequeathed a suite of electronic elements and textures, a sort of toolkit if you will. In effect, he said to this trio, "Here, here is a bunch of musical pieces, turn that lot into music". Apparently, there's enough material to keep them busy for years.

If ever a band was programmed to survive into a new

generation, then it is Tangerine Dream. I don't think there is another musical equivalent in the world right now.

This double album reinterprets classic TG fare: 'Stratosfear', 'Phaedra' and 'Tangram'. Of course, you're going to get the classic repetitive, looped synth rhythms with underlying washes and weaving melodies here, but there's enough tweaks to keep the fan interested. And while this release is aimed squarely at the fan, a way of connecting the old with the new and then moving from there to the light of the future, this LP also serves to introduce the concept of Tangerine Dream to new listeners.

For mastering? I would say that there's been a touch of compression to highlight certain frequencies. The end result is still admirable, though.

The reliable synth loops are a sort of comfort in an increasingly unreliable world.

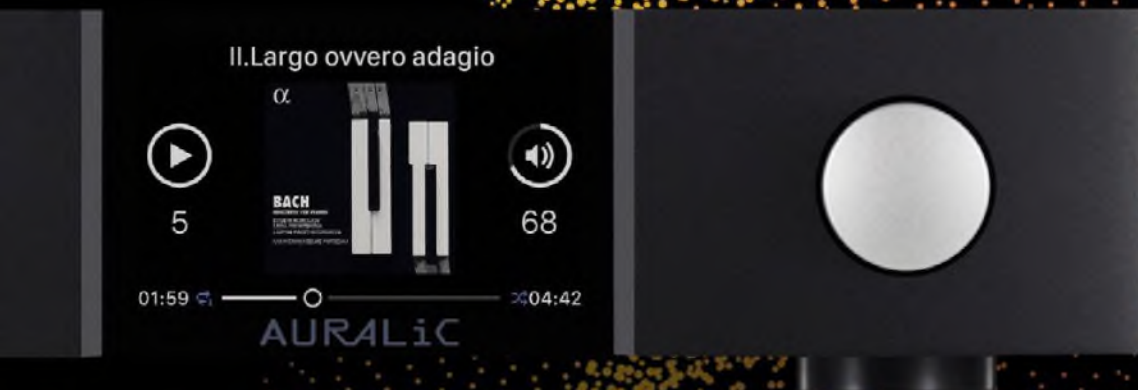


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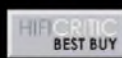
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AURALIC PRESS AWARDS



"A panel can sound better than a closed box. That's got to be good hasn't it?"



Noel Keywood

If you want good sound quality an open panel loudspeaker is worth hearing. I was more than impressed by Magneplanar's new LRS loudspeaker this month, right in keeping with my expectations, having used panels since first owning a Braun (Quad) electrostatic somewhere back in the 1970s. Yet panels have never become popular: box loudspeakers still dominate.

What came up in my mind is: could a panel like the LRS be tweaked to get closer into contention with a box loudspeaker?

I would not be the first person to have this thought and – worse – others far more qualified than me have decided the answer is "no".

Oh! That cuts us off from a loudspeaker that, in simple terms, offers better sound quality at lower price – always an appeal of the open panel (aka open baffle).

Let's talk hard core economics first, because that is issue number one; no point in making a loudspeaker if you go out of business doing so. Long ago in the 1990s I approached a few British cabinet makers about supplying ready-built cabinets for World Audio Design loudspeakers. We'd got to the point of selling cut panels for kits and were considering moving to the next stage – unfinished cabinets. That's when basic truths came into clear view!

Cabinets, I found, are very expensive, in direct and indirect cost. Built in low volume a single cabinet can cost around £40. The exact figure depends upon quality of finish: real wood veneer expertly applied is expensive, as are specialised plinths. A stereo pair would have been north of £100 from a UK supplier, at least when I enquired in the 1990s – by which time there were few left in Britain.

Use a x4 multiplier for retail

price and a stereo pair will come in at around £500 without drive units or packaging being taken into account.

At this point, and because storage was also needed, I decided to walk away from supplying cabinets. We were already sending out LP storage cubes in large quantities as heavy flatpacs from a workshop with storage in Notting Hill (London) and expansion within London was impractical. A built cabinet is heavy, takes up a lot of space and can't be stored where floor space is expensive.

Loudspeaker manufacturers also face these issues, explaining why getting rid of the cabinet is the best thing you can do. Freed of its expense and difficulties (poor veneer work rejects etc) you could romp away commercially to instant success, selling a better loudspeaker at far lower cost. Fame and fortune guaranteed!

Unsurprisingly, a lot of people have seen this and tried to make it work. Gilbert Briggs, founder of Wharfedale, devotes a fascinating chapter to Baffles in his 1958 book 'Loudspeakers' and Wharfedale produced an open baffle loudspeaker. You can see a lovely modern version of it at <http://www.troelsgravesen.dk/OBL-15.htm>, complete with reams of data about performance.

Gilbert understandably talks about sound quality and engineering, not about the economics. Which is why I have approached the issue here from a different, commercial angle; no point in repeating what he had to say, since his words were succinct.

But in considering economics I see the open baffle not just as an inexpensive loudspeaker, but also one that can sound better than a closed box. That's got to be good hasn't it?

We can even get green about it. An LRS will cost less to pack and

ship, so saving the planet (etc). They could even be put onto a sailing ship to cross the Atlantic and make Greta Thunberg happy.

What Magneplanar are doing, in effect, is trading cabinet cost for drive unit cost – less on the former, more on the latter. You get their unique large planar drive unit as a bass transducer and a long ribbon tweeter to handle treble. Not mass produced like cone drivers they are going to be expensive to manufacture – but you get better sound quality rather than a better box.

Any planar drive unit can be put in a cabinet, just like a cone loudspeaker, but they never are. Do this and they lose their magnificent sense of clarity, so no point.

Yes, cabinets are that bad. Costly to make, store, pack and ship, they also impose limitations on sound quality that are not easily overcome. That the LRS had no cabinet was starkly obvious to me: the clarity and purity of its sound, as well as its deep insight, were lovely.

But what to do about that lack of bass? Martin Logan and Eminent Technology use box bass units to underpin their panels – for good reason. The LRS would be aided by a good subwoofer I believe. It's a compromise, I know, but a small subwoofer at £300 or so would go far to boost bass power – and there's no end of choice when it comes to subwoofers.

This column might sound like a plug for Magneplanar's loudspeakers, but in fact it is about my belief in the better sound quality of an open panel, combined with the attraction of low price.

Someone, somewhere, someday will crack this problem and when they do the wooden box loudspeaker will die. Requiescat in pace. ●

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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.

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"Full of potential it may have been but the album, upon release, promptly died"



Paul Rigby

I was saddened to learn of the passing of Terry Jones, a multi-talented artist known, of course, for his work with the Monty Python team but also his fascination with history, film, poetry and...brewing beer!

He was also fascinated by music and the recording process, as anyone who has listened to the Monty Python records can attest.

Not too many people know about his paisley pop venture back in the sixties. It was created with fellow Python, Michael Palin plus TV/theatrical musical director and arranger, Barry Booth. I was lucky to chat with both Jones and Booth about the project because it was set for a relatively surprising reissue at the time (2002, I seem to recall).

One of the songs on *Diversions* (as it was named), written by Barry Booth and Michael Palin, was to be recorded by Roy Orbison. 'The Last Time I Saw You Was Tomorrow', written in 1968, was a premonition song in which the character sees his own death in a dream. However, just before Roy Orbison could record it, he fell into some astonishing bad luck – as Booth described.

"He'd become estranged from his wife, Claudette – the pretty woman of 'Pretty Woman'. Having his new house built on the shores of Lake Hickory outside Nashville, whilst Orbison was working away, Claudette was engaged in an affair with the architect – that was going to be disastrous for their relationship of course.

He was on tour over here, in the UK, at the time. One of his hobbies was motorbike scrambling but, during one ride, he broke a bone in his foot. He then had to hobble onto the stage with a

crutch. Luckily, he didn't move on stage anyway, so that was okay. He was positioned on the stage before the curtains opened".

"Anyway, Claudette suddenly turns up and they're re-united. They then go on holiday to Florida. It was during a motorcycle jaunt, just outside Nashville, that Claudette was killed via a collision with a lorry.

Then, in the very house he had built, his two boys were playing with gasoline. They set fire to the house and were killed. On top of that, all of his antique cars and all of his memorabilia were lost too".

"So, right after this period of astonishing bad luck, it would have been a bit rich for me to approach him with this song and say 'Hey Roy, with your luck, this is going to be a winner'. So, I let it pass".

Having garnered the experience and confidence that comes from writing a song for a living legend, Booth moved on to theatre and the BBC. Whilst attached to the BBC, Booth met up with Michael Palin and Terry Jones, as Jones remembered. "I was working for a BBC2 show called *Late Night Line-Up*, writing funny material for the Friday night show. Mike was performing the funnies and Barry did the music. I think it was the first time Mike and I had written lyrics specifically for a record although we had had songs recorded at Oxford - songs we'd written for revues".

Booth set Michael and Terry's songs in demo form, which somehow fell into the hands of Tony Hatch who promptly offered a bemused Booth a contract.

"I thought he would place them with somebody and get them to record the songs because he was the A&R man for Pye. I had no idea that he assumed that I would

actually record them" Booth said.

The final album *'Diversions'* is a collection of quaint songs featuring Booth's suitably warbly voice (the liner notes compare it to "early Peter Gabriel"). Lyrically impressive, with a Kinks-like quality, the album is full of pop-hooks that also reflect an early Bowie style. Two singles were released from the album: 'He's Very Good With His Hands' and 'The Hottest Day Of The Year', a song about a stalker (remember them?).

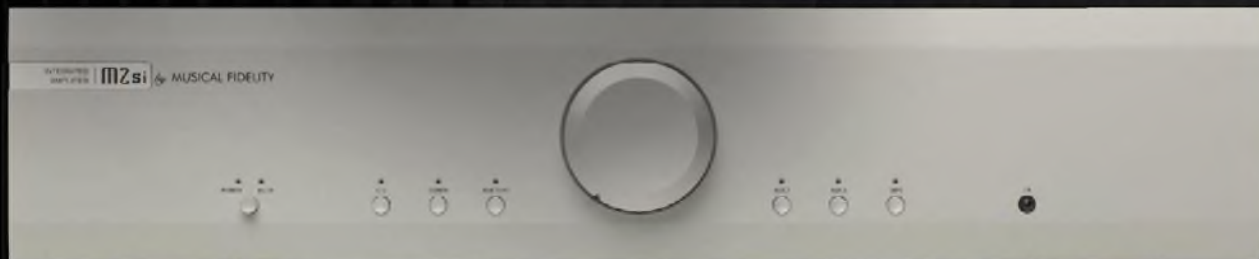
Full of promise and packed with potential it may have been but the album, upon release, promptly died. Booth has a theory about that.

"I'm not sure if Pye was on its last legs at this time but, when the record first appeared, I was concerned that the record pushers, who get the record played and placed, were primarily interested in pushing glasses in the pub. Which meant that the resultant album remained a pretty well kept secret".

As did the album's original artwork. "It's beautiful sub-Beardsley work" said Jones, "but was stolen from the art department at Pye. The art was created by Barbara Fry, the wife of Martin Fry, a sousaphone player I met when we were students and who later found fame with *The Temperance Seven Band*".

The *Diversions* album is very rare in its original Pye issue but can still be found in its reissued form. That said, the price is on the rise because of its increasing rarity status. Reissued by the now defunct Castle label on its Sanctuary imprint, I recently saw a new copy for £30 with second-hand copies fetching around £20, all on Amazon and easily found through a quick search. It's a good way to hear what Terry Jones brought to music. ●

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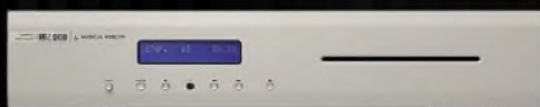
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"The system works: I now have a selection of 'quadraphonic' files"



Martin Pipe

Cast your mind back to the great 1970s fiasco otherwise known as quadraphonic sound delivered by LP. I find it incredible that none of today's manufacturers have considered DSP decoding of matrix quad (4:2:4) formats from quadraphonic LP like CBS SQ or its competitor Sansui QS.

Most SQ and QS material was issued on vinyl and home-cinema gear built in the CD era lacked a phono input so couldn't play it. But a considerable amount of non-remastered material with matrixed surround intact ended up being issued on CD. This was particularly true of EMI's classical output; the well-known label's SQ 'single inventory' policy persisted into the late 1970s. EMI used the rear channels merely to provide ambience, picked up by microphones sited at the back of the recording venue.

There are companies and individuals who have managed to decode quad using desktop computers. Feed in a stereo WAV file of a quad needle-drop (or a 'rip' of a quad-encoded CD) and you'll get a multichannel file containing the decoded result.

The 'audiophile' version of Pspatial Audio's comprehensive Stereo Lab toolkit (Mac-only) does this. As well as SQ and QS, it gives you Matrix-H (as used for radio by the BBC in the late 1970s) and – incredibly! – the 'difficult' discrete (4:4:4) CD-4 system developed by JVC.

Pspatial's approach uses software to decode CD-4's 30kHz subcarriers, apply its decoding matrices and emulate JVC's ANRS noise-reduction. You'll still need a turntable equipped with a CD-4 compatible cartridge and a 'fat' preamp feeding a 24-bit digital recorder working at a sampling

rate (96kHz) high enough to capture CD-4's ultrasonics. Only files of this standard are accepted by Stereo Lab.

The system works very well indeed, and I now have a selection of 4.0 multichannel files (5.1 WAVs, with the centre and sub channels empty) derived from SQ/QS LPs, CD-4 LPs and taped Matrix-H/HJ broadcasts (notably the 1978 Genesis Knebworth performance).

But what to do with them? I could use the multichannel audio as the basis of a DVD-Video disc (Dolby/DTS) or DTS CD, but that means lossy compression. I'm sure that some of the latest AV receivers will play multichannel WAVs or FLACs via USB or network, but my older unit can't.

My solution arose out of pure luck – a Broadcom BCM9 DVD disc player. This piece of equipment, rescued cheaply from an amateur-radio rally junk pile, was a development platform for consumer-electronics manufacturers wanting to build products around Broadcom's BCM7630 'system on a chip'. Said chip, dating from 2010 or so, was intended for use in Blu-ray players. Needless to say, the BCM9DVD is compatible with Blu-rays as well as DVDs (not DVD-As, alas) and although it lacks such refinements as remote control or, for that matter, a front panel (just a bare circuit board, with display and buttons!) it is well-built and features additional connectivity tailored to developers.

Inside a separate multichannel audio DAC board features an AKM AK4359VP 8-channel 24-bit/192kHz converter and NE5532 opamps, numerous electrolytic capacitors suggesting a.c. coupling is employed.

My BCM9DVD may present a basic user interface to the world, but I was surprised that it worked at all. Usually, gear of this sort loads code

at startup, from the host PC of the software-developer working on the firmware that will eventually face customers. Its user interface, I noted, has the option to play photos, music or video files from a front-panel USB device. But will it comprehend multichannel audio files I wondered?

I tried FLAC, DTS, Dolby Digital, WAV and (stereo) MP3 – but alas only the latter was accepted. I then tried 'fooling' the unit by renaming a CD-derived WAV rip to MP3. Success! It played.

I then renamed a multichannel WAV and lo, that also proved compatible with this most unusual of units. Further investigation proved that the BCM9DVD was happy with 24-bit material too, the proviso being that sampling rates had to be either 44.1 or 48kHz.

Channel compatibility also needed working out; the rears were coming through the centre and sub outputs! This was fixed by removing the empty centre and sub channels from the Stereo Lab files with Audacity, and exporting the result as a 'genuine' 4.0 24/48 WAV file.

After renaming this to MP3, and copying it to the USB device needed by the player, all was well.

I then noted down the sequence of keypresses needed to access the USB device with a TV turned off, so that I could play music through my old Pioneer quad receiver, and it worked.

I tried all this with a 2009 vintage Samsung Blu-ray player based around an earlier Broadcom chip, but sadly to no avail. Others might however be luckier.

Renewed popularity of the turntable makes it possible to recover four-channel recordings from SQ, QS and CD4 LPs. It's not so easy as my experiments show but worth doing I feel: the tools are out there. ●



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"It had bad wood worm in the cabinet and fell apart when it came in"



Dave Tutt

More loudspeakers to fix this month. Two pairs from different ages and in reality both could have – perhaps should have – gone to the rubbish bin, they were in such bad condition.

First up were a pair of small JBL EX-1 'speakers which, to be honest, were scrap. Of the drivers only one tweeter was working and they were generally pretty knocked about, apparently subject to a recent party.

Rated as 75 Watt speakers? Yes, I laughed too. No idea how old this model is. I only found a few references to them on-line and without any guide to their value it wasn't really possible to gauge if they were anything other than a domesticated version of the JBL Control 1 that you find in thousands of restaurants across the UK.

I found a scrap pair of tweeters that fitted the holes and a pair of 5.25 inch bass/midrange drive units that also fitted the holes – with some help from a rasp and sandpaper.

Suitably re-fitted, I powered up. There was at least a full range of sound, although treble was somewhat reticent compared to the bass, due to the relative efficiency levels – likely not an issue with the original drivers.

With no attenuation in the treble feed that could be removed, a different tweeter type was required. Having spent a little while researching alternatives I spoke to the owner who decided it was going to be a trip to Richer Sounds for some cheap alternatives and I could keep the JBLs!

So time and effort wasted. But perhaps an alternative was on the cards. I had a nice pair of M&K tweeters from one of their first active PA speakers that came from a studio. They were probably the most

expensive tweeters I had in stock. These units, used in threes in M&K near-field active studio speakers, were made in the Netherlands. My M&Ks with four blown tweeters were far too expensive to repair, adding in that the bass drivers and the active amplification were blown too, so the speakers were scrap and parts salvage came into play. I needed the tweeters.

They were smooth but perhaps still too low in level. Also, valued at £80 each, they were way outside a sensible price for these little boxes.

With a further raid of the spares box I found a new pair of MCM soft dome tweeters that were much more in keeping with the price of the 'speakers and were of higher output too, so they were swapped in.

Result! Now I had another pair of loudspeakers ideal for running tests in the workshop, to go with my others from Celestion, Tannoy, AR and Denon to name but four. With these sorts of speakers it really doesn't matter if I run them to the edge or damage them, due to faults with equipment under test. That's why I need so many budget loudspeakers.

The second pair of loudspeakers in for repair were significantly older and very different to the JBLs. Leak Sandwich speakers are very much an oddity compared to all else. First thing is their bass driver diameter: the surround cannot be replaced with off-the-shelf solutions as they are closer to 13.5 inch diameter, so standard surrounds are either too large or too small.

I had three of these Sandwich loudspeakers, including a spare the customer had brought in – which was actually worse than his good-ish pair. It had bad wood worm in the cabinet all along the joints and it fell apart when it came in from the courier!

The bass driver had a coil skewed from the cone and a seriously warped surround – so much so that Captain Kirk would have been impressed. Twisted round by about 10 degrees so adding folds and lumps in the surround, very sticky, and the cone lower on one side than the other – no wonder the coil was detached because it had obviously been skewed in the magnetic gap.

I started by stripping the spare driver down to its parts to see if it could be repaired as there really wasn't much else that could be done. This was the experimental part of the job.

First thing was to get an idea how far out the cone and coil assembly was. I laid the cone without its suspension on a flat and level surface and with a spirit level checked the base of the coil to see how flat it was. It was a fiddle to get it perfect but didn't take long to get it right and then glue it back together.

There were marks on the voice coil but no breaks or loose windings; a thin coat of varnish helped ensure it was insulated. The voice coil gap is always an issue and with older speakers, needing inspection for dirt or contamination. Fortunately, all clear here.

Using two 300mm foam surrounds cut into segments and glued to the cone edge gave a solution that worked. Then all were glued back to the basket with fingers crossed.

Reassembled, the first repaired Leak seemed to work well. More bass than the originals as the surround is softer, but the overlap stiffens it such that it is closer to the original. Now I have just one more to do to produce a matched pair! Restoring old Leak Sandwich loudspeakers isn't easy – but it is possible I find. ●

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We do not sell these products. It is for your information only.

WORLD CLASSICS

Here is our list of the great and good from audio's glorious past, products that have earned their place in hi-fi history. You'll also see some oddities which aren't classic as such, but are great used buys. The year of introduction is given, alongside the original UK launch price.

TURNTABLES

EAT FORTE 2009 £12,500
Lavishly finished two box, two motor turntable with gorgeous Ikeda 407 tonearm bundled. Exceptionally stable and unfussy performer with a relaxed but highly enjoyable gait.



FUNK FIRM VECTOR II 2009 £860
Innovative engineering gives a nimble, pacey and musical sound that's one of the best at the price.

REGA P2 2008 £300
Excellent value for money engineering, easy set up and fine sound.

MCINTOSH MT10 2008 £8,995
Big, expensive, controversially styled and glows more than some might consider necessary, but an astonishingly good performer.

REGA P3-24 2008 £405
Seminal affordable audiophile deck with fine bundled tonearm. Tweakable, and really sings with optional £150 outboard power supply.

ACOUSTIC SOLID ONE 2007 £4,050
Huge turntable, both in terms of sheer mass and sonic dynamics. Fit up to three arms and enjoy, just don't damage your back moving it...

AVID VOLVERE SEQUEL 2007 £4,600
Stylish high end vinyl spinner with industrial strength build quality and a sound to match. Sound is edge-of-the-seat stuff.

MICHELL GYRODEC SE 2005 £1,115
Design icon with superlative build. Sound is beautifully smooth, effortless and exceptionally expansive.

MARANTZ TT-15S1 2005 £1,299
Cracking all in one deck/arm/cartridge combination, this must surely be the best sound+plug and play package at this price point.

MICHELL TECNODEC 2003 £579
Superb introduction to Michell turntables - on a budget. Top quality build and elegant design mean it's still the class of the mid-price field.



MICHELL ORBE 1995 £2,500
The top Michell disc spinner remains a superbly capable all rounder with powerful, spacious sound that's delicate and beguiling.

SME MODEL 10A 1995 £4,700
Exquisitely engineered deck and SME V tonearm combo that's an extremely accomplished performer with classical music.

LINN AXIS 1987 £253
Cut-price version of the Sondek with LXV arm. Elegant and decently performing package. Later version with Akito tonearm better.

ROKSAN XERXES 1984 £550
Super tight and clean sound, with excellent transients. Less musical than the Sondek, but more neutral. Sagging plinth top-plates make them a dubious used buy.

DUAL CS505 1982 £75
Simple high quality engineering and a respectable low mass tonearm made for a brilliant budget buy. Polished, smooth and slightly bland sound.

MICHELL GYRODEC 1981 £599
Thanks to its stunning visuals, this bold design wasn't accorded the respect it deserved. Clean, solid and architectural sound.

TOWNSHEND ROCK 1979 £ N/A
Novel machine has extremely clean and fluid sound. Substantially modified through the years, and capable of superb results even today.

MARANTZ TT1000 1978 £ N/A
Beautiful seventies high end belt drive with sweet and clean sound. Rare in Europe, but big in Japan.



REGA PLANAR 3 1978 £79
Brilliantly simple but clean and musical performer, complete with Acos-derived S-shaped tonearm. 1983 saw the arrival of the RB300, which added detail at the expense of warmth. Superb budget buy.

SONY PS-B80 1978 £800
First outing for Sony's impressive 'Bio-tracer' electronic tonearm. Built like a tank with a clean and tidy sound, albeit lacking involvement. Scarcily complicated and with no spares support - buy with caution!

TRIO LO-7D 1978 £600
The best 'all-in-one' turntable package ever made. Clean, powerful and three-dimensional sound, ultimately limited by the tonearm.

ADC ACCUTRAC 4000 1976 £300
Bonkers 1970s direct drive that uses an infra red beam to allow track selection and programming. More of a visual and operational delight than a sonic stunner.

PIONEER PLC-590 1976 £600
Sturdy and competent motor unit that performs well with a wide range of tonearms. Check very thoroughly before buying due to electronic complexity and use of some now-obsolete ICs.

PIONEER PL12D 1973 £36
When vinyl was the leading source, this bought new standards of noise performance and stability to the class, plus a low friction S-shaped tonearm. Later PL12D was off the pace compared to rivals.



TECHNICS SP10 1973 £400
Seminal Japanese engineering. Sonics depend on plinths, but a well mounted SP10/II will give any modern a hard time, especially in respect of bass power and midband accuracy.

LINN SONDEK LP12 1973 £86
For many, the Brit superdeck; constant mods meant that early ones sound warmer and more lyrical than modern versions. Recent 'SE' mods have brought it into the 21st century, albeit at a price.

ARISTON RD11S 1972 £94
Modern evolution of Thorens' original belt drive paradigm, Scotland's original super-deck was warm and musical, albeit soft. Still capable of fine results today.

GOLDRING LENC0 GL75 1970 £15.6S
Simple, well engineered motor unit with soft, sweet sound and reasonable tonearm. Good spares and servicing support even today.

GARRARD 301/401 1953 £19
Tremendously strong and articulate with only a veiled treble to let it down.



THORENS TD124 1959 £ N/A
The template for virtually every 1970s 'superdeck', this iconic design was the only real competition for Garrard's 301. It was sweeter and more lyrical, yet lighter and less impactful in the bass.

TONEARMS

REGA RB251 2009 £136
Capable way past its price point, the new 3-point mount version of the classic RB250 serves up a taut and detailed sound. A little lean for some tastes, but responds well to rewiring and counter-weight modification.

HELIUS OMEGA 2008 £1,595
Stylish and solid lump of arm with fabulous build quality, that turns in a dynamic and weighty performance.

AUDIO ORIGAMI PU7 2007 £1,300
The classic Synchron PU3 updated to spectacular effect. Hand made to order, with any mass, length and colour you care for. Fit, finish and sound truly impressive.



GRAHAM PHANTOM 2006 £3,160
Sonically stunning arm with magnificent bass celerity and soundstaging. Build quality up to SME standards, which is really saying something!

TRI-PLANAR PRECISION 2006 £3,600
Immaculate build, exquisite design and one of the most naturally musical and lucid sounds around.

MICHELL TECNOARM A 2003 £442
Clever reworking of the Rega theme, using blasting, drilling and rewiring!

SME 309 1989 £767
Mid-price SME comes complete with cast-cut aluminium arm tube and detachable headshell. Tight, neutral sound with good tonality, but lacks the IV's pace and precision.

NAIM ARO 1987 £1,425
Charismatic unipivot is poor at frequency extremes but sublime in the midband, truly emotive and insightful.

SME SERIES V 1987 £2,390
Vice-like bass with incredible weight, ultra clear midband and treble astound, although some don't like its matter of factness!

NAIM ARO 1986 £875
Truly endearing and charismatic performer - wonderfully engaging mid-band makes up for softened frequency extremes.



ALPHASON HR100S 1981 £150
First class arm, practically up to present-day standards. Buy carefully, though, as there is no service available now. Totally under priced when new, exceptional.

SME SERIES III 1979 £113
Clever variable mass design complete with Titanium Nitride tube tried to be all things to all men, and failed. Charming nonetheless, with a warm and inoffensive sound.

TECHNICS EPA-501 1979 £ N/A
Popular partner for late seventies Technics motor units. Nice build and Titanium Nitride tube can't compensate for middling sound.

LINN ITTOK LVII 1978 £253
Japanese design to Linn specs made for a muscular, rhythmic sound with real dynamics. The final LVIII version worth seeking out.

AUDIO TECHNICA AT 1120 1978 £75
Fine finish can't compensate for this ultra low mass arm's limited sonics - a good starter arm if you've only got a few quid to spend.

HADCOCK GH228 1976 £46
Evergreen unipivot with lovely sweet, fluid sound. Excellent service backup.

ACOS LUSTRE GST-1 1975 £46
The archetypal S-shaped seventies arm; good, pulsive and involving sound in its day, but ragged and undynamic now.

SME 3009 1959 £18
Once state of the art, but long since bettered. Musical enough, but weak at frequency extremes and veiled in the midband. Legendary serviceability and stunning build has made it a cult, used prices unjustifiably high.

PHONO STAGES

CREEK OBH-8 SE 1996 £180
Punchy, rhythmic character with oodles of detail makes this a great budget audiophile classic. Partner with a Goldring G1042 for an unbeatable budget combination.

MICHELL ISO 1988 £ N/A
This Tom Evans-designed black box started the trend for high performance offboard phono stages. Charismatic, musical and punchy - if lacking in finesse.



LINN LINNK 1984 £149
Naim-designed MC phono stage built to partner the original Naim NAIT - yes, really! Fine sound, although off the pace these days.

INTEGRATED AMPLIFIERS

NAIM NAIT XS 2009 £1,250
With much of the sound of the Supernait at half the price, this is powerful, articulate and smooth beyond class expectations.

MUSICAL FIDELITY PRIMO 2009 £7,900
Seriously expensive, but one listen explains why. Wonderfully exuberant sound that can only come from a top quality tube design.

SUGDEN A21A S2 2008 £1,469
Crystalline clarity, dizzying speed and forensic detailing. Power limited so needs sensitive speakers.

CREEK OBH-22 2008 £350
Brilliant value budget passive, with remote control, mute and input switching, plus an easy, a neutral sound.

CAMBRIDGE 840A V2 2007 £750
Version 2 addresses version 1's weaknesses to turn in a mightily accomplished performance, offering power, finesse and detail.

SUGDEN IA4 2007 £3,650
Goodly amount of Class A power, icy clarity and a breathtakingly fast, musical sound make this one of the very best super-integrateds.

NUFORCE P-9 2007 £2,200
Impressive two box preamp with superb resolution and an engaging sound.

MELODY PURE BLACK 101D 2007 £3,295
The clarity and openness of valves plus firm grip and fine detail make this a preamplifier masterpiece.

AUDIOLAB 8000S 2006 £400
In another life, this sold for three times the price, making it a stand-out bargain now. Very clean, powerful and tidy sound.

MCINTOSH MA6800 1995 £3735
Effortlessly sweet, strong and powerful with seminal styling to match.

DELTEC 1987 £1900
Fast, dry and with excellent transients, this first DPA integrated is the real deal for eighties obsessives. Ridiculously punchy 80W per channel from a tiny, half-size box. Radical, cool and more than a little strange.

EXPOSURE VII/VIII 1985 £625
Seminal pre-power, offering most of what Naim amps did with just that little bit extra smoothness. Lean, punchy and musical.



AUDIOLAB 8000A 1985 £495
Smooth integrated with clean MM/MC phono stage and huge feature count. Extremely reliable, too. Post '93 versions a top used buy.

VTL MINIMAL/50W MONOBLOCK 1985 £1,300
Rugged, professional build and finish allied to a lively and punchy sound (albeit with limited power) make them an excellent used buy.

MUSICAL FIDELITY A1 1985 £350
Beguiling Class A integrated with exquisite styling. Questionable reliability.

MISSION CYRUS 2 1984 £299
Classic 1980s minimalism combines arresting styling with clean, open, lively sound. Further upgradeable with PSX power supply.



NAIM NAIT 1984 £350
Superb rhythms and dynamics make it truly musical, but tonally monochromatic. Fine phono stage, very low power.

CREEK CAS4040 1983 £150
More musical than any budget amp before it; CAS4140 loses tone controls, gains grip.

MYST TMA3 1983 £300
Madcap eighties minimalism, but a strong and tight performer all the same.

ROTEL RA-820BX 1983 £139
Lively and clean budget integrated that arguably started the move to minimalism.

NAD 3020 1979 £69
Brilliantly smooth, sweet and punchy at the price and even has a better phono stage than you'd expect. The archetypal budget super-amp.

ROGERS A75 1978 £220
Lots of sensible facilities, a goodly power output and nice sound in one box. The later A75II and A100 versions offered improved sonics and were seriously sweet.

A&R A60 1977 £115
Sweet and musical feature-packed integrated; the Audiolab 8000A remains a classic.



SUGDEN C51/P51 1976 £130
Soft sounding early Sugden combo with a plethora of facilities and filters. A sweet and endearing performer but lacking in power and poor load driving ability.

SUGDEN A21 1969 £ N/A
Class A transistor integrated with an eminently likeable smoothness and musicality. Limited inputs via DIN sockets.

ROGERS CADET III 1965 £34
Sweet sounding valve integrated, uses ECL86 output valves, even has a half useable phono stage, sweet, warm a good introduction to valves.

CHAPMAN 305 1960 £40
Smooth pre/power combo with a sweet and open sound. Not quite up to Leak/Quad standards but considerably cheaper secondhand.

POWER AMPLIFIERS

ELECTROCOMPANIET NEMO 2009 £4,995 (EACH)
Norwegian power station as cool as a glacier tonally, yet impresses with sheer physicality and fleetness of foot. 600W per channel.

NUFORCE REFERENCE 9SE V2 2006 £1,750
Brilliant value for money monoblocks with massive power and super-clean, three dimensional sound.

QUAD II-80 2005 £6,000 PER PAIR
Quad's best ever power amplifier. Dramatic performer with silky but dark tonality, blistering dynamics, serious power and compellingly musical sound.



QUAD 909 2001 £900
Current-dumper has a smooth and expansive character with enough wallop to drive most loads. Not the most musical, but superb value all the same.

NAIM NAP 500 2000 £17,950
Flagship amplifier will drive just about any speaker with ease. Factor in the company's trademark pace, rhythm and timing and it all adds up to one effortlessly musical package.

MARANTZ MODEL 9 1997 £8000
Authentic reproduction monoblocks still more than cut the sonic mustard. Highly expensive and highly sought after.

MICHELL ALECTO 1997 £1989
Crisp, clean and beautifully controlled with gorgeous styling. Partnered with the £1650 Orca this sounds delicious!



MUSICAL FIDELITY XA200 1996 £1000
200W of sweet smooth transistor stomp in a grooved tube! Under-rated oddity.

PIONEER M-73 1988 £1,200
Monster stomp from this seminal Japanese power amplifier, complete with switchable Class A and Class B operation. Clean, open and assured sounding, albeit a tad behind the pace on high speed dance music. Rosewood side cheeks and black brushed aluminium completes the experience.

KRELL KMA100 II 1987 £5,750
Monoblock version of the giant KSA-100 is one of the seminal 80s transistor power amplifiers. Massive wallop allied to clean and open Class A sound makes this one of the best amplifiers of its type.

RADFORD STA25 RENAISSANCE 1986 £977
This reworking of Radford's original late sixties design was possessed of a wonderfully rich, old school valve sound with enough power (25W) and lots of subtlety.

QUAD 405 1978 £115
The first of the current dumpers is a capable design with smooth, effortless power and a decently musical sound. 606 and 707 continue the theme with greater detail and inclusion.

HH ELECTRONICS TPA-50D AMPLIFIERS 1973 £110
Simple design with easily available components, solid build quality and fine sound make for a surprisingly overlooked bargain.

LECSON AP1 1973 £ N/A
Madcap cylindrical styling alluded to its 'tower of power' pretensions, but it wasn't. Poor build, but decently clean sounding when working.

QUAD 303 1968 £55
Bullet proof build, but woolly sound. Off the pace, but endearing nonetheless. Some pipe smoking slipper wearers swear by them!

LEAK STEREO 20 1958 £31
Excellent workaday classic valve amplifier with decent power and drive. Surprisingly modern sounding if rebuilt sympathetically. Irrepressibly musical and fluid.



LEAK STEREO 60 1958 £ N/A
Leak's biggest valve power amp offers 35 Watts per channel and more low end welly than the smaller Stereo 20. Despite concerns over reliability rarity value means high price.

QUAD II 1952 £22
The all-time classic valve amplifier, with a deliciously fluid and lyrical voice. In other respects though, it sounds hopelessly dated. Low power and hard to partner properly.



LEAK POINT ONE, TL10, TL12.1, TL12 PLUS 1949 £28
Early classics that are getting expensive. Overhauling is de rigeur before use, using original parts if possible. Surprisingly crisp and musical. Deeply impressive in fine fettle.

PRE AMPLIFIERS

AUDIOLAB 8000C 1991 £499
Tonally grey but fine phono input and great facilities make it an excellent general purpose tool.



CROFT MICRO 1986 £150
Budget valve pre-amp with exceptionally transparent performance.

CONRAD JOHNSON MOTIV MC-8 1986 £2,500
Minimalist FET-based preamplifier is brilliantly neutral and smooth with a spry, light balance in the mould of Sugden. Something of a curio, but worthwhile nonetheless.

AUDIO RESEARCH SP-8 1982 £1,400
Beautifully designed and built high end tube pre-amplifier with deliciously sweet and smooth sound. Not the last word in inclusion or grip.

LINN LK-1 1986 £499
A brave attempt to bring remote controlled user-friendliness to hair-shirt audiophile hi-fi. Didn't quite work, but not bad for under £100.

NAIM NAC 32.5 1978 £ N/A
Classic high end pre. Brilliantly fast and incisive sound that's a joy with vinyl! but a tad forward for digital.

LECSON AC-1 1973 £ N/A
Amazing styling courtesy of Allan Boothroyd can't disguise its rather cloudy sound, but a design classic nonetheless.

QUAD 33 1968 £43
Better than the 22, but Quad's first tranny pre isn't outstanding. Responds well to tweaking/ rebuilding though...



LEAK POINT ONE STEREO 1958 £ N/A
Good for their time, but way off the pace these days. Use of EF86 pentode valve for high gain rules out ultra performance. Not the highest fi!

QUAD 22 1958 £25
The partner to the much vaunted Quad II monoblocks - cloudy and vague sound means it's for anacrophiles only.

LOUDSPEAKERS

WHARFEDALE DIAMOND 10.3 2010 £290
Great small standmounters for audiophiles on a budget; dry punchy sound with impressive sound-staging at the price.



YAMAHA SOAVO 1.1 2009 £3,000
Musical, transparent with impressive dynamics and cohesion. Excellent build and finish.

USHER BE-10 2009 £10,500
Clever high end moving coil design with immense speed and dizzying clarity allied to epic punch. Needs the best ancillaries to fly, though...



SPENDOR A5 2009 £1,695
Multi-talented floorstanders with generous scale and punch and Spendor's classic mid-range detail. Deliver a sound that thoroughly engages whatever you care to play

MONITOR AUDIO PL100 2008 £2,300
The flagship 'Platinum' series standmounter has a lovely warm and delicate sound with superlative treble.



MARTIN LOGAN SOURCE 2008 £1,600
Brilliant entry level electrostatics, giving a taste of loudspeaker esoterica for the price of most moving coil boxes. Tremendous clarity, evenness and delicacy, although not the world's most powerful sound.

PMC OB11 2008 £2,950
Cleverly updated floorstanders give scale and solidity in slim and well finished package.

ISOPHON GALILEO 2007 £2,100
Big standmounters that really grip the music and offer quite startling dynamics and grip.

ONE THING AUDIO ESL57 2007 £1,450
One Thing Audio's modifications keep the good old ESL57 at the very top of the game.

MOWGAN AUDIO MABON 2007 £3,995
Massively capable loudspeakers that offer dynamics, scale and clarity in an elegantly simple package. Wide range of finishes, too.

B&W 686 2007 £299
Baby standmounters offer a sophisticated and mature performance that belies both their dimensions and price tag.

B&O BEOLAB 9 2007 £5,000
Technically impressive and visually striking loudspeakers with sound quality that more than matches their looks.



ISOPHON CASSIANO 2007 £12,900
Drive units featuring exotic materials allied to superlative build quality result in an immensely capable loudspeaker. Not an easy load to drive, however.

QUAD ESL-2905 2006 £5,995
The old 989 with all the bugs taken out, this gives a brilliantly neutral and open sound like only a top electrostatic can; still not a natural rock loudspeaker, though.

B&W 801D 2006 £10,500
In many respects, the ultimate studio monitor; dazzling clarity and speed with commanding scale and dynamics.



REVOLVER CYGNIS 2006 £5,999
Revolver pull out all the stops and show what they can do with this magnificent flagship loudspeaker. A superb monitor that is like a mini B&W 801D in many ways.

USHER BE-718 2007 £1,600
Beryllium tweeters work superbly, allied to a fast and punchy bass driver. The result is subtle, smooth and emotive.

USHER S-520 2006 £350
Astonishingly capable budget standmounters that offer detail and dynamics well beyond their price and dimensions.

ACOUSTIC ENERGY AE1 CLASSIC 2006 £845
Brilliantly successful remake of an iconic design; not flawless, but surely one of the most musical loudspeakers ever made.



MISSION X-SPACE 1999 £499
The first mass production sub and sat system using NXT panels is a sure-fire future classic - not flawless, but a tantalisingly unboxy sound nevertheless!

MISSION 752 1995 £495
Cracking Henry Azima-designed floorstanders combined HDA drive units and metal dome tweeters with surprisingly warm results. Benign load characteristics makes them great for valves.

TANNOY WESTMINSTER 1985 £4500
Folded horn monsters which sound good if you have the space. Not the last word in tautness but can drive large rooms and image like few others.



CELESTION SL6 1984 £350
Smalish two way design complete with aluminium dome tweeter and plastic mid-bass unit set the blueprint for nineteen eighties loudspeakers. Very open and clean sounding, albeit coarse at high frequencies and limp in the bass. Speakers would never be the same again...

HEYBROOK HB1 1982 £130
Peter Comeau-designed standmounters with an amazingly lyrical yet decently refined sound. Good enough to partner with very high end ancillaries, yet great with budget kit too. A classic



QUAD ESL63 1980 £1200
An update of the ESL57, with stiffer cabinets. Until the 989, the best of the Quad electrostatics.

MISSION 770 1980 £375
Back in its day, it was an innovative product and one of the first of the polypropylene designs: warm, smooth, clean and powerful sound.

ACOUSTIC RESEARCH AR18S 1978 £125
Yank designed, British built loudspeaker became a budget staple for many rock fans, thanks to the great speed from the paper drivers, although finesse was most definitely not their forte...

YAMAHA NS1000 1977 £532
High tech Beryllium midband and tweeter domes and brutish 12" woofers in massive sealed mirror image cabs equals stunning transients, speed and wallop allied to superb transparency and ultra low distortion. Partner carefully!



JR 149 1977 £120
Cylindrical speaker was ignored for decades but now back in fashion! Based on classic KEF T27/B110 combo as seen in the BBC LS3/5a. Doesn't play loud, needs a powerful transistor amplifier, but has clarity and imaging.

KEF R105 1977 £785
Three way Bextrene-based floorstander gave a truly wideband listen and massive (500W) power handling. A very neutral, spacious and polite sounding design, but rhythmically well off the pace.

IMF TLS80 1976 £550
Warm and powerful 1970s behemoth with transmission loading and a mixture of KEF and Celestion drive units. Impressively physical wideband sound but rhythms not a forte.

SPENDOR BC1 1976 £240
 Celestion HF1300 tweeter meets bespoke Spendor Bextrene mid-bass unit. The result is a beautifully warm yet focussed sound. A little bass bloom necessitates careful low-stand mounting.



HH ELECTRONICS TPA-50D AMPLIFIERS 1973 £110
 Simple design with easily available components, solid build quality and fine sound make for a surprisingly overlooked bargain. Not exactly stylish, however.

BBC LS3/5A 1972 £88
 Extremely low colouration design is amazing in some respects – articulation, stage depth, clarity – and useless in others (both frequency extremes). Came in wide variety of guises from various manufacturers building it under licence.

LEAK SANDWICH 1961 £39 EACH
 Warm sounding infinite baffle that, with a reasonably powerful amplifier can sound quite satisfying.

QUAD ESL57 1956 £45 EACH
 Wonderfully open and neutral sound puts box loudspeakers to shame. Properly serviced they give superb midband performance, although frequency extremes less impressive. Ideally, use in stacked pairs or with subwoofers and supertweeters.

SYSTEMS

MERIDIAN SOOLOOS 2.1 2010 £6,990
 Crisp styling, bright, colourful touchscreen, plus excellent search facilities. This is one hard disk music system with a difference. Best partnered to Meridian active loudspeakers.



NAIM UNITIQUE 2010 £995
 Great little half width one-box system with truly impressive sound allied to a wealth of source options.

ARCAM SOLO MINI 2008 £650
 Half the size and two-thirds the price of a full-sized Solo, the Mini gives very little away in terms of performance to its bigger brother.

MERIDIAN F80 2007 £1,500
 Fantastically built and versatile DVD/CD/DAB/FM/AM unit, designed in conjunction with Ferrari. Ignore nay-sayers who sneer that it isn't a 'proper' hi-fi product. Just listen.

MARANTZ 'LEGEND' 2007 £22,000
 The combination of SA-7S1 disc player, SC-7S2 preamp and MA-9S2 monoblocks delivers jaw-dropping performance.

SHANLING MC-30 2007 £650
 Quite possibly the cutest all-in-one around with fine performance from the CD player, tuner and MP3 player input. Very low power, though.



AURA NOTE PREMIER 2007 £1,500
 Lovely shiny CD/tuner/amplifier with fine sound quality and dynamic abilities.



ARCAM SOLO NEO 2006 £1,100
 Excellent all-in-one system, with a warm, smooth and balanced sound to match the features and style.

PEACHTREE AUDIO IDECCO £1,000
 Excellent sounding iPod dock, impressive DAC and fine amplifier section make this an excellent one box style system.



TUNERS

ARCAM FMJ T32 2009 £600
 Excellent hybrid FM/DAB+ tuner with a smooth, engaging sound. Factor in its fine build and it's a super value package.



MAGNUM DYNALAB MD-100T 2006 £1,895
 One of the best ways to hear FM that we know; superbly open and musical sound in a quirky but characterful package.

MYRYAD MXT4000 2005 £1,000
 Sumptuous sound and top-notch build quality make for a tempting AM/FM package. Warm and richly detailed on good-quality music broadcasts.

NAIM NAT03 1993 £595
 The warm, atmospheric sound is further proof of Naim's proficiency with tuners.

CREEK CAS3140 1985 £199
 Excellent detail, separation and dynamics - brilliantly musical at the price. T40 continued the theme...

QUAD FM4 1983 £240
 Supreme ergonomics allied to a pleasingly lyrical sound with plenty of sweetness and detail made this one of the best tuners around upon its launch.



NAD 4040 1979 £79
 Tremendously smooth and natural sound allied to low prices and good availability make this budget analogue esoterica.

MARANTZ ST-8 1978 £353
 Marantz's finest radio moment. Warm, organic sound plus an oscilloscope for checking the signal strength and multipath.

YAMAHA CT7000 1977 £444
 Combines sleek ergonomics, high sensitivity and an explicit, detailed sound.

SONY ST-5950 1977 £222
 One of the first Dolby FM-equipped tuners, a format that came to nought. Still, it was Sony's most expensive tuner to date, and boasted good sound quality with brilliant ergonomics.



ROGERS T75 1977 £125
 Superb mid-price British audiophile design, complete with understated black fascia. Smooth and sweet with fine dimensionality.

SANSUI TU-9900 1976 £300
 A flagship Japanese tuner. It boasts superlative RF performance and an extremely smooth and lucid sound.



TECHNICS ST-8080 1976 £180
 Superb FM stage makes for a clean and smooth listen.

REVOX B760 1975 £520
 The Revox offers superlative measured performance although the sound isn't quite as staggering as the numbers. Fine nonetheless, and surely the most durable tuner here?



SEQUERRA MODEL 1 1973 £1300
 Possibly the ultimate FM tuner. Massive in terms of technology, size and features dedicated to extracting every ounce of performance from radio, including impressive multi-purpose oscilloscope display.

LEAK TROUGHLINE 1956 £25
 Series I an interesting ornament but limited to 88-100MHz only. II and III are arguably the best-sounding tuners ever. Adaptation for stereo easy via phono multiplex socket. Deliciously lucid with true dimensionality.

HEADPHONE AMPLIFIERS

GRAHAM SLEE NOVO 2009 £255
Dynamic headphone amplifier with a great sense of timing. Crisp, clear treble and warm midrange gives an involving sound.



MUSICAL FIDELITY X-CAN V8 2008 £350
Open and explicitly detailed sound plus serious bass wallop. A great partner for most mid-to-high end headphones.

CD PLAYER/RECORDERS

MUSICAL FIDELITY TRIVISTA 2002 £4000
When playing SACDs, the sweetest, most lucid and lyrical digital disc spinner we've heard. Old school stereo, pure DSD design. CD sound is up in the £1000 class, too! Future classic.

MARANTZ SA-1 2000 £5,000
The greatest argument for SACD. This sublime Ken Ishiwata design is utterly musically convincing with both CD and SACD, beating most audiophile CD spinners hands down.



SONY MDS-JE555ES 2000 £900
The best sounding MD deck ever, thanks to awesome build and heroic ATRAC-DSP Type R coding.

PIONEER PDR-555RW 1999 £480
For a moment, this was the CD recorder to have. Clean and detailed.

MARANTZ DR-17 1999 £1100
Probably the best sounding CD recorder made. Built like a brick with a true audiophile sound and HDCD compatibility.



CAMBRIDGE AUDIO CD4SE 1998 £200
A touch soft in the treble and tonally light, but outstanding in every other respect.

SONY TCD-8 DATMAN 1996 £599
Super clean sound makes this an amazing portable, but fragile.

LINN KARIK III 1995 £1775
The final Karik was a gem. Superb transport gives a brilliantly tight, grippy dynamic sound, albeit tonally dry.

NAIM CDS 1990 £ N/A
Classic Philips 16x4 chipset with serious attention to power supplies equals grin-inducing sonics.

TECHNICS SL-P1200 1987 £800
CD version of the Technics SL-1200 turntable. Massively built to withstand the rigours of 'pr' use and laden with facilities - a great eighties icon.

SONY CDP-R1/DAS-R1 1987 £3,000
Sony's first two boxer was right first time. Tonally lean, but probably the most detailed and architectural sounding machine of the eighties.

MARANTZ CD73 1983 £700
A riot of gold brushed aluminium and LEDs, this distinctive machine squeezed every last ounce from its 14x4 DAC - super musical.



MERIDIAN 207 1988 £995
Beautifully-built two-box with pre-amp stage. Very musical although not as refined as modern Bitstream gear. No digital output.

CAMBRIDGE AUDIO CD1 1986 £1500
Inspired Stan Curtis redesign of Philips CD104, complete with switchable digital filter. Lean but tight and musical performer.



MERIDIAN MCD 1984 £600
The first British 'audiophile' machine was a sweeter, more detailed Philips CD100. 14x4 never sounded so good, until the MCD Pro arrived a year later.

SONY CDP-701ES 1984 £890
Sony's first bespoke audiophile machine used a 16x2 DAC to provide a clinically incisive sound; supreme build quality allied to the pure unadulterated luxury of a paperback-sized remote control.

YAMAHA CD-X1 1983 £340
Nicely built 16x2 machine with a very sharp and detailed sound, sometimes too much so. Excellent ergonomics, unlike almost every other rival of the time.

SONY CDP-101 1982 £800
The first Japanese CD spinner was powerful and involving. Brilliant transport more than compensated for 16x2 DAC, and you even got remote control!



ANALOGUE RECORDERS

AIWA XD-009 1989 £600
Aiwa's Nak beater didn't, but it wasn't half bad nonetheless. Massive spec even included a 16x4 DAC!

NAKAMICHI CR-7E 1987 £800
The very best sounding Nakamichi ever - but lacks the visual drama of a Dragon.



SONY WM-D6C 1985 £290
Single capstan transport on a par with a Swiss watch, single rec/replay head better than most Naks. Result: sublime.

PIONEER CTF-950 1978 £400
Not up to modern standards sonically, but a great symbol of the cassette deck art nonetheless.

YAMAHA TC-800GL 1977 £179
Early classic with ski-slope styling. Middling sonics by modern standards, but cool nonetheless!

SONY TC-377 1972 £N/A
A competitor to the Akai 4000D open reel machine, the Sony offered better sound quality and is still no slouch by modern standards.

REVOX A77 1968 £145
The first domestic open reel that the pros used at home. Superbly made, but sonically off the pace these days.

COMPACT DISC TRANSPORTS

ESOTERIC P0 1997 £8,000
The best CD drive bar none. Brilliantly incisive, ridiculously over-engineered.

TEAC VRDS-T1 1994 £600
Warm and expansive sound made this a mid-price hit. Well built, with a slick mech.

KENWOOD 9010 1986 £600
The first discrete Jap transport was beautifully done and responds well to re-clocking.

DACS

DCS ELGAR 1997 £8500
Extremely open and natural performer, albeit extremely pricey - superb.

DPA LITTLE BIT 3 1996 £299
High, clean, rhythmic and punchy sound transforms budget CD players.

CAMBRIDGE AUDIO DAC MAGIC 1995 £99
Good value upgrade for budget CD players with extensive facilities and detailed sonics.

PINK TRIANGLE DACAPO 1993 £ N/A
Exquisite, the warmest and most lyrical 16bit digital audio we have ever heard.

QED DIGIT 1991 £90
Budget bitstream performer with tweaks aplenty. Positron PSU upgrade makes it smooth, but now past it.

CABLES

MISSING LINK CRYO REFERENCE 2008 £495/0.5M
High end* interconnects, with deliciously smooth, open and subtle sound without a hint of edge.

TECHLINK WIRES XS 2007 £20
Highly accomplished interconnects at an absurdly low price. Stunning value for money.

VDR ULTIMATE THE FIRST 2004 £250
Carbon interconnects that help you forget the electronics and concentrate on the music. Miraculous transparency. Tight and tuneful bass mixed with air and space.



WIREWORLD OASIS 5 2003 £99/M
Excellent mid-price design with a very neutral, silky and self-effacing sound. Superb value for money.

TCI CONSTRICTOR 13A-6 BLOCK 2003 £120
Top quality 'affordable' mains outlet block, with fine build and good sonics. Well worth the extra over standard high street specials, which sound coarse and two-dimensional by comparison.

vinyl section

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MAY 2020

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LUXMAN PD-151 TURNTABLE 83

A classic belt drive turntable from upmarket Luxman of Japan. Expensive but very good, Noel Keywood finds.

ORTOFON QUINTET BRONZE MC CARTRIDGE 89

An affordable moving coil cartridge to pep up vinyl, finds Noel Keywood.

AUDIOPHILE BOOK 93

'In The Sixties', a book by Barry Miles that Paul Rigby reviews for all those that were there and wondered what was happening!

SILVA SCREEN

From Silva Screen (www.silvascreen.com) via the Radiophonic Workshop now and ex-RW man, Peter Howell's 'Through a Glass Darkly', on translucent vinyl. Howell tweaked the Dr Who theme in 1980 but here you can find a prog-electronica outing.

Next is RW's Paddy Kingsland's 'Fourth Dimension'. Effectively it's a white-vinyl compilation sourced from Radios 3, 4, Leeds and more. Electronica heavy, the twelve tracks range from the wonderfully cheesy to funk.



news

WAH WAH

Two early seventies, prog rarities from Atila, ranging from early Vanilla Fudge-type prog to ELP symphonic later on in their life. Keyboard-heavy in style and nicely produced. The debut, 'The Beginning of the End' (1975), numbered only 100 copies or so originally. It arrives with a bonus CD including an alternative version of the LP.

'Intencion' (1976) benefitted by superior production. It was remastered by Dennis Blackham at Skye Mastering. Both include a booklet insert.

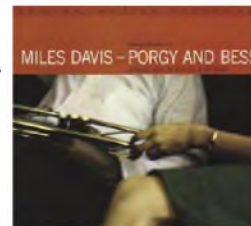


SKINSHAPE

From Skinshape (aka William Dorey) comes 'Filoxiny' (Lewis; www.lewisrecordings.com), a rather contemplative, thoughtful creation. Musing on musical moments, gently psychedelic with soul/funk overtones and trip hop undertones. It's 'shaping' up to be a little cracker!

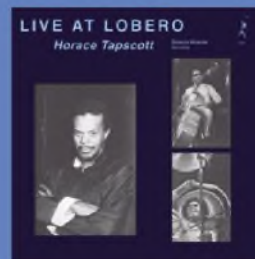
MOBILE FIDELITY

Via Mobile Fidelity (www.mofi.com) Miles Davis is back with 'Porgy and Bess' in a dual-disc, 45rpm package inside a gatefold. Beautifully mastered, this production was arranged by Gil Evans who, I feel, steals the show in terms of his feel for the music itself.



PURE PLEASURE

Via Pure Pleasure (www.purepleasurerecords.com) and from pianist, Horace Tapscott, who died in 1999, this free jazz/avant outing 'Live at Lobero' includes the contributions of Sonship and Roberto Miranda. It's a live Santa Barbara, California concert from 1982. The LP consists of three tracks. You'll find



exploratory jazz here...very Sun Ra.

Lonnie Liston Smith & The Cosmic Echoes' 'Visions of a New World' (1975) was originally released on Flying Dutchman. Smith played with Pharaoh Sanders and Miles Davies. A funky, slow groove soul jazz piece, it's quite meditative. Look out for the attractive vertical gatefold sleeve.



TRAIL OF DEAD

'X: The Godless Void and Other Stories' from ...And You Will Know Us, by the Trail of Dead is the band's latest release (*Inside Out*; www.insideoutmusic.com). It offers excellent post hardcore from this tenth LP release. There's grunt and power but also introspection.



MUSIC ON VINYL

From this busy record label (www.musiconvinyl.com) comes Kara's Flowers and 'The Fourth World'. If you like Maroon 5, then check this one out, most of that band began here. Poppy, lots of hooks with a slight grunge edge.

Smoke City's 'Flying Away' (1997) combines Bossa Nova, funk and trip hop. If you were TV watching in 1997, you would have heard the track 'Underwater Love' on a Levi's advert.

Last Shadow Puppets' lead singer Miles Kane's solo effort, 'Colours of the Trap'. Arriving with a booklet and pink/black marbled vinyl, it provides baroque, retro-rock styles from the sixties and seventies.

Also check out the Electric Prunes 'Underground', their more coherent second album, plus Etta James' (2000) 'Matriarch of the Blues'. Including a page insert, the LP is nice but James takes it a bit too easy. It lacks punch.



STRUT

From Strut (www.strut-records.com) comes 'Nigeria 70'. Infused with Afrobeat, soul and funk it includes works from the likes of Sina Bakre, Odeyemi and Don Bruce & The Angels.

The Souljazz Orchestra's new LP, 'Chaos Theories' offers an overtly political album: politics, the police and slightly acid jazz directions.



SQUAREPUSHER

Returning back to his roots, Tom Jenkinson releases album number fifteen as Squarepusher via Warp (warp.net), using older synth hardware and software. 'Be Up A Hello' is positively retro and arrives with a cut out sleeve and four high gloss prints. A work of art.

DEMON

From Demon (www.demonmusicgroup.co.uk) and Sidney Joe Qualls comes 'I Enjoy Loving You' (1974). From Dakar/Brunswick. Qualls has a real Al Green approach to his art.

The Tremeloes' 'Gold' features a host of hits, post Brian Poole. Includes twelve tracks including Silence is Golden.

Cash Money & Marvelous' 'Where's the Party At?' (1988) is a golden age of rap LP including the track, 'The Mighty Hard Rocker'. On the same theme is T La Rock's 'Lyrical King' (1987) featuring DJ Louie Lou and Greg Nice.



MUNSTER

From Munster's (www.munster-records.com) imprint Vampi Soul comes 'América Invertida', focusing on eighties music from Uruguay mixing dream pop and experimental folk.

'12 Bombazos Bailables' features 12 dance floor songs derived from the venerable Discos Fuentes label from the likes of Combo Los Yogas and Los Supremos.

From Sonara Casino comes 'Trompeteros', an experimental psychedelic outing from the Peruvian MAG label.

...AND FINALLY

From prog/metal outfit, Godsticks (kscopecmusic.com) comes 'Inescapable'. Punch and yearning. Radiohead-type vocal delivery.

Prolific singer-songwriter and Australian rock icon, Paul Kelly's 2LP 'Greatest Hits' (EMI Australia) ranges from 1985-2019. A down-under Elvis Costello.

From hardcore outfit, Violation Wound (www.peaceville.com) 'Dying to Live, Living to Die' (2019). Each song is over before you know it. Intense punk.





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Pace & Power

On the pace and with plenty of power, Luxman's PD-151 turntable impresses Noel Keywood.

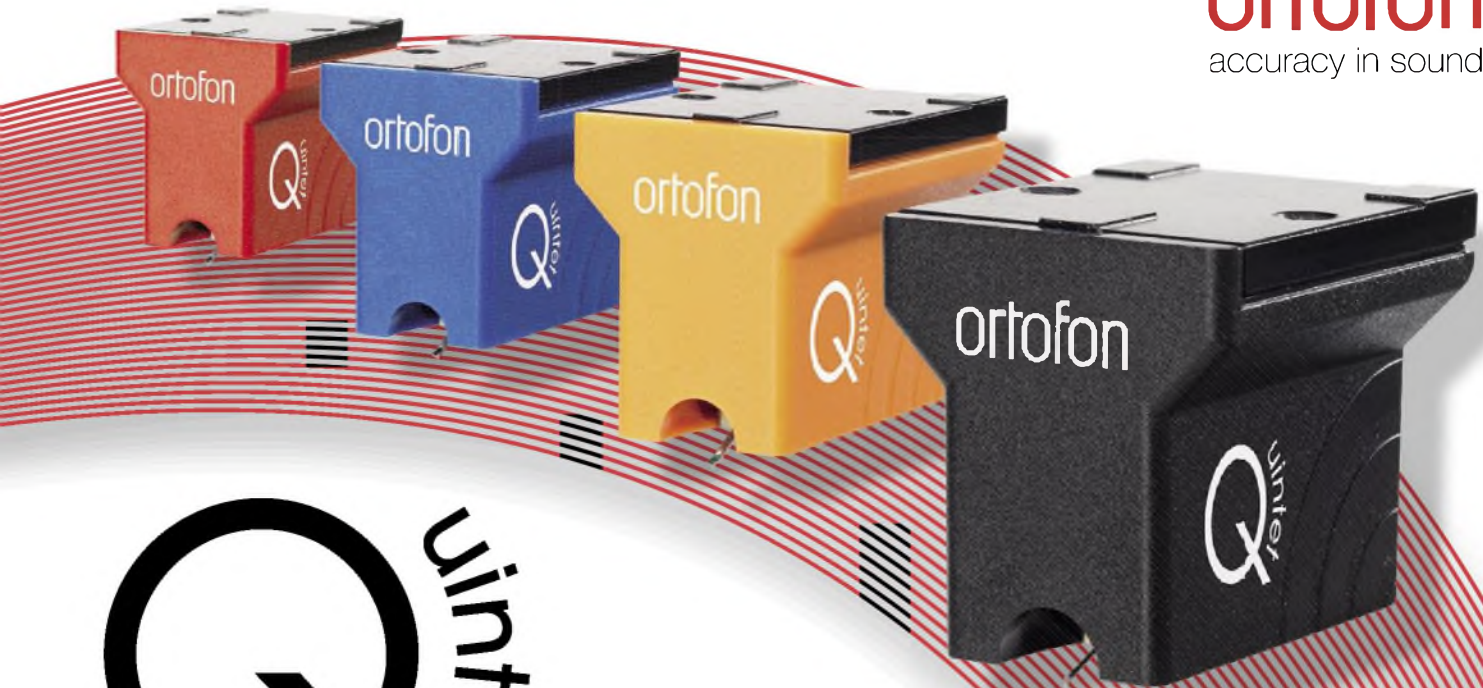
Long ago I owned a fascinating turntable, one that sucked my LPs flat onto the platter. Warps were demolished, the cartridge tracking vinyl vacuumed flat to a metal

base. Needless to say, it sounded different and – sort of – better. It was a Luxman PD300 vacuum deck. The Luxman PD-151 (£4499) belt drive turntable I'm reviewing here is reminiscent, having the same solid build

and fine finish – if without vacuum hold down. It's expensive and there's plenty of competition – from Technics and Rega for example.

Sucking an LP onto the platter gave a solid, stable sound alright, but



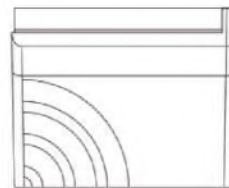
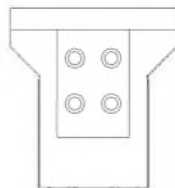
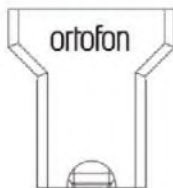


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All Quintet cartridges use the same ABS thermoplastic bodies and neodymium magnets, but each model in the range has its own sonic expression that reflects its status. From the well-rounded **Quintet Red**, through the smooth **Quintet Blue** and spacious yet dynamic **Quintet Bronze**, up to the pure audio excellence of the **Quintet Black S**; this series offers something for every discerning listener at a very attractive price. The Quintet Series also includes a true-mono cartridge, for accurate reproduction of older mono recordings.

Quintet cartridge design



Quintet Black S
May 2014



Quintet Blue
December 2014



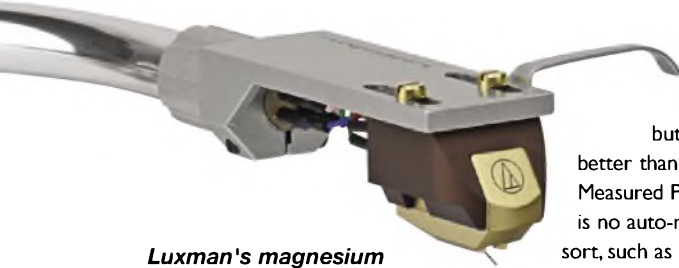
Quintet Black S
July 2017



Quintet Blue
July 2019

if I played Side A repeatedly, Side B became seriously noisy. Ticks and pops became overwhelming on the vacuumed side. End of this idea. With their new PD-151 Luxman keep to conventional, no vacuum pumps here! Instead the PD-151 rests LPs on a thick rubber mat, sitting atop a very

a conventional bayonet fixing for easy cartridge changing, necessary if you want to swap into and out of playing 78s, although I cannot help feeling this new design fad isn't going to affect many people since 78s are fragile, easy to shatter and need a special large diameter stylus.



Luxman's magnesium alloy removable headshell that uses a standard bayonet connector. It does not come with a cartridge.

Luxman's arm is an S shaped tubular type that looks conventional but under test behaved better than expected (see Measured Performance). There is no auto-mechanism of any sort, such as auto shut off for example, it's a DIY jobbie where the arm is placed over the LP and lowered by a damped cue platform, being

for a fixed arm, this one has height adjustment of 38mm-60mm, a wide range.

The PD-151 is large, very large. With 10mm machined top plate and sturdy plinth, weight is 15.7kg, so a strong shelf is required. Width is 465mm and depth 393mm but with lid open 440mm. That makes a 16in shelf necessary – deep. The four rubber isolating feet are height adjustable, so the platter can be set level with a spirit level (not supplied). As always, the hinged lid requires top clearance to open, here being 480mm. And best kept on since it is very heavy to prevent sound reaching the arm. The power supply is on-board, not from an external wall-wart, so 230V a.c. only from an IEC mains connector.

heavy 4kg platter.

This deck uses belt drive to the platter's rim and because of its weight Luxman provide two handles to lift it onto a large diameter (16mm) stainless steel main bearing shaft. Drive comes from a brushless d.c. servo motor, 'servo' meaning it has electronic speed control.

There are three speeds, 33rpm, 45rpm and 78rpm, with adjustment of each available on the front panel. A single small LED indicator lights steady green when speed is correct, flashes green when slow and flashes blue when fast. I'm uncertain why this is necessary – perhaps some users want pitch control to make their own subjective judgement of correct pitch from an LP, or more likely 78rpm shellac disc. Our review sample held a steady green, but it ran a little (+0.5%) fast as delivered all the same – more on this later.

As you can see the PD-151 comes with its own arm. The headshell uses



The centre spindle and arm are locked to a massive alloy base plate 10mm thick.

similarly lifted and returned to rest at end of side.

Lux products are beautifully made and finished, this arm working with smooth precision. You get a 4gm-12gm cartridge weight range – more than enough for all cartridges – calibrated counterweight to apply down force, and anti-skating dial that will suit up to 3gm tracking force. Unusually

SOUND QUALITY

I decided to fit an Audio Technica AT-OC9X SH Shibata tipped moving coil (MC) cartridge to the PD-151. It's a recently introduced modern design, with flat frequency response and great high frequency focus and insight from a well-aligned stylus of sophisticated geometry. Why do I say all this? Because when listening to a turntable the cartridge comes between the two of us, shall I say, so its influence I have to take into account.

Use of a moving coil cartridge means our Icon Audio PS3 MkII valve phono stage with its silent MC input transformers is obligatory. Keeping it all clean and distortion free further down the chain was an Icon Audio Stereo 30SE single-ended valve amplifier feeding Martin Logan ESL-X hybrid electrostatic loudspeakers.

Selecting 45rpm, I put on a Mobile Fidelity re-master of Dire Straits 'Brothers in Arms' for a bit of classic Rock – and both Walk of Life and Your Favourite Trick slipped by nicely. The first track made obvious that the PD-151 maintains a solid grip on



The platter is driven at its rim by a flat ground belt, with exposed motor pulley at rear. The power supply is internal, so no external wall-wart supply here.

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pace but was eager to get through things. Then I remembered that it was set just a trifle fast and perhaps I was hearing this, although a small 0.5% error is barely detectable. I re-set speed to be exact and it still sounded temporarily eager, which was fascinating.

Many hours and LPs later the property had become firmly entrenched in my listening notes: the PD-151 not only has rigid timing but is pacy and clean, with no time domain blur or overhang. Although Mobile Fidelity LPs spin at 45rpm it was when it put on Alison Goldfrap's 45rpm 12in disco single Ride A White Horse that the sonic picture came into full focus. Cut at very high level this little slab of vinyl is meant to pull the house down – and it did! Luckily, I played it on a quiet Sunday when there was no one else in the building and found myself turning volume right up, the sound was so clean and confidently composed. The sudden change of pace from long into to vocal backing was rifle bolt hard and the lovely Ms Goldfrap started singing about the white horse that Bianca Jagger apparently rode into a NY disco (I'm a mine of useless facts – and also showing my age here!).

The Luxman was so powerful, clean and pacy I started to hear echoes of Garrard 401 and could



A beautifully finished conventional arm located firmly on the solid base plate.

not help ruminating about what was going on. Massive main bearing – tick. Massive platter – tick. Heavy, rigid base plate supporting that bearing and platter – tick. Good arm able to convey the dynamics that spring from such a heavily built assembly – tick. There was a sense of almost eerie power that I get from my Garrard.

Also, the PD-151 was quiet. Setting the arm down there was little vinyl noise and between tracks it was seemingly silent even with

volume right up.

What role did the OC-9X SH cartridge play in all this? It's a fast sounding cartridge and here its solid alloy body was locked into a stable platform, contributing to the sense of speed and precision I heard, and also dry, tight bass. Our Ortofon Cadenza Bronze delivered greater bass punch than the OC-9X when I bolted it in, plus a little extra space around images, but not the precision treble of the AT's Shibata stylus.

So, think dynamically powerful and fast paced, clean and punchy. With a broad sound stage and stable images there was little to complain about from the arm, although our Rega and SME arms manage better lower midrange image placement and stability with tracks like Hugh Masekela's Uptownship from his Hope LP. They put a solid lock on hand drums in particular, something the Luxman arm didn't quite manage. But then few arms do, because they don't use the tapered tube of a Rega or SME. The arm got close all the same: it was both dynamically vivid and clean in its sound, as measurement suggested.



A damped lift/lower system and bias adjustment dial are fitted. The arm rest lacks a lock.

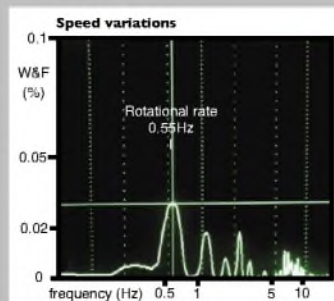
CONCLUSION

I always got the impression someone was listening at the Lux Corporation. My PD300 vacuum deck was sonically 'different' and the PD-151 is also impressive. Strongly paced and with vivid dynamics, it came at me with the peculiar sense you get from a Garrard 401 that you are going to be steamrollered. It has dramatic sound that's for sure. Totally conventional in outline, you don't get anything other than solid engineering but it works supremely well to deliver a great sound.

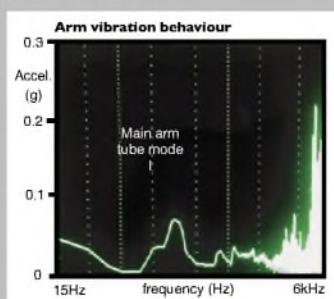
MEASURED PERFORMANCE

With a 3150Hz test tone (DIN 45-452 test disc) the PD-151 clocked in at 3165-3168Hz. Call that 3166Hz and it was running +0.5% fast – not enough to give audibly higher pitch for most people, but less than perfect. We are starting to get turntables in for review these days that run right on 3150, meaning no speed error.

SPEED VARIATION



ARM VIBRATION



The small variation of speed (3Hz) was impressive for belt drive, where a wander of 15Hz around nominal was possible with a.c. synchronous motors. The PD-151 uses a modern servo-locked d.c. motor and it holds speed very well. As a result wow measured a low 0.08% (DIN unweighted) and 0.05% (DIN weighted), sinking to 0.03% with Japanese JIS weighting. This is close to Direct Drives, showing the PD-151 is very speed stable, due mainly to its heavy platter and large diameter main bearing that suffers less precession than smaller diameter shafts. Our spectrum analysis of wow and flutter components shows low variation at basic rotational rate (33rpm/0.55Hz) with little above this frequency.

For a parallel sided aluminium tube the arm was surprisingly well behaved. Our analysis with a Bruel&Kjaer accelerometer on the headshell shows small activity at 180Hz (main bending mode) with a large peak at second-order (360Hz), but both resonances are well suppressed. The headshell gets lively above 3kHz. **NK**

Speed error	+0.5%
Wow	0.08%
Flutter	0.05%
Wow & Flutter (DIN wtd.)	0.05%

LUXMAN PD-151 £4499



OUTSTANDING - amongst the best.

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- Expert opinion from a team of renowned writers, musicians and engineers.
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Information

Developer	audio web publishing ltd
Category	Entertainment
Updated	7 Dec. 2014
Version	1.0
Size	9 MB
Rating	Rated 4+
Family Sharing	Yes
Compatibility	Requires iOS 5.0 or later. Compatible with iPhone, iPad, and iPod touch.
Languages	English

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Bronze Age

Ortofon have updated their budget Quintet Bronze moving coil cartridge over time, Noel Keywood finds.

As music from LP continues to be popular, trying to get the best from vinyl is a contested place. There are no end of moving magnet cartridges available, but more expensive moving coil (MC) cartridges are the place to go for a sense of greater stage depth. Trouble is price. Ortofon's Quintet range of budget moving coils aims to make MC quality affordable. Here I'm looking at their Quintet Bronze (£515).

We've reviewed the Quintet Bronze before, in our August 2014 issue. But times move on and Ortofon have subtly changed this popular cartridge in tonal balance, measurement shows, although subjectively it still is empathetic with the unit Tony Bolton reviewed long ago. In fact, after writing up my listening notes in an entirely different system, they were eerily like those of Tony's – that I did not read in advance.

Because we use a Cadenza Bronze as a benchmark reference readers continually ask about its cheaper cousin – hence this repeat review. And it seems there is change – but no change. So let me explain.

The latest version has an ABS thermoplastic body as before, with screw threads above a blind hole in the body. This makes for easy fixing – no nuts required. Supplied were 2mm and 3mm long screws, the former with hex bolt heads and the latter with slots – curious. Also supplied

the heavier side, but all arms can cope; it sits within their 4-12gm range. Parallel sides make for accurate alignment in the headshell – important to keep distortion down. Colour coded rear pins make connection easy enough and I experienced no difficulties here.

Tracking force is quoted as 2.1gm-2.5gm and I used 2.4gm, a tad above the 2.3gm optimum quoted, because it was marginal on a 'torture' test track. But this is no big issue: LPs rarely reach the levels of test LPs.

The stylus is a nude Fine Line, a step up from the simpler elliptical geometry used by the less expensive Quintet Blue (£349) but not as sophisticated as the Shibata tip of the Quintet Black (£679). All the same, Ortofon's Fine Line turned in a good result under measurement, tracing inner grooves with little loss.

The cantilever is a parallel sided aluminium tube, not the tapered tube of the Cadenza Bronze. In my experience tapered tubes are a tad more damped and better defined in dynamic impact, but only found on higher end designs.

Finally, moving coil cartridges do not have a removable stylus; they must be exchanged if damaged – a cost to



SOUND QUALITY

I fitted the Quintet Bronze to our SME309 arm, mounted on a Timestep Evo modified Technics SL-1210 MkII turntable. It fed an Icon Audio PS3 Mk2 valve phono stage with MC input transformers for ultra-low noise. This fed our Creek Evolution 100A transistor amplifier connected to Martin Logan ESL-X hybrid electrostatic loudspeakers, through Chord Company Signature Reference cables.

Firstly, and a little surprisingly, I noticed slight hum at high volume. Turned out the Creek's mains transformer was inducing hum into the Quintet Bronze one shelf above, so it is hum sensitive and needs to be kept well away from mains transformers. With positioning corrected there was total silence, as expected when using a pre-amp with input transformers.

Spinning Sing Sing Sing, from Big Band Spectacular by the Syd Lawrence orchestra – a fabulous recent direct-cut to vinyl from Chasing the Dragon – the opening drum sequence was smooth and clean, having a nice svelte quality. The orchestra kicked in with blaring

"full bodied, smooth and analogue-like than before"

were a stylus brush and Ortofon's simple plastic stylus balance, good enough to get you going. There was no hex key or screwdriver in our box, but Ortofon claim to supply one.

At 9gm the Quintet Bronze is on

be borne in mind. And a high gain MC preamp is needed, Ortofon quoting a load in excess of 20 Ohms (100 Ohms is standard). They also offer a step-up transformer to suit an MM input.

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trumpets and trombones sounding rich and fruity. The sonic balance was obviously mild and smooth, easy going yet refined. Vinyl surface noise, ticks and pops were seemingly absent and the Syd Lawrence Orchestra nailed it in front of me. This is a live performance from experienced musicians and the Quintet Bronze brought it into the room with alacrity. There wasn't quite the bass weight and definition of the Cadenza Bronze that we use as a reference, but I can use the term "lovely" all the same.

Cartridges must be auditioned on inner grooves to assess stylus geometry and here, with American



The rectangular body with parallel sides may not look elegant, but it is easy to align accurately in a headshell, without skew, minimising distortion.

The current model has an adjustment screw for final production alignment that improves performance, our measurements showed.

Patrol, the stylus dug deep, a trumpet solo coming over as clear and crisp. The orchestra remained composed and clean to the very end, a final cymbal crash being well resolved, if mildly presented.

Another inner groove performance, this time from Rosella Caporale singing Time to Say Goodbye, from the LP Two Countries One Heart. Her vocals were smooth and her final sustained high came across with confident power – a lovely performance. And superb from LP inner grooves.

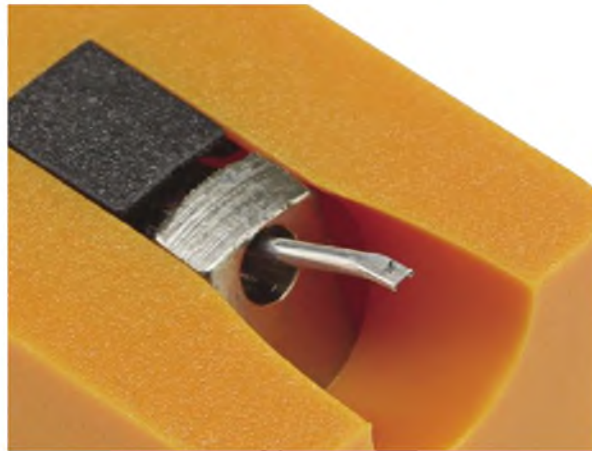
What I was hearing from this cartridge was an analogue delivery set apart from what we hear from CD. No edginess, no shimmer, just

a lovely sense of body and refinement.

A warm smooth balance is beguiling, but Rockers may want a bit more bite – and this was absent. The Quintet Bronze was superb with Neil Young's After The Goldrush, where it held vivid highs from his guitar strings in check, but with Mark Knopfler's True Love Will Never Die, from Kill to Get Crimson, the lush sound of the recording was "enhanced in lushness" shall I say. Strummed guitar chords were sweet though, and surface noise low.

Methinks Ortofon have made the latest Quintet Bronze sound more full bodied, smooth and analogue-like than before. It has great stage depth, as you'd hope from a moving coil, and makes a powerful statement for LP sound.

Lovely and gorgeous! Everything you could wish for from LP, if without the Cadenza's bass punch.



An aluminium cantilever, fitted with nude Fine Line stylus on a square shank, for accurate alignment and faithful tracing of high frequencies, especially on inner grooves.

CONCLUSION

Ortofon's budget Quintet Bronze moving coil cartridge offers a fine example of vinyl loveliness. It is supremely smooth in sound, full bodied and deep in sound stage. Not fast or sharp, it veers more toward a balance that suits classical music, vocals and easy Rock. With a stylus that gets the best from inner grooves this is a moving coil that offers a great analogue experience. I just relaxed and enjoyed it. Some might want their ears tingled at top a bit more though.

MEASURED PERFORMANCE

Frequency response of the Quintet Bronze, using a JVC TRS-1007 test disc, shows a smooth roll down in output toward high frequencies, measuring -1dB at 10kHz and -5dB at 20kHz.

On inner grooves (red trace) the Fine Line stylus introduces little tracing loss, just -1dB at 15kHz, so tonal balance changes little here.

The latest Bronze has an adjustment screw underneath and this has improved results, vertical tracking angle now measuring 25 degrees. As a result vertical distortion was lower, falling from 5% to 2.4% (CBS STR-112 test disc).

Distortion on lateral modulation remained as before at around 1%, a normal enough result.

Channel balance was better and separation a high 30dB (Shure TTR-109 test disc).

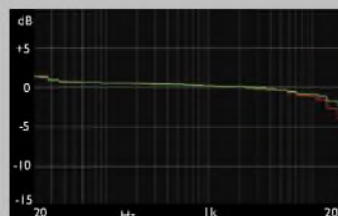
Tracking was good at low frequencies (CBS STR-112 test disc) and fair in the mid-band (1kHz, B&K2010 test disc) as before. Output measured 0.6mV at 5cms/sec rms.

The latest Quintet Bronze measured

well all round, being tidied up over earlier versions. It does have falling upper treble though, that will give it a subjectively mild balance. NK

Tracking force	2.3gms
Weight	9gms
Vertical tracking angle	25degrees
Frequency response	20Hz - 10kHz
Channel separation	30dB
Tracking ability (300Hz)	
lateral	63µm
vertical	45µm
lateral (1kHz)	16 cms/sec.
Distortion (45µm)	
lateral	1%
vertical	2.4%
Output (5cms/sec rms)	0.6mV

FREQUENCY RESPONSE



ORTOFON QUINTET BRONZE £515



EXCELLENT - extremely capable.

VERDICT

Smooth, lustrous vinyl sound with fine sense of depth. Laid back rather than fast.

FOR

- smooth, easy sound
- ease of fitment
- low surface noise

AGAINST

- hum sensitive
- lacks speed and bite

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Sixties Now

A look back at 1960s Rock culture from today. Paul Rigby reviews a book that provides unique insight into a time that rocked.

IN THE SIXTIES

Author: Barry Miles

Rocket 88

Price: £20 or £50 (see below)



This book, strictly speaking, is not new but it went out of print. A new edition has been heavily updated from the initial publication, though. Packed with 250 fascinating illustrations, Barry Miles has also added 3,000 extra words to hit a page count of 384.

Where to start with this man? This is a story of British counter-culture with various peeks into American counterculture during the sixties.

It covers art, literature, poetry, music, events and a cast of some of the most talented and strangest people you could hope to meet.

Miles was a friend of poet Allen Ginsberg and cut-up artist William Burroughs. He co-founded the Indica bookshop, published and wrote for the International Times underground newspaper, was a friend of Paul McCartney, mixed with the other Beatles as well as Pink Floyd, hung out with Frank Zappa, the Rolling Stones and Marianne Faithfull, ran The Beatles' Zapple record label, interviewed and recorded cult figures like Charles Bukowski, was involved in the creation of the UFO club, the 14 hour Technicolor Dream 'happening' and even lived in America's infamous Chelsea Hotel for a spell, bumping heads with a host of characters.

Frankly, if ever there was a notable person or event during the height of the underground scene, chances were that Miles was either

behind it, involved in it or was there to note it.

And if he wasn't involved then it probably wasn't worth talking about. His knowledge is simply staggering. His experiences are incredible. Which makes this book, frankly, essential reading if you have an interest in the period or any of the people found within.

Also enlightening was the tussle between Miles, his friends/colleagues and, to give a broad name tag, authority. His tales of opposition, from the level of Lord down to on-the-street Bobbies are something to behold. As are revelations of corruption from the same, a sad reminder of the standards of law and order of the period.

Stories abound. I never realised how, well, naughty Paul McCartney could be until I read the tale of his going back stage at a Cliff Richard concert, like some mischievous, grinning puppy, to meet Cliff. More in the book!

From this story, there's an intriguing little insight into singer/band relations from Hank Marvin and the boys too. The meeting took place after all of The Beatles had earlier publicly stated, in print, how "they hated Cliff and everything he stood for". You can imagine the atmosphere.

Miles' notes on Brian Jones are also direct and to the point. "He could be very amusing, friendly and interested. Other times he could

pass you in the street and cut you dead. He was narcissistic, aloof and, I thought, vulnerable. He came from a loveless bourgeois family and was, at heart, a hard man and ruthless. He would have made a good criminal".

If you want to know about the British (and American to some extent) underground then I can think of no better guide than Miles. Supremely connected, his insight is valuable and his ability to place the events into context and fix them into the larger picture helps to bring understanding and comprehension to a time that can and was immensely confusing and convoluted. Not any more.

The book can be bought as a basic Classic Edition for £20 (down from £30 - I'm not sure how long that price will remain). A more elaborate, Signature Edition (£50) has been signed, arrives in a folio case and includes a CD, attached to the inner from cover/board. There are sound recordings of interviews conducted by Miles with Paul McCartney, George Harrison and Pete Townshend in 1967, with Mick Jagger in 1968 and John Lennon in 1969 – that was never published.

In all, this totals approximately 5 hours of interviews on a data CD. Quite unique then, and arguably cheap at the price for unique historical record – from one man's perspective. **PR**

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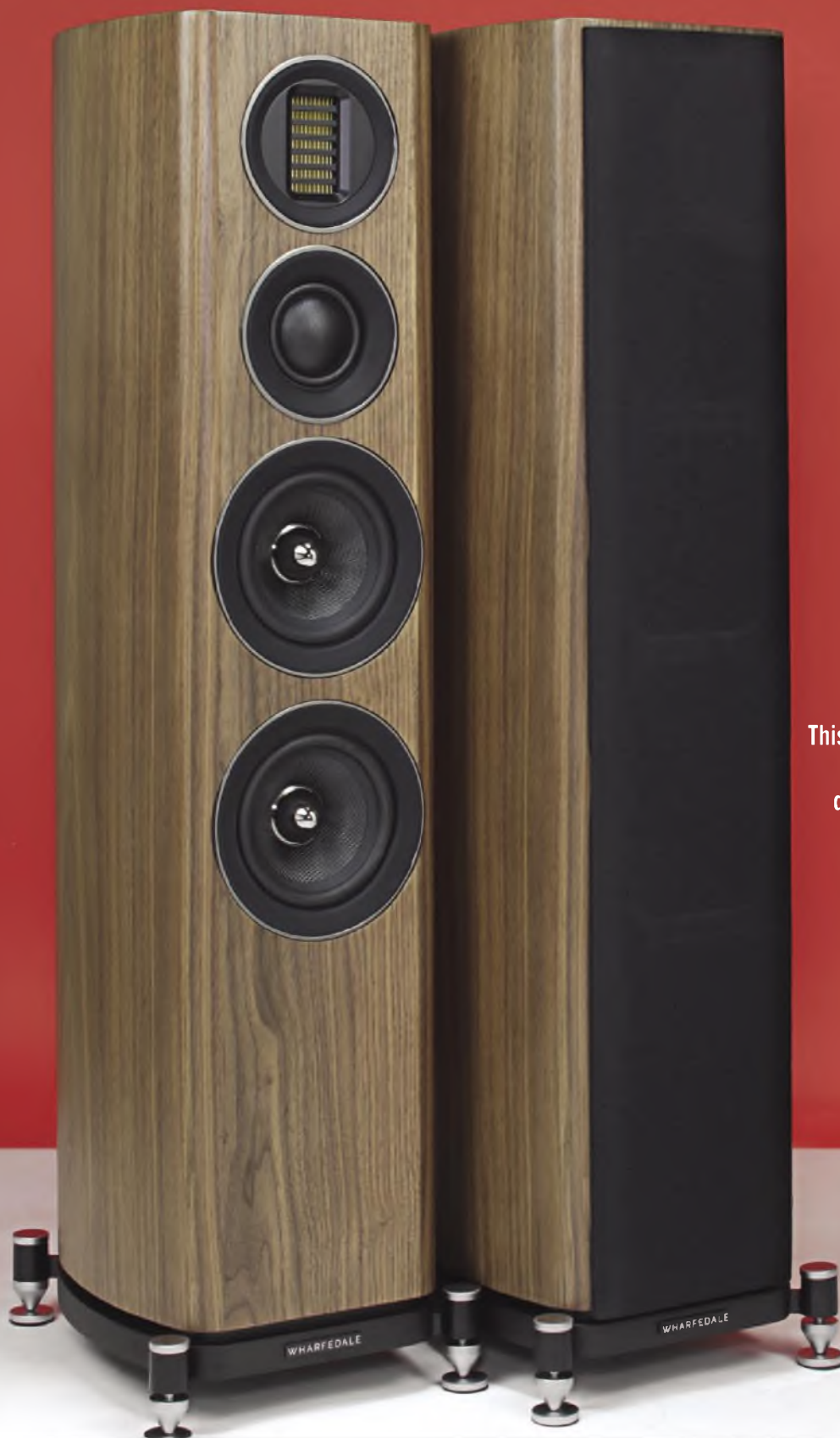
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FRANCE GALL

BABY POP

THIRD MAN



"This LP is a twinkling star from a particular moment"

France Gall sadly passed away from cancer just two years ago but her effect on music and pop in particular was – and always will be – a permanent.

She was born Isabelle Gall in 1947, in Paris. A producer suggested the name change after another singer, Isabelle Aubret, won at that time a Eurovision contest. She became the face of yé-yé (think pop aimed at teeny boppers but wrapped in a bubblegum overcoat with a name derived from The Beatles' insistent 'yeah yeah' exclamation).

Her mother and father were rooted in music. Her father was a lyricist and her mother was the daughter of a founder of the children's choir Les Petits Chanteurs à la Croix de Bois. It was her father who penned the lyrics to her first hit 'Sacré Charlemagne' in 1964, with school as the central theme.

Like Isabelle Aubret, Gall would also win a Eurovision, this time in 1965 and with a song written by Serge Gainsbourg, 'Poupée de Cire, Poupée de Son'. She wasn't representing France when she won, she was in the Luxembourg corner. The French didn't seem to mind as she became instantly famous. In fact, that winning song was translated into many languages and was heard all over the world.

In modern parlance, Gall was an influencer – in terms of image as well as music. She was always perfectly dressed for her age and the times and so she became almost an icon for the French teen-age girl of the period who would note her clothing and hair (either bobbed or long).

Time changes so quickly in music she lost her pop bluster as the sixties progressed and the rock age grew and dominated. The fractious events occurring in France during 1968 signalled a loss of innocence, something that Gall always seemed to embody (even if the occasional Serge Gainsbourg penned ditty tried its best to quash that through his determined double entendres).

Gall's later marriage to the songwriter Michel Berger resulted in a group of excellent, more adult and mature recordings in the 1980s.

In those early to mid sixties, though, she stood proud among her yé-yé contemporaries – people like Sylvie Vartan, Françoise Hardy and

Chantal Goya.

She looked cute, she represented the beat age, she was full of life and energy and she represented a new age of youth but, in pure technological terms, she was also perfect for the technology of the times.

Why? Because her high, direct voice with its relatively pinched but always melodic midrange delivery and limited frequency range was, in pure tonal terms, perfect for the mass medium products of the time: the Dansette-style record player and the transistor radio. Her voice transfer was received by the ear in full. Nothing was left in the record or was blocked over the airwaves as it might have been if her voice was lower or richer in timbre. Her vocal style meant that all of her emotion and her perky innocence was ideal for that moment in time.

Gall herself was under no illusions about her art and her place in music history. "I would never dare say that I'm an artist" she told Paris Match in 2015. "For me, artists are the world's pain receptors. That is why they have such a hard time living. Me, I've been lucky to be good at happiness".

Baby Pop is a 1966 outing that added maturity in terms of who she was as a person and as a performer – and stakes a case for being her best LP release.

Part of the reason for the album's success was down to both producer Denis Bourgeois and arranger Alain Goraguer who kept a tight hold on the proceedings; Serge Gainsbourg added three songs. While the LP wasn't afraid to play with rhythms (including a typical disco beat style) and genres (early psychedelic), the arrangements were innovative, playful and much admired by Beatle Number Five, George Martin.

As a package, this LP is a twinkling star from a particular moment, from a particular time. It is emblematic of the yé-yé period, being wholly French, terribly stylish, immediately playful and completely fashionable. Pop perfection? Oh yes.

The release arrives from US-based Third Man record label, accompanied by two other Gall notables, her earlier 'Poupée de Cire' from 1965 and the later LP '1968' released in...well, I'll let you fill in the gap. **PR**

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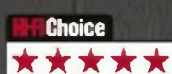
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