

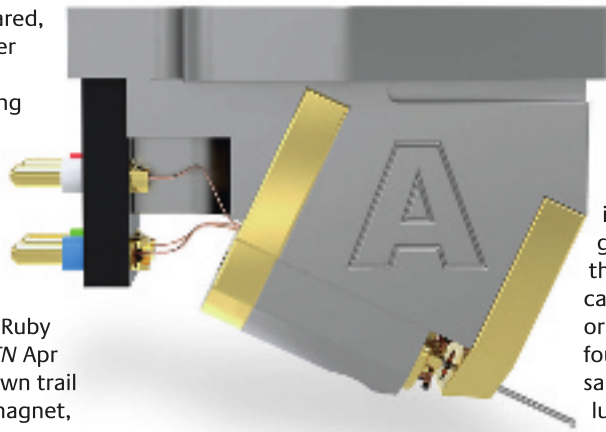
AVID Ionic

The foundation of AVID's MC pick-up range, beneath the Ruby and Boron, is the Ionic (not the 'Alloy'!), and featuring more than a little artisan wizardry in its construction
 Review: **Ken Kessler** Lab: **Paul Miller**

No rest for the wicked, I feared, as PM assigned me another AVID MC cartridge. But I worried needlessly, thinking I might be reduced to comparing cantilevers once more. Not so. The dynamic was different here because the time had arrived to deal with the entry-level model in the Brit brand's range. Both stylus and cantilever differ from those in its siblings, the £6000 Reference Ruby [HFN Nov '20] and £4000 Boron [HFN Apr '21], so the £2000 Ionic blazes its own trail despite all three sharing the same magnet, coils and body design.

As we've reviewed them in descending order, this might have meant lowering expectations with each step but the results may surprise you, depending on your musical proclivities. AVID, by design or accident, has managed the trick of producing three similar MCs spaced £2000

apart, each ascending in sonic refinement, but each also in possession of its own personality. Think of three brothers or sisters with shared DNA, but who exhibit individualistic traits, like Sonny, Michael and Fredo Corleone.



LEFT: Side-view rendering shows all key components (right to left) – cantilever, gold-plated magnet yoke, coils, fine lead out wires and cartridge pins

Unavoidable in this context, though I want to skirt the thorny topic of price, is the seeming irony of calling a two-grand cartridge 'entry-level'. So let's get this over with right now: when astounding cartridges can be acquired for under £500, or even £200, considering those costing four figures and above means adopting the same mindset as when shopping in other luxury fields. It's like choosing between a £100k Mercedes-Benz G-Class instead of a £10k Dacia Duster, both of which are ostensibly SUVs.

LOCAL HERO

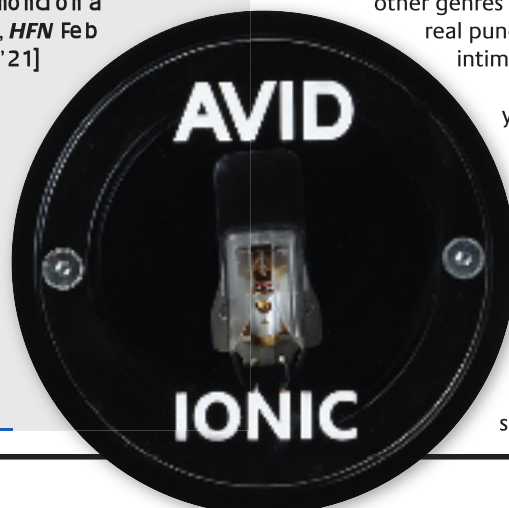
Even at this price point, the Ionic is positioned in a tough, crowded, overly competitive segment of the moving-coil market. There are undeniable gems from Sumiko, EAT, Denon, Audio-Technica, MoFi, Ortofon and dozens of others in the £1500-£2500 bracket. What AVID brings to the table, should you prefer to buy local, is a UK brand with decades of experience producing record decks of indisputably superlative construction, dead-simple installation and – you'll be delighted to know – a specific quality that will knock you out if you favour rock, brassy and bold big band sounds, huge classical works or other genres that benefit from real punch. Plus the small, intimate stuff, too.

What might confuse you, however, is the anticipated relationship between the Ionic and its costlier siblings, aside from the obvious gains in absolute refinement. You are all probably seasoned listeners, so your conditioning

TRAVELLING BY TUBE

As I've discussed before, the ideal pick-up cantilever would be both infinitely stiff and vanishingly lightweight. While such a combination remains the stuff of engineering fantasy, it does explain why exotic cantilever materials have featured in high-end pick-ups since the late '70s when Dynavector launched its Karat Diamond and Ruby MCs [HFN Nov '80] and Technics used a boron pipe in its equally classic EP-C-205 moving-magnet [HFN Dec '80 & Sep '18]. For the pick-up designer, the choice of cantilever remains a juggling act between physical properties, cost and ease-of-manufacture. All three factors explain why the aluminium alloy tube still remains the go-to choice when working to realistic budgets. Not least because it's much easier to mount a diamond on a shank through one end of an alloy cantilever [Vertere Sabre, HFN Feb '22] than to glue it onto a boron pipe [AVID Boron, HFN Apr '21] or diamond rod [Ortofon MC Verismo, HFN Mar '22].

The alloy tube also brings with it a concession to resonance – bending modes that occur within the top-end of the audio range and that typically result in a sharp dip in output between 10-15kHz. Experienced cartridge 'artisans' understand this, of course, and the best are able to 'tune' these modes. By careful choice of tube length, wall thickness, moving mass, fulcrum compliance and damping, the achievable frequency response is extended to ~20kHz, albeit at the expense of some irregularity. That is exactly what we see in the Ionic [Lab Report, p71] and, in significant part, is what contributes to the asking price. PM



RIGHT: Photographed in the flesh – substantial top plate includes threaded mounting holes. The long cantilever is exposed but this makes for swift and accurate cueing

BELOW: Micrograph reveals a first-class 7.6x15.5µm elliptical stylus shank-mounted through the crimped alloy cantilever

rightly creates expectations as one moves up the ladder, eg, from a 2x50W integrated amplifier to 200W monoblocks.

Yet the Ionic doesn't quite follow the implied positioning within the AVID family – if anything, it might be the sleeper of the bunch. I had a discussion with AVID's Conrad Mas about the voicing and positioning of all three, and he conceded that, yes, while the Boron is easier to listen to than the Ruby, the most concrete differences to him concerned soundstage *scale*. The Ruby is widely majestic, the Boron slightly narrower-sounding, the Ionic as deep, but narrower still. Hmm.

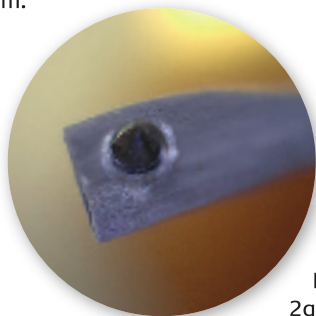
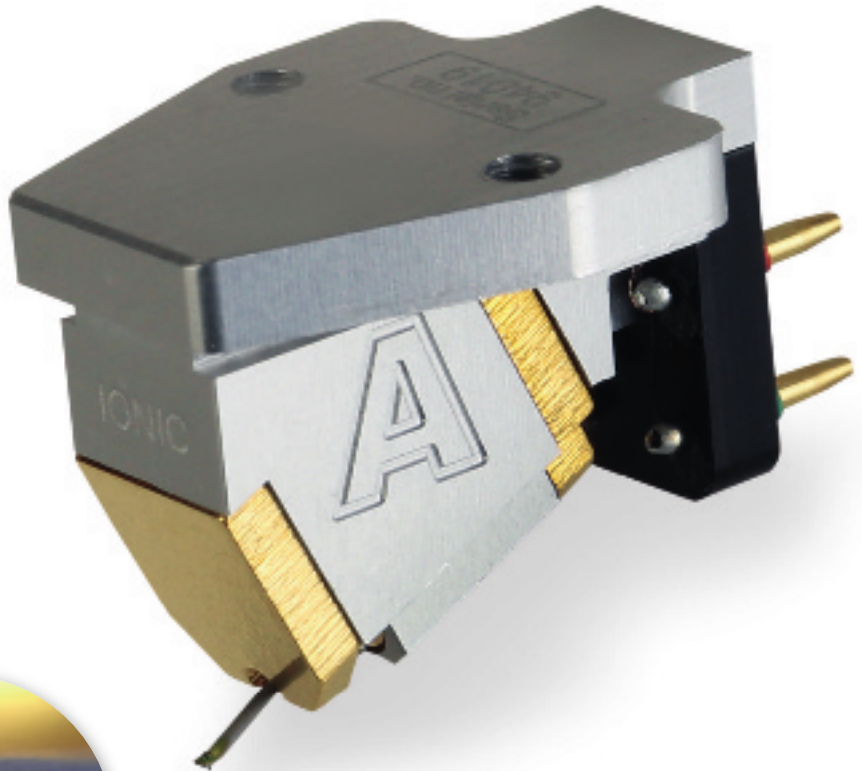
KEEPING TRACK

How to prepare you for these revelations? From the outset, you know the Ionic's aluminium cantilever and elliptical stylus cannot match the tracking ability (nor the attack) of the Boron and Ruby's eponymous materials, while the dearer models' Micro Ridge styli deliver better tracing, certainly over the test tracks I use. But the Ionic hardly struggled [see PM's Lab Report, p71], and my notes tell me it may even have the edge in transient attack, if nowhere near the absolute speed and precision, of the Ruby.

Like its red and black siblings, the silver-grey Ionic has a narrow, parallel-sided 'chassis' which is supremely simple to line up with your tonearm or headshell. The exposed cantilever, while agitating nervous types such as I, is in full view and its benefits are much appreciated when setting both VTA and overhang, as well as when cueing.

AVID provides a large slide-on stylus cover to protect this naked assembly when the Ionic is not in use, but note that it's not a tight fit. Hence why it

RIGHT: Another render, this time from the front, illustrating the Ionic's easy-to-align 90° angles



ships with a tiny rubber band holding it in place.

ICONIC IONIC?

Naturally, the recommended 2g downforce

and 100ohm loading

suits the cartridge, but the Ionic absolutely responds to experimentation with the latter.

Yes, it's a bit tricky deciding whether or not lower or higher values actually sound better because the gain/output

changes, but I still fiddled about with loading before settling on the century.

I often wonder whether or not the first album you play through a new component colours or

defines your relationship with it. For example (and assuming that the component has been run-in and warmed-up), if your initial exposure was a heavy rock track, or a string quartet, or a small jazz ensemble, might that first impression stay with you?

Can you listen past it – or maybe it was spot-on, as I found when starting my sessions with a 12in single, Robert Palmer's 'Addicted To Love' [Island 12 IS 270].

While Palmer was known primarily as a peerless practitioner of 'blue-eyed soul' with an ear for music from the American South, he had his heavier moments and this particular smash hit, in the wake of his

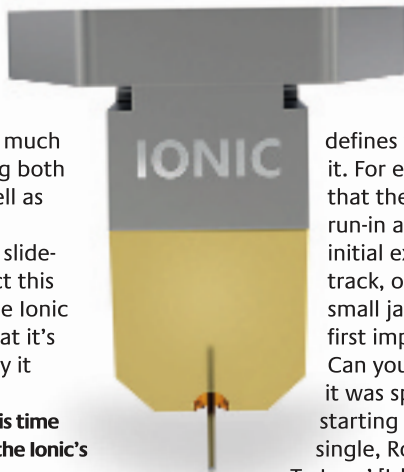
time with The Power Station, demonstrated unbridled sonic mass. But somehow it was loud and weighty without sounding raucous or noisy. It's hard to explain that apparent enigma if you don't know the song, but it's so controlled that you forget

it has percussion and bass which wouldn't embarrass Motörhead.

My initial burst of the Ionic was this song's elephantine drum intro, and this opening salvo exuded scale and power of a room-filling degree. What made me sit up and take notice, however, was the refinement. I had just played the track with a notoriously rowdy cartridge that emphasised its slam and force at the expense of subtleties, whereas the Ionic exposed amidst the barrage the tiny details which otherwise would have been obscured. Best of all, it captured every nuance of Palmer's voice, one treasured for his way with vocal textures.

In terms of soundstage, this cartridge – as suggested – couldn't quite match the width of the Boron but it shared the depth of both it and the Ruby. It also sounded ➤

'It exuded scale and room-filling power'



CARTRIDGE

RIGHT: Exposed cantilever, coils (on far side of the CNC laser-cut yoke) and fine wires are just visible. Colour-coded cartridge pins are chamfered so care is needed to ensure a snug fit

comfortably extended beyond the edges of the speakers through which I played it, including ribbon dipoles and LS3/5As, if not quite making the side walls seem to disappear. So the manufacturer has ensured that all three pick-ups provide convincing, three-dimensional spatial re-creation, while varying in degrees that I found less unequivocal than Conrad Mas might feel.

GOING LIVE

While the Ionic's performance was narrower, it was still satisfyingly broad enough to handle a live album. But not just any: I wasn't interested in a 120dB-at-100m rock gig, but something refined and airy.

I had recently been bowled over by Nathan Davis' *Live In Paris 1966-67* [Sam Records SR20]2-1, which finds Davis backed by the George Arvanitas Trio in a radio studio, a museum and a theatre. Where the album proved invaluable was in the sheer presence of both Davis' saxophone and Arvanitas' piano, both enjoying levels of realism within spitting distance of sonic touchstones like Davis' namesake's *Kind Of Blue*.

But it was the spatial element which made the Ionic a stand-out, for it wasn't the scale as much as the authenticity which mattered. In other words, did I feel like I was experiencing each space? And real spaces, not artificial multi-track studio positioning. While I have no idea what the actual dimensions or shapes of the venues might be, or what the wall coverings might have been, or even the positioning of the musicians, the reproduction of each area was believable enough to allow an attentive, focused listener to revel in the differences.

Self-indulgence and guilty pleasures have been my life's work, exemplified by The Dave Clark Five's sublimely remastered, albeit mainly mono, *Glad All Over* [BMG BMGCAT558LP]. Having determined that a) the Ionic was no slouch for soundstage and three-dimensionality, which b) meant retrieval of subtle aural clues, and



c) it dealt with Palmer's voice so clearly and authoritatively, I wanted to confirm its status as one for the rockers, not just the jazzers. (And if it likes acoustic jazz and bombastic rock, it will handle classical.)

AVID LISTENING

If ever there was a track that begs to be played loud, it's 'Glad All Over'. Percussion is to the fore to feed Clark's ego, but the rest of the band delivered the goods here, especially the saxophone. I was playing this at offensively loud levels while hearing each instrument unhindered.

To resolve the internecine standings, yes, the Ruby is warmer without going full-blown romantic, and the Boron more relaxed. As for the Ionic – it's the most forgiving, and thus for many enthusiasts, possibly the smartest choice. ☺

HI-FI NEWS VERDICT

If you're expecting AVID's Ionic to sound like a 'baby Boron' or 'Ruby mini-me', you're in for a surprise. The Ionic exhibits lots of snap and punch, but – like its siblings – always behaves gracefully. It never steps over the line, delivers a serious bang for the buck, handles inner-groove torture material and even looks cool in a suitably high-end manner. In the right arm, this is a rock or funk fan's dream cartridge.

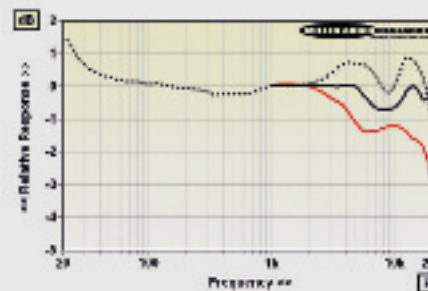
Sound Quality: 85%



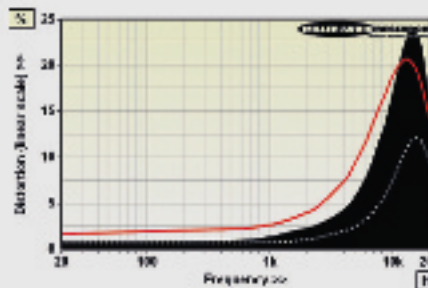
AVID IONIC

While AVID's Reference Ruby [HFN Nov '20] and Boron [HFN Apr '21] are very similar MC designs, differing principally in cantilever material, the 'entry-level' Ionic is arguably more distinct in its construction. The line contact stylus used in the Ruby/Boron is replaced here with an elliptical type offering a 7.6x15.5µm contact radius [see pic, p69] and is aligned on the end of a long alloy tube cantilever to achieve a 25° VTA – preferable to the high 30° of its costlier relatives. At a 2g downforce it's not quite as secure a tracker as the top Ruby Reference, achieving ~70µm via the left/right channels and just letting go at the penultimate +15dB groove modulation (re. 315Hz/5cm/sec) at ~1% THD, but this is still a good performance bearing in mind the low ~11cu compliance. Also, while AVID quotes a consistent 4.5ohm coil impedance and 0.32mV/1kHz (re. 5cm/sec) output for all three cartridges in the range, in practice our Ionic had a slightly lower 0.26mV output, complemented by a very tight 0.1dB channel balance and 20-25dB (20Hz-20kHz) stereo separation.

The specific resonances and damping properties of the alloy tube cantilever [see boxout, p68] are revealed in the extended but slightly erratic HF response [Graph 1, below] and in the relatively high HF distortion, reaching ~18%/14kHz on the stereo cut [-8dB re. 5cm/sec; dashed trace, Graph 2]. The slight asymmetry we've seen before in AVID's generator is revealed again here in the flatter/brighter right channel (-1.1dB vs. -2.3dB/20kHz) and in the 1-2dB dip in presence band output on vertical (L-R) grooves vs. lateral (L+R) cuts [red vs. solid black trace, Graph 1]. However, compared with most pick-ups equipped with alloy cantilevers, the Ionic offers a bold treble. PM



ABOVE: Freq. resp. curves (-8dB re. 5cm/sec) lateral (L+R, black) vs. vertical (L-R, red) vs. stereo (dashed)



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

HI-FI NEWS SPECIFICATIONS

Generator type/weight	Moving-coil / 9.1g
Recommended tracking force	18-22mN (20mN)
Sensitivity/balance (re. 5cm/sec)	259µV / 0.1dB
Compliance (vertical/lateral)	11cu / 9cu
Vertical tracking angle	25 degrees
L/R Tracking ability	70µm / 70µm
L/R Distortion (-8dB, 20Hz-20kHz)	1.3-18% / 0.7-12%
L/R Frequency resp. (20Hz-20kHz)	+1.9 to -2.3dB / +1.2 to -1.1dB
Stereo separation (1kHz / 20kHz)	25dB / 20dB