High-output moving-magnet cartridge Made by: Ortofon A/S, Denmark Supplied by: Henley Audio Ltd, UK Telephone: 01235 511166 Web: www.ortofon.com; www.henleyaudio.co.uk





Ortofon 2M Black LVB 250

The most popular range of MMs on the planet – Ortofon's 2M series – has just got a new chief. All hail the Black LVB 250, anointed by none other than Beethoven himself Review: **Ken Kessler** Lab: **Paul Miller**

ne body and 'motor', but different styli or cantilevers: I'm not sure which of the latter two choices is more important if a manufacturer wants to create a range from a primary design with an upgrade path. Ortofon has no such doubts and is taking no chances with the 2M Black LVB 250. While it looks like the circa-£95 2M Red I have been using for years as my reference entry-level MM cartridge, save for the colour, this new flagship for the 2M moving-magnet family comes in at a heady £829. That, however, accounts for the top-of-the-range 2M magnet and coils, new suspension and cantilever.

Oh, and that long 'Ortofon 2M Black LVB 250' name refers to the hearing-impaired composer Ludwig van Beethoven, as the portrait on the side of the cartridge suggests. The '250' marks the anniversary of his birth in 1770 and, as you'll find, the choice is apposite because this cartridge has a personality that suits his genre. But more about that later.

Based on the well-respected 2M Black, this deluxe version is also fitted with a nude



MOVING-MAGNET DYNASTY

If you count all the variants offered in the 2M series, including the Verso models with fixed, upward-facing bolts to allow users to fit 2M models into headshells that don't allow screws down through the top, as well as plug 'n' play, mono and 78rpm versions, there are more than a dozen from which to choose. Essentially, though, the range consists of four primary models, in ascending order of quality by colour: Red [HFN Oct '08], Blue, Bronze and Black [HFN Mar '11].

Ortofon has been canny with its 2M range, because the user-replaceable styli allow the customer to trade up with certain models by purchasing the next stylus in the range. The user can go from Red to Blue, or Bronze to Black, as Red and Blue are identical as are Bronze and Black, the permissible changes defined by the pairs' coil and magnet configurations.

Undoubtedly, the range's solid performance, excellent tracking, and ease-of-use have made the 2M range popular with OEM purchasers like Pro-Ject, who include pre-mounted cartridges in many of its turntable packages. With mono and 78 versions, Ortofon has covered all the bases with this collection, and with the 2M Black LVB 250 – the new flagship and first to feature a rigid boron cantilever – it has narrowed the gap between the 2Ms and less-costly MC models. Naturally, the 2M Black LVB 250 stylus will also fit and upgrade existing 2M Bronze and 2M Blacks.

LEFT: Tried-and-tested – just as the 2M body profile is instantly recognisable to audiophiles, so is Ortofon's preferred cylindrical packaging. It's elegant, compact and 'bomb-proof'

Shibata stylus but on a boron cantilever, as found in the much dearer Cadenza Black MC cartridge. However, Ortofon didn't simply replace the 2M Black's cantilever with boron tube. It devised a new rubber compound for the suspension system in order 'to attain an optimal interaction between compliance and damping' [see PM's Lab Report, p53]. This new compound, according to Ortofon, 'is based on an efficient Multi Wall Carbon Nano Tube (MWCNT) filler' while being more environmentally-friendly in production.

RIGHT ON TRACK

Scoff not: environmental concerns may be late in coming to high-end audio, but everything else from the automobile industry to watch production to t-shirt manufacture to tinned tuna has been addressing this matter, while virtuesignalling at the top of their lungs. Full marks to Ortofon, then, for identifying this added benefit of its new design. Apparently, the MWCNT production process is not only cleaner and non-polluting, but energy-saving.

While the primary specification of the 2M Black LVB 250 remains the same as that of the original 2M Black, the recommended tracking force has been increased by a mere 0.1g to 1.6g. I tested the 2M Black LVB 250 with everything from 56-year-old mono 7in singles to limited edition 10in

pressings to 45rpm audiophile LPs and noted that tracking

ability certainly is not an issue. Notable, too, is that it sailed through a knackered single I use to challenge cartridge stability, and even rendered the 'click' from a large scratch as but a momentary, nearinstantaneous intrusion.

Initial set-up is utterly straightforward as with all the 2M models, thanks to clearly-identified pins (a pox on those cartridge makers who don't colour-code them!), while the flat front panel is deeply notched so the stylus is visible to assist in both overhang adjustment and track cueing. Although the body looks fussily angular and may prove a little troublesome for some to align, the bulk of its surface area actually consists of parallel sides, notably with LVB's portrait.

SNAP CHAT

Also, and in common with any pick-up featuring a complex diamond tip – the micro-ridges, fine-lines, Shibatas, etc – the setting of both the VTA and the SRA become far more intricate and important procedures. It's not insurmountable, especially if you've installed cartridges before. The good news here, especially for seasoned listeners likely to consider the Ortofon 2M Black LVB 250, is that the sound seems to snap into place when you nail it, with its focus locked vis-à-vis image placement and stage depth. What's more, transient attack tightens up and the bass acquires a touch more solidity.

It is not my intention, however, to render you neurotic about cartridge set-up, especially VTA. There are reviewers who have made it their lives' work, even though cartridges, in practice, are far more forgiving than many hard-core vinyl junkies would ever dare to admit. The reason I'm making a point here is specifically because I went from 2M Red to 2M Black LVB 250 and this proved to be an essential consideration beyond adding 0.1g to the tracking force.

More so than with the 2M Red, minuscule adjustments to the VTA were audible with the 2M Black LVB 250. but even with the usual/initial default setting of having a cartridge's top surface parallel to the LP, the sound was close to optimal. As it turned out, in one deck the cartridge was optimised with a tiny bit of nose-down positioning relative to the 2M Red's stance; in another, the 'parallel to the LP' levelling was perfect. This says more about the

tonearms than it does about

RIGHT: The distinctive body shape, with threaded inserts for easy headshell mounting, is shared across the entire 2M range. It still looks thoroughly modern, but the angular design can make alignment a little tricky



the 2M Black LVB 250, and one also has to consider the thickness of platter mats if experimenting with such.

WHOLE LOTTA LOVE

Let's just say that I spent more time with the setting-up of this cartridge than I expected to, because it was replacing the Soundsmith SG-230 [HFN May '21] at 20x the cost. What I didn't want was preceding the Ortofon with a month of listening to a £15k cartridge to colour my response to a pick-up at inimitable mi which she is a separate with a most synthetic most synthetic recording I can name'

a fraction of its price. Yes,

it can be a challenge following a cost-noobject item under review with one of a more affordable nature.

Owing to my current drive to create some order in

my life, I have been clearing out my libraries of books and music and have uncovered a cache of 12in/45rpm singles with their expected spectacular sound. First up was Aretha Franklin's 'I Say A Little

LEFT: The Shibata
stylus has a 6x50µm
(0.006x0.05mm) radius.
It's retained from the 2M
Black but mounted here,
instead, on a boron cantilever
as seen on the Cadenza Black MC

Prayer For You' [Atlantic 5046727630], notable for the background vocalists (and better sound quality than my preferred song on the same disc, 'Respect').

Aretha's voice was delivered with that inimitable mix of power and subtlety for which she is adored, while the spread

across the room exposed the first of the 2M Black LVB 250's many virtues: it recreates space, especially stage width more so than depth, with ample provision for forensic listening into the performance. You could

almost separate the vocalists from each other, but the more impressive element was that, despite this wide-open view, one enjoyed coherence across the sound spectrum. The sound was 'of a whole' rather than comprising disparate elements.

RATTLE THE ROOM

In direct contradiction to this trait was a spin of the most synthetic recording I can name, that milestone of artifice that is the Human League's 'Don't You Want Me (Extended Dance Mix)' [Virgin VS466-12]. This became a legendary audiophile demo disc, because despite it consisting wholly of music rendered by synthesisers, it also has an uncanny layering to it. While there is nothing natural whatsoever about the recording, the use of it for bass extension and speed, attack, snap, dynamic contrasts and other characteristics is indisputable. (If that's too clinical for you, you can flip it over and play the mix with vocals.) \hookrightarrow

CARTRIDGE

RIGHT: Ortofon's gold-plated cartridge pins are not only colour-coded but are 'sleeved' to ensure a snug fit with the standard lugs fitted to tonearm leads

Goodness me, did this rattle the room. The sound was rich and full, if not quite as scalpel-like in its precision. Without waxing too eccentrically, the Human League single was made to be heard via a Decca/London Gold, especially if you expect synth transients to be as fast as they come. The 2M Black LVB 250 isn't sluggish, but neither will it dazzle those who find even hip-hop bass to be slightly lethargic.

After puzzling over this cartridge for a fortnight, I had an atypical revelation, philistine that I am. No, I wasn't daft enough to think that this was voiced for Beethoven material above all others just because of the initials and the portrait that grace it, but there was a nagging suspicion that it just might favour classical.

The week before this cartridge went live for me, I had been listening to Riccardo Muti and the Wiener Philharmoniker, performing Mozart Symphonies Nos 25, 35, 'Haffner' and 39 [Decca 00289 482 6249], via the Soundsmith strain gauge design. I played it as well with a couple of MC cartridges, and something suggested that this Ortofon pick-up might love strings.

ELEGANT VARIATION

Not only was that LP an ideal diet for the 2M Black LVB 250, it also showed it has a way with the natural acoustic of a massive hall, as would host an orchestra. The 2M Black LVB 250 blossomed. While I doubt it would seduce dedicated MC fans, used to hearing more deep bass mass, it certainly narrows the gap between MMs and MCs in many areas, especially warmth. The strings enjoyed a particular lushness that – dare I say it – reminded me of the venerable Ortofon SPU.

Indeed, the 2M Black LVB 250 is one of the most charming MMs I have tried, though it doesn't cancel out the 2M Red, which has more bite, especially for electric guitar and sharp percussion. The 2M Black LVB 250, on the other hand, revelled in recreating a large, natural acoustic and delivers far greater refinement for the extra outlay. While it doesn't strike me as



the most impactful of the 2Ms, it certainly merits its position as the line's top model on elegance alone.

As much as I hate to revert to the 1960s practice of categorising audio products as genre-biased, this cartridge undeniably prefers classical and acoustic music. Then I noticed the small print on the Mozart LP sleeve: 'Produced in co-operation with Pro-Ject Audio'. Y'think? Heinz Lichtenegger of Pro-Ject and his wife Jozefina, CEO of EAT, regard rock music the way Greta Thunberg looks at McDonalds. They're classical music lovers to the core, as well as clients of Ortofon. I knew Pro-Ject fitted Ortofons in various turn-key turntable packages. So I checked out the EAT webpage and sure enough, the B-Sharp turntable [HFN Jul '20] is shown with an Ortofon 2M Blue... and the costlier C-Major deck is revealed with a 2M Black. ()

HI-FI NEWS VERDICT

Having lived with the 2M Red, I was surprised to hear how the 2M Black LVB 250 varied from its sibling. It's certainly more refined and composed, if less vivacious. What amused me was the not-so-subtle clue communicated by LVB's silhouette on the side: this is a silky, sophisticated cartridge which – to my ears – favours classical, much jazz and acoustic, rather than the sizzle-and-snap of pop or rock.

Sound Quality: 85%

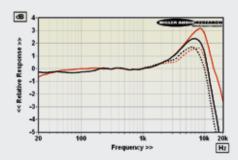


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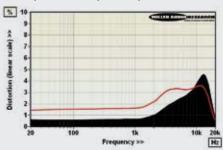
ORTOFON 2M BLACK LVB 250

Delivering a substantial 4.7mV (re. 1kHz/5cm/sec) output, albeit some 1.8dB lower than the whopping 5.8mV recorded for the 2M Black [HFN Mar '11], Ortofon's flagship LVB 250 derivative is otherwise a new chip off a very reliable block. The 'MWCNT' suspension yeilds a slightly softer 19cu (lateral) compliance but the key attribute of the 2M Black – its excellent symmetry across lateral and vertical groove modulations is retained. The response matching between in- and out-of-phase bands [black and red traces, Graph 1 below] is particularly fine, showing the same +1.5dB to +2dB boost through the presence/treble followed by a steep roll-off to ~-5dB/20kHz. This is contrary to the 'flatter response specified by Ortofon, but consistent both with my own measurements over the last decade and - importantly - the subjective experience reported by Ken in his review. Equalised distortion is uniformly <2% from 20Hz-5kHz (lateral) and, once again, shows great consistency between in/out-of-phase cuts. This would typically promote a very uniform soundstage with no 'hot spots' in the centre or periphery.

While the general tenor of its response, separation, distortion and 26° VTA are all broadly unchanged over the 2M Black, there's no mistaking the more robust tracking enjoyed by the LVB 250. Yes, it was tested at +0.1g over the 2M Black's downforce but this is not sufficient to explain the improvement in groove threshold – circa 60µm for the 2M Black but a higher and symmetrical 75µm for the LVB 250. So while the plain-vanilla 2M Black failed the penultimate +15dB groove modulation (re. 315Hz/5cm/sec) at ~10% THD, the LVB 250 cleared this at 0.3% before navigating the +18dB torture test at ~3% THD. PM



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



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

HI-FI NEWS SPECIFICATIONS

Generator type/weight	Moving-magnet / 7.2g
Recommended tracking force	1.5-1.7mN (1.6mN)
Sensitivity/balance (re. 5cm/sec)	4.7mV / 0.6dB
Compliance (vertical/lateral)	14cu / 19cu
Vertical tracking angle	26 degrees
L/R Tracking ability	75µm / 75µm
L/R Distortion (-8dB, 20Hz-20kHz)	0.75-7.0% / 0.65-4.5%
L/R Frequency resp. (20Hz-20kHz)	+2.3 to -7.6dB / +3.1 to -2.6dB
Stereo separation (1kHz / 20kHz)	28dB / 14dB