

250 Today

Ortofon's new 2M Black LVB 250 MM cartridge has a boron cantilever. Noel Keywood is on his mettle.

Ortofon's update of their top moving magnet (MM) cartridge, the 2M Black, was interesting to me; our in-house 2M Black has held its own against all-comers over the years. An update had to be good. Surprising to find then that we reviewed it in the November 2007 issue; this is a cartridge with a history – a very successful one. The new 2M Black LVB 250, price £830, has just been released and we got an early sample you can read about here. Since the original 2M Black remains available for £500, this is quite a price hike.

Ortofon like to name their top cartridges after greats in the Classical music world, MC Anna being named after Russian soprano Anna Netrebko. The LVB suffix of this new cartridge refers to Ludwig Van Beethoven, born 250 years ago. The name change is not the only change, as you might hope. Ortofon

now fit a boron rod cantilever, carrying a Shibata stylus as before. The new cantilever gives “transparency, speed and responsiveness” they say, and is their preferred high-end cantilever type, as I know from

speaking to them about it long ago. They're not alone of course: Audio Technica also like to use boron rod cantilevers on top models.

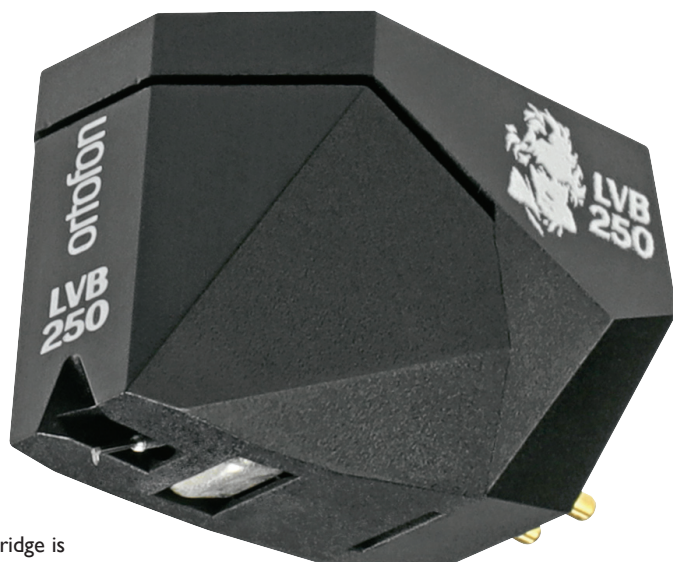
When I told Ortofon I preferred the sound of tapered alloy cantilevers, as used in their Cadenza Bronze MC and by Audio Technica in their VM750 SH Shibata tipped MM cartridge, they said “ah, you like a romantic sound”. I'll be forever puzzled by that comment, but it is true I grudgingly admit. That's why, as another way of

seeing it, I prefer valve amplifiers: give me natural and easy. All of which is a small pre-amble up to the point that the boron cantilever of the new 2M Black LVB 250 does impact sound quality, as I'll explain later.

The working end of every cartridge is its stylus tip and here the picture changes. There are more insightful tips than the 1970s Shibata profile, developed for CD-4 four-channel LPs. Audio Technica's SLC (Super Line Contact) tip delivers even more from a groove, but more can be too much from old LPs, or even modern ones pressed from mediocre vinyl. The Shibata gives superb insight in a balanced manner and it always was a plus point of the 2M Black; in fact Ortofon were early to use this reincarnation from the 1970s, others are catching up. I'm no fan of boron cantilevers, but a good Shibata tip is top – and an asset to the new 2M Black.

Like all moving magnet cartridges this one has a removable stylus assembly, for quick and easy replacement if all goes pear-shaped. The body weighs 7.2gm, right in the centre of the 6-12gm weight range most arms can cope with, so no problems here.

I was a bit puzzled by the tracking force Ortofon think this cartridge needs. The small booklet enclosed with cartridge says “1.5 g”, the website recommends “1.6 g” and quotes a range of “1.5g-1.7g”. I played safe and used 1.7g when measuring and listening. The long contact surface of a Shibata tip is able to distribute pressure on a vinyl groove, making



1.7 g best choice for secure tracking, as measurement confirmed. With this the cartridge sailed through top torture tracks, showing it was up with the best.

The body has integral threads for the fixing screws, making attachment easy. There's a knack to getting the



The removable stylus assembly surrounds the body but can be pulled forward for replacement.



Rear pins are colour coded and an earth plate connects the screen to Right channel (green) ground.

stylus guard on and off: the front must be positioned first then the rear pushed upward until it clicks into place. Not the easiest procedure I've come across.

SOUND QUALITY

Initially I used the 2M Black LVB 250 in Pro-Ject's RPM9 turntable,



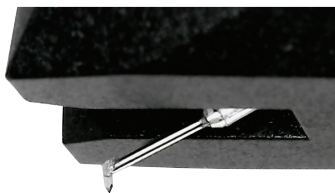
The stylus assembly parted from the body. Parallel body sides aid alignment in the headshell.

connected via the supplied balanced cable to their Phono Box RS2 phono stage. It fed a Creek i20 amplifier through Chord Company Epic balanced cables. Loudspeakers were Martin Logan ESL-X hybrid electrostatics connected via Chord Company Signature Reference cables. This then was an all-balanced system at the front end.

And it sounded balanced too. Not only was there a deathly silence, meaning no hiss or hum, but there was a stark clarity to the sound, a removal of hash and muddle, that balanced working offers. This made the fast drum work in Sing Sing Sing from the Syd Lawrence Orchestra's Big Band Spectacular come across as tightly focussed and dynamically lithe. The stylus came into play by delineating clearly between instruments in the brass section and sending out cymbals with strength yet finesse. There's nothing quite like a good Shibata tip – I live by 'em – and that fitted to the Black is superb. My notes say bass was fast rather than deep though.

In The Mood continued this picture, trombones stabbing out of a slickly wrought canvas that was richly detailed. Overall balance was not a warm one: in this set-up think quite a light patina.

Selecting 45rpm, Dire Straits Brothers In Arms re-master from Mobile Fidelity confirmed a less warm balance than I know it from our own Timestep Evo Technics SL-1210 Mk2 turntable with SME309 arm and 2M Black – and this I suspected was largely down to arm differences. But



Boron rod cantilever with a cleanly attached Shibata stylus.

with Walk Of Life ride cymbals jumped out of the mix, clear and bright: again a great stylus and fantastic high frequency resolution from balanced working throughout the system. Where I'm usually aware of the big bass line and Mark Knopfler's preferred warm balance to his high quality recordings, here my notes were more about sparkling treble detail and resolution. As Ortofon claim, their boron cantilever gives a fast sound, one that's cool in nature and – as they inferred – not "romantic". It's a highly analytical cartridge, that's for sure.

I know the sound of Ortofon's original 2M Black well and this wasn't as my memory recalls it. So I changed things around a bit by transferring the cartridge to our Timestep Evo modified Technics SL-1210 Mk2 Direct Drive, with SME309 arm, connected unbalanced direct into the Creek i20 through its internal Sequel IV MM phono stage.

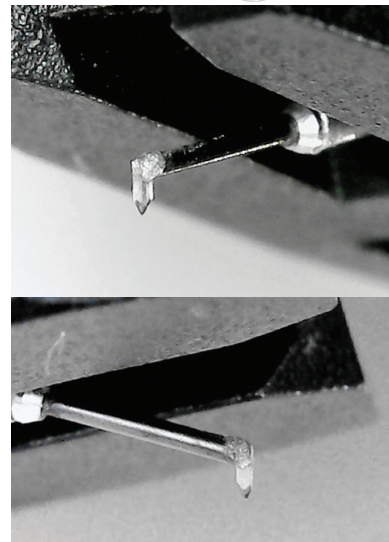
This changed the sound completely. Suddenly, there was a powerful kick drum and follow on bass line to Walk of Life (as well as Hugh Masekela's Uptownship), the LVB 250 now sounding full bodied. But the sense of forensic mid-band

clarity receded, to be replaced by a smooth, silky quality that wasn't as impressive perhaps, according to personal preference. Stereo images softened out too.

Obviously, I needed to run our SME309 balanced – but it wasn't to be. Pro-Ject's balanced cable appears to use an SME-style 5-pin arm connector: they look identical. But it refused to fit. The plug went into the hole, guided by a small key, but the pins would not mate; there was a millimetric difference somewhere.

CONCLUSION

Ortofon's 2M Black moving magnet cartridge set a new standard for sound quality long ago and has gathered a deserved reputation over the years for its accuracy and superb insight from a Shibata stylus. Ortofon's update in the LVB 250 adds to its fundamental strengths, bringing in extra speed and incision through use of a boron cantilever. It remains a top MM cartridge, one demanding of a high quality arm, turntable and phono stage to get the best from it.



Ortofon use a finely polished diamond rod stylus our close-ups show.

MEASURED PERFORMANCE

Our frequency response analysis, measured with JVC TRS-1007 – an industry standard test disc – shows the 2M Black LVB 250 measured flat from 20Hz to 20kHz with little variation, making it very accurate.

The Shibata stylus traced inner grooves very well the red trace shows, with no loss right up to 20kHz – an extraordinary result. So no dullness at end of LP side but inner grooves in bad condition will have problems exposed.

Tracking was very good at the (light) recommended downforce of 1.5gms, a high 63µm cut being cleared securely, but there was mistracking of the top 90µm cut of CBS STR-112 test disc (300Hz). Increasing downforce to 1.7gm the cartridge cleared 90µm, so Ortofon's quoted 80µm is correct. The top torture track of B&K QR2010 test disc (25cms/sec, 1kHz) was cleared with only slight mistracking, an excellent result.

Channel separation averaged out at 24dB and output averaged out at 5mV (3.54cms/sec), both normal values.

Distortion measured a low 0.6% lateral (CBS-STR112, 45µm) – good. This rose to 5% on vertical modulation due to a measured vertical tracking angle (VTA)

of 25 degrees (DIN 45 542 test disc). The ideal is 22 degrees.

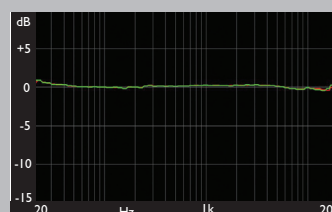
The 2M Black LVB 250 measured well if not perfectly with our early sample. It has flat frequency response for accurate sound balance and superb tracking. NK

Tracking force	1.6gms
Weight	7.2gms
Vertical tracking angle	25degrees
Frequency response	20Hz-20kHz
Channel separation	24dB

Tracking ability (300Hz)	
lateral	90µm
vertical	45µm
lateral (1kHz)	25cms/sec.

Distortion (45µm)	
lateral	0.6%
vertical	5%
Output (3.45cms/sec rms)	5mV

FREQUENCY RESPONSE



ORTOFON 2M BLACK LVB 250
£830



OUTSTANDING - amongst the best

VERDICT

Deep insight and precision sound. A top moving magnet cartridge.

FOR

- ease of fitting
- superb tracking
- deep insight

AGAINST

- awkward stylus guard

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