

# Mono special

Ortofon has produced a special mono cartridge for The Beatles in Mono vinyl LP box set. Noel Keywood charts its history and takes a listen.

There's a story behind this cartridge - quite a long one, so I'll keep it short. Some time ago, whilst arranging with Abbey Road Studios an interview with cutting engineer Sean Magee about the forthcoming The Beatles in Mono box set, I realised these albums raised a problem. On forums Beatles fans were confused about the whole issue of mono and especially about how to get the best sound from early Beatles mono LPs. I could see committed fans ordering a special mono cartridge for this new box set, understandably thinking this was good sense, only to find the cartridge sounded dull and mistracked, causing distortion and groove damage. Not good. This would set the forums alight.

Ortofon's 2M Black - acknowledged as one of the finest moving magnet cartridges available after years on the market and legions of users.

Happy about this idea, I suggested it to Abbey Road and they liked it.

Next stop Ortofon - and they loved it. So here is the end result, the new Ortofon 2M Mono SE (Special Edition) cartridge purposed specifically to play The Beatles in Mono box set.

It will also play any modern stereo microgroove in mono if you so wish. The key point is that it does not have an old, large diameter mono spherical stylus that would mis-track a modern stereo groove and cause damage; it has the most advanced stylus profile available today. Ortofon have also given it silver-plated copper wiring to improve insight and definition. So it is a highly-tuned mono cartridge, not a budget slogger.

Tracking force, like that of the 2M Black, is low, being quoted as 1.4gms-1.7gms, with 1.5gms as optimum. I used 1.7gms for all tests and for play, because it improves tracking. I find 1.5gms getting close to dangerously light, even on my super stable Garrard 401 that is anchored into a huge plinth that sits on a marble slab. Cueing by hand or damped platform can see the stylus skate if a gnat flies past at the wrong moment.

The 2M Mono SE is made from low resonance Lexan DMX and has threaded holes in its body that make fitting very easy. Screws of different lengths are supplied, plus a screwdriver and stylus brush. In



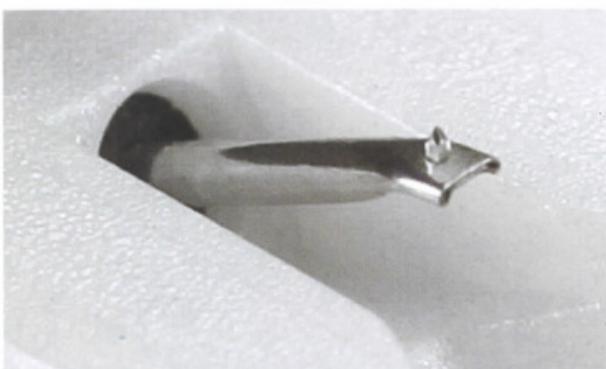
practice this cartridge may well sit in its own headshell, accompanying a stereo cartridge in a second headshell, but it is easy to change if need be. Weight is 7.3gms and this suits all arms, since most cope with 6-10gms minimum.

Being a moving magnet type, the stylus can be slid out for protection, or for replacement of course, should it suffer damage. And that's the big reason for buying a moving magnet cartridge like this one: it keeps cost under control. The 2M Mono SE costs Euros €499 (£395) through Ortofon's webshop. For the average LP spinner that's expensive but you get a deeply-purposed and tuned cartridge that will work with any Phono input for this.

Ortofon also make mono moving coil cartridges like the Cadenza Mono but you'll need deeper pockets and an MC preamp for a moving coil; it is audiophile territory - and they don't have user replaceable stylus like the 2M Mono SE.

## SOUND QUALITY

I refrained from reviewing early prototypes Ortofon sent me, with early mono Beatles LPs I have in my collection. Ortofon worked through a few iterations before settling on a final tune and it is final production I



The solution was simple: fit an Ortofon 2M Mono cartridge body with the Shibata stylus from the stereo 2M Black. Presto - a special moving magnet cartridge for a special set of albums. The real value of this lies less in its technical capabilities, more that it is a fully worked out solution for buyers of this rather special £288 box set. It removes fear of getting it wrong. Play the albums with this conventional but dedicated cartridge and Beatles fans will get the best result possible.

I say this because the stereo equivalent of this cartridge is

am reviewing here, not an unrepresentative early sample.

Listening was carried out in an SME312S 12in pickup arm on a Garrard 401 turntable at home, and a Timestep Evo turntable (Technics SL-1210 MkII tuned) in Hi-Fi World's office, fitted with SME309 9in pickup arm. Phono stage was an Icon Audio PS3 all-valve design in both locations.

I use Martin Logan Electromotion hybrid electrostatics at home driven by a World Audio Design 300B valve amplifier, but at Hi-Fi World the system comprised Quad II-eighty mono block valve amplifiers driving Tannoy Kensington Gold Reference loudspeakers, that I will be reviewing next month.

I used both The Beatles in Mono box set LPs for this review as well as older Beatles LPs and an Ortofon Cadenza Bronze moving coil cartridge, switched to mono on the PS3, as a reference.

'Taxman' from 'Revolver' (August 1966), put a smile on my face when it was played at Abbey Road's demo, with the lyrics "taxman Mr Wilson, taxman Mr Heath" that dates the song (and me!). With the Ortofon the backing vocals of John and Paul were forward, clear and intense. George sings lead on this track and his lyrics – "should 5% appear too small" – were starkly clear. Paul's bass line was tight and fluid; much like the 2M Black we use regularly, the 2M Mono SE keeps bass in tight control and good perspective with the overall performance.

How does it cope with 'Please Please Me', their first album (March 1963)? Again the midband is forward and clear, highlighting John's vocals, complete with reverb. Paul's slower bass line was also firm and expressive. The stylus keeps everything well sorted; there's no muddle and with 'Please Please Me', the last track of Side 1, inner grooves suffered no extra muddle, distortion or treble loss. And those chiming guitar chords sound meaty, rich and solid. The vinyl of the new LPs is so quiet though, that roar from the master tape (and wow) is audible for a split second at the end of the track, before sudden silence as the cartridge tracks the lead out groove.

Recording quality had improved dramatically by November 1963 however. 'This Boy', end of side 1 of Mono Masters, had me spellbound it was so clear, sounding every bit as good, arguably better, than any modern recording. John's controlled

delivery was picked out clearly by the 2M Mono SE, Ringo's hi-hats and triangle strikes clear and sonorous in the background, showing again how well the Shibata stylus tracks inner grooves, teasing fine high-frequency detail. There's no tape hiss on this track.

On the issue of noise, there was precious little to be heard. The vinyl of these LPs is so quiet, and the absence of ticks and pops from the mono cartridge so eerie, that with volume right up I could barely recognise the source as LP. Once I even cued down, then cued back up thinking the system wasn't working, it was so quiet. The 2M Mono SE 600 Ohm generator produces less hiss than most MMs, so at high volume there's no hiss from the speakers, cartridge cued up.

With my old, original Parlophones like 'Help' (August 1965), the 2M Mono SE kept surface noise down and brought solidity to the electric piano in 'The Night Before,' it fleshes out instruments well. It also showed how my disc is harsh across the midband, whilst the new one is smooth and clear.

## CONCLUSION

Whatever way you look at the 2M Mono SE it is a fantastic cartridge. Ortofon's stereo 2M Black has a

## MEASURED PERFORMANCE

Frequency response was almost ruler flat to 5kHz our analysis shows (green trace), above which output slowly starts to fall away. This will remove harshness and soften the sound a little. With additional capacitive loading of 200pF the upper midband lifts to give a flat response to 10kHz, above which treble falls faster. There was little tracing loss on inner grooves (red trace), due to the excellent profile of the Shibata stylus.

Ortofon quote a downforce range (VTF) of 1.4-1.7gms, with 1.5gms as optimum. The latter is very low by current standards, 1.7gms being common. Tracking at 1.6gms was very good, if not up to the highest standards. The SE managed 63μm at 300Hz but would not track the highest 90μm cut. At 1kHz it started to complain at 20cms/sec, whilst remaining in the groove. This is a good result, if not up with expensive moving coils that can manage 25cms/sec. Distortion was low, measuring 0.7% at 45μm lateral modulation, comprising mostly second harmonic which, subjectively, is innocuous.



**There are two channels, allowing the cartridge to connect into a stereo headshell, but each channel gives an identical signal.**

deserved reputation as one of the best moving magnet cartridges available; the 2M Mono builds on it. It has a tad less high-frequency sheen I fancy, but it similarly enjoys a fabulous stylus that reads even difficult inner grooves perfectly. It is easy to fit, easy to use and compatible with all arms too; there are no foibles. I was entranced when spinning The Beatles in Mono LPs; it plays them near-perfectly.

Output was 5mV at 5cms/sec rms, so amplifier hiss will not intrude.

The 2M Mono SE worked well. It is tailored to avoid harshness and give a slightly easier sound, especially on inner grooves where its performance is unaffected by the short mechanical wavelengths, due to its excellent Shibata stylus profile. NK

Tracking force	1.4-1.7gms
Weight	7.3gms
Frequency response	20Hz - 20kHz
Tracking ability (300Hz)	
300Hz	63μm
1kHz	16cms/sec.
Distortion (45μm)	0.7%
Output (5cms/sec rms)	5mV

## FREQUENCY RESPONSE



## ORTOFON 2M MONO SE £399



**OUTSTANDING - amongst the best**

## VERDICT

The best mono moving magnet cartridge you can buy for microgrooves. A fabulous transducer.

## FOR

- sound quality
- ease of fitment
- no tracing loss

## AGAINST

- expensive
- low recommended tracking force

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