



# M Factor

**Ortofon's brand new 2M Bronze and Black moving magnet cartridges sound very different to one another, and indeed to the other 2Ms, finds Noel Keywood...**

**O**nly the other day a DVD case was tossed casually onto my Garrard 401 plinth by my young son, sliding to a halt beneath the Kontrapunkt b stylus. It missed by a hair's breadth. I don't know how this stylus has managed to survive for so long; it's avoided its seemingly inevitable fate with

stylus is quick and affordable. To make choices in this somewhat limited field easier, Ortofon have just released yet another two brand new high quality moving magnet cartridges that satisfy such a role: the 2M Black priced at £350 and the 2M Bronze at £200.

Regular readers will know I'm fond of Goldring's 1000 Series cartridges, for their accuracy coupled

against this cartridge that Ortofon are pitching their new Ortofon 2M Bronze, as its price is close. Neither is a big spend by modern hi-fi standards, yet this is about as good as moving magnet cartridges get.

At least, that was the case until Ortofon decided that above the Bronze, with its Fine Line elliptical nude diamond stylus, they would place the Black, tipped with a Shibata nude diamond stylus, as used on their £1,100 Jubilee. The stylus change comes with quite a price hike - to £350 no less.

Both cartridges come in modest packaging, by Shure and Stanton standards anyway. The cartridge itself is screwed to a thin, moulded plastic base, protected by a push-on clear cover, this package being protected by

"the 2M Black is a masterful design for anyone keen to get the best from LP..."

the adroitness of a nine-life cat. If you want to avoid the financial fear of replacing a Kontrapunkt stylus, a quality moving magnet cartridge is perhaps the answer, as replacing its

with fine dynamics and exciting presentation. The top 1042, price £165, with its Fritz Geiger S stylus has been a favourite of mine for years, but it's an old design now. It is



a cardboard outer box.

Accessories

included are a simple plastic stylus force gauge, stylus fluff removal brush, mini screwdriver and small instruction book. The only screws with ours were those holding the cartridge to the packing, which were just long enough to be used in a Rega arm. As the cartridge has tapped, blind fixing holes 5mm deep, screw length must be chosen carefully to span headshell thickness and accommodate this hole depth. So with a 3mm thick headshell a screw of 6-8mm would be needed - no more and no less.

Weighing 7gms, the cartridges are light, but safely within the common headshell weight range of 5-10gms, so all arms will accept these units and balance out. Parallel sides aid alignment in the headshell, critical in keeping distortion down, but the small front face is little help in this process. A clunky looking oblong body like that of Nagaoka's MP11 is best in this respect, but Ortofon would doubtless prefer to avoid 1970s design functionality.

I was a little surprised to be told that the Bronze and Black have higher cantilever hinge compliance (22um/mN) than the less expensive Blue and Red (20um/mN), which I reviewed in our May 07 issue, so lower tracking force must be used: Ortofon recommend 1.5gms optimum, and a range of 1.4-1.7gms. It's usually best to err on the higher side; I used 1.7gms.

I used these cartridges in a new Rega RB300 chosen to adorn my little Vestax turntable mod. on p92 of this issue. I wanted an RB300 for this project because it is still a great arm, with fantastic stereo staging and clean, well defined low frequencies. It is arguably less impressive in the midband, where SMEs are smoother and dimensionally deeper, all of which I mention because these characteristics are relevant when running the 2Ms.

Both the Bronze and Black have a measured frequency response that mimics the Red and Blue, with a steady upward trend toward high frequencies.

This is unusual and results in a distinctive presentation that gives swathes of detail and seemingly impressive insight, but also a sound diametrically opposite to that of yore; instead of warm and cuddly, you get a brightly lit midband that isn't kind to old, worn discs in particular, nor to older recordings, although the Black curiously transcends this basic characteristic of the Red, Blue and Bronze, I found.

Spinning a new 180gm pressing of Elvis singing 'It's Now or Never', with the Bronze in place, I was struck not so much by the depth and expressiveness of his voice, but by a lightness of balance and sense of hardness in the recording. Okay, it was recorded back in 1960 and the Bronze is actually picking up on the deficiencies of the recording equipment, but I have never heard Elvis presented like this before; we likely all think of Elvis as having a rich, mellow voice, but the Bronze wagged its finger at me and suggested otherwise.

Playing the same track on my Garrard 401 + SME312 combo fitted with the Ortofon Kontrapunkt b (that I am eternally happy with!) was interesting. Yes, the recording is a bit clanky, but not that clanky, it told me; the richness and warmth of his voice returned. The emphasis of the Bronze didn't flatter Elvis.

Alright I know, you don't listen to Elvis - your mum does. But it was the same result with Marianne Faithfull singing 'Sweetheart', from her 1981 LP 'Dangerous Acquaintances' and an even less catholic song, 'Down in the Sewer', from the Stranglers' first LP, 'Rattus Norvegicus'. This track resolved the issue. Jean Jacques Burnel's driving bass line was well resolved but tonally lightened by the Bronze; the Kontrapunkt b restored its power and - especially - the richness of the

instrument. In its favour, the Bronze clearly picked out the background percussion work; successive short, quick drum rolls across the sound stage were deftly portrayed. This was partly down to the RB300, which is brilliant in this respect, unlike my long SME312 arm with Kontrapunkt b, but it also underlined how the Bronze lifts details from a mix, which can be more forensic than flattering.

The picture changed with modern LPs, like Kate Bush's 'Aerial' or the Scissor Sisters 45rpm 'Ta Dah'. Then the balance of the Bronze became far less obvious. It sat on the borderline with a new Led Zeppelin 'II' in 200gm Quiex SV-P vinyl; again there was a midband glare and some hardness I am not accustomed to, but also fantastic insight, Page's guitar work cutting through the room with a vigour few cartridges could muster.

The 2M Bronze is distinctive, that's for sure - and sounds unlike rivals. With modern LPs in particular, which are often on the warm side of the fence in terms of their balance, it is fast, detailed and insightful. Bass comes across as light but tight, although the Bronze largely missed the bass guitar line on Eric Clapton's 'No Alibis' from 'Journeyman', which left me unimpressed. With older LPs, or just heavily played ones, its strengths will suit dull hi-fi systems,

## THE RIVAL

As the vinyl market steadily contracted, Goldring were alone in improving their excellent 1000 Series cartridges, to the point where little else came close, I felt. Okay, so the 1042 isn't as clear in the midband as a moving coil, but neither is it priced anywhere close. It's an easy listen with well defined bass and finely differentiated treble, courtesy of its Fritz Geiger S stylus. The treble can sometimes seem a bit detached, but at just £160 you can't expect perfection...

Ortofon's new 2M Bronze is seemingly competition for the 1042, but perhaps not. It is considerably more forward and detailed across the midband, as you might hope from a new breed of MM cartridge based on Neodymium magnets and better technologies. Less wire can be used in the field coils, reducing impedance, flattening response and clearing the sound. It's the sheer amount of mediocre copper wire in an MM that clouds the midband, as much as generator droop. But the Bronze doesn't have the 1042's bass, or its get up and go.

Further complicating the picture is Goldring's new 2400. This is another new-era MM, based on more effective magnetics - and you can hear it. I admire the 2400's tight-as-a-drum bass and translucent midband, but its treble is prominent and messy, being an unfortunate blemish on what is otherwise a fine landscape. I could not choose between the Goldring 2400 and the Ortofon Bronze; both are very strong in most areas, whilst at the same time possessing obvious character traits. This brings choice down to personal preference, the properties of the system they will be used in and even the LPs played.





synthesiser twisted sinuously through the song, the throbbing bass had a thunderous presence and Goldfrapp's voice had the gentle, caressing quality that makes this Dance track so hypnotic.

Apart from being finely detailed, silky smooth and completely engaging at a musical level, the Black also has the peculiar quality of sounding totally cohesive, just like the Kontrapunkt b. Specific properties don't stand

out in relief; it operates as a whole and as such moves beyond simple reductionist criticism. Some might say it is too smooth, preferring more boom and ting, but I'd describe this cartridge's presentation as pure class, devoid of obvious weakness. It does not have the walk around dimensionality of a good moving coil, but it otherwise gets frighteningly close, at a fraction of the price. After running a Goldring 2400 I noticed also how I had to turn volume down when using the Black, so high is its output.

but I don't think the Bronze is best suited to a modern, solid-state system with loudspeakers that, in themselves, have midband and treble emphasis. The clean midband of an SME arm will suit this cartridge a little better than the Rega too.

All this being the case, and taking into account the similarity between the Bronze and Black in measurement, I was expecting the Black to sound like the Bronze, but with better differentiated treble from improved stylus geometry. So I was taken aback by the difference between the two. The 2M Black has a silky smooth presentation with no glare or treble emphasis at all. In fact, its Shibata tip is, compared to Goldring's Fritz Geiger S, relatively

"the Ortofon 2M Black has to be one of the best moving magnet cartridges currently available

mild in its treble delivery - and very Kontrapunkt-like too. Suddenly, with the Black in the RB300, music started to flow with the liquid smoothness and sophistication I am used to from my Kontrapunkt b. I ran through the same list of albums mentioned so far and all slid by as masterful performances.

Elvis was back in human form, not as a clanky recording from 1960, Jean Jacques Burnel's bass strode masterfully through my lounge as the Stranglers put music to life in a sewer(!) and Alison Goldfrapp sounded as laconic and seductive as ever on the 'Supernature' album. Pressing the 45rpm button of the Vestax, I pulled out Goldfrapp's 'Ride a White Horse' 12in 45rpm single and got a fabulous result: the

The Ortofon 2M Black has to be one of the best moving magnet cartridges currently available, as well as one of the most practical, due to its high output, normal tracking force and weight. This is a masterful design for anyone keen to get the best from LP, without moving up to the complexities, cost and delicacy of moving coils - especially when your turntable plinth is seen as a convenient DVD shelf by another member of the family!

**VERDICT**

**ORTOFON 2M BRONZE £200**

Highly detailed and insightful, but lacking warmth and body. Clean but not powerful bass; more analytical than engaging.

**FOR**

- ease of fitting
- good tracking
- extremely revealing

**AGAINST**

- lacks warmth or body

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**VERDICT**

**ORTOFON 2M BLACK £350**

Totally cohesive, smooth and easy sound with wonderful insight and dynamics - a blinder!

**FOR**

- ease of fitting
- good tracking
- classy sound

**AGAINST**

- over smooth for some?

**MEASURED PERFORMANCE**

At 1.7gms the Ortofon Bronze just cleared 300Hz lateral tracking test tracks, except the highest where it was marginal. At 1kHz it stayed in the groove at an extremely high 25cms/sec, although there were signs of mistracking on this cut. So its tracking is good and should sound assured in use. The Black was slightly better, but by little. Output of both is unusually high at around 8mV at 5cms/sec rms.

Distortion levels were low, largely because the vertical tracking angle is set at exactly 22degrees (Black), so expect a basically clean, uncluttered sound. It rides low on a disc as a result, however.

Ortofon 2M cartridges, like most modern designs, don't have an upper midband roll off caused by rising generator impedance. Where the 2Ms differ markedly is in a broadband trend upward toward high frequencies that will give a brightish perceived tonal balance, but one that is also insightful. On outer grooves there is a small treble lift of around +1dB at high frequencies, which tracing losses on inner grooves convert to slight loss, our frequency response analysis show. The Shibata stylus shape of the Black suffers less from inner groove tracing loss (white traces on graphs). So the Bronze and Black offer an accurate sound from outer to inner groove. Both peak up and become brighter with extra capacitive loading, by the way.

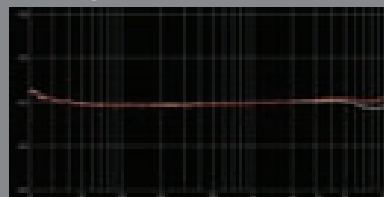
The 2Ms are an example of precise cartridge engineering from Ortofon. They measure well in all areas. NK

<b>BRONZE</b>	
Tracking force	1.5gms
Weight	7gms
Vertical tracking angle	23degrees
Frequency response	20Hz - 20kHz
Channel separation	29dB
Tracking ability (300Hz) lateral	88µm

vertical	45µm
lateral (1kHz)	22cms/sec.
Distortion (45µm)	
lateral	1.2%
vertical	2.1%
Output (5cms/sec rms)	7.9mV

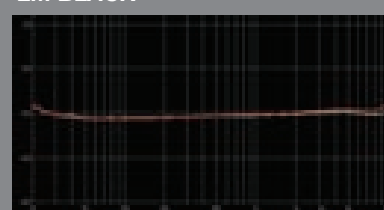
<b>BLACK</b>	
Tracking force	1.5gms
Weight	7gms
Vertical tracking angle	22degrees
Frequency response	20Hz - 20kHz
Channel separation	30dB
Tracking ability (300Hz) lateral	90µm
vertical	45µm
lateral (1kHz)	23cms/sec.
Distortion (45µm)	
lateral	1.2%
vertical	1.7%
Output (5cms/sec rms)	8.6mV

**FREQUENCY RESPONSE 2M BRONZE**



Red - Outer grooves  
 White - Inner grooves

**FREQUENCY RESPONSE 2M BLACK**



Red - Outer grooves  
 White - Inner grooves