

# MC 3/MC 1 TURBO HIGH OUTPUT MOVING COIL CARTRIDGES

**ortofon**  
accuracy in sound

As a music enthusiast, you know that there are pianos and grand pianos, and that even among the grand ones a particular name enjoys a unique position among performers and audiences all over the world.

On the reproduction side of the music chain, the situation is similar. There are ordinary cartridges, and there are moving coil cartridges. And the »first family« of the moving coil variety is made by Ortofon – the company that pioneered this technology almost five decades ago.

## MOVING COIL CARTRIDGES FOR MOVING MAGNET SYSTEMS AND BUDGETS

Now, you can step up to the sound quality you have always wanted from your analogue records. All you have to do is make a modest investment in an Ortofon MC 3 or MC 1 »turbo« Moving Coil cartridge.

Good news. And for once, the good news is not followed by bad news.

The upgrade is possible even if your amplifier does not have an MC input, or you do not feel like buying an expensive step-up device to go with your new cartridge.

How is this possible? Moving Coil cartridges are supposed to be low output units requiring either special treatment in the amplifier, or an external step-up device. Or are they?

## ORTOFON MOVING COIL TECHNOLOGY

As the world's leading manufacturer of moving coil cartridges, Ortofon is committed to the perfection of sound from analogue records.

Extensive research and creative application of technology and materials have resulted in an impressive number of award-winning Ortofon designs, the latest being the MC 3000 cartridge – the new reference among audiophiles and critics.

But the experience gained from state-of-the-art models also puts Ortofon in the lead when it comes to the development of the highly efficient MC »turbo« cartridges, featuring an unparalleled cost/performance ratio.

The secret behind the MC »turbo« cartridges can be summed up in one word: precision.

The four moving coils for this series are wound with incredibly thin copper wire with a diameter of just 18 µm – one third the thickness of a human hair. Copper wire this thin makes it possible to increase the number of windings and the output voltage – without compromising the low moving mass and unique sonic qualities of Ortofon Moving Coil designs.

Precision is also the key word of the MC »turbo« magnetic system. An extremely powerful samarium cobalt magnet creates a strong field of inductance around the coils, further increasing the output voltage.

## A PERFECT MATCH FOR ANY AUDIO AMPLIFIER

Expressed in figures, an Ortofon MC »turbo« cartridge will typically deliver 3.3 mV to the phono input. This is more than necessary to release the full dynamic potential and output power of any audio amplifier.

When you connect an MC »turbo« cartridge to your amplifier, you do not have to turn up the volume control excessively, and background noise from the amplifier will be virtually non-existent.

## THE ORTOFON MC »TURBO« STYLI

No cartridge will ever sound better than its stylus permits and on this point too, Ortofon has made no compromise.

The MC 3 »turbo« comes with a nude, highly polished Fine Line diamond stylus. This slim profile will track even the highest frequency groove information. At the same time, its larger than normal footprint ensures reduced distortion and record wear.

The stylus of the MC 1 »turbo« is an elliptical diamond, cut and polished to Ortofon's exacting standards.

## EASY MOUNTING

The Ortofon MC »turbo« cartridges will fit all tonearms or shells with ½-inch (12,7 mm) spacing. Their low (4.1 grams) weight ensures optimum matching – almost irrespective of the tonearm construction.

If in doubt, discuss your ancillary equipment and requirements with your Ortofon dealer. He will be happy to advise you and let your ears decide during a serious demonstration of top quality analogue sound.

## TECHNICAL DATA

	MC 3 »Turbo«	MC 1 »Turbo«
Weight . . . . .	4.1 g	4.1 g
Stylus . . . . .	Fine Line	Elliptical
Stylus tip radius . . . . .	8 x 40 µm	8 x 18 µm
Equivalent stylus tip mass . . . . .	0.75 mg	0.75 mg
Frequency response . . . . .	20-25,000 Hz +4 dB/-1 dB	20-22,000 Hz +4 dB/-1 dB
Output voltage (1 kHz, 5 cm/s) . . . . .	3.3 mV	3.3 mV
Channel separation (1 kHz) . . . . .	>24 dB	>22 dB
Channel balance (1 kHz) . . . . .	<1.5 dB	≤2.0 dB
Compliance, dynamic (lateral/vertical) . . . . .	13/13 µm/mN	13/13 µm/mN
Tracking angle (vertical) . . . . .	23°	23°
Tracking force range . . . . .	1.8-2.2 g (18-22 mN)	1.8-2.2 g (18-22 mN)
Tracking force (recommended) . . . . .	2.0 g (20 mN)	2.0 g (20 mN)
Tracking ability (315 Hz, lateral) . . . . .	>70 µm	>60 µm
Internal resistance . . . . .	100 Ω	100 Ω
Recommended load impedance . . . . .	47 kΩ	47 kΩ
FIM distortion . . . . .	<1%	<1%

*The first Ortofon Moving Coil cartridge was introduced as far back as 1948. And ever since, the moving coil principle has been recognised as the finest reproduction form for analogue sound. Throughout the years, Ortofon has developed many new cartridges, refining the moving coil principle by means of patented systems and techniques. When you choose an Ortofon Moving Coil cartridge, you are assured of the most advanced technology, and the best sound – the true Ortofon Moving Coil Sound.*