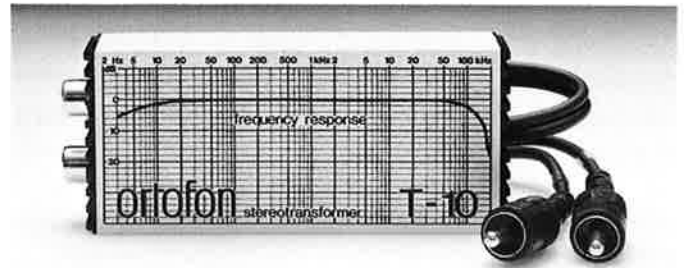


T 20 and T 10 - Transformers that match the quality of the cartridges.



Because of the miniaturisation of their moving coils, all Ortofon moving coil cartridges need extra amplification to boost their output voltages to a level that will drive amplifiers with conventional, moving magnet inputs. For this new moving coil series, we recommend either the T 20 or the T 10 as transformers whose quality matches that of the cartridges.

The T 20 is a step-up transformer of the highest quality, ideal for use with the MC 200 I or MC 200 U models. It employs two toroidal cores, and extensive

shielding to eliminate any hum pick-up. It has a wide, flat frequency response; very low phase shift; essentially no distortion in the audible range, and its wide band characteristics permit outstanding transient performance. It also features a by-pass position, for switching between moving coil and magnetic cartridges.

The T 10 is a lower cost alternative to the T 20. Nevertheless, its design and construction produce a high level of performance, and it is particularly suitable for use with the MC 100 I or MC 100 U models.

Technical data:

	MC 200 I	MC 100 I	MC 200 U	MC 100 U
Output voltage at 1000 Hz, 5 cm/sec Channel balance at 1000 Hz Channel separation at 1000 Hz Channel separation at 15,000 Hz	0.09 mV <1.5 dB >25 dB 18 dB	0.09 mV 1.5 dB 25 dB 15 dB	0.09 mV <1.5 dB >25 dB 18 dB	0.09 mV 1.5 dB 25 dB 15 dB
Frequency range Frequency response FIM distortion at recommended tracking force, DIN 45.542 Tracking ability at 315 Hz at recommended tracking force	5-60,000 Hz 20-25,000 Hz +3/-1 dB <1% 80 µm	5-50,000 Hz 20-20,000 Hz +3/-1 dB <1% 70 µm	5-60,000 Hz 20-25,000 Hz +3/-1 dB <1% 80 µm	5-50,000 Hz 20-20,000 Hz +3/-1 dB <1% 70 µm
Dynamic compliance at 10 Hz Horizontal/Vertical Vertical tracking angle Type of stylus Equivalent stylus tip mass Recommended tracking force	13/13 µm 20° Fine Line, nude 0.5 mg 15 mN (1.5 g)	11/11 µm 20° Elliptical, nude 0.5 mg 15 mN (1.5 g)	13/13 µm 20° Fine Line, nude 0.5 mg 15 mN (1.5 g)	11/11 µm 20° Elliptical, nude 0.5 mg 15 mN (1.5 g)
Tracking force range Weight of unit Internal impedance DC resistance per channel Recommended load impedance per channel	12-18 mN (1.2-1.8 g) 16.5 g 3 ohm >10 ohm	12-18 mN (1.2-1.8 g) 16.5 g 3 ohm >10 ohm	12-18 mN (1.2-1.8 g) 5.3 g 3 ohm >10 ohm	12-18 mN (1.2-1.8 g) 5.3 g 3 ohm >10 ohm

	T 20	T 10
Type of unit Switch function Pick-up impedance Output loading	Transformer By-pass 2-4 ohm 47 kohm 150 pF	Transformer - 2-4 ohm 47 kohm 120 pF
Frequency response (nominal loading)	10-60,000 Hz +0.5 - 1 dB 5-90,000 Hz +0.5 - 3 dB	20-45,000 Hz +0.5 - 1 dB 10-60,000 Hz +0.5 - 3 dB
Phase linearity	±18° (15-20,000 Hz)	±18° (15-20,000 Hz)

	T 20	T 10
Square wave rise time Gain at 3 ohm/47 kohm Channel balance within	3 µsec. 35 dB 0.2 dB	3 µsec. 32 dB 0.2 dB
Channel separation Hum sensitivity referring to input	>50 dB 5-30,000 Hz 12 nV/m	>50 dB 5-30,000 Hz 15 nV/m
Transformer type Shielding Dimensions in mm (h×w×d)	Toroidal Permalloy + soft iron 40×80×122	Toroidal Permalloy

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accuracy in sound

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