

## Ortofon SPU Moving Coil Cartridges

Thank you for choosing an Ortofon SPU moving coil cartridge for your turntable.

### Original

The original Ortofon stereo cartridge was born in 1958. Ever since, all Ortofon SPU cartridge models have shared the DNA from their SPU ancestor, being true to the never compromised original design.

The models in this manual all share the authentic so-called “Ortofon Sound” worldwide recognised and related to the Ortofon cartridges.

Refinements on the models have taken benefit from the use of new materials and improved stylus types, to gain the outstanding reproduction qualities.

### Mounting

All SPU cartridges are designed to bring optimum performance, when the tonearm mounted with the cartridge is adjusted parallel to the record surface, at recommended tracking force.

### Maintenance

To obtain optimal sound reproduction, remove dust from the stylus regularly by using a stylus brush. Guide the brush gently forward in the direction of the diamond tip.

From time to time, the cartridge system should be removed from the tonearm, and the gold-plated contact points on the cartridge, and the contact points inside the tonearm, should be cleaned with a small amount of propyl alcohol. This helps to avoid dust or sticky material from resulting in a bad electrical connection.

### Special Repair service

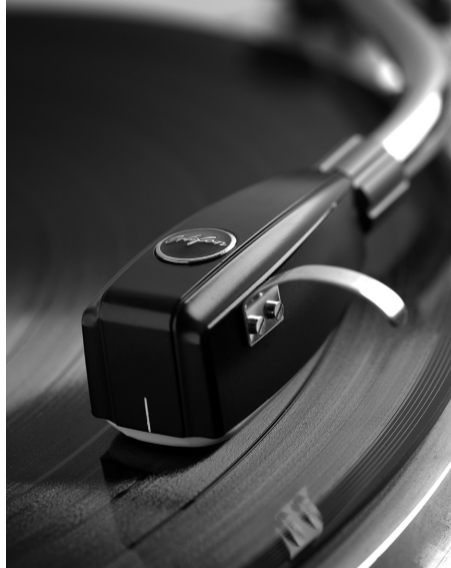
The stylus is not part of a replaceable assembly on SPU moving coil cartridges. We therefore offer a Special Repair Service for the SPU cartridges, the Special Repair Service is available through our webshop and Ortofon Authorized dealers:

[www.ortofon.com/hifi/products/repair-service](http://www.ortofon.com/hifi/products/repair-service)

[www.ortofon.com/where-to-buy](http://www.ortofon.com/where-to-buy)

### Warning

This phono cartridge is only for mounting on tonearms and must not be used for other purposes.



# ortofon

accuracy in sound



SPU  
Moving Coil  
Cartridges

Ortofon A/S  
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DK-4900 Nakskov  
Denmark

Technical Data										
	SPU ROYAL G MKII	SPU Synergy	SPU MEISTER SILVER G MKII	SPU CLASSIC GE MKII	SPU CLASSIC G MKII	SPU MONO G MKII	SPU MONO CG 25 Di MKII	SPU MONO CG 65 Di MKII	SPU #1 S	SPU #1 E
Output voltage at 1000 Hz, 5 cm/sec.	0.2 mV	0.5 mV	0.3 mV	0.2 mV	0.2 mV	3 mV	1.5 mV	1.5 mV	0.18 mV	0.18 mV
Channel balance at 1 kHz	< 1 dB	< 1.5 dB	< 1 dB	< 1 dB	< 1 dB	Mono	Mono	Mono	< 1.5 dB	< 1.5 dB
Channel separation at 1 kHz	> 25 dB	> 23 dB	> 20 dB	> 20 dB	> 20 dB	Mono	Mono	Mono	> 20 dB	> 20 dB
Channel separation at 15 kHz	> 20 dB	> 15 dB	> 10 dB	> 10 dB	> 10 dB	Mono	Mono	Mono	> 10 dB	> 10 dB
Frequency response	20-20,000 Hz + 1.5/-0 dB	20-20,000 Hz + 2 dB	20-20,000 Hz + 2/-1 dB	20-20,000 Hz + 3/-2 dB	20-20,000 Hz + 3 dB	20-15,000 Hz + 2/-1 dB	20-15,000 Hz + 3/-1 dB	20-15,000 Hz + 3/-1 dB	20-20,000 Hz ± 3 dB	20-20,000 Hz ± 3 dB
Tracking ability at 315 Hz at recommended tracking force*)	60 µm	60 µm	70 µm	60 µm	60 µm	70 µm	60 µm	60 µm	60 µm	60 µm
Compliance, dynamic, lateral	8 µm/mN	8 µm/mN	8 µm/mN	8 µm/mN	8 µm/mN	12 µm/mN	7 µm/mN	7 µm/mN	10 µm/mN	10 µm/mN
Stylus type	Nude Ortofon Replicant 100	Nude elliptical	Nude elliptical	Nude elliptical	Nude spherical	Spherical	Spherical	Spherical	Spherical / Elliptical	Spherical / Elliptical
Stylus tip radius	r/R 5/100 µm	r/R 8/18 µm	r/R 8/18 µm	r/R 8/18 µm	R 18 µm	R 25 µm	R 25 µm	R 65 µm	R 18 µm / r/R 8/18 µm	R 18 µm / r/R 8/18 µm
Tracking force range	2.5-3.5 g (25-35 mN)	2.5-3.5 g (25-35 mN)	3.0-5.0 g (30-50 mN)	3.0-5.0 g (30-50 mN)	3.0-5.0 g (30-50 mN)	3.0-5.0 g (30-50 mN)	3.0-4.0 g (30-40 mN)	4.0-5.0 g (40-50 mN)	3.0-5.0 g (30-50 mN)	3.0-5.0 g (30-50 mN)
Tracking force, recommended	3.0 g (30 mN)	3.0 g (30 mN)	4.0 g (40 mN)	4.0 g (40 mN)	4.0 g (40 mN)	3.5 g (35 mN)	3.5 g (35 mN)	4.5 g (45 mN)	4.0 g (40 mN)	4.0 g (40 mN)
Tracking angle	20°	20°	20°	20°	20°	20°	20°	20°	20°	20°
Internal impedance, DC resistance	7 ohm	2 ohm	3 ohm	2 ohm	2 ohm	100 ohm	6 ohm	6 ohm	2 ohm	2 ohm
Recommended load impedance	> 100 ohm	10 - 50 ohm	> 10 ohm	> 10 ohm	> 10 ohm	47 kohm	> 100 ohm	> 100 ohm	> 10 ohm	> 10 ohm
Cartridge body material	Ground wood and resin composite	Ground wood and resin composite	Ground wood and resin composite	Ground wood and resin composite	Ground wood and resin composite	Ground wood and resin composite	Ground wood and resin composite	Ground wood and resin composite	Ground wood and resin composite	Ground wood and resin composite
Coilwire material	Goldplated silver	High Purity Copper (OFC)	Silver, 6-nines	High Purity Copper (OFC)	High Purity Copper (OFC)	High Purity Copper (OFC)	High Purity Copper (OFC)	High Purity Copper (OFC)	High Purity Copper (OFC)	High Purity Copper (OFC)
Cartridge colour	Shiny black	Shiny black	Shiny black	Matte black	Matte black	Matte black	Matte black	Matte black	Matte black	Matte black
Cartridge weight, GM model	28 g	28 g	28 g	28 g	28 g	28 g	35 g	35 g	28 g	28 g
Cartridge weight, N model	13 g			13 g	13 g					
Cartridge weight, A model										
*) Typical value										