SPU Cartridges



The Sound of Excellence

Being the inventor of the world famous SPU stereo cartridge in 1958, most music lovers find that today there is no other name, which is more involved in the history of analogue reproduction than Ortofon.

The fact that Ortofon has kept the SPU in production for more than half a century says a lot about the enduring rightness and beauty of the SPU design. The SPU is the only Ortofon stereo cartridge that has survived since 1958 and from all over the world gained a reputation second to none for an outstanding analogue sound reproduction.



Output voltage at 1 kHz, 5cm/sec. 3 mV

Frequency response 20 Hz - 15 kHz + 2 / - 1 dB

Internal impedance, DC resistance 100 Ohm

TECHNICAL DATA

Channel balance at 1 kHz

Channel separation at 1 kHz

Frequency range at - 3dB

Tracking ability at 315Hz

Stylus type

Stylus tip radius

Tracking force range

Cartridge body material

Cartridge weight, GM model

Cartridge weight, N model

Coil wire material

TECHNICAL DATA

Channel balance at 1 kHz

Frequency range at - 3 dB

Tracking ability at 315 Hz

Stylus tip radius

Tracking angle

Cartridge colour

Tracking force range

Cartridge body material

Cartridge weight, GM model

Cartridge weight, N model

Output voltage at 1 kHz, 5cm/sec.

at recommended tracking force *) Compliance, dynamic, lateral

Tracking force, recommended

Frequency response 20 Hz - 20 kHz +2 / -1 dB

Internal impedance, DC resistance 3 Ohm

Recommended load impedance > 10 Ohm

Tracking force, reco Tracking angle

at recommended tracking force *) Compliance, dynamic, lateral

Recommended load impedance

Channel separation at 15 kHz



20-20.000 Hz

12 μm/mN

Spherical R 25 um

4.0 g (40 mN)

47 kOhm

(OFC)

Black

30 g

0.3 mV

< 1 dB

> 10 dB

8 µm/mN

Nude Elliptical

3.0-5.0 g (30-50 mN)

Ground wood and

r/R 8/18 µm

4.0 g (40 mN)

Shiny Black

30 g

Ortofon A/S | Stavangervej 9 | DK-4900 Nakskov | Denmark | www.ortofon.com

20-25.000 H

3.0-5.0 g (30-50 mN)

Ground wood and

High Purity Copper



1.5 mV

20-18.000 Hz

+ 3 / - 1 dB

R 25 µm

6 Ohm

(OFC)

Black

< 1.5 dB

> 23 dB

> 15 dB

± 2 dB

70 µm

8 µm/mN

Nude Elliptical

r/R 8/18 µm

3.0 g (30 mN)

10 - 50 Ohm

Shiny Black

30 g

Ground wood and

High Purity Copper (OFC)

2 Ohm

2.5-3.5 g (25-35 mN)

20-30,000 Hz

37 g

Meister Silver GM MkII Synergy GM

3.5 g (35 mN)

> 100 Ohm

Ground wood and

High Purity Copper

3.0-4.0 g (30-40 mN)



1.5 mV

20-18 000 Hz

+3/-1dB

R 65 µm

6 Ohm

Black

37 g

SPU #1 S/E 0.18 mV

1.5 dB

20 dB

10 dB

 $\pm 3 dB$

65 µm

2 Ohm

30 g

> 10 Ohm

20-20,000 Hz

10 µm/mN

Spherical / Elliptical

R 18 µm / r/R 8/18 µm

3.0-5.0 g (30-50 mN)

Ground wood and

High Purity Copper

4.5 g (45 mN)

> 100 Ohm

4.0-5.0 g (40-50 mN)

Ground wood and



Classic N

0.2 mV

< 1 dB

> 20 dB

> 10 dB

 $\pm 3 dB$

65 µm

8 µm/mN

R 18 µm

Nude Spherical

20-25,000 H



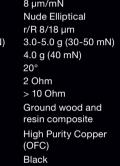




+ 3 / - 2 dB 65 µm

8 µm/mN 3.0-5.0 g (30-50 mN) 2 Ohm > 10 Ohm

2 Ohm > 10 Ohm Ground wood and High Purity Coppe Black 30 g 13 g





20-60,





M MKII /	SPU A95
	0.3 mV
	1 dB
	23 dB
	15 dB
00 Hz	20-30,000 H
0 dB	± 2 dB

70 µm 8 µm/mN Nude Replicant 100 r/R 5/100 µm 2.5-3.5 g (25-35 mN) 7 Ohm > 100 Ohm

Electrum Shiny Black 30 g 13 g

Nude Elliptical r/R 8/18 µm 2.5-3.5 g (25-35 mN) 3.0 g (30 mN) 2 Ohm 10 - 50 Ohm Ground wood and

> Shiny Black 28 g

*) Typical value

accuracy in sound



accuracy in sound

OrtofonSPUbrochure01.indd 1-3



The SPU was launched back in 1958 in response to the demand for cartridges to reproduce the new stereo records. The term "SPU" stands for "stereo pick-up" as phono cartridges were called "pickups" in the 1950s and 1960s. Mr. Robert Gudmandsen, one of Ortofon's then leading engineers, took a principal part in developing this cartridge.

Based on Ortofon's already 10 year old technology and experience in mono cartridges, the SPU immediately set the standard for professional and audiophile applications and pointed the way for the next 57 years of high-end cartridge

- a generator comprising two low-impedance coils - wound with very fine copper wire and crossed in

such a way that the two walls of an LP's stereo microgroove could generate two discrete signals with maximum separation

The so-called "Ortofon sound" became synonymous with the sound from the SPU, at an early stage. The sound of the SPU cartridge is characterized by a rich bass and a transparent treble range plus those extra qualities, which are so hard to define, but so easy to appreciate when they are realized.

With no other cartridge over the course of half a century, have we ever had to take so much care in respecting this original sound when improving technical data, as with the SPU model. As a result and in order to show considerations for this goal, our customers will after 59 years still find the basic visuals, the original design, as well as the original elements in the construction of the magnetic circuit kept fully intact.

Evidently, the product has changed throughout its lifetime. New possibilities in regards to housing materials, diamonds and magnetic & damping systems have been employed to improve the SPU and its performance, whilst at the same time we remain faithful to the original concept.

A key SPU feature is an integrated headshell, designed to mount directly into classic tonearms with detachable headshells - tonearms such as the SME 3009 and 3012, and other tonearms with similar "universal" tonearm mounts. Quite simply, there is no finer complement to a classic tonearm with a detachable headshell than an Ortofon SPU.

Back in 1958 the Ortofon SPU sounded like no other cartridge because it was way ahead of its competition. Today the SPU still has a sound that is definitely its own and it enjoys a remarkable following - in particular among audiophiles whose systems are comprised of vintage valve equipment and horn or reflex speakers.



The SPU Mono models provide an authentic method of playing back early Mono recordings with a remarkable level of sonic accuracy.

The SPU Mono GM MkII is a high output cartridge a with a spherical stylus profile, for the playback of early 25 µm mono recordings with 33 and 45 r.p.m.. Its 3 mV high output eliminates the need for a moving coil transformer.

The SPU Mono CG cartridges are available in two versions determined by the diamond tip radius 25 and 65 μm: the 25 μm diamond for Mono LPs with 33 and 45 r.p.m. and the 65 µm diamond for

The SPU CG models have a 1.5 mV output, which makes the cartridges suitable for use with a variety of medium-gain moving coil transformers.

SPU Classic Series

The SPU Classic series, as the name implies, embodies the essence of the original Moving Coils. With their linearity and full bodies, these cartridges are a perfect solution for the playback of both early and contemporary Stereo recordings.

The SPU Classic series is known for its dynamic and powerful sound reproduction, without any roughness, minimum of intermodulation distortion and a splendid channel separation, the images being firm and

The SPU Classic N and SPU Classic NE cartridges, with their half-inch adaptor, provide the ability to mount the unit on standard headshells, as well as in a wider range of tonearms.





SPU Meister Silver GM Mkll

The masterpiece of Mr.Robert Gudmandsen, the SPU Meister Silver was introduced in 1996 as a technological improvement of great importance: Ortofon has succeeded in having the purest silver wire ever produced for coil winding process

The SPU Meister Silver GM MkII has been outfitted with high purity multi-conductor 6nines Silver wire for a more open and revealing high-end presentation.

The Nude Elliptical stylus tip mass has been decreased by a factor of more than 50%, resulting in increased tracking ability and reproduction of dynamic

The generator system has been revised to produce a slightly higher output to ensure compatibility with a wider range of moving coil transformers and active MC preamplifiers.

SPU Synergy GM

The SPU Synergy modernizes the classic SPU design with a number of optimizations developed for optimum compatibility and sonic purity. The SPU Synergy transducer system allows extraordinary synergy of sonorous sound.

Very low coil-resistance combined with unusually high output of 0.5 mV, achieved by using Neodymium magnets, is decisive for reaching the high signal-to-noise ratio. The exceptional black polished Urushi painting on the SPU Synergy wood-based housing suggests a precious jewel-like appearance.

A revised generator system, which allows for a maximum output of 0.5 mV, relaxes the requirement for high gain transformer or active pre-amplification systems.

SPU #1 S and E

The SPU #1 models are perfect all-rounders for the newcomers to the world of SPU. The SPU #1 S and SPU #1 E feature respectively Spherical and Elliptical styli, High Purity Copper armature windings and Ground wood and resin composite housings. The SPU #1 E elliptical stylus profile provides more detailed sound reproduction and expansive imaging.

With their linearity and full bodies, the SPU #1 models are a perfect solution for the playback of stereo recordings. Sonically, the SPU #1 models are genuine SPUs, known for their full-bodied and powerful music image, minimum of intermodulation distortion and an impressive channel separation.

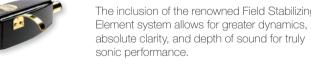
SPU Royal

The SPU Royal GM and Royal N models were launched in 1998 to celebrate the Ortofon 80-year anniversary. The SPU Royal GM Mkll provides a playback experience that embodies the essence of analog, with generous refinements, which bring the legendary SPU cartridges into the realm of unrivaled perfection.

The addition of Ortofon's unique Replicant 100 stylus and reduced tip mass ensures open and detailed sound reproduction for a purely exquisite listening experience.

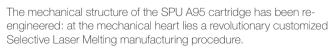
Electrum coils, consisting of a gold and silver alloy, provide uncolored and precise transmission of armature movements, while the slightly modified damping system makes it possible to reduce vibrations within the cartridge body and achieve a higher level of

The SPU Royal N cartridge, with its half-inch adaptor, provides the ability to mount the unit on standard headshells, as well as in a wider range



SPU A95

SPU A95 model.



The SPU 95th Anniversary model represents the pinnacle of SPU

cartridges. Much like Robert Gudmandsen's revolutionary ideas,

The inclusion of the renowned Field Stabilizing

which catapulted the SPU to market prominence, endless research

and conceptual designs have developed further in this very special

The use of Titanium in SPU A95 has provided a further improvement to the internal damping capabilities as well as to the overall rigidity of the structure. The SPU A95 has gone to the next level by reducing unwanted vibrations in the cartridge. Also adding to the sonic performance of the SPU A95 is nothing but the best internal coil wiring, comprised of silver plated ultrahigh purity (6NX) copper wire.

"SPU A95 is quiet in the groove, with lots of detail, a fine sense of space on stereo records and ability to convey depth and perspective and the "wholeness" of individual sounds." Art Dudley, Stereophile December 2014.