

# SPU A95

Moving Coil Cartridge



## Technical Data

Output voltage at 1000 Hz, 5cm/sec.	0.3 mV
Channel balance at 1 kHz	1 dB
Channel separation at 1 kHz	23 dB
Channel separation at 15 kHz	15 dB
Frequency range at - 3dB	20-30.000 Hz
Frequency response	20-20.000 Hz ± 2 dB
Tracking ability at 315Hz at recommended tracking force *)	70 µm
Compliance, dynamic, lateral	9 µm/mN
Stylus type	Nude Elliptical
Stylus tip radius	r/R 8/18 µm
Tracking force range	2.5-3.5 g (25-35 mN)
Tracking force, recommended	3.0 g (30 mN)
Tracking angle	20°
Internal impedance, DC resistance	2 Ohm
Recommended load impedance	10 - 50 Ohm
Cartridge body material	Wooden powder
Frame structure	Titanium
Coil wire material	Silver plated Copper
Cartridge colour	Black
Cartridge weight	28 g

\*) Typical value

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The new Ortofon SPU 95<sup>th</sup> Anniversary Cartridge represents the highest echelon of SPU cartridges

Ortofon is proud to present the SPU A95 – a state of the art product representative of numerous Ortofon design elements and ideals - to celebrate Ortofon's 95 years of masterful analog research and technology.

Since the advent of moving coil technology, the SPU series cartridges have always remained near and dear to both those looking for the most musical and refined sound quality, as well as those looking to recapture the essence of authenticity in a nod to some of the best audio components of all time. With the SPU A95, the bar is raised for both its modern and vintage counterparts. The new Ortofon SPU A95 has gone to the next level by reducing unwanted vibrations in the cartridge. Our extensive knowledge of vibration properties, characteristics in different shapes and materials, competences in magnetism, mechanical design and new technologies has been applied for optimization of the SPU A95.

## Magnet system and damping

Much like Robert Gudmandsen's revolutionary ideas which originally brought the SPU cartridges to market in the 1960s, endless research and conceptual design was placed into the SPU 90<sup>th</sup> Anniversary and developed further in this very special SPU A95 model.

The SPU A95 is built with the magnetic system applied in the predecessor SPU 90<sup>th</sup> Anniversary. This cartridge retains all of the characteristics that put its brethren in a class of their own, while at the same time expounding upon its strengths to provide reproduction of sound that is unsurpassed in its neutrality, detail, and dynamic range.

Another special feature is the inclusion of the renowned Field Stabilizing Element (FSE) system, which consists of a small cylinder of conductive material placed strategically inside of the magnetic system. FSE guarantees that the force field within the system will remain stable at all times regardless of the movement of the armature. This technology was first introduced in the acclaimed Kontrapunkt series and later applied in the SPU 90<sup>th</sup> Anniversary, MC A90, Cadenza Bronze and Black and in the present top line cartridges, the MC Windfeld and Ortofon Xpression. What this means in practical application is that not only will FSE minimize dynamic and intermodulation distortion, but it will also allow for greater dynamics, absolute clarity, and depth of sound for truly awe-inspiring sonic performance.

Benefits of high-end materials and advancements in technology

The mechanical structure of the SPU A95 cartridge has also been re-engineered, as well as many of its internal assemblies. At the mechanical heart lies a revolutionary customized SLM (Selective Laser Melting) manufacturing procedure. The use of titanium in the SPU A95 has provided a further improvement to the internal damping capabilities as well as to the overall rigidity of the structure.

Considered an engineering breakthrough, the Selective Laser Melting process welds fine particles of titanium together, layer-by-layer, to construct a single piece body devoid of extraneous material. This technique allows for precise control of the density of the body material, allowing for extremely high internal damping. The final result provides a controlled reduction of the vibrations within the cartridge body material. A CT-scan of the frame structure ensures the highest degree of uniformity and quality.

A Nude Elliptical diamond stylus graces the aluminum cantilever, representative of the legacy created by SPUs past, along with a black painted, grinded wood body.



Also adding to the sonic performance of the SPU A95 is nothing but the best internal coil wiring, comprised of silver plated ultra high purity (6NX) copper wire, to ensure that each and every movement of the stylus is captured faithfully without loss. The internal terminal wiring is made of ultra high purity (6NX) silver wire, with gold plated terminal connectors.

The SPU A95 cartridge may have been recreated from the paradigms, concepts, and techniques of the original, but its performance takes one step further to further its capabilities and technical excellence.