Suzaku (Red Sparrow)

Coreless straight-flux cartridge

朱雀

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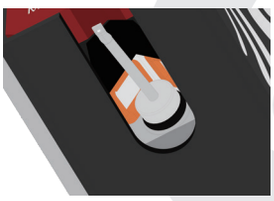
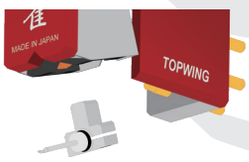
TOP WING's philosophy

TOPWING Corporation

TOPWING's top priority is not only reproduction of natural sounds unique to analog but also reproduction of the soundstage. Generally, when CD and LP sound quality is compared, the CD is said to be superior in terms of soundstage reproducibility. But, why should such a difference exist, when both media were created from the same master recording? We discovered that existing cartridges were not picking up the entirety of sound information necessary for sound-field reproduction.

Red Sparrow power generation: Coreless straight-flux system





As its name suggests, the coreless straight-flux system has no core material, with the left and right coils arranged in a V shape directly above the magnet. With that, the stylus tip picks up fluctuations in magnetic flux produced by the fine sound grooves, reproducing them into sound directly and thus accurately.

This system does not generate any of the issues associated with MC cartridges, with which the coil output line moves irregularly within the magnetic flux and leads to sound disturbance, or with MM cartridges, with which responsiveness deteriorates due to a long magnetic path length.

Moreover, this system shares the high level of maintainability of MM cartridges. The stylus (needle, cantilever, assembled magnets), coil, damper, and more, are all constructed of interchangeable designs, which allows stylus replacement at 1/10th the original cartridge price.

The coreless straight-flux system is a singular technology that not only retains the advantages of existing MC and MM cartridges but also eliminates the drawbacks.

*Stylus replacement is handled by our professional staff after the main unit is sent to us.

*When a defect other than in the stylus unit occurs, a separate service-cost estimate is necessary.

A new approach to housing outer-shell design

The housing of our maiden product "Blue Dragon" was manufactured with orthodox methods, utilizing Ultra Duralumin, the long-established resonance-damping material of high rigidity, and finished with ultra-precision processing. Based on this production method, excessive outer-shell vibration and resonance effects on sound were largely eliminated.

While this approach is straightforward, it has the disadvantage of adding weight to the cartridge. This led to the concern that the coreless straight-flux system of the Blue Dragon, weighing in at more than 12 grams, might not be fully utilized in certain tone-arm designs, especially the highly responsive designs of recent years.

However, liberally adopting lightweight materials gives rise to a certain resonance point in the audible range, which adds undesirable tonal quality to the playback sound. Thus, Red Sparrow combines materials with different vibration frequencies to "disburse" resonance, a focus completely opposite that of the Blue Dragon, which suppresses resonance through use of high-rigidity materials.

The materials adopted in the cartridge include titanium, dry carbon, and high-performance resins classified as super engineering plastics, etc., to replace the Ultra Duralumin used in the Blue Dragon. We selected these high-performance materials, also utilized in advanced industries, based on our efforts to seek out cutting-edge technologies and innovative materials.

As a result, the weight of the Red Sparrow cartridge was reduced to slightly less than 9 grams, allowing maximization of performance regardless of the tone arm being used.

By adopting a revolutionary method called the coreless straight-flux system as well as advanced technologies and innovative materials, Red Sparrow has achieved coexistence of a natural sound unique to analog and soundstage reproduction never before possible.

Analog Virtuosos
with state-of-the-art technology

Hiromu Meguro

Inventor

Yasuhiro Noguchi

Designer

Koichi Sasakihara

Director

Specifications

Type of power generation:	**Coreless straight-flux**
Stylus:	**Line contact**
Cantilever material:	**Aluminum**
Output at 5 cm/s at 1 kHz:	**0.2 mV**
Internal Impedance:	**12.3Ω at 1 kHz**
Recommended tracking weight:	**1.75 g–2.0 g**
Weight:	**< 9g**

Made in Japan

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