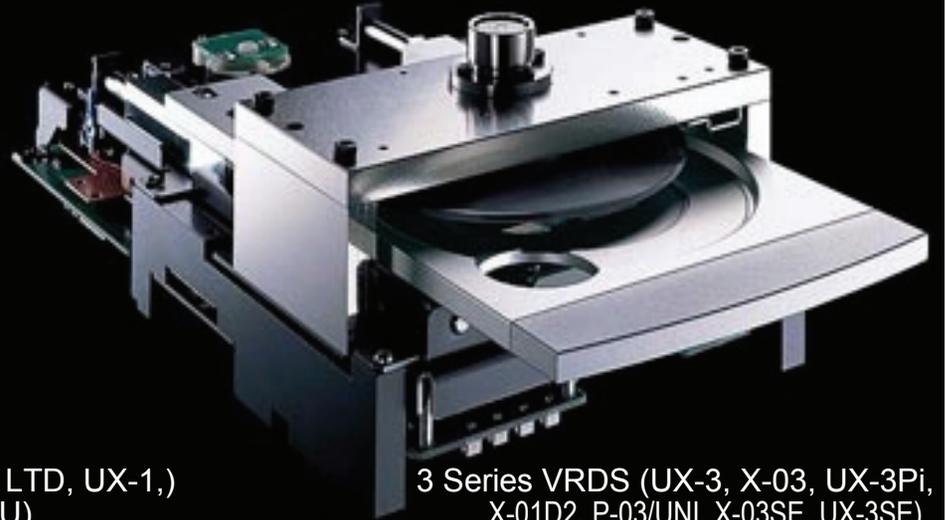


ESOTERIC Transports



ESOTERIC

Note: The P-03 and X-01D2 also use a heavier steel bridge/coreless brushless motor assembly, closer to the ones used in the P-01.



1 Series VRDS (X-01, X-01 LTD, UX-1, UX-1LTD, P-01 / P01VU)

3 Series VRDS (UX-3, X-03, UX-3Pi, X-01D2, P-03/UNI, X-03SE, UX-3SE)

VRDS: Vibration-free Rigid Disc-clamping System



VOSP and Esoteric "X-3 series" optics are used in this transport and in the SA-10 and SA-50.



VOSP: Vertically Aligned Optical Stability Platform

Esoteric's conventional transport used inside the DV-60, SA-60, UZ-1 and SZ-1

VMK-5 a new generation of lower cost VRDS-Neo

First used in the Esoteric P-05 transport. Newly developed for 2007 the VRDS-VMK-5 meets the demand for the high speed rotational requirements of Super Audio CD. (4.5 times the speed required for CD). Currently used on the X-05 (Feb. 2008) and the P-05).



ESOTERIC

VMK-5 a new generation of VRDS-Neo

Incorporating a high precision aluminum turntable

the polycarbonate anti-resonance disc is attached to the turntable reducing unwanted resonance associated with single material turntable design. As a result of this engineering implementation, the “VMK-5” keeps the rotational inertia within a minimum level compared to other turntables. This new design provides high reliability, controlled resonance and extremely quiet operation.

Highly rigid BMC + steel hybrid turntable bridge component

The turntable bridge component incorporates a highly rigid BMC (Bulk Molding compound) + a steel hybrid material design. The BMC has a high specific gravity and high internal loss, helping to enable high precision cast molding. This hybrid design reduces unwanted motor noise and vibration, while ensuring very smooth turntable rotation.

ESOTERIC’s proprietary disc loading mechanism

*The series of operation from the tray closing (opening), to the disc clamping (release), is managed by a unique disc loading mechanism which uses ESOTERIC’s proprietary “differential gear” system. The “differential gear” system enables exceptionally smooth disc loading operations compared to conventional designs, thanks to the seamless engagement of the tray and disc clamp gears during the entire loading operation.
(JP PAT. 2861798 TEAC CORPORATION)*



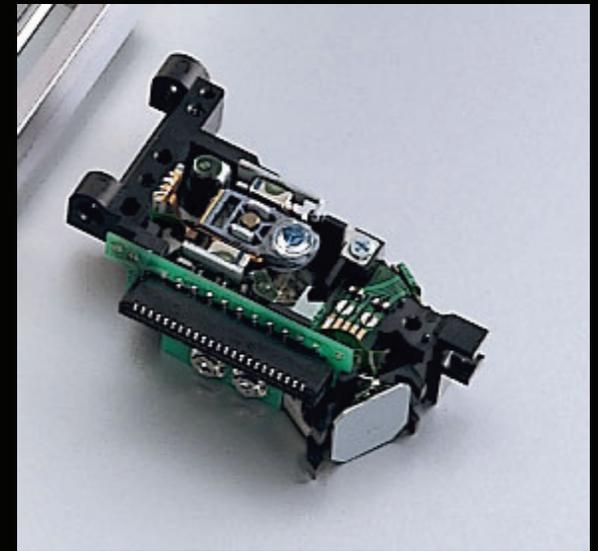
VMK-5 a new generation of VRDS-Neo

Turntable motor spindle design

The turntable motor is placed under the turntable, and the spindle is temporarily disconnected from the turntable to accept the disc during loading operation (PAT. Pend.). With this engineering implementation, the “VMK-5” applies VRDS technology in a compact and low-profile design. The short spindle shaft design contributes to a very stable turntable rotation, eliminating vibrations associated with longer shaft designs. The spindle motor incorporates a FG (Frequency generation), sensor enabling self detection of rotational speed. This design provides ultra fast motor response and optimal speed control. In comparison, conventional mechanisms cannot detect motor speed before reading disc information.

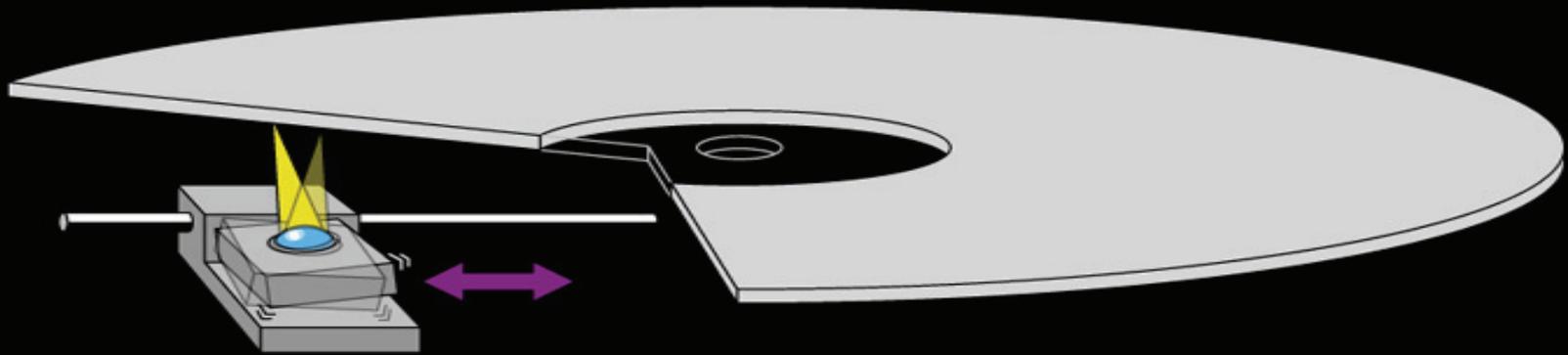
Pickup structure designed to prevent laser optical axis tilting during lens movement

ESOTERIC developed an ingenious component structure for driving the pickup lens using a highly accurate shaft-mounted laser pickup assembly. This system ensures that the laser optical axis is always positioned at the very center of the pit track for optimal reading, making it possible to minimize the adverse effects of disc surface shaking and offset tracking. This highly accurate pickup system (also used by ESOTERIC in the P-01 and the P-03 transports), and vibration-free VRDS turntable are the primary factors defining the outstanding mechanical performance of the P-05.



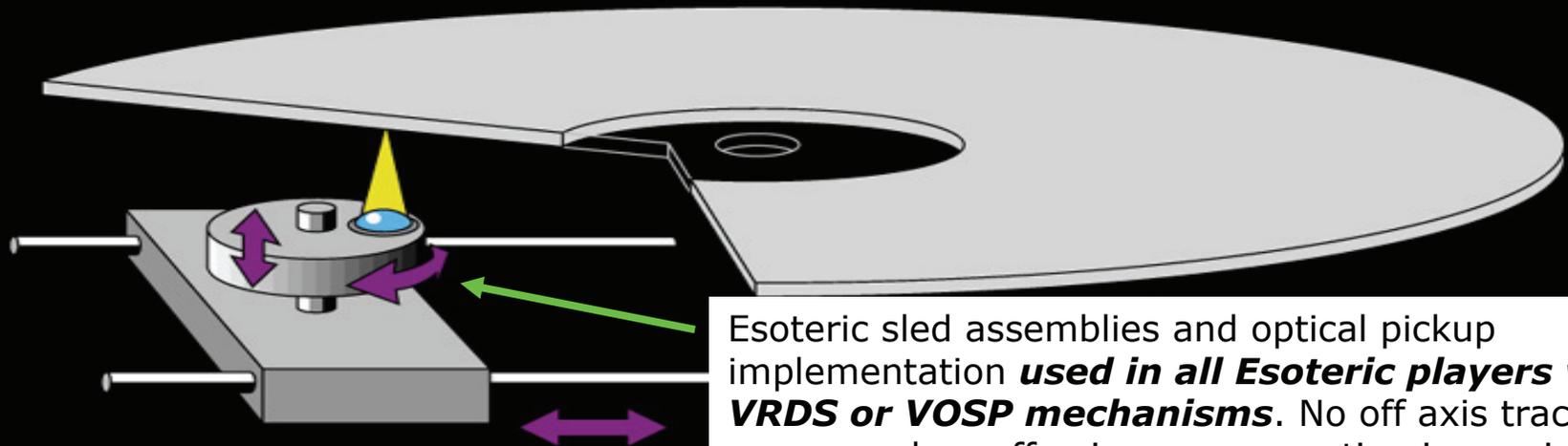
ESOTERIC

Conventional Pick-up



ESOTERIC

VRDS-NEO Pick-up



Esoteric sled assemblies and optical pickup implementation **used in all Esoteric players with VRDS or VOSP mechanisms**. No off axis tracking occurs and no off axis error correction is required