External Clock Sync Function

Connecting the unit to a high-precision master clock generator (G-01, G-02) allows synchronization of the unit’s operation with an external clock signal, thereby enabling an upgrade of system sound quality. Compatible with 44.1/88.2/176.4kHz input frequencies, both 10MHz and 22MHz direct master clock linkage* and external clock synchronization are also supported for both digital optical and digital coaxial inputs, as well as when the USB input is used.

*When an external clock generator is connected, the signal is also used to clock the D/A converter, bypassing the internal PLL circuit and providing straight, higher accuracy D/A conversion.

Comprehensive D/D Conversion Compatible With Wide Range of Sources

In addition to playback at the original sampling frequency, 2X, 4X and 8X up-conversion of the PCM digital signal is also provided. A range of D/D conversion modes are also available for the PCM format, such as PCM-to-DSO conversion.

Four Digital Filters Plus Filter OFF Mode

Four types of digital filter are available for PCM signal processing. Besides two FIR (Finite Impulse Response) digital filters, which have an established reputation for outstanding sound quality, two types of short delay digital filters are also included for a more precise and natural sound. A Digital Filter OFF mode permits both PCM and DSD digital filters to be bypassed if desired.

Digital Inputs Support DSD and High-Res PCM

Three digital inputs (USB, coaxial, and optical) enable connection to a wide range of systems. These inputs support 2.8MHz DSD and up to 192kHz/24-bit high-resolution PCM.

USB Support for 2.8/5.6/11.2MHz DSD, 384kHz/32-bit PCM and Asynchronous Transmission

In addition to playback at the original sampling frequency, 2X, 4X and 8X up-conversion of the PCM digital signal is also provided. A range of D/D conversion modes are also available for the PCM format, such as PCM-to-DSO conversion.

ESOTERIC HR Audio Player (for PC / Mac)

Available free for download from the Esoteric website.

Supported file formats

<table>
<thead>
<tr>
<th>Format</th>
<th>32k to 320kbps</th>
<th>44.1k to 384kHz, 16 to 32 bit</th>
</tr>
</thead>
<tbody>
<tr>
<td>MP1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FLAC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DSF</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WAV</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AIFF</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Specifications

Playable disc types

Super Audio CD/CD (including CD-R and CD-RW)

Analog audio outputs

- Connectors: XLR (2 ch), RCA (2 ch)
- Output impedance: XLR: 2 kΩ, RCA: 10 kΩ
- Maximum output level: XLR: 2.5 Vrms, RCA: 3.5 Vrms

Super Audio CD (RR) output

- Frequency response: 5 Hz to 70 kHz (-3 dB)
- Signal-to-noise ratio: 117 dB
- Distortion: 0.0007% (1 kHz)

Digital audio output

- RCA jack: D-0.6 Vp-p (into 75 Ω) × 1
- Digital optical port: –22 to –15 dB relative peak × 1
- USB-B port: USB 2.0 standard × 1

Digital audio input

- RCA connector: D-0.6 Vp-p (into 75 Ω) × 1
- Digital optical port: –24 to –15 dB relative peak × 1
- USB-B port: USB 2.0 standard × 1

Clock sync input

Connector: BNC

Supported input frequencies:

- 44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz, 176.4 kHz
- 192 kHz, 10 MHz, 22.5792 MHz, 24.576 MHz

Input impedance:

- 75 Ω

Input level:

- Rectangular wave: unweighted ≥10 V peak
- Sine wave: 0.5 ± 0.1 Vrms (50 to 75 Ω)

General

- Power supply:
  - Europe model: 230 V AC, 50 Hz
  - USA/Canada model: 120 V AC, 60 Hz
  - S. Korea model: 220 V AC, 60 Hz

- Power consumption:
  - K-05X: 23 W
  - K-07X: 27 W

- External dimensions (With/Out): 445 × 131 × 355 mm
- (Including protrusions): 192 kHz, 10 MHz, 22.5792 MHz, 24.576 MHz

- Weight:
  - 14 kg (30 7/8 lb)

- Included accessories:
  - Power cord: 1
  - Remote control: 1
  - Batteries (AAA): 2
  - Owner’s manual: 1
  - Warranty card: 1

- Design and specifications are subject to change without notice.

- Weight and dimensions are approximate.

- Illustrations in this manual might differ slightly from production models.

- Weight and dimensions are approximate.

- Illustrations in this manual might differ slightly from production models.

- Super Audio CD,” “DSD” are registered trademarks. “ASIO” is a trademark of Steinberg Media Technologies GmbH.

- Copyrights and product names in this document are the trademarks or registered trademarks of their respective owners.

- Design specifications are subject to change without notice.
Super Audio CD/CD Player

K-05X

VRDS-NEO [VMK-5]
Transport Mechanism Improves Reading Accuracy
The unique VRDS-NEO VMK-5 transport mechanism featured in this new player incorporates high-precision turntable that greatly improves reading accuracy by mechanically correcting for disc surface run-out. It’s hybrid construction integrates precision-machined aluminum with polycarbonate to help minimize rotational inertia. Formed of high-rigidity BMC (Bulk Molding Compound) and steel, the hybrid turntable bridge also makes a significant contribution to the suppression of rotational vibration and run-out. The transport’s spindle motor realizes further improvements in reading accuracy with an advanced servo control that uses rotation detection circuitry. Mechanical operations such as opening and closing the tray and clamping the disc are performed by a unique differential gear system. This proprietary* Esoteric technology ensures exceptionally smooth disc loading operation.

*Patent No.2861798 owned by TEAC Corporation.

Pursuing Radical Evolution, Not Nominal Improvements.
Reborn with a new ‘X’ designation, the K-05X and K-07X command central roles in Esoteric’s superb lineup of Super Audio CD players, and should really be considered ‘all-new,’ having been infused with the very essence of our flagship Grandioso models. These new players achieve the very tenets of Esoteric’s design philosophy, conveying to the listener all the very essence of our flagship Grandioso models.

With totally revamped audio electronic circuitry, these two new ‘X’ models eschew all compromise, and renew the lineage of the K Series.

Super Audio CD/CD Player

K-07X

VOSP* Mechanism With Axial Sliding Pickup
Esoteric’s unique VOSP* mechanism employs the same axial sliding pick-up assembly used in our premier Grandioso line of high-end SACD players. As the pickup lens moves, the laser beam maintains an ultra-precise perpendicular optical axis orientation relative to the disk surface, ensuring highly accurate reading of audio data. The VOSP mechanism is rigidly held by a robust steel plate and an 8mm-thick large-diameter steel stabilizer for superior anti-resonance and anti-vibration properties.

*VOSP = Vertically-aligned Optical Stability Platform

Refined Dual Mono D/A Converters Derived From Top-of-the-Line Components
The D/A converter’s analog output circuitry features both excellent high-end resolution and natural musical texturing that only high-end components such as Esoteric’s K Series SACD players can offer. Centered around Asahi Kasei’s high-end AK4490 32-bit DAC, this circuitry accentuates the expressive power of these players with 4 parallel/differential circuits and 8 outputs driving each channel—twice that of conventional players in terms of circuit scale—to further enhance sound quality with excellent linearity and low distortion.

Arranged in a discreet dual mono configuration, the D/A converters and analog output circuitry are laid out in parallel on either side of the board, and are completely isolated from the digital signal processing circuitry, achieving superb channel separation.

Technology developed for the Grandioso C1 Line Stage Preamplifier is also employed in the power supply, which features EDLC (Electronic Double-Layer Capacitors). This regulated power supply boasts an astounding total capacity of 500,000µF per channel for exceptional low-frequency sound reproduction. With totally revamped audio electronic circuitry, these two new ‘X’ model SACD players can offer. Centered around Asahi Kasei’s high-end (PKC/R) and of Asahi Kasei Microdevices Corporation, and designed for professional studio and digital audio applications.

34-Bit D/A Processing Achieves Outstanding Powers of Musical Expression
Employing a 34-bit D/A processing algorithm with an encoding resolution that is an astounding 1,024 times greater than that of 24-bit encoding, multiple 32-bit DAC devices were combined to convert the high-resolution 34-bit PCM signal to analog. In the digital range, full advantage is taken of high-bit data gradation to minimize calculation errors and provide faithful conversion to analog, thereby attaining outstanding powers of expression with even extremely small music signals.

34-Bit D/A Processing

Proprietary Esoteric-HCLD* Type 2 Current-Enhancing Output Buffer Circuit
A high-precision VCO (voltage controlled crystal oscillator) supplies a highly accurate reference clock signal to the digital circuitry. The K-05X’s large, custom-designed VCO was jointly developed with Nihon Dempa Kogyo (NDK), a leading manufacturer of crystal oscillators. Incorporating an unusually large crystal element, this VCO realizes both excellent center accuracy (±0.5ppm*) and extremely low levels of phase noise to ensure exceptional sound playback quality.

*VCLD = High Current Line Drive

High-Speed, Large-Capacity Power Supply
The K-05X is equipped with a high, high-efficiency, high-powered toroidal transformer, while the K-07X uses a full-sized EI-core transformer. Each is custom-design to ensure excellent sound quality. High-output power supply circuitry further combines with an array of large capacitors to provide clean and steady power to all circuit blocks.

High-Precision VCXO Clock
A high-precision VCXO (voltage controlled crystal oscillator) supplies a highly accurate reference clock signal to the digital circuitry. The K-05X’s large, custom-designed VCXO was jointly developed with Nihon Dempa Kogyo (NDK), a leading manufacturer of crystal oscillators. Incorporating an unusually large crystal element, this VCXO realizes both excellent center accuracy (±0.5ppm*) and extremely low levels of phase noise to ensure exceptional sound playback quality.