



C-02X Specifications

Analog Audio Inputs

Connectors	RCA x 3 pairs (RCA 2 can be used as an AV pre-input) / XLR x 2 pairs
Input Impedance	LINE: 10kΩ
Input Sensitivity	510mV (at rated output) / 200mV (at 800mV output)
Maximum Input Level	12V

Analog Audio Outputs

Connectors	RCA x 2 pairs / XLR x 2 pairs
Output Impedance	47Ω (RCA) / 100Ω (XLR)
Total Harmonic Distortion	0.0006% (RCA) / 0.0004% (XLR)
Frequency Response	1Hz - 200kHz (-3dB) / 3Hz - 50kHz (-0.2dB)
Signal-to-Noise Ratio (S/N)	116dB (2V input, A-weighted)
Gain	+12dB
Rated Output	2V
Maximum Output Level	7.5V (RCA output, 1kHz, 0.003%) / 15V (XLR output, 1kHz, 0.003%)

General

Power Supply	230V AC, 50Hz / 120V AC, 60Hz / 220V AC, 60Hz
Power Consumption	21W
External Dimensions (WxHxD)	445 x 162 x 457mm (including protrusions)
Weight	32kg (70 5/8 lb)

Included Accessories

Power cord x 1 / Remote control (RC-1315) x 1 / Batteries for remote control (AAA) x 2
Felt pads x 4 / Owner's manual x 1 / Warranty card x 1

Auxiliary Phono Modules

MM/MC-compliant phono module boards are also available.
 ■ Independent L & R boards designed in dual mono configuration.
 ■ Can be configured for remote control operation.
 ■ High-quality 4-layer board design with optimized power rectification.



Main Specifications

• Gain: MM: 52dB, MC: 72dB • Input Sensitivity: MM: 5mV, MC: 0.5mV • S/N Ratio: MM: 91dB, MC: 76dB • Input Impedance: MM: 47kΩ, MC: 20/100/300Ω, selectable • RCA3: Distance between L & R input terminals: 22.5cm

* Installation only available at authorized Esoteric service centers. Please direct enquiries to your nearest Esoteric dealer. Owing to the specialized requirements of the installation procedure, phono module boards cannot be sold separately. Following installation, the RCA3 jacks located on the rear panel of the C-02X will be converted to phono-only input terminals, and line inputs limited to 2 pairs of RCA jacks and 2 pairs of XLR jacks.

Upgrade Service

An upgrade service is available to owners of the C-02 Stereo Linestage Preamplifier which allows the new X edition functions and related parts to be retrofitted to the earlier model.

Applicable Model: C-02

Contents: Addition of EDLC (super capacitor) array and exchange of power supply boards for sound quality upgrade to equivalent of C-02X.



S-02 Specifications

Rated Power Output	145W + 145W (8Ω) 290W + 290W (4Ω)
Maximum Power Output	580W + 580W (2Ω)
Frequency Response	5Hz - 100kHz (+0dB, -3dB, 8Ω)
Signal-to-Noise Ratio (S/N)	115dB (IHF-A)
Total Harmonic Distortion	0.003% (1kHz, 8Ω, 145W)
Gain	29dB
Damping Factor	1000
Analog Audio Input Jacks	RCA x 1 pair / XLR x 1 pair
Input Impedance	22kΩ (RCA) / 44kΩ (XLR)

General

Power Supply	230V AC, 50Hz / 120V AC, 60Hz / 220V AC, 60Hz
Power Consumption	440W (no signal: 160W)
External Dimensions (WxHxD)	445 x 221.5 x 489.6mm (including protrusions)
Weight	48kg (105 7/8 lb)

Included Accessories

Power cord x 1 / Felt pads x 4 / Power cord support bracket x 1
Power cord support bracket screw x 2 / Owner's manual x 1 / Warranty card x 1

- These products are made available in three different power supply variations, as shown in the chart above. Make sure that the voltage shown on the rear panel matches the AC line voltage in your area.
 - The shape of the AC inlet and plug of the supplied power cord depends on the voltage rating and destination country.
 - Specifications and appearance are subject to change without notice.
 - Weight and dimensions are approximate.



ESOTERIC

Stereo Linestage Preamplifier **C-02X**
 Stereo Power Amplifier **S-02**



PROUDLY MADE IN TOKYO

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MasterSoundWorks

Audio expression, symphonic beauty, artistic passion, the concert hall's spatial feel, the excitement of the audience. Esoteric's Master Sound Works is an audio product concept that recreates all of the music information in original master recordings with the most state-of-the-art technology available today.

Grandioso Lineage

Representing the next generation in a proud lineage of audio excellence, the C-02X Stereo Linestage Preamplifier and S-02 Stereo Power Amplifier feature state-of-the-art circuitry in a discrete dual mono configuration that dramatically conveys all the power and energy of music.

Assembled one at a time in Esoteric's Tokyo factory and incorporating all the knowledge and technology of the flagship Grandioso line, these two new models accentuate the refined qualities of audio reproduction with expert craftsmanship and handmade precision.



Stereo Linestage Preamplifier

C-02X

Stereo Power Amplifier

S-02

Stereo Linestage Preamp

C-02X

The preamplifier is a crucial component that determines the 'sound' of an audio system, and represents the passion and commitment of its makers. As the crowning achievement of the Esoteric Sound, the Grandioso C1 opened new horizons for 'Made in Japan' preamplifiers. Now, this expressive power gives birth to the next-generation C-02X; a stereo preamplifier created to transcend the concept of high fidelity and resonate with the refined sensibilities of engineers and musicians alike.

Independent Dual Mono Design

The C-02X's DC power supply features a fully independent dual mono design that completely eliminates inter-channel interference. Its dedicated bank of five generously rated power transformers for each channel also blocks noise from the power line, enabling a pure, natural amplified sound. Grandioso technology reveals itself in such detailed refinements as the careful layout of the power supply circuit boards, which further contribute to the C-02X's superb sound quality.



Fully-Balanced Configuration Provides Excellent S/N Ratio

The preamplifier's source signal is first received by dedicated buffer amplifiers integrated with each input, from which the circuit configuration is balanced at each stage. Through the elimination of common-mode noise and reductions in circuit impedance, a pure, noise-free signal is fed to the gain amplifiers via the shortest path possible, for an exceptionally high signal-to-noise ratio.

ESOTERIC-QVCS

The C-02X's Esoteric-QVCS* volume control employs four precision switched resistor ladder networks, which change in unison as the volume knob is rotated. This arrangement allows the signal paths for the left and right channels and their positive and negative phases to be kept totally independent and as short as possible. Consequently the sound has superb clarity, excellent channel separation and highly accurate phase characteristics. The elimination of audio board wiring to the volume control further contributes to a reduced signal path, while preventing degradation of sound quality and helping to maintain the low distortion one would expect of a reference model.

* QVCS = Quad Volume Control System

Ultra-Low-Noise Logic Control

Built into the front panel, the logic control section is totally isolated, both physically and electronically, from the preamplifier module by way of an optocoupler. To assure low-noise operation, it also shuts completely down when not in actual operation, thus eliminating all possible influence on the C-02X's audio circuitry.

Highly Responsive Low-Noise, Low-Impedance Power Circuit

Five independent high-capacity power transformers, coupled with large banks of reservoir capacitors, provide power supply circuits that have exceptionally low output impedances and very clean and stable outputs. The low-noise silicon carbide (SiC) Schottky barrier diodes used in the high-speed rectifier circuit further enhance resolution and the signal-to-noise ratio for significant improvements in sound quality.

Esoteric-HCLD* Output Buffer Boosts Current Transmission While EDLC* Power Supply Ensures High Stability



As a line driver, the preamplifier must be able to fully drive the power amplifiers and faithfully convey the music signal's wide dynamic range. The key to achieving this is a circuit that provides both high current drive capability and high speed. The C-02X's output buffer circuitry delivers an exceptionally high current drive coupled with a high slew rate of 2,000V/μs for sharp response. Independent buffer circuits for each output and symmetrical circuitry for both the hot and cold phases of the XLR outputs maximize instantaneous output current capability.

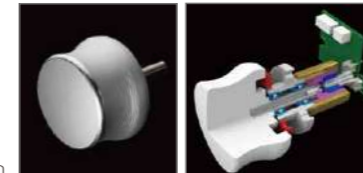
Located closest to the output buffer circuitry, the EDLC* Super Capacitor array, originally developed for the Grandioso C1, was adapted as a highly stable power source. Its compact physical size belies the extraordinary

100,000μF (0.1F) capacity it provides each channel, for high levels of instantaneous output power and strong, steady bass reproduction. Integrating these two technologies, the C-02X preserves musical dynamics that would otherwise be lost if smaller current transmission levels were employed between the pre and power amplifiers, allowing it to reproduce a breathtaking level of audio reality.

*HCLD = High Current Line Driver *EDLC = Electric Double-Layer Capacitor

High-Precision Ball Bearing Controls

The C-02X's elegant volume and input selector knobs are machined from solid blocks of aluminum. Like the Grandioso C1, their control shafts use a VRDS drive mechanism bearing system for high-precision rotation, with no mechanical play in their movements. Rotational torque has also been fine-tuned to provide a luxurious analog control feel in keeping with this high-end preamplifier.

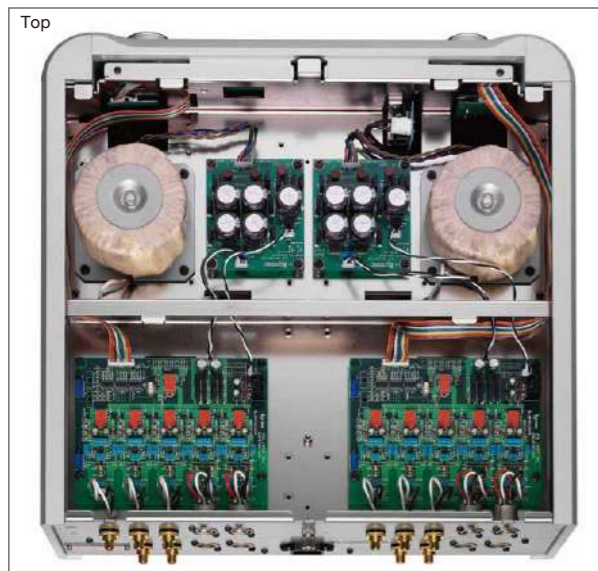
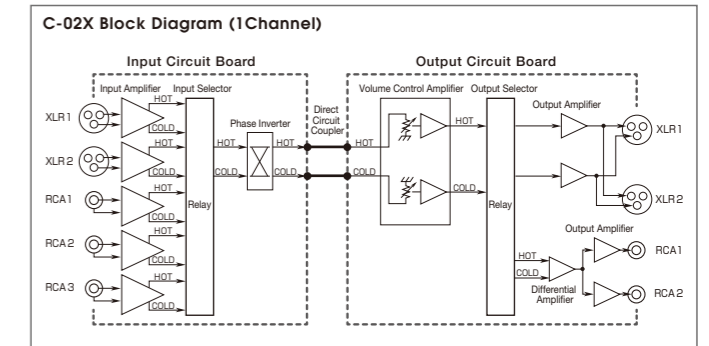


Other Important Features

- Five preset volume curves permit selection of the most comfortable operating feel.
- Individual input gain adjustability helps minimize differences in source volumes. (Range: ±18dB; 0.5dB steps)
- Adjustable left and right channel volume balance control. (Range: ±6dB; 0.5dB steps)
- Selectable phase inversion can be individually set for each source.
- RCA2 terminals permit switching between normal line output and AV-through output for systems operated in both AV surround and pure two-channel modes.
- Remote controller features high-quality aluminum finish. Can also be used to operate any of Esoteric's superb line of SACD players.
- Source component name displays can be programmed using the remote controller.
- Also equipped with dimmer, mute, and auto-display-off functions.

Optimized 3D Chassis Configuration

The C-02X's optimized chassis design features a 2-layer 5-cell configuration that houses each circuit block in its own compartment. This structure shortens the signal path to help minimize inter-circuit interference. The chassis' 5mm-thick steel bottom plate and thick aluminum exterior panels are supported at 4 points by Esoteric's own patented 'Pinpoint Feet' (patent No: JP4075477), which enhance chassis rigidity while effectively suppressing resonant vibration.



Stereo Power Amplifier

S-02

Proudly taking its place as a new reference boasting Grandioso lineage, the S-02 utilizes the know-how and technology employed in Esoteric's premier monoblock M1 and stereo S1 power amplifiers to offer generous power and exceptional dynamics that propel musical crescendos to breathtaking heights. The S-02's outstanding performance and unsurpassed clarity allow the listener not only to hear the music, but also to feel the music, by helping to reproduce the emotion that is the essence of an involving musical experience.

The Sound of Life Unleashed — High Power Creates Spaciousness and Dynamism

The indescribable feeling of spaciousness that comes when sound is truly unleashed and the sense that the music you're hearing is truly live, can only be generated by amplifiers that offer abundant power to properly drive the loudspeakers. Esoteric's amplifiers use the finest components and massive power supplies to achieve the high output power this demands. Faithfully incorporating the design philosophy of our Monoblock M1 amplifier, the new S-02 sets free every nuance of sound, and imparts to music all the vibrancy and richness of life.

Exceptional Power Linearity for Outstanding Dynamics

Loudspeaker impedance can vary widely depending on the frequencies being reproduced. The fast attack of deep bass imposes demanding loads on an amplifier, requiring not only continuous high power output, but also repeated bursts of peak power. Unless the amplifier's power supply is capable of consistently meeting these demands, musical dynamics will be compromised. The S-02's generous power supply capacity enables this nominally rated 145W into 8 ohms amplifier to deliver an impressive 580W into 2 ohms — a testament to the linearity of a power supply that faithfully reproduces the full spectrum of sound dynamics at all volume levels.

Large-Capacity Custom Power Transformer — The Heart of the Finest Power Amplifiers

A robust power supply is critical to an amplifier's ability to deliver high power in a linear manner. This is especially true for the power transformer, so great attention was paid to the material selection, core size and even mounting of the S-02's custom-made EI-type power transformer. Popular among avid audiophiles, this transformer was selected for the full-bodied, high-quality bass it provides. To preserve sound purity, this large-core 940VA transformer features separate windings for left and right channels, and



is securely mounted on a rigid, 5mm-thick steel base plate. Three parallel 4,700µF capacitors per channel shorten charge and discharge times, and provide a tighter, faster sound. Power supply wiring uses heavy-duty cables fitted with crimp terminals, which are tightly bolted together to reduce impedance to the lowest levels possible.

Breathtaking Speaker-Driving Power Ensures Accurate Damping for Large Woofers

Optimizing the S-02's loudspeaker drive capability required reducing the output impedance to an absolute minimum. To achieve this, a total of nine bus bars were used for each channel, while the output coil was eliminated. Strenuous efforts were also made to simplify the circuit design and widen its range, resulting in an exceptional damping factor of 1,000, considered a guideline for woofer drive capability. Even large-diameter woofers are provided with accurate damping for precise sound reproduction, giving an expansive feel across a wide range that reaches to even the lowest frequencies.

Balanced Input Stage Configuration Enables High-Clarity Signal Amplification

The S-02's audio input signal enters through discrete balanced input buffer amplifiers and is relayed to the amplification stage by way of a balanced low-impedance signal path. An outstanding dynamic range is assured by clean, noise-free signal amplification that provides the fine sensitivity needed to reproduce nuanced gradations between musical crescendos and silence.

Large Bipolar LAPT Transistors Deliver 34 Amperes of Instantaneous Output Current

The S-02's large bipolar LAPT* transistors are twice the size of more commonly used power transistors. They also boast an exceptional continuous current capacity of 17 amps and an instantaneous peak capacity of 34 amps. In addition, they offer superior high-frequency characteristics that contribute to accurate reproduction of subtle tonal qualities.

*LAPT=Linear Amplified Power Transistor

3-Stage Darlington Circuit with 5 Parallel Push-Pull Configuration

The power amplifier module uses bipolar LAPT transistors in a three-stage Darlington configuration with five parallel push-pull sections. To realize the superior high-frequency characteristics of these devices, a simplified amplifier circuit was developed to reduce the number of components and parallel elements.

LIDSC (Low Impedance Drive Stage Coupling) Provides Loudspeaker Drive Capability Approaching That of the M1

The S-02's unique LIDSC circuit reduces the drive section's second stage to final stage output impedance, while enhancing current supply capability. This makes it possible to maximize amplitude within the available power supply voltage while reducing distortion, and so give this compact Stereo Power Amplifier a loudspeaker drive capability approaching that of the Monoblock M1.

Independently Powered Voltage Amplifier Stage For Dramatically Improved Resolution

To prevent large fluctuations in the drive (current amplification) stage from affecting overall sound quality, the preceding voltage amplification stage receives a low level signal from the input stage, and derives its power from a dedicated power supply equipped with its own toroidal power transformer. This isolation ensures a stable supply of power to the voltage amplification stage for greatly enhanced resolution of fine instrument details, even when reproducing full orchestral crescendos.

Minimized Negative Feedback (NFB) For a More Energetic and Natural Sound

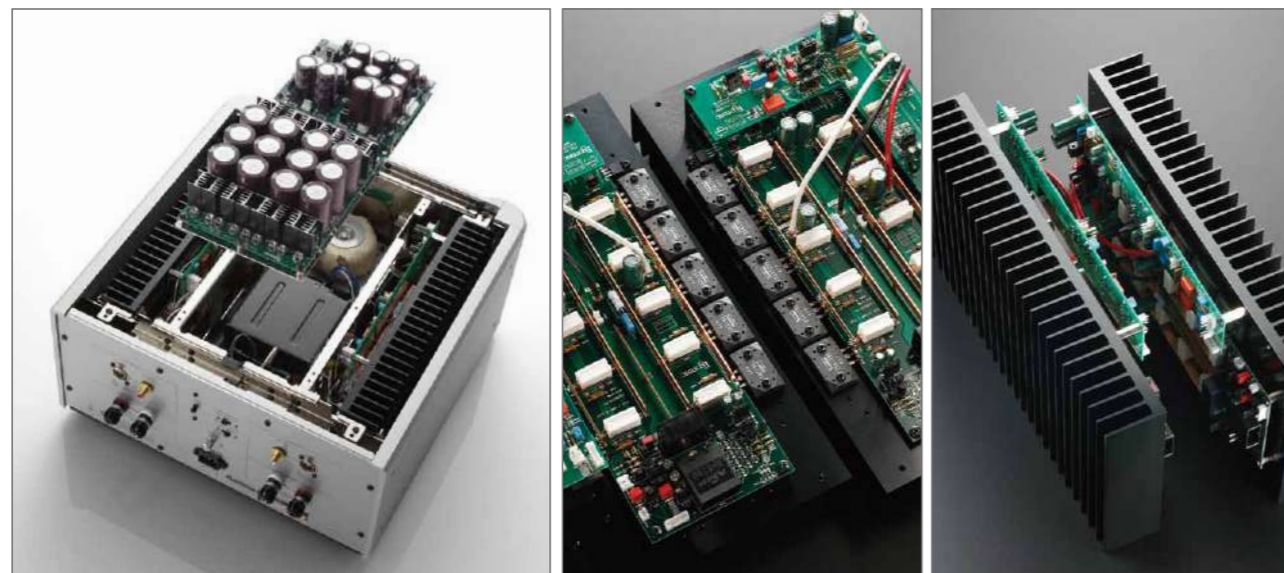
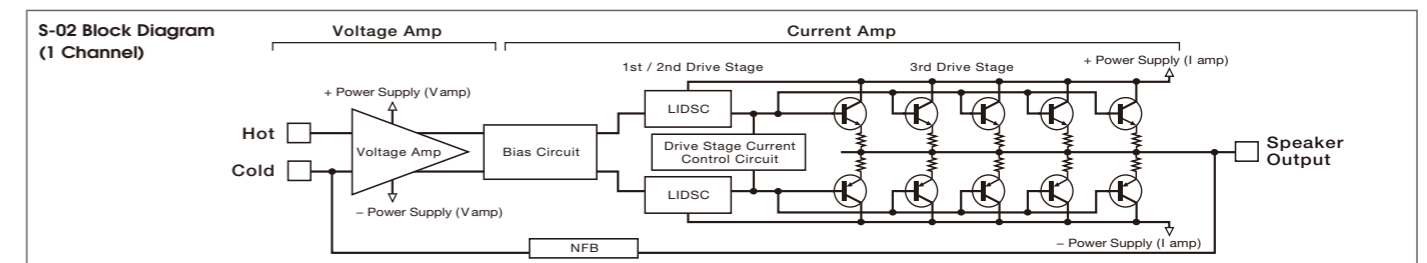
Simplifying the amplifier circuitry and reducing the previous stage's gain results in greatly reduced Negative Feedback (NFB) for a more natural and life-like sound.

High-Quality Components Selected For Outstanding Characteristics and Sensitivity

The S-02 employs highly reliable XLR and RCA input connectors, and loudspeaker terminals produced by WBT of Germany. Other high-grade components include low-impedance electrolytic capacitors and transistors featuring superior high-frequency characteristics.

High-Precision Chassis Construction Optimizes Vibration Suppression

Maintaining Esoteric's traditional dual-level configuration, the S-02's chassis features a 2mm-thick sheet steel internal framework that segregates circuit blocks into specialized compartments for the shortest signal path possible. This compartmentalized internal construction is built on a rigid 5mm-thick steel base and enclosed by thick aluminum panels. Esoteric's original pinpoint feet provide a four-point support system that further ensures high structural rigidity, while eliminating resonances.





C-03Xs Specifications

Analog Audio Inputs

Connectors	RCA x 3 pairs (RCA 2 can be used as an AV pre-input) / XLR x 2 pairs
Input Impedance	LINE: 10kΩ
Input Sensitivity	510mV (at rated output) / 200mV (at 800mV output)
Maximum Input Level	12V

Analog Audio Outputs

Connectors	RCA x 2 pairs / XLR x 2 pairs
Output Impedance	47Ω (RCA) / 100Ω (XLR)
Total Harmonic Distortion	0.0006% (RCA) / 0.0004% (XLR)
Frequency Response	1Hz - 200kHz (-3dB) / 3Hz - 50kHz (-0.2dB)
Signal-to-Noise Ratio (S/N)	116dB (2V input, A-weighted)
Gain	+12dB
Rated Output	2V
Maximum Output Level	7.5V (RCA output, 1kHz, 0.003%) / 15V (XLR output, 1kHz, 0.003%)

General

Power Supply	230V AC, 50Hz / 120V AC, 60Hz / 220V AC, 60Hz
Power Consumption	19W
External Dimensions (WxHxD) (including protrusions)	445 x 162 x 457mm (17 5/8 x 6 1/2 x 18")
Weight	28 kg (61 3/4 lb)

Included Accessories

Power cord x 1 / Remote control (RC-1301) x 1 / Batteries for remote control (AAA) x 2
Felt pads x 4 / Owner's manual x 1 / Warranty card x 1

Auxiliary Phono Modules

MM/MC-compliant phono module boards are also available.

- Independent L & R boards designed in dual mono configuration.
- Can be configured for remote control operation.
- High-quality 4-layer board design with optimized power rectification.



Main Specifications

• Gain: MM: 52dB, MC: 72dB • Input Sensitivity: MM: 5mV, MC: 0.5mV • S/N Ratio: MM: 91dB, MC: 76dB • Input Impedance: MM: 47kΩ, MC: 20/100/300Ω, selectable • RCA3: Distance between L & R input terminals: 22.5cm

* Installation only available at authorized Esoteric service centers. Please direct enquiries to your nearest Esoteric dealer. Owing to the specialized requirements of the installation procedure, phono module boards cannot be sold separately. Following installation, the RCA3 jacks located on the rear panel of the C-03Xs will be converted to phono-only input terminals, and line inputs limited to 2 pairs of RCA jacks and 2 pairs of XLR jacks.

Upgrade Service

An upgrade service is available to owners of the C-03X Stereo Linestage Preamp which allows the new Xs edition functions and related parts to be retrofitted to the earlier model.

Applicable Model: C-03X

Contents: Addition of EDLC (super capacitor) array and exchange of power supply boards for sound quality upgrade to equivalent of C-03Xs.



S-03 Specifications

Rated Power Output	145W + 145W (8Ω) 290W + 290W (4Ω)
Maximum Power Output	580W + 580W (2Ω)
Frequency Response	5Hz - 100kHz (+0dB, -3dB, 8Ω)
Signal-to-Noise Ratio (S/N)	115dB (HF-A)
Total Harmonic Distortion	0.003% (1kHz, 8Ω, 145W)
Gain	29dB
Damping Factor	1000
Analog Audio Input Jacks	RCA x 1 pair / XLR x 1 pair
Input Impedance	22kΩ (RCA) / 44kΩ (XLR)
General	
Power Supply	230V AC, 50Hz / 120V AC, 60Hz / 220V AC, 60Hz
Power Consumption	440W (no signal: 160W)
External Dimensions (WxHxD) (Including protrusions)	445 x 221.5 x 476mm (17 5/8 x 8 3/4 x 18 3/4")
Weight	48kg (105 7/8 lb)

Included Accessories

Power cord x 1 / Felt pads x 4 / Owner's manual x 1 / Warranty card x 1

- These products are made available in three different power supply variations, as shown in the chart above. Make sure that the voltage shown on the rear panel matches the AC line voltage in your area.
- The shape of the AC inlet and plug of the supplied power cord depends on the voltage rating and destination country.
- Specifications and appearance are subject to change without notice.
- Weight and dimensions are approximate.



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Stereo Linestage Preamp **C-03Xs**
Stereo Power Amplifier **S-03**



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MasterSound Works

Audio expression, symphonic beauty, artistic passion, the concert hall's spatial feel, the excitement of the audience. Esoteric's Master Sound Works is an audio product concept that recreates all of the music information in original master recordings with the most state-of-the-art technology available today.

A Legacy of Consummate Purity and Perfection

Esoteric's new C-03Xs Preamplifier and S-03 Power Amplifier carry on the refinement of the 02 Series' superb qualities of musical reproduction, which stand as a Grandioso legacy.

Their minimalist approach to the consummate purity of sound returns to the very source of audio component design to give birth to a rich new range of musical experience.

Hand-assembled one-by-one in Esoteric's Tokyo factory, each unit combines the most advanced technologies with an unprecedented level of craftsmanship to give life to a preeminent philosophy of sound appreciation, from which a timeless new standard is born.



Stereo Power Amplifier
S-03

Stereo Linestage Preamplifier
C-03Xs

Stereo Linestage Preamp

C-03Xs

At the heart of every fine system, it is the preamplifier that determines one's ideal sound. Applying Esoteric's wealth of knowledge and technology, the C-03Xs carries forward in continuous succession the Grandioso lineage of high fidelity and breathtaking powers of musical expression, drawing on the refined sensitivities of musicians and engineers alike to transcend the boundaries of sound reproduction quality.



Top



Bottom



Independent Dual Mono Design

The C-03Xs' DC power supply features a fully independent dual mono design that completely eliminates inter-channel interference. Its dedicated array of power transformers for each channel also blocks noise from the power line, enabling a pure, naturally amplified sound. Grandioso technology reveals itself in such detailed new design refinements as its independent left and right channel power rectifier circuits and its carefully laid out power supply circuit boards, which further contribute to the C-03Xs' superb sound quality.



Fully-Balanced Configuration Provides Excellent S/N Ratio

The preamplifier's source signal is first received by dedicated buffer amplifiers integrated with each input, from which the circuit configuration is balanced at each stage. Through the elimination of common-mode noise and reductions in circuit impedance, a pure, noise-free signal is fed to the gain amplifiers via the shortest path possible, for an exceptionally high signal-to-noise ratio.

ESOTERIC-QVCS

The C-03Xs' Esoteric-QVCS* volume control employs four precision switched resistor ladder networks, which change in unison as the volume knob is rotated. This arrangement allows the signal paths for the left and right channels and their positive and negative phases to be kept totally independent and as short as possible. Consequently the sound has superb clarity, excellent channel separation and highly accurate phase characteristics. The elimination of audio board wiring to the volume control further contributes to a reduced signal path, while preventing degradation of sound quality and helping to maintain the low distortion one would expect of a reference model.

* QVCS = Quad Volume Control System

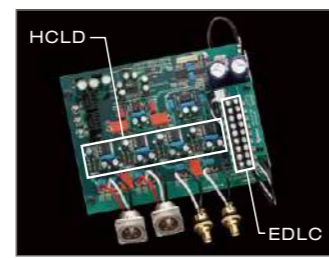
Ultra-Low-Noise Logic Control

Built into the front panel, the logic control section is totally isolated, both physically and electronically, from the preamplifier module by way of an optocoupler. To assure low-noise operation, it also shuts completely down when not in actual operation, thus eliminating all possible influence on the C-03Xs' audio circuitry.

Highly Responsive Low-Noise, Low-Impedance Power Circuit

Three independent high-capacity power transformers, coupled with large banks of reservoir capacitors, provide power supply circuits that have exceptionally low output impedances and very clean and stable outputs. High-speed rectifier circuits further enhance resolution and the signal-to-noise ratio for significant improvements in sound quality.

Esoteric-HCLD* Output Buffer Boosts Current Transmission While EDLC* Power Supply Ensures High Stability



As a line driver, the preamplifier must be able to fully drive the power amplifiers and faithfully convey the music signal's wide dynamic range. The key to achieving this is a circuit that provides both high current drive capability and high speed. The C-03Xs' output buffer circuitry delivers an exceptionally high current drive coupled with a high slew rate of 2,000V/μs for sharp response. Independent buffer circuits for each output and symmetrical circuitry for both the hot and cold phases of the XLR outputs maximize instantaneous output current capability.

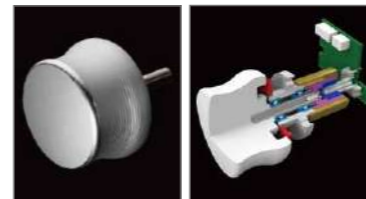
Located closest to the output buffer circuitry, the EDLC* Super Capacitor array, originally developed for the Grandioso C1, was adapted as a highly

stable power source. Its compact physical size belies the extraordinary 100,000μF (0.1F) capacity it provides each channel, for high levels of instantaneous output power and strong, steady bass reproduction. Integrating these two technologies, the C-03Xs preserves musical dynamics that would otherwise be lost if smaller current transmission levels were employed between the pre and power amplifiers, allowing it to reproduce a breathtaking level of audio reality.

*HCLD = High Current Line Driver *EDLC = Electric Double-Layer Capacitor

High-Precision Ball Bearing Controls

The C-03Xs' elegant volume and input selector knobs are machined from solid blocks of aluminum. Like the Grandioso C1 and the C-02X, their control shafts use a VRDS drive mechanism bearing system for precise rotation with no mechanical play. Rotational torque has also been fine-tuned to provide a luxurious analog control feel in keeping with this high-end preamplifier.

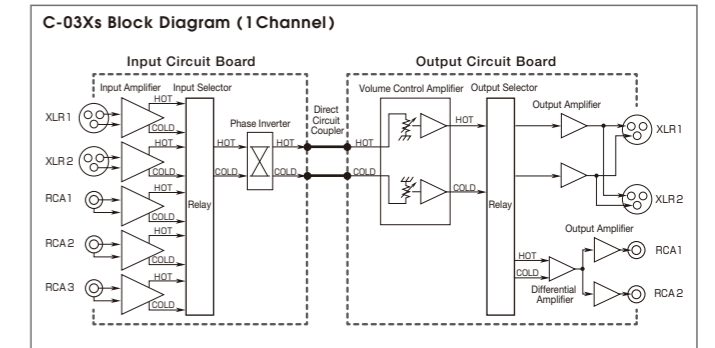


Other Important Features

- Five preset volume curves permit selection of the most comfortable operating feel.
- Individual input gain adjustability helps minimize differences in source volumes. (Range: ±18dB; 0.5dB steps)
- Adjustable left and right channel volume balance control. (Range: ±6dB; 0.5dB steps)
- Selectable phase inversion can be individually set for each source.
- RCA2 terminals permit switching between normal line output and AV-through output for systems operated in both AV surround and pure two-channel modes.
- Remote controller features high-quality aluminum finish. Can also be used to operate any of Esoteric's superb line of SACD players.
- Source component name displays can be programmed using the remote controller.
- Also equipped with dimmer, mute, and auto-display-off functions.

Highly Rigid 5-Cell Chassis Construction Inherited from the C-02X

Chassis construction plays a vital role in quality sound reproduction, and the C-03Xs is built on a 02 Series chassis that is larger and more robust than any 03 Series preamplifier's chassis till now. Its optimized design utilizes a 2-layer 5-cell configuration that houses each circuit block in its own compartment. This provides more space for the layout of components than available in previous 03 Series preamplifiers, realizing a shorter signal path that helps minimize inter-circuit interference. The chassis' 5mm-thick steel bottom plate and thick aluminum exterior panels are supported at 4 points by milled steel isolation feet, which enhance chassis rigidity while effectively suppressing resonant vibration.

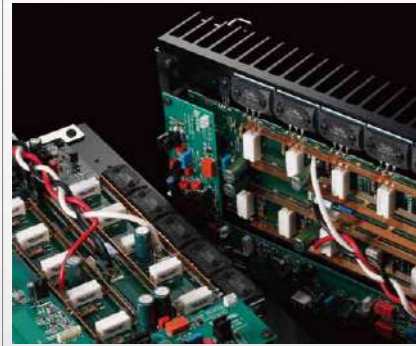


Stereo Power Amplifier

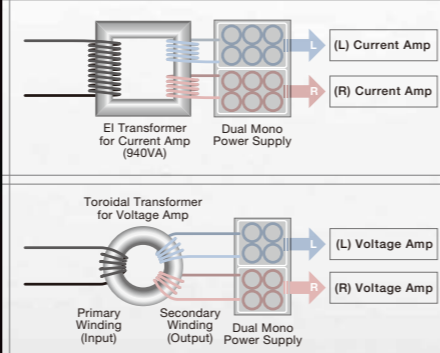
S-03

Concealing the overwhelming potential of Esoteric's premier Monoblock M1, and Stereo S1 and S-02 amplifiers, the S-03 inherits all the knowledge and technology embodied in the core principles of Esoteric power amplifier development, and expands the scope of Grandioso lineage into new realms of listening enjoyment. Offering a range of power and dynamism comparable to the finest high-end components, the S-03 imbues music with ever more vivid sensations of being truly live.

Power Amplifier Modules



2x2 Dual Mono Power Supply



The Sound of Life Unleashed — High Power Creates Spaciousness and Dynamism

The indescribable feeling of spaciousness that comes when sound is unleashed—and the sense that the music you're hearing is truly live—can only be generated by amplifiers that offer abundant power to properly drive the loudspeakers. Esoteric's amplifiers use the finest components and massive power supplies to achieve the high output power this demands. The new S-03 Power Amplifier extends the legacy of Esoteric's premier Grandioso M1, setting free every nuance of sound, and imparting to music all the vibrancy and richness of life.

Exceptional Power Linearity for Outstanding Dynamics

Loudspeaker impedance can vary widely depending on the frequencies being reproduced. The fast attack of deep bass imposes demanding loads on an amplifier, requiring not only continuous high power output, but also repeated bursts of peak power. Unless the amplifier's power supply is capable of consistently meeting these demands, musical dynamics will be compromised. The S-03's generous power supply capacity enables this nominally rated 145W into 8 ohms amplifier to deliver an impressive 580W into 2 ohms—a testament to the linearity of a power supply that faithfully reproduces the full spectrum of sound dynamics at all volume levels.

2x2 Dual Mono Power Supply Provides Stereo Output with Monoblock Thinking

The main feature differentiating Monoblock and stereo amplifiers is the configuration of their power supplies. In conventional stereo amplifier designs, one power supply is shared by both channels, since space and efficiency limitations tend to preclude a dual mono configuration. Starting with our flagship Grandioso models, Esoteric's stereo power amplifiers have consistently featured a unique 2x2 Dual Mono power supply design which separates the left and right channels of the front and drive stages into four independent dual mono sections. By isolating the power supplies for the front (voltage amplification) stage, which handles weaker input signal, from those for the drive (current amplification) stage, which much contend with huge current fluctuations, the

S-03 effectively realizes more clearly focused details and breathtaking dynamics, even when driven to full capacity. Moreover, by optimizing this independent dual mono configuration—from the secondary windings of the transformers to the rectifier circuit—the S-03 is also able to achieve clear channel separation on par with the finest Monoblock amplifiers.

Large-Capacity Custom Power Transformer — The Heart of the Finest Power Amplifiers



Class-leading 2x2 dual mono power supplies are only capable of revealing their true worth by way of the investment of enormous resources. A robust power supply is critical to an amplifier's ability to deliver high power in a linear manner, and this is especially true for the power transformer. Therefore, particular attention was paid to material selection, core

size and even the mounting of the S-03's custom-made EI-type power transformer. Popular among avid audiophiles, this transformer was selected for the full-bodied, high-quality bass it provides. To preserve sound purity, this large-core 940VA transformer features separate windings for left and right channels, and is securely mounted on a rigid, 5mm-thick steel base plate. Three parallel 4,700µF capacitors per channel shorten charge and discharge times, and provide a tighter, faster sound. Power supply wiring uses heavy-duty cables fitted with crimp terminals, which are tightly bolted together to reduce impedance to the lowest levels possible.

Breathtaking Speaker-Driving Power Ensures Accurate Damping for Large Woofers

Optimizing the S-03's loudspeaker drive capability required reducing the output impedance to an absolute minimum. To achieve this, a total of nine bus bars were used for each channel, while the output coil was



eliminated. Strenuous efforts were also made to simplify the circuit design and widen its range, resulting in an exceptional damping factor of 1,000, considered a guideline for woofer drive capability. Even large-diameter woofers are provided with accurate damping for precise sound reproduction, giving an expansive feel across a wide range that reaches to even the lowest frequencies.

Balanced Input Stage Configuration Enables High-Clarity Signal Amplification

The S-03's audio input signal enters through discrete balanced input buffer amplifiers, and is relayed to the amplification stage by way of a balanced low-impedance signal path. An outstanding dynamic range is assured by clean, noise-free signal amplification that provides the fine sensitivity needed to reproduce nuanced gradations between musical crescendos and silence.

Large Bipolar LAPT Transistors Deliver 34 Amperes of Instantaneous Output Current

The S-03's large bipolar LAPT* transistors are twice the size of more commonly used power transistors. They also boast an exceptional continuous current capacity of 17 amps and an instantaneous peak capacity of 34 amps. In addition, they offer superior high-frequency characteristics that contribute to accurate reproduction of subtle tonal qualities.

*LAPT=Linear Amplified Power Transistor

3-Stage Darlington Circuit with 5 Parallel Push-Pull Configuration

The power amplifier module uses bipolar LAPT transistors in a three-stage Darlington configuration with five parallel push-pull sections.

To realize the superior high-frequency characteristics of these devices, a simplified amplifier circuit was developed to reduce the number of components and parallel elements.

LIDSC (Low Impedance Drive Stage Coupling) Provides Loudspeaker Drive Capability Approaching That of the M1

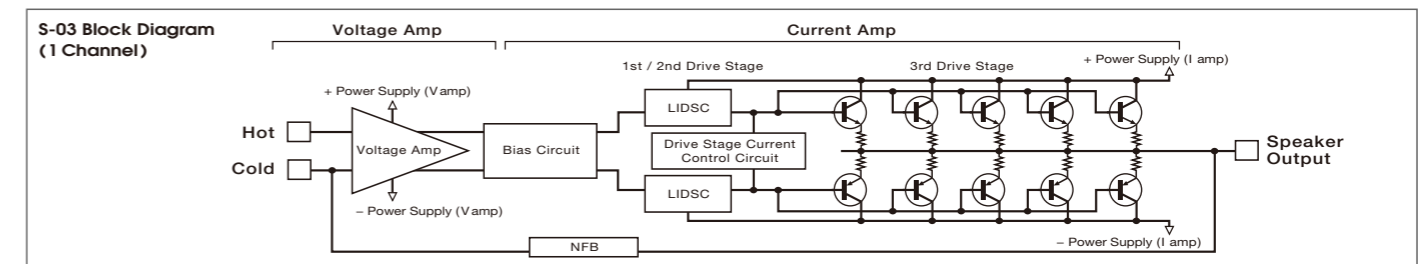
The S-03's unique LIDSC circuit reduces the drive section's second stage to final stage output impedance while enhancing current supply capability. This makes it possible to maximize amplitude within the available power supply voltage while reducing distortion, and so give this compact Stereo Power Amplifier a loudspeaker drive capability approaching that of the Monoblock M1.

Minimized Negative Feedback (NFB) For a More Energetic and Natural Sound

Simplifying the amplifier circuitry and reducing the previous stage's gain results in greatly reduced Negative Feedback (NFB) for a more natural and life-like sound.

High-Precision Chassis Construction Optimizes Vibration Suppression

Maintaining Esoteric's traditional dual-level configuration, the S-03's chassis features a 2mm-thick sheet steel internal framework that segregates circuit blocks into specialized compartments for the shortest signal path possible. This compartmentalized internal construction is built on a rigid base of 5mm-thick steel and enclosed by thick aluminum panels. Esoteric's original milled steel isolation feet provide structural rigidity, while eliminating resonances.





C-03Xs Specifications

Analog Audio Inputs

Connectors	RCA x 3 pairs (RCA 2 can be used as an AV pre-input) / XLR x 2 pairs
Input Impedance	LINE: 10kΩ
Input Sensitivity	510mV (at rated output) / 200mV (at 800mV output)
Maximum Input Level	12V

Analog Audio Outputs

Connectors	RCA x 2 pairs / XLR x 2 pairs
Output Impedance	47Ω (RCA) / 100Ω (XLR)
Total Harmonic Distortion	0.0006% (RCA) / 0.0004% (XLR)
Frequency Response	1Hz - 200kHz (-3dB) / 3Hz - 50kHz (-0.2dB)
Signal-to-Noise Ratio (S/N)	116dB (2V input, A-weighted)
Gain	+12dB
Rated Output	2V
Maximum Output Level	7.5V (RCA output, 1kHz, 0.003%) / 15V (XLR output, 1kHz, 0.003%)

General

Power Supply	230V AC, 50Hz / 120V AC, 60Hz / 220V AC, 60Hz
Power Consumption	19W
External Dimensions (WxHxD) (including protrusions)	445 x 162 x 457mm (17 5/8 x 6 1/2 x 18")
Weight	28 kg (61 3/4 lb)

Included Accessories

Power cord x 1 / Remote control (RC-1301) x 1 / Batteries for remote control (AAA) x 2
Felt pads x 4 / Owner's manual x 1 / Warranty card x 1

Auxiliary Phono Modules

MM/MC-compliant phono module boards are also available.

- Independent L & R boards designed in dual mono configuration.
- Can be configured for remote control operation.
- High-quality 4-layer board design with optimized power rectification.



Main Specifications

• Gain: MM: 52dB, MC: 72dB • Input Sensitivity: MM: 5mV, MC: 0.5mV • S/N Ratio: MM: 91dB, MC: 76dB • Input Impedance: MM: 47kΩ, MC: 20/100/300Ω, selectable • RCA3: Distance between L & R input terminals: 22.5cm

* Installation only available at authorized Esoteric service centers. Please direct enquiries to your nearest Esoteric dealer. Owing to the specialized requirements of the installation procedure, phono module boards cannot be sold separately. Following installation, the RCA3 jacks located on the rear panel of the C-03Xs will be converted to phono-only input terminals, and line inputs limited to 2 pairs of RCA jacks and 2 pairs of XLR jacks.

Upgrade Service

An upgrade service is available to owners of the C-03X Stereo Linestage Preamp which allows the new Xs edition functions and related parts to be retrofitted to the earlier model.

Applicable Model: C-03X

Contents: Addition of EDLC (super capacitor) array and exchange of power supply boards for sound quality upgrade to equivalent of C-03Xs.



S-03 Specifications

Rated Power Output	145W + 145W (8Ω) 290W + 290W (4Ω)
Maximum Power Output	580W + 580W (2Ω)
Frequency Response	5Hz - 100kHz (+0dB, -3dB, 8Ω)
Signal-to-Noise Ratio (S/N)	115dB (HF-A)
Total Harmonic Distortion	0.003% (1kHz, 8Ω, 145W)
Gain	29dB
Damping Factor	1000
Analog Audio Input Jacks	RCA x 1 pair / XLR x 1 pair
Input Impedance	22kΩ (RCA) / 44kΩ (XLR)
General	
Power Supply	230V AC, 50Hz / 120V AC, 60Hz / 220V AC, 60Hz
Power Consumption	440W (no signal: 160W)
External Dimensions (WxHxD) (Including protrusions)	445 x 221.5 x 476mm (17 5/8 x 8 3/4 x 18 3/4")
Weight	48kg (105 7/8 lb)

Included Accessories

Power cord x 1 / Felt pads x 4 / Owner's manual x 1 / Warranty card x 1

- These products are made available in three different power supply variations, as shown in the chart above. Make sure that the voltage shown on the rear panel matches the AC line voltage in your area.
- The shape of the AC inlet and plug of the supplied power cord depends on the voltage rating and destination country.
- Specifications and appearance are subject to change without notice.
- Weight and dimensions are approximate.



ESOTERIC

Stereo Linestage Preamp **C-03Xs**
Stereo Power Amplifier **S-03**



PROUDLY MADE IN TOKYO

ESOTERIC

ESOTERIC COMPANY

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www.esoteric.jp

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MasterSound Works

Audio expression, symphonic beauty, artistic passion, the concert hall's spatial feel, the excitement of the audience. Esoteric's Master Sound Works is an audio product concept that recreates all of the music information in original master recordings with the most state-of-the-art technology available today.

A Legacy of Consummate Purity and Perfection

Esoteric's new C-03Xs Preamplifier and S-03 Power Amplifier carry on the refinement of the 02 Series' superb qualities of musical reproduction, which stand as a Grandioso legacy.

Their minimalist approach to the consummate purity of sound returns to the very source of audio component design to give birth to a rich new range of musical experience.

Hand-assembled one-by-one in Esoteric's Tokyo factory, each unit combines the most advanced technologies with an unprecedented level of craftsmanship to give life to a preeminent philosophy of sound appreciation, from which a timeless new standard is born.



Stereo Power Amplifier
S-03

Stereo Linestage Preamplifier
C-03Xs

Stereo Linestage Preamp

C-03Xs

At the heart of every fine system, it is the preamplifier that determines one's ideal sound. Applying Esoteric's wealth of knowledge and technology, the C-03Xs carries forward in continuous succession the Grandioso lineage of high fidelity and breathtaking powers of musical expression, drawing on the refined sensitivities of musicians and engineers alike to transcend the boundaries of sound reproduction quality.



Top



Bottom



Independent Dual Mono Design

The C-03Xs' DC power supply features a fully independent dual mono design that completely eliminates inter-channel interference. Its dedicated array of power transformers for each channel also blocks noise from the power line, enabling a pure, naturally amplified sound. Grandioso technology reveals itself in such detailed new design refinements as its independent left and right channel power rectifier circuits and its carefully laid out power supply circuit boards, which further contribute to the C-03Xs' superb sound quality.



Fully-Balanced Configuration Provides Excellent S/N Ratio

The preamplifier's source signal is first received by dedicated buffer amplifiers integrated with each input, from which the circuit configuration is balanced at each stage. Through the elimination of common-mode noise and reductions in circuit impedance, a pure, noise-free signal is fed to the gain amplifiers via the shortest path possible, for an exceptionally high signal-to-noise ratio.

ESOTERIC-QVCS

The C-03Xs' Esoteric-QVCS* volume control employs four precision switched resistor ladder networks, which change in unison as the volume knob is rotated. This arrangement allows the signal paths for the left and right channels and their positive and negative phases to be kept totally independent and as short as possible. Consequently the sound has superb clarity, excellent channel separation and highly accurate phase characteristics. The elimination of audio board wiring to the volume control further contributes to a reduced signal path, while preventing degradation of sound quality and helping to maintain the low distortion one would expect of a reference model.

* QVCS = Quad Volume Control System

Ultra-Low-Noise Logic Control

Built into the front panel, the logic control section is totally isolated, both physically and electronically, from the preamplifier module by way of an optocoupler. To assure low-noise operation, it also shuts completely down when not in actual operation, thus eliminating all possible influence on the C-03Xs' audio circuitry.

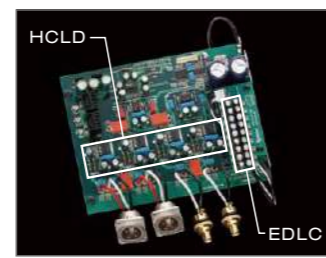
Highly Responsive Low-Noise, Low-Impedance Power Circuit

Three independent high-capacity power transformers, coupled with large banks of reservoir capacitors, provide power supply circuits that have exceptionally low output impedances and very clean and stable outputs. High-speed rectifier circuits further enhance resolution and the signal-to-noise ratio for significant improvements in sound quality.

Esoteric-HCLD* Output Buffer Boosts Current Transmission While EDLC* Power Supply Ensures High Stability

As a line driver, the preamplifier must be able to fully drive the power amplifiers and faithfully convey the music signal's wide dynamic range. The key to achieving this is a circuit that provides both high current drive capability and high speed. The C-03Xs' output buffer circuitry delivers an exceptionally high current drive coupled with a high slew rate of 2,000V/μs for sharp response. Independent buffer circuits for each output and symmetrical circuitry for both the hot and cold phases of the XLR outputs maximize instantaneous output current capability.

Located closest to the output buffer circuitry, the EDLC* Super Capacitor array, originally developed for the Grandioso C1, was adapted as a highly

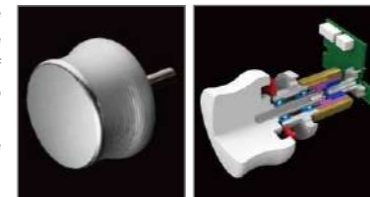


stable power source. Its compact physical size belies the extraordinary 100,000μF (0.1F) capacity it provides each channel, for high levels of instantaneous output power and strong, steady bass reproduction. Integrating these two technologies, the C-03Xs preserves musical dynamics that would otherwise be lost if smaller current transmission levels were employed between the pre and power amplifiers, allowing it to reproduce a breathtaking level of audio reality.

*HCLD = High Current Line Driver *EDLC = Electric Double-Layer Capacitor

High-Precision Ball Bearing Controls

The C-03Xs' elegant volume and input selector knobs are machined from solid blocks of aluminum. Like the Grandioso C1 and the C-02X, their control shafts use a VRDS drive mechanism bearing system for precise rotation with no mechanical play. Rotational torque has also been fine-tuned to provide a luxurious analog control feel in keeping with this high-end preamplifier.

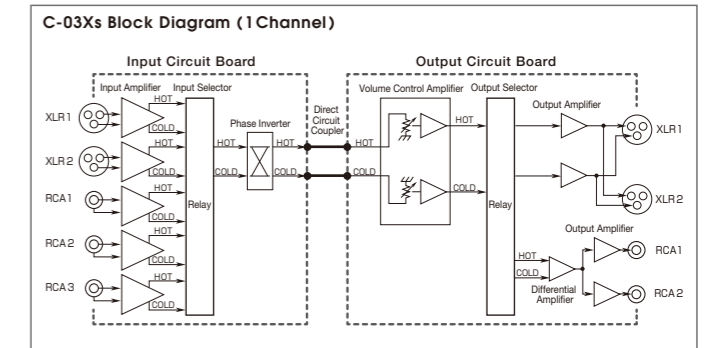


Other Important Features

- Five preset volume curves permit selection of the most comfortable operating feel.
- Individual input gain adjustability helps minimize differences in source volumes. (Range: ±18dB; 0.5dB steps)
- Adjustable left and right channel volume balance control. (Range: ±6dB; 0.5dB steps)
- Selectable phase inversion can be individually set for each source.
- RCA2 terminals permit switching between normal line output and AV-through output for systems operated in both AV surround and pure two-channel modes.
- Remote controller features high-quality aluminum finish. Can also be used to operate any of Esoteric's superb line of SACD players.
- Source component name displays can be programmed using the remote controller.
- Also equipped with dimmer, mute, and auto-display-off functions.

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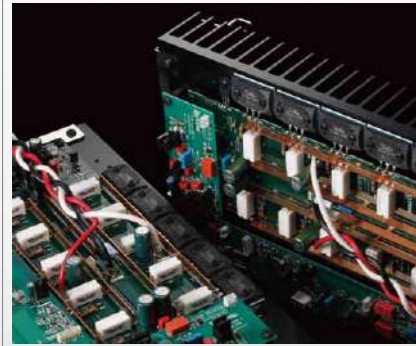


Stereo Power Amplifier

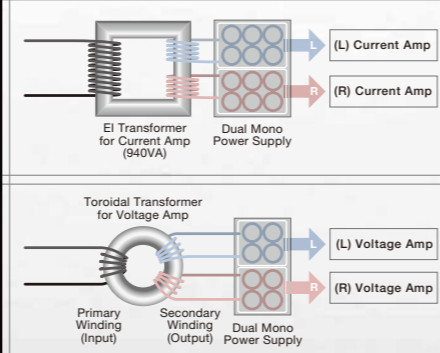
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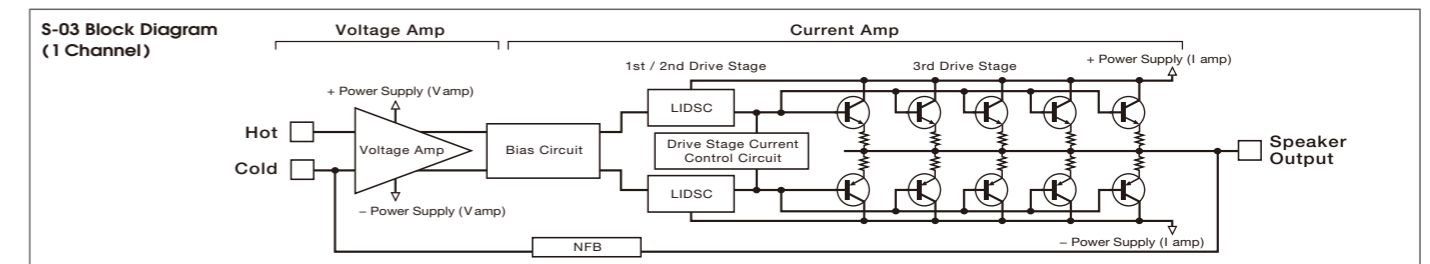
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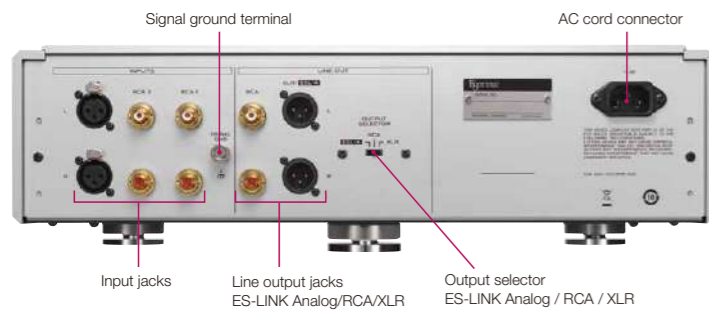
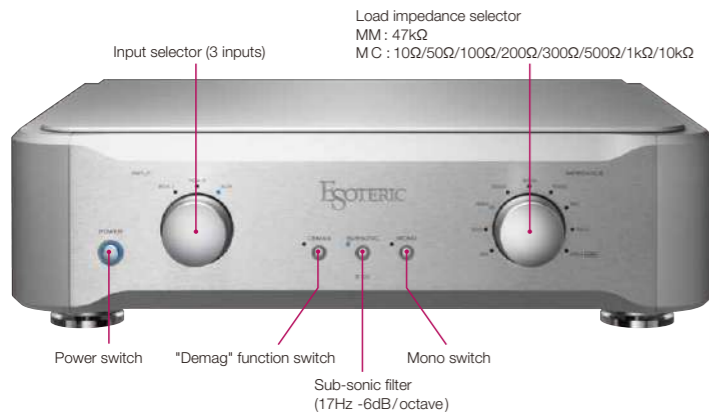
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E-02 Balanced Phonostage Preamp



Specifications

E-02		
Inputs	XLR connectors	1 pair (MC)
	RCA connectors	2 pairs (MC/MM)
	Input impedance	MC: 10, 50, 100, 200, 300, 500, 1k, 10kΩ MM : 47kΩ
Outputs	XLR/ES-LINK Analog Connectors	1 pair
	RCA Connectors	1 pair
	Output impedance	XLR : 20Ω RCA : 23.5Ω
Audio characteristics	RIAA deviation (10 to 20kHz)	±0.2dB
	Total harmonic distortion (1kHz, MM, rated output)	0.007%
	Rated output level	RCA : 2Vrms XLR : 4Vrms
	Gain	RCA : MM 40dB, MC 66dB XLR : MM 46dB, MC 72dB
	Input sensitivity (1kHz, rated output)	MM 20mV, MC 1mV
	Maximum input level (at 0.1% distortion)	MM 100mV, MC 4.8mV
	S/N ratio (Input short, rated output, IHF-A)	MM 100dB, MC 80dB
	Channel separation (MM, 10kHz, IHF-A)	< -96dB
	Sub-sonic filter	17Hz -6dB/octave
	General	Power supply
External dimensions (W x H x D, including protrusions)		445mm x 131mm x 377mm (17 5/8" x 5 1/4" x 14 1/4")
Weight		12.5kg (27 9/16 lb)
Included accessories	Power cord	x 1
	Felt pads	x 3
	Owner's manual	x 1
	Warranty card	x 1

ESOTERIC

Balanced Phonostage Preamp E-02



PROUDLY MADE IN TOKYO

ESOTERIC

ESOTERIC COMPANY

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MasterSoundWorks

Audio expression, symphonic beauty, artistic passion, a concert hall spatial feel, the excitement of the audience. Esoteric's Master Sound Works is an audio product concept that recreates all of the music information in original master recordings with the most state-of-the-art technology available today.

The Apex of Vinyl Playback

To meet the demands of vinyl lovers the world over, ESOTERIC has poured knowledge accumulated over many years of developing audio technology into the E-02, our newest phonostage preamplifier. The E-02 inherits the philosophy that guided our highly acclaimed E-03 phonostage to be a continual best-seller for the last 8 years, and adds the new fully balanced transmission and amplification circuit utilizing MC cartridges to achieve a level of analog playback that was previously unimaginable.



Fully Balanced Circuit Design

The E-02 is a fully balanced phonostage preamplifier that features fully balanced circuits from the input stage right through to the final output stage. It is perfectly designed for handling the extremely low level signals from a MC cartridge, minimize noise interference and powerfully amplify signals with low impedance to bring the very best sound out of your beloved MC cartridge collection.

Dual Mono Construction

Identical power supply transformers, power boards and amplifier circuits are mounted independently on each channel. Outstanding channel separation and robust power supply components deliver solid, powerful, and exceptionally high quality audio playback.

Super High Quality MC Head Amplifier and RIAA Amplifier

The E-02 features a newly designed fully balanced MC head amplifier and RIAA amplifier. The NF-CR type RIAA amplifier achieves outstanding RIAA characteristics of $\pm 0.2\text{dB}$ together with minimum Negative Feedback, and the high voltage power supply delivers an exceptionally wide dynamic headroom.

Equipped with ESOTERIC-HCLD, ESOTERIC's Proprietary Current-Enhancing Output Buffer Circuit

The E-02 employs the same buffer amplifier technology as our flagship Grandioso C1 preamplifier, which features a high current output capability and an exceptionally high slew rate of $2,000\text{V}/\mu\text{s}$. Each channel is equipped with two buffer amplifiers which drive the hot and cold signals separately when the system is in XLR output mode. When switched to RCA output mode, however, the amplifiers work in parallel to maximize the output linearity. This design achieves super-fast current output, resulting in breathtaking super-dynamic sound.

ES-LINK Analog Output

The E-02 is compatible with ESOTERIC's unique ES-LINK Analog current transmission in addition to regular XLR and RCA outputs. ES-LINK Analog is a current transmission method that fully utilizes the high speed and powerful capabilities of the HCLD circuit to fully maximize the potential of compatible devices.



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ESOTERIC

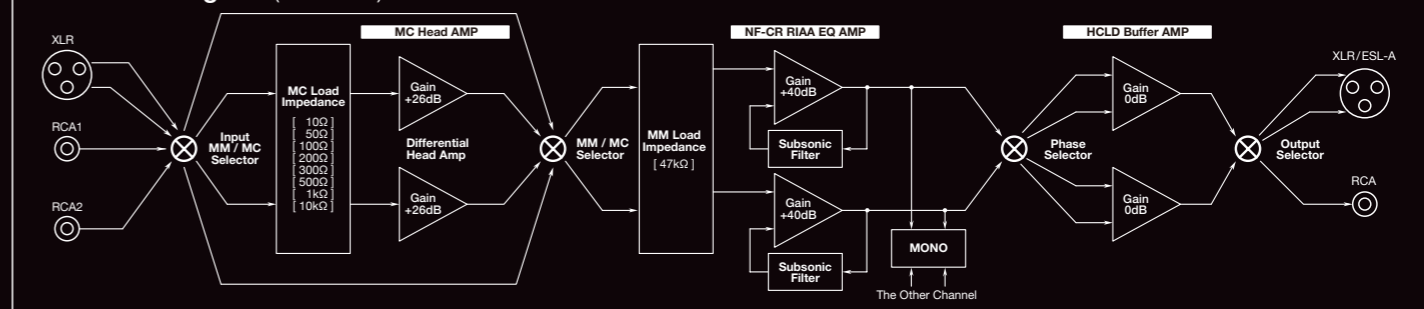
Fully balanced, dual mono audio boards



Dual mono power supply



E-02 Block Diagram (1 Channel)



Three Types of Input Including XLR Balanced Input

The E-02 is equipped with one XLR (MC dedicated) input and two RCA inputs, with the RCA inputs also featuring fully balanced transmission throughout all stages after the input amplifier. Cartridge impedance, filter ON/OFF and MONO switch ON/OFF settings can be configured as presets for each input, and switched easily using the large dial control on the front panel.

Load impedance switching function that exploits the full potential of the cartridge

The E-02 enables you to select between nine different impedance positions (MC: $10\Omega, 50\Omega, 100\Omega, 200\Omega, 300\Omega, 500\Omega, 1\text{k}\Omega, 10\text{k}\Omega, \text{MM}: 47\text{k}\Omega$).

Various Control Functions

Simply playback a record for around 30 seconds with the DEMAG function switched on to demagnetize any unexpected magnetization of the cartridge's coils or step-up transformers and recover the original sound. The E-02 is equipped with a sub-sonic filter (17Hz, -6dB/octave), a MONO switch and output switching (XLR, RCA, ES-LINK Analog) controls.

Highly Rigid Chassis Construction

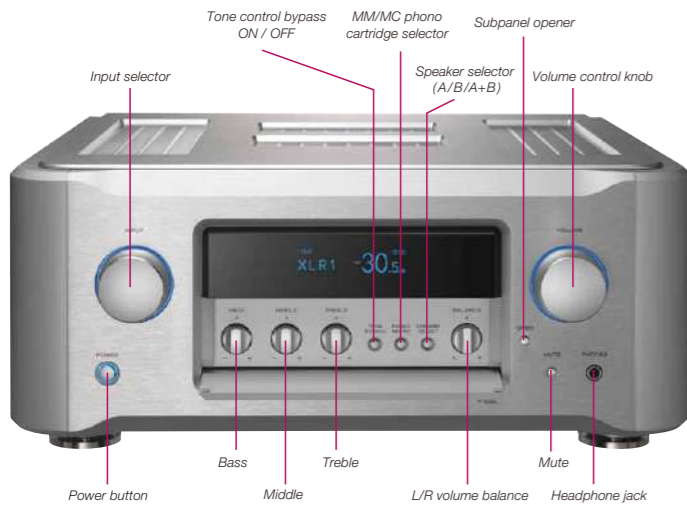
Phonostage amplifiers that amplify extremely low signal levels are highly sensitive to vibration, which is why ESOTERIC pays special attention to chassis construction in order to control vibration wherever possible. The arrangement of each component is designed in minute detail, and a slit construction is used in the bottom chassis that supports all of the circuits to minimize interference. The highly rigid thick aluminum enclosure and proprietary pinpoint feet (patent No: JP4075477) are extremely effective in minimizing the effects of vibration from external sources.

Use of High Grade Components

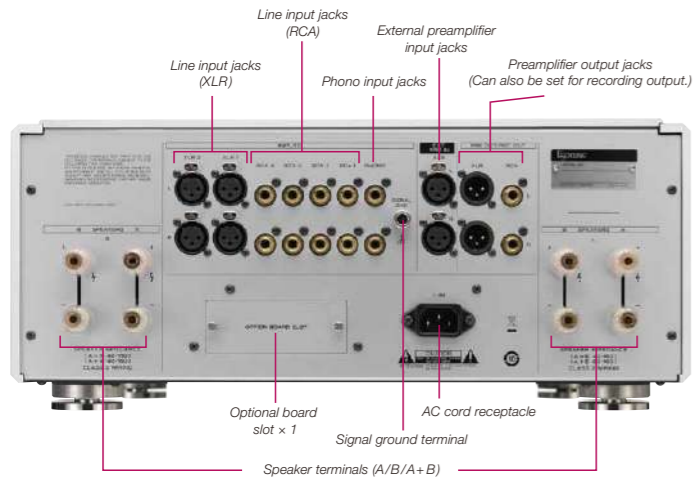
In our uncompromising pursuit of superior sound quality, ESOTERIC uses nothing but the highest grade components including custom-designed power supply capacitors and machined gold-plated RCA terminals. The two large selector knobs on the front panel feature a ball-bearing structure based on the VRDS drive mechanism, providing a beautifully smooth analog feel without any wobble. Knobs are sculpted from solid aluminum for a truly refined, high-end look and feel.

Highly rigid thick aluminum enclosure and internal construction





* Only F-03A equipped with illuminated Input and Volume knobs, opening subpanel, and pinpoint feet.



Specifications

	F-03A	F-05
Speaker output		
Rated output	30W + 30W (8Ω) 60W + 60W (4Ω)	120W + 120W (8Ω) 240W + 240W (4Ω)
Total harmonic distortion	0.006% (1kHz, 8Ω, 30W)	0.007% (1kHz, 8Ω, 120W)
Frequency response	10Hz – 100 kHz(+0/-3.0 dB at 1W output)	10Hz – 100kHz(+0/-3.0 dB at 1W output)
S/N ratio	104 dB (IHF-A)	110 dB (IHF-A)
Damping factor	370	370
Minimum compatible impedance	4Ω	4Ω
Speaker output connectors	2 pairs (L/R) (screw type)	2 pairs (L/R) (screw type)
Inputs		
Input impedance		
XLR, RCA	10kΩ	10kΩ
PHONO (MM)	47kΩ	47kΩ
PHONO (MC)	100Ω	100Ω
EXT. PRE IN	47kΩ	47kΩ
Outputs		
Output impedance		
XLR, RCA	100Ω	100Ω
PRE OUT S/N ratio (at 1V output)		
XLR, RCA input	110 dB	110 dB
PHONO (MM) input	93 dB	93 dB
PHONO (MC) input	75 dB	75 dB
Gain		
Preamplifier	24.5 dB (when VOLUME at maximum)	24.5 dB (when VOLUME at maximum)
Power amplifier	29 dB	29 dB
Tone controls		
BASS	±12 dB (63Hz)	±12 dB (63Hz)
MIDDLE	±12 dB (630Hz)	±12 dB (630Hz)
TREBLE	±12 dB (14kHz)	±12 dB (14kHz)
General		
Power supply /	AC 230V 50Hz / 290W (no signal: 290W)	AC 230V 50Hz / 380W (no signal: 68W)
Power consumption	AC 120V 60Hz / 290W (no signal: 215W) AC 220V 60Hz	AC 120V 60Hz / 320W (no signal: 68W) AC 220V 60Hz
External dimensions (W×H×D) (including protrusions)	445×191×468mm (17 5/8"×7 5/8"×18 1/2")	445×191×468mm (17 5/8"×7 5/8"×18 1/2")
Weight	32kg (70 5/8 lb)	32kg (70 5/8 lb)
Included accessories		
	Power cord × 1	Power cord × 1
	Remote control (RC-1301) × 1	Remote control (RC-1301) × 1
	Batteries (AAA) × 2	Batteries (AAA) × 2
	Felt pads × 4	Felt pads × 4
	Owner's manual × 1	Owner's manual × 1
	Warranty card × 1	Warranty card × 1

Optional Equipment

■ OP-DAC1 D/A Converter Board

- Digital Inputs**
- Optical digital audio port × 1
(32-192kHz, 16-24-bit linear PCM)
 - RCA terminal (75Ω) × 1
(32-192kHz, 16-24-bit linear PCM)
 - USB B port × 1
(32-384kHz, 16-32-bit linear PCM /
2.8, 5.6, 11.2MHz DSD)



ESOTERIC

Integrated Amplifiers F-03A/F-05



PROUDLY MADE IN TOKYO

ESOTERIC

ESOTERIC COMPANY

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www.esoteric.jp

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MasterSoundWorks

Audio expression, symphonic beauty, artistic passion, the concert hall's spatial feel, the excitement of the audience. Esoteric's Master Sound Works is an audio product concept that recreates all of the music information in original master recordings with the most state-of-the-art technology available today.

Class A Integrated Amplifier

F-03A

Class A Reference Model



Setting out to create one of the most desirable integrated amplifiers available, Esoteric brought together a fully balanced preamplifier and a Class-A power amplifier—both directly derived from its well-respected Grandioso line—to create a new reference for integrated amplifiers that gives full expression to the smooth, full-bodied tones and delicately shaded textures of your favorite music. Featuring distinctive dual monaural construction that extends through all stages, from preamplifier inputs through to the final stage of its power amplifier output, the F-03A Integrated Amplifier brings out the full audio potential of Esoteric's highly regarded K and N Series of digital players.

(F-03A and K-03X Super Audio CD Player shown.)

Integrated Amplifier

F-05

Power and Dynamic Range That Stand Out



The F-05 was designed as a core component of Esoteric's new F Series of Integrated Amplifiers. Like the F-03A, its fully balanced preamplifier section was acquired from the Grandioso C1, and its high-powered amplifier modules were acquired directly from the Grandioso S1.

As first seen in Esoteric's premier models, the F-05 employs a complete dual-monaural configuration through all stages of amplification, from preamplifier inputs to the final stages of the power amplifier. Highly recommended for those who value the exhilarating feel of music's rich expression, the F-05 provides the power to dynamically open any sound stage, and deliver exceptional levels of performance when used in combination with any of Esoteric's line of state-of-the-art digital players.

(F-05 and K-05X Super Audio CD Player shown.)

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* Photos are arranged for image purposes only. In actual use, avoid stacking components, or mount individually in an equipment rack.

F-SERIES PHILOSOPHY

Basic and Complete

Representing a new generation of integrated amplifiers, Esoteric's new F Series has been thoroughly invested with proven results gained in the development of our flagship Grandioso line of separate amplifiers. With the goal of capturing all the inherent warmth and texture of music, not only were the outstanding expressive powers of the Grandioso line pursued, the utmost limits of audio performance were also concentrated into an integrated configuration that offers excellent usability combined with an attractiveness that more than compensates for the limitations of their size. Basic and Complete. With sights set on creating a unique presence in the category, the Esoteric F Series is born.

Full Analogue

Analog amplification circuitry inherited from Esoteric's flagship Grandioso series for consistently superb sound quality.

Fully Integrated

Aspiring to be superior examples of the integrated amplifier format.

Fundamental

Invested with the finest materials and expertise in pursuit of the essence of amplifier design, while seeking uncommon sophistication and substance in the most basic format.

Functional

Offering more versatile tone control capability than separates, while bringing out the full potential of the integrated amplifier by providing ample functionality and abundant expandability in its overall refinement.



PREAMPLIFIER SECTION

A Fully Balanced Preamp

One result of the lavish attention given to the development of the F Series is the preamplifier's fully balanced configuration, which derives from our highly esteemed C Series preamplifier models. Impervious to noise, it delivers pure and powerful signal amplification at ultra-low impedance.

Dual Monaural by Design

The one design feature of these amplifiers that most clearly reflects Grandioso thinking is their dual monaural configuration, which maintains complete left and right channel independence through all stages, from preamplifier to the power amplifier's final stage. As Esoteric integrated amplifiers, the major investments made in circuit construction expertise and materials developed over the years yield excellent channel separation and a measure of sound quality that transcends the class.

ESOTERIC-QVCS

Playing a significant role in the F Series' balanced dual monaural configuration is the proprietary Quad Volume Control System (QVCS), which incorporates a total of four precision switched resistor ladder networks operating in unison to electronically and independently control the left and right channels and their positive and negative phases. This system helps maintain superb audio clarity, excellent channel separation and highly accurate phase characteristics. Further, by eliminating all volume control wiring on the audio board, the resulting shorter signal path minimizes deterioration of sound quality while realizing exceptionally low distortion.

* QVCS: Quad Volume Control System

Ultra-Low-Noise Logic Control

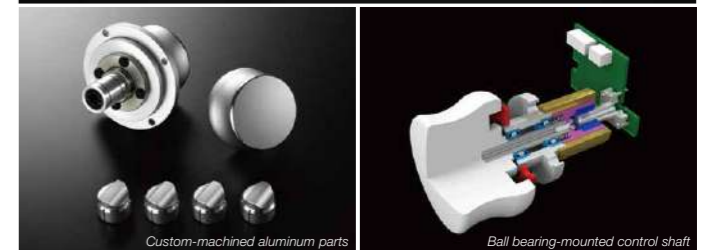
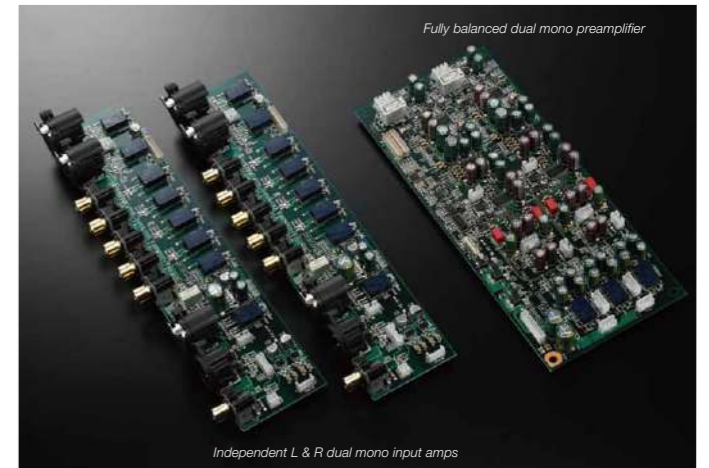
As a countermeasure against noise, all control lines have been electronically separated from the main body of the preamplifier with the use of isolator elements integrated into the front panel.

High-Precision Ball Bearing Control Knobs

Employing the same high-precision bearing mechanisms used in our Grandioso components, the F Series' volume control knobs and selector switches provide exceptionally smooth operation with an analog feel free of any mechanical play. Sparing no cost, all panel knobs are also custom-machined from solid aluminum.

Dual Mono Phonostage Preamp

The dual mono phonostage preamp (MM/MC) features independent left and right channel power sources and independent circuits.



High-Quality Headphone Amplifier

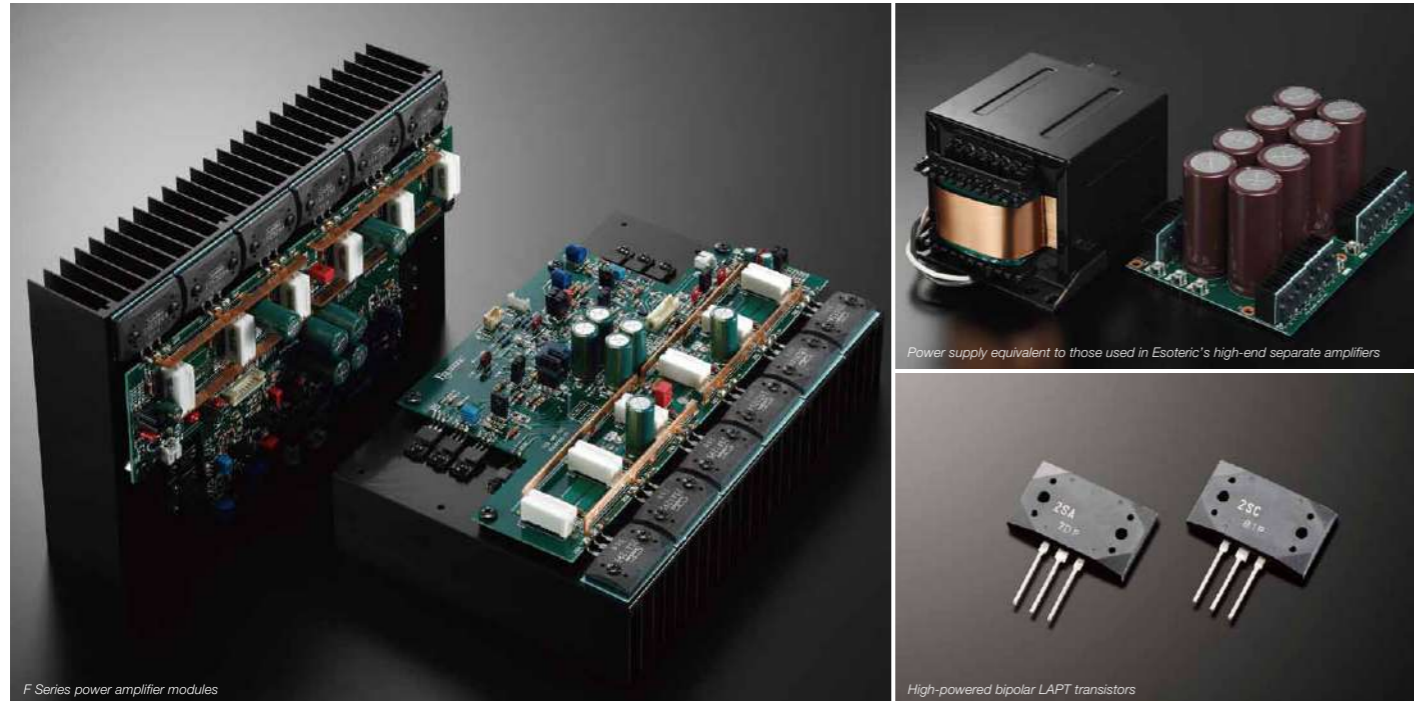
The powerful headphone amp provides abundant output to effectively drive even difficult to power high-end high-impedance headphones.

3-Band Tone Control (Treble/Middle/Bass)

Commitment to achieving all the quality associated with high-end components results in a balanced dual monaural configuration consisting of four circuits (L/R, +/-) for each band. This system enables users to adjust tone settings free of any concerns about sound quality deterioration. Shifting the variable band more than usual toward the high and low frequency ranges (14kHz/63Hz) permits fine adjustment of bass and treble without adversely affecting the original source signal. Fully electronic control also permits fine adjustment of up to ±12dB in 0.5dB steps. The middle band can also be utilized as a loudness preset when set to the minus side and used in conjunction with the Tone Bypass switch.



POWER AMPLIFIER SECTION



Power Amplifier Input Stage Features Balanced Configuration

The power amplification section's front stage is balanced in line with the thinking behind our S Series separate amplifiers. Its low impedance and clean amplification further enhance the dynamic range.

Large-Capacity Custom Power Transformer — The Nucleus of the Finest Power Amplifiers

The power supplies of the F Series feature large-core 940VA custom EI power transformers and 40,000 μ F block capacitors for each channel in a dual monaural configuration. Large-gauge cable is used in all connections to help minimize impedance. As in our separate power amplifiers, this outstanding power section achieves a theoretically linear power output ranging from 30W at an 8 Ω load to 60W at 4 Ω (F-05: 120W/8 Ω , 240W/4 Ω) for faithful reproduction of every musical dynamic.

Low Impedance for Enhanced Drive Capability

Utilizing eight 1mm-thick bus bars formed of high-purity OFC, the speaker output section employs MOSFET switching with no mechanical contacts. Coils have also been eliminated from the output stage to minimize impedance and enhance drive capability.

Large Bipolar LAPT Transistors Deliver 34 Amperes of Instantaneous Peak Power

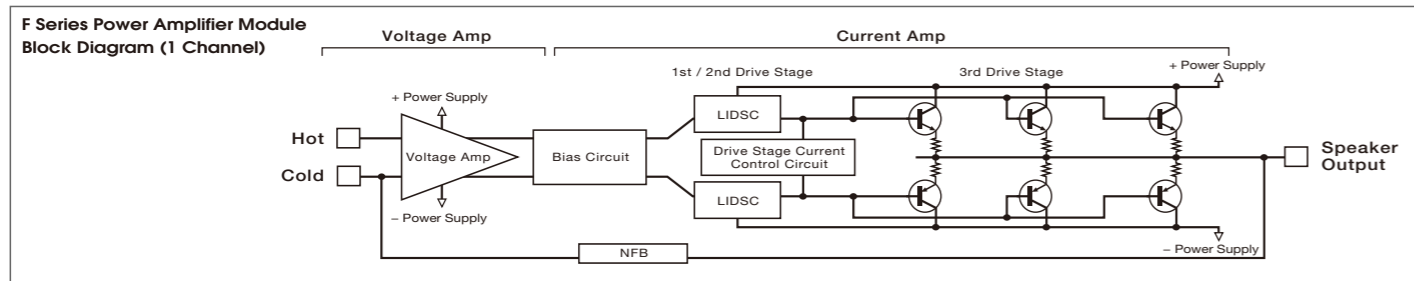
Featured in Grandioso models up to and including the M1, large bipolar LAPT* transistors deliver an outstanding continuous current capacity of 17A, and 34A of instantaneous peak power. Their superior high frequency characteristics also play a critical role in the accurate reproduction of the most delicate tones.

* LAPT: Linear Amplified Power Transistor

3-Stage Darlington Circuit with 3 Parallel Push-Pull Configuration + LIDSC

Derived from our flagship Grandioso line, the F Series' amplifier modules feature a three-stage Darlington configuration that utilizes three parallel push-pull sections to faithfully bring out the superb high-frequency characteristics of their LAPT transistors. Proprietary LIDSC* circuitry reduces the drive section's second stage to final stage output impedance, achieving loudspeaker drive capability nearly equal to that of our separate amplifiers. NFB has also been minimized to realize a more natural sound quality brimming with life.

* LIDSC: Low Impedance Drive Stage Coupling



CONSTRUCTION/FUNCTIONS



3D Optimized Chassis Construction

The F-Series' 3D Optimized Chassis features robust construction that gives each circuit block its own dedicated compartment. Interference between circuits is effectively minimized while achieving the shortest possible cable routing. Chassis exteriors are formed of thick aluminum panels manufactured without compromise following the same design philosophy imbued in Esoteric's separate amplifiers. As a result, their heavy-duty construction tips the scales at a total weight of 32kg, exceptional among integrated models. The F-03A's pinpoint feet* and the steel insulators supporting the F-05 at four points are just two examples of the rigorous countermeasures taken to minimize the effects of vibration.

* Patent No. 4075477

Designed for System Upgrades

The preamplifier and power amplifier sections of the F Series boast the same degree of refinement as Esoteric's separates, and can both be used as standalone devices, or even disabled if not in use. The PRE-out employs a powerful buffer amplifier, while XLR outputs achieve a highly effective fully balanced configuration. System upgrades can also be performed with no compromises in quality, and a card expansion slot facilitates the installation of an optional OP-DAC1 D/A Converter Board, which adds full compatibility with 11.2MHz DSD and 384kHz/32-bit PCM signal inputs.

- Organic EL display (Normal / Large font).
- Two speaker terminal systems (A / B / A+B).
- Independently adjustable input gains (\pm 18dB; 0.5dB steps).
- L/R channel balance.
- Individually selectable phase inversion for each source.
- AV through output (volume bypass) ensures seamless coexistence with AV systems.
- Preamp output jacks (XLR & RCA) can be switched between PRE Out and REC Out.
- Aluminum body remote controller can also be used to operate Esoteric's SACD players.
- Displayed source device names can be remotely programmed.
- Mute, dimmer and automatic display OFF functions.



ESOTERIC's original gold-plated BNC ports

G-01 uses ESOTERIC's original BNC ports that provide highly reliable contact. These durable and secure ports can handle even the heaviest and thickest high-end cables.

Superb chassis construction for optimal performance

Since the oscillator is generally susceptible to vibrations, chassis construction has been designed with the utmost care. G-01 has an extraordinarily thick and highly-rigid aluminum chassis that minimizes the small vibrations that could affect clock precision.

Aesthetic rounded form

Thick aluminum material is used for the front, side and top panels, as well as the front corners. The G-01 chassis design has inherited the tradition of the rest of the ESOTERIC product line with screw-less rounded top and corners. The appearance of G-01 is in perfect harmony with ESOTERIC digital players.

The front panel, engraved with the ESOTERIC logo, is finished off with a refined short scratch proof material and gives off an aura of dignity as the main component controlling the entire operation of a digital reproduction system.



Specifications

Clock outputs

CLOCK OUT	
44.1 kHz setting	44.1, 88.2, 176.4, 352.8, 705.6 kHz 1.4112, 2.8224, 5.6448, 11.2896, 22.5792 MHz
48 kHz setting	48, 96, 192, 384, 768 kHz 1.536, 3.072, 6.144, 12.288, 24.576 MHz
Both settings	100 kHz, 10 MHz
Connectors	BNC coaxial (75 Ω)
Output level	Rectangular wave (TTL level / 75 Ω)
10MHz OUT	
Connectors	BNC coaxial (50 Ω)
Output level	Sine wave : 0.5±0.1 Vrms / 50 Ω

Master clock input

Input frequency	
Rb+EXT1pps mode	1pps signal (GPS precision or better)
Rb+EXT10M mode	10MHz (GPS precision or better)
EXT 10M-IN mode	10 MHz (within ±10 ppm)
Connector	
Input levels	BNC coaxial (50 Ω)
10MHz	
	Sine wave: 0.5–1.0 Vrms/50 Ω
	Square wave: 1.5–3.0 Vpp/50 Ω
1pps signal	Positive pulse, TTL level/100 kΩ

Output clock stabilization (approximate time in minutes)

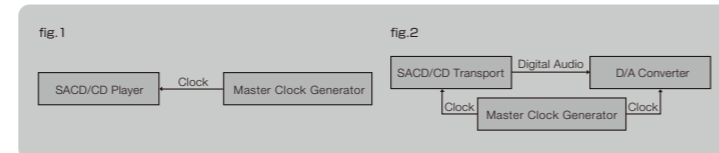
Until oscillator stabilizes after power turned on	10
PLL locking time	1
1pps locking time	10
Frequency stability	Within ±0.1 ppb (-20°C to +65°C)
Frequency precision	Within ±0.05 ppb (when shipped new)

General

Power supply	
	AC 230V, 50Hz
	AC 120V, 60Hz
	AC 220V, 60Hz
Power consumption	
	85W (while warming up)
	28 W (when stable)
Dimensions (W × H × D) (including protrusions)	
	445 x 131 x 360 mm (17 1/2" x 5 1/8" x 14 1/8")
Weight	
	13kg (28 1/2 lbs)

Included accessories

- Power cord x 1
- Owner's manual x 1
- Warranty card x1



ESOTERIC

Master Clock Generator G-01



PROUDLY MADE IN TOKYO

ESOTERIC

ESOTERIC COMPANY

1-47 Ochiai, Tama-shi, Tokyo 206-8530, Japan
 Fax: (042)356-9240
www.esoteric.jp <http://esoteric.teac.com/>

- This product is available in three different power supply variations shown in the chart above. Make sure that the voltage shown on the rear panel matches the AC line voltage in your area.
 - The shape of the AC inlet and plug of the supplied power cord depends on the voltage rating and destination country.
 - Specifications and appearance are subject to change without notice.
 - Weight and dimensions are approximate.
 Please note that Esoteric products are available at authorized distributors in respective countries.
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Master clock generator equipped with ultra high precision rubidium oscillator

Digital audio synchronized to one high precision master clock

New support for 10 MHz and 22.5792 MHz master clock outputs

Talk of flawless sound produced by an audio system connected together with a high precision master clock has been circulating between high-end audiophiles in various forms. As an example, the three dimensional effect of the sound stage gives the listener an actual feel of the high ceiling of a concert hall in addition to the width and depth of the original performance. The listener is treated to a pure and focused image of the playback sound that gives a sense of reality as if one could reach out and touch it. When the final note of the musical instrument fades away, you almost perceive the gradual silence like the color of a dark veil. This is truly an ultimate achievement of audio playback that "conveys music" so close to the original sound it leaves an unforgettable impression on the listener.

With the aim of enhancing the true potential of ESOTERIC digital players, the clock generator "G Series" was redesigned as a new generation of devices with improved functionality, power and flexibility.

The G-01 uses a high precision Rubidium oscillator with a frequency precision of ± 0.05 ppb (parts per billion) or ± 0.00005 ppm which provides optimum stability as an audio clock. This next generation clock generator supports master clock outputs of 10 MHz and 22.5792 MHz.



Master Clock Generator **G-01**

Master clock generator

Every digital audio device operates with an internal circuit generating the clock signals, or heartbeat, required to operate that device. This master generator is an extremely stable oscillator that supplies external clocks to digital devices (such as a transport, D/A convertor, Super Audio CD player) equipped with clock input terminals. The master clock generator supplies clock signals with a higher degree of purity and stability than clocks generated internally by digital devices and vastly improves the sound quality. By operating connected devices off the same highly stable master clock, timing errors called jitter are virtually eliminated greatly improving imaging and dimensionality while darkening the background.

Ultrahigh precision rubidium oscillator installed as the heart of the unit

An American-made rubidium oscillator with a frequency precision of ± 0.05 ppb ± 0.00005 ppm is used as the core of this extraordinarily accurate timing device. This oven-controlled oscillator significantly improves the performance of the clock generator. This oscillator module has been manufactured to ESOTERIC's demanding specifications with sound quality and stability being given top priority. The sound quality one would expect from our best model in the master clock generator series has been achieved.

Newly-designed discrete clock output driver circuit configuration

G-01 has adopted a newly-designed discrete clock output driver circuit configuration. The circuit uses an ultra high-speed transistor that is optimal for generating digital waveforms for which ultrafast speed and a high degree of accuracy are required. Combined with a heavy-duty power supply, this circuit contributes to major improvements in sound quality by providing an accurate, stable timing signal to audio devices.

Power section with sufficient capacity

The G-01 clock generator has a powerful power supply section that supports its basic performance. Three power supply circuit boards, a total of 15 power supply regulators, and independent power supplies for each circuit block have been installed to minimize mutual interference between circuit blocks and to supply clean energy to all parts. A large toroidal transformer, which enables highly efficient and high power actuation, is used as the main component in the power supply which is essential to the sound quality. An EI core transformer is used in the display section. A

series of multiple capacitors are used for a ripple filter circuit and Schottky barrier diodes are used for quick response supporting fast digital processing which assists the accuracy of the clock's signal generation.

10MHz clock and 22.5792MHz master clock outputs

G-01 can output a 10 MHz clock (sine wave or square wave) as well as 22.5792 and 24.576 MHz master clocks that are compatible with ESOTERIC's original "Direct Master Clock Link."

Three separate output systems

G-01 can output 100 kHz and 10 MHz (sine wave) in addition to clock signals of 1x, 2x, 4x, and 512x multiples (22.5792 MHz/24.576 MHz) of the base frequency (44.1 kHz or 48 kHz) from three separate A/B/C output sections. Moreover, in frequency expansion mode (EXP), G-01 can output 8x, 16x, 32x, 64x, 128x, and 256x multiples of the clock frequency that enables it to supply clock signals to a wide range of devices, including professional audio or video equipment.

Each of these systems has two output ports supplying clock signals to a maximum of six devices. The output frequency can be set individually for each of the six ports from A1 to C2. If a single device is connected, all output ports other than the A1 port can be turned off. This feature has been added to avoid deterioration of sound quality occurring through unnecessary inter-component interference.

10 MHz sine wave clock outputs

A 10 MHz square wave clock can be output from any of the output terminals of A, B, and C. In addition, two systems are designed specifically for devices equipped with 10 MHz sine wave requirements.

External 10 MHz/1 pps input

A 10 MHz or 1 pps reference signal can also be input externally by connecting an ultra high precision external clock. In addition to the input reference signal mode, the new "Rubidium + external input" mode is also available.

When a GPS receiver is connected to an external input terminal and the "Rubidium + external input" mode is selected, the internal rubidium oscillator is synchronized with higher center frequency precision, and allows more stable clock signal output from rubidium oscillator than the crystal controlled oscillator built into the external GPS receiver, which makes the most of advantages of a high precision GPS system.



Rubidium clock oscillator module

Preheat Function

The unit features a preheat mode, which shuts down the unit but continues to supply power to the internal rubidium oscillator. Keeping the rubidium warm reduces waiting time after the power is turned ON and enables the unit to provide its full performance immediately.

Superb Chassis Construction for Optimal Performance

Since the high precision nature of the rubidium oscillator makes it delicate and susceptible to external vibrations, special consideration has been made in the chassis construction to control these vibrations. The bottom chassis securing the various components adopts a slit structure to prevent interference between neighboring components. Furthermore, the unit features a thick and highly-rigid aluminum panel enclosure and patented ESOTERIC pin point feet (patent no. 40750477 JP) that minimize the effect of external vibrations.

Organic EL Display

The unit features a smooth and gorgeous display suitable for a cutting-edge digital device.



Specifications

Clock outputs

CLOCK OUT	
44.1 kHz setting	44.1, 88.2, 176.4, 352.8, 705.6 kHz 1.4112, 2.8224, 5.6448, 11.2896, 22.5792 MHz
48 kHz setting	48, 96, 192, 384, 768 kHz 1.536, 3.072, 6.144, 12.288, 24.576 MHz
Both settings	100 kHz, 10 MHz
Connectors	BNC x4
Output level	Rectangular wave: TTL level / 75 Ω
10MHz OUT	10 MHz
Connectors	BNC x4
Output level	Sine wave: 0.5±0.1 Vrms / 50 Ω

Master clock input (EXT IN)

Input frequency	
1pps mode	1pps signal (GPS precision or better)
10M mode	10 MHz (GPS precision or better)
Connector	BNC x1
Input levels	
10MHz	Sine wave: 0.5-1.0 Vrms/50 Ω Square wave: TTL level/10 kΩ Positive pulse: TTL level/10 kΩ
1pps signal	

Rubidium oscillator

Until oscillator stabilizes after power turned on	10 minutes
Frequency stability	Within ±0.1 ppb (-20°C to +65°C)
Frequency precision	Within ±0.05 ppb (when shipped new)(ppb =10 ⁻⁹)

General

Power supply	AC 230V, 50Hz AC 120V, 60Hz AC 220V, 60Hz
Dimensions (W x H x D) (including protrusions)	445 x 131 x 359 mm (17 5/8" x 5 1/4" x 14 1/4")
Weight	13.3kg (29 3/8 lb)

Included accessories

Power cord x1 Felt pads x3 Owner's manual x1 Warranty card x1



P-02X/D-02X



PROUDLY MADE IN TOKYO

ESOTERIC

ESOTERIC COMPANY

1-47 Ochiai, Tama-shi, Tokyo 206-8530, Japan
Fax: (042) 356-9240
www.esoteric.jp

- This product is available in three different power supply variations shown in the chart above.
- Make sure that the voltage shown on the rear panel matches the AC line voltage in your area.
- The shape of the AC inlet and plug of the supplied power cord depends on the voltage rating and destination country.

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ESOTERIC

Master Clock Generator **G-01X**



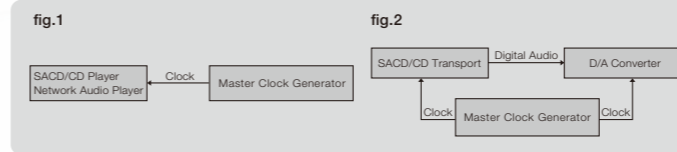
The high precision G-01X master clock generator adopts new technologies such as “Wide Range Clock Buffer Amplifiers”, “Adaptive Zero Ground” circuits, and a high precision rubidium oscillator to attain the very best in musical expression from your digital audio system.



Master Clock Generator **G-01X**

Master Clock Generator

A 'clock' is a pulse signal that is used as a reference signal for all digital circuits. Every piece of digital gear has an on-board clock oscillator, and a high-quality clock is vital for precise, jitter-free signal processing. The G-01X master clock generator is an external clock device designed to supply atomic precision clock to digital devices (such as a transport, D/A converter, Super Audio CD player, or network audio player) equipped with dedicated input terminals. The G-01X can supply clock signals with a significantly higher degree of purity and stability than clocks generated by connected devices themselves, and thereby significantly improves the sound quality.

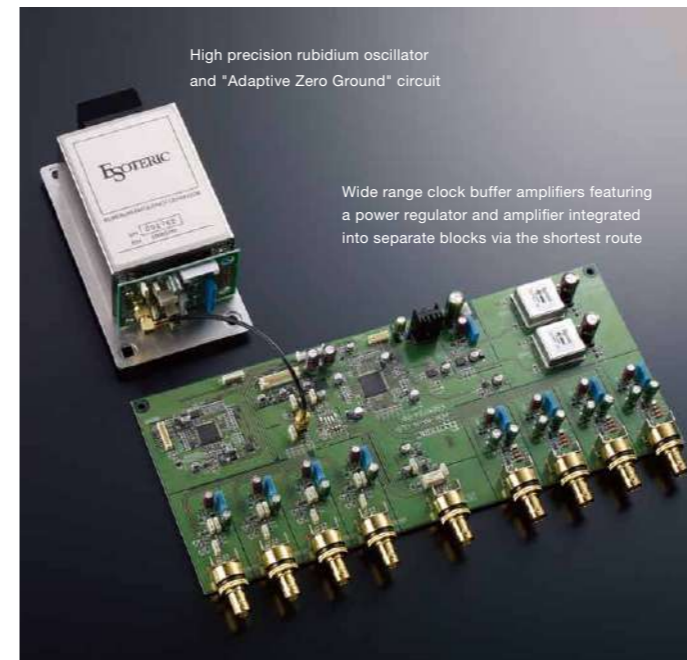


Ultrahigh Precision Rubidium Oscillator

An extremely high precision American-made rubidium oscillator with a frequency precision of ± 0.05 ppb or ± 0.00005 ppm is used as the core of this extraordinarily accurate timing device. This oscillator module has been manufactured to ESOTERIC's demanding specifications with sound quality and stability being given top priority. The sound quality one would expect from a high end model has been achieved.

“Wide Range Clock Buffer Amplifier”

The “Wide Range Clock Buffer Amplifiers” developed for the Grandioso G1 flagship model are adopted to provide an even wider frequency range than ever before. These discrete circuits using high-speed transistors with excellent high frequency performance are separated for each output terminal to greatly contribute to major improvements in sound quality by providing an accurate and stable timing signal to audio devices.

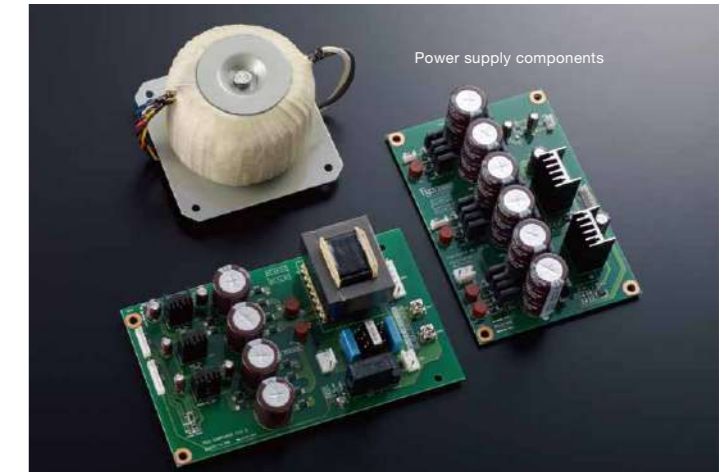


“Adaptive Zero Ground” Mode

The G-01X has the “Adaptive Zero Ground” circuitry inherited from the Grandioso G1 between the internal rubidium unit and the buffer amplifiers. The “Adaptive Zero Ground” mode actively drives the ground signal to 0 volts and greatly reduces noise (random jitter) caused by variation in the ground voltage. The user can select between the adaptive mode and the normal mode, for different sound characteristics according to their listening preferences.

Substantial Power Supply

A newly-designed power supply is adopted to maximize the performance of the new “Wide Range Clock Buffer Amplifiers”, with a separate power supply regulator assigned to each of the independent buffer amplifiers. The amplifier and power supply are divided into blocks to ensure drive that is both clean and powerful. A large toroidal transformer is used as the main transformer and a dedicated EI core transformer is used for digital control. A series of multiple capacitors are used for the ripple filter circuit and Schottky barrier diodes are used for quick response to support fast digital processing, which assists the accuracy of the clock's signal generation.



Eight Outputs

The G-01X can supply a clock signal to a maximum of eight devices. Output can be switched ON and OFF for each terminal. The unit has four 10 MHz sine wave clock output terminals. The other four output terminals (A x 2 and B x 2) enable clock signals to be output at 100 kHz, 10 MHz (square wave), and the basic frequency of 44.1 kHz/48 kHz, up to a maximum frequency of 22.5792 MHz/24.576 MHz, and separate output frequencies can be set for each terminal.

External 10 MHz/1 pps Input

A 10 MHz or 1 pps reference signal can be input externally by connecting a device such as a GPS receiver to an external input terminal. The internal rubidium oscillator is synchronized with a higher center frequency received from a satellite, and this allows more stable rubidium oscillation than the crystal controlled oscillator built into the external GPS receiver, which makes the most of the advantages of a high precision GPS system.

Gold Plated BNC Terminals

The unit adopts milled brass BNC terminals to achieve a secure connection. These allow high-end cables to be easily connected and minimize loss of transmission to the utmost limit.

Master Clock Generator G-02



Master clock generator equipped with high precision crystal oscillator
Digital audio synchronized to one high precision master clock
New support for 10 MHz and 22.5792 MHz master clock outputs

Talk of the flawless sound produced by an audio system connected together with a high precision master clock has been circulating between high-end audiophiles in various forms. The three dimensional effect of the sound stage gives the listener an actual feel of, say, the high ceiling of a concert hall in addition to the width and depth of original performance. The listener is treated to a pure and focused image of the playback sound that gives a sense of reality as if one could reach out and touch it. When the final note of the musical instrument fades away, you almost perceive the gradual silence like the color of a dark veil. This is truly an ultimate achievement of audio playback that "conveys music" so close to the original sound it leaves an unforgettable impression on the listener.

With the aim of enhancing the true potential of ESOTERIC digital players, the clock generator "G Series" was redesigned as a new generation of devices with improved functionality, power and flexibility.

G-02 uses a high precision oven-controlled crystal oscillator (OCXO) that provides optimal stability as an audio clock. This next generation clock generator can output a master clock of 10 MHz and 22.5792 MHz, perfect for controlling both audio and computer based devices.



Master Clock Generator G-02

Master clock generator

Every digital audio device operates with an internal clock circuit generating the clock signals required to operate that device. The master clock generator is an extremely stable oscillator that supplies external clocks to digital devices (such as a transport, D/A converter, Super Audio CD player) equipped with clock input terminals. The master clock generator supplies clock signals with a higher degree of purity than clocks generated internally by digital devices and thus it vastly improves the sound quality. By operating connected devices off the same, highly stable master clock, timing errors called jitter are virtually eliminated vastly improving imaging and dimensionality while darkening the background.

Ultrahigh precision OCXO installed as the heart of the unit

The master clock generator uses a high precision crystal oscillator with a frequency precision of +/-0.01 ppm (parts per million) that is provided with custom tuning designed specifically for ESOTERIC. G-02 has a built-in, oven-controlled crystal oscillator (OCXO) that generates stable oscillation under varying conditions. This is made possible by assembling a quartz crystal resonator and oscillation circuit in an oven that maintains the internal crystal and critical circuitry at a constant temperature. G-02 achieves a very high frequency stability of +/-0.01 ppm under external temperature conditions of -20 °C to 70°C.



Newly-designed discrete clock output driver circuit configuration

G-02 has adopted a newly-designed discrete clock output driver circuit configuration. The discrete circuit uses a high-speed transistor that is optimal for generating digital waveforms for which ultrafast speed and a high degree of accuracy are required. Combined with a heavy-duty power supply, this discrete circuit contributes to major improvement of the sound quality by providing an accurate, stable timing signal to audio devices.

Heavy-duty power supply unit

The master clock generator is equipped with a heavy-duty power supply unit that fully supports its high level of performance. A large R-core transformer featuring low loss magnetic flux leakage has been selected for the G-02. A series of several capacitors and Schottky barrier diodes are used as a smoothing circuit for quick response to support fast digital processing, contributing to the generation of highly accurate clock signals. For the display, an independent power transformer and a dedicated power supply circuit have been installed for each circuit block to minimize mutual interference between blocks.

Support for 10 MHz clock and 22.5792 MHz master clock outputs

G-02 can output a 10 MHz clock and 22.5792 and 24.576 MHz master clocks that are compatible with ESOTERIC's original "Direct Master Clock Link."

Three separate A/B/C output systems

G-02 can output 100 kHz and 10 MHz in addition to clock signals of 1x, 2x, 4x, and 512x multiples (22.5792 MHz/24.576 MHz) of the base frequency (44.1 kHz or 48 kHz). Moreover, in frequency expansion (EXP) mode, G-02 can output 8x, 16x, 32x, 64x, 128x, and 256x multiples of the clock frequency that enables it to supply clock signals to a wide range of devices, including professional equipment.

Each of these systems has two output ports supplying clock signals to a maximum of six devices. The output frequency can be set individually for each of the six ports from A1 to C2. If a single device is connected, all output ports other than the A1 port can be turned off.

External 10 MHz input port

G-02 is equipped with an input port that is capable of receiving a 10 MHz reference signal from an external device. This port can be connected to devices such as the Rubidium clock and GPS clock to further upgrade the system.

ESOTERIC's original gold-plated BNC ports

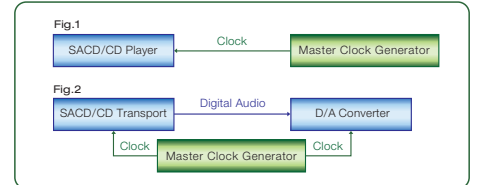
G-02 uses ESOTERIC's original BNC ports that provide highly reliable contact. These durable and secure ports can handle even heavy and thick high-end cables.

Superb chassis construction for optimal performance

Since the oscillator is generally susceptible to vibrations, chassis construction has been designed with utmost care. G-02 has a highly-rigid thick aluminum chassis that minimizes the small vibrations that could affect clock precision.

Esthetic rounded form

Thick aluminum material is used for the front, side and top panels, as well as the front corners. The G-02 chassis design has inherited the tradition of the ESOTERIC product line of a separate type digital player with screw-less rounded top and corners. The appearance of G-02 is in perfect harmony with ESOTERIC digital players.



Specifications

Clock outputs 44.1kHz setting 44.1/88.2/176.4/352.8/705.6kHz, 1.4112/2.8224/5.6448/11.2896/22.5792MHz **48kHz setting** 48/96/192/384/768kHz, 1.536/3.072/6.144/12.288/24.576MHz **Both settings** 100kHz/10MHz **Connectors** BNC coaxial **Output level** 1Rectangular wave (TTL level/75Ω) **Frequency stability** Within ±0.01ppm(-20°C to +70°C) **Frequency precision** Within ±0.01ppm (when shipped new) **Output clock stabilization (approximate time in minutes)** Until oscillator stabilizes after power turned on:15/PLL locking time:1 **Standard frequency input** **Input frequency** 10MHz(within ±10ppm) **Connector** BNC coaxial **Input levels** Sine wave:0.5-1.0 Vrms/50Ω, Square wave:1.5-3.0Vpp/50Ω **General Power supply** AC 230V, 50Hz/AC120V, 60Hz/AC 220V, 60Hz **Power consumption** 14 W(while warming up)/10W(when stable) **Dimensions (W × H × D, including protrusions)** 445mm × 106.5mm × 360mm (17 1/2" × 4 2/8" × 14 1/8") **Weight** 10.2kg (22.49 lb.) **Included accessories** Power cord x 1, Warranty card x 1, Owner's manual x 1

PROUDLY MADE IN TOKYO

ESOTERIC

ESOTERIC COMPANY

1-47 Ochiai, Tama-shi, Tokyo 206-8530, Japan
Fax: (042)356-9240

www.esoteric.jp http://esoteric.teac.com/

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IASI
International Audio Society of JAPAN

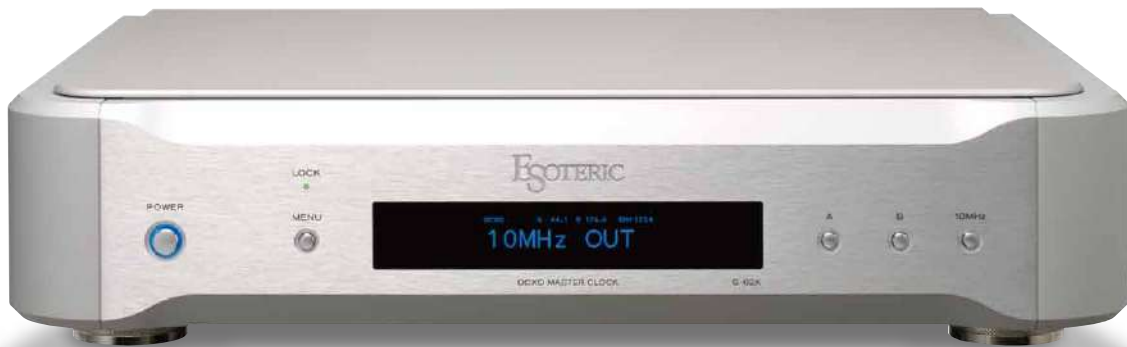
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ESOTERIC

Master Clock Generator **G-02X**



The G-02X master clock generator adopts new technologies such as “Wide Range Clock Buffer Amplifiers”, “Adaptive Zero Ground” circuits, and a new custom made high-precision OXCO to attain the very best in musical expression from your digital audio system.



Master Clock Generator G-02X

Master clock generator

A 'clock' is a pulse signal that is used as a reference signal for all digital circuits. Every piece of digital gear has an on-board clock oscillator, and a high-quality clock is vital for precise, jitter-free signal processing. The G-02X is an external clock device designed to supply ultrahigh precision clock to digital devices (such as a transport, DAC, SACD player, or network audio player) equipped with dedicated input terminals. The G-02X can supply clock signals with a significantly higher degree of purity and stability than clocks generated by connected devices themselves, and thereby significantly improves the sound quality.

Ultrahigh Precision OXCO

The core of the unit features a custom OXCO (Oven Controlled Crystal Oscillator) newly developed by ESOTERIC that is comprised of an oven that maintains a constant internal temperature, a crystal oscillator, and an oscillating circuit. This OXCO was designed for high audio quality based on the wisdom of the Grandioso series to provide an excellent center frequency precision (± 0.01 ppm Typ), and reduces phase noise by approximately 3 dB* compared to previous model. *Measured at an offset frequency of 100 Hz



“Wide Range Clock Buffer Amplifier”

The unit adopts the “Wide Range Clock Buffer Amplifiers” developed for the Grandioso G1. These discrete circuits utilize high-speed transistors with excellent performance at high frequencies and are separated for each output terminal to contribute to improved sound quality.

“Adaptive Zero Ground” Mode

The G-02X has the “Adaptive Zero Ground” circuitry inherited from the Grandioso G1 between the internal OXCO and the buffer amplifiers. The “Adaptive Zero Ground” mode actively drives the ground signal to 0 volts and greatly reduces noise (random jitter) caused by variation in the ground voltage. The user can select between the adaptive mode and the normal mode, for different sound characteristics according to their listening preferences.

Substantial Power Supply

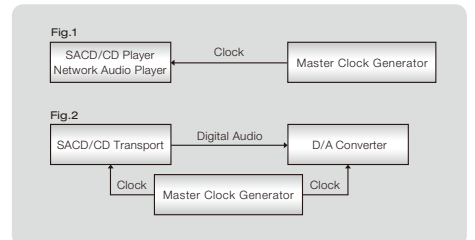
A newly-designed power supply is adopted to maximize the performance of the new “Wide Range Clock Buffer Amplifiers”, with the amplifier and power supply divided into blocks to ensure drive that is both clean and powerful. A toroidal transformer is used as the main transformer and a dedicated EI core transformer is used for control. A series of multiple capacitors are used for the ripple filter circuit and Schottky barrier diodes are used for quick response to support fast digital processing.

Eight Outputs

The G-02X can supply a clock signal to a maximum of eight devices. Output can be switched ON and OFF for each terminal. The unit has four 10 MHz sine wave clock output terminals. The other four output terminals (A x 2 and B x 2) enable clock signals to be output at 100 kHz, 10 MHz (square wave), and the basic frequency of 44.1 kHz/48 kHz, up to a maximum frequency of 22.5792 MHz/24.576 MHz, and separate output frequencies can be set for each terminal.

Other Functions

External 10 MHz Input for External Clocks
Milled Brass Gold Plated BNC Terminals
Preheat Function for Internal OXCO
Organic EL Display



Specifications

Clock outputs CLOCK OUT 44.1 kHz setting 44.1/88.2/176.4/352.8/705.6 kHz, 1.4112/2.8224/5.6448/11.2896/22.5792 MHz 48 kHz setting 48/96/192/384/768 kHz, 1.536/3.072/6.144/12.288/24.576 MHz
Both settings 100 kHz/10 MHz **Connectors** BNC x4 **Output level** Rectangular wave: TTL level/75 Ω 10 MHz OUT 10 MHz **Connectors** BNC x4 **Output level** Sine wave: 0.5 \pm 0.1 Vrms/50 Ω **Standard frequency input (EXT IN)** **Input frequency** 10MHz (within ± 10 ppm) **Connector** BNC x1 **Input levels** Sine wave: 0.5-1.0 Vrms/50 Ω , Square wave: TTL level/10k Ω **OXCO (Crystal oscillator)** Until oscillator stabilizes after power turned on 10 minutes **Frequency stability** Within ± 0.015 ppm (0°C to 70°C) **Frequency precision** ± 0.01 ppm Typ (When shipped new)/(ppm = 10^{-6}) **General Power supply** AC 230 V, 50 Hz / AC 120 V, 60 Hz / AC 220 V, 60 Hz **Dimensions (W x H x D)** (including protrusions) 445 x 107 x 359 mm (14 5/8" x 4 1/4" x 14 1/4") **Weight** 11.3 kg (25 lb) **Included accessories** Power cord x 1 / Felt pads x 3 / Owner's manual x 1 / Warranty card x 1

PROUDLY MADE IN TOKYO

ESOTERIC

ESOTERIC COMPANY

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Fax: (042) 356-9240
www.esoteric.jp

- This product is available in three different power supply variations shown in the specifications above.
- Make sure that the voltage shown on the rear panel matches the AC line voltage in your area.
- The shape of the AC inlet and plug of the supplied power cord depends on the voltage rating and destination country.

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ESOTERIC

Grandioso C1

Linestage Preamplifier



Specifications

Analog audio inputs

Connectors	RCA × 2 pairs / XLR × 3 pairs (RCA 2 can be used as an AV pre-input)
Input impedance	RCA : 10 kΩ / XLR : 10 kΩ
Input sensitivity	At rated output : 510 mV
Maximum input level	12 V

Analog audio outputs

Connectors	RCA × 2 pairs / XLR × 2 pairs
Output impedance	RCA : 47 Ω / XLR : 66 Ω
Total harmonic distortion	RCA : 0.0006 % / XLR : 0.0004 %
Frequency response	1 Hz – 200 kHz (-3.0 dB) / 3 Hz – 50 kHz (-0.2 dB)
Signal-to-noise ratio (S/N)	116 dB (2 V input, A-weighted)
Gain	+12 dB
Rated output	2 V
Maximum output level	RCA : 7.5 V (1 kHz, 0.003 %) / XLR : 15 V (1 kHz, 0.003 %)

General

Power supply	AC 230 V, 50 Hz / AC 120 V, 60 Hz / AC 220 V, 60 Hz
Power consumption	25 W
External dimensions (W × H × D) (including protrusions)	
Main unit	445 × 132 × 457 mm (17 5/8 × 5 1/4 × 18")
Power unit	445 × 132 × 451 mm (17 5/8 × 5 1/4 × 17 7/8")
Weight	
Main unit	21 kg (46 lb)
Power unit	29 kg (64 lb)

Included accessories

Power cords × 2 / DC power connection cords × 2 / Remote control (RC-1315) × 1
Batteries for remote control (AAA) × 2 / Felt pads × 8 / Owner's manual × 1 / Warranty card × 1

This product is available in three different power supply variations, as shown in the specifications above. Make sure that the voltage shown on the rear panel matches the AC line voltage in your area. The shape of the AC inlet and plug of the supplied power cord depends on the voltage rating and destination country.

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PRINTED IN JAPAN 1014005-TECD-0198



Grandioso C1

Linestage Preamplifier

*Sound, in the form of music, has tremendous power to move our emotions.
In music, the absence of sound can be as powerful as sound itself.
By skillfully combining knowledge, technology and materials,
we can create audio components capable of generating these same strong emotions.
Then, in blissful communion with the music,
the listener is able to forget the very existence of the audio system.
Placing its prestige on the line,
ESOTERIC proudly introduces an outstanding
new preamplifier: Grandioso C1.*

MasterSoundWorks

Audio expression, symphonic beauty, artistic passion, a concert hall spatial feel, the excitement of the audience. Esoteric's Master Sound Works is an audio product concept that recreates all of the music information in original master recordings with the most state of the art technology available today.



PROUDLY MADE IN TOKYO

ESOTERIC

Design Philosophy

The Grandioso C1 is the result of the single-minded dedication to audio quality instilled in every component that bears the proud Grandioso name. Advancing well beyond the core objective of creating “high fidelity,” in the development of the new C1 we set our sights on new summits, blending the sensibilities of the audio engineer with those of the consummate musician.

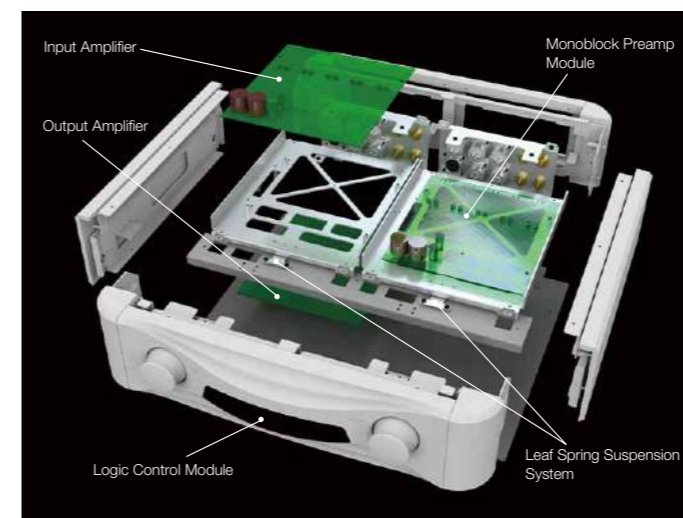
A product of uncompromising craftsmanship and the highest standards of audio fidelity, each C1 preamplifier is handmade in our Tokyo factory and fully reflects Esoteric’s underlying Grandioso philosophy. State-of-the-art circuit design and leading-edge technology combine to realize outstanding audio performance. The C1’s robust construction employs two separate chassis, with each channel totally independent from the other.



Massive Construction

The C1’s two-chassis construction physically isolates the power supply from the audio circuitry. This allows the unit to create a sound stage having exceptional transparency, as well as providing a liberating sense of musical vibrancy, without betraying so much as a hint of stress.

The C1’s separate 29kg linear power supply enables pristinely accurate amplification and ensures that the music signal is delivered to the power amplifiers without any loss of dynamics. This gives the music the power and vibrancy to captivate the listener. Due to the C1’s monoblock internal construction, all the elements of each channel are completely independent: from the audio circuitry to the DC power supplies, and right down to the separate AC power cables. Creating the excitement of having every musical instrument accurately positioned before you, the C1 is the crystallization of an approach solely focused on accurate stereo sound reproduction.



Main Unit

The C1’s main unit consists of two monoblock preamplifier modules and a logic control module. The input and output sections of each preamplifier module are constructed on separate boards, which are arranged one above the other in order to minimize the lengths of the signal paths. These modules are mounted on a unique leaf spring suspension system that was originally developed for Esoteric’s leading lineup of SACD players. Its floating design helps achieve total left and right channel independence, and enhances the sense of spaciousness and ease in the sound.

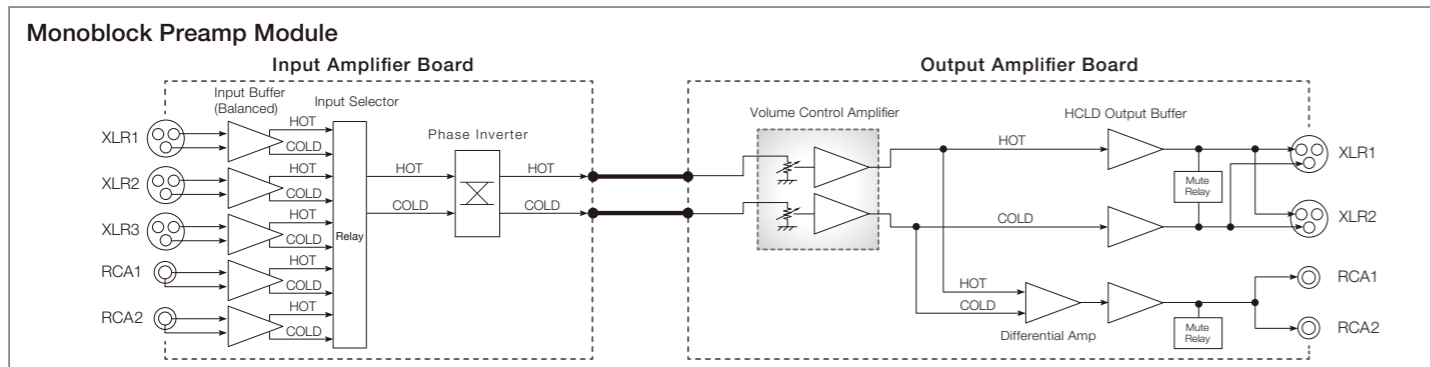
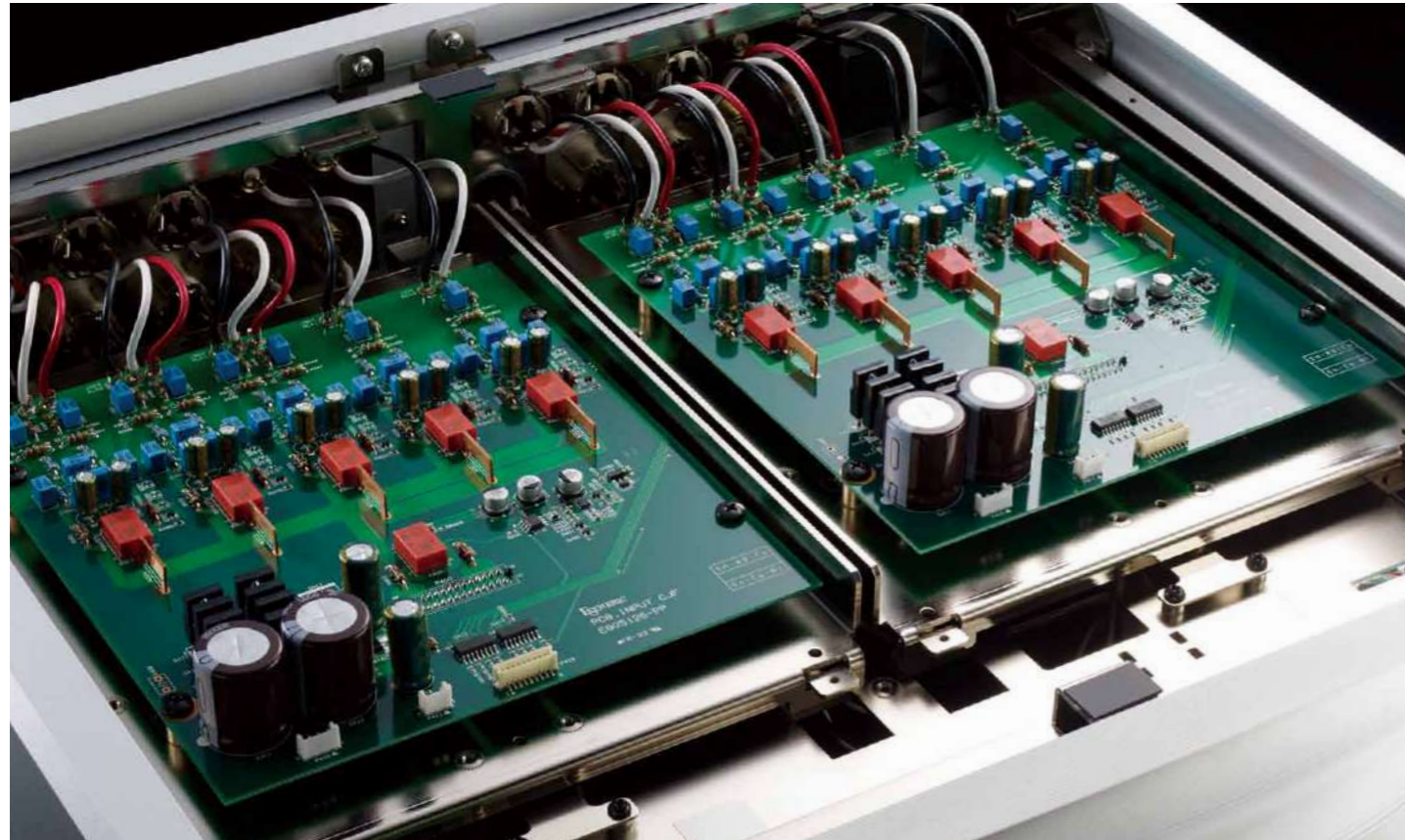


DC Power Supply Unit

The C1’s DC power supply features a fully independent two-channel design with dual AC inputs and DC outputs. Together with the careful selection of components one would expect in such a reference product, this produces significant improvements in sound quality. Especially notable in the power supply’s construction is the use of five generously rated power transformers, high-capacity reservoir capacitors and silicon carbide (SiC) Schottky barrier diodes.

Circuit Design

All sections of the amplification circuitry are fully balanced, with the input buffer, volume control and high-speed output buffer laid out three-dimensionally to achieve the shortest possible signal paths. The C1's DC power supply provides a clean and stable output to each preamplification section, ensuring that the power amplifiers maintain full control of the loudspeakers, while at the same time preserving the music's delicacy and dynamics.



Fully Balanced Configuration

The C1's source signal is first received by the dedicated buffer amplifiers integrated with each of the five inputs (XLR x 3, RCA x 2), and the circuit configuration is balanced at each stage from there on. Through the elimination of common-mode noise and the reduction in circuit impedance, a pure signal, free from noise, is fed to the gain amplifiers via the shortest possible path.

The C1's volume control features Esoteric-QVCS.* This employs four

precision switched resistor ladder networks, which change in unison when the volume knob is rotated. This arrangement allows the signal paths for the left and right channels and the positive and negative phases to be kept totally independent and as short as possible. Consequently the sound has superb clarity, excellent channel separation and a highly accurate phase characteristic.

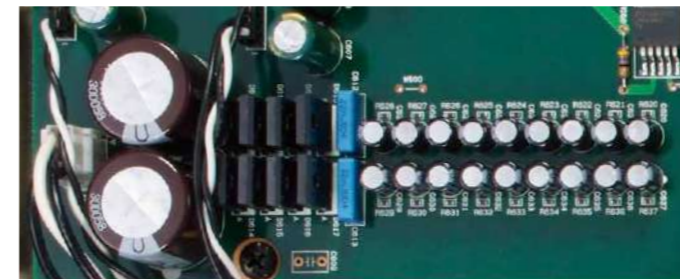
*QVCS = Quad Volume Control System

Advanced Output Buffer Circuitry Delivers Stronger Performance to Drive Power Amplifiers — ESOTERIC-HCLD*

In its function as a line driver, the preamplifier must have the ability to fully drive the power amplifiers in a way that faithfully conveys music signals that have an extremely wide dynamic range, extending all the way from pianissimo to fortissimo. The key to achieving this is having a circuit with both a high current drive capability and high speed. The C1's output buffer circuitry utilizes high-performance components to deliver a very high level of current drive, together with an exceptionally high slew rate of 2,000V/μs. Each output has its own independent drive circuit, and for the XLR outputs, the instantaneous output current capability is maximized by the use of fully symmetrical circuitry for both the hot and cold phases.

The C1 employs an EDLC* Super Capacitor array located close to the output buffer circuitry to function as an innovative, highly stable power source. Its compact physical size belies the fact that it provides the extraordinary capacity of 100,000μF (0.1F) for each channel, facilitating very high levels of instantaneous output power, which in turn provides strong and solid bass reproduction. With the integration of these two technologies, the C1 recreates a breathtaking level of audio reality by preserving the musical dynamics that would otherwise be lost if smaller current transmission levels were employed between the preamplifier and power amplifiers.

*HCLD = High Current Line Driver *EDLC = Electric Double-Layer Capacitor



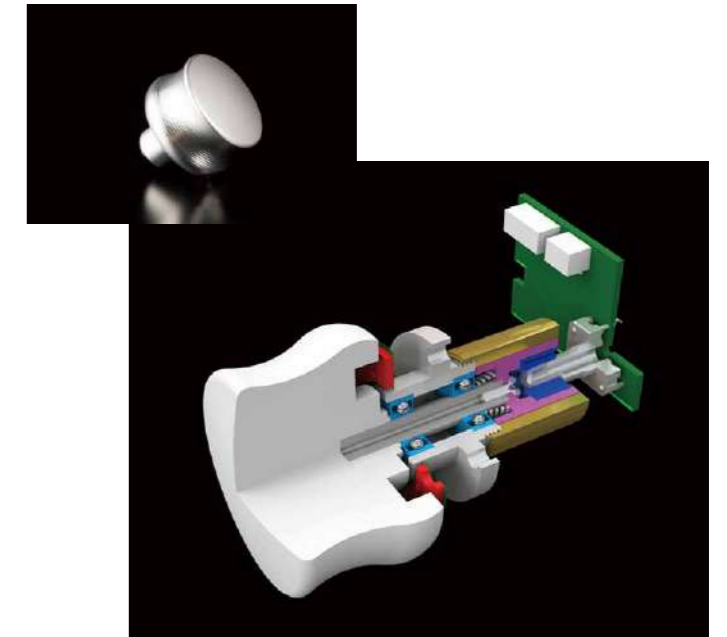
Ultra-Low-Noise Logic Control

The logic control section is built into the front panel and is totally isolated, both physically and electronically, from the preamplifier module by the use of an optocoupler. The logic control further ensures low-noise operation by completely shutting down when not in actual operation, totally eliminating any possible influence on the C1's audio circuitry.

Advanced Function

Precision Controls Offer Outstanding Operational Feel

The C1's input selector and volume knobs are machined from solid blocks of aluminum. The use of a VRDS drive mechanism bearing system for the control shafts enables silky smooth rotation with absolutely no mechanical play in their movements. Rotational torque has also been fine-tuned to provide the luxurious feel of a precision analog control, in keeping with this top-of-the-line preamplifier.



Other Important Features

- Five preset volume curves permit selection of the most comfortable operating feel for the control.
- Adjustable individual input gains allow differences in volume between sources to be minimized. (Range: ±18dB; 0.5dB steps)
- Adjustable left and right channel volume balance control. (Range: ±6dB; 0.5dB steps)
- Selectable phase inversion can be individually set for each source.
- 'RCA 2' terminal permits switching between normal line output and AV-through output, providing added convenience for systems which are operated in both AV surround and pure two-channel modes.
- High-quality aluminum finish remote controller can also be used to operate any of Esoteric's superb line of Super Audio CD players.
- Source component name displays can be programmed using the remote controller.
- Dimmer, mute, and auto-display-off functions also provided.

Preheat Function

The rear of the unit features a switch that toggles between the mode that completely shuts down the system when the power is turned OFF, and the recommended preheat mode, which continues to supply power to the internal rubidium oscillator. Keeping the rubidium warm reduces waiting time after the power is turned ON and enables the unit to provide its full performance immediately.

Superb Chassis Construction for Optimal Performance

Since the high precision nature of the rubidium oscillator makes it delicate and susceptible to external vibrations, special consideration has been made in the chassis construction to control these vibrations. The bottom chassis securing the various components adopts a dual layer structure comprised of two steel plates, and the power transformer and other components are affixed to separate layers in a three-dimensional configuration to prevent interference between neighboring components. Furthermore, the unit features an extraordinarily thick and highly-rigid aluminum panel enclosure and patented ESOTERIC pin point feet (patent no. 40750477 JP) that minimize the small vibrations that could affect clock precision.



ESOTERIC

Grandioso G1

Master Clock Generator



Specifications

Clock outputs

10MHz OUT	4
Connectors	BNC
Output level	Sine wave : 0.5 ± 0.1 Vrms / 50Ω

Master clock input

Input frequency	
Rb+EXT1pps mode	1pps signal (GPS precision or better)
Rb+EXT10M mode	10MHz (GPS precision or better)
Connector	BNC
Input levels	
10MHz	Sine wave: 0.5–1.0 Vrms / 50Ω Square wave: 1.5–3.0 Vpp / 50Ω
1pps signal	Positive pulse, TTL level / 10kΩ

Output clock stabilization (approximate time in minutes)

Until oscillator stabilizes after power turned on	10
Frequency stability	Within ±0.1 ppb (-20°C to +65°C)
Frequency precision	Within ±0.05 ppb (when shipped new) (ppb=10 ⁻⁹)

General

Power supply	AC 230V, 50Hz AC 120V, 60Hz AC 220V, 60Hz
Dimensions (W × H × D) (including protrusions)	445 × 132 × 448 mm (17 5/8" × 5 1/4" × 17 3/4")
Weight	23 kg (50 3/4 lb)

Included accessories

- Power cord × 1
- Owner's manual × 1
- Felt pads × 4
- Warranty card × 1



PROUDLY MADE IN TOKYO

ESOTERIC

ESOTERIC COMPANY

1-47 Ochiai, Tama-shi, Tokyo 206-8530, Japan
Fax: (042) 356-9240
www.esoteric.jp

- This product is available in three different power supply variations shown in the chart above.
- Make sure that the voltage shown on the rear panel matches the AC line voltage in your area.
- The shape of the AC inlet and plug of the supplied power cord depends on the voltage rating and destination country.

Please note that Esoteric products are only available from approved distributors in overseas territories.
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Grandioso G1

Master Clock Generator

A truly three-dimensional audio experience delights the listener with a real sense of depth and conveys the actual feel of the high ceiling of a concert hall. High-end audiophiles know the excitement felt at the moment the first sound shatters the silence, the tense experience of impeccably tight focus, and the joy of music that feels so real you can almost touch it. After the last beautiful gradation of a lingering note has gently faded away and the system has concluded playback is when the true thrill of music really begins.

The role of a high precision master clock is not to add something extra to your audio system. Rather, it is to attain the maximum performance from the system in order to convey music that is as close as possible to the original sound.

The Grandioso G1 is the flagship model of master clock generator line, which combines all of our wisdom, technology, and passion. It adopts a high precision rubidium oscillator with a frequency precision of ± 0.05 ppb (parts per billion) or ± 0.00005 ppm and new technologies such as "Wide Range Clock Buffer Amplifiers" and "Adaptive Zero Ground" circuits to attain the very best in musical expression from your favorite audio system.

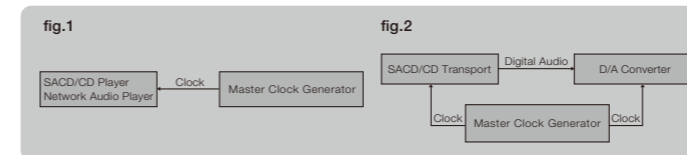


Grandioso G1
Master Clock Generator

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ESOTERIC

Master Clock Generator

A 'clock' is a pulse signal that is used as a reference signal for all digital circuits. Every piece of digital gear has an on-board clock oscillator, and a high-quality clock is vital for precise, jitter-free signal processing. The Grandioso G1 master clock generator is an external clock device designed to supply atomic precision clock to digital devices (such as a transport, D/A converter, Super Audio CD player, or network audio player) equipped with dedicated input terminals. The G1 can supply clock signals with a significantly higher degree of purity and stability than clocks generated by connected devices themselves, and thereby significantly improves the sound quality.



Ultrahigh Precision Rubidium Oscillator

An extremely high precision American-made rubidium oscillator with a frequency precision of ± 0.05 ppb or ± 0.00005 ppm is used as the core of this extraordinarily accurate timing device. This oscillator module has been manufactured to ESOTERIC's demanding specifications with sound quality and stability being given top priority. The sound quality one would expect from our best model in the master clock generator series has been achieved.

"Wide Range Clock Buffer Amplifier"

The clock signal is output by four newly-designed "Wide Range Clock Buffer Amplifiers", which each have a separate power supply regulator and provide an even wider range than ever before. The discrete circuits use high-speed transistors with excellent high frequency performance, which are perfect for generating digital waveforms for which a high degree of accuracy is required. Combined with a heavy-duty power supply, these circuits greatly contribute to major improvements in sound quality by providing an accurate and stable timing signal to audio devices.



Four 10 MHz Clock Output Terminals and "Adaptive Zero Ground" Mode(*)

The unit provides four terminals that output a 10 MHz sine wave clock, and is equipped with a new "Adaptive Zero Ground" mode that actively drives the ground signal to 0 volts. This greatly reduces noise (random jitter) caused by variation in the ground voltage. Switches on the rear of the unit toggle between the adaptive mode and normal mode for each output terminal, and allow the user to select the buffer amplifier drive method that is just right for their listening preferences.

*The Grandioso G1 is a unit dedicated to 10 MHz output, and can only be connected with compatible devices



Substantial Power Supply

A newly-designed power supply is adopted to maximize the performance of the new wide range clock buffer amplifiers, with a separate power supply regulator circuit assigned to each of the four buffer amplifiers to increase the independence of each channel. The amplifier and power supply are also divided into blocks and connected via the shortest route to ensure drive that is both clean and powerful. A large toroidal transformer, which enables highly efficient and high power actuation, is used as the main transformer and a dedicated EI core transformer is used for digital control. A series of multiple capacitors are used for a ripple filter circuit and Schottky barrier diodes are used for quick response supporting fast digital processing, which assists the accuracy of the clock's signal generation.



External 10 MHz/1 pps Input

A 10 MHz or 1 pps reference signal can also be input externally by connecting a device such as a GPS receiver to an external input terminal. The internal rubidium oscillator is synchronized with a higher center frequency precision clock received from a satellite, and this allows more stable rubidium oscillation than the crystal controlled oscillator built into the external GPS receiver, which makes the most of the advantages of a high precision GPS system.

Custom Coaxial Cables with MIL Standard SMA Connector

The all-important internal wiring of the unit uses hardwired connections with custom coaxial cables of the finest quality. These cables adopt MIL-compliant gold plated SMA connectors that were specifically developed for high frequency transmission and original milled brass BNC terminals designed by ESOTERIC to achieve a secure connection, in order to minimize loss of transmission to the utmost limit.



Specifications

Playable disc types
Super Audio CD, CD (including CD-R and CD-RW)

Analog audio outputs

Connectors	XLR (2 channels) × 1 pair RCA (2 channels) × 1 pair
Output impedance	XLR: 20 Ω RCA: 23.5 Ω
Maximum output level (at 1 kHz, 10kΩ load)	XLR: 5.0Vrms RCA: 23.5 Ω

When Super Audio CD, XLR output

Frequency response	5 Hz to 55 kHz (−3 dB)
S/N ratio	120 dB
Distortion	0.0008% (1 kHz)

Digital audio output

XLR connector × 1	3 Vp-p (into 110 Ω)
RCA connector × 1	0.5 Vp-p (into 75 Ω)

Digital audio input

RCA connector × 1 (input impedance 75 Ω)	0.5 Vp-p
Optical digital connector × 1	−24.0 to −14.5 dBm peak
USB-B connector	USB2.0 standard

Clock sync input format

Connector	BNC
Supported input frequencies (±10 ppm)	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	50 Ω
Input level	Rectangle wave: equivalent to TTL levels Sine wave: 0.5 to 1.0 Vrms (50 to 75 Ω)

General

Power supply	AC 230 V, 50 Hz AC 120 V, 60 Hz AC 220 V, 60 Hz
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External dimensions (W × H × D)
445 × 162 × 448 mm
(17 5/8" × 6 1/2" × 17 3/4")
(including protrusions)

Weight
33 kg (72 7/8 lb)

Included accessories

- Power cord × 1
- Remote control (RC-1315) × 1
- Batteries (AAA) × 2
- Felt pads × 4
- Owner's manual × 1
- Warranty card × 1



ESOTERIC

Grandioso K1

Super Audio CD Player



- This product is available in three different power supply variations shown in the chart above.
Make sure that the voltage shown on the rear panel matches the AC line voltage in your area.
- The shape of the AC inlet and plug of the supplied power cord depends on the voltage rating and destination country.

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Grandioso K1

Super Audio CD Player

*The supreme Super Audio CD player
reigning over all other single chassis models*



The Grandioso series is the supreme range of Esoteric products. The Grandioso K1 takes its place at the pinnacle of this range as an all-in-one Super Audio CD player comprised of only the very best in luxurious materials expected of a flagship model. It adopts a high precision VRDS-NEO VMK-3.5-20S transport mechanism and newly designed premium D/A converters with separate left and right power sources for each of its eight differential circuits. It also includes the AK4497, which is the highest performance DAC in the history of AKM.*

Esoteric has also developed "ES-LINK Analog", an original high quality current transmission method for connecting with the Grandioso F1 Integrated Amplifier.

Furthermore, every last corner of its electronic circuits has been refined, such as its 35-bit D/A processing algorithm, a HCLD buffer amplifier including 125,000 μ F super capacitors, and a high-precision clock. To put it simply, the Grandioso K1 opens up a new horizon for digital players.

Grandioso is an Italian for "magnificent" or "majestic".
*AKM: Asahi Kasei Microdevices Corporation

Grandioso K1

Super Audio CD Player



VRDS-NEO 'VMK-3.5-20S'
In-house manufactured
SACD transport mechanism

VRDS-NEO VMK-3.5-20S

The culmination of Esoteric's most advanced mechatronics know-how, the VRDS system radically improves the reading precision of Super Audio CD/CD discs by using a turntable for rotation and mechanically correcting for surface run-out. The Grandioso K1's VRDS-NEO VMK-3.5-20S drive also features two sets of specially selected high-precision ball bearings supporting a duralumin turntable constructed to micron-level accuracy, and a 20 mm-thick steel turntable bridge. The combined mechanical structure weighs an impressive 5.2 kg (12 kg including the rigid base).

The drive employs proven Esoteric technologies, including a high-flux-density magnet-driven coreless three-phase brushless spindle motor, a thread feed control derived from the thinking behind the renowned P-0, and a shaft-sliding pickup which consistently illuminates the disc with a precisely perpendicular beam of laser light.

VS-DD* Spindle Servo Driver and Proprietary Toroidal Power Supply

At the heart of the VRDS-NEO drive is a spindle driven by Esoteric's proprietary VS-DD servo driver circuit. This uses a discrete three-channel amplifier to optimize the motor drive current, minimize vibration, and provide ultra-smooth spindle operation and high-accuracy servo control. The Grandioso K1 is also equipped with a proprietary toroidal power supply that greatly enhances noise isolation.

*VS-DD = VRDS Spindle Discrete Driver

Chassis Construction and Parts Layout

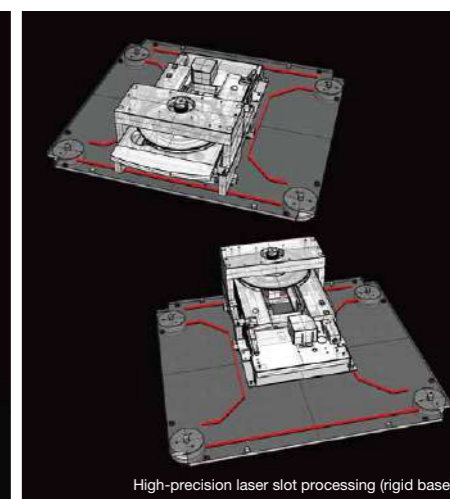
The VRDS-NEO transport mechanism is located in the center where it is fixed to a 5 mm thick steel bottom chassis and supported by four proprietary pinpoint feet (patent no. 4075477). This effectively limits vibrations from the rotation mechanism. The internal structure of the chassis features a double deck with the audio boards on the top level and power supply circuits and transformers on the bottom level, which prevents magnetic flux leakage and vibrations and also shortens the power supply wiring. The Grandioso K1 contains a total of four high capacity toroidal transformers for the two monaural D/A converters, digital circuit, and "VS-DD" spindle servo driver, which enables the unit to provide the ideal power supply to each circuit block.



Duralumin turntable
and 20mm steel bridge

VS-DD and its toroidal power supply

Coreless three-phase brushless
spindle motor



High-precision laser slot processing (rigid base)



Top



Bottom



Grandioso K1

Super Audio CD Player



Dual monaural D/A converters and channel-dedicated power supply units specially designed for the K1

125,000µF EDLC (super capacitors)

Extensive use of high quality parts (AK4497 DAC IC, MUSES 03 Op-Amp)

125,000µF EDLC (super capacitors)

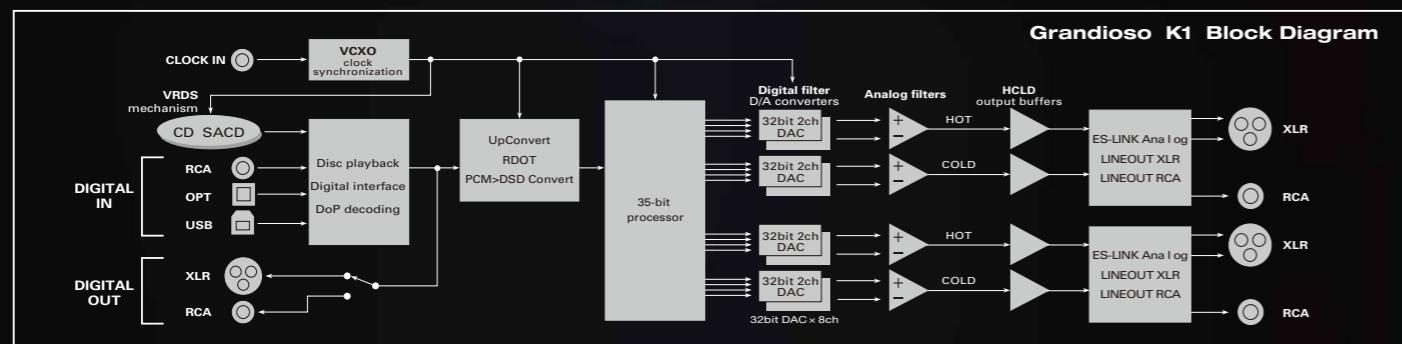


Cutting-edge Electronics



Grandioso G1

Grandioso F1



Newly Designed Integrated Dual Monaural D/A Converters for the Ultimate in Quality

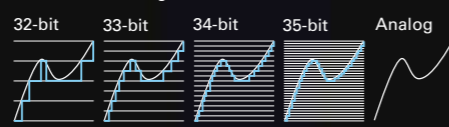
The D/A converters of the Grandioso K1 feature the lavish specifications expected of a premium all-in-one model in the Grandioso line. This completely new design utilizes the finest possible materials and circuit technology available in the world today. The circuit incorporates the premium 32-bit AK4497 DAC chipset from AKM (Asahi Kasei Microdevices Corporation) in conjunction with the high-end MUSES 03 operational amplifier from New Japan Radio Co., Ltd.

Eight parallel/differential circuits drive each channel to achieve outstanding linearity and low distortion. The D/A converter features separate left and right power transformers and eight power supply regulators for each channel located directly next to each circuit to ensure a clean and highly stable power supply. The isolation of the digital circuits and analog circuits has also been made even better than before to endow listeners with vivid musical reproduction that is not only pure but also carries a superior image and depth.

35-bit D/A Processing for Outstanding Powers of Musical Expression

The Grandioso K1 combines multiple 32-bit DAC chipsets and utilizes a 35-bit D/A processing algorithm to convert the PCM signal to analog at a high resolution of 35 bits. 35-bit processing achieves an astounding resolution that is fully 2,048 times that of 24-bit processing. 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 even with extremely small music signals.

35-bit D/A Processing



Esoteric-HCLD*: Esoteric's Proprietary Current-Enhancing Output Buffer Circuit

The ability to produce comparatively large currents and high slew rates are two of the most important factors that enable an analog output circuit to accurately transmit the wide dynamic range of a music signal without degradation. The Grandioso K1 offers the ultimate performance as a line driver by adopting high-performance elements with a high output current capacity and exceptionally fast slew rate (2,000V/µs) for excellent response speed. Two of these buffer circuits are employed per channel. By configuring them differentially to drive the XLR outputs and in parallel to drive the RCA outputs, the instantaneous output current available is maximized. Furthermore, an EDLC** super capacitor array is utilized as the power source of the buffer circuits. Its amazingly high capacity of 125,000 µF for each channel provides unwavering low-frequency ranges and enables the reproduction of musical dynamism with breathtaking reality.

*1: HCLD = High Current Line Driver
*2: EDLC = Electric Double-layer Capacitor

"ES-LINK Analog" Method for High Quality Current Transmission

In addition to regular line connections (XLR and RCA), the Grandioso K1 features the new "ES-LINK Analog" transmission method developed by Esoteric. This is a current transmission signaling that utilizes the high performance of the HCLD buffer circuit and its enhanced ability to supply current at high-speed. This is the ideal analog audio transmission as it is free from impedance of signal route, thus fully maximizes the system's potential when connected to a compatible device.*

*Included in the Grandioso F1 as of September 2016. A standard balance cable (with an XLR terminal) is used for connections, but the "ES-LINK Analog" method can only be used with compatible devices since it is a proprietary transmission method.

Comprehensive D/D Conversion Compatible with a 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 PCM to DSD conversion function using a unique algorithm is also included, enabling the user to select the conversion method that suits their preferences.

Digital Inputs

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

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

The Grandioso K1 includes a USB terminal for connecting to computers, and the driver and "ESOTERIC HR Audio Player" playback software can be downloaded from the Esoteric website free-of-charge. The K1 supports asynchronous transmission and playback at high sampling rates up to 11.2 MHz DSD and 384 kHz/32-bit PCM studio-master-quality source files. Native playback of DSD files is also supported.

High-Precision VCXO Clock

Often considered the heart of a digital player, the clock circuit supplies a high-accuracy reference clock signal to the digital circuitry. The Grandioso Custom VCXO (voltage-controlled crystal oscillator) developed in a joint effort with Nihon Dempa Kogyo (NDK) is a high-precision custom clock that adopts a large crystal element to ensure exceptional sound playback quality with excellent center accuracy (±0.5 ppm) and extremely low levels of phase noise. The quality of this VCXO is strictly controlled, and only the selected chipset is used for the K1.

Clock Sync Function for Synchronization with External Devices

Connecting the Grandioso K1 to a high-precision master clock generator such as the Grandioso G1 allows synchronization of the unit's operation with an external clock signal, thereby enabling the quality of the system to be further upgraded. The supported input frequencies are 44.1/88.2/176.4 kHz, as well as 10 MHz and 22 MHz. Synchronization with an external clock is also available when USB input is used.

Custom Clock Input Cable with MIL Standard SMA Connector

The clock input wiring uses hardwired connection with a custom coaxial cable of the finest quality. This cable adopts a MIL-compliant gold plated SMA connector that was specifically developed for high frequency transmission and an original milled brass BNC terminal designed by ESOTERIC to achieve a secure connection, in order to minimize loss of transmission to the utmost limit.

Output Modes

The analog audio output can be switched between ES-LINK Analog, RCA, and XLR. Hot 2 or Hot 3 XLR pin assignments can also be selected. Loss in audio quality is eliminated with a non-contact system by performing phase inversion in the digital domain.



Specifications

Rated output power	300W (8Ω) 600W (4Ω)
Maximum output power	1200W (2Ω)
Frequency response	5Hz ~ 100kHz (+0dB, -3dB, 6Ω)
Signal-to-noise ratio (S/N)	122dB (IHF-A)
Total harmonic distortion	0.006% (1kHz, 8Ω, 300W)
Gain	28dB
Damping factor	1000
Analog audio input jacks	RCA x1 XLR x1
Input impedance	RCA :1MΩ XLR :1MΩ
Power supply / Power consumption	AC 230V 50Hz / 430W (no signal :44W) AC 120V 60Hz / 520W (no signal :58W) AC 220V 60Hz / 430W (no signal :44W)
External dimensions (W x H x D)	491 x 221.5 x 535mm (19 3/8" x 8 3/4" x 21 1/8") (including protrusions)
Weight	62kg (136 3/4 lb)

-This product is available in three different power supply variations shown in the chart above. Make sure that the voltage shown on the rear panel matches the AC line voltage in your area.
-the shape of the AC inlet and plug of the supplied power cord depends on the voltagerating and destination country.



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ESOTERIC

Grandioso M1

Monoblock Amplifier



Master Sound Works

Audio expression, symphonic beauty, artistic passion, a concert hall spatial feel, the excitement of the audience. Esoteric's Master Sound Works is an audio product concept that recreates all of the music information in original master recordings with the most state of the art technology available today.

Grandioso M1

Monoblock Amplifier

Our goal was to push the outer limits of what a power amplifier can be.

We arrived at the ideal manifestation of audio engineering.

For those searching for a profound experience of sound and music,

this is a masterpiece that knows no compromise or equal.

*The culmination of all of ESOTERIC's knowledge and skill is distilled within this,
the new summit of our expertise.*

There is a musical term that celebrates the majestic: Grandioso.

The perfect name for the new M1.



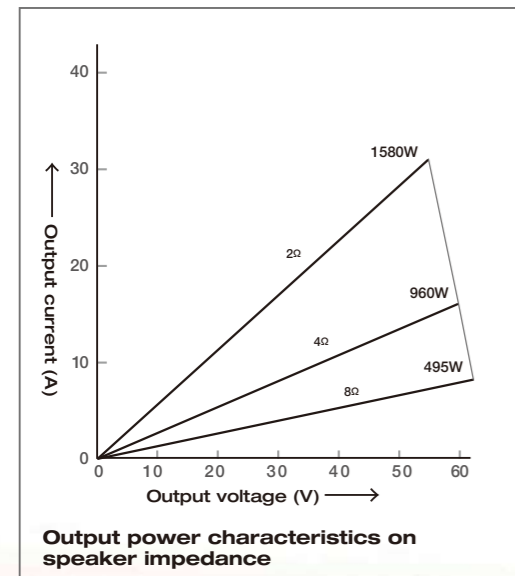
Philosophy

Music overflowing with life. Spacious sound that can only be achieved by a high-power amplifier.

That moment when the sound is released from the speakers and the presence of the audio system disappears from before your eyes: This is the most thrilling moment of the listening experience. The overwhelming feeling of the spaciousness of sound and sense that the sounds are being generated live are enabled by the output wattage surplus power of the amplifier. The introduction of far-superior materials, such as large bipolar transistors with instantaneous 34 ampere capacity, that first enabled us to achieve 300 watts at 8 ohms high power. For a rich feeling of life, ESOTERIC's flagship power amplifier M1 communicates the music by vibrantly setting all of the sounds free.

1200 watts at 2 ohm power linearity to amplify to the limits of sound dynamics.

Speaker impedance changes drastically along with changes in the frequency of the sound being played. In cases such as continuous heavy bass or the impact and subsequent silence of a percussion instrument, impedance can abruptly drop and cause a situation where there is almost no load. The full expression of sound dynamics is not possible with these sudden changes in load unless there is a current supply capacity that can be constantly followed linearly. The best materials possible have been used for the M1 power supply unit to achieve theoretical-value power linearity from 300 watts at an 8 ohm load to 1200 watts at a 2 ohm load. Sound dynamics are faithfully reproduced at all volume levels.



High-capacity custom power transformer forms the core the ESOTERIC power amplifier.

The decisive element in the M1's amazing linear high-power performance is the design of its strong power supply unit. ESOTERIC has long believed that the power transformer is the most important factor in sound design of an amplifier. The key to the overwhelming power and rich sound quality of the M1 amplifier is a custom-built ultra-large toroidal core transformer with a 3057VA core size and a mass of approximately 18 kg. Following ESOTERIC tradition, the bare (no-case) mount specs give top priority to sound quality. In order to make the fullest use of transformer performance capable of instantly supplying power from primary to secondary, the power supply unit features 16 pieces of 3,300 μ F capacitors in 8-parallel configuration, with the shortened voltage charge time contributing to high-speed sound quality.

Breathtaking speaker-driving power worthy of a flagship amplifier.

An amplifier drives the speakers by sending music information converted into electric current. The mechanism by which the amplifier drives the speakers is extremely simple, but considering that the current ranges from very weak to very strong, it is a near impossible task to accurately drive the speakers in a way that is always faithful to the music signal. In order to heighten the amplifier's ability to drive the speakers, it is necessary to find ways to reduce amplifier output impedance to an absolute minimum. In order to achieve low impedance, our full range of expertise was poured into the M1 to enable the use of a total of 16 busbars in the amplification stage and to eliminate the output stage coil, and exhaustive efforts were made to simplify the circuit design. The result was the achievement of the phenomenal figure of 1,000 for DF (damping factor), which can be consider a guideline value for woofer drive capability. Even large-diameter woofers that are notoriously difficult to drive achieve accurate damping, and sound is precisely reproduced with a voluminous feel across a wide range extending to the lowest frequencies.

A superior S/N:122dB is achieved at the input stage of the full-balance configuration.

When designing the amplifier for signal amplification in the M1, maximum attention was given to noise processing. Bringing together circuit design expertise cultivated since the very start of ESOTERIC, we adopted a full-balance input stage that was achieved as a result of painstakingly detailed designs. The signal is received by dedicated input buffer amplifiers (totally balanced design) in each input channel (RCAx1, XLRx-1), with low-impedance and full-balance transfer on the signal path up to the amplification stage. By eliminating common-mode noise and making the signal path resistant to the effects of noise, we maintained signal transfer purity up to the amplification stage, thereby achieving S/N ratio for a superior auditory feel. The overwhelming auditory dynamic range created through the amplification of a clean no-noise signal promises the listener a level of excitement that transcends spec values. The M1 does not give you just the dynamic expression of a high-power amplifier. It also has the extreme sensitivity needed to give you more nuanced gradations in between musical climaxes and silences.

Technical Features

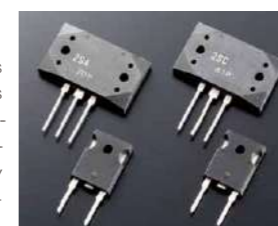
Grandioso M1
Monoblock Amplifier



High performance bipolar LAPT transistor boasting instantaneous 34 amperes.

Large bipolar LAPT* transistor components boasting the revolutionary current -supply capacity of 17-ampere continuous action and 34-ampere instantaneous action were adopted for the M1. In addition to the high power, the LAPT components also have superior high-frequency characteristics that enable them to provide subtle tonal qualities.

*LAPT=Linear Amplified Power Transistor



Three-stage Darlington circuit, six parallel push-pull, two-module configuration.

The power amplifier module has bipolar LAPT components in a three-stage Darlington configuration with six parallel push-pulls. To readily draw out the superior high-frequency characteristics of the bipolar components, we used a simple amplifier circuit that reduces the number of parallel elements as much as possible. By holding the number of amplifier-stage parts to a minimum and eliminating the output-stage coil, we were able to maintain signal path purity while at the same time focusing our efforts on reducing internal impedance through measures such as incorporating 16 busbars. In addition, the use of a two-module configuration mounted on two large aluminum die cast heat sinks helped to raise waste-heat efficiency and stability.



Minimization of NFB (negative feedback) minimized and realization of lively, natural sound quality.

By making the amplifier circuit design as simple as possible and reducing previous-stage naked gain, we minimized negative feedback to realize a natural sound quality that overflows with full of vitality.

Dramatically heightened resolution through a current amplifier stage featuring an independent power source. The current that the drive stage (current amplification stage) supplies to

the speakers always fluctuates radically. To prevent this from affecting sound quality, the current amplifier stage —which is situated just before the drive stage and which receives weak signals from the input stage— has a dedicated toroidal power transformer and power supply circuit. These provide a stable power supply to this stage, making it possible to heighten the nuanced expressive power and resolution of each instrument, even in a musical climax performed by a full orchestra.



High-impedance 1M ohm input.

The signal input unit was designed with 1M ohm high impedance. This reduces the load on the preamplifier output circuit and makes it possible to fully draw out the performance capabilities of all preamps.

High-grade parts used throughout for outstanding characteristics and sensitivity.

We carefully selected only the highest-grade parts for the M1 that are worthy of our flagship model. These include XLR input terminals that boast high reliability and high contact performance as well as ESOTERIC original RCA input terminals. The nextgen:WBT-0705Cu terminals produced by WBT are used for the speaker terminals. The use of pure materials (pure copper + gold plate) in the conductor core achieves high conductive performance and low resistance values. In addition, The M1 employs high-grade components such as low-impedance electrolytic capacitors and transistors with superior high-frequency characteristics achieved through a strict selection process including repeated audio and material properties testing.

Ingenious chassis structure fused with the high precision and vibration suppression at a high level.

The chassis is built using ESOTERIC's traditional two-level chassis structure. The strong internal 2 mm steel-sheet framework is segregated by circuit blocks into specialized compartments, and thorough wire and circuit mutual interference prevention is done using the optimum signal paths. The bottom chassis is built from 5mm thick steel. The total block layout of the internal framework is covered with a 5 mm aluminum panel and a front panel that is cut from 35mm thick aluminum. ESOTERIC's unique pinpoint feet provide a four-point support system that delivers a high level of rigidity with no resonance for the heavyweight housing.

Grandioso P1

Compatible disc types		
Super Audio CD, CD (CD-R/CD-RW compatible)		
Digital audio output		
ES-LINK output	x 2	
XLR output	x 2 (Use 2 terminals for Dual AES output)	
i.LINK (AUDIO) output (6-pin)	x 1	
i.LINK (AUDIO) output (4-pin)	x 1	
RCA output	x 1	
Clock synchronization input format		
Jack	BNC x 2	
Clock synchronization frequencies	44.1kHz, 88.2kHz, 176.4kHz, 10MHz, 22.5792MHz	
Input impedance	IN	75Ω
	10MHz IN	50Ω
Input level	IN	TTL levels
	10MHz IN	Sine wave : 0.5 to 1.0Vrms
Input frequency range	±10ppm	
General		
Power supply	AC 230V 50Hz, AC 120V 60Hz, AC 220V 60Hz	
Power consumption	24W	
External dimensions (W x H x D) (Including protrusions)	Main unit: 445mm x 162mm x 448mm (17 1/2" x 6 3/8" x 17 5/8")	
	Power supply unit: 445mm x 132mm x 452mm (17 1/2" x 5 1/4" x 17 3/4")	
Weight	Main unit : 27kg (59 1/2 lbs)	
	Power supply unit : 24kg (53 lbs)	
Accessories	Remote control unit (RC-1156) x 1, Batteries (AA) x 2, HDMI cable x 1, Power cord set x 1, Felt pads x 4, Owner's manual x 1, Warranty card x 1	

Grandioso D1

Analog audio output			
Terminals	XLR	x 1	
	RCA	x 1	
Output impedance	XLR	100Ω	
	RCA	47Ω	
Maximum output level (1kHz, full scale, 10kΩ)	XLR	5.0Vrms	
	RCA	2.5Vrms	
Frequency response (when 192kHz PCM signal input)	5 Hz to 55kHz (-3dB)		
Signal-to-noise ratio (S/N)	113dB		
Total harmonic distortion	0.0007% (1kHz)		
Digital audio input			
ES-LINK terminal	Input signal format	x 1	
		352.8kHz / 384kHz, 48bit Linear PCM (ES-LINK4 format)	
		DSD (ES-LINK4 format)	
XLR terminal	Input level	x 1	
		5.0Vp-p	
	Input impedance	x 1	
		110Ω	
	Dual connection Input signal format	32-384kHz, 16-24bit Linear PCM (DUAL AES format)	
		32-192kHz, 48bit Linear PCM (ES-LINK3 format)	
Single connection Input signal format	32-192kHz, 16-24bit Linear PCM (AES / EBU format)		
	DSD (ES-LINK1, ES-LINK2 format)		
RCA terminal	Input signal format	x 2	
		Input level	0.5Vp-p
		Input impedance	75Ω
Optical digital terminal	Input signal format	x 1	
		Input level	-24.0 to -14.5dBm peak
		32-192kHz, 16-24bit Linear PCM (IEC60958 format)	
i.LINK (AUDIO) terminal	Input signal format	x 2 (6-pin, 4-pin) S400	
		32-192kHz, 16-24bit, Linear PCM DSD	
USB port . B connector	Input signal format	x 1	
		32-384kHz, 16-32bit, Linear PCM 2.8MHz, 5.6MHz, DSD	
Clock output			
Terminal	BNC x 1		
Output level	equal to TTL level (into 75Ω load)		
Output frequency	44.1, 88.2, 176.4, 48, 96, 192kHz 22.5792, 24.576MHz same frequency as input (when output set to thru)		
Output frequency precision	±0.5 ppm (when shipped new)		
Clock input			
Terminal	BNC x 2 (WORD IN, 10MHz IN)		
Input impedance	CLOCK IN	75Ω	
	10MHz IN	50Ω	
Input frequency compatibility	CLOCK IN	44.1, 88.2, 176.4, 48, 96, 192kHz 22.5792, 24.576MHz (±10ppm)	
		10MHz IN	10MHz (±10ppm)
		10MHz IN	10MHz (±10ppm)
Input level	CLOCK IN	equal to TTL level	
	10MHz IN	Sine wave : 0.5 to 1.0Vrms	
General			
Power supply	AC 230V 50Hz, AC 120V 60Hz, AC 220V 60Hz		
Power consumption	14W		
External dimensions (W x H x D) (Including protrusions)	445mm x 132mm x 448mm (17 1/2" x 5 1/4" x 17 5/8")		
Weight	24kg (53 lbs)		
Accessories	Remote control unit (RC-1156) x 1, Batteries (AA) x 2, HDMI cable x 1, Power cord set x 1, Felt pads x 4, Owner's manual x 1, Warranty card x 1		

Grandioso P1
Super Audio CD Transport



Grandioso D1
Monoblock D/A Converter



ESOTERIC

Grandioso P1 / D1
Super Audio CD Transport / Monoblock D/A Converter



PROUDLY MADE IN TOKYO

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Design and specifications are subject to change without notice. This product is available in three different power supply variations shown in the chart above. Make sure that the voltage shown on the rear panel matches the AC line voltage in your area. The shape of the AC inlet and plug of the supplied power cord depends on the voltage rating and destination country.



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*To create a moving, once-in-a-lifetime connection between music and a listener,
the vitality of the music needs to be conveyed in its purest form, without stress.*

That is the ultimate mission of top-quality audio.

*ESOTERIC' s P1 and D1 digital source systems combine remarkable new technologies such as
ES-LINK4 and 36-bit D/A processing.*

*It' s easy to see why these new flagship models are called Grandioso,
Italian for "magnificent" or "majestic" .*



Grandioso D1
Monoblock D/A Converter

Grandioso P1
Super Audio CD Transport

P1 and D1-ADVANCED TECHNOLOGIES

New ES-LINK4 enables broadband transmission

ESOTERIC has developed an original, state-of-the-art transmission format called ES-LINK4, which allows DSD and 352.8kHz/48bit PCM ultrawideband and digital transmission using an HDMI cable. ES-LINK4 performs a large part of the digital signal processing on the sending side, greatly reducing the digital signal processing load on the D/A converter. In addition to ultra-wide bandwidth, we sought high sound quality through our "Pure D/A" concept, in which the D/A converter specializes in its original function of D/A conversion processing.

The outstanding expressive power of 36-bit D/A processing

The D1 applies a 36-bit D/A processing algorithm that converts PCM signals to analog signals at a high resolution of 36 bits by combining several 32-bit DAC devices. The tone of the high-bit data is used for faithful analog conversion. The resolution of 32-bit encoding is 256 times higher than that of 24-bit encoding, and 36-bit encoding gives an amazing resolution level that is another 16 times higher – a total of 4,096 times higher than the resolution of 24-bit encoding. Producing even finer bit tones minimizes operational error for outstanding expression of even subtle music signals.

A new dimension of isolated clock technology

The clock circuit, which supplies highly accurate reference clock signals to a digital circuit, can be considered the core unit of a digital player. The clock circuit of the P1 and D1 is completely independent of other circuits, including its power source and ground, enabling pure clock signals to be supplied to the system. The voltage controlled crystal oscillator (VCXO) was developed especially for the P1 and D1 in a joint effort with Nihon Dempa Kogyo (NDK), a major manufacturer of crystal oscillators. For a high-precision custom clock device worthy of leading models, high sound quality playback is provided thanks to an extremely low level of phase noise and a crystal element that is even larger than before.

High-accuracy clock sync

Jitter is reduced by connecting the P1 and D1 with a BNC cable for clock sync (synchronized playback). ESOTERIC's original technology for direct master clock linkage without Phase-Locked Loop (PLL)* is also supported. This technology enables pure clock processing, achieving a clear and accurate stereo image and ultra-clear sound quality. An even more sophisticated level of system operation is possible by connecting the high-precision G-01 rubidium master clock (sold separately). This master clock supports clock sync for a variety of frequencies to suit your sound-quality preferences, including master clocks (22MHz/10MHz) and WORD clocks (44.1kHz/88.2kHz/176.4kHz).

*This master clock is a digital audio output reference clock (22.5792MHz) generated within the high-accuracy clock module of the D1. The system also uses this master clock as the clock of the digital output circuit supplied directly to the P1 without passing through the P1's internal PLL circuit. It also supports the LINK 10MHz direct master clock using the 10MHz clock supplied from the G-01 (sold separately).

Grandioso P1

Super Audio CD Transport



Main Unit

Power supply unit

VRDS-NEO "VMK-3.5-20S"

ESOTERIC is justifiably proud of this VRDS-NEO transport mechanism. Remarkable improvements in readout accuracy have been achieved by utilizing a high-precision turntable and correcting the disk surface shake occurring during disk rotation. The P1 features the VMK-3.5-20S VRDS-NEO with a refined drive circuit design. A pair of selected ball bearings is used in the spindle shaft bearing assembly, and there is a micron-level accuracy duralumin turntable with a 20 mm-thick steel turntable bridge for a total mass of 5.2 kg. In addition, the highly trusted mechanism of the P1 has been further refined with a high-magnetic-flux-density magnet-driven coreless three-phase brushless spindle motor, thread feed control (which evolved from the concept of the premier P-0 series), and a sliding-shaft-structure pickup that ensures that the laser beam is always at a right angle to the disc.



VRDS-NEO "VMK-3.5-20S"

VS-DD* spindle servo driver

The P1 uses the VS-DD dedicated spindle servo driver to drive the spindle motor that functions as the core unit of the VRDS-NEO mechanism. Using a three-channel discrete amplifier circuit to optimize the current waveform supplied to the motors, the VS-DD suppresses vibrations, enabling smooth spindle drive operation and highly precise servo control. The dedicated toroidal power supply unit is mounted in a separate power supply unit housing, enhancing noise isolation effects.

*VS-DD = VRDS Spindle Discrete Driver

Two-chassis structure for main unit and power supply unit

Following the concept employed in our trademark P-0 series, a two-chassis structure is used in the traditional ESOTERIC flagship model. The power supply unit has been expanded to full-size, making it possible to include even more extravagant power supply circuits. A total of four independent toroidal power transformers are installed to supply clean and stable DC power to each circuit (VS-DD circuit, drive mechanism drive circuit, digital output circuit, and clock circuit).

Extensive material utilized both internally and externally

The inside of the main unit chassis has a double-deck structure and 3D optimized chassis construction connecting each circuit block with the shortest signal paths. Thick aluminum materials are used for the exterior, and the 5 mm-thick steel bottom chassis is supported at four points on original ESOTERIC pinpoint feet. Vibration is effectively controlled and thorough measures have been taken for rigidity.

Various digital output terminals

The P1 is equipped with five types and seven channels of digital output terminals (ES-LINK x 2, XLR x 2, coaxial x 1, iLINK 4p/6p x 1 each), including a new dedicated ES-LINK4 terminal and dual XLR terminals supporting past versions of ES-LINK.

Luxurious leather-finish remote control

Made of aluminum with just the right heft, the remote control has a leather finish that is supple and comfortable in your hand.

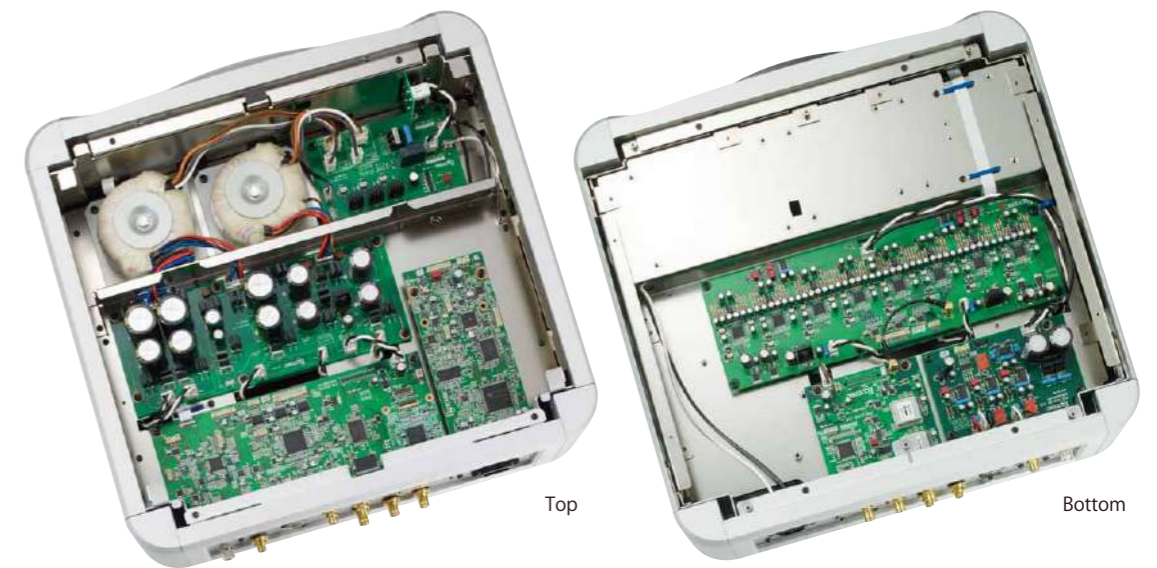


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Grandioso D1

Monoblock D/A Converter

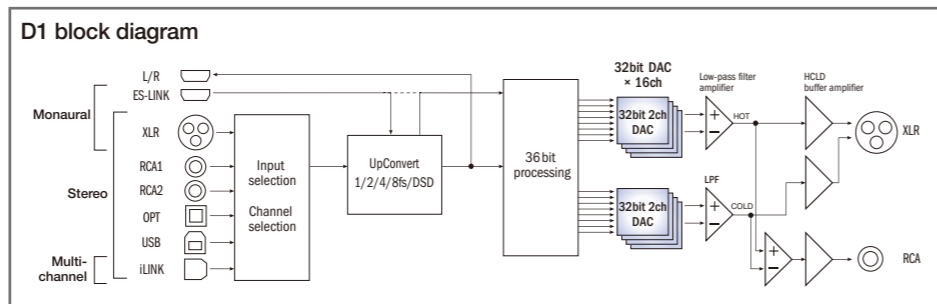
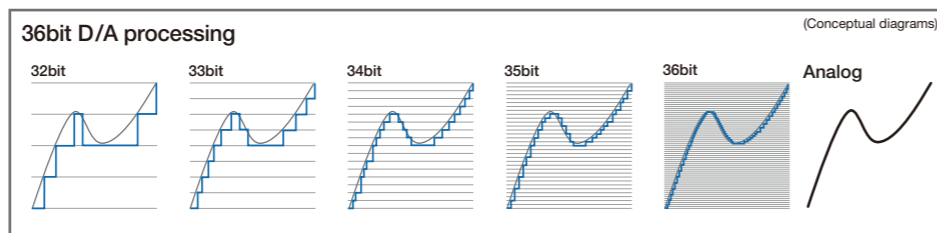


A monaural configuration for the ultimate evolutionary step toward the ideal stereo

The D1 follows the monaural configuration of the D-01, which we introduced in 2004 as the world's first monaural D/A converter. The D-01 was developed with the goal of attaining the highest level of channel separation and the ideal power supply to each channel. In the new D1, we have introduced the latest technology and further enhanced the design. The right and left channels can now be link-connected with a single HDMI cable (provided), and easy input from external source devices is possible. With the D1, you can enjoy a world of incredible stereo with the rich stereo image and sonic depth that is only possible with a monaural configuration.

Outstanding sound quality with 36-bit processing resolution

Aiming for the pinnacle of sound quality, we have incorporated the AK4495S, a state-of-the-art 32-bit DAC device developed by Asahi Kasei Microdevices Corporation. Sixteen circuits per channel are provided to achieve phenomenal linearity and low noise. In addition to direct processing of the DSD signal, a new 36-bit D/A processing algorithm has been adopted for analog conversion of the PCM signal at 36-bit resolution. The result is fine, smooth sound quality as along with high resolution.



D/A converter circuit Extensive use of high quality parts - *MUSES 02* Op Amp, AKM *AK4495S* DAC chipset, etc.

ESOTERIC-HCLD*: ESOTERIC's own output buffer circuit featuring fortified current transmission

A high-speed current transmission capability is the most important factor of an analog output circuit for transmitting a wide dynamic range of music signals downstream without deficiencies. For the ultimate performance as a line driver, the output buffer amplifier circuit of the D1 makes extensive use of materials and is configured with its own board separate from the D/A converter. The current output capability is high, and the high-performance elements adopted for the slew rate, which indicates response speed, boast the incredibly high speed of 2000V/ μ s. The ability to supply instant current is maximized with an extravagant buffer circuit configuration utilizing one circuit for RCA output and one circuit each for hot and cold connections for XLR output. With the ESOTERIC-HCLD, the D1 reproduces the dynamism of music with breathtaking reality. *HCLD=High Current Line Driver

High sound quality through the separation of digital and analog circuits

All analog circuits (DAC circuit analog portion, HCLD buffer circuit, etc.) are electrically separate from the digital circuits. This further enhances the clarity of sound quality by preventing the intrusion of digital noise.

Large toroidal transformers boasting high speed and surplus power supply capacity

Two large toroidal power supply units are installed for the digital and analog circuits, enabling high-efficiency and high-power drive operation in addition to low noise and low distortion. Stable and clean power is supplied to each circuit block by strong power supply circuits incorporating multiple large capacitors.

Wide-ranging D/D conversion functions to handle many source types

In addition to playback in the original sampling frequency, the D1 has functions for x2, x4, and x8 up-conversion of PCM digital signals. There are also various D/D conversion modes for PCM format (PCM-to-DSD conversion function, etc.).

Seven types and eight channels of digital input that support high sampling rates

To enable connection to an extensive range of devices, the D1 is equipped with wide-ranging digital inputs of seven types and eight channels (ES-LINK x1, XLR x1, iLINK4p/6p x1, USB x1, coaxial x2, optical x1), and can be used for high-sampling-rate sources of up to 24-bit/192kHz. In addition, XLR x2 supports high-sampling-rate/high-bit inputs of 48-bit/192kHz (ES-LINK3) and 24-bit/384kHz (Dual AES 8Fs).

USB input supporting 32-bit/384kHz PCM, 2.8/5.6MHz DSD, and asynchronous transmission

The D1 comes with USB input supporting asynchronous transmission and rates up to 32-bit/384kHz PCM and 2.8/5.6MHz DSD. Using ESOTERIC's original PC driver software, the D1 achieves high-grade playback of even studio-master-quality source files. DoP and ASIO 2.1 are also supported. *ASIO is a trademark of Steinberg Media Technologies GmbH. *Mac is supported only by the standard driver DoP method.

Excellent usability

Either Hot 2 or Hot 3 can be selected for the pin assignment of the XLR audio output.





Specifications

Rated Power Output	150W+150W (8Ω) 300W+300W (4Ω)
Maximum Power Output	600W+600W (2Ω)
Frequency Response	5Hz to 100kHz (+0dB, -3dB, 8Ω)
Signal-to-Noise Ratio (S/N)	115dB (IHF-A)
Total Harmonic Distortion	0.003% (1kHz, 8Ω, 150W)
Gain	29dB
Damping Factor	1000
Analog Audio Input Jacks	RCA x1 pair XLR x1 pair
Power Supply / Power Consumption	European model: 230V AC, 50Hz / 430W (no signal: 150W) USA/Canada model: 120V AC, 60Hz / 430W (no signal: 150W) S. Korea model: 220V AC, 60Hz
External Dimensions (W x H x D)	445 x 221.5 x 497.8mm (17 5/8" x 8 3/4" x 19 5/8") (including protrusions)
Weight	47kg (103 5/8 lb)
Included Accessories	Power cord x 1 / Felt pads x 4 / Power cord support bracket x 1 Power cord support bracket screw x 2 / Owner's manual x 1 / Warranty card x 1

-This product is made available in three different power supply variations shown in the chart above. Make sure that the voltage shown on the rear panel matches the AC line voltage in your area.
-The shape of the AC inlet and plug of the supplied power cord depends on the voltage rating and destination country.



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ESOTERIC

Grandioso S1

Stereo Power Amplifier



Master Sound Works

Audio expression, symphonic beauty, artistic passion, a concert hall spatial feel, the excitement of the audience. Esoteric's Master Sound Works is an audio product concept that recreates all of the music information in original master recordings with the most state-of-the-art technology available today.

To the Summit

Reaching New Heights of Sound and Beauty

ESOTERIC

Grandioso S1

Stereo Power Amplifier

The origins of Esoteric's new S1 Stereo Power Amplifier lie in an unbounded respect for the deep emotive powers of music.

The Grandioso lineage that gave birth to the M1 Monoblock Amplifier now unveils a new standard bearer.

Following in the footsteps of our M1 flagship, the new S1 benefits from its knowledge and technology, allowing it to continue in the pursuit of true perfection.

Experience majestic symphonies and infinite silence as sound and spirit call to each other. The very existence of the device between them seems to fade into oblivion, no longer noticed by the listener.

Without doubt, the new Esoteric S1 Stereo Amplifier defines the true spirit of fine audio, and the realization of the ultimate in musical enjoyment.



Grandioso

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ESOTERIC

Design Philosophy

Music Overflowing With Energy — A Sense of Space That Only High Power Can Achieve

That moment when the sound from your loudspeakers seems to make the audio system disappear before your very eyes is one of the most exhilarating moments of the listening experience. That indescribable sense of spaciousness, the feeling that the music you're hearing is truly live, can only be generated by an amplifier that offers an abundance of power in order to properly drive the loudspeakers.

Employing the finest components, and massive power supplies, enables Esoteric's amplifiers to achieve that high power output. As our new flagship stereo power amplifier, the S1 faithfully incorporates the design philosophy of our Monoblock M1, setting free every nuance of sound, and imparting to music all the vibrancy and richness of life.

600W into 2Ω Power Linearity for Outstanding Dynamics

A loudspeaker's impedance can vary widely depending on the frequencies being reproduced. Continuous low bass and repeated fast transients from percussive instruments can impose a very demanding load on the amplifier that can require not only continuous high power outputs, but also repeated bursts of high power. Unless the amplifier's power supply has the capacity to meet these stringent demands and do so consistently, the dynamics of the music will be compromised.

The finest materials and component parts have been used in the construction of the S1's power supply. This enables the S1, which is nominally rated at 150 watts into 8 ohms, to deliver an impressive 600 watts into 2 ohms. This is a testament to the linearity of the S1's power supply, and permits the full spectrum of sound dynamics to be faithfully reproduced at all volume levels.

Large-Capacity Custom Power Transformer — The Heart of the Finest Power Amplifiers

As one of the most important factors in deciding an amplifier's ultimate sound quality, the S1's robust power supply plays a critical role in its ability to deliver high power in a linear manner. The power supply's large 2,180VA toroidal transformer provides the foundation for the S1's exceptional power output. With the knowledge that an amplifier's sound quality is ultimately determined by the quality of its power transformer, the S1 employs a custom power transformer that demonstrates Esoteric's highly developed expertise in material selection, core size and even mounting technique. To preserve the purity of the sound, separate windings are used for the left and right channels, and the transformer is securely mounted on a rigid, 5mm-thick steel base plate.

The transformer is not fitted with a cover in order to avoid any degradation in sound quality, however slight, that this might cause. Three parallel rows of capacitors totaling 4,700μF per channel shorten charge and discharge times, and provide a tighter and faster sound. The power supply wiring employs heavy-duty cable, and to reduce impedances to the lowest level possible, rather than use conventional connectors, joints are made using crimp terminals that are tightly bolted together.

Breathtaking Speaker-Driving Power Worthy of a Flagship Stereo Amplifier

An amplifier drives the loudspeakers by converting the musical information into an electric current. While this may sound simple, considering that the output current ranges from very small to very large, it is nearly impossible to accurately drive the loudspeakers in a way that is consistently faithful to the source musical signal.

In order to optimize the amplifier's ability to drive the loudspeakers, ways had to be found to reduce the amplifier's output impedance to an absolute minimum. To achieve this, Esoteric's full range of expertise was devoted to the S1. A total of nine bus bars are used across the design, and the need for an output coil has been eliminated. In addition, exhaustive efforts have been made to simplify the circuit design and widen its range. The result is the achievement of the phenomenal DF (damping factor) of 1,000, which can be considered a guideline for woofer drive capability. Even large-diameter woofers, which are notoriously difficult to drive, are provided with accurate damping, and the sound is precisely reproduced with an expansive feel across a wide range that reaches to even the lowest frequencies.

Balanced Input Stage Configuration Enables High Clarity Signal Amplification

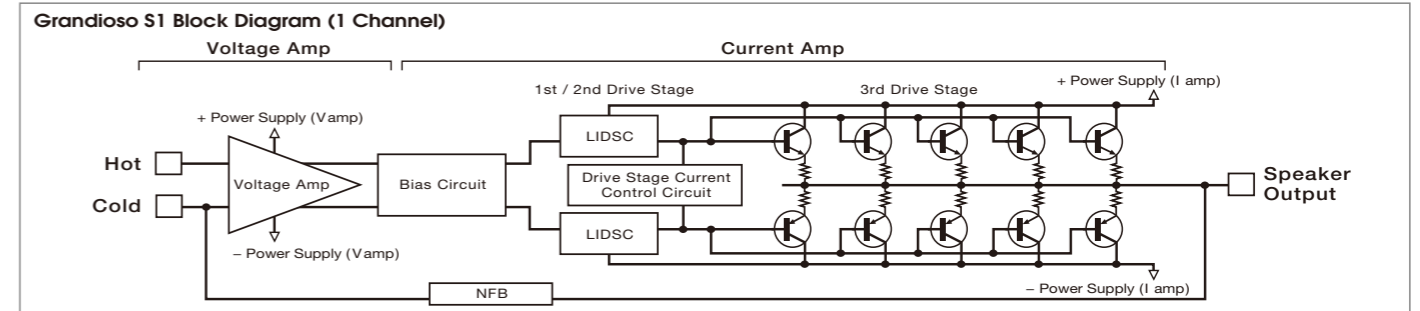
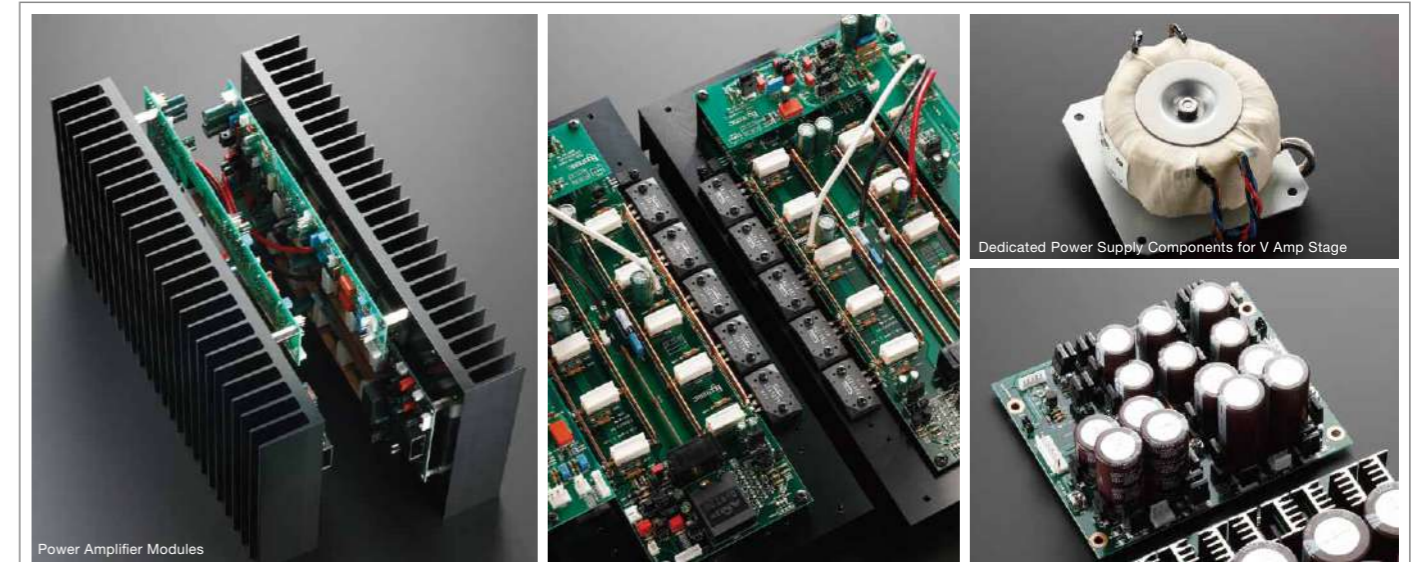
In the design of the S1, careful attention has also been given to noise reduction. Each channel's audio input signal enters through discrete balanced input buffer amplifiers, and is then relayed to the amplification stage by way of a low-impedance signal path. By eliminating common-mode noise and making the signal path resistant to the effects of noise, signal clarity is accurately maintained through to the amplification stage, thereby achieving an extremely high signal-to-noise ratio for an exceptional listening experience.

The outstanding dynamic range made possible by the amplification of a clean, noise-free signal promises the listener a level of excitement that transcends mere numerical specifications. The S1 not only delivers the full dynamic expression of a high-powered amplifier, it also provides the fine sensitivity needed to reproduce the more nuanced gradations that exist between musical crescendos and silence.

Grandioso S1

Stereo Power Amplifier

Technical Features



Large, High-Performance Bipolar LAPT Transistors Deliver 34 Amperes of Instantaneous Output

The S1's large bipolar LAPT* transistors are twice the size of more commonly used power transistors, and boast an exceptional continuous current capacity of 17 amperes and an instantaneous transient capacity of 34 amperes. In addition to their high output capability, these LAPT components also offer superior high-frequency characteristics that contribute to the S1's exacting reproduction of subtle tonal qualities.



*LAPT=Linear Amplified Power Transistor

3-Stage Darlington Circuit With 5 Parallel Push-Pull Configuration

The power amplifier module uses bipolar LAPT transistors in a three-stage Darlington configuration with five parallel push-pull sections. To realize the superior high-frequency characteristics of these devices, a simplified amplifier circuit was developed to reduce the number of parallel elements. Signal path integrity was maintained by minimizing the number of amplifier stage component parts and eliminating the output stage coil, which can give rise to deterioration of high frequency characteristics. Efforts were also concentrated on reducing internal impedance through the use of multiple bus bars.

LIDSC (Low-Impedance Drive Stage Coupling)

To perfect a stereo amplifier that sacrifices none of the performance of the monoblock M1, the output impedance from the second stage of the drive section to the final stage was reduced, and an LIDSC circuit was employed to enhance current supply capability. This made it possible to obtain the maximum amplitude within the power supply's available voltage while minimizing distortion, and so give the compact S1 Stereo Power Amplifier a loudspeaker drive capability very nearly that of the M1.

Minimized Negative Feedback (NFB) For a More Energetic and Natural Sound

Negative Feedback (NFB) has been minimized in the S1's design by simplifying its amplifier circuitry and reducing the previous stage's gain, for a more natural and life-like sound.

Independently Powered Voltage Amplifier Stage For Dramatically Improved Resolution

The electrical current supplied by the drive (current amplification) stage to the loudspeakers varies over an exceedingly wide range. To prevent this from affecting the overall sound quality, the S1's voltage amplification stage, which is positioned just before the drive stage and receives a low level signal from the input stage, derives its power from a dedicated power supply circuit equipped with its own toroidal power transformer. This isolation ensures a stable supply of power to the voltage amplification stage, enabling a dramatic increase in the resolution of fine detail for each instrument, even during the crescendos of a full orchestra. To keep losses to a minimum, both the voltage amplification and drive stages are directly connected without the use of cabling.

High-Quality Components Selected For Outstanding Characteristics and Sensitivity

As one would expect from a flagship model like the S1, only the highest grade of electronic components have been employed in its construction. These include XLR input connectors that provide high reliability and high contact performance, as well as Esoteric's original RCA input connectors. Loudspeaker terminals are of the WBT-0702Cu type produced by WBT of Germany. In addition, the S1 employs many other high-grade components, such as low-impedance electrolytic capacitors, transistors with superior high-frequency characteristics, and high-speed MUSES SIC (silicon carbide) Schottky-barrier diodes, which produce significantly less rectification noise. All were carefully selected after carrying out detailed checks of their characteristics and undertaking extensive listening tests.

High-Precision Chassis Construction For the Highest Levels of Vibration Suppression

The S1's chassis is constructed using Esoteric's traditional dual-level configuration. Its strong, 2mm-thick sheet steel internal framework segregates circuit blocks into specialized compartments to achieve the shortest possible signal path. Maintaining its discrete dual-mono design, this internal framework is also divided into separate left and right halves, down to the layout of its rear panel, which eliminates the possibility of channel interference due to the effects of vibration.

The S1's elegant front panel is machined from a 35mm-thick block of high-grade aluminum alloy. The top cover employs a 5mm-thick aluminum panel, while the rigid base is made of 5mm-thick steel. Supporting this, Esoteric's original pinpoint feet provide a four-point support system that further ensures the structure's high rigidity and elimination of resonances.

Super Audio CD / CD Player



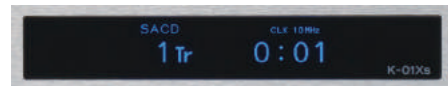
K-01Xs



K-03Xs

Organic EL Displays

The K-01Xs (K-03Xs) features smooth-operating, low-consumption electroluminescent (EL) display.



RC-1315 (K-01Xs) RC-1301 (K-03Xs)

Specifications

Playable disc types

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

Analog audio outputs

XLR/ESL-A connector 1 pair (L/R)
 RCA connector 1 pair (L/R)
 Output impedance XLR: 84Ω ; RCA : 37Ω
 Maximum output level (at 1kHz, 10kΩ load)
 XLR: 5Vrms RCA: 2.5Vrms
 Frequency response* 5Hz to 55kHz (-3dB)
 S/N ratio* 120dB
 Distortion* 0.0008% (1kHz)

*Super Audio CD, XLR output

Digital audio outputs

XLR connector 1
 Output level 3 Vp-p (into 110Ω)
 RCA connector 1
 Output level 0.5 Vp-p (into 75Ω)

Digital audio inputs

RCA connector 1
 Input impedance 75Ω
 Input level 0.5 Vp-p
 Optical digital connector 1
 Input level -24.0 to -14.5dBm peak
 USB-B port (USB 2.0 standard) 1

Clock input

BNC connector 1
 Input impedance 50Ω
 Frequencies that can be input(±10ppm)
 44.1, 48, 88.2, 96, 176.4, 192kHz,
 10, 22.5792, 24.576MHz

Input level
 Rectangle wave equivalent to TTL levels
 Sine wave 0.5 to 1.0 Vrms (50 - 75Ω)

General

Power supply AC 220-240V, 50/60Hz ; AC 120V, 60Hz ; AC 220V, 60Hz
 Power consumption K-01Xs: 35W ; K-03Xs: 29W
 External dimensions (W x H x D, including protrusions)
 445 x 162 x 438mm (17 5/8" x 6 1/2" x 17 1/4")
 Weight K-01Xs: 31kg (68 3/8 lb) ; K-03Xs: 28kg (61 3/4 lb)

Included accessories

Power cord set x 1 ; Remote control (K-01Xs: RC-1315 ; K-03Xs: RC-1301) x 1 ;
 Batteries for remote control (AAA) x 2 ; Felt pads x 3 ;
 Owner's manual x 1 ; Warranty card x 1



K-01Xs / K-03Xs

ESOTERIC

Super Audio CD/CD Player K-01Xs/K-03Xs



PROUDLY MADE IN TOKYO

ESOTERIC

ESOTERIC COMPANY

1-47 Ochiai, Tama-shi, Tokyo 206-8530, Japan
 Fax: (042) 356-9240
www.esoteric.jp

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*Experience the ultimate beauty of music
and a new depth to the art of playback
from a device that exudes elegance.*

*The K series, the eternal icon of the Esoteric brand,
is now updated to a new "Xs" edition.*

*The K-01 and K-03 are the Esoteric brand's most iconic integrated Super Audio CD players.
First launched in 2010 before evolving to its second generation, the X edition, in 2014, it captivated
people around the world with its incredible playback of music sources. These players have won more
awards than any other Esoteric series, and have become the gold standard of digital players worldwide.
And now this series has evolved again into a third generation, the Xs edition. Every part of these
players is made from luxurious materials and cutting-edge technology, from the new DAC platform
used in flagship models like the Grandioso K1 and N-01 to the latest digital input parts and the
ES-LINK Analog transmission method, creating a new page in the history of digital players.*

Super Audio CD/CD Player

K-01Xs



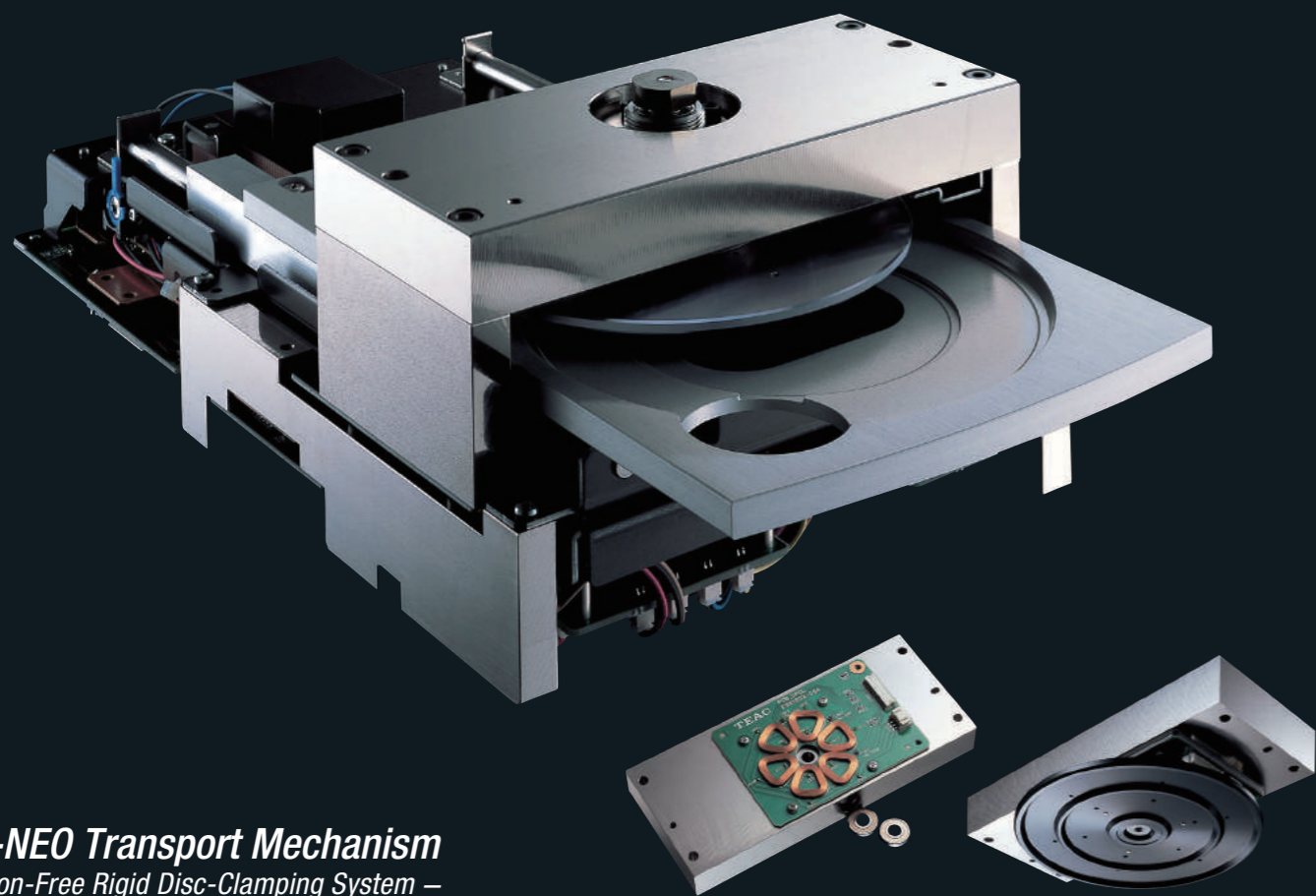
Super Audio CD/CD Player

K-03Xs



K-01Xs

VRDS-NEO [VMK-3.5-20S]



VRDS-NEO Transport Mechanism
— Vibration-Free Rigid Disc-Clamping System —

A new gold standard in digital players

K-01Xs



Eight years after the release of the K-01, the ultimate in integrated digital players, comes the birth of the K-01Xs, a condensed version of Esoteric's flagship Grandioso model. The K-01Xs features the K series' classic construction with a high-rigidity chassis and a total of four power transformers in the power section, along with the high-precision VRDS-NEO [VMK-3.5-20S] turntable system used in the Grandioso P1/K1 and a pair of differential 8-circuit/channel monaural DACs following the latest DAC platform developed for the K1. Its extensive specifications are the gold standard in digital players, including the latest DAC (IC AK4497), a 35-bit D/A processing algorithm developed with Esoteric's patented proprietary technology; an HCLD buffer amplifier; DSD-compatible USB and a large custom low phase noise clock.

VRDS-NEO [VMK-3.5-20S]

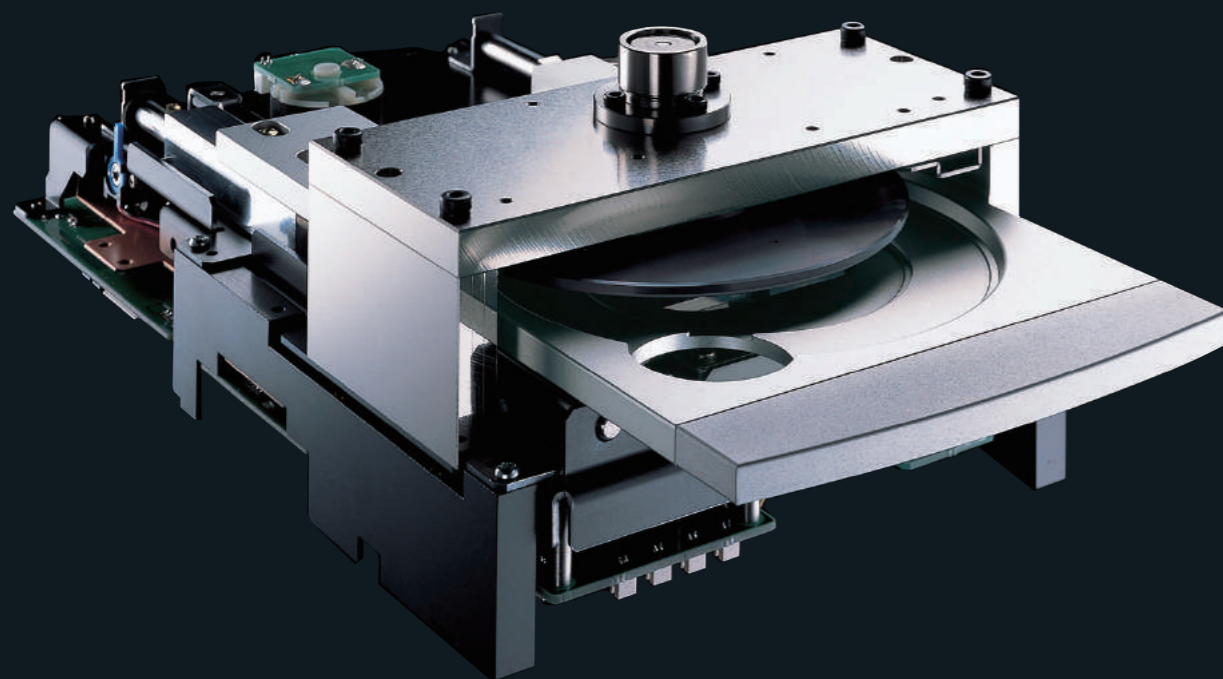
Packed with Esoteric mechatronics, the VRDS uses a turntable to rotate CDs and Super Audio CDs, and mechanical correction of surface vibration is used to dramatically improve reading precision. Featured in the K-01Xs, the VRDS-NEO [VMK-3.5-20S] uses a pair of specially selected high-precision ball bearings for the spindle bearing as well as a duralumin turntable accurate within

microns and a 20mm-thick steel turntable bridge. The weight of the mega-unit is 5.2kg (12kg including the rigid base). It features a range of classic mechanisms including the coreless three-phase brushless spindle motor driven by a strong magnet and the VS-DD (VRDS Spindle Discrete Driver). These are combined with a quiet shutter mechanism* in the tray to provide the ultimate precision.

*A mechanism in which a shutter closes when the tray retracts and the shutter is mechanically locked into the front panel. This increases airtightness, reducing adverse effects from external sound pressure and vibration.

K-03Xs

VRDS-NEO [VMK-3.5-10]



The latest in a winning series

K-03Xs



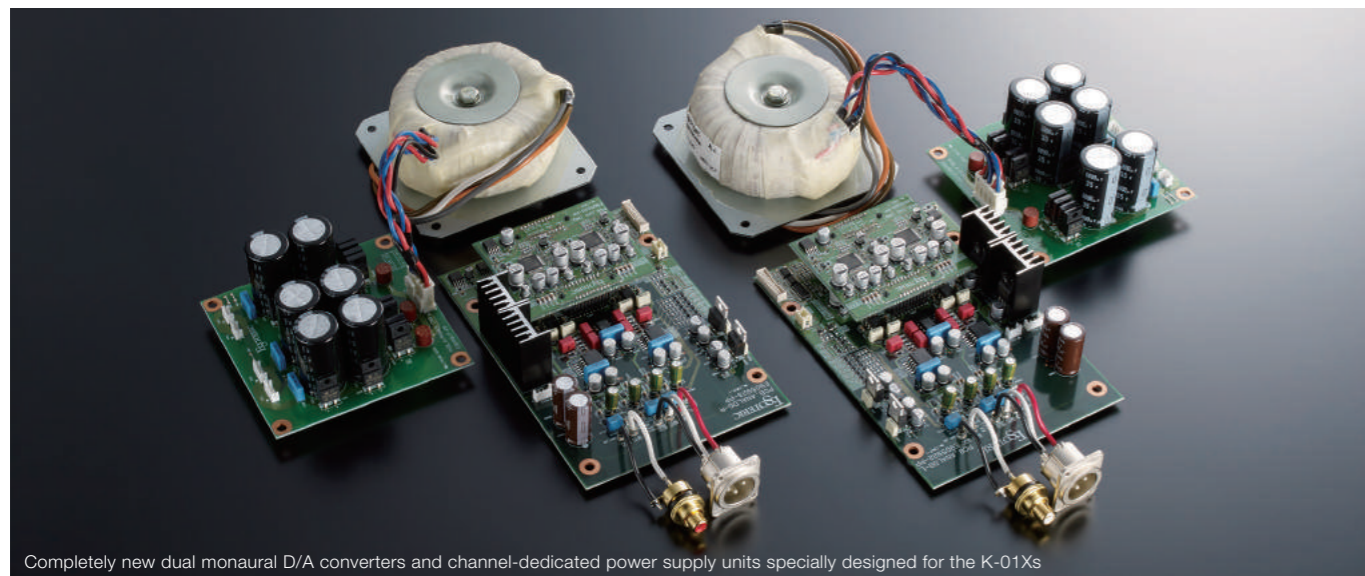
Carrying on the high-end concepts and technology from winning integrated players such as the Grandioso K1 and K-01Xs, the K-03Xs is what happened when we asked how far we could go, what heights we could reach with our performance model. The classic VRDS-NEO [VMK-3.5-10] drive mechanism contains a VS-DD circuit for smooth, quiet driving of the spindle. Developed based on the new DAC platform used in the Grandioso K1, the K-03Xs has a differential 4-circuit/channel dual mono DAC and Esoteric's patented proprietary 34-bit D/A processing algorithm. The essence of our flagship model can be seen throughout the K-03Xs, from many of the latest devices to the DSD-compatible USB and core sound quality features and functions.

VRDS-NEO [VMK-3.5-10]

The VRDS-NEO mechanism is used in our flagship model the Grandioso P1 to achieve the ultimate transportation precision. A high-precision turntable is used to rotate CDs and Super Audio CDs, with mechanical correction of surface vibration and dramatically improve reading precision. The K-03Xs takes this high precision even further with the

VRDS-NEO [VMK-3.5-10]. The VS-DD spindle servo driver is used for smooth, high-precision servo control. The mecha unit weighs 4.4kg, with a total weight of 11.2kg including the rigid base. The collection of heavyweight parts includes a duralumin turntable and a 10mm-thick steel turntable bridge. These are complemented by high-quality classics from the VRDS-NEO, such as the coreless three-phase brushless spindle motor driven by a strong magnet.

"Xs" The Art of Mechanical Engineering and the Most Cutting-Edge Electronics

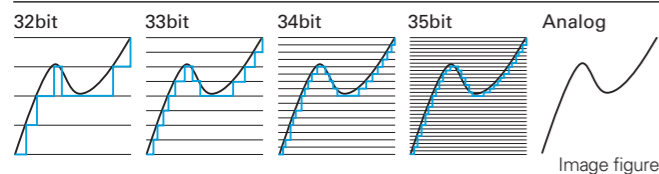


Completely new dual monoaural D/A converters and channel-dedicated power supply units specially designed for the K-01Xs

New Dual Mono D/A Converter

The D/A converter section was created based on the latest platform used in the Grandioso K1, with the very finest premium materials and circuit technology added to take it to the highest level of sound quality. The AK4497 32-bit premium DAC device from Asahi Kasei Electronics is combined with a high-quality operational amplifier (MUSES 02 in the K-01Xs and MUSES 8820 in the K-03Xs). The K-01Xs has 8 circuits per channel while the K-03Xs has a 4-circuit parallel/differential circuit structure for powerful linearity with minimal distortion. The circuit patterns of the DAC's power section have been further improved, with independent left and right power transformers in the K-01Xs to achieve a clean and highly stable power supply. Both the digital and analog circuits have more thorough isolation than previous models, achieving true-to-life playback with outstanding purity and superb sound stage depth.

High-Bit D/A Processing with Outstanding Powers of Musical Expression (PAT. JP6043052)



Both the K-01Xs and K-03Xs combine multiple 32-bit DAC chipsets and utilize a high-bit D/A processing algorithm to convert the PCM signal to analog at a high resolution in excess of 32 bits. The K-01Xs supports 35-bit processing and the K-03Xs 34-bit processing. 35-bit processing achieves an astounding resolution that is fully 2,048 times that of 24-bit processing (34-bit processing being 1,024 times that of 24-bit processing). 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.

ESOTERIC-HCLD*: Esoteric's Exclusive Output Buffer Delivers Powerful Direct Current Transmission

The ability to produce comparatively large currents and high slew rates are two of the most important factors that enable an analog output circuit to accurately transmit the wide dynamic range of a music signal without degradation. The K-01Xs (K-03Xs) offers the ultimate performance as a line driver by adopting high-performance elements with a high current output and exceptionally fast slew rate (2,000V/μs) for excellent response speed. Two of these buffer circuits are employed per channel. By configuring them differentially to drive the XLR outputs and in parallel to drive the RCA outputs, the available instantaneous output current is maximized. By maximizing instantaneous current output, the K-01Xs (K-03Xs) reproduces the full dynamics of music with breathtaking realism.

*HCLD=High Current Line Driver

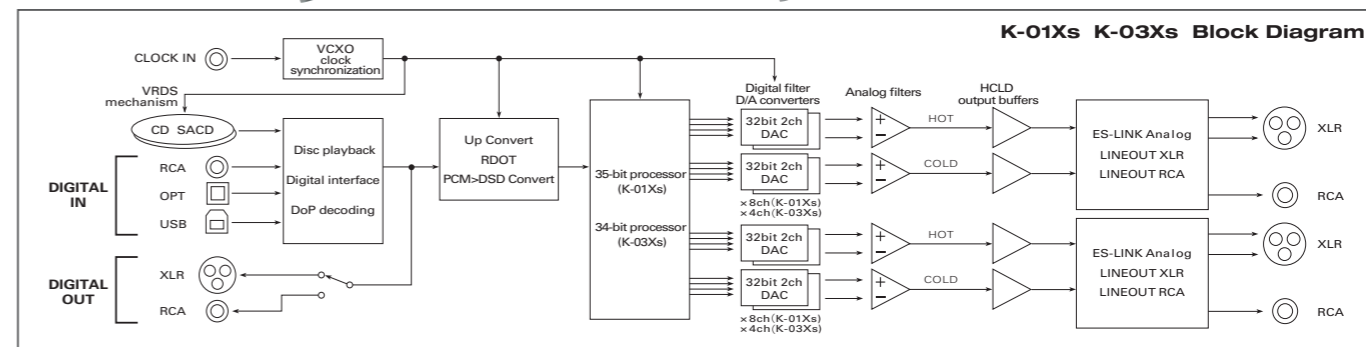
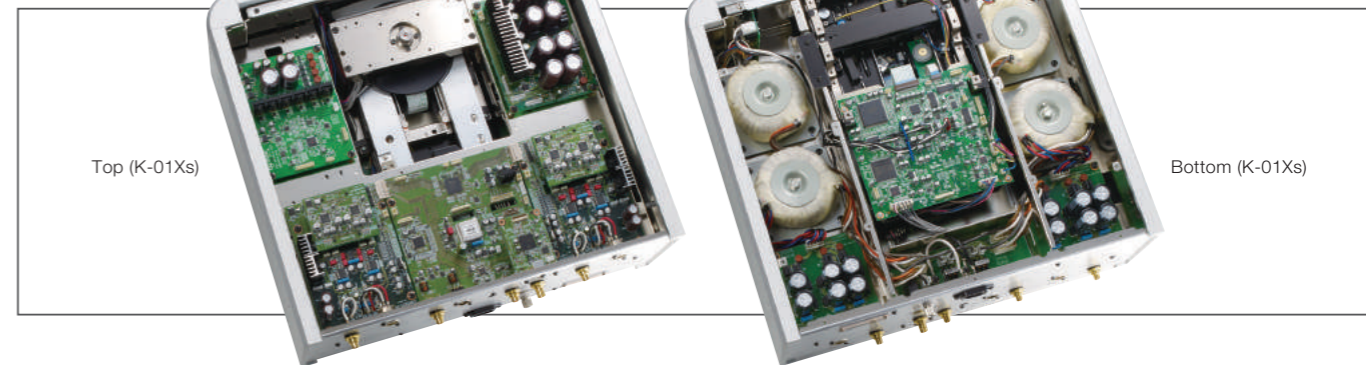
"ES-LINK Analog" Method for High Quality Current Transmission

In addition to regular line connections (XLR and RCA), the K-01Xs (K-03Xs) features Esoteric's new "ES-LINK Analog" transmission method. This is a current transmission method that utilizes the high performance of the HCLD buffer circuit and its enhanced ability to supply high-speed current. This is the ideal analog audio transmission as it is free from signal route impedance, thus fully maximizing the system's potential when connected to a compatible device.*

*A standard balance cable (with an XLR terminal) is used for connections, but the "ES-LINK Analog" method is a proprietary transmission method which can only be used with compatible devices.

Wide Range of D/D Conversion According to Source

In addition to the original Fs playback, this series has a function for up-conversion of PCM digital signals by 2x, 4x, 8x or 16x (maximum 768kHz). It also features a PCM > DSD conversion function using a proprietary algorithm. DSD is up-converted to 22.5MHz. The unit also features a DSD digital filter that can be turned on or off as desired.



Digital Inputs

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

USB Audio Interface Compatible with DSD22.5MHz, PCM768kHz/32bit and Asynchronous Transmission

The unit is equipped with a USB port enabling connection to a computer. The driver and playback software (Esoteric HR Audio Player) can be downloaded from the Esoteric website. The unit supports asynchronous transmission and a high sampling playback of DSD22.5MHz and PCM768kHz/32bit, and even enables high-quality playback of studio master quality sources. In addition to conventional asynchronous transmission methods, it supports the new Bulk Pet method for an even wider range of tone selection.

High-Precision VCXO Clock

The clock circuit supplies a high-accuracy reference clock signal to the digital circuitry. The Grandioso Custom VCXO (voltage-controlled crystal oscillator) is a high-precision custom clock that utilizes a large crystal element to ensure exceptional sound quality with excellent center accuracy (±0.5ppm) and extremely low levels of phase noise.

Clock Sync Function for Synchronization with External Devices

Connecting the K-01Xs (K-03Xs) to a high-precision master clock generator such as the G-01X or the G-02X allows synchronization of the unit's operation with an external clock signal, thereby enabling the quality of the system to be further upgraded. Synchronization with an external clock is also available when USB input is used.

Output Modes

The analog audio output can be switched between ES-LINK Analog, RCA, and XLR. Hot 2 or Hot 3 XLR pin assignments can also be selected. Loss in audio quality is eliminated with a non-contact system by performing phase inversion in the digital domain.

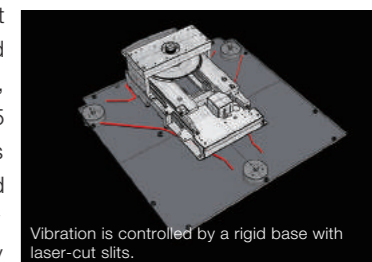
Support for Future System Upgrades

RCA (S/PDIF) or XLR (AES/EBU) digital outputs are provided. These allow the player's performance to be upgraded by the addition of a top-end Esoteric D/A converter.

*This circuit can be turned off when digital output is not in use.

Chassis Construction and Parts Layout

The VRDS-NEO transport mechanism is positioned in the center of the unit, directly attached to the 5 mm-thick steel chassis bottom, and is supported at three points by Esoteric's proprietary



pinpoint feet (Patent No. 4075477 and 3778108) to effectively suppress vibration. The chassis interior features a double-deck construction. The audio boards are located on the upper layer of the chassis, being isolated from the power supply components on the lower layer, and the power supply wiring has been made as short as possible.

The K-01Xs features four large toroidal transformers: one for each of the two built-in monoaural D/A converters, one for the audio circuitry, and one for the VS-DD spindle servo driver. The K-03Xs is equipped with two large toroidal transformers: one for the analog circuitry and the other for the digital/mechanism drive circuitry. This design provides ideal power supply capability to all circuit blocks without interference.

ESOTERIC

Super Audio CD/CD Player K-05X/K-07X

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, its 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-DSD 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-DSD conversion.

ESOTERIC HR Audio Player (for PC / Mac)

Available free for download from the Esoteric website.

Supported file formats

DSF	DSD 2.8 / 5.6MHz / 11.2MHz	DIFF	DSD 2.8 / 5.6MHz / 11.2MHz
PCM(wav)	44.1k to 384kHz, 16 to 32 bit	FLAC	44.1k to 384kHz, 16 to 32 bit
MP3	32k to 320kpbs		

Specifications

Playable disc types

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

Analog audio outputs

Connectors XLR (2 ch) × 1 pair, RCA (2 ch) × 1 pair
Output impedance XLR : 20 Ω, RCA : 20 Ω
Maximum output level (at 1kHz, 10kΩ load) XLR: 5.0 Vrms, RCA: 2.5 Vrms

Super Audio CD XLR output

Frequency response 5 Hz to 70 kHz (−3 dB)
S/N ratio 117 dB
Distortion 0.0007% (1 kHz)

Digital audio output

RCA jack 0.5 Vp-p (into 75 Ω) × 1
Digital optical port −21 to −15 dBm peak × 1
USB-B port USB 2.0 standard × 1

Digital audio input

RCA connector 0.5 Vp-p (into 75 Ω) × 1
Digital optical port −24.0 to −14.5 dBm 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 (±15 ppm)
Input impedance 75 Ω
Input level Rectangle wave : equivalent to TTL levels, Sine wave : 0.5 to 1.0 Vrms (50 to 75 Ω)

General

Power supply
European 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: 23W ; K-07X: 27W
External dimensions (W×H×D) 445 × 131 × 355 mm (including protrusions) (17 5/8 × 5 1/4 × 14")
Weight 14 kg (30 7/8 lb)

Included accessories

Power cord × 1, Remote control (RC-1301) × 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.

Featuring the same short-scratch hairline finish used on the player's front panel, the remote control's thick aluminum panel exudes a high-quality feel.



Common to K-05X / K-07X



PROUDLY MADE IN TOKYO

ESOTERIC

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Super Audio CD/CD Player

K-05X



VRDS-NEO [VMK-5] Transport Mechanism Improves Reading Accuracy

The unique VRDS-NEO VMK-5 transport mechanisms featured in these two new players incorporate high-precision turntables that greatly improve reading accuracy by mechanically correcting for disc surface run-out. Their 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 emotional expression of music without a hint of stress.

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



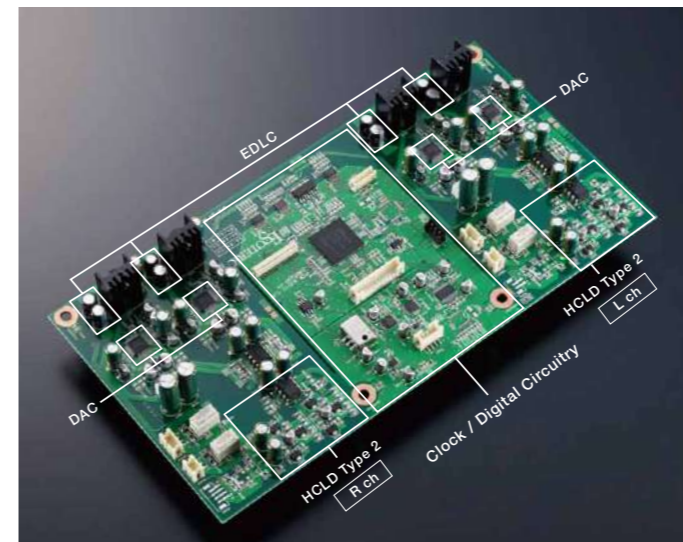
Refined Dual Mono D/A Converters Derived From Top-of-the-Line Components

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 Linestage 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.

*AK4490 is a branded product of Audio4pro™ and of Asahi Kasei Microdevices Corporation, and designed for professional studio and digital audio applications.



*EDLC = Electric Double-Layer Capacitor *HCLD = High Current Line Driver

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.

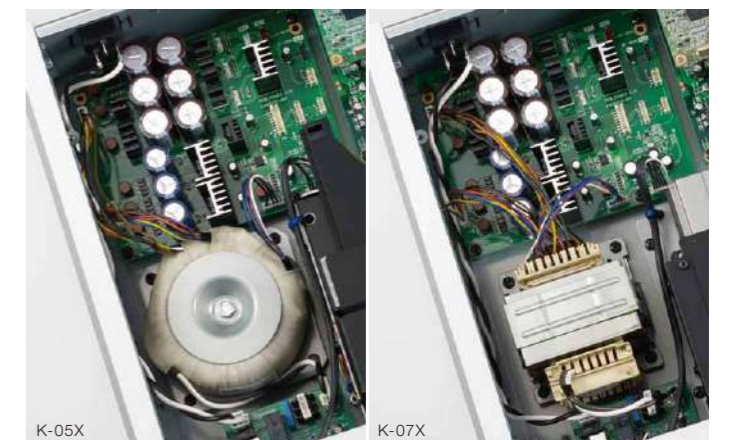
Proprietary Esoteric-HCLD* Type 2 Current-Enhancing Output Buffer Circuit

Playing a critical role in the superb sound quality achieved by these new 'X' version SACD players, further improvements were also made to their analog output circuitry. Providing excellent current transmission capability as well as a strong drive output, both players now employ Esoteric-HCLD* Type 2 buffer amplifier circuitry like that first used in such high-end models as our C1 Linestage Preamplifier. Two of these buffer circuits are installed per channel and configured differentially to drive the XLR outputs, and in parallel to drive the RCA outputs. By transmitting the wide dynamic range of the musical signal in its entirety and providing a strong drive to connected equipment, the full dynamism of music is recreated with a sense of realism that will take your breath away.

*HCLD = High Current Line Drive

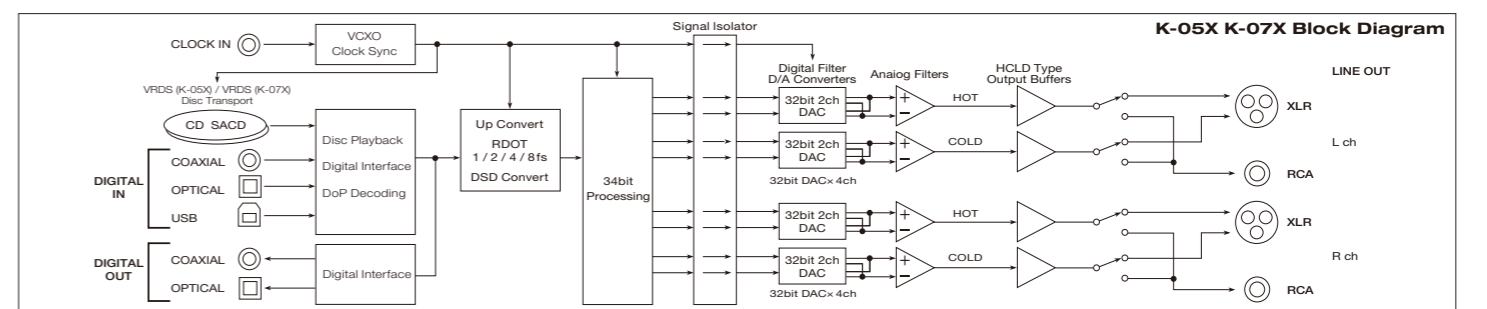
High-Speed, Large-Capacity Power Supply

The K-05X is equipped with a large, high-efficiency, high-powered toroidal transformer, while the K-07X uses a full-sized EI-core transformer. Each is custom-designed 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.

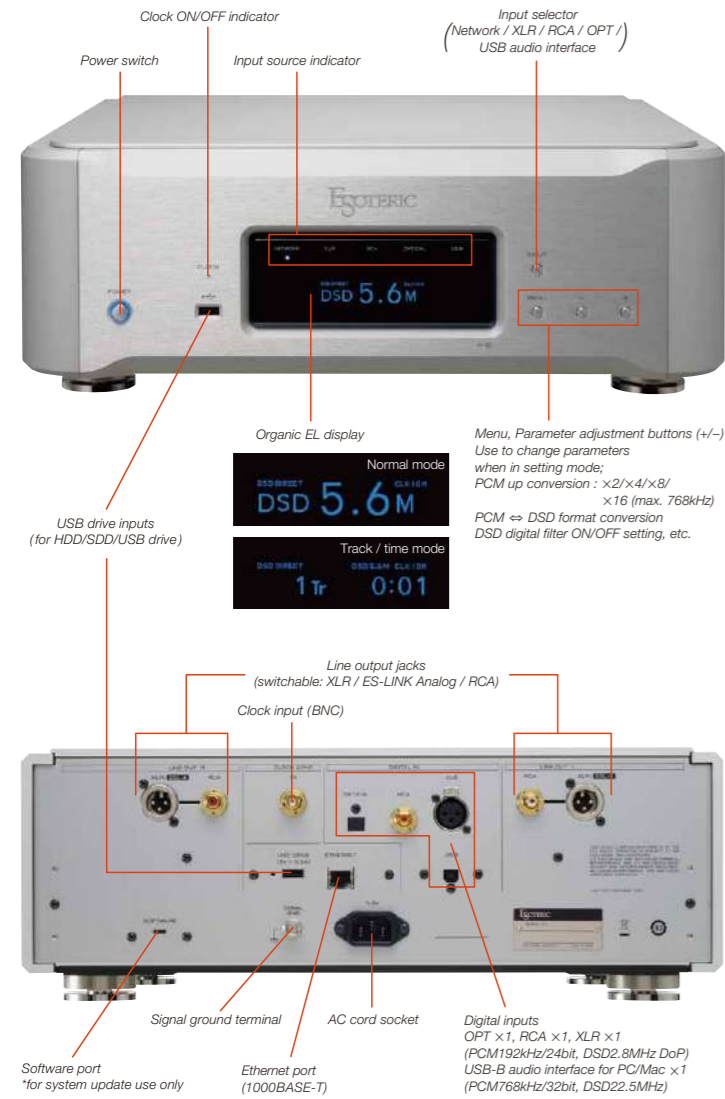


High-Precision VCXO Clock

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 ($\pm 0.5\text{ppm}^*$) and extremely low levels of phase noise to ensure exceptional sound playback quality. (*at time of shipping)



N-01 Network Audio Player



Specifications

Digital audio inputs	
XLR Connectors	1
Input level	5.0Vp-p
Input impedance	110 Ω
Input signal formats.....	Linear PCM (AES/EBU) 32 - 192kHz, 16/24bit DSD 2.8MHz (DoP)
RCA Connectors	1
Input level	0.5Vp-p
Input impedance	75 Ω
Input signal formats.....	Linear PCM (IEC60958) 32 - 192kHz, 16/24bit DSD 2.8MHz (DoP)
Optical digital connector	1
Input level	-24.0 to -14.5dBm peak
Input signal formats	Linear PCM (IEC60958) 32 - 192kHz, 16/24bit DSD 2.8MHz (DoP)
USB port	1 (Type B)
Input signal formats	Linear PCM 44.1 - 768kHz, 16/32bit DSD 2.8MHz, 5.6MHz, 11.2MHz, 22.5MHz
Ethernet port	1000BASE-T
Input signal formats	Linear PCM 44.1 - 384kHz, 16/32bit DSD 2.8MHz, 5.6MHz
supported file formats	
DSD lossless	DSF, DSDIFF (DFF), DoP
PCM lossless	FLAC, Apple Lossless (ALAC), WAV, AIFF
Compressed Audio	MP3, AAC (m4a container)
USB drive portsFAT32 and NTFS
	Single partition, USB 2.0 or higher recommended, 0.5A maximum current supply
Clock Sync Input	
BNC connector.....	1
Frequencies that can be input (± 10 ppm).....	44.1kHz, 48kHz, 88.2kHz, 96kHz, 176.4kHz, 192kHz, 10MHz, 22.5792MHz, 24.576MHz
Input impedance	50 Ω
Input level	Rectangle wave: equivalent to TTL levels Sine wave: 0.5 to 1.0 Vrms (50 - 75 Ω)
Analog audio outputs	
XLR connectors.....	1 pair (L/R)
RCA connectors	1 pair (L/R)
Output impedance	XLR: 20 Ω , RCA: 23.5 Ω
Maximum output level (at 1kHz, 10k Ω load)	XLR: 5.0Vrms, RCA: 2.5Vrms
Frequency response (PCM 192kHz)	5Hz - 70kHz (-3dB)
S/N Ratio	120dB
Distortion	0.0007% (1 kHz)
General	
Power supply	AC 220-240 V, 50/60 Hz AC 120 V, 60 Hz AC 220 V, 60 Hz
Power consumption	33W
External dimensions (W x H x D, including protrusions)	445 x 162 x 438 mm (17 5/8" x 6 1/2" x 17 1/4")
Weight	25.7 kg (56 3/4 lb)
Included Accessories	Power cord \times 1, Felt pads \times 4, Owner's manual \times 1, Warranty card \times 1

Output Mode Selection

You can switch analog audio output between ES-LINK Analog, RCA, and XLR. You can also select Hot 2 or Hot 3 XLR pin assignments, and phase inversion is performed in the digital domain of non-contact systems to eliminate losses in audio quality.

- This product is available in three different power supply variations shown in the chart above.
Make sure that the voltage shown on the rear panel matches the AC line voltage in your area.
- The shape of the AC inlet and plug of the supplied power cord depends on the voltage rating and destination country.

Please note that Esoteric products are only available from approved distributors in overseas territories.
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ESOTERIC

Network Audio Player N-01



PROUDLY MADE IN TOKYO

ESOTERIC

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ESOTERIC's Flagship Network Audio Player Created from Our Passion for Excellence

The N-01 is ESOTERIC's flagship network audio player, newly developed with a premium DAC module designed for use with our Grandioso K1 super audio CD player. The DAC chipset is equipped with the AK4497, the highest performing DAC in the history of AKM (as of June 2017), and the DAC module features a luxurious differential 8-circuit independent power regulator design for each channel that is unique to the K1/N-01 models.

Additionally, the highly acclaimed four independent power supply construction of the K series Super Audio CD players, superb component selection and design concepts are incorporated as standard in the N-01.

We have poured more than 30-years' worth of digital player development know-how into every detail of the N-01, incorporating our proprietary "ES-LINK Analog" transmission method, 35-bit D/A processing algorithm, and HCLD buffer amplifier equipped with 125,000 μ F super capacitors.

This combination of our prestigious audio circuitry, highly advanced network audio module and playback applications create a cutting-edge device that is incredibly easy to use, generating an entirely new standard for network playback.



Story of Innovation



2013 marked the release of the Grandioso P1/D1 and the start of our historic Grandioso flagship models, a range which represents the concentration of all of our superior sound engineering technology and knowledge, reaching a crescendo in fall 2016 with the release of the Grandioso G1. Consisting of a total of 9 chassis, the Grandioso system represents the highlight of our 30-year history, boasting outstanding professional reviews and a loyal customer following that are the pride of ESOTERIC.

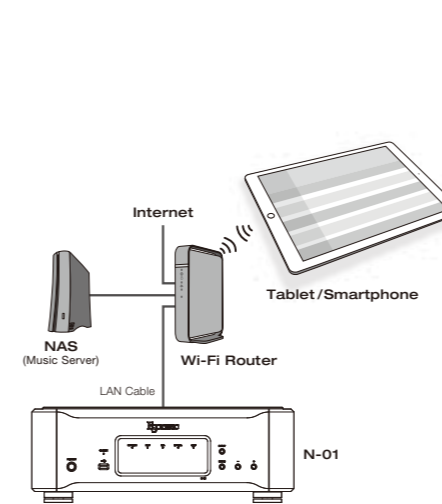
Condensing the essence of the larger models, the Grandioso K1 and F1 models are the flagships of their respective categories, leading the way to a higher dimension of K-series all-in-one disc players and F-series integrated amplifiers. Two major innovations were achieved with the Grandioso K1 and F1 models. The first was our proprietary original power amplifier MOSFET design; the second was the completion of our completely new D/A converter platform for all-in-one digital players. The D/A converter section used in the K1 was completely redesigned from the ground up, becoming the first product in the world (September 2016) to utilize the AK4497 DAC, the highest performing DAC chipset in the history of AKM, and the MUSES03 which was produced through many years of joint development with New Japan Radio Co., Ltd. In addition, the K1 is proud to use only the finest available components and devices coupled with completely redesigned circuits and power regulators. These, together with ESOTERIC's proprietary 35-bit D/A processing (patent no. 6043052) successfully achieve incredible analog-like sound quality and fine detail retrieval.

2013 marked the release of the Grandioso P1/D1 and the start of our historic Grandioso flagship models, a range which represents the concentration of all of our superior sound engineering technology and knowledge, reaching a crescendo in fall 2016 with the release of the Grandioso G1. Consisting of a total of 9 chassis, the Grandioso system represents the highlight of our 30-year history, boasting outstanding professional reviews and a loyal customer following that are the pride of ESOTERIC.



The newly released N-01 utilizes the same D/A converter technology as the K1 and incorporates the highly acclaimed design methods of the K-series all-in-one disc players into the network playback model, successfully achieving remarkable improvements in network audio playback sound quality.

To the Future of Musical Reproduction



Network Audio

Imagine choosing and playing back your favorite music with outstanding sound quality without leaving the comfort of your listening seat. ESOTERIC's N-01 Network Audio Player makes this a reality.

The N-01 enables you to enjoy the vivid musical experience of DSD master sound sources. You can quickly and easily access your digital music library, or actively seek out new encounters in music with streaming services available in your area. Simply make effective use of your home network environment to bring your relationship with music even closer.

In addition to your home audio components, all you need are a standard domestic LAN connection (with wireless router) and a tablet or smartphone. You can also incorporate an NAS (Network Attached Storage) device to hold your entire music library. It's that simple! Just make these changes to discover a whole new level of high-quality musical enjoyment without compromise.

Compatible with a Variety of Audio Sources

The N-01 is fully equipped with a wide range of select high-end specifications to ensure it delivers superb network audio playback quality. Compatible with 5.6MHz DSD, 384kHz/32-bit PCM playback(*) and a

host of other formats (DSF, DSDIFF, FLAC, Apple Lossless, WAV, AIFF, MP3, and AAC), gapless playback capability is also offered in all lossless formats, delivering full enjoyment of live or opera recordings with no interruptions between musical tracks.

*The N-01 down-converts signals to 192kHz/24-bit while playing back 384kHz/32-bit PCM signals when in network mode.

ESOTERIC Sound Stream

ESOTERIC Sound Stream is an Apple iOS / Android application for tablets and smartphones designed with an emphasis on both sound quality and intuitive operability for network playback. Simply select musical tracks using the tablet / smartphone to create a customized playlist and then play the playlist. All screens are intuitively designed for easy operation and access to playlists and libraries, making it easier for anyone to use. Yet it also has a wide range of refined features that meet the demands of even the most experienced users.

Key to this achievement is the excellent search and retrieval function that fully utilizes tag information. Images are also stored in the app, enabling you to instantly scroll through album artwork and libraries according to categories such as artist, year of recording, composer or category. This use of tag information even allows tracks that have the same name but different formats to be easily identified on the screen.

Music Server Function

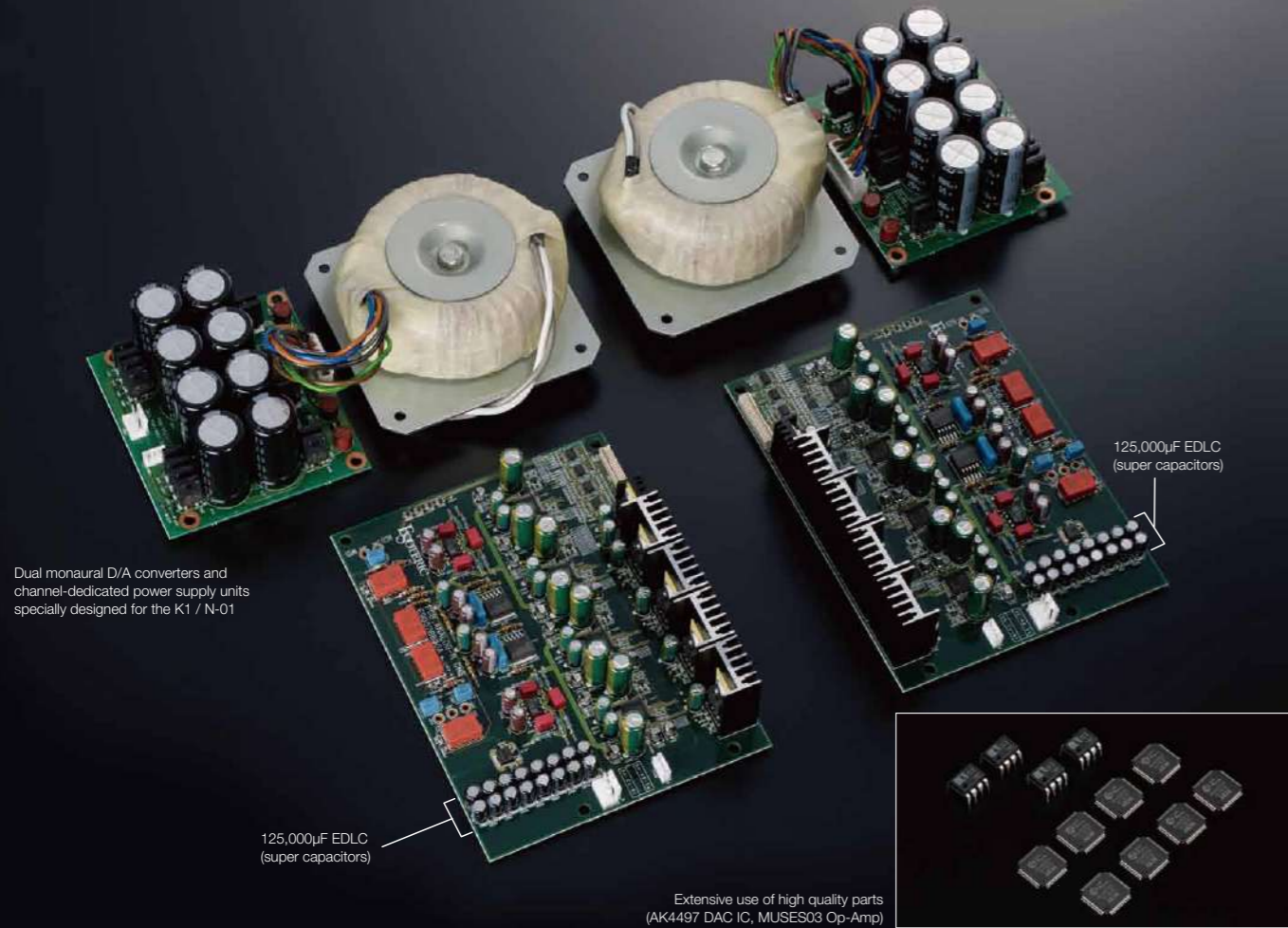
The N-01 can also be used as a simplified music server that integrates both player and library by connecting large-capacity storage devices to two USB ports on the front and rear of the unit.



Compatible with a wide range of streaming services and audio codecs

ESOTERIC has partnerships with a wide range of streaming service and audio codec providers. New compatibility will be released as soon as preparations are complete.*





"ES-LINK Analog" Method for High Quality Current Transmission

In addition to regular line connections (XLR and RCA), the N-01 features ESOTERIC's new "ES-LINK Analog" transmission method. This is a current transmission method that utilizes the high performance of the HCLD buffer circuit and its enhanced ability to supply high-speed current. This is the ideal analog audio transmission as it is free from signal route impedance, thus fully maximizing the system's potential when connected to a compatible device.*

*Included in the Grandioso F1 as of July 2017. A standard balance cable (with an XLR terminal) is used for connections, but the "ES-LINK Analog" method is a proprietary transmission method which can only be used with compatible devices.

4 Powerful Independent Power Sources

The N-01 is equipped with four large toroidal transformers, with two dedicated to the built-in monaural D/A converters, one for the digital circuit board and one for the network module, creating the ideal power supply for each circuit block. The 100,000µF high capacitance EDLC super capacitor array installed in the network module dedicated power supply is selected specifically for use in our flagship model network audio players to provide incredible improvements in sound quality.



Network module + dedicated power supply components

Highly Rigid Chassis Design

The N-01 features the same highly-acclaimed 2-layer thick aluminum and steel rigid chassis design as K-series models. The chassis interior has a double-decker construction that both reduces interference between circuits and shortens the power supply paths to further improve sound quality. Each slot in every part of the chassis is precisely machined using laser technology to effectively reduce vibration. The entire bottom chassis is supported on 5mm-thick steel by our proprietary pinpoint feet (patent No.;JP4075477) to create a complete mechanical grounding that protects against vibration.

Versatile D/D Conversion Function

The N-01 is equipped with a highly versatile D/D conversion function and digital filter. In addition to playback at the original sampling frequency, you can easily switch to 2x, 4x, 8x, and 16x (maximum: 768kHz) up-conversion of the PCM digital signal, as well as cross-format conversion of PCM and fixed 22.5MHz DSD signal using a proprietary algorithm. DSD Digital filtering can also be enabled or disabled as desired.

USB Audio Interface Support for 22.5MHz DSD, 768kHz/32-bit PCM, and Asynchronous Transmission

The N-01 includes a USB audio interface for connecting to computers, and the driver and "ESOTERIC HR Audio Player" playback software can be downloaded free from the ESOTERIC website. The N-01 supports asynchronous transmission and playback at high sampling rates up to 22.5MHz DSD and of 768kHz/32-bit PCM source files.

Digital Inputs

Three digital inputs (XLR, RCA, and optical) enable connection to a wide range of systems. These inputs support DSD 2.8MHz (DoP) input and PCM of up to 192kHz/24-bit.

High-Precision VCXO Clock

The clock circuit supplies a high-accuracy reference clock signal to the digital circuitry. The Grandioso Custom VCXO (voltage-controlled crystal oscillator) is a high-precision custom clock that utilizes a large crystal element to ensure exceptional sound quality with excellent center accuracy (± 0.5 ppm) and extremely low levels of phase noise.

Clock Sync Function for Synchronization with External Devices

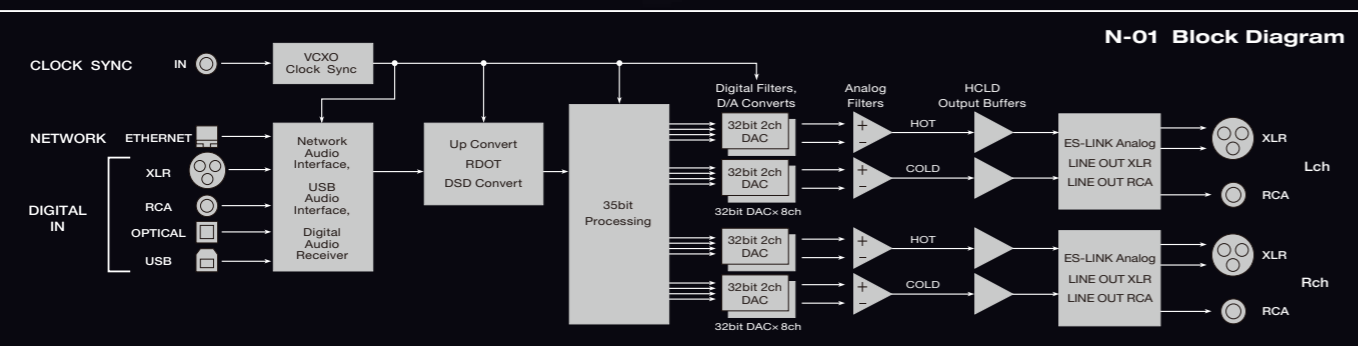
Connecting the N-01 to a high-precision master clock generator such as the G-01X allows synchronization of the unit's operation with an external clock signal, thereby enabling the system to be further upgraded for quality. The supported input frequencies are 44.1kHz groups, 48kHz groups, as well as 10MHz, 22MHz and 24MHz. You can also synchronize the internal digital circuits to a super high accuracy external clock when you playback digital source files streamed from a PC via USB input.

Custom MIL Standard Clock Input Cable with SMA Connector

The clock input wiring uses hardwired connection with a superb quality MIL-compliant custom coaxial cable. This cable features a gold plated SMA connector that was specifically developed for high frequency transmission, and an original milled brass BNC terminal designed by ESOTERIC to achieve a secure connection in order to minimize loss of transmission as far as possible.

Complete Noise Isolation

The analog circuit is separated from the digital circuitry by an isolator that ensures complete noise reduction to maintain the purity of the analog sound output.



Newly Designed Integrated Dual Monaural D/A Converters for the Ultimate in Sound Quality

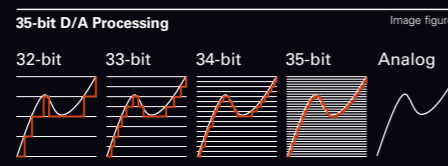
The D/A converters of the K1/N-01 feature the lavish specifications you would expect of a premium all-in-one model. This completely new design utilizes the finest possible materials and circuit technology available in the world today. The circuit incorporates the premium 32-bit AK4497 DAC chipset from AKM (Asahi Kasei Microdevices Corporation) in conjunction with the high-end MUSES03 operational amplifier from New Japan Radio Co., Ltd.

Eight parallel/differential circuits drive each channel to achieve outstanding linearity and low distortion. The D/A converter features separate left and right power transformers and eight power supply regulators for each channel, which are located directly next to each circuit to ensure a clean and highly stable power supply. The isolation of the digital circuits and analog circuits has also been improved to give listeners

a vivid musical reproduction that is both pure and carries a superior image and depth.

35-bit D/A Processing for Outstanding Musical Expression

The N-01 combines multiple 32-bit DAC chipsets and utilizes a 35-bit D/A processing algorithm to convert the PCM signal to analog at a high 35-bit resolution. 35-bit processing achieves an astounding resolution that is fully 2,048 times that of 24-bit processing. In the digital range, high-bit data gradation is fully utilized to minimize arithmetic errors and provide faithful conversion to analog, attaining outstanding musical expression even with extremely small music signals.



ESOTERIC-HCLD*1 : ESOTERIC's Proprietary High Current Output Buffer Circuit

The ability to produce comparatively large currents and high slew rates are two of the most important factors that enable an analog output circuit to accurately transmit the wide dynamic range of a music signal without degradation. The N-01 offers the ultimate performance as a line driver by adopting high-performance elements with a high current output and exceptionally fast slew rate (2,000V/µs) for excellent response speed. Two of these buffer circuits are employed per channel. The available instantaneous output current is maximized by configuring them differentially to drive the XLR outputs and in parallel to drive the RCA outputs. Furthermore, an EDLC*2 super capacitor array is utilized as the power source of the buffer circuits. Its amazingly high capacitance of 125,000µF for each channel provides unwavering low-frequency ranges, and enables the reproduction of musical dynamism with breathtaking reality.

*1: HCLD = High Current Line Driver
*2: EDLC = Electric Double-layer Capacitor

Versatile Range of System Plans

Ever since we were first established, Esoteric's philosophy has centered on modular audio systems, breaking audio down into separate devices and refining each one to achieve maximum audio quality. The N-03T network audio transport system can be combined with Esoteric's range of D/A converters (D series) and Super Audio CD players (K series) to build your system just the way you want it.



System Plan 1 N-03T/P-02X/D-02X/G-02X



System Plan 2 N-03T/D-02X/G-02X



System Plan 3 N-03T/K-03Xs

System Plan 4 N-03T/D-05X

* The arrangements in these photos are for illustrative purposes only. In actual use, avoid stacking components. Mount them individually in an equipment rack.



Specifications

Network section

Supported file formats	
PCM lossless	FLAC, Apple Lossless(ALAC), WAV, AIFF
DDSD lossless	DSF, DSDIFF(DFI), DoP
Compressed audio	MP3, AAC (m4a container)
ETHERNET port	1(1000BASE-T)
USB DRIVE ports	2 (USB 2.0 or higher recommended)
Supported file formats	
FAT32, NTFS Single partition	
Maximum current supply	0.5A
Supported sampling frequencies	
PCM	44.1-384kHz, 16/24/32 bit
DSD	2.8MHz, 5.6MHz, 11.2MHz

Digital outputs

USB port (USB 2.0 standard)	1
XLR connector	1
Output level	3Vp-p(into 110Ω)
RCA connector	1
Output level	0.5Vp-p(into 75Ω)
*The following are the maximum limits for output from the XLR and RCA connectors.	
PCM	44.1-192kHz, 16/24 bit
DSD	2.8MHz (DoP)

Clock input

BNC connector	1
Input impedance	50Ω
Frequencies that can be input	10MHz(±10ppm)
Input level	
Rectangle wave: equivalent to TTL levels	
Sine wave: 0.5 to 1.0 Vrms	

General

Power supply	AC 220-240V, 50/60Hz AC 120V, 60Hz / AC 220V, 60Hz
Power consumption	31W
External dimensions (W×H×D, including protrusions)	445mm×131mm×360mm(17 5/8×5 1/4×14 1/4")
Weight	17kg (37 1/2 lb)

Included accessories

Power cord×1, Felt pads×3, Owner's manual×1, Warranty card×1

Maximum sampling rate / bit rate

Connection Models / Format	USB		XLR/RCA	
	DSD(MHz)	PCM(kHz/bit)	DSD(MHz)	PCM(kHz/bit)
Grandioso K1	11.2	384/32	2.8	192/24
Grandioso D1	5.6	384/32	-	192/24
D-02X	11.2	384/32	2.8	192/24
D-05X	11.2	384/32	2.8	192/24
K-01Xs	11.2	384/32	2.8	192/24
K-01X + VUK-K01Xs	11.2	384/32	2.8	192/24
K-01X	5.6	384/32	2.8	192/24
K-01 + VUK-K01XUSB	2.8	384/32	-	192/24
K-03Xs	11.2	384/32	2.8	192/24
K-03X + VUK-K03Xs	11.2	384/32	2.8	192/24
K-03X	5.6	384/32	2.8	192/24
K-03 + VUK-K01XUSB	2.8	384/32	-	192/24
K-05X	11.2	384/32	2.8	192/24
K-07X	11.2	384/32	2.8	192/24
OP-DAC1	11.2	384/32	-	192/24

- For USB connection, the N-03T automatically down-convert signal to the maximum Fs which connected device can playback.
- For XLR/RCA connection, PCM 384/352.8kHz data will be down-converted to 192/176.4kHz. DSD 5.6MHz signal output can be down-converted to 2.8MHz (Dop) or PCM88.2kHz signal.
- *The N-03T cannot down-convert DSD11.2MHz and PCM768/705.6kHz music files.

PROUDLY MADE IN TOKYO

ESOTERIC

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ESOTERIC

Network Audio Transport N-03T



Massive, super high quality modular systems are the key philosophy that Esoteric has followed since we were first established.

We are now bringing this same philosophy to network playback systems with the N-03T network digital audio transport system.

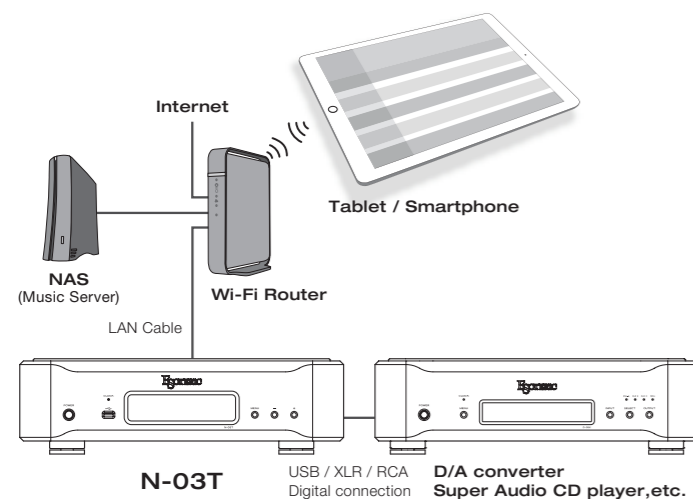
Your favorite D/A converter or Super Audio CD player can be digitally connected by USB, enabling you to build just the right system to enjoy playing files or streaming content your way.

Esoteric takes digital transport to a new level with endless options and even more possibilities for audio playback.



Network Audio

The N-03T fulfills every music lover's dream: to access music freely from your living room chair and enjoy the very best audio quality. The DSD master audio source provides a crystal-clear audio experience, your CD collection is arranged in a library for easy access, and streaming services put new music at your fingertips. The N-03T is a network audio transport system specially designed to connect with an external DAC or a Super Audio CD player's built-in DAC via USB connection. Other than your audio system, all you need is a home LAN (Wi-Fi router, etc.), a tablet or smartphone and a NAS (music server) to store your music library. That's all you need for an easy, comfortable music experience where you don't have to compromise on quality.



Compatible with a Wide Range of Audio Sources

Care has been taken with every detail to achieve audio quality suitable for high-end network playback. The N-03T is compatible with a vast range of formats (DSF, DSDIFF, FLAC, Apple Lossless, WAV, AIFF, MP3 and AAC) and supports playback up to DSD 11.2MHz and PCM 384kHz/32-bit by USB output. Gapless playback is also supported for all lossless formats for uninterrupted playback of live or opera recordings.

Esoteric Sound Stream



Esoteric Sound Stream is an Apple iOS network playback app for tablets and smartphones designed with an emphasis on intuitive operability. Simply select music tracks by using your tablet or smartphone to create a customized playlist and then play the playlist. All screens are intuitively designed for easy operation and access to playlists and libraries, making it easy for anyone to use. It also has a wide range of advanced features that meet the demands of even the most experienced users.

A key feature is the excellent search and retrieval function that fully utilizes tag information. Images are also stored in the app, enabling you to instantly scroll through album artwork and libraries according to categories such as artist, year of recording, composer or category.

High-Sampling Digital Output

The N-03T has a USB port enabling digital output up to DSD 11.2MHz and PCM 384kHz/32-bit. This allows the N-03T to be connected to a USB DAC or a disc player with a USB port. Two other digital output systems (XLRx1 and RCAX1) are also included, supporting PCM up to 192kHz/24-bit and DSD2.8MHz (DoP).

Music Server Function

The N-03T can also be used as a simplified music server in which a player and a library can be integrated by connecting large-capacity storage devices to two USB ports on the front and rear of the unit.

Compatible with a Wide Range of Streaming Services and Audio Codecs

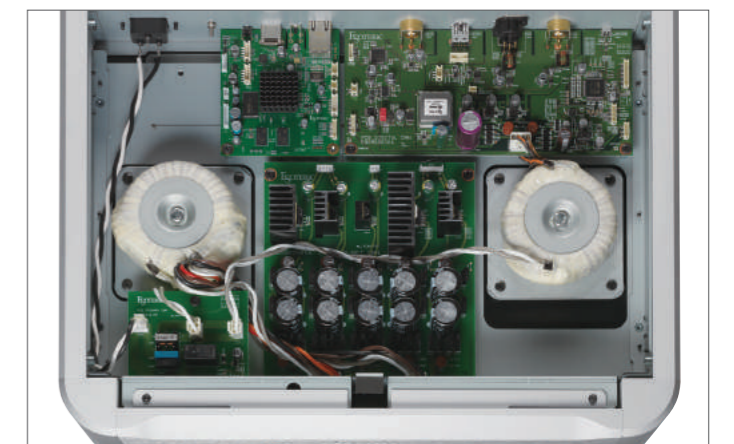
Esoteric has partnerships with a wide range of streaming service and audio codec providers, and preparations are underway for compatibility with new services.*



*Information on newly supported services will be released on the ESOTERIC website. However, regional restrictions may be implemented on some services.

Equipped with Two Powerful Independent Power Supplies

The N-03T is equipped with two large independent toroidal transformers, one for the internal network module and one for the other digital circuits, enabling the ideal supply of power to each circuit block. Unlike a standard switching power supply, these large linear power supplies are made with high quality components such as large filter capacitors and Schottky barrier diodes. The dedicated power supply for the network module also has an EDLC (Electric Double-layer Capacitor), a super-capacitor that has 1F (1,000,000µF) capacitance. These provide a dramatic improvement in audio quality.



High-Rigidity Chassis Construction

The bottom chassis used to secure the circuit components has a dual layer structure with two steel plates (5mm and 2mm). The power supply transformer and other components are arranged three-dimensionally on the two layers to prevent interference between components, and laser-cut slits are applied to each layer for effective controlling of vibration. And a thick, heavyweight aluminum panel enclosure and Esoteric's unique pinpoint feet (patents no. JP4075477 and JP3778108) provide thorough mechanical grounding against vibration.

External Clock Sync Function

Connecting the N-05 to an external G-02 Master Clock Generator allows more accurate synchronization between internal digital circuits, thereby enabling significant improvements in system sound quality. The N-05 is compatible with 44.1/88.2/176.4kHz word clocks as well as both 10MHz and 22MHz direct master clock LINK.*

*The clock generator's master clock signal is used 'as is' by the D/A converter, bypassing its internal PLL circuit to allow straighter, more high-accuracy D/A conversion.

Versatile D/D Converter

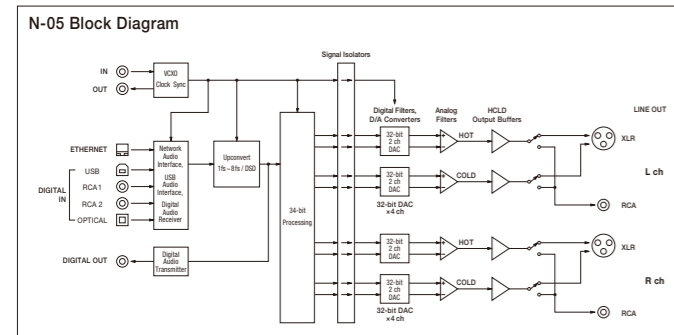
The N-05 is equipped with a highly versatile D/D converter and digital filter. In addition to playback at the original sampling frequency, 2x, 4x and 8x up-conversion of the PCM digital signal, as well as cross-format conversion of PCM and DSD using a proprietary algorithm, are all freely selectable. Digital filtering (of both PCM and DSD) can also be enabled or disabled as desired.

A Multitude of Digital Inputs

The N-05's array of digital inputs include USB (x1), coaxial (x1) & optical (x1). The coaxial and optical inputs are compatible with both 192kHz/24-bit PCM and 2.8MHz DSD (DoP), while the USB port supports asynchronous transmission and native playback of 2.8/5.6/11.2MHz DSD and 384kHz/32-bit PCM.

Complete Noise Isolation

The analog circuit following the N-05's D/A converter is separated from its digital circuitry by an isolator that ensures complete noise reduction to maintain the purity of the analog sound output.



Specifications

Digital Audio Inputs	
RCA Connectors	2 pairs (L/R)
Input Level	0.5Vp-p
Input Impedance	75Ω
Input Signal Formats	32 - 192kHz 16 - 24-bit Linear PCM (IEC 60958) DSD (DoP)
Optical Digital Connector	1
Input Level	-24.0 to -14.5dBm (peak)
Input Signal Formats	32 - 192kHz 16 - 24-bit Linear PCM (IEC 60958) DSD (DoP)
USB Port	1 (Type B)
Input Signal Formats	44.1 - 384kHz 16 - 32-bit Linear PCM 2.8/5.6/11.2MHz DSD
Ethernet Port	1000BASE-T
Input Signal Formats	44.1 - 384kHz 16 - 32-bit Linear PCM 2.8/5.6MHz DSD
Supported File Formats	
DSD Lossless	DSF, DSDIFF (DFF), DoP
PCM Lossless	FLAC, Apple Lossless (ALAC), WAV, AIFF
Compressed Audio	MP3, AAC (m4a container)
USB Storage Device Port	.FAT32; USB 2.0 or faster recommended
Digital Audio Output	
RCA Connectors	1
Output Level	0.5Vp-p (into 75Ω load)
Output Impedance	75Ω
Output Signal Formats	44.1 - 192kHz 16 - 24-bit Linear PCM (IEC 60958 format) DSD (DoP format)

Clock Sync Input	
BNC Connectors	1
Input Frequencies (±15 ppm)	44.1, 48, 88.2, 96, 176.4, 192kHz 10, 22.5792, 24.576MHz
Input Impedance	75Ω
Input Level	Rectangle wave: TTL level equivalent Sine wave: 0.5 to 1.0Vrms (50 - 75Ω)

Clock Sync Output	
BNC Connectors	1
Output Level	TTL level equivalent (into 75Ω)
Output Frequencies	44.1, 88.2, 176.4, 48, 96, 192kHz 22.5792, 24.576MHz Equivalent to input frequency (at through output)

Analog Audio Outputs	
XLR Connectors	1 pair (L/R)
RCA Connectors	1 pair (L/R)
Output Impedance	XLR: 20Ω RCA: 20Ω
Maximum Output Level (at 1kHz, 10kΩ load)	XLR: 5.0Vrms RCA: 2.5Vrms
Frequency Response (192kHz PCM)	5Hz - 70kHz (-3dB)
S/N Ratio	117dB
Distortion	0.0007% (1 kHz)
General	
AC Power Supply	230V, 50Hz / 120V, 60Hz / 220V, 60Hz
Power Consumption	18W
External Dimensions (W x H x D, including protrusions)	445 x 107 x 356mm (17 5/8 x 4 1/4 x 14 1/8")
Weight	11kg (24 3/8 lb)

Included Accessories

- Power cord x 1
- Owner's manual x 1
- Warranty card x 1

ESOTERIC

Network Audio Player N-05



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To the Future of Musical Reproduction

Total sound quality without compromise.

This has been Esoteric's core philosophy since its birth in 1987.

Now this zeal for excellence extends to the highest quality in music streaming, pushing Esoteric to develop a new network audio player — one that offers listeners supreme ease in their musical enjoyment.

From DSD high-resolution masters to reacquaintances with old classics lying hidden for years in a corner of your CD library, all can be instantly accessed from your giant music library, and all from the comfort of your listening seat.

Passion and pride invested in advanced technology and exquisite craftsmanship support high quality you can rely on.

Let the N-05 bring you closer still to the music you love, and lead you to a more complete sense of musical enjoyment.

Onward to the future of musical reproduction.



Network Audio Player
N-05

Network Audio

Access any music you like and play it back with the finest in sound quality, all without moving from the comfort of your listening seat — the N-05 makes this luxurious dream a reality. Enjoy the vivid musical experience of DSD master sound sources. Convert giant CD collections to a digital library for quick and easy access. Actively seek out new encounters in music with TIDAL. Use your home network environment to make your relationship with music ever closer.

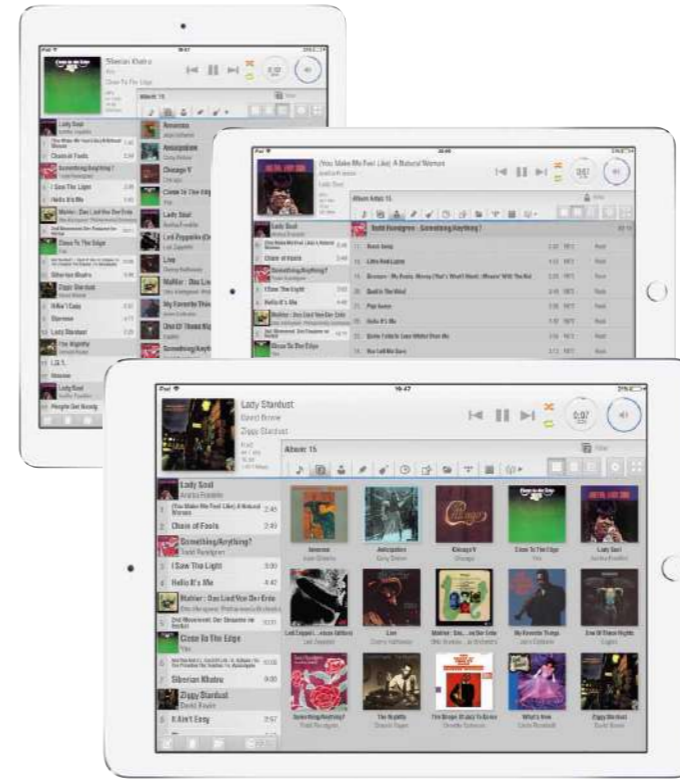
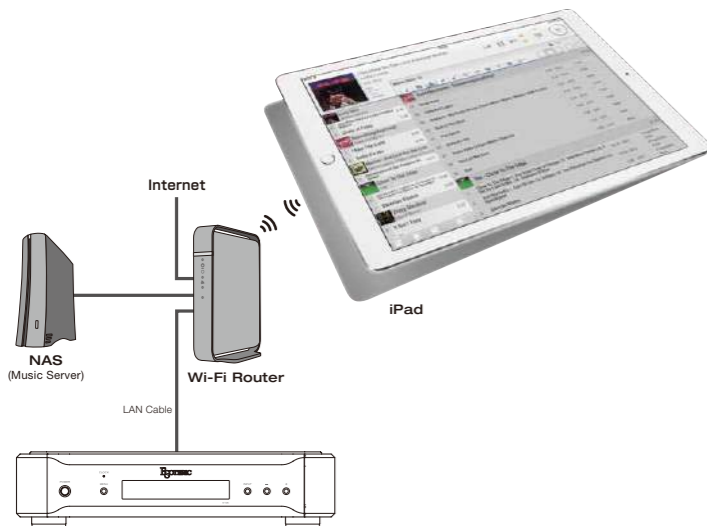
Besides your home audio components, all you need are a standard domestic LAN connection (w/ wireless router) and an iPad. A large-capacity NAS* device can hold your entire music library. With these few items, a comfortable life of high-quality musical enjoyment without compromise can soon be yours.

*NAS: Network Attached Storage. Recommended server software: MinimServer. Updated information regarding NAS compatibility can be found on our home page.

Compatible With a Variety of Audio Sources

A thorough infusion of select high-end specifications ensures the N-05 delivers superb sound quality. Compatible with 2.8/5.6MHz DSD, 192kHz/24-bit PCM and a host of other formats (DSF, DSDIFF, FLAC, Apple Lossless, WAV, AIFF, MP3, and AAC),* gapless playback capability is also offered in all lossless formats, permitting full enjoyment of live or opera recordings with no interruptions between musical tracks.

*384kHz/24-bit PCM native playback in USB DAC mode and down-converted playback in network mode also provided.



Esoteric Sound Stream

Esoteric Sound Stream is an Apple iOS application for the iPad* designed with an emphasis on both sound quality and network playback operating ease. Its basic operation simply entails selecting musical tracks using the iPad, creating customized personal playlists, and playing the selections or playlists. All screens for key operation, playlists, library, etc. are arranged for easy viewing, enabling even users unfamiliar with the app to operate it with intuitive ease. Its high degree of refinement even meets the rigorous demands of advanced and experienced users.

Key to this achievement is the app's excellent search and retrieval performance, which takes full advantage of tag information. Since images are also cached in the app, album artwork can be instantly scrolled through and libraries can be freely sorted into such classifications as artist, year of recording, composer or category. This use of tag information even allows musical numbers of the same name which differ in format to be easily identified on the screen.

*Apps for use with iPhone and Android also currently under development.

Music Server Function

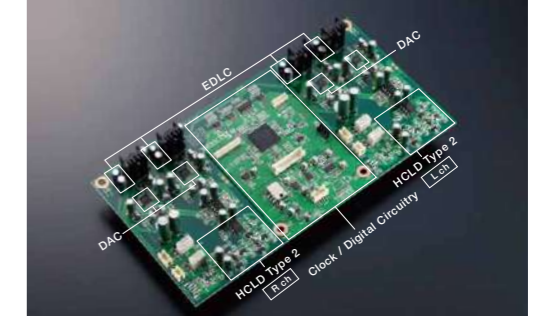
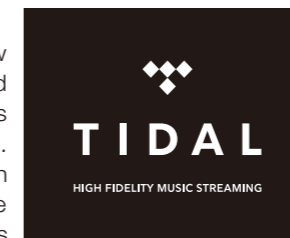
The N-05 can also be used as a simplified music server integrating both player and library by connecting a large-capacity storage device to the USB port on its rear panel. With the ability to be used as a secondary music server, even users new to the NAS directory structure can easily get started.



ESOTERIC x TIDAL*

Begin your encounters with new music through TIDAL, a high-end music streaming service that has officially partnered with Esoteric. TIDAL's lossless music distribution service operates on a fixed rate basis. Offering instant access to its enormous sound library, TIDAL enables users to enjoy their favorite music online with excellent sound quality.

*Available only in limited locations, TIDAL cannot be used in areas where the service is not provided.



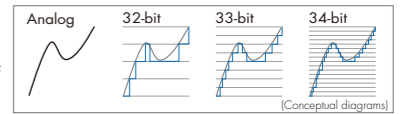
Dual Mono D/A Converters

A feature of its Super Audio CD players, Esoteric's D/A converters and analog circuitry have won accolades for total sound quality. Employing Asahi Kasei Microdevices' AK4490 chip set, the converter is configured in four parallel and differential circuits (8 outputs) driving each channel to achieve superb sound quality with remarkable linearity and low distortion. Its discreet dual mono configuration also provides excellent channel separation.

Technology developed for the Grandioso C1 is also employed in the DAC's power supply, which features EDLC* super capacitors. This regulated power supply boasts a total capacity of 500,000µF per channel for exceptional low-frequency sound reproduction. *EDLC = Electronic Double-Layer Capacitors

34-Bit D/A Processing

The N-05 uses a 34-bit D/A processing algorithm to convert the high-resolution 34-bit PCM signal to analog. This 34-bit encoding resolution is an astounding 1,024 times more detailed than that of 24-bit encoding. In the



digital range, full advantage is also taken of this processor's high-bit data gradation to minimize calculation errors and provide faithful analog conversion for outstanding and highly sensitive powers of expression.

Esoteric-HCLD* Type 2 Buffer Amplifier

The N-05's Esoteric-HCLD Type 2 buffer amplifier was developed with know-how derived from such high-end models as the Grandioso C1 preamplifier, and boasts excellent direct current transmission capability, as well as a powerful drive output. Two of these buffer amplifier circuits are installed per channel and configured differentially to drive the XLR outputs, and in parallel to drive the RCA outputs. The strong drive provided to connected equipment ensures that the source's full dynamic range is recreated with a breathtaking sense of realism.

*HCLD = High Current Line Drive

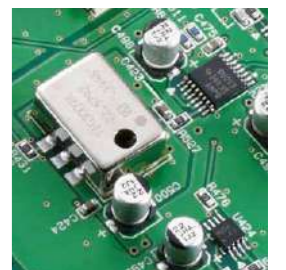
Robust Power Supply

A robust power supply is critical to the accurate reproduction of all the vibrant energy of music. The N-05 is equipped with a high-output power supply circuit that integrates an enormous, custom-designed toroidal transformer and an array of large capacitors to provide clean and steady power to each circuit block.



High-Precision VCXO Clock

A high-precision VCXO (voltage controlled crystal oscillator) supplies a highly accurate reference clock signal to the digital circuitry. The N-05's large, custom-designed VCXO was jointly developed with Nihon Dempa Kogyo (NDK), a leading manufacturer of crystal oscillators, exclusively for high-quality audio playback. The cornerstone of quality sound, its large crystal element realizes both excellent center accuracy (± 0.5 ppm, as shipped from the factory) and extremely low levels of phase noise to ensure exceptional sound playback quality.



ESOTERIC

Super Audio CD / CD Transport **P-02**

35bit Dual Mono D/A Converter **D-02**



Delivers a stress-free musical experience
in its original form to listeners.

*Esoteric's P-02 SACD/CD transport and D-02 system DAC,
aim at the highest level of audio performance.*

*This is only possible using separate audio components,
based on the company's evolving product design concepts.*

*The P-02 and D-02 have incorporated a number of new technologies
such as "ES-LINK3" and "35-bit D/A processing."*

*The P-02 and D-02 are new design implementations from Esoteric,
which are totally dedicated to evolving the critical listening
experience for music enthusiasts.*



P-02 Super Audio CD / CD Transport



D-02 35bit Dual Mono D/A Converter

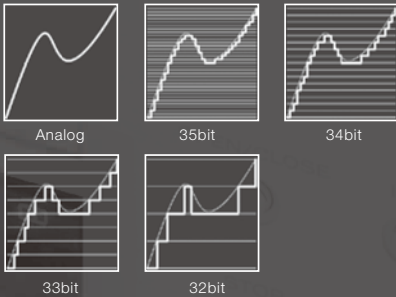
A new digital link: "ES-LINK3"

The P-02 and D-02 have support for Esoteric's original transmission format "ES-LINK3" and can perform a maximum 48-bit/176.4kHz broadband PCM digital transmission (*1) using two XLR cables. These models also have support for "Dual AES 8Fs" standard (maximum 24-bit/352.8kHz) (*2). These models can also perform conventional Direct Stream Digital (DSD) transmission and direct DSD-to-analog conversion processing for Super Audio CD (SACD) playback.

*1 The D-02 can handle inputs of signals up to 48-bit/192kHz. *2 The D-02 can handle inputs of signals up to 24-bit/384kHz.

35-bit D/A processing (patent pending)

The D-02 applies a completely new technology, "35-bit D/A processing" (patent pending) algorithm. This process enhances the reproduction of analog waveforms by implementing even finer bit gradation. In comparison with 24-bit data processing, 32-bit processing can theoretically have 256 times higher resolution. 35-bit processing is 8 times higher than the resolution of 32-bit processing, that is 2,048 times higher than the resolution of 24-bit processing. The final analog output signal has a very smooth sound quality with ultimate resolution, and a distinctive power of expression, even for extremely small signal levels.

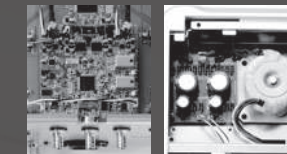
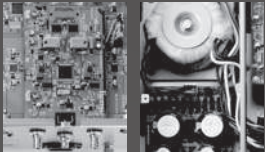


Abundant use of high-grade components in design

Esoteric has made maximum use of high-grade components for the internal construction of the P-02 and D-02. A total of eight independent Esoteric toroidal core power supply units are installed in the combined system to supply clean and stable power to each circuit. The inside of the chassis has our multiple layer structure that is partitioned into 5 sections. Each circuit block is assembled in a dedicated compartment and placed three-dimensionally, in order to minimize interference between circuits and to achieve the shortest signal paths. The exterior is constructed with aluminum and a 5mm gauge steel bottom chassis, supported at four points with Esoteric pinpoint feet (patent No. 4075477). This four-point system effectively suppresses vibration, reduces resonance and assures extremely high rigidity.

ADVANCED TECHNOLOGIES

Clock module and Power supply (P-02)



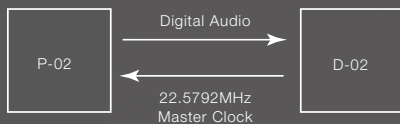
Clock module and Power supply (D-02)

Isolated clock technology

The P-02 and D-02 adopt an isolated clock technology that completely isolates the clock circuit from other circuit blocks. The clock module is equipped with a dedicated toroidal core power supply. The ground of the clock module is isolated from other circuits. As a result, this module can supply pure clock signals to the system by completely minimizing the occurrence of random jitter that results from power voltage or ground voltage fluctuations.

The clock module adopts high accuracy (± 0.5 ppm, at our factory prior to shipment) Voltage Controlled Crystal Oscillators (VCXO). DAC modules and clock module are hard-wired using special coaxial cable supplied with gold-plated SMA connectors, keeping transmission losses of the audio clock to an absolute minimum.

Direct master clock Link without PLL



The clock sync between transport and DAC is a well established jitter reduction system, but further advanced with a new technology called the "Direct Master Clock Link".

With the previous clock sync system, the reference clock (master clock) of the digital audio output is generated by the transport, being synchronized to D/A processing by using PLL (Phase Locked Loop) circuits. Esoteric's new "Direct master clock link" system is simpler and more consistent for clock signal integrity. The 22.5792MHz master clock generated by the DAC is supplied directly to the transport, therefore there is no need for re-clocking at the PLL circuit. Pure and direct clocking makes sound much clearer with more accurate focus and imaging.

10MHz clock input / wide-ranging clock options

A conventional WORD clock (44.1kHz, 88.2kHz, and 176.4kHz) sync setting is also selectable, and the system can be upgraded by adding Esoteric's external rubidium master clock generator. Both the P-02 and D-02 are equipped with a 10MHz master clock input jack for connecting a 10MHz-output clock system. You can connect the units to a wide variety of optional external clock generators for upgrading incrementally to a higher quality Esoteric sound system.

Super Audio CD / CD Transport

P-02

The ultimate music transport

VRDS-NEO "VMK-3.5-20S"

The P-02 is equipped with the Esoteric-original VRDS-NEO "VMK-3.5-20S" transport mechanism. This mechanism enhances read-out accuracy by using a high-precision turntable which corrects the "wobbling effect" of the disc during rotation. The disc tray loader is provided with a shutter mechanism to further reduce resonance and airborne particles from entering the transport.

The VRDS-NEO "VMK-3.5-20S" transport mechanism uses a pair of ceramic ball bearings in the spindle shaft bearing assembly. The P-02 has adopted a duralumin turntable with micron-level accuracy and a 20mm-thick steel turntable bridge assembly to achieve a total weight of 5.2kg. The P-02 has a well proven mechanism, including a strong neodymium-magnet-driven, coreless, three-phase brushless spindle motor, thread feed control, and a sliding-shaft pickup that assures the laser beam is always precisely aligned at right angles to the disc.

Spindle servo driver circuit "VS-DD"

The P-02 has adopted a discrete amplifier circuit called "VS-DD (VRDS Spindle Discrete Driver)" for driving the spindle motor. A dedicated toroidal core power supply unit stabilizes power current to the motor, achieving both a very smooth spindle rotation and highly precise servo control. Thanks to the isolated motor design, digital audio circuits are free from noise and from power supply fluctuation potentially caused by high current motor operation.

Various digital output terminals

The P-02 transport is equipped with output terminals of three types and five channels (XLR x2, coaxial x1, iLINK 4p/6p x1 each), including an ES-LINK3 compliant dual XLR terminal for user connections to a wide range of external equipment.



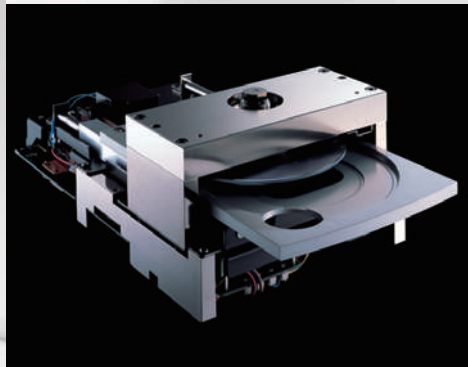
The front panel is provided with a loading indicator lamp that illuminates in blue when a disc is inserted into the unit. The indicator lamp remains on during the loading process.



P-02 (top side)



P-02 (bottom side)



VRDS-NEO "VMK-3.5-20S"



Aluminum body and leather-finish remote control

35bit Dual Mono D/A Converter

D-02

The state-of-the-art, 35 bit resolution

parallel unbalanced buffer amp," configuration when RCA outputs are selected. The D-02 offers an exceedingly high drive capability by means of a low-distortion and high linearity Class A buffer amplifier and a high-voltage toroidal core power supply unit of +/-22V.

Wide-ranging D/D conversion functions

The D-02 provides a wide variety of D/D conversion modes for the PCM format, including x2 and x4 up-conversion, and PCM-to-DSD conversion, in addition to original frequency, native data PCM processing.

Four types of digital filters and digital filter OFF mode

The D-02 has four types of user selectable digital filters for PCM signal processing. Two types of short-delay digital filters and two types of Finite Impulse Response (FIR) digital filters are included. These short-delay digital filters eliminate the pre-echo effect in the impulse waveform to reproduce a more natural audio signal. A digital filter OFF mode is also available.

Five digital input systems for high sampling rate support

The D-02 is equipped with wide-ranging digital inputs of five types for eight channels (XLR x2, iLINK 4p/6p x1, USB x1, coaxial x2, and optical x1). The D-02 can be used for high-sampling-rate sources of up to 24-bit/192kHz. XLR x2 provides additional support for high-sampling-rate/high-bit inputs of 48-bit/192kHz (ES-LINK3) and 24-bit/384kHz (Dual AES 8Fs).

Asynchronous, 24-bit/192kHz USB input

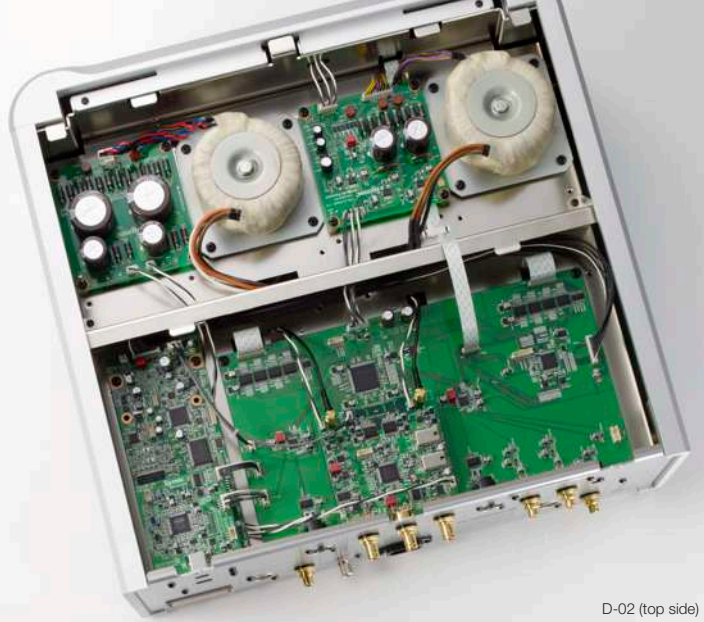
Esoteric provides original PC driver software to support asynchronous, 24-bit/192kHz high resolution data input through its USB interface. The internal USB isolator prevents interference from PC generated noise and enhances studio master-quality digital source playback performance. Both 32 bit and 64 bit PC operating systems are supported for asynchronous USB transmission.

High-precision digital volume attenuator

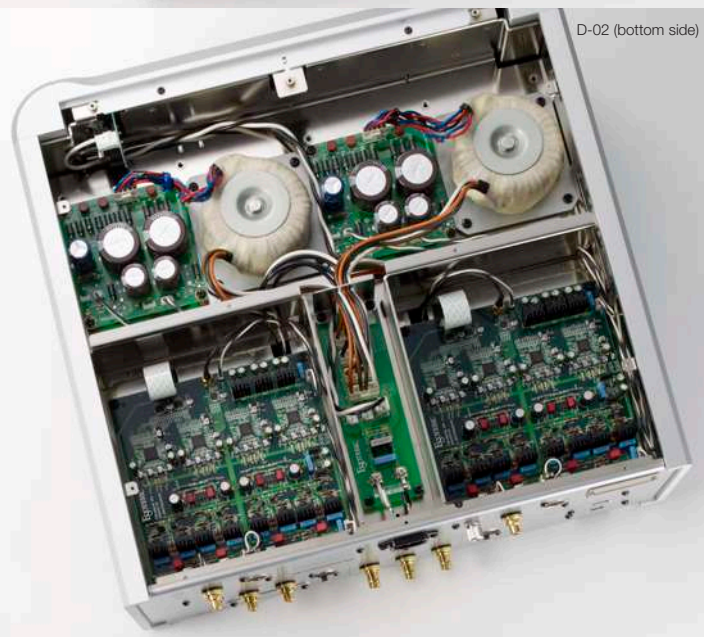
The D-02 is implemented with a high quality 32 bit digital volume attenuator function, and can be directly connected to a power amplifier.

Excellent usability

The D-02 can switch the output voltage of XLR audio outputs in accordance with the input sensitivity of the amplifier (0dB/+6dB). Either Hot 2 or Hot 3 can be assigned for XLR audio outputs.



D-02 (top side)



D-02 (bottom side)

"35-bit D/A processing" dual monaural D/A converter

The D-02's D/A converter ICs incorporate top-end 32-bit AK4399 chipsets by ASAHI KASEI Microdevices Corporation. Eight circuits per channel are provided to achieve phenomenal linearity and low noise. In addition to direct processing of DSD signals, the D-02 has newly adopted a "35-bit D/A processing" algorithm that converts PCM signals to analog signals, at a high resolution of 35 bits. As a result of this new technology, the D-02 achieves an improved level of delicate sound quality and imaging with ultra high resolution.

The D/A converter circuits are mounted on separate analog audio boards for each of the left and right channels. All components, including the power circuits and power transformers, are separated for right and left channels to implement a fully dual monaural configuration. This identical layout per channel, achieves ideal power supply performance and excellent channel separation, enabling high-quality playback with a deep and wide soundstage.

Low distortion, high linearity, discrete Class A buffer

The D-02 features fully discrete Class A buffer amplifiers with four circuits per channel, which is twice the amount of components used in the K series players. These extended buffer circuits are configured as a "double-parallel fully balanced buffer amp," when the XLR outputs are selected, and switched to a "quadruple-

Super Audio CD / CD Transport P-02 Specifications

Compatible disc types	Super Audio CD, CD (CD-R/CD-RW compatible)		
Digital Audio Output	XLR output	x 2 (Use 2 terminals for Dual AES output)	
	i.LINK (AUDIO) output (6-pin)	x 1	
	i.LINK (AUDIO) output (4-pin)	x 1	
	RCA coaxial output	x 1	
	i.LINK output format (CD)	IEC60958	
Word synchronization input format	Jack	BNC x 2	
	Word synchronization frequencies	Input	44.1 kHz, 88.2 kHz, 176.4 kHz, 10 MHz, 22.5792 MHz
	Input impedance	WORD IN	75 Ω
		10MHz IN	50 Ω
	Input level	WORD IN	TTL levels
		10MHz IN	Sine wave: 0.5 to 1.0 Vrms
	Input frequency range	±15 ppm	
General		AC 230V 50Hz	
	Power supply	AC 120V 60Hz	
		AC 220V 60Hz	
	Power consumption	25 W	
	External dimensions (W x H x D)	445 x 162 x 438 mm (17 1/4" x 6 3/8" x 13 1/4") (including protrusions)	
	Weight	31 kg (68 3/8 lbs)	
Accessories	Remote control unit (RC-1156) x 1, Batteries (AA) x 2, Power cord set x 1, Felt pads x 4		
	Owner's manual x 1, Warranty card x 1		



Super Audio CD Transport P-02



35bit Dual Mono D/A Converter D-02

35bit Dual Mono D/A Converter D-02 Specifications

Analog audio output	Terminals	XLR (2 channels)	x 1	
		RCA (2 channels)	x 1	
	Output impedance	XLR	100 Ω	
		RCA	47 Ω	
	Maximum output level (1 kHz, full scale, 10 kΩ)	XLR (Gain: 0 dB)	2.45 Vrms	
		RCA	2.45 Vrms	
	Frequency response(when 192kHz PCM signal input)		5 Hz to 55 kHz (.3 dB)	
	Signal-to-noise ratio (S/N)		115 dB	
	Total harmonic distortion		0.0008% (1 kHz)	
	Digital audio input	XLR terminal	x 2 (both XLR1 and XLR2 connectors are used for Dual input)	
Input level			5.0 Vp-p	
Input impedance		110 Ω		
		32-384.8 kHz, 16-24 bit		
Dual connection		Linear PCM (Dual AES format)		
Input sampling frequencies		32-192 kHz, 16-48 bit		
		Linear PCM (ES-LINK3 format)		
		DSD (ES-LINK1, ES-LINK2 format)		
Single connection		32-192 kHz, 16-24 bit		
Input sampling frequencies		Linear PCM (AES/EBU format)		
	DSD (ES-LINK1, ES-LINK2 format)			
RCA terminal	x 2			
	Input level	0.5 Vp-p		
	Input impedance	75 Ω		
	Input sampling frequencies	32-192 kHz, 16-24 bit		
Optical digital terminal	x 1			
	Input level	24.0 - .145 dBm peak		
	Input impedance	75 Ω		
	Input sampling frequencies	32-192 kHz, 16-24 bit		
i.LINK (AUDIO) terminal	x 2 (6-pin, 4-pin) S400			
	Input sampling frequencies	32-192 kHz, 16-24 bit, Linear PCM		
		DSD		
USB port . B connector	x 1			
	Input sampling frequencies	32-192 kHz, 16-24 bit, Linear PCM		
PLL2 locking range	Lockable frequency range	±5 ppm for each sampling frequency		
Clock output	Terminal	BNC connector		
	Output level	equal to TTL level (into 75 Ω load)		
	Output frequency	44.1, 88.2, 176.4, 48, 96, 192 kHz, 22.5792, 24.576 MHz		
	same frequency as input (when output set to thru)			
	Output frequency precision	±0.5 ppm (when shipped new)		
Clock input	Terminal	BNC x2 (WORD IN, 10MHz IN)		
	Input impedance	WORD IN	75 Ω	
		10MHz IN	50 Ω	
	Input frequency compatibility	WORD IN	44.1, 88.2, 176.4, 48, 96, 192 kHz	
			22.5792, 24.576 MHz (±5 ppm)	
	10MHz IN	10 MHz (±5 ppm)		
Input level	WORD IN	equal to TTL level		
	10MHz IN	0.5-1.0 Vrms sine wave		
General	Power supply	AC 230V 50Hz, AC 120V 60Hz, AC 220V 60Hz		
	Power consumption	14 W		
	Dimensions (W x H x D)	445 x 162 x 438 mm (17 1/4" x 6 3/8" x 13 1/4")		
	Weight	27.4 kg (60 2/5 lbs)		
Accessories	Power cord x 1, Felt pads x 4, Warranty card x 1, Owner's manual x 1			

ESOTERIC

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www.esoteric.teac.com/

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Design and specifications are subject to change without notice. This product is available in three different power supply variations shown in the chart above. Make sure that the voltage shown on the rear panel matches the AC line voltage in your area. The shape of the AC inlet and plug of the supplied power cord depends on the voltage rating and destination country.

* Super Audio CD * is a registered trademark.

IASJ
International Audio Society of JAPAN

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P-02X Specifications

Compatible Disc Types		
Super Audio CD, CD (CD-R/CD-RW compatible)		
Digital Audio Outputs		
ES-LINK Outputs	x 2 (L:1 / R:1)	
XLR Outputs	x 2 (Use 2 terminals for Dual AES output)	
RCA Output	x 1	
Clock Synchronization Input Format		
Jacks	BNC x 2	
Clock Synchronization Frequencies	44.1kHz, 88.2kHz, 176.4kHz, 10MHz, 22.5792MHz	
Input Impedance	IN	75Ω
	10MHz IN	50Ω
Input Level	IN	TTL levels
	10MHz IN	Sine wave: 0.5 – 1.0 Vrms
Input Frequency Range	±10 ppm	
General		
AC Power Supply	230V, 50Hz; 120V, 60Hz; 220V, 60Hz	
Power Consumption	23W	
External Dimensions (W x H x D, including protrusions)	445 x 162 x 437mm (17 5/8 x 6 1/2 x 17 1/4")	
Weight	31kg (68 3/8 lb)	
Included Accessories	Remote control unit (RC-1315) x 1, Batteries (AAA) x 2, HDMI cable x 1, Power cord set x 1, Felt pads x 4, Owner's manual x 1, Warranty card x 1	

D-02X Specifications

Analog Audio Outputs		
Terminals	XLR	x 2 (L:1 / R:1)
	RCA	x 2 (L:1 / R:1)
Output Impedance	XLR	140Ω
	RCA	60Ω
Maximum Output Level (1kHz, full-scale, into 10kΩ)	XLR	5.0Vrms
	RCA	2.5Vrms
Frequency Response (192kHz PCM signal input)	5Hz – 65kHz (-3dB)	
Signal-to-Noise Ratio (S/N)	121dB (DSD 5.6MHz, 1kHz)	
Total Harmonic Distortion	0.0007% (1kHz)	
Digital Audio Inputs		
ES-LINK Terminals	x 2 (L:1 / R:1)	
	Input Signal Format	352.8kHz / 384kHz, 48-bit Linear PCM (ES-LINK4 format) DSD (ES-LINK4 format)
XLR Terminals	x 2	
	Input Level	5.0Vp-p
	Input Impedance	110Ω
	Dual Connection Input Signal Format	32 – 384kHz, 16 – 24-bit Linear PCM (DUAL AES format) 32 – 192kHz, 48-bit Linear PCM (ES-LINK3 format) DSD (ES-LINK1, ES-LINK2 format)
Single Connection Input Signal Format	32 – 192kHz, 16 – 24-bit Linear PCM (AES/EBU format) DSD (ES-LINK1, ES-LINK2 format)	
RCA Terminals	x 2	
	Input Level	0.5Vp-p
	Input Impedance	75Ω
Optical Digital Terminal	Input Signal Format	32 – 192kHz, 16 – 24-bit Linear PCM (IEC60958 format)
	Input Level	-24.0 – -14.5dBm peak
USB Port (B Connector)	x 1	
	Input Signal Format	44.1 – 384kHz, 16 – 32-bit, Linear PCM 2.8MHz, 5.6MHz, 11.2MHz DSD
Clock Output		
Terminal	BNC x 1	
Output Level	Equal to TTL level (into 75Ω load)	
Output Frequency	44.1, 88.2, 176.4, 48, 96, 192kHz, 22.5792, 24.576MHz Same frequency as input (when output set to thru)	
Output Frequency Precision	±0.5 ppm (when shipped new)	
Clock Inputs		
Terminal	BNC x 2 (WORD IN, 10MHz IN)	
Input Impedance	CLOCK IN	75Ω
	10MHz IN	50Ω
Input Frequency Compatibility	CLOCK IN	44.1, 88.2, 176.4, 48, 96, 192kHz 22.5792, 24.576MHz (±10 ppm)
	10MHz IN	10MHz (±10 ppm)
	CLOCK IN	Equal to TTL level
Input Level	CLOCK IN	Equal to TTL level
	10MHz IN	Sine wave: 0.5 – 1.0 Vrms
General		
AC Power Supply	230V, 50Hz; 120V, 60Hz; 220V, 60Hz	
Power Consumption	24W	
External Dimensions (W x H x D, including protrusions)	445 x 162 x 437mm (17 5/8 x 6 1/2 x 17 1/4")	
Weight	27kg (59 5/8 lb)	
Included Accessories	HDMI cable x 2, Power cord set x 1, Felt pads x 4, Owner's manual x 1, Warranty card x 1	

ESOTERIC

Super Audio CD Transport **P-02X**
36-bit Dual Mono D/A Converter **D-02X**

Super Audio CD Transport P-02X



36-bit Dual Mono D/A Converter D-02X



- These products are made available in three different power supply variations, as shown in the chart above. Make sure that the voltage shown on the rear panel matches the AC line voltage in your area.
- The shape of the AC inlet and plug of the supplied power cord depends on the voltage rating and destination country.
- Specifications and appearance are subject to change without notice.
- Weight and dimensions are approximate.

Please note that Esoteric products are only available at select distributors in respective countries.
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PROUDLY MADE IN TOKYO

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New Supremacy Transcending Tradition

Esoteric's digital players carry on an established lineage of high-end audio, compressing world-leading Grandioso technology into a two-chassis configuration that establishes an unshakable identity.

In 1987, the P-1/D-1 demonstrated the superiority of VRDS at the dawn of the CD revolution.

In 2001, the P-70/D-70 proved the concept that higher sound quality can be extracted from more refined CD formats.

In 2005, the P-03/D-03 introduced support for SACD and DSD DAC, giving vibrant life to the most atmospheric nuances of music.

In 2011, the P-02/D-02 generated a fusion of tradition and innovation, winning acclaim and numerous awards for the pair's rich musical expression.

Now, the P-02X/D-02X reestablishes the supremacy of the two-chassis digital player configuration.

Joining together ultimate engineering with the exacting craftsmanship of Esoteric's Tokyo factory, and incorporating the finest Grandioso P1/D1 technology, this new premium product line gives birth to even greater heights of musical expression.



36-bit Dual Mono D/A Converter

D-02X



Super Audio CD Transport

P-02X

LEADING TECHNOLOGY

In the Footsteps of Esoteric's Most Advanced Grandioso Technology

ES-LINK4

Both the P-02X and D-02X have been newly equipped with Esoteric's state-of-the-art ES-LINK4, which provides high-accuracy digital transmission of both DSD and ultra-wideband 352.8kHz/48-bit PCM by way of its HDMI cable connections. A core feature of the Grandioso P1/D1 digital source system, and developed in line with Esoteric's 'Pure D/A' concept, ES-LINK4 performs the major portion of digital signal processing on the transmission side to significantly reduce the processing load on the D/A converter in pursuit of the ultimate in sound quality.

The Expressive Power of 36-Bit D/A Processing

Like the Grandioso D1, the D-02X utilizes a 36-bit D/A processing algorithm to convert the PCM signal to analog. This 36-bit encoding provides an astounding level of digital resolution that is fully 4,096 times that of 24-bit encoding, and double that of the 35-bit model on which it is based. Taking advantage of the delicate tone realized by this high-bit data minimizes calculation errors for outstanding expression of even the most subtle musical signals.

New Dimensions in Isolated Clock Technology

Widely considered to be the core of any high-end digital player, the clock circuit provides a high-accuracy reference signal for digital circuitry. The clock circuits featured in the P-02X and D-02X are completely isolated from all other circuits, including power source and ground, enabling a pure clock signal to be supplied to the system. The clock's voltage controlled crystal oscillator (VCXO) was specially developed for Esoteric's Grandioso line in a joint effort with Nihon Dempa Kogyo (NDK), one of the world's premier manufacturers of crystal oscillators, for a high-precision custom clock worthy of the world's finest audio equipment. Its extremely low levels of phase noise combine with a large-scale crystal element to ensure exceptional sound reproduction quality.

High-Accuracy Clock Synchronization

A BNC cable connects the D-02X to the P-02X to provide a master clock sync signal for synchronized playback with minimized jitter. Esoteric's proprietary Direct Master Clock LINK* synchronizes the two units while eliminating the need for Phase-Locked Loop (PLL), enabling clear and accurate stereo imaging and crisp sound quality. The system can be further upgraded with the addition of an optional high-accuracy G-01 Rubidium Master Clock Generator, and supports a wide range of frequencies including master clocks (22MHz/10MHz) and word clocks (44.1kHz/88.2kHz/176.4kHz).

*DMCL (Direct Master Clock LINK)

DMCL links the D-02X to the P-02X with a 22.5792MHz reference clock signal that causes the two units to function as a single integrated device. Compared to normal 'sync' systems, which generally require PLL (Phase Lock Loop) processing of the transmitted clock signal, DMCL provides simpler and more direct clocking between multiple devices.

Super Audio CD Transport

P-02X

Every component of the new P-02X Super Audio CD Transport has been thoroughly upgraded from its previous generation to realize a premium device featuring the ultimate in mechanical, power supply and circuit designs.

Virtually every component of the new P-02X, save its drive mechanism drive circuit and VS-DD spindle servo, has been thoroughly revised and upgraded from its P-02 base model with the goal of squeezing the Grandioso P1's dual-chassis configuration into a single unit without compromise. Its highly regarded VRDS-NEO transport mechanism employs the same bearing design as the P1, and integrates condensed versions of the P1's digital and clock circuitry.

P1 technology also features in the P-02X's exceptional power supply circuitry, which is equipped with a total of four toroidal transformers providing power to the VS-DD, transport drive circuit, digital output circuitry and clock circuit. Like the P1, these circuits ensure a cleaner and more stable supply of DC power. On the operating side, the introduction of ES-LINK4 provides a wider band of digital transmission, while its advanced clock circuit achieves higher accuracy for higher sound quality.



Coreless 3-phase brushless spindle motor

Duralumin turntable

Highly Refined VRDS-NEO VMK-3.5-20S Transport

Esoteric is justifiably proud of its advanced VRDS-NEO transport, which achieves significant improvements in reading accuracy with its high-precision turntable, optimized for both CDs and Super Audio CDs, and mechanical correction of disc surface irregularities. The P-02X's new VRDS-NEO VMK-3.5-20S transport features a highly refined drive circuit design. The spindle shaft bearing assembly is supported by a pair of specially selected high-precision steel ball bearings, while its duralumin turntable, machined to micron-level accuracy, and 20mm-thick steel turntable bridge weigh a total of 5.2kg (12kg if the chassis' rigid steel base is included).

Inherited from Esoteric's legendary P-0 CD transport, the P-02X's coreless three-phase brushless spindle motor is driven by a high magnetic flux density magnet and utilizes thread feed control for its sliding shaft pickup to maintain the laser beam at a precise right angle to the disc. These features combine with a whisper-quiet tray shutter mechanism* to ensure the ultimate in precision and accuracy.

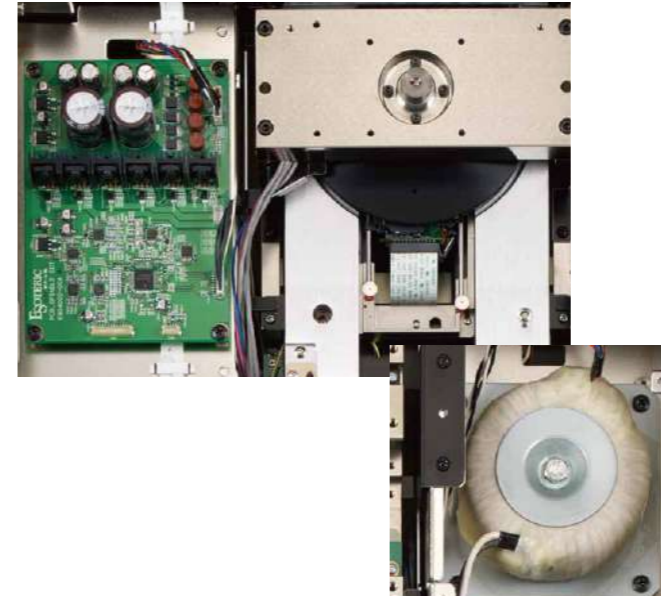
*The shutter automatically closes and locks itself into the front panel when the tray is in its stored position, shielding it from the effects of external sound pressure and vibration, etc., on sound quality.



VS-DD* Spindle Servo Driver

The P-02X's dedicated VS-DD spindle servo driver provides power to the spindle motor that lies at the core of the VRDS-NEO mechanism. Its three-channel discrete amplifier circuit optimizes the waveform of the current supplied to the motor, suppressing vibration, and enabling smooth spindle drive operation and highly precise servo control. Its dedicated toroidal power supply further improves noise isolation.

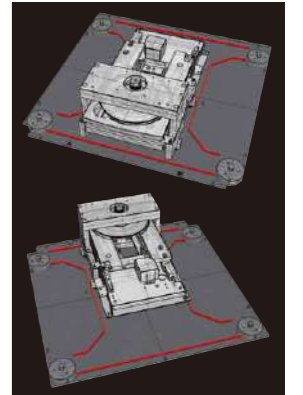
* VS-DD = VRDS Spindle Discrete Driver



A Massive Investment in Materials, Inside and Out

The interior of the chassis features a double-deck structure and optimized 3D chassis construction that allows all circuit blocks to be connected with the shortest signal path possible. Its exterior case is formed from thick aluminum panels, and its 5mm-thick steel bottom plate is supported at four points on Esoteric's exclusive pinpoint feet.

Vibration transmission has also been effectively minimized by the high-precision laser slot processing used in the manufacture of its rigid base.



A Selection of Digital Outputs

The P-02X's digital outputs are conveyed through three types of connectors (2 ES-LINK, 2 XLR & 1 coaxial), including new dedicated ES-LINK4 HDMI ports and dual XLR connectors that maintain compatibility with earlier versions of ES-LINK.

Organic EL Displays

Both units feature smooth-operating, low-consumption electroluminescent (EL) displays that are eminently suited to such state-of-the-art components.

High-Quality Remote Control With a Luxurious Feel

The P-02X's RC1315 Remote Controller is constructed from a thick panel of solid aluminum. The brushed finish on its control panel matches that of the unit's front panel and offers a luxurious feel of the highest quality.



Top view



Bottom view

36-bit Dual Mono D/A Converter

D-02X

A total redesign of every component at its heart transforms the D/A converter in a spectacular renovation. New impressions await in compelling musical playback capability that crosses all boundaries.

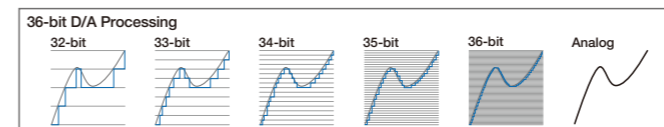
Featuring a total redesign of all its circuit components, the new D-02X compresses the monoblock design concept of Esoteric's premier Grandioso D1 into a single-unit dual mono D/A converter without compromise. Retaining the D-02's original configuration of four independent toroidal power supply circuits (for the digital circuitry, clock circuit, and left and right channel analog circuits), all components and patterns in each circuit have been significantly upgraded.

Notably, the D/A circuitry that lies at the heart of this advanced unit now boasts 16 differential circuits per channel (32 outputs), double that of its earlier configuration, while maintaining the same grand sense of scale as the D1. Other features include new ES-LINK4 signal inputs, 36-bit D/A processing and the same Esoteric HCLD line buffer technology that has won accolades for the Grandioso C1 preamplifier. Extensive efforts have also been made to provide support for high-resolution playback, including the 11.2MHz DSD file format, for ever more penetrating musical playback capability.



36-Bit Resolution Accentuates the Most Delicate Sound Textures

The D-02X uses 32 (16 + 16) DAC circuits to achieve its low-noise and phenomenal linearity. Its AK4490 chipsets are produced by Asahi Kasei Microdevices. In addition to directly processing DSD signals, a new 36-bit D/A processing algorithm performs analog conversion of the PCM signal at 36-bit resolution for smooth, delicately detailed high-resolution sound quality.



ESOTERIC-HCLD*: Esoteric's Exclusive Output Buffer Delivers Powerful Direct Current Transmission

High-speed current transmission capacity is the most important factor in an analog output circuit's ability to transmit the wide dynamic range of a musical signal without loss. Extensive resources invested in the D-02X's output buffer amplifier circuitry greatly extend the limits of its performance as a line driver. Featuring high current output capacity, its high-performance elements boast an exceptionally high slew rate of 2,000V/μs as an indicator of its remarkable response speed. The D-02X's top-tier buffer circuit configuration features four RCA output circuits and two circuits each for the XLR outputs' hot and cold terminals. By maximizing its capacity to deliver instantaneous current output, the D-02X reproduces the full dynamics of music with breathtaking realism.

* HCLD=High Current Line Driver

Wide-Range D/D Conversion Compatible With Many Sources

In addition to playback at a source's original sampling frequency, the D-02X also features PCM up-conversion capability (2x, 4x, 8x) and

PCM-to-DSD conversion that uses a proprietary algorithm to convert the PCM signal to fixed 11.2MHz DSD, enabling significantly smoother musical reproduction.

Digital Inputs Support High Sampling Rates

The D-02X's coaxial and optical inputs support PCM signals up to 24-bit/192kHz and 2.8MHz DSD (DoP). Two XLR inputs support 48-bit/192kHz (ES-LINK3), 24-bit/384kHz (Dual AES 8Fs) and 5.6MHz DSD (DoP & Dual XLR mode).

USB Input Compatible with PCM, DSD, and Asynchronous Transmission

The D-02X also features a USB input that supports asynchronous transmission, PCM rates up to 32-bit/384kHz, and 2.8/5.6/11.2MHz native DSD. Utilizing Esoteric's proprietary PC driver software in combination with its free HR Audio Player, the D-02X provides high-resolution playback of even studio master-quality source files.

ESOTERIC HR Audio Player

Windows/Mac application for 11.2MHz DSD and 384kHz PCM audio file playback. Available for download, free of charge.

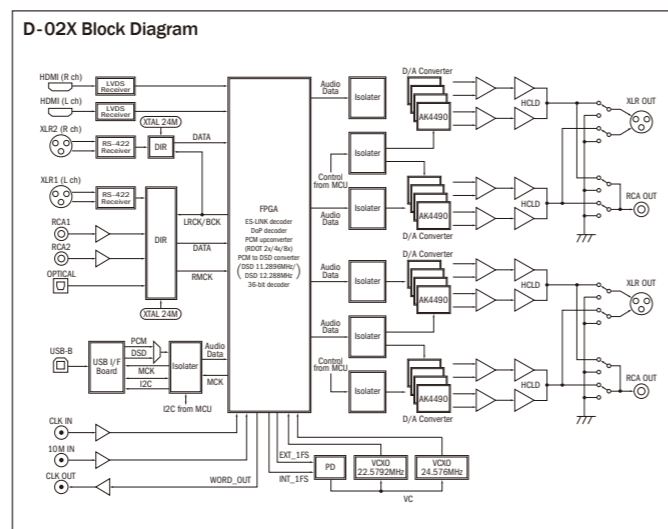


Supported file formats

DSF	DSD 2.8 / 5.6 / 11.2MHz		
DSDIFF	DSD 2.8 / 5.6 / 11.2MHz	ALAC	44.1k - 384kHz, 16 - 32-bit
PCM(wav)	44.1k - 384kHz, 16 - 32-bit	AIFF	44.1k - 384kHz, 16 - 32-bit
FLAC	44.1k - 384kHz, 16 - 32-bit	MP3	32k - 320kbps

Changeable XLR Output Pin Assignment

As phase can be digitally inverted in a contactless system, either Hot 2 or Hot 3 can be selected with no deterioration in sound quality.



Top view



Bottom view

P-05X Specifications

Playable disc types	
Super Audio CD, CD, CD-R, CD-RW	
Digital output	
ES-LINK connectors	1 pair (L/R)
XLR connectors	1 pair (L/R) *During Dual AES connection, one connector each is used for the left and right channels (Lch and Rch).
RCA connector	1
Clock input	
BNC connector	1
Input impedance	50Ω
Frequencies that can be input	44.1kHz, 88.2kHz, 176.4kHz, 10MHz, 22.5792MHz (±10 ppm)
Input level	Rectangle wave
	Sine wave
equivalent to TTL levels	
0.5 to 1.0 Vrms	
General	
Power supply	AC 220-240V, 50/60Hz AC 120V, 60Hz AC 220V, 60Hz
Power consumption	16W
External dimensions (W x H x D, including protrusions)	445mm x 131mm x 359mm (17 5/8" x 5 1/4" x 14 1/4")
Weight	13.5kg (29 7/8 lb)
Included accessories	Power cord x 1, HDMI cable x 1, Remote control unit (RC-1301) x 1, Batteries for remote control (AAA) x 2, Felt pads x 3, Owner's manual x 1, Warranty card x 1

Super Audio CD Transport P-05X



34-bit Dual Mono D/A Converter D-05X



P-05X/D-05X

Master Clock Generator G-02X

D-05X Specifications

Analog audio outputs	
XLR connectors	1 pair (L/R)
RCA connectors	1 pair (L/R)
Output impedance	XLR
	RCA
Maximum output level (when 1kHz, full-scale signal input, 10kΩ load)	XLR (when set to 0 dB)
	RCA
Frequency response (when 192kHz PCM signal input)	5Hz to 65kHz(-3dB)
S/N ratio	120dB (1kHz, A-weighted)
Distortion	0.0008% (1kHz)
Digital audio inputs	
ES-LINK connectors	1 pair (L/R)
Input signal format	Linear PCM (ES-LINK4) 352.8/384kHz, 48-bit
	DSD (ES-LINK4)
XLR connectors	2 (Selectable: Dual AES x 1 or Single AES x 2)
	Input level
	Input impedance
	Input signal format (with Dual connection)
RCA connector	Input level
	Input impedance
	Input signal format
	Input signal format (with Single connection)
Optical digital connector	Input level
	Input impedance
	Input signal format
	Input signal format
USB port	1 (Type B)
	Input signal format
Clock output	
BNC connector	1
Output level	TTL level equivalent (into 75Ω)
Output frequencies	44.1kHz, 88.2kHz, 176.4kHz, 48kHz, 96kHz, 192kHz
	22.5792MHz, 24.576MHz
Output frequency precision	Same as input frequency (when set to through output)
Clock input	
BNC connector	1
Input impedance	50Ω
Frequencies that can be input	44.1kHz, 88.2kHz, 176.4kHz, 48kHz, 96kHz, 192kHz, 10MHz, 22.5792MHz, 24.576MHz (±10ppm)
Input level	TTL level equivalent
General	
Power supply	AC 220-240V, 50/60Hz AC 120V, 60Hz AC 220V, 60Hz
Power consumption	25W
External dimensions (W x H x D, including protrusions)	445mm x 131mm x 360mm (17 5/8" x 5 1/4" x 14 1/4")
Weight	14.0 kg (30 7/8 lb)
Included accessories	Power cord x 1, HDMI cable x 1, Felt pads x 3, Owner's manual x 1, Warranty card x 1

- These products are made available in three different power supply variations, as shown in the chart above. Make sure that the voltage shown on the rear panel matches the AC line voltage in your area.
- The shape of the AC inlet and plug of the supplied power cord depends on the voltage rating and destination country.
- Specifications and appearance are subject to change without notice.
- Weight and dimensions are approximate.

ESOTERIC

Super Audio CD Transport **P-05X**
34-bit Dual Mono D/A Converter **D-05X**



PROUDLY MADE IN TOKYO

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PRINTED IN JAPAN 0317005 TECD- 0252

A new milestone cultivated by 30 years of tradition

The lineage of high-end digital audio follows the evolutionary steps of ESOTERIC digital players.

This began with the first generation P-1/D-1 model in 1987,

which made the revolutionary step of including a VRDS mechanism,

and was followed by models featuring the ultimate in engineering and craftsmanship,

such as the P-70/D-70 in 2001 and the P-03/D-03 in 2005.

In the year 2016 these models were succeeded by the superior P-02X/D02X.

And now three decades after the birth of the ESOTERIC brand, we have the P-05X/D-05X.

The P-05X/D-05X inherits the successful results of the P-02X/D-02X to give birth to

a new milestone in high-end audio which is suitable for the start of the next three decades.

LEADING TECHNOLOGY

In the Footsteps of ESOTERIC's Most Advanced Grandioso Technology

ES-LINK4

Both the P-05X and D-05X have been newly equipped with ESOTERIC's state-of-the-art ES-LINK4, which provides high-accuracy digital transmission of both DSD and ultra-wideband 352.8kHz/48-bit PCM by way of its HDMI cable connections. A core feature of the Grandioso P1/D1 digital source system, and developed in line with ESOTERIC's 'Pure D/A' concept, ES-LINK4 performs the major portion of digital signal processing on the transmission side to significantly reduce the processing load on the D/A converter in pursuit of the ultimate in sound quality.

The Expressive Power of 34-bit D/A Processing

The D-05X utilizes a 34-bit D/A processing algorithm to convert the PCM signal to analog. This 34-bit encoding provides an astounding level of digital resolution that is fully 1,024 times that of 24-bit encoding, and quadruple that of the original D-05 model. Taking advantage of the delicate tone realized by this high-bit data minimizes calculation errors for outstanding expression of even the most subtle musical signals.

High-Precision VCXO Clock Technology

A high-precision custom VCXO (voltage controlled crystal oscillator) supplies a highly accurate reference clock signal to the digital circuitry. Incorporating an unusually large crystal element, this custom VCXO realizes both excellent center accuracy ($\pm 0.5\text{ppm}^*$) and extremely low levels of phase noise to ensure exceptional sound playback quality. (*at time of shipping)

High-Accuracy Clock Synchronization

A BNC cable connects the D-05X to the P-05X to provide a master clock sync signal for synchronized playback with minimized jitter. ESOTERIC's proprietary Direct Master Clock Link* synchronizes the two units while eliminating the need for Phase-Locked Loop (PLL), enabling clear and accurate stereo imaging and crisp sound quality. The system can be further upgraded with the addition of an optional high-accuracy external Master Clock Generator and supports a wide range of frequencies including master clocks (22MHz/10MHz) and word clocks (44.1kHz/88.2kHz/176.4kHz).

*DMCL (Direct Master Clock LINK)

DMCL links the D-05X to the P-05X with a 22.5792MHz reference clock signal that causes the two units to function as a single integrated device. Compared to normal 'sync' systems, which generally require PLL (Phase Lock Loop) processing of the transmitted clock signal, DMCL provides simpler and more direct clocking between multiple devices.



34-bit Dual Mono D/A Converter
D-05X



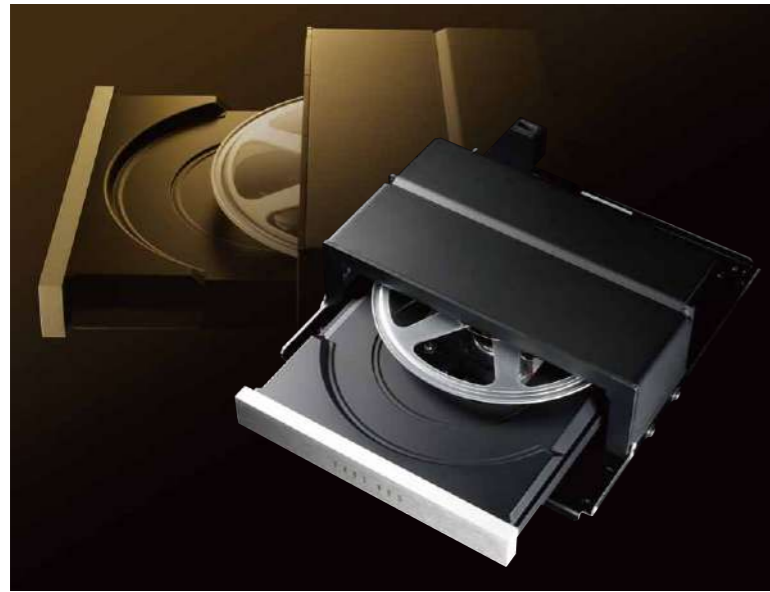
Super Audio CD Transport
P-05X

Super Audio CD Transport

P-05X

All major components updated from the original model to bring a new level of superiority

The P-05X is a brand new transport that brings together all the knowledge built up by ESOTERIC during the 10 years since the original P-05 model was released, and almost all of its components have been updated from the original model. This model includes the world-renowned VRDS-NEO VMK-5 drive mechanism and its digital circuit and clock circuit adopt technology developed for the Grandioso P1 and P-02X. The luxurious power supply circuit with large toroidal transformers has been enhanced to obtain even higher audio quality. Functionality has also been upgraded with support for ES-LINK4 digital transmission. By following the same design principles as higher end models, the chassis of the P-05X has been made more rigid and the exterior has evolved to emphasize an elegant round shape.



VRDS-NEO [VMK-5]

The unique VRDS-NEO VMK-5 transport mechanism featured in this new transport 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 transports 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.



Axial Sliding Pick-up Designed to Prevent Optical Axis Tilting

The same axial sliding pick-up assembly, used in the flagship model Grandioso P1, is incorporated in the heart of the data acquisition section. As the lens moves, the laser optical axis is always positioned in a vertical direction, ensuring a highly accurate reading of the recorded material.



Elegantly Designed Robust Chassis

The exterior case is formed from thick aluminum panels, and its steel bottom plate is supported at three points on ESOTERIC's exclusive pinpoint feet. Vibration transmission has also been effectively minimized by the high-precision laser slot processing used in manufacture of its rigid base.



ES-LINK4

The ES-LINK4 is ESOTERIC's proprietary, super high speed, wide range, and extremely pure LVDS (Low Voltage Differential Signaling) digital interface. With this interface, most digital processing is done at the transport side and the three elements of the audio signal (audio data, LR clock, and bit clock signals) are separately transferred to the DAC in a differential mode, by utilizing the multi-conductor structure of the HDMI cable. Since the signal is already pre-processed at the transport side and is transferred without bi-phase modulation, a digital de-coding/oversampling process is not required on the signal receiver side. The DAC is simply dedicated to D to A processing and retrieves a purer analog signal from transferred digital streams.

A Selection of Digital Outputs

The P-05X has a pair of new ES-LINK4 HDMI ports, dual XLR connectors that maintain compatibility with earlier versions of ES-LINK, and a coaxial digital output.

Organic EL Displays

Both units feature smooth-operating, low-consumption electroluminescent (EL) displays that are eminently suited to such state-of-the-art components.



High-Quality Remote Control with a Luxurious Feel

The P-05X's RC-1301 Remote Controller is constructed from a solid aluminum top panel. The brushed finish on its control panel matches that of the unit's front panel and offers a luxurious feel of the highest quality.



34-bit Dual Mono D/A Converter

D-05X

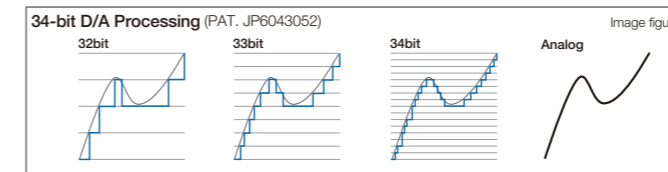
A DAC following in the footsteps of the Grandioso D1, with uncompromising audio quality

The D-05X uncompromisingly inherits the DAC design philosophy of the Grandioso D1 flagship device and updates all the circuit components from the original D-05 model to obtain sound quality that should be considered the standard for ultra-high end devices. It includes a large capacitance power supply with two large toroidal transformers at the core for independent left and right channels. The circuit size of the DAC has been doubled to have four differential circuits per channel. In terms of functionality, the D-05X features ES-LINK4 digital transmission, 34-bit D/A processing, the well-received ESOTERIC-HCLD line buffer from the Grandioso C1 preamp, and the unique ES-LINK Analog line transmission for high audio quality. It also supports playback at high resolutions such as DSD 22.5 MHz to obtain even more outstanding audio playback overall.



34-bit Resolution Accentuates the Most Delicate Sound Textures

The D-05X uses 8 (4 + 4) DAC circuits to achieve its low-noise and phenomenal linearity. Its AK4497 chipsets are produced by Asahi Kasei Microdevices. In addition to directly processing DSD signals, a new 34-bit D/A processing algorithm performs analog conversion of the PCM signal at 34-bit resolution for smooth, delicately detailed high-resolution sound quality.



This is a current transmission signaling that utilizes the high performance of the HCLD buffer circuit and its enhanced ability to supply current at high-speed. This is the ideal analog audio transmission as it is free from impedance of signal route, thus fully maximizes the system's potential when connected to a compatible device.*

*Included in the Grandioso F1 as of March 2017. A standard balance cable (with an XLR terminal) is used for connections, but the "ES-LINK Analog" method can only be used with compatible devices since it is a proprietary transmission method.

Wide-Range D/D Conversion Compatible with Many Sources

In addition to playback at a source's original sampling frequency, the D-05X also features PCM up-conversion capability (2x, 4x, 8x) and PCM-to-DSD conversion that uses a proprietary algorithm to convert the PCM signal to fixed 22.5MHz DSD, enabling significantly smoother musical reproduction.

Digital Inputs Support High Sampling Rates

The D-05X's coaxial and optical inputs support PCM signals up to 24-bit/192kHz and 2.8MHz DSD (DoP). Two XLR inputs support 48-bit/192kHz (ES-LINK3), 24-bit/384kHz (Dual AES 8Fs) and 5.6MHz DSD (DoP Dual XLR mode).

USB Support for 22.5MHz DSD, 768kHz/32-bit PCM, and Asynchronous Transmission

The D-05X includes a USB terminal for connecting to computers, and the driver and "ESOTERIC HR Audio Player" playback software can be downloaded from the ESOTERIC website free-of-charge. The D-05X supports asynchronous transmission and playback at high sampling rates up to 22.5 MHz DSD and 768 KHz/32-bit PCM studio-master-quality source files.

Changeable XLR Output Pin Assignment

As phase can be digitally inverted in a contactless system, either Hot 2 or Hot 3 can be selected with no deterioration in sound quality.

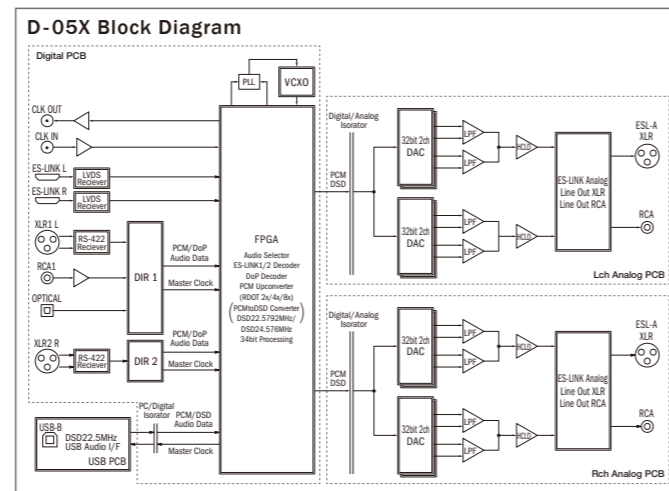
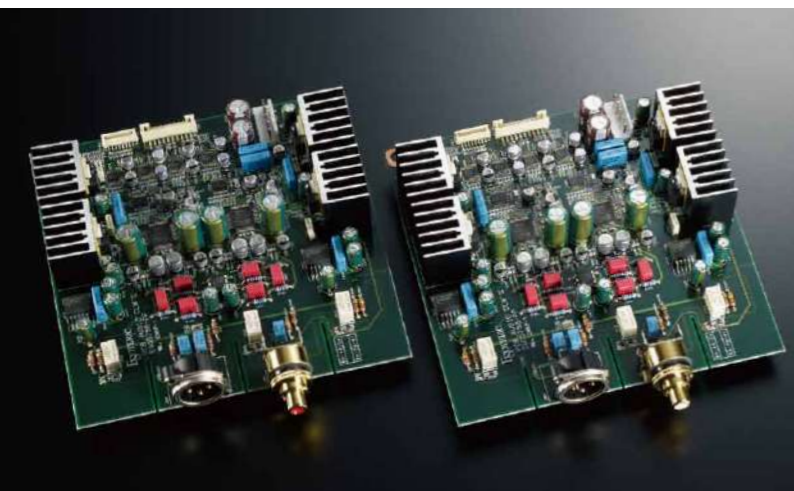
ESOTERIC-HCLD*: ESOTERIC's Exclusive Output Buffer Delivers Powerful Direct Current Transmission

The ability to produce comparatively large currents and high slew rates are two of the most important factors that enable an analog output circuit to accurately transmit the wide dynamic range of a music signal without degradation. The D-05X offers the ultimate performance as a line driver by adopting high-performance elements with a high current output and exceptionally fast slew rate (2,000V/μs) for excellent response speed. Two of these buffer circuits are employed per channel. By configuring them differentially to drive the XLR outputs and in parallel to drive the RCA outputs, the instantaneous output current available is maximized. By maximizing instantaneous current output, the D-05X reproduces the full dynamics of music with breathtaking realism.

*HCLD=High Current Line Driver

"ES-LINK Analog" Method for High Quality Current Transmission

In addition to regular line connections (XLR and RCA), the D-05X features the new "ES-LINK Analog" transmission method developed by ESOTERIC.





C-02X Specifications

Analog Audio Inputs

Connectors	RCA x 3 pairs (RCA 2 can be used as an AV pre-input) / XLR x 2 pairs
Input Impedance	LINE: 10k Ω
Input Sensitivity	510mV (at rated output) / 200mV (at 800mV output)
Maximum Input Level	12V

Analog Audio Outputs

Connectors	RCA x 2 pairs / XLR x 2 pairs
Output Impedance	47 Ω (RCA) / 100 Ω (XLR)
Total Harmonic Distortion	0.0006% (RCA) / 0.0004% (XLR)
Frequency Response	1Hz - 200kHz (-3dB) / 3Hz - 50kHz (-0.2dB)
Signal-to-Noise Ratio (S/N)	116dB (2V input, A-weighted)
Gain	+12dB
Rated Output	2V
Maximum Output Level	7.5V (RCA output, 1kHz, 0.003%) / 15V (XLR output, 1kHz, 0.003%)

General

Power Supply	230V AC, 50Hz / 120V AC, 60Hz / 220V AC, 60Hz
Power Consumption	21W
External Dimensions (WxHxD)	445 x 162 x 457mm (including protrusions)
Weight	32kg (70 5/8 lb)

Included Accessories

Power cord x 1 / Remote control (RC-1315) x 1 / Batteries for remote control (AAA) x 2 / Felt pads x 4 / Owner's manual x 1 / Warranty card x 1

S-02 Specifications

Rated Power Output	145W + 145W (8 Ω) 290W + 290W (4 Ω)
Maximum Power Output	580W + 580W (2 Ω)
Frequency Response	5Hz - 100kHz (+0dB, -3dB, 8 Ω)
Signal-to-Noise Ratio (S/N)	115dB (IHF-A)
Total Harmonic Distortion	0.003% (1kHz, 8 Ω , 145W)
Gain	29dB
Damping Factor	1000
Analog Audio Input Jacks	RCA x 1 pair / XLR x 1 pair
Input Impedance	22k Ω (RCA) / 44k Ω (XLR)

General

Power Supply	230V AC, 50Hz / 120V AC, 60Hz / 220V AC, 60Hz
Power Consumption	440W (no signal: 160W)
External Dimensions (WxHxD)	445 x 221.5 x 489.6mm (including protrusions)
Weight	48kg (105 7/8 lb)

Included Accessories

Power cord x 1 / Felt pads x 4 / Power cord support bracket x 1 / Power cord support bracket screw x 2 / Owner's manual x 1 / Warranty card x 1

- These products are made available in three different power supply variations, as shown in the chart above. Make sure that the voltage shown on the rear panel matches the AC line voltage in your area.
- The shape of the AC inlet and plug of the supplied power cord depends on the voltage rating and destination country.
- Specifications and appearance are subject to change without notice.
- Weight and dimensions are approximate.



Auxiliary Phono Modules

- MM/MC-compliant phono module boards are also available.
- Independent L & R boards designed in dual mono configuration.
 - Can be configured for remote control operation.
 - High-quality 4-layer board design with optimized power rectification.



Main Specifications

- Gain: MM: 52dB, MC: 72dB ● Input Sensitivity: MM: 5mV, MC: 0.5mV ● S/N Ratio: MM: 91dB, MC: 76dB ● Input Impedance: MM: 47k Ω , MC: 20/100/300 Ω , selectable ● RCA3: Distance between L & R input terminals: 22.5cm

* Installation only available at authorized Esoteric service centers. Please direct enquiries to your nearest Esoteric dealer. Owing to the specialized requirements of the installation procedure, phono module boards cannot be sold separately. Following installation, the RCA3 jacks located on the rear panel of the C-02X will be converted to phono-only input terminals, and line inputs limited to 2 pairs of RCA jacks and 2 pairs of XLR jacks.

Upgrade Service

An upgrade service is available to owners of the C-02 Stereo Linestage Preamplifier which allows the new X edition functions and related parts to be retrofitted to the earlier model.

Applicable Model: C-02

Contents: Addition of EDLC (super capacitor) array and exchange of power supply boards for sound quality upgrade to equivalent of C-02X.

PROUDLY MADE IN TOKYO

ESOTERIC

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ESOTERIC

Stereo Linestage Preamplifier **C-02X**
 Stereo Power Amplifier **S-02**



MasterSoundWorks

Audio expression, symphonic beauty, artistic passion, the concert hall's spatial feel, the excitement of the audience. Esoteric's Master Sound Works is an audio product concept that recreates all of the music information in original master recordings with the most state-of-the-art technology available today.

Grandioso Lineage

Representing the next generation in a proud lineage of audio excellence, the C-02X Stereo Linestage Preamplifier and S-02 Stereo Power Amplifier feature state-of-the-art circuitry in a discrete dual mono configuration that dramatically conveys all the power and energy of music.

Assembled one at a time in Esoteric's Tokyo factory and incorporating all the knowledge and technology of the flagship Grandioso line, these two new models accentuate the refined qualities of audio reproduction with expert craftsmanship and handmade precision.



Stereo Linestage Preamplifier
C-02X

Stereo Power Amplifier
S-02

Stereo Linestage Preamp

C-02X

The preamplifier is a crucial component that determines the 'sound' of an audio system, and represents the passion and commitment of its makers. As the crowning achievement of the Esoteric Sound, the Grandioso C1 opened new horizons for 'Made in Japan' preamplifiers. Now, this expressive power gives birth to the next-generation C-02X; a stereo preamplifier created to transcend the concept of high fidelity and resonate with the refined sensibilities of engineers and musicians alike.

Independent Dual Mono Design

The C-02X's DC power supply features a fully independent dual mono design that completely eliminates inter-channel interference. Its dedicated bank of five generously rated power transformers for each channel also blocks noise from the power line, enabling a pure, natural amplified sound. Grandioso technology reveals itself in such detailed refinements as the careful layout of the power supply circuit boards, which further contribute to the C-02X's superb sound quality.



Fully-Balanced Configuration Provides Excellent S/N Ratio

The preamplifier's source signal is first received by dedicated buffer amplifiers integrated with each input, from which the circuit configuration is balanced at each stage. Through the elimination of common-mode noise and reductions in circuit impedance, a pure, noise-free signal is fed to the gain amplifiers via the shortest path possible, for an exceptionally high signal-to-noise ratio.

ESOTERIC-QVCS

The C-02X's Esoteric-QVCS* volume control employs four precision switched resistor ladder networks, which change in unison as the volume knob is rotated. This arrangement allows the signal paths for the left and right channels and their positive and negative phases to be kept totally independent and as short as possible. Consequently the sound has superb clarity, excellent channel separation and highly accurate phase characteristics. The elimination of audio board wiring to the volume control further contributes to a reduced signal path, while preventing degradation of sound quality and helping to maintain the low distortion one would expect of a reference model.

* QVCS = Quad Volume Control System

Ultra-Low-Noise Logic Control

Built into the front panel, the logic control section is totally isolated, both physically and electronically, from the preamplifier module by way of an optocoupler. To assure low-noise operation, it also shuts completely down when not in actual operation, thus eliminating all possible influence on the C-02X's audio circuitry.

Highly Responsive Low-Noise, Low-Impedance Power Circuit

Five independent high-capacity power transformers, coupled with large banks of reservoir capacitors, provide power supply circuits that have exceptionally low output impedances and very clean and stable outputs. The low-noise silicon carbide (SiC) Schottky barrier diodes used in the high-speed rectifier circuit further enhance resolution and the signal-to-noise ratio for significant improvements in sound quality.

Esoteric-HCLD* Output Buffer Boosts Current Transmission While EDLC* Power Supply Ensures High Stability



As a line driver, the preamplifier must be able to fully drive the power amplifiers and faithfully convey the music signal's wide dynamic range. The key to achieving this is a circuit that provides both high current drive capability and high speed. The C-02X's output buffer circuitry delivers an exceptionally high current drive coupled with a high slew rate of 2,000V/μs for sharp response. Independent buffer circuits for each output and symmetrical circuitry for both the hot and cold phases of the XLR outputs maximize instantaneous output current capability.

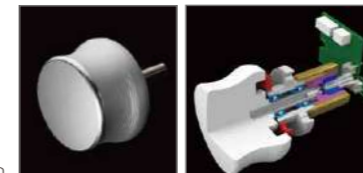
Located closest to the output buffer circuitry, the EDLC* Super Capacitor array, originally developed for the Grandioso C1, was adapted as a highly stable power source. Its compact physical size belies the extraordinary

100,000μF (0.1F) capacity it provides each channel, for high levels of instantaneous output power and strong, steady bass reproduction. Integrating these two technologies, the C-02X preserves musical dynamics that would otherwise be lost if smaller current transmission levels were employed between the pre and power amplifiers, allowing it to reproduce a breathtaking level of audio reality.

*HCLD = High Current Line Driver *EDLC = Electric Double-Layer Capacitor

High-Precision Ball Bearing Controls

The C-02X's elegant volume and input selector knobs are machined from solid blocks of aluminum. Like the Grandioso C1, their control shafts use a VRDS drive mechanism bearing system for high-precision rotation, with no mechanical play in their movements. Rotational torque has also been fine-tuned to provide a luxurious analog control feel in keeping with this high-end preamplifier.

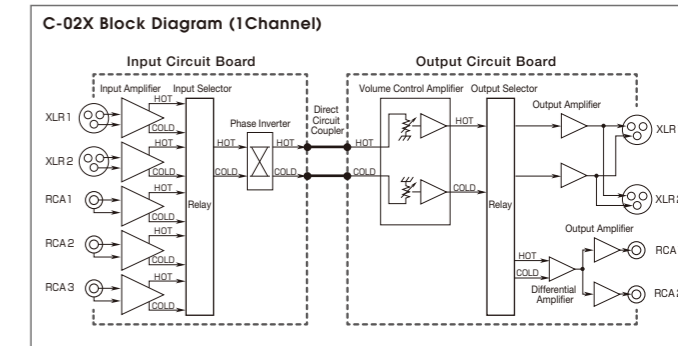


Other Important Features

- Five preset volume curves permit selection of the most comfortable operating feel.
- Individual input gain adjustability helps minimize differences in source volumes. (Range: ±18dB; 0.5dB steps)
- Adjustable left and right channel volume balance control. (Range: ±6dB; 0.5dB steps)
- Selectable phase inversion can be individually set for each source.
- RCA2 terminals permit switching between normal line output and AV-through output for systems operated in both AV surround and pure two-channel modes.
- Remote controller features high-quality aluminum finish. Can also be used to operate any of Esoteric's superb line of SACD players.
- Source component name displays can be programmed using the remote controller.
- Also equipped with dimmer, mute, and auto-display-off functions.

Optimized 3D Chassis Configuration

The C-02X's optimized chassis design features a 2-layer 5-cell configuration that houses each circuit block in its own compartment. This structure shortens the signal path to help minimize inter-circuit interference. The chassis' 5mm-thick steel bottom plate and thick aluminum exterior panels are supported at 4 points by Esoteric's own patented 'Pinpoint Feet' (patent No: JP4075477), which enhance chassis rigidity while effectively suppressing resonant vibration.



Stereo Power Amplifier

S-02

Proudly taking its place as a new reference boasting Grandioso lineage, the S-02 utilizes the know-how and technology employed in Esoteric's premier monoblock M1 and stereo S1 power amplifiers to offer generous power and exceptional dynamics that propel musical crescendos to breathtaking heights. The S-02's outstanding performance and unsurpassed clarity allow the listener not only to hear the music, but also to feel the music, by helping to reproduce the emotion that is the essence of an involving musical experience.

The Sound of Life Unleashed — High Power Creates Spaciousness and Dynamism

The indescribable feeling of spaciousness that comes when sound is truly unleashed and the sense that the music you're hearing is truly live, can only be generated by amplifiers that offer abundant power to properly drive the loudspeakers. Esoteric's amplifiers use the finest components and massive power supplies to achieve the high output power this demands. Faithfully incorporating the design philosophy of our Monoblock M1 amplifier, the new S-02 sets free every nuance of sound, and imparts to music all the vibrancy and richness of life.

Exceptional Power Linearity for Outstanding Dynamics

Loudspeaker impedance can vary widely depending on the frequencies being reproduced. The fast attack of deep bass imposes demanding loads on an amplifier, requiring not only continuous high power output, but also repeated bursts of peak power. Unless the amplifier's power supply is capable of consistently meeting these demands, musical dynamics will be compromised. The S-02's generous power supply capacity enables this nominally rated 145W into 8 ohms amplifier to deliver an impressive 580W into 2 ohms — a testament to the linearity of a power supply that faithfully reproduces the full spectrum of sound dynamics at all volume levels.

Large-Capacity Custom Power Transformer — The Heart of the Finest Power Amplifiers

A robust power supply is critical to an amplifier's ability to deliver high power in a linear manner. This is especially true for the power transformer, so great attention was paid to the material selection, core size and even mounting of the S-02's custom-made EI-type power transformer. Popular among avid audiophiles, this transformer was selected for the full-bodied, high-quality bass it provides. To preserve sound purity, this large-core 940VA transformer features separate windings for left and right channels, and



is securely mounted on a rigid, 5mm-thick steel base plate. Three parallel 4,700µF capacitors per channel shorten charge and discharge times, and provide a tighter, faster sound. Power supply wiring uses heavy-duty cables fitted with crimp terminals, which are tightly bolted together to reduce impedance to the lowest levels possible.

Breathtaking Speaker-Driving Power Ensures Accurate Damping for Large Woofers

Optimizing the S-02's loudspeaker drive capability required reducing the output impedance to an absolute minimum. To achieve this, a total of nine bus bars were used for each channel, while the output coil was eliminated. Strenuous efforts were also made to simplify the circuit design and widen its range, resulting in an exceptional damping factor of 1,000, considered a guideline for woofer drive capability. Even large-diameter woofers are provided with accurate damping for precise sound reproduction, giving an expansive feel across a wide range that reaches to even the lowest frequencies.

Balanced Input Stage Configuration Enables High-Clarity Signal Amplification

The S-02's audio input signal enters through discrete balanced input buffer amplifiers and is relayed to the amplification stage by way of a balanced low-impedance signal path. An outstanding dynamic range is assured by clean, noise-free signal amplification that provides the fine sensitivity needed to reproduce nuanced gradations between musical crescendos and silence.

Large Bipolar LAPT Transistors Deliver 34 Amperes of Instantaneous Output Current

The S-02's large bipolar LAPT* transistors are twice the size of more commonly used power transistors. They also boast an exceptional continuous current capacity of 17 amps and an instantaneous peak capacity of 34 amps. In addition, they offer superior high-frequency characteristics that contribute to accurate reproduction of subtle tonal qualities.

*LAPT=Linear Amplified Power Transistor

3-Stage Darlington Circuit with 5 Parallel Push-Pull Configuration

The power amplifier module uses bipolar LAPT transistors in a three-stage Darlington configuration with five parallel push-pull sections. To realize the superior high-frequency characteristics of these devices, a simplified amplifier circuit was developed to reduce the number of components and parallel elements.

LIDSC (Low Impedance Drive Stage Coupling) Provides Loudspeaker Drive Capability Approaching That of the M1

The S-02's unique LIDSC circuit reduces the drive section's second stage to final stage output impedance, while enhancing current supply capability. This makes it possible to maximize amplitude within the available power supply voltage while reducing distortion, and so give this compact Stereo Power Amplifier a loudspeaker drive capability approaching that of the Monoblock M1.

Independently Powered Voltage Amplifier Stage For Dramatically Improved Resolution

To prevent large fluctuations in the drive (current amplification) stage from affecting overall sound quality, the preceding voltage amplification stage receives a low level signal from the input stage, and derives its power from a dedicated power supply equipped with its own toroidal power transformer. This isolation ensures a stable supply of power to the voltage amplification stage for greatly enhanced resolution of fine instrument details, even when reproducing full orchestral crescendos.

Minimized Negative Feedback (NFB) For a More Energetic and Natural Sound

Simplifying the amplifier circuitry and reducing the previous stage's gain results in greatly reduced Negative Feedback (NFB) for a more natural and life-like sound.

High-Quality Components Selected For Outstanding Characteristics and Sensitivity

The S-02 employs highly reliable XLR and RCA input connectors, and loudspeaker terminals produced by WBT of Germany. Other high-grade components include low-impedance electrolytic capacitors and transistors featuring superior high-frequency characteristics.

High-Precision Chassis Construction Optimizes Vibration Suppression

Maintaining Esoteric's traditional dual-level configuration, the S-02's chassis features a 2mm-thick sheet steel internal framework that segregates circuit blocks into specialized compartments for the shortest signal path possible. This compartmentalized internal construction is built on a rigid 5mm-thick steel base and enclosed by thick aluminum panels. Esoteric's original pinpoint feet provide a four-point support system that further ensures high structural rigidity, while eliminating resonances.

