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	x 1	
	Input signal format	352.8kHz / 384kHz, 48bit Linear PCM (ES-LINK4 format)
		DSD (ES-LINK4 format)
XLR terminal	x 1	
	Input level	5.0Vp-p
	Input impedance	110Ω
	Dual connection Input signal format	32-384kHz, 16-24bit Linear PCM (DUAL AES format)
		32-192kHz, 48bit Linear PCM (ES-LINK3 format)
		DSD (ES-LINK1, ES-LINK2 format)
	Single connection Input signal format	32-192kHz, 16-24bit Linear PCM (AES / EBU format)
		DSD (ES-LINK1, ES-LINK2 format)
RCA terminal	x 2	
	Input level	0.5Vp-p
	Input impedance	75Ω
	Input signal format	32-192kHz, 16-24bit Linear PCM (IEC60958 format)
Optical digital terminal	x 1	
	Input level	-24.0 to -14.5dBm peak
	Input signal format	32-192kHz, 16-24bit Linear PCM (IEC60958 format)
i.LINK (AUDIO) terminal	x 2 (6-pin, 4-pin) S400	
	Input signal format	32-192kHz, 16-24bit, Linear PCM
		DSD
USB port . B connector	x 1	
	Input signal format	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)
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

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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ESOTERIC

Grandioso P1 / D1

Super Audio CD Transport / Monoblock D/A Converter



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

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ESOTERIC

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 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).

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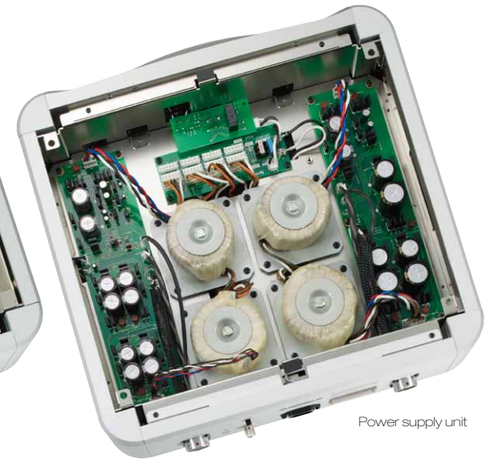
ESOTERIC

Grandioso P1

Super Audio CD Transport



Main Unit



Power supply unit

VMK-3.5-20S VRDS-NEO

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 ESLINK.

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.



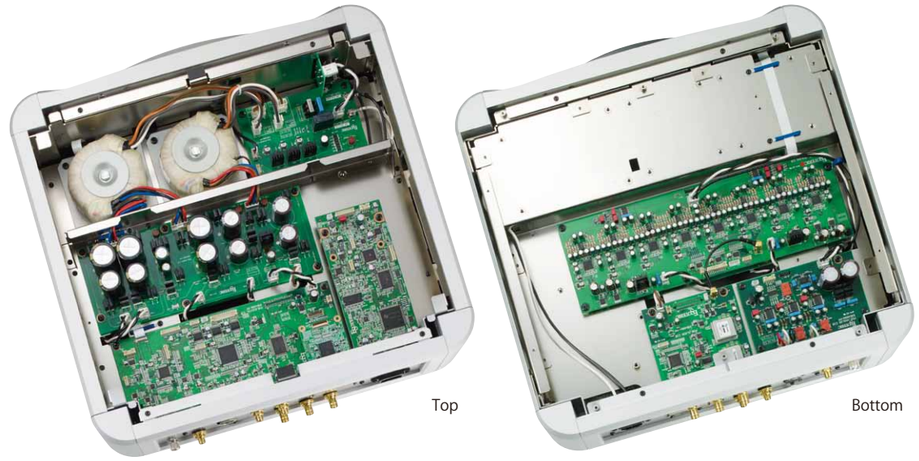






Grandioso D1

Monoblock D/A Converter

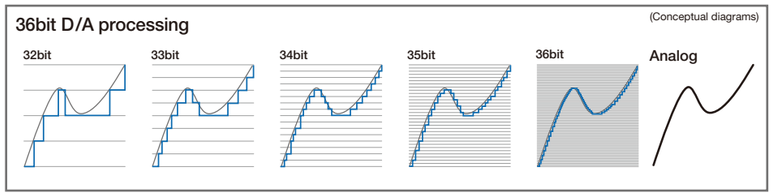


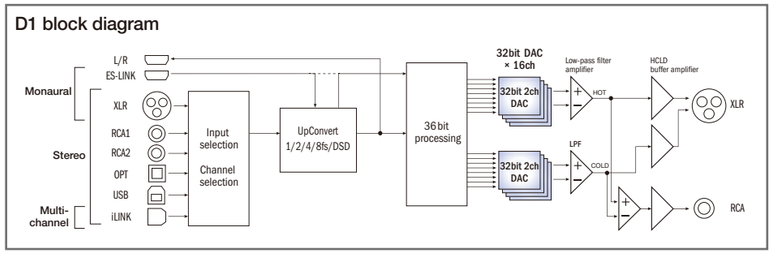
A monaural configuration for the ultimate evolutionary step toward the ideal stereo

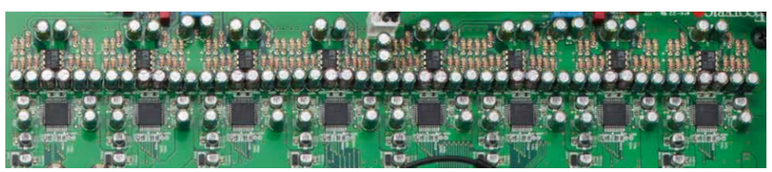
The D1 follows the monaural configuration of the D-01, which we introduced in 2004 as the world's first monaural D/A converter. The D-01 was developed with the goal of attaining the highest level of channel separation and the ideal power supply to each channel. In the new D1, we have introduced the latest 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/μs. 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 x 1, XLR x 1, iLINK 4p/6p x 1, USB x 1, coaxial x 2, optical x 1), and can be used for high-sampling-rate sources of up to 24-bit/192kHz. In addition, XLR x 2 supports high-sampling-rate/high-bit inputs of 48-bit/192kHz (ES-LINK3) and 24-bit/384 kHz (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/384 kHz 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.







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