

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	
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

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- 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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PRINTED IN JAPAN 0117005-TECD-0246

ESOTERIC

Master Clock Generator G-01X



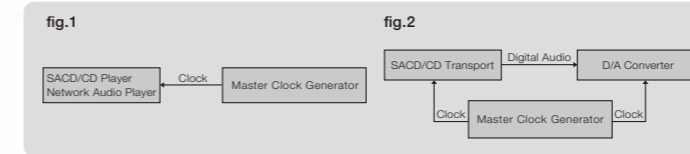
The high precision G-01X master clock generator adopts new technologies such as “Wide Range Clock Buffer Amplifiers”, “Adaptive Zero Ground” circuits, and a high precision rubidium oscillator to attain the very best in musical expression from your digital audio system.



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.

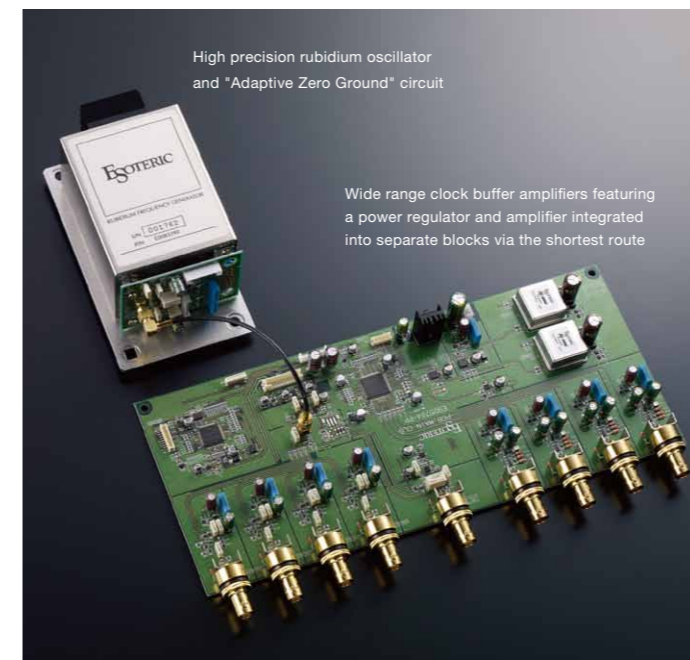


Ultrahigh Precision Rubidium Oscillator

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.



High precision rubidium oscillator and “Adaptive Zero Ground” circuit

Wide range clock buffer amplifiers featuring a power regulator and amplifier integrated into separate blocks via the shortest route

“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.



Power supply components

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.