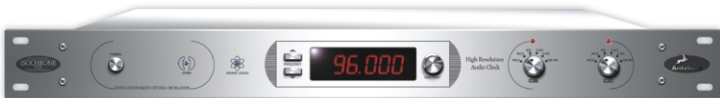




Owner's Manual

OCX

High Resolution Audio Clock Generator



www.antelopeaudio.com

Isochrone OCX achieves the breakthrough clock stability by placing the quartz crystal in an isolated, temperature controlled oven. Constant temperature control of the crystal oscillator and a proprietary Jitter Management Module provide unprecedented sonic benefits. ***Isochrone OCX*** takes the digital sound out of digital audio, giving you the audio in its purest form whether connected to digital mixer, Pro-Tools system, DAW or digital effects unit.

The amazingly stable ***Isochrone OCX*** can be taken to the ultimate level by locking it to the most stable clock on Earth: the Atomic clock.

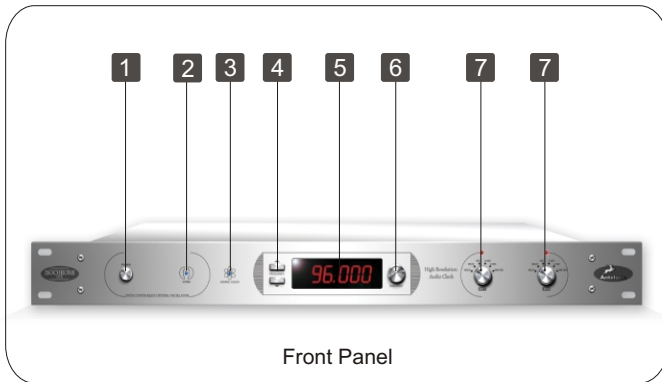
With added flexibility of being able to output multiple sample rates and the built in support for Pro Tools, ***Isochrone OCX*** easily surpasses the industry standard AardSync II, and is destined to become the new Gold Standard.

Getting Started:

It takes only seconds to harness the benefits of the Isochrone OCX.

- ➊ Connect the AC input to a power outlet.
- ➋ Connect any devices you'd like clocked to the appropriate outputs on the OCX back panel.
- ➌ Power the OCX on via the power button on the front panel. Proceed to the next step when the Oven light stops flashing and remains on.
- ➍ Using the Frequency buttons on the front panel, select the sample rate you wish to use.
- ➎ Some devices will automatically sync to incoming clock from the OCX when connected. Other devices may require additional configuration in order to utilize OCX clock.

Note: When making initial connections, do so with the studio volume turned down. Some devices may emit unpleasant sound until properly configured to accept incoming



Front Panel

1 Power Switch

2 Oven Indicator

When the OCX is powered on, this LED will flash while the oven calibrates its temperature. The LED will remain lit when this temperature is achieved. This process only takes a moment, and verifies optimum hardware performance.

3 Atomic Clock Indicator

When lit, this LED verifies that the OCX is slaving to Atomic Clock via the corresponding BNC input on the unit's back panel.

4 Sample Rate Selectors

Used to select the operating frequency of the OCX clock. All outputs (Word Clock, AES/EBU, and S/PDIF) will output this frequency with the exception of outputs 7 and 8. Outputs 7 & 8 can operate at this rate or provide user defined frequencies. See **7** for more details

5 Frequency Display

Displays the operating frequency of the OCX clock.

6 Contrast Knob

Adjusts the frequency display contrast.

7 Alternate Sample Rate Switches for Word Clock outputs 7 and 8.

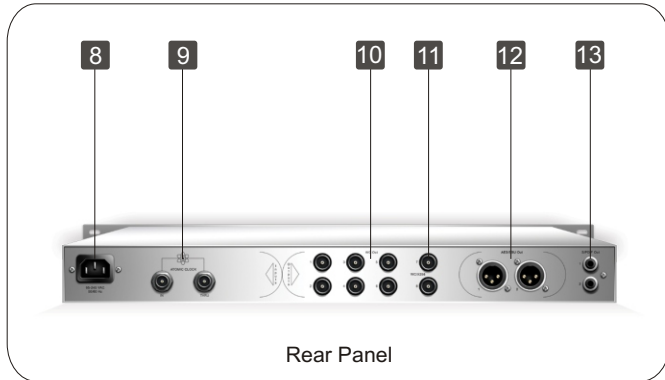
Word clock outputs 7 and 8 are capable of outputting frequencies different from the OCX internal clock. The first five settings choose frequencies that are multiples of the internal clock. The final setting, *256 WC*, configures the output to generate 256 FS Clock (or Superclock), a protocol used by some Digidesign components.

A red LED is present above each knob. When lit, it indicates that a valid sample rate is selected. When flashing, the output has been configured to provide a frequency outside the supported range (32kHz- 192 kHz).

For easy reference, the following chart indicates what frequencies outputs 7 and/or 8 will provide depending on knob position and the selected sample rate.

		ALTERNATE SAMPLE RATE					
		WC / 4	WC / 2	WC	2 WC	4 WC	256 WC
SAMPLE RATE	32 kHz	X	X	32 kHz	64 kHz	128 kHz	256 fs
	44.1 kHz	X	X	44.1 kHz	88.2 kHz	176.4 kHz	256 fs
	48 kHz	X	X	48 kHz	96 kHz	192 kHz	256 fs
	88.2 kHz	X	44.1 kHz	88.2 kHz	176.4 kHz	X	X
	96 kHz	X	48 kHz	96 kHz	192 kHz	X	X
	176.4 kHz	44.1 kHz	88.2 kHz	176.4 kHz	X	X	X
	192 kHz	48 kHz	96 kHz	192 kHz	X	X	X

X Output is not valid



Rear Panel

8 Power Connection

This IES AC connection accepts an input of 95-245 VAC 50/60 Hz. As a result, the OCX automatically accommodates a full range of voltages, allowing safe use in any country.

9 Atomic Clock In and Thru connectors

The Atomic Clock Input allows the OCX to operate with unprecedented accuracy. This BNC input accepts the 10MHz clock signal found on many atomic clock devices. The OCX can utilize this ultra precise timing reference at any of its supported sample rates.

The Atomic Clock Thru allows additional devices to slave to Atomic Clock received by the OCX. This allows additional OCX units to be present in the studio, all utilizing the benefits of atomic clock in perfect sync.

10 Word Clock outputs 1-6 The sample rate provided by these BNC outputs always matches the sample rate indicated by the *Frequency Display* on the front panel. For best results, WC cables should not exceed 20ft. (6m.) in length. Longer cable runs result in increased jitter and other clock errors.

11 Word Clock outputs 7-8

The sample rate provided by these two outputs can match the sample rate of outputs 1-6 or be changed to alternate sample rates by using the corresponding knobs on the front panel.

12 AES/EBU outputs

Provide clock in the AES/EBU format. AES/EBU is the best option in situations requiring long cable runs. AES/EBU accommodates cable runs up to 300ft. (90m.).

13 S/PDIF outputs

RCA connections provide clock via Coaxial S/PDIF. For best results, S/PDIF connections should not exceed 10ft. (3m.).

TECHNICAL SPECIFICATIONS

Internal Reference:	Oven Controlled Crystal Oscillator
Frequency Accuracy:	Better than 1PPM
Atomic Clock input:	10 MHz, BNC
Word Clock outputs:	6 standard and 2 user-defined
AES Sync outputs:	2 AES/EBU-92 XLRs
S/PDIF Sync outputs:	2 coaxial RCA connectors
Sampling rates:	32, 44.1, 48, 88.2, 96, 176.4, 192 kHz
AC Power:	95-245 VAC, 50-60 Hz, 12 W max
Operating temperature:	0-50 C, 32-122 F
Weight:	2 kg, 4.4 lb
Dimensions:	482mm (W) x 44mm (H) x 173mm (D) 19" (W) x 1.7" (H) x 6.8" (D)