



**Antelope**  
OWNER'S MANUAL

# LIVE *Clock*

192 KHZ LIVE MASTER CLOCK





# **Owner's Manual**



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# 1. Safety Notes



*To reduce the risk of electrical shocks, fire, and related hazards:*

- Do not remove screws, cover, or cabinet. There are no user serviceable parts inside. Refer servicing to qualified service personnel.
- Do not expose this device to rain, moisture or spillover of liquid of any kind.
- Should any form of liquid or a foreign object enter the device, do not use it. Unplug it from the power source. Do not operate the device again until the foreign object is removed or the liquid has completely dried and its residues fully cleaned up. If in doubt, please consult the manufacturer.
- Do not handle the power cables with wet hands!
- Avoid placing things on the cabinet or using the device in a narrow and poorly ventilated place which could affect its operation or the operation of other closely located components.
- If anything goes wrong unplug the power. Do not attempt to repair the device yourself. Consult authorized service personnel or your dealer instead.
- Do not install near any heat sources such as radiators, stoves, or other apparatus (including amplifiers) that produce heat.
- Do not use harsh chemicals to clean your unit. Clean only with specialized cleaners for electronics equipment.
- Connect all your devices before powering your unit.
- DC power supply cable should be routed so that it is not likely to be walked on or squeezed by items placed upon or against it.
- To completely turn off the device, unplug the power cable first from the outlet and then from the rear panel of the unit.
- The device is designed to operate in a temperate environment, with a correct Operating Temperature of 0-50° C, 32-122° F.

## 2. Introduction

Thank you for purchasing the Antelope Audio LiveClock.

For over a decade now Antelope Audio has been dominating the market of studio master clocks thanks to the company's ground breaking Acoustically Focused Clocking (AFC) technology. Combining digital precision with our signature analog-like sound, Antelope's renowned clocking technology proved to be also extremely beneficial to the live show environment. Clocking the front-of-house (FOH) mixer and monitoring rig brought exceptional sound quality to both audience and musicians. A distinctive stereo image, precise detail and authentic sonic representation are among the main benefits usually associated with Antelope's clocking.

Now, Antelope Audio presents LiveClock. A unique in terms of size, sound quality and price audio master clock, designed to perfectly suit any live sound set up. Fitting perfectly into a FOH console dog house, the pocket size clock carries the signature Antelope sound packed in a robust aluminum case with lockable touch buttons. LiveClock is taking up just 1U space and with its additional rack ears or dog house kit, it's a breeze to set it in your rig.

The competitive price and elegantly small footprint make LiveClock the perfect choice for any location recordists, home studio producers or travelling artists, dedicated to achieving the optimum sound quality everywhere they go. The LiveClock utilizes the same AFC technology, therefore sounds as amazing as the legendary Trinity and Antelope's latest OCX HD master clock.

LiveClock supports up to 192 kHz sample rate, distributed via four Word Clock outputs on BNC and two pairs of AES/EBU and S/PDIF outputs. The unit allows simultaneous clocking of multiple devices, providing the perfect synchronization of either a large live rig or a contemporary studio set up. A 10 MHz input for connection with Antelope's 10MX or 10M offers even greater stability and sound quality.

The new LiveClock is easy to configure via the sleek touch buttons. The convenient Panel Lock function prevents from sampling rate changes during a session or live show. All aspects of the device are easily operated via the OS X and Windows compatible software control panel.

For further information, you can also visit our support area online for the FAQ, Help Desk and to register your product at: [www.antelopeaudio.com](http://www.antelopeaudio.com).

**Reinvent your live performances with the LiveClock!**

All the best,  
The Antelope Team



### 3. Features

- USB interface via Software Control Panel
- Compact & Light body
- Durable Front Panel Interface with Touch Buttons
- Sample Rate Display
- WC, Atomic, Oven, Rate Lock indicators
- Software Control Panel for remote control and firmware updates via USB
- Glitch-free Relocking System
- 1x Wall Wart Power Supply
- 1x Atomic Clock (10M) In
- 1x Word Clock (WC) In
- 4x WC Outs
- 2x AES/EBU Outs
- 2x S/PDIF Outs
- WC, AES, S/PDIF up to 192kHz
- 1U rack mounting with additional rack ears
- Dog house mounting

## 4. Installation & Activation Guide

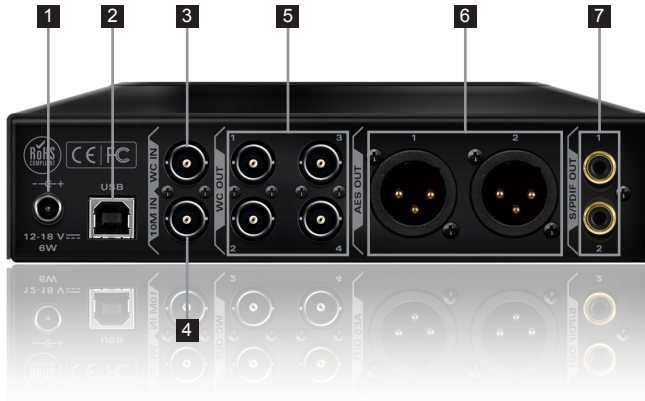
1. Connect the DC power source on the rear panel.
2. Connect the USB cable to the USB port on your computer and to the device.
3. Navigate to [www.antelopeaudio.com/en/support/downloads](http://www.antelopeaudio.com/en/support/downloads) and then select LiveClock.
4. Download the LiveClock launcher.
5. Start the application (if you are on a PC install the launcher). The launcher will automatically download the software control panel.
6. You will be greeted by an activation screen. Enter your information and click Done.
7. Check your email for the activation link mail and click on it. If the email does not appear in your Inbox, please check your Spam folder.
8. Go back to the launcher and enter your information. Click Done.
9. You're good to go!

## 5. Front Panel Explained



- 1. Word Clock, Atomic, Oven, Rate Lock indicators.**  
When lit indicating which clock source the LiveClock is currently locked to and if the Rate Lock is activated.
- 2. Sample Rate Display**  
Indicates the current sample rate of the LiveClock.
- 3. Sample Rate increase or decrease touch buttons**  
Touch to increase or decrease the sample rate of the master clock.
- 4. Rate Lock touch button.**  
Touch to prevent the device from accepting commands from the Sample Rate increase or decrease touch buttons.

## 6. Rear Panel Explained



### 1. DC Power Connection

For use with Antelope's DC power supply only.

### 2. USB 2.0 Type-B Connector

USB interface for LiveClock control via Antelope Audio Software Control Panel.

### 3. WC Input

BNC connector used to receive Word Clock reference.

### 4. Atomic Clock Input

BNC connector allowing the LiveClock to reference from an Atomic Clock such as Antelope Audio's 10M and 10MX for increased Oscillator accuracy.

### 5. WC Outputs

Four Word Clock Outputs with BNC connector.

### 6. AES/EBU Outputs

These two outputs provide AES/EBU clock at sample rates up to 192 kHz.

### 7. S/PDIF Outputs

These two outputs provide S/PDIF clock at sample rates up to 192 kHz.

## 7. Software Control Panel

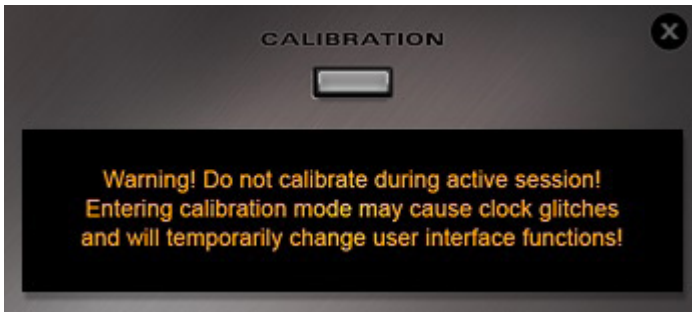


### 1. Device S/N

Shows which device is controlled. If you have multiple devices connected to your PC/ MAC computer (or different computers wired in the same Local Area Network) you can select which one to control.

### 2. Calibration Mode

Enters the calibration mode.



Ensure atomic signal is fed to the Atomic Input, the Atomic Clock is warmed up and the LiveClock Atomic Clock Indicator is lit.

1. Click on calibration and the device will enter calibration mode

2. The indicator below will show a number which will stabilize with time. Wait for the number to become stable. This number represents the error of the LiveClock clock related to the Atomic Clock. To compensate for this error press the "Calibrate" button.



3. Repeat the procedure as many times as necessary so that the number becomes as close as possible to Zero and relatively stable (number may have small deviations in a few seconds). To exit Calibration mode press the X button.

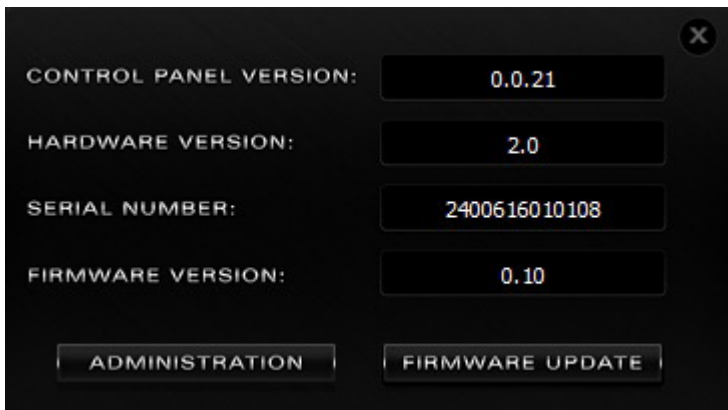
### 3. Panel Lock Indicator

When the panel is locked the device will not accept commands from neither its front panel interface nor the Control Panel thus preventing accidental setting changes during session or Live events. You can lock or unlock the Panel by clicking on the padlock symbol. When locked the Control Panel will look dimmed.



#### 4. Info

Displays various information about the device, including serial number and allows to update the firmware.



**The Administration button** allows quick self-help and diagnostics of server-related issues and also server features control.

It provides the user with following options:

- Pick a server
- Status box
- Check for updates
- Restart the server
- Reinstall server
- Auto-run the manager server on system startup
- Reject incoming remote connections for all devices on this server

For more information on each option check the Antelope Audio website or contact our tech support.

#### 5. Oven

When lit, this indicates LiveClock is clocked by its own internal clock.

#### 6. Atomic

When lit, this indicates LiveClock is locked to an atomic signal that enters through the 10M Input on the rear panel. This overrides the Oven Clock lock light. As soon as valid atomic signal with proper stability is plugged in the Oven Clock lock light will automatically go off.

#### 7. WC Lock

When lit, this indicates LiveClock is locked to a signal that enters through the WC Input on the rear panel.

#### 8. Sample Rate Indicator

Indicates the current sample rate of the master clock.

#### 9. Brightness Control

Adjusts the device's front panel brightness from 0 to 100%.

## 8. Technical Specifications

<b>Clocking System:</b>	4th generation Acoustically Focused Clocking 64-bit DDS Oven Controlled Crystal Oscillator
<b>Clock Stability:</b>	<+/- 0.02 ppm, oven controlled at 64.5°C/148.1°F
<b>Clock Aging:</b>	< 1 ppm per year
<b>Clock Calibration:</b>	<+/- 0.001 ppm
<b>Atomic Clock Input:</b>	10 MHz
<b>Sample Rates Generated:</b>	32, 44.1, 48, 88.2, 96, 176.4, 192 kHz
<b>Master Clock Outputs:</b>	4x WC 2x AES/EBU 2x S/PDIF
<b>Inputs:</b>	1x WC In 1x Atomic In
<b>Power supply:</b>	Wall Wart power supply accepting ~100-240V
<b>Power consumption:</b>	6W
<b>Operating Temperature:</b>	0-50°C / 32-122°F
<b>Weight (unit):</b>	580 g
<b>Dimensions (unit):</b>	Width: 190 mm / 7.5" Height: 46.8 mm / 1.84" Depth: 135.8 mm / 5.35"
<b>Power supply weight:</b>	170 g
<b>Rack mount kit weight:</b>	270 g
<b>Dog house mount kit weight:</b>	180 g



## 9. In The Box

- LiveClock – 192 kHz Live Master Clock
- Owner's Manual
- Warranty Card
- 1 Wall Wart Power Supply
- 1 USB cable
- Rack Mount Kit
- Dog House Mount Kit
- Fasteners Set
- Assembly Instructions
- Cleaning Cloth

# 10. Antelope Audio Support Resources

Antelope Audio offers a range of services and support resources for your Antelope hardware, firmware and software control panels.

## **FAQ**

Several categories of frequently asked questions are available on the website:  
<http://www.antelopeaudio.com/en/support>

## **Telephone Support**

Phone line is for general inquiries and technical support: +1 734 418 8661  
Hours of Operation: 7:00 a.m. - 3:00 p.m. (EST)

## **Help Desk**

A ticketing system ensures a 24-hour response time:  
[www.antelopeaudio.com/en/support/help-desk](http://www.antelopeaudio.com/en/support/help-desk)

## **Live Chat**

Connect with a customer support agent directly via the website:  
<http://www.antelopeaudio.com/en/support>

Click on Antelope Tab on the right-hand side of the webpage  
Hours of Operation: 7:00 a.m. - 3:00 p.m. (EST)

## **Support Documents and Software**

A web resource with all device manuals, datasheets and software:  
<http://www.antelopeaudio.com/en/support/downloads>

## **Control Panel Newsfeed**

The software control panel for Goliath incorporates a newsfeed at the bottom, which displays all new updates and relevant information:

## **You Tube Page**

Tutorial videos, interviews, user cases and promos for forthcoming products:  
<http://goo.gl/yfOmZf>

## **Web Blog**

Regular blog posts will update you on the latest user cases with the Goliath:  
<http://www.antelopeaudio.com>



## NOTES

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***Correct Disposal of This Product  
(Waste Electrical & Electronic Equipment)***

***(Applicable in the European Union and other European countries with separate collection systems)***

This marking shown on the product or its literature, indicates that it should not be disposed with other household wastes at the end of its working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take this item for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract. This product should not be mixed with other commercial wastes for disposal.





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