Antelope

Owner's Manual

DA

Reclocking Sync Distribution Amplifier

www.antelopeaudio.com

There should only be one master clock in your studio synchronizing all your gear. Attempting to daisy-chain your master clock signal through multiple devices will only result in sync problems like clicks and pops or jitter-colored digital sound. This is where the ***Isochrone DA*** comes to the rescue by providing a large number of buffered outputs, so you can feed the the master clock to all of your gear individually.

It is not enough to simply distribute the clock signal. Passive sync distribution may end up redistributing harmful jitter to all your devices. Unlike other DA products, ***Isochrone DA*** is an active distributer; it completely regenerates the clock, always distributing jitter-free signal throughout your facility.

Getting Started:

It takes only seconds to harness the benefits of the Isochrone OCX**.**
Integrating the Isochrone DA into the studio environment couldn't be easier.

❶ Connect the AC input to a power outlet

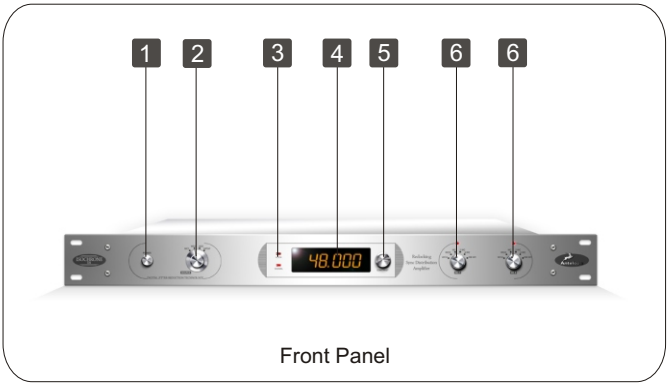
❷ Connect the master sync device to a corresponding sync input on the on DA's rear panel. Set the SOURCE knob on front to the input receiving incoming clock.

❸ Connect any devices you want synced to the appropriate outputs on the DA's rear panel.

❹ Power the DA on via the power button on the front panel. Verify that both the LOCK and SIGNAL leds are lit.

❺ The DA is now distributing regenerated, low jitter clock to connected devices. Some devices will automatically sync to clock provided by the DA. Other devices may require additional configuration in order to utilize this incoming 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 clock.*



Front Panel

Front Panel

1 Power Switch

2 Source Selector
Designates which input receives the clock distributed to the DA outputs.

3 Lock and Signal LEDs
When the Signal LED is lit, it verifies that the input chosen by the Source Selector is receiving clock. The Lock LED verifies that the DA is properly locked to the incoming clock, and the incoming clock is at a supported frequency (30 kHz- 202 kHz).

4 Frequency Display
Displays the sample rate received & distributed by the DA.

5 Contrast Knob
Adjusts the frequency display contrast.

6 Alternate Sample Rate Selector for Word Clock outputs 7 and 8.

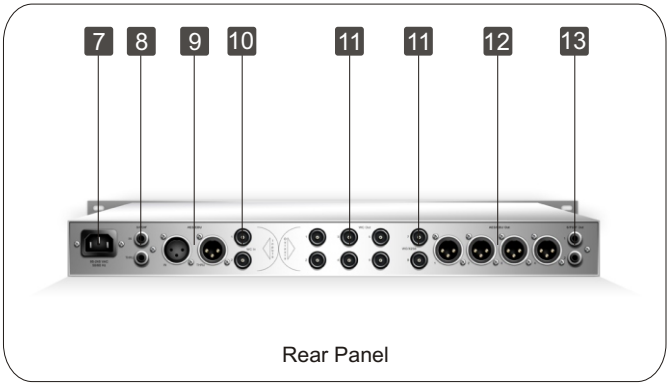
Word clock outputs 7 and 8 are capable of outputting frequencies different from the clock received by the DA. The first five settings select frequencies that are multiples of the incoming clock. The final setting, 256 WC, configures the corresponding output to generate 256 FS Clock (sometimes referred to as 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 output at a frequency outside the supported range (32kHz- 192 kHz).

For easy reference, the following chart indicates what frequencies outputs 7 and/or 8 transmit depending on incoming sample rate and knob settings. Although the DA can receive any frequency between 30kHz and 202 kHz, this chart is limited to those most commonly used.

		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

Rear Panel

7 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.

8 S/PDIF input and S/PDIF thru
The S/PDIF in is an RCA connection that accepts clock via Coaxial S/PDIF The S/PDIF thru will reamplify and output any audio contained in signal received by the S/PDIF input.

9 AES/EBU input and AES/EBU thru
The AES/EBU in is an XLR connection that accepts clock via AES/EBU The AES/EBU thru will reamplify and output any audio contained in signal received by the AES/EBU input.

10 Word Clock input 1 and 2
BNC connections used to accept clock for distribution.

11 Word Clock outputs 1-6
The sample rate provided by these outputs always matches the sample rate indicated by the Frequency Display on the front panel.

11 Word Clock outputs 7-8 The sample rate provided by these two outputs can either match the sample rate of outputs 1-6, or can be changed to alternate sample rates by using their corresponding knobs on the front panel.

12 AES/EBU outputs
Output clock to devices with AES / EBU inputs.

13 S/PDIF outputs
Output clock to devices with S/PDIF inputs.

Maximum Cable lengths:
Too long of a cable run can cause unwanted jitter and clock error. For optimum results, Word Clock cables should be no longer than 20ft. (6m.), AES/EBU no longer than 300ft. (90m.), and S/PDIF no longer than 10ft. (3m.).

TECHNICAL SPECIFICATIONS

Word Clock outputs:	6 standard and 2 user-defined
AES Sync outputs:	4 AES/EBU-92 XLRs
S/PDIF Sync outputs:	2 coaxial RCA connectors
Word Clock inputs:	2 TLL BNCs
S/PDIF input:	1 RCA with audio pass-through
AES/EBU input:	1 XLR with audio pass-through
Sampling rates:	32-192 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)