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# Discrete 8

## User Manual

## **NEW LEVEL STUDIO POWER**

Expensive-sounding discrete mic preamps and vintage gear emulation

The Antelope Audio Discrete 8 Microphone Preamp Interface brings a new level of sound quality and power to home studios and mobile recordists. It comes with 8 console-grade, 6-transistor discrete preamps, 121 db dynamic range conversion, and rock solid clocking. Discrete 8 features all of the Antelope Audio premier real-time FPGA FX, including authentic models of iconic gear from BAE, Lang, Gyraf Audio, and many more.

# System Requirements

## Computer:

- USB 2.0-equipped Mac or PC
- Thunderbolt™ equipped Mac or PC
- Core 2 Duo minimum, Core i3/i5/i7/Xeon processor recommended
- 4 GB RAM minimum, 8 GB RAM processor recommended

## Operating system:

- OS X (macOS) 10.11 (El Capitan) or greater
- Windows 10

# 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 the 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. Switch off the device and unplug it from the power source.
- Do not use the device until the foreign object is removed or the liquid has completely dried and its residues fully cleaned up. If in doubt, please consult with the manufacturer.
- Do not handle the power cables with wet hands! Make sure the device is switched off when plugging and unplugging it from the power source.
- Avoid placing any objects on the cabinet or using the device in a narrow and poorly ventilated place. Doing so could affect its operation or the operation of other closely located components. If anything goes wrong, turn off the device first and unplug the power.
- Do not attempt to repair the device yourself: consult authorized service personnel or your dealer.
- Do not install the unit 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. This unit is connected via its power cord to the mains safety earth. Never operate the unit without this earth connection.

- 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.
- Both, occasional and continued exposure to high sound pressure levels can cause permanent ear damage via headphones and monitors.
- 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 Discrete 8 from Antelope Audio.*

Discrete 8 was developed after an extensive research of legendary microphone preamp circuitry. The Antelope Audio FPGA engine can transform its already expensive sounding Accusonic preamps into a plethora of classic units real-time. The microphone source can be recorded with and without Accusonic modeling. This allows the engineer to choose between preamp models during mixing.

Plug a guitar into one of the Hi-Z enabled inputs and sculpt your tone with the most iconic guitar amps and cabinets. Add vintage compression, EQ and AuraVerb to hear a finished studio quality result with real-time responsiveness. Perform and record either with FX or process later using the integrated guitar effects. The Discrete 8 ReAmp outputs will allow you to use any outboard gear and record the sound back in your DAW of choice.

Discrete 8 is designed as a professional clocking solution in its own right. It features Antelope's 4th Generation 64-bit Acoustically Focused Clocking (AFC) technology from highly acclaimed clock units like Trinity, OCX HD, LiveClock and Pure2. Discrete 8 comes with a Word Clock (WC) Input that can de-jitter and distribute an external clock signal. Two WC outputs allow you to distribute clock to your other digital gear and mic preamps in your setup connected

via ADAT and S/PDIF. Discrete 8 will make sure all your gear is perfectly sync'd.

The Monitoring and Talkback sections in Discrete 8 are easy to set. Up to 3 individual monitoring mixes can be sent to Headphones or Monitor Outputs, with or without FPGA FX. Custom headphone mixes might be tailored for each performer. Vintage EQ, Compression and guitar amps allow the artists to hear a sound as close to the final product as possible.

Discrete 8 can save and load AFX presets and exchange settings with the entire Antelope line of FPGA equipped pro audio interfaces. Share your own FX settings with other Antelope users or see how the pros are setting up their sessions.

The Discrete 8 downloadable remote App allows you to adjust all microphone input levels, Talkback levels, as well as Monitoring and Headphone volumes. Musicians can now control their own headphone volume through their phones. The engineer can check input levels from the tracking room. The device can be accessed from different computers connected to the same network.

For the latest information and updates, please visit: <http://www.antelopeaudio.com/>

All the best,

The Antelope Team

## 3. Features

- Real time 3D mic modeling via FPGA engine
- 50+ Premier real time FX, also accessible in DAW
- 8 console-grade Class A mic pres with discrete transistor design
- Precise and recallable stepped gain control
- Individual knobs for each discrete mic pre
- 4th Generation 64-bit Acoustically Focused Clocking

- FPGA FX models of BAE, Grove Hill and Gyraf Audio classics
- NEW AFX2DAW Plugin for accessing the FPGA FX in your DAW (Coming soon)
- 8 Analog inputs on combo XLR connectors (6 Mic / Line; 2 Hi-Z / Mic / Line)
- 8 Analog Line outs on DB25 connectors
- Thunderbolt™ & USB connectivity (TB for Windows coming soon)
- A pair of Monitor outs on TRS connectors
  - 2 Stereo Headphone outputs
  - Dual Footswitch (optional)
  - 2 ReAmp Outputs
  - 1 Word Clock input & 3 Word Clock outputs
  - Additional digital connectivity via S/PDIF and 2x ADAT
  - Up to 4 individual monitoring mixes with FPGA FX
  - Create & share custom presets
  - Intuitive EasyPanel software control
  - Remote iOS and Android compatible app
  - Basic FX pack – use 2 channel strips with 2 instances of all FPGA FX
  - Premium FX pack – use 4 channel strips with 4 instances of all FPGA FX

## 4. Quick Start

Connect the DC power supply to the rear panel.

Once the DC power source is plugged in, connect Discrete 8 to your computer via USB 2.0 or Thunderbolt™ (Mac-only) and follow the steps below:

1. Navigate to [antelopeaudio.com](http://antelopeaudio.com).
2. Click on **LOG IN** and create your Antelope Audio account. If you have one please log in using your credentials.
3. Go to our Support page to download and install the Antelope Audio driver and launcher. If you have ordered Discrete 8 with a Premium Upgrade Pack, you will receive a code for the Premium Upgrade Pack from your dealer.
4. Go to Claim Features to activate it from your account.
5. When the driver and control panel installation is complete, start the Antelope Audio launcher and launch the Control Panel.

You are good to go! Need more help? Contact [tech support crew](#) over phone, e-mail, or live chat!



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**Policy:** Black list Policy



# 5. Panels explained

## 5.1. Front Panel Explained

### 1. Two Instrument / Mic Preamp / Line Inputs

Two console-grade Class A mic pres with discrete transistor design and individual phantom power. Mic inputs on XLR & switchable Line/Hi-Z input over TRS.

### 2. Gain Knobs

Precise 1 db stepped gain knobs for each of the 8 console-grade discrete mic pres.

### 3. Display

Multi-function display that shows various information when used in combination with the 3 function buttons.

### 4. Function Buttons

By pressing the top and middle Function buttons, you can cycle through the display and view various information.

### 5. Rotary Control

Large stepped attenuator for the volume of Monitor, Headphone and Line outputs. Pressing it lets you confirm entries and scroll between different options.

### 6. Talkback Button

Press the Talkback button to activate the talkback microphone. Its input can be distributed to your selected headphones and/or monitors using the software EasyPanel.



## **7. Headphone Outputs (with dedicated volume knobs)**

Two independently assignable headphone outputs – controllable via their dedicated headphone volume knobs or from the EasyPanel software.

# 5.2. Rear Panel Explained

## **8. DC Power Connection**

Only for use with the Antelope Audio DC power supply!

## **9. Word Clock Input**

One Word Clock input on a BNC connector.

## **10. Word Clock Outputs**

Two Word Clock outputs on BNC connectors.

## **11. S/PDIF Input/Output**

75  $\Omega$  S/PDIF inputs for use with compatible equipment.

## **12. Footswitch**

Dual footswitch input on a 1/4" TRS jack connector. Can work with either a single (on 1/4" TS jack) or dual footswitch. The single footswitch controls the dim function. The dual footswitch controls the talkback and dim functions.

## **13. ADAT Connectors**

Two ADAT inputs & two ADAT outputs (up to 8 channels per line).

## **14. Thunderbolt™ port**

Connects your Discrete 8 to a Thunderbolt™ port on a Mac computer using a Thunderbolt™ cable (not included).

#### **15. USB High-Speed**

Connects your Discrete 8 to a USB 2.0 port on a Windows or Mac computer using the USB cable provided with the device.

#### **16. D-SUB 25pin TASCAM Standard Analog Output**

Used to attach a breakout cable with 8 analog lines.

#### **17. Stereo Monitor Output**

Assignable balanced stereo output.

#### **18. ReAmp Outputs**

Direct outputs that can be used with guitar amplifiers for re-amping or as line-level outputs for monitoring, etc.

#### **19. Mic/Line Inputs**

Six console-grade Class A mic pres with discrete transistor design and individual phantom power. Mic input over XLR, Line input over TRS.

## 5.3 Hardware Controls

Let's have a deeper look at the Discrete 8 front panel and see what you are able to accomplish with its three function buttons, rotary control, and LCD display!

- **FUNCTION BUTTON 1 (TOP-MOST)**
- **FUNCTION BUTTON 2 (MIDDLE)**
- **FUNCTION BUTTON 3 (BOTTOM-MOST)**

## **6. Software**

### 6.1 Antelope Audio Launcher

The Antelope Audio Launcher is a one-stop shop where you get to keep the Discrete 8 up-to-date, access the Control Panel, and create remote connections.

Upon startup, the Antelope Audio Launcher connects to the Internet to check for available updates

tion Panel

wing information about your connected Antelope Audio devices:

-

ision

ision

version

## Button

Discrete 8 Control Panel.

## ☰ Button

her will notify you for available updates. When updates are available, press the UPDATE button and follow the on-screen instructions to p

## Button

er Administration menu

## Administration Menu

st

computer to connect to over the audio network. The available computers list is available as a drop-down menu.

or updates Button

tes to the manager server.

## server Button

Connection to the manager server.

## Reinstall server Button

Click to perform a server re-install.

## Logout Button

Logout from your network sessions.

## Start at startup

Click to ensure the manager server will launch with system startup.

## Block connections

When this option is enabled, all incoming remote connections for all devices on the current server will be automatically rejected.

## Whitelist panel

Whitelist information:

Device name and port number

Status – accept or reject remote connections to devices

Device names and their serial numbers

Device IP addresses and their IP address

e devices

Available Devices slide On or Off

## 6.2 Control Panel

Designed for maximum ease of use, the Discrete 8 EasyPanel Control Panel lets you control every aspect of the Discrete 8, including routing, mixing, AFX and Microphone Emulations.

Following is an explanation of the software. We provide illustrations and workflow examples to, hopefully, help you master the Discrete 8 and its Control Panel in no time!

Vertically, the Control Panel is laid out like this:



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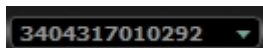
## 6.2.1 The Function Strip

The Function Strip has the following buttons and features:



### 1. Power Button

Toggles the Discrete 8 hardware unit between Standby mode and Power On mode. Note that Discrete 8 remains in Power On mode by default, regardless of whether it's connected to a computer that's switched on or not. There are no Power or Standby buttons present on the unit itself, though you can put it in Standby mode from the Control Menu. To turn it off, you must cut the power from the power strip or disconnect the adapter from the grid.



### 2. Device Selector Menu

Select your device by its serial number from the drop-down menu.



### 3. Tech Support Button

Opens a window with the following information:

- Control Panel Version
- Hardware Version
- Serial Number
- Firmware Version

Additionally, there's the Administration Button. It launches the Antelope Herd Wizard, which has the following options:

- Register device or assign features
- Unregister device or assign features
- Logout

Pressing the Help Button offers the following shortcuts:

- Watch online video tutorial
- Chat with technical support
- Search for solution at support page
- Contact support team over the phone



### 4. Minimize Button

Minimizes the Control Panel to your Taskbar (Windows) or Dock (Mac).



## 5. Close Button

Quits the Control Panel.



## 6. Clock Source Selector Menu

Lets you choose the Clock Source — Internal, ADAT, ADAT 2x, ADAT 4x, S/PDIF, USB



## 7. Sample Rate Selector Menu

Lets you choose the device sample rate. Discrete 8 supports the following sample rates: 44.1 kHz, 48.0 kHz, 88.2 kHz, 96.0 kHz, 176.4 kHz, 192 kHz



## 8. Lock Toggle

Locks the Discrete 8 sample rate so it doesn't get changed by your DAW, operating system, or another influence.



## 9. Session Recall

Lets you immediately recall a previously saved session. The Discrete 8 Control Panel lets you save and export Sessions – pre-defined configurations of inputs, outputs, levels, mixes, effects, and anything else relevant to your project. These sessions can be shared between Discrete 8 users and stored for backup purposes.

**SAVE**

## 10. SAVE Button

Opens the Save Session window where you can specify precisely which components of your project you want to include. The Save button saves the current session. The Save As button lets you export the current session to a file for backup & sharing.

**LOAD**

## 11. LOAD Button

Opens the Load Session window where you can:

- Load a Session file by clicking Browse and navigating to its location on your computer.
- Use the Load Last Session button to quickly recall your most recent work.
- Set Defaults

**SETTINGS**

## 12. SETTINGS Button

Opens the Discrete 8 Control Panel Settings window.

## ings Panel

rete 8 Control Panel Settings window where the following options are present:

Out Trim

rate the Discrete 8's monitor output signal level by 14 to 20dBu.

## g Law \*

g the Panning Law between 0dB to -4.5dB.

*When a signal is panned from center to hard left or right, it will increase in loudness up to 6.02 dB SPL. To ensure perceived loudness stays the same, this has to be compensated in dB.*

## ggles

g Oscillators 1 & 2. The Discrete 8 has built-in oscillators that generate 440Hz or 1kHz signals (sine waves) for testing the interface outputs

## or 1

illator 1 frequency.

in 0 to -18dBFS amplitude for Oscillator 1 & 2 output signal.

## or 2

illator 2 frequency.

## t Volume

it volume in dB.

## ess Slider

8 screen brightness.

## ncy Mode (Mac Only)

Thunderbolt™ Latency Mode to Fast, Medium, or Slow.

## ontrol (Windows-only)

u adjust the Discrete 8 ASIO driver for best performance on Windows computers.

## ize (Samples)

ASIO driver buffer size. Short buffer sizes minimize latency but take more CPU power. Bigger buffer sizes result in lighter CPU load, but g  
onitoring, and higher buffer sizes during mixdown.

## reaming Mode

between several latency settings for USB streaming.

## 6.2.2 PREAMPS

Always visible in the Control Panel, the Preamps section lets you control the Discrete 8 Mic Preamps. The following options are available:



## 1. Gain Knobs

Turn the knobs right to increase gain, or left to attenuate.







## 2. Link Button

Link the preamps to adjust their gain simultaneously.

## 3. Mic/Line/Hi-Z Selector Button

Switch between three different modes for each preamp. Which mode to use depends on the instrument that you are recording.

-  **Mic mode** is for recording microphones. This mode offers up to 65dB of gain. Additionally, clicking the cog wheel icon launches the Mic Emulations window.
-  **Line mode** is for recording line-level sources like synthesizers, keyboards, samplers, effects units, players etc. Up to 20dB of gain are available in this mode.
-  **Hi-Z mode** is for recording high-impedance instruments like the electric guitar. It has up to 39dB of gain. Hi-Z mode is only available on Preamps 1 & 2, located on the front panel.
-  **48 V Power On/Off** turns the preamp 48V power on and off.

## 6.2.3 AFX

Stack and bypass software effects. The Antelope Audio AFX Rack is explored in detail later in this manual.



## 6.2.4 MONITOR

Contains controls for the Discrete 8 monitor outputs.

## 6.2.5 HEADPHONES 1 - 2

Contain controls for the Discrete 8 Headphone Outputs 1-2.

## 6.2.7. MONITOR 1

This section has the following controls:

### 1. Gain Knob

Used for adjusting the monitor outputs volume.

## 2. DIM Button

Automatically attenuates the main output when talkback is engaged so everyone can hear your voice over the mix.

## 3. MUTE Button

Completely mutes the monitor output.

# 6.2.8. HEADPHONES 1 & HEADPHONES 2

This section has the following controls:

## 1. Gain Knob

Used for adjusting the Headphone 1 output volume.

## 2. DIM Button

Automatically attenuates the output when talkback is engaged so everyone can hear your voice over the mix.

## 3. MUTE Button

Completely mutes monitor output.

## 4. AuraVerb

Engages the AuraVerb reverb.

## 5. MIXER Switch

Switches between 8- and 32-channel mixer views.

## 6.2.9 DIGITAL OUTS

This section is dedicated to the Discrete 8 digital outputs – ADAT & S/PDIF. Simply use the drop-down menus to choose which inputs you want routed to channels ADAT 1-8 and S/PDIF 1-2.

## 6.2.10. ANALOG OUTS

This section is dedicated to the Discrete 8 analog outputs – Line Out 1 & 2 and ReAmp (Line Out 3 & 4). Simply use the drop-down menu to choose which channel you want routed to which output. Use the Gain knobs to adjust output

volume. Feel free to link the Line Outs for convenience.

## 6.2.11. DAW

This section is dedicated to the Discrete 8 analog outputs – Line Out 1 & 2 and ReAmp (Line Out 3 & 4). Simply use the drop-down menu to choose which channel you want routed to which output. Use the Gain knobs to adjust output volume. Feel free to link the Line Outs for convenience.

## 6.3 AFX Rack

The AFX Rack is where you insert effects into a mixer channel, forming a Channel Strip to process audio with. It's accessible by clicking inside the empty fields below the mixer's BP buttons (in 8-channel view) or clicking the FX button (in 32-channel view).

The Antelope Audio AFX collection is vast, comprising an Equalizer, Compressor, the PowerGate noise gate, the AuraVerb reverb, 21 Vintage EQs, 13 Vintage Compressors, 10 Guitar Amps and 10 Guitar Cabinets. Additionally, our Mic Emulations currently number 11 models for the Edge large-diaphragm modeling mic, and 5 models for the Verge small-

diaphragm modeling mic. We aren't stopping here, our team is working hard to expand the AFX and Mic Emulations suites with more models of coveted studio gear!

We are confident you will find our emulations sound and behave incredibly lifelike. That's because they are all happening in real time on the Discrete 8's FPGA (field-programmable gate array) chip. FPGA technology lets us provide authentic, circuit-level emulations of classic studio hardware. Rather than "describe" circuitry in abstract DSP code, we dynamically re-configure the chip to behave exactly like it.

That's right – we recreate all this rare vintage equipment on an actual hardware circuit, piece by piece. This way, the FPGA literally takes on the personality of the same circuitry and components that forged the sounds of countless classic records. It's a bit of a marvel, really!

There are some limitations in place, however. The number of effects you can apply simultaneously depends on which Discrete 8 bundle you purchased. Here's the breakdown:

- Discrete 8 Basic – 2 channel strips with 4 FX instances each & all 50+ Antelope Audio real time FPGA FX emulations + Mic Emulations.
- Discrete 8 Premium – 8 channel strips with 4 FX instances each & up to 16 channel strips using the upcoming AFX2DAW plug-in and all 50+ Antelope Audio real time FPGA FX emulations + Mic Emulations.

With this out of the way, let's jump into the AFX Rack!

## 6.3.1 Loading Effects

The AFX Rack is extremely simple to use. It has the following buttons and menus to the left, while the effects are visualized on the right:

## 1. SAVE Button

Saves the current preset for future use & sharing.

## 2. LOAD Button

Loads a previously saved preset.

## 3. BP ALL Button

Instantly bypasses all effects processing.

## 4. DEL ALL Button

Instantly removes all effects currently loaded in the rack.

## 5. Presets Menu

Choose a preset from the drop-down menu.

## 6. ADD NEW EFFECT Menu

Choose an effect from the various categories and add it to the FX rack.

## 7. HOW TO Button

Launches a YouTube channel with Antelope Audio video tutorials made to help you master the Control Panel & AFX.

## 8. BP Button

Appears next to an effect – used to bypass it.

# 6.4 Discrete 8 Remote Control App

The Discrete 8 Remote control app is specifically designed to work with the Antelope Audio Discrete 8. The app will turn your Android or iOS device into a professional audio interface remote control, allowing you to manage almost all Discrete 8 functionality. Both producers and recording artists are provided with fast and easy access to the device's features!

To use Discrete 8 Remote Control, it is mandatory that both your computer and mobile device are connected to the same Wi-Fi network. Should any problems arise, please refer to the built-in app Troubleshooting Manual.



The Discrete 8 Remote offers:

- Preamp Gain Control and Type
- Volume Control
- Stereo Link Selection
- Clock Source and Sample Rate Selection
- Headphone Volume Control

The graphical user interface and workflow are very similar to the EasyPanel Control Panel on your Mac or PC, which has been covered in great detail throughout this manual. You should be feeling right at home with the Discrete 8 Remote app after reading it.

## 6.5 Routing System

With the EasyPanel Control Panel, we managed to greatly simplify our routing system without sacrificing any of its flexibility. When you become acquainted with with the Discrete 8 inputs and outputs, routing is simply a matter of navigating through a few drop-down menus!

### 6.5.1 Discrete 8 Inputs and Outputs

In the routing system, the inputs and outputs of the Discrete 8 are organized as follows:

**GENERAL**

**DIGITAL OUTS**

**ANALOG OUTS**

**DAW**

---

#### PREAMP 1-8

These are the 8 Discrete Mic Preamps.

#### EMU MIC 1-8

This is the signal affected by mic emulation.

## COMPUTER PLAY 1-16

These are your DAW outputs, up to 16 channels.

## ADAT IN 1-8

These are the 8 ADAT digital inputs.

## S/PDIF IN 1-2

These are the two S/PDIF digital inputs.

## MUTE M

Enjoy the silence.

## Oscillator O1 & O2

The two oscillators in your Discrete 8 can be routed to the interface's outputs for testing purposes.

## 6.5.2 Example Routings

We believe learning by doing is the best approach to understanding our routing system. Hence, we came up with example routings to illustrate how several common recording scenarios will look inside the routing panel.

Considering the system's flexibility and the abundance of connectivity on the Discrete 8 — not to mention those great-sounding preamps and rock-solid clocking — we are confident our product can handle any recording task from the comfort of your desk. Let's begin!

- ⊕ **HAVING TROUBLES HEARING ANY PLAYBACK FROM DISCRETE 8?**
- ⊕ **RECORDING A MICROPHONE**
- ⊕ **RECORDING AN ELECTRIC GUITAR**
- ⊕ **RECORDING & MONITORING THE EDGE OR VERGE MODELING MIC**

## **7. Advanced User Tips**

### **Ground Loop Hum and Noise**

The design of Discrete 8 minimizes the possibility of ground loop hum and noise. However, we recommend the use of shorter, shielded cables and balanced connections for all the audio signals of your system. All power cables of the system should be connected to a dedicated outlet box or power conditioner unit to avoid ground current noise affecting the audio signal path. It is also advisable to keep the layout of your signal and power cables separate.

### **ReAmp Outputs**

The Discrete 8 ReAmp outputs are designed to be used with external effects whose outputs you would have to connect back into any inputs of the interface. Think of the ReAmps as separate outputs that you can use for external processing. They emulate the signal levels of an electric guitar in order to match the input of a guitar amp perfectly – hence the name ReAmp outputs. You can, however, adjust the output level yourself so you can control how “hot” you are going into an effect.

# 8. Troubleshooting

## START UP AND SOUND ISSUES

*Are you running the latest control panel and driver?*

If not, please update your control panel and firmware.

*Are you correctly routing the audio signal via the routing panel?*

To hear playback, route the Computer Play channels to the Discrete 8 main outputs.

*Have you set the correct sample rates?*

On a Mac, first check that the sample rate is correct in the Audio & Midi set-up panel. Proceed to check in the DAW and finally, check the Discrete 8 sample rate. Everything should match.

For Windows, go to Playback Devices, right-click on Discrete 8, then click Properties. Move to the Advanced tab and select the correct sample rate. Proceed to check in the DAW and finally, check the Discrete 8 sample rate.

Everything should match.

*If you believe there is no sound being routed to an input or delivered from an output:*

- Check your source. Is there a signal being transmitted from the source? Is your source in the correct sample rate for the Discrete 8 to receive?
- Check what clocking mode you are in.
- Are you receiving clock signal from the source?
- Check that the relevant lock light on the control panel of the Discrete 8 is lit.
- Try a different cable and another source if available.

- Check the routing on the control panel. Have you routed the signal path correctly?
- If you have routed signals to the routing mixer, check their corresponding fader is up.
- Check the relevant peak meters of the control panel by selecting them in the drop down menu to see if the relevant signal is being received or is being outputted.

## **DAW**

*What buffer size is your DAW set to?*

- If it's significantly low, i.e. lower than 128 samples, try increasing it from the Discrete 8 control panel (Windows-only).
- Is the input and output routing correct in your DAW? Is the Discrete 8 device selected in the relevant sound card section of your DAW's preferences?
- If the Discrete 8 doesn't show up in your DAW, try unplugging and plugging back the USB 2.0 cable. Then, try restarting your computer. Finally, try re-installing the firmware, drivers and control panel.

# **9. Technical Specifications**

## **ANALOG**

### **Analog Inputs**

6 x Mic / Line Inputs

2 x Mic / Line / Hi-Z Inputs

### **Analog Outputs**

1 x Monitor Out on TRS 1/4 Jacks, +20 dBu max

2 x ReAmp Out on TRS 1/4 Jacks

1 x Line Outs on DB25, +20 dBu max ( DC coupled )

2 x Stereo Headphone Outputs

### **Mic Preamp**

EIN: -128 dBu (A-weighted)

Dynamic Range: -121 dB (A-weighted)

THD: -106 dB

Max input: +18 dBu

Max Gain: 65 dB

### **D/A Monitor Converter**

Dynamic Range: 124 dB

THD + N: -101 dB

### **A/D Converter**

Dynamic Range: 121 dB

THD + N: -112 dB

### **D/A Converters(Line Out)**

Dynamic Range: 121dB

THD + N: - 100dB

DC Coupled

✓ **DIGITAL**

## **Digital Inputs**

2 x ADAT (up to 16CH)

1 x S/PDIF

## **Digital Outputs**

2 x ADAT (up to 16CH)

1 x S/PDIF

## **USB I/O**

USB 2.0 Hi-Speed;

Data stream up to 480 Mbits/192kHz, 24 channels I/O, Type B

## **Thunderbolt™ I/O**

1 x Thunderbolt, 32 channels I/O

## ✓ **CLOCKING**

### **Word Clock Input**

1 x Input @ 75 Ohms 3Vpp on BNC 32 – 192kHz

### **Word Clock Outputs**

3 x Outputs @ 75 Ohms 3Vpp on BNC 32 – 192kHz

### **Clocking System**

4th Generation Acoustically Focused Clocking

64-bit DDS

### **Sample Rates (kHz)**

32, 44.1, 48, 88.2, 96, 176.4, 192

## ✓ **Other**



**Operating Temperature**

0-50°C, 32-122°F

**Weight (Approx)**

3.0 kg/ 6.61 lbs

**Dimensions (Approx)**

Width: 483 mm / 19"

Height: 44 mm / 1.7"

Depth: 220 mm /8.6"

**Power Consumption**

20 Watts

**In the Box**

Discrete 8 Interface

Quick Start Guide

Wart External Power Supply Unit

USB Cable

Warranty Card

## 10. Contacts

Having difficulties with the Discrete 8 or anything else Antelope? Get in touch with us by the following means:

### **European Direct Support Line**

+44 2039578550

10:00 a.m. – 10:00 p.m. (EET), Monday – Friday

### **USA Direct Support Line**

+1 734 418 8661

7:00 a.m. – 6:30 p.m. (EST), Monday – Friday

### **Online (live chat and e-mail)**

[Antelope Audio Support Page](#)

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