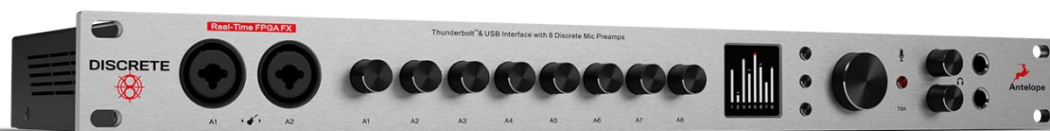User Manual

Discrete 8

Thunderbolt™ 2 & USB 2.0 Audio Interface

With 8 Discrete Preamps

CONTENTS

BEFORE YOU BEGIN

Congratulations on your purchase! We'd like to turn your attention to the following:

As with all Antelope Audio interfaces, the software Control Panel is the "mediator" between the Discrete 8 and your preferred DAW. To take complete advantage of the unit's capabilities, you are meant to handle tasks like gain adjustments, signal routing, effects processing, 'rough' mixing and metering from the Control Panel. The resulting audio is routed into your DAW for recording in formats of your choice, such as multi-track, stem, and two-channel stereo.

Depending on your experience, you might find this approach different from what you are used to. Perhaps the most familiar workflow for the modern recordist involves treating the audio interface like a box which brings audio in and out of your computer, with the rest of the session taking place in your DAW. To an extent, it is possible to use the Discrete 8 in this manner by relying on the front panel display and controls for monitoring, gain control and setup. The DAW is used for recording, mixing and mastering.

However, the only way to use FPGA effects as inserts (plug-ins) in your DAW is by purchasing the Antelope Audio AFX2DAW plug-in. Think of it as a hardware-to-software "bridge" that turns our hardware-processed, low-latency effects into typical software plug-ins applied to your audio tracks. At the time of writing, AFX2DAW is only available for Mac users over Thunderbolt™. AFX2DAW for Windows is currently in development. Click here to learn more.

After the initial setup, it is also possible to use Discrete 8 without a computer connection. In this case, the unit functions as a digital mixer operated from the front panel controls. The last known signal routing configuration from the software Control Panel is applied.

Regardless of your preference, we encourage you to familiarize yourself with the Control Panel application. This way, you can overcome potential stumbling blocks for users new to Antelope Audio products. For example, almost any issue concerning recording and playing back audio (on the interface's side) can be resolved with the correct signal routing.

Should you ever find yourself struggling, do not hesitate to contact our Customer Support team over phone, live chat and our ticket system. You can also visit Antelope Audio on YouTube and explore our video tutorials or join the Antelope Audio Users Facebook group and ask for advice. The Knowledge Base is also a good source of information.

Best wishes,

Team Antelope

MANDATORY ONLINE ACTIVATION

Please note that the mandatory device activation procedure requires an active Internet connection on your computer. Activating an Antelope device offline is not possible.

SETTING UP

Once the unit is connected to a power source and your computer is switched on:

1. Connect a USB 2.0 Type-B (included) or Thunderbolt™ cable to the corresponding ports on the Discrete 8 and your computer.

Notes:

- The unit will automatically detect the connection type upon the initial startup, but not on subsequent starts. Manually set the connection type from 'Change Interface' in the System Menu every time you switch between Thunderbolt™ and USB connections.
- Thunderbolt™ 3 connections require a third-party TB3 to Legacy TB adapter and corresponding cables.

2. Visit www.antelopeaudio.com and log-in or create a customer account (if you don't have one).

3. Download and install the latest Antelope Audio Launcher and Driver for your operating system (Windows 10 / macOS 10.11 or later) from the 'Downloads' section of the Discrete 8 website.

Note: For Thunderbolt™ connection on Windows, download and install the latest Antelope Audio Windows Thunderbolt™ driver.

4. Open Antelope Launcher and update your Discrete 8 to the latest firmware and Control Panel versions. If you are not sure how to do this, please read the 'Antelope Launcher' chapter.

Note: If your device isn't recognized by Antelope Launcher or the operating system, read this.

5. Start the Discrete 8 Control Panel from the Antelope Launcher and follow the device activation procedure. Alternatively, click 'Register' and proceed with the instructions.

Note: Bypass any security prompts from your operating system, e.g. Windows Defender Firewall and macOS alerts.

6. Connect your analog and digital equipment of choice to the Discrete 8.

7. Launch your preferred DAW and:

- Choose the Discrete 8 as your main input and output device.
- Make sure your DAW and operating system sample rates match the device sample rate.

Need any help?

Visit the Antelope Audio Customer Support page, choose your device and go from there.

Configuring for Windows 10

Windows 10 needs a few tweaks to get everything up and running.

1. Enter the **'Sounds'** options window from the Control Panel or right-click the speaker icon in the system tray and choose 'Open Sound settings'.

2. Make sure the Discrete 8 is chosen under 'Output' and 'Input'.
 Next, click 'Device Properties' under 'Output'. Then, click 'Additional Device Properties'.

3. Enter the **'Supported Formats'** tab and place checkmarks next to all the available sample rates.

Sample Rates

Which of the following sample rates are supported by your Digital Receiver?

☑ 32.0 kHz   ☑ 88.2 kHz   ☑   ▶ Test
☑ 44.1 kHz   ☑ 96.0 kHz
☑ 48.0 kHz   ☑ 176.4 kHz

4. Enter the **'Enhancements'** tab and make sure all enhancements are disabled.

5. Enter the **'Advanced'** tab and choose any of the available "2 channel, 24-bit" modes. Click 'OK' to close the window.

Default Format

Select the sample rate and bit depth to be used when running in shared mode.

2 channel, 24 bit, 44100 Hz (Studio Quality)   ▶ Test

6. Back in Sound settings, click 'Device Properties' under 'Input'. Then, click 'Additional Device Properties'. Enter the 'Enhancements' tab and disable all enhancements. Click 'OK' to close the window.

Tips

- If you are experiencing interruptions or failure when using your DAW and trying to playback audio from your OS at the same time, make sure that the device sample rate matches the one of your DAW session.

- You can disable the device and enable it again from the 'Playback' tab to refresh the driver. This will be similar to disconnecting and re-connecting your device, which makes Windows reset the playback configuration of the applications you are using.

- In some cases, disabling the 'Exclusive mode' functionality from the 'Advanced' tab in 'Playback' Properties might help when running multiple playback applications at the same time.

- Disabling the 32kHz sample rate isn't mandatory, but it might help in general.

Further Reading

Antelope Audio Knowledge Base - Windows 10 Optimization

Configuring for macOS (10.14 or later)

The new security settings introduced in macOS Mojave 10.14 (and later releases) may result in no input signal reaching your DAW, despite having everything set up correctly.

These steps apply when you are using the Discrete 8 in a DAW for the first time:

1. Launch your DAW and choose Discrete 8 as the input device. The following dialog box will appear (if using Ableton Live 10 Suite, for example):
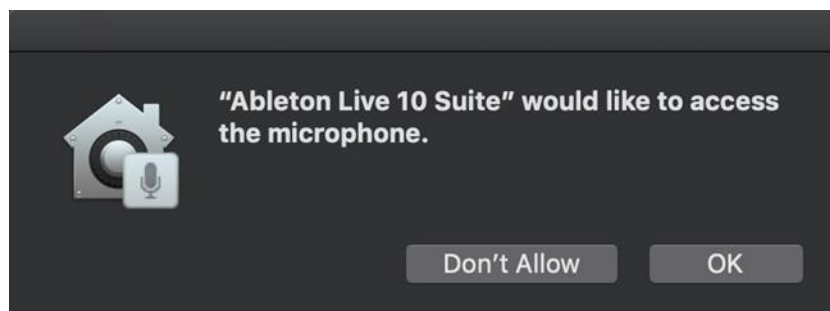
3. Click 'OK' and your DAW should function normally.

However, if the events above did not occur for some reason, or you are using multiple DAWs, you must do a manual tweak for each in 'Security & Privacy' settings:

1. Click the 'Apple' symbol and choose 'System Preferences'. Head to the 'Security & Privacy' settings menu.

---

2. Click the 'Privacy' tab. In the column on the left, choose 'Microphone'. Make sure there's a checkmark next to any DAW you want to use:

ACTIVATING THE DISCRETE 8 PREMIUM PACK

Here are the steps needed for activating your Discrete 8 Premium Pack:

1. Following your purchase, a claim code will be sent to the e-mail address used to register your Antelope Audio user account.

2. Navigate to the Antelope Audio website and log-in with your username and password.

3. Navigate to the 'Claim Features' webpage and enter your claim code. Click the boxes to place checkmarks at the agreements and click the 'Claim' button.

Claim Code *

I have read and agree with Antelope Audio End User License Agreement *

☑

By pressing "Claim" you expressly agree the execution (performance) of the contract for the Software product to start before the end of the withdrawal period and you confirm your knowledge that with the beginning of the execution of the contract you will lose your right of withdrawal. *

☑

Claim

4. The following page will appear, confirming your claim and listing the Discrete 8 Premium Pack's contents:

SUCCESSFULLY CLAIMED THE FOLLOWING FEATURES

Discrete8 Premium

AFX2DAW
Discrete8 Premium AFX Strips
Discrete8 Premium ALT-463C
Discrete8 Premium BA-6A
Discrete8 Premium BA31 Mic Preamp Emulation
Discrete8 Premium BAE 1073MP Mic Preamp Emulation
Discrete8 Premium BAE-1023
Discrete8 Premium BAE-1073
Discrete8 Premium BAE-1084
Discrete8 Premium BAE-10DCF
Discrete8 Premium ClearQ
Discrete8 Premium Feedforward compressor
Discrete8 Premium FET-78A
Discrete8 Premium FET-A76
Discrete8 Premium Guitar Amp
Discrete8 Premium Guitar Cabinets
Discrete8 Premium Gyratec IX Mic Preamp Emulation
Discrete8 Premium Gyratec X
Discrete8 Premium Impresser
Discrete8 Premium Lang-PEQ2
Discrete8 Premium Liverpool
Discrete8 Premium NEU-PEV
Discrete8 Premium NEU-W492
Discrete8 Premium NEU-W495
Discrete8 Premium PowerEx
Discrete8 Premium PowerGate
Discrete8 Premium RD47 Mic Preamp Emulation
Discrete8 Premium SMT100A
Discrete8 Premium Stay-Levin
Discrete8 Premium Tape Machine
Discrete8 Premium TC808 Guitar Overdrive
Discrete8 Premium Tube176
Discrete8 Premium Tubechild 670
Discrete8 Premium UK-69
Discrete8 Premium V76 Mic Preamp Emulation
Discrete8 Premium VCA160
Discrete8 Premium VEQ-1A
Discrete8 Premium VEQ-4K Black
Discrete8 Premium VEQ-4K Brown
Discrete8 Premium VEQ-4K Orange
Discrete8 Premium VEQ-4K Pink
Discrete8 Premium VEQ-55A
Discrete8 Premium VEQ-55B
Discrete8 Premium VEQ-HA32C
Discrete8 Premium VEQ-HLF
Discrete8 Premium VEQ-STU 089
Discrete8 Premium VEQ-STU 169
Discrete8 Premium VEQ-STU 900
Discrete8 Premium VMEQ-5
Discrete8 Premium X903

Home

5. Open Antelope Launcher and click 'Manage' under the Discrete 8's serial number.

6. Choose 'Register device or assign features' and click 'Continue'.

7. Assign the 'Discrete8 Premium' bundle to your Discrete 8 and click 'Continue'.
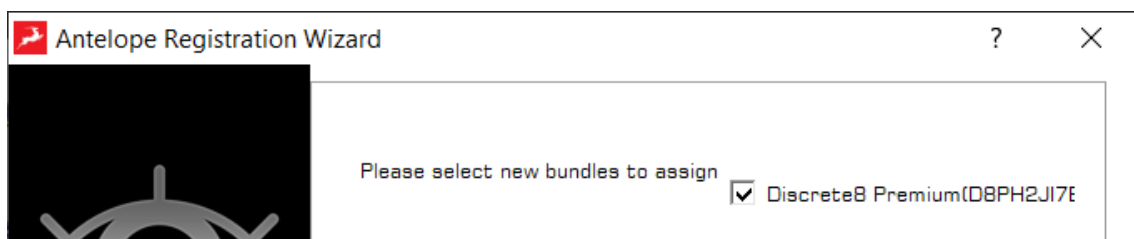
8. The following message will appear upon successful activation. Click 'Done'. The Discrete 8 will restart itself and you can begin working.
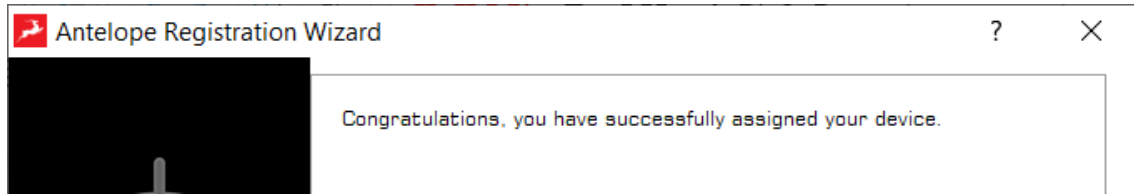
ANTELOPE LAUNCHER

The Antelope Launcher is a streamlined hub for managing and troubleshooting your Antelope Audio products. The application is organized into the following tabs:

'Devices' tab
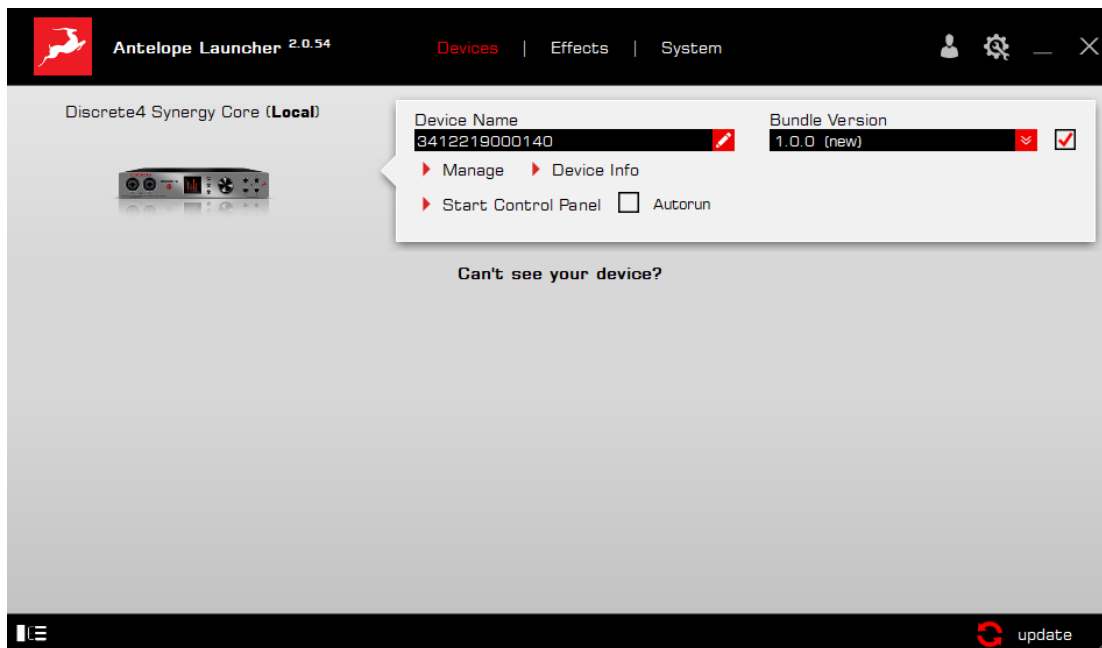
All Antelope Audio devices currently connected to your computer are listed in this section. In this example, we have connected the Discrete 4 Synergy Core. However, the application functionality is identical for each Antelope device.

The following functionality is available in the 'Devices' tab:

Device Name

Click the black box to enter a name for your device. The device serial number is used by default. Erasing the name and clicking outside the box reverts to the serial number.

Bundle Version

By default, this drop-down menu shows the most recent software bundle available for your device. Clicking it shows the currently installed software bundle version and lets you roll-back to an older build.

To update or change the installed software version, choose your desired Bundle Version, click the check mark next to the drop-down menu, and click the 'Update' button.

Manage

Click to launch the Antelope Registration Wizard. Use it to register or de-register devices and features (such as AFX2DAW, FPGA FX, HDX Activation and so on).

Device Info

Click to display the following information (useful for troubleshooting):

- Serial number

- Hardware version

- Firmware version

- Control Panel version

- USB/Thunderbolt ™ driver version

- Software Bundle version

Click the information window to close it.

Start Control Panel

Click to start the device's Control Panel application. You can also click the device's picture. Place a check mark next to 'Autorun' to have the Control Panel for a specific device launch automatically when you start Antelope Launcher.

Can't see your device?

If a device is missing from the list, the most common reason is driver conflict. The Antelope Launcher makes it easy to re-install drivers and troubleshoot. Click "Can't see your device?" to launch the 'Add Drivers' wizard.
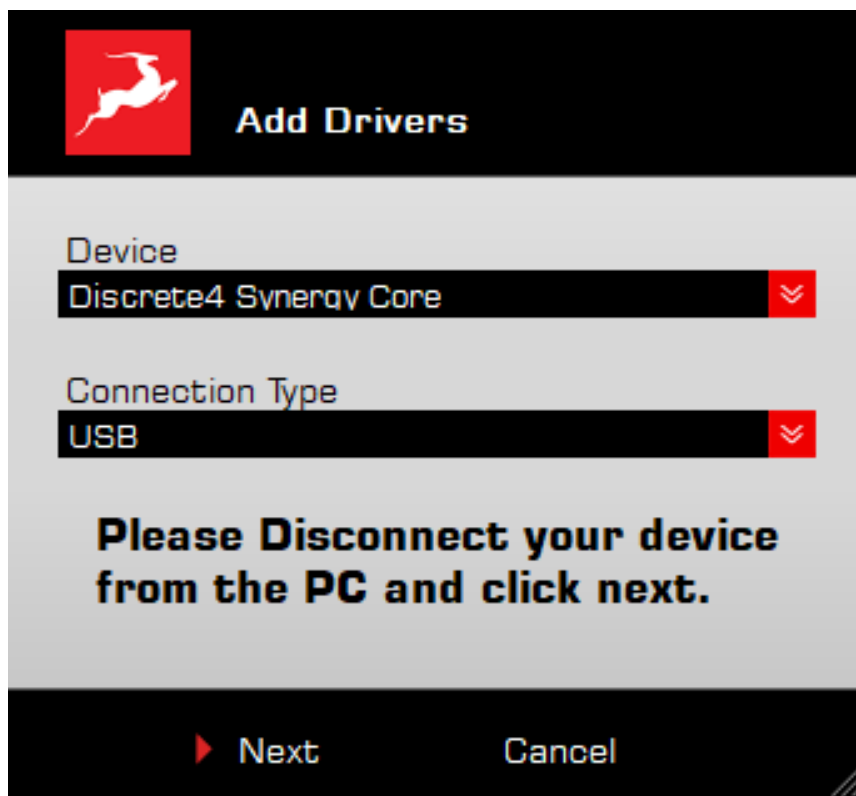
Choose your device and connection type from the drop-down menus, disconnect the device from your computer, and click 'Next' to perform a driver re-install.

Note: If the issue persists, please contact Antelope Audio Customer Support.

'Plug-ins' tab
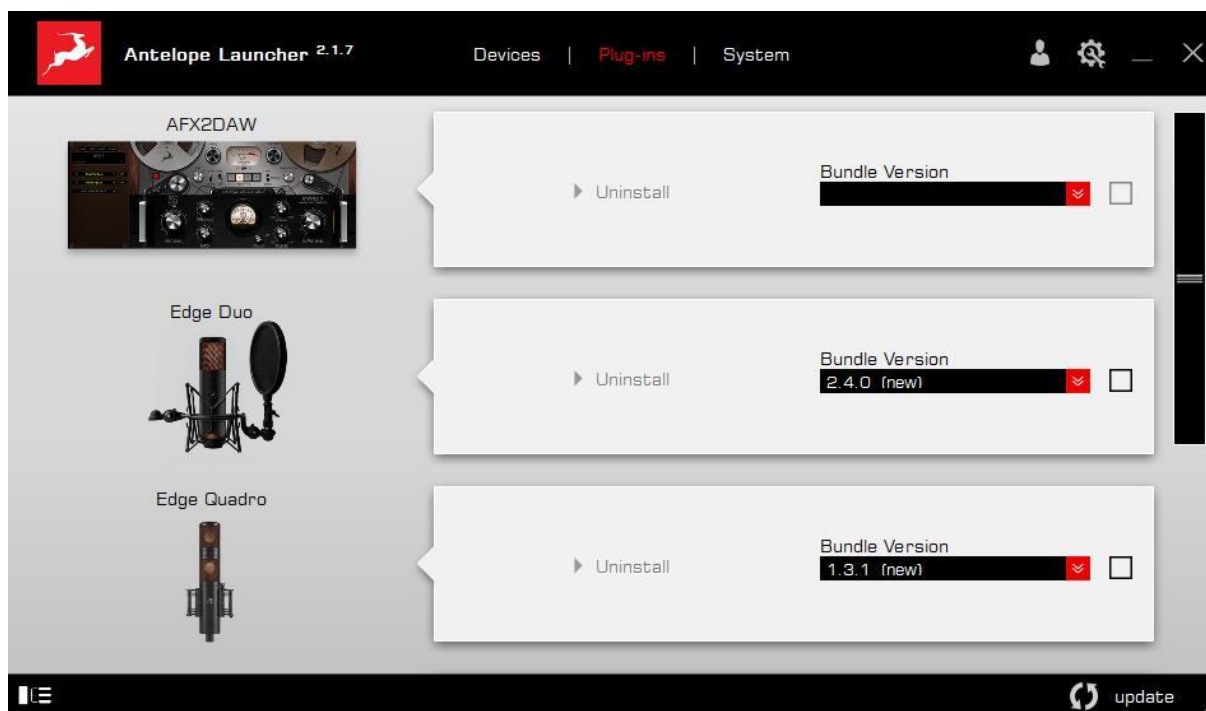
This section lets you install, update, and uninstall Antelope Audio software such as native mic emulations and AFX2DAW.

By default, the Bundle Version drop-down menus show the most recent software bundle available for each product. Clicking the menu shows the currently installed software bundle version and lets you roll-back to an older build.

To update or change the installed software version, choose your desired Bundle Version, click the check mark next to the drop-down menu, then click the 'Update' button.

'System' tab
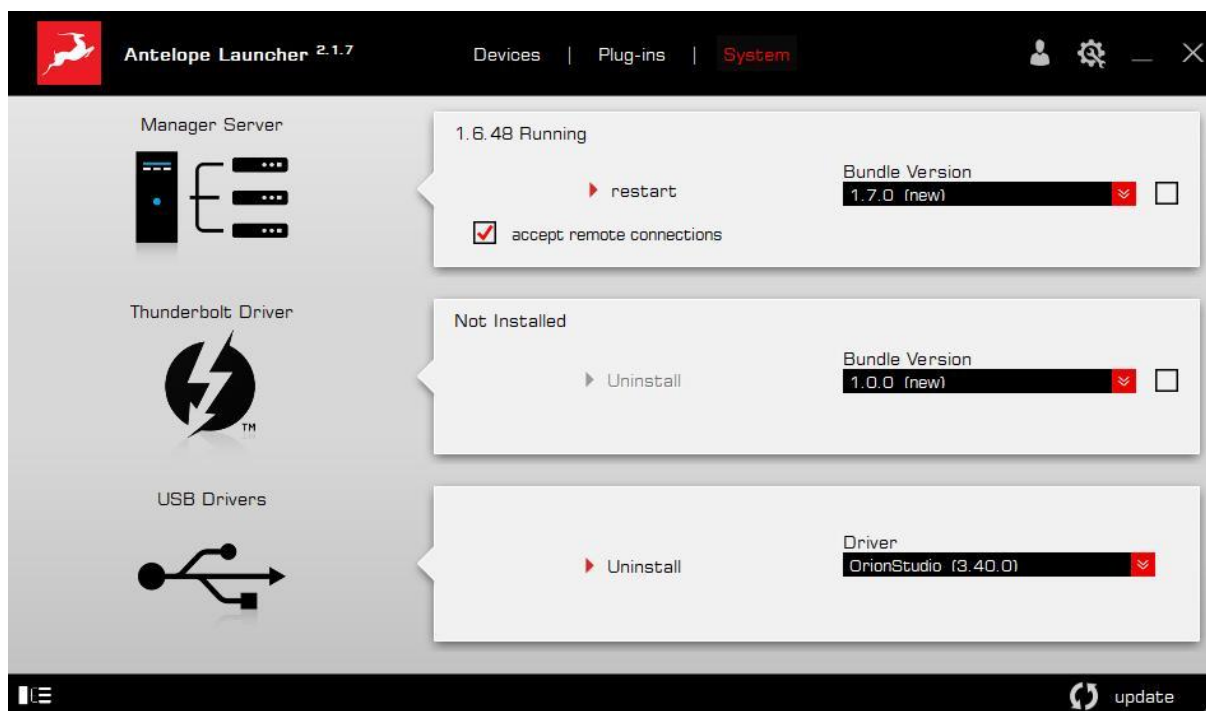
Here, you can do the following:

- Update or roll-back the Manager Server, USB and Thunderbolt™ Driver ver-
  sions. Choose your desired Bundle Version from the drop-down menu, click
  the check mark, then click the 'Update' button.

- Restart the Manager Server and enable/disable remote connections from
  other computers on your network.

- Install the Antelope Audio Thunderbolt™ driver. Choose a Bundle Version from
  the drop-down menu, click the check mark, then click the 'Update' button.

- Uninstall the Antelope Audio Thunderbolt™ and/or USB driver(s) present on
  your system.

Login button

Click and enter your Antelope Audio username and password, then click 'Login'. If you don't have an Antelope Audio account, click 'Register' and follow the on-screen instructions.

Settings button

Click to open the Settings window.
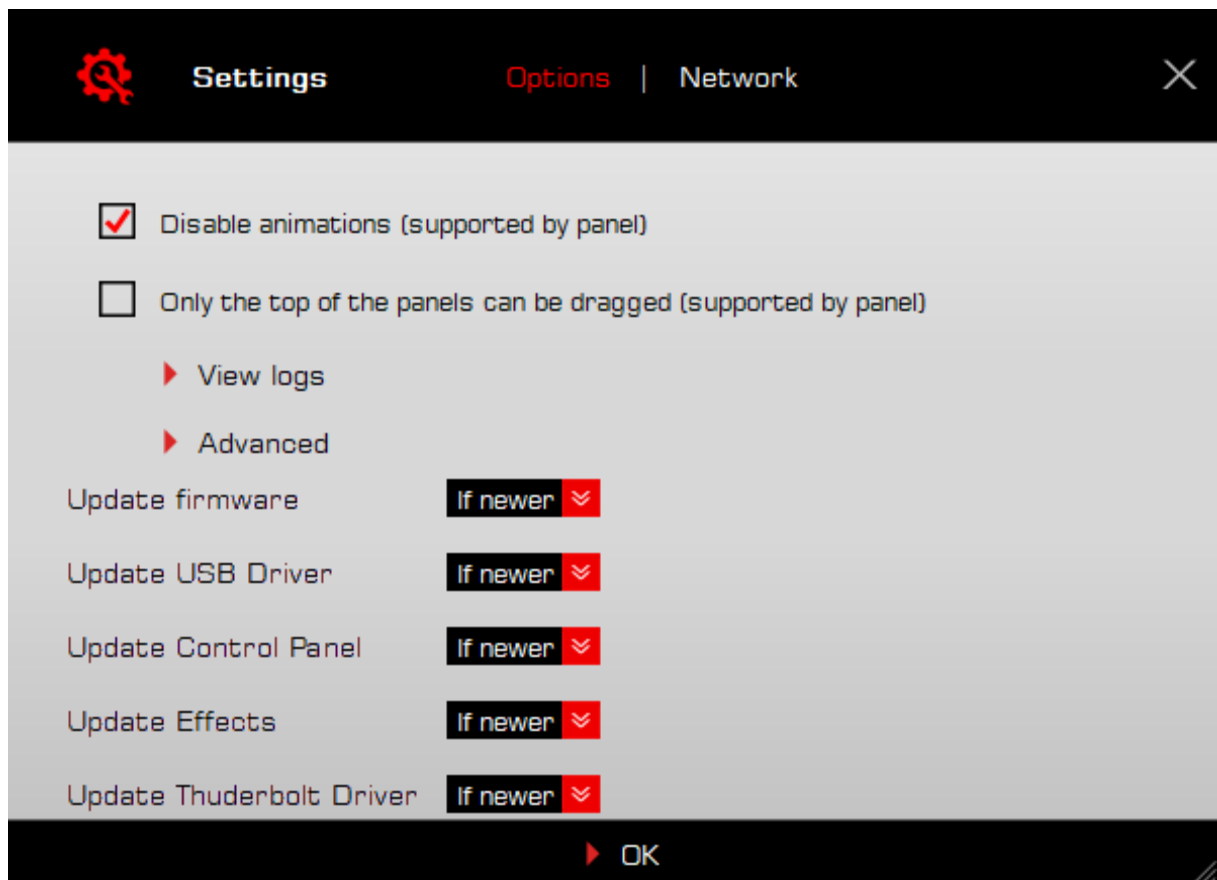
Here, you can do the following:

- Click 'View Logs' to view, save, and send activity logs to Antelope Audio Customer Support.

- Click 'Advanced' to enable or disable automatic updates for each of the following:

  - Device firmware

  - USB Driver

  - Control Panel

  - Effects

  - Thunderbolt™ driver

Make your selection(s) in the drop-down menu(s) and click 'OK'.

- Click 'Network' to view network status and logs.

FRONT PANEL EXPLAINED

Left to right, top to bottom:

Mic/combo Inputs A1 – A2

2 mic preamp/line/Hi-Z inputs on combo XLR connectors. Labeled A1 and A2.

Note: Record line-level sources using TS/TRS cables, period.
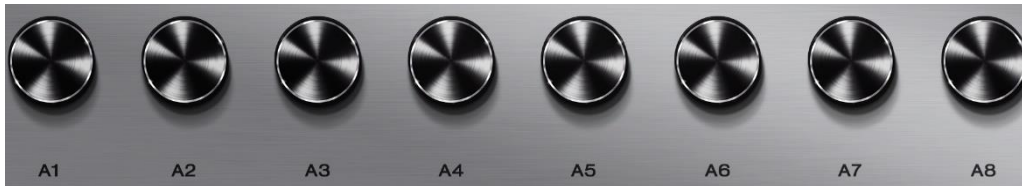
Gain Knobs A1 – A8

Gain adjustment knobs for the eight mic/combo inputs. Turn to adjust input gain.

Display

Shows peak metering, menu content, firmware update progress and other information.

Function Buttons

The three function buttons have the following functionality:

Top Button

- Press to mute or un-mute Headphone Output 1 (HP1).
- Press-and-hold to enter the System Menu:

System Menu

The system menu contains the following sub-menus. Turn the main rotary control to scroll and select entries. Press the main rotary control to enter and/or confirm. Press any function button to exit.

Device Info

Shows the device serial number, hardware and firmware revisions. Useful for troubleshooting with customer support.

Comm. Interface

Press the main rotary control to switch between USB and Thunderbolt connection. Note that you must do this manually every time you switch connections.

Scr Saver Time

Choose how long it takes for the screensaver to appear. We recommend the shortest setting you are comfortable with.

Scr Save Style

Choose the type of screensaver. We recommend 'Black' if the interface is operating for longer durations regularly. This helps prevent burn-in.

Talkback HP1

Send Talkback to Headphone Output 1 (HP1). On by default. Press the main rotary control to disable.

Talkback HP2

Send Talkback to Headphone Output 2 (HP2). On by default. Press the main rotary control to disable.

Talkback MON

Send Talkback to Monitor Output 1 (MON). On by default. Press the main rotary control to disable.

Talkback MON2

Send Talkback to Monitor Output 2 (MON2). On by default. Press the main rotary control to disable.

Note: Monitor Output 2 and REAMP Outputs R1 - R2 are found on the same jacks. Switch between 'Monitor 2' and 'REAMP' mode from the Control Menu or the software Control Panel.

Talkback Mic

Lets you choose Talkback microphone input. Press the main rotary control to enter the menu. Turn the main rotary control to select the internal Talkback mic or any microphone connected to mic/combo inputs A1 - A8. Press the main rotary control again to confirm.

Factory Reset

Performs a factory reset. Note that all presets and settings will be lost.
Back to the function buttons...

Middle Button

- Press once to view information such as sync source and device sample rate.
- Press again to view gain, signal type and 48V power settings for mic/combo inputs 1 - 4.
- Press again to view gain, signal type and 48V power settings for mic/combo inputs 5 - 8.
- Press once more to exit.

Bottom Button

- Press to mute or un-mute Headphone Output 2 (HP2).
- Press-and-hold to enter the Control Menu.

Control Menu

The control menu contains the following sub-menus. Turn the main rotary control to select entries and adjust values. Press the main rotary control to enter and/or confirm. Press any button to exit.

Power OFF

Press the main rotary control to power off the unit.

Clock Source

Choose a clock source from the following options:

- Internal
- Word Clock (WC)
- ADAT (2x, 4x)
- S/PDIF

- USB. In USB mode, the Discrete 8 still uses its internal clock.

Sample Rate

Choose the device sample rate. Please make sure your choice matches the operating system and DAW sample rates.

Peak Meter

Choose the audio source for the peak meters on the display. Up to 32 audio channels are shown.

Monitor Trim

Adjust monitor output signal trim (in dBu).

Line Out Trim

Adjust line output signal trim (in dBu).

Monitor 2 / REAMP

Switch the second pair of analog outputs between 'Monitor Output 2' and 'REAMP Outputs' mode. Note that in both modes, the outputs can technically function as Sends for external audio equipment. However, this isn't their intended purpose and results may vary.

Brightness

Dim or illuminate the display.

Back to the front panel...

Main Rotary Control

Large stepped attenuator for precise gain and value adjustments, also used for menu navigation. Its default behavior is like this:

- Turn to adjust volume for the currently selected output - 'MONITOR', 'LINE OUT', 'MON2/REAMP'. Select an output by pressing the Bottom function button.
- Press to mute or un-mute the chosen output.

Talkback microphone and TBK Button

Press the TBK button to activate Talkback. Speak into the integrated microphone. Adjust gain with the Main Rotary Control. Press TBK again to exit.
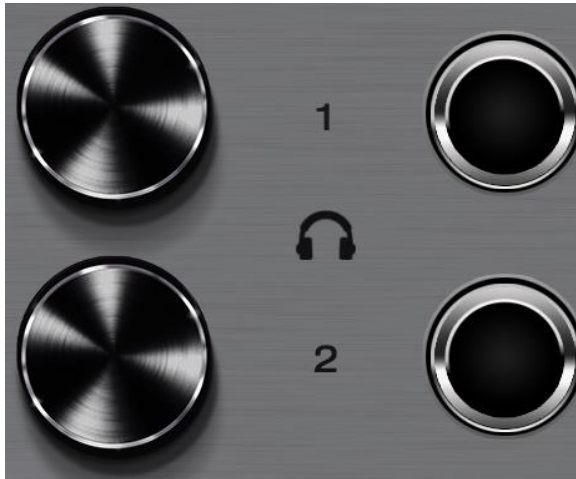
Headphone outputs H1 - H2 with gain adjustment knobs

Two stereo headphone outputs on 1/4-inch TRS jacks with adjacent gain adjustment knobs.

REAR PANEL EXPLAINED

Left to right, top to bottom:
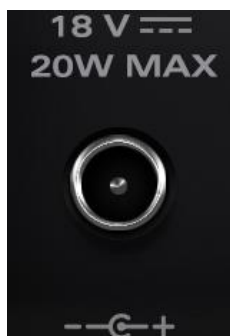
18V/20W Power Input

For use with the provided Antelope Audio power supply only!

Word Clock I/O

One Word Clock Input and three Word Clock outputs on BNC connectors.

S/PDIF I/O

Carries incoming and outgoing 2-channel S/PDIF digital audio over coaxial RCA cables.

Footswitch Input

Connect a footswitch to activate or mute Talkback. A footswitch is not supplied or sold by Antelope Audio, but any standard footswitch will do. There are no settings or adjustments for this functionality - it's literally plug-and-stomp.

ADAT I/O

2 inputs and 2 outputs carrying up to 16 I/O audio channels over Toslink fiber optic cables. Note that ADAT runs on S/MUX. Standard ADAT audio limits apply:

- Up to 16 I/O channels of 24-bit, 48kHz audio.

- Up to 8 I/O channels of 24-bit, 96kHz audio (over S/MUX).

- Up to 4 I/O channels of 24-bit, 192kHz audio (over S/MUX).

- All ADAT audio is transmitted in 24-bit resolution.

Note: Devices do not need to be powered off for connecting or disconnecting ADAT. However, you should mute the receiving equipment because a large signal spike will occur upon connecting.

Thunderbolt™ port

Thunderbolt™ 2 port for computer connection. Note that Thunderbolt™ 3 connections require a third-party TB3 to Legacy TB adapter and corresponding cables.

USB Port

USB 2.0 Type-B port for computer connection.

D-SUB 25-pin Line Outputs

DB-25 breakout cable connector carrying 8 analog audio channels. Compatible with TASCAM Standard Pin Layout.

Monitor Outputs L/R

Left and Right monitor speaker outputs on signal-balanced 1/4-inch jacks.
Note that these outputs boast the highest dynamic range in the system.
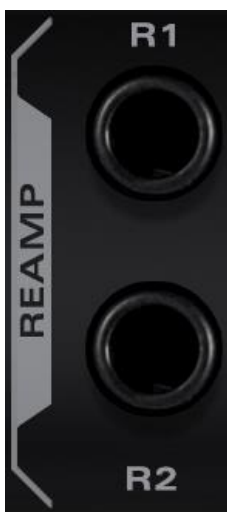
REAMP Outputs R1 - R2

Instrument-level outputs on 1/4-inch mono jacks. Designed for use with guitar
amplifiers and other equipment suitable for re-amping DI tracks.

Important! These outputs also work as a second pair of Monitor outs. Switch
between Monitor and REAMP mode from the device Control Menu or the
software Control Panel.

Mic/Line Inputs

Six mic/line inputs on combo XLR connectors. Labeled A3 to A8. Hi-Z is not available on these inputs.

Important! Record line-level sources using TS/TRS cables, period.

CONTROL PANEL

Welcome to the software Control Panel! Internally, we call it 'EasyPanel' as it's a streamlined, simplified rework of the traditional Antelope Audio Control Panel application. It is better suited to an interface like the Discrete 8, where we felt some of the allegories we use - like the 'Routing Matrix' (which is derived from studio patch bays) – were not appropriate for the unit.

More than just an alternative to the front panel controls, the Control Panel provides straightforward and comprehensive access to each aspect of the interface's functionality. This includes settings, inputs, signal routing, audio mixing, effects stacking, monitoring, metering, and presets.

Although it is possible to substitute the Control Panel for the front panel controls and your DAW's functionality to a degree, we encourage you to get comfortable with the software and make the most of your investment.

Feel free to get going immediately with the 'Quick Start' section as your guide or skip it for now and read the entire chapter before you touch any virtual knobs and faders.

Quick Start

Let's begin with some quick examples of essential tasks being accomplished in the Control Panel.

Note: These examples do not convey the "correct" or "only" way of accomplishing the following tasks. They merely illustrate some fundamental logic and offer solutions to the initial stumbling blocks most often encountered by novice users.

Monitor incoming audio via headphones

Say you want to monitor incoming audio from mic/combo input A1 via Headphone output 1 (HP1), both on the front panel. Connect your equipment and open the Control Panel. Do the following:

1. In the 'PREAMPS' section, head to the leftmost preamp and click the middle symbol to the right of the volume indicator until you get:

- A microphone symbol, if you plugged in a mic. If it's a condenser, activate 48V phantom power from the button below the gain knob.

- A guitar symbol if you plugged in a guitar or bass.

- A jack symbol if you plugged in a line level source (synths, samplers, players and so on)

2. Click the input selector above the 'AFX' area and choose PREAMPS > PREAMP 1 from the menu.

3. You should be hearing audio from the instrument in your headphones. Adjust input gain from the Gain knob in the 'PREAMPS' section and output volume from the mix fader or 'HEADPHONE 1' knob. You can also use the front panel controls.

Apply FPGA FX to incoming audio

Choose your audio input(s) from the input selectors for up to 8 channels. Click the 'AFX' area below the input selector to launch the FPGA FX rack window. Click the 'ADD NEW EFFECT' button and make your choices. Close the window when you are done. An in-depth overview of the FX Rack can be found later in the manual.

Play guitar through the virtual amps and cabinets, listening from studio monitors

1. Connect your guitar to A1 and your studio monitors to the Monitor L/R outputs of the Discrete 8.

2. Open the Control Panel and head to the leftmost area in the 'PREAMPS' row. Click the middle symbol to the right of the volume indicator until you get an electric guitar symbol.

3. Click the input selector above the 'AFX' area and choose PREAMPS > PREAMP 1 from the menu.

4. Click the 'AFX' area below the input selector to launch the FPGA FX Rack. Click 'ADD NEW EFFECT' and make your guitar amp and cabinet choices from

the menu. If you don't know where to start, the 'Modern (US)' amp and 'Modern 4 x 12' cabinet combination make for a great modern rock/metal rig.

An in-depth overview of the cabinet simulator is available later in the manual. You can learn more about the individual amp models here and about the cabinets here.

Sing with microphone emulations and monitor live with headphones

Connect your headphones to HP1 on the front panel. Connect your Antelope Audio Edge or Verge modeling microphone to the preamp/combo inputs. In our example, we are using the Edge Duo, which is connected to inputs A1 and A2.

1. Open the Control Panel and head to the leftmost preamp from the PREAMPS row. Click the input selector above the 'AFX' area and choose PREAMPS > PREAMP 1 from the menu.

2. Click the middle symbol to the right of the volume indicator until you reach the 'mic' symbol. Then, click the 'cog wheel' symbol. This will launch the mic emulations window. Choose Edge Duo with the dial.

3. Adjust microphone gain with the gain knobs. Note that preamps A1 and A2 are now linked and have identical settings between them. You should be hearing mic audio in your headphones at this point. Use the HP1 gain knob on the bottom or the mix faders for Channels 1 and 2 to adjust output volume.

Record in your DAW

Recording with the Discrete 8 is very simple. First, make sure the interface is chosen as your main input and output device in your DAW. Next, open the Control Panel and click 'DAW'. Note the following:

Inputs 1 - 32 in your DAW correspond to the 32 channels labeled 'Record 1 - 32 in the 'TO DAW' row. Use the input selectors to choose your audio sources and add FPGA FX to channels 1 – 8 from the 'AFX' area. Then create new tracks in your DAW and assign the inputs with the matching numbers to them, e.g. 'Record 1' = 'Input 1'.

Likewise, Outputs 1 - 32 in your DAW correspond to the channels labeled 'PLAY 1 - 32' in the 'FROM DAW' row. These channels can be chosen as audio inputs from the input selectors. Assign Output 1 - 32 to any audio track you want to take outside your DAW. In the Control Panel, simply click and choose 'COMPUTER PLAY' 1 - 32. This way, you can add FPGA FX to outgoing DAW audio and record it or create up to four monitoring mixes. The possibilities are extensive.

Mouse & Keyboard Shortcuts

The following features are accessible via mouse & keyboard shortcuts in the Control Panel:

- Return to default value (all knobs and faders):

  double-click the knob or fader.

- Change text labels and manually enter gain values:

  double-click the text label / gain value.

- Adjust parameter values in smaller increments (all knobs and faders):

  Hold Ctrl (Windows) / Command (macOS) and drag.

- Click any peak meter to clear it.

Main View

From top to bottom, the Control Panel is organized as follows:

Function Strip 1

On/Off Button

Click to power on/off the hardware unit.

Device Menu

Click the drop-down menu to switch between connected Antelope Audio devices. You can do that or launch a separate Control Panel instance for each device from the Antelope Launcher.

Help Button

Click to enter the Help Window with the following features:
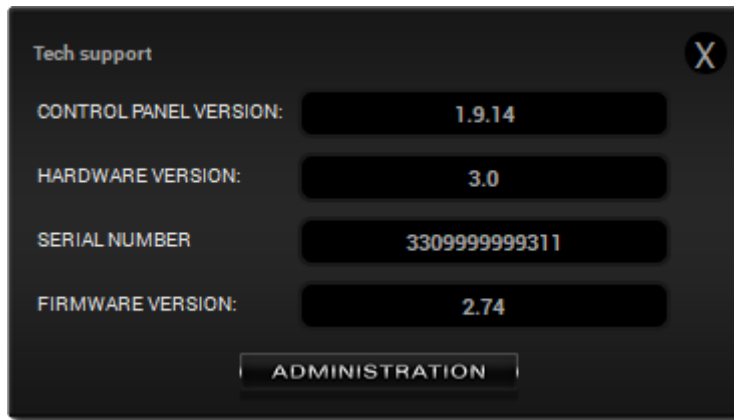
- Contact Tech Support

- View device and software information

- 'ADMINISTRATION' button to launch the Antelope Registration Wizard

Minimize & Close Buttons

Click to minimize or close the Control Panel application.

Function Strip 2

CLOCK SOURCE Internal ▼   SAMPLE RATE 44.1 kHz ▼   LOCK ●   SESSION: *   SAVE LOAD   🎤   SETTINGS ⚙

Clock Source Menu

Click the drop-down menu to choose a clock source. The following options are available:

- Internal

- ADAT (2x, 4x)

- S/PDIF

- USB. In USB mode, the Discrete 8 still uses its internal clock.

Sample Rate Menu

Click the drop-down menu to choose the device sample rate. Please make sure your choice matches the operating system and DAW sample rates.

Lock Indicator

Lights up when the Discrete 8 is locked to an external device (e.g. ADAT).

Session Menu

Click the drop-down menu to load a Session. Use the adjacent Save and Load buttons to store and load Session files (*.as).

'Sessions' are complete "snapshots" of entire Control Panel configurations. When Saving a Session, you can choose the exact components you want stored and export Session files for storage and sharing from the 'Save As' button. When loading a Session, you can browse your computer for session files (*.as) and choose which components to load.

Talkback Button

Click to toggle the talkback microphone.

Settings Button

Click to enter the Settings Window with the following options (left to right, top to bottom):
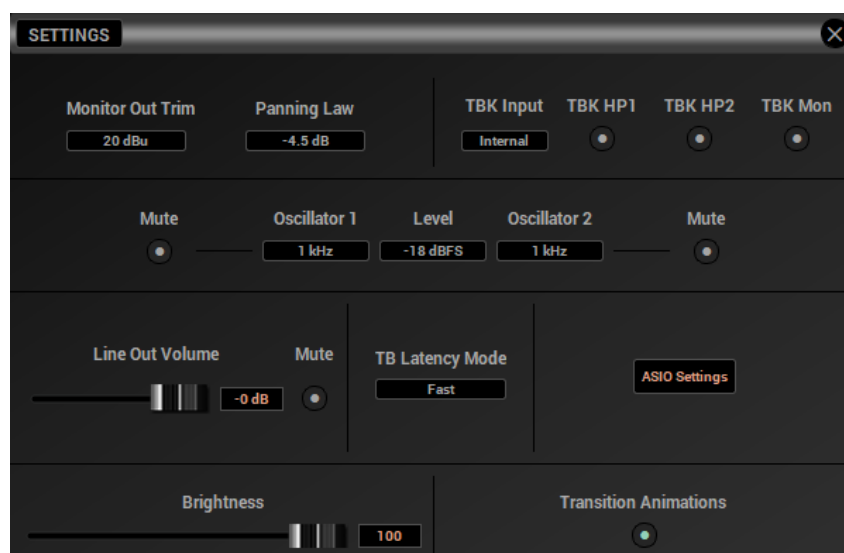
Monitor Out Trim	Click to choose the signal trim amount (in dBu) for the Monitor Outputs from the drop-down menu.
Panning Law	Click to specify Panning Law compensation between 0dB (none) to -4.5dB from the drop-down menu.

TBK Input	Click to change Talkback input from the internal mic to any microphone connected to mic/line inputs A1 – A8.
TBK HP1	Click to send Talkback input to Headphone output 1 (HP1).
TBK HP2	Click to send Talkback input to Headphone output 2 (HP2)
TBK Mon	Click to send Talkback input to the monitor outputs.
Mute	Mutes Oscillator 1 output.
Oscillator 1	Choose a frequency for the Oscillator 1 test signal from the drop-down menu.
Level	Choose the output level (in dBFS) for the oscillator 1 & 2 test signals.
Oscillator 2	Choose a frequency for the Oscillator 2 test signal from the drop-down menu.
Mute	Mute Oscillator 2 output.
Line Out Volume	Use the fader to adjust line outputs volume (in dB). Click the adjacent 'Mute' button to mute and unmute the line outputs.
Brightness	Use the fader to adjust the hardware unit's display brightness.

TB Latency Mode	Choose the Thunderbolt Latency mode from the drop-down menu. Experiment with the different modes if you experience audio glitches, CPU overload, etc.
ASIO Settings	For Windows users - click to launch the Discrete 8 USB ASIO Control Panel. The 'Buffer Settings' tab lets you choose your preferred ASIO Buffer Size for an optimal balance between latency and performance.

PREAMPS Strip

Labeled 'PREAMPS' on the far left. Contains controls for the eight mic/combo inputs labeled A1 – A8 on the Discrete 8. There are the following controls for each input:

Gain Knob

Click and drag the knob or double-click the text label in the center and use your keyboard to adjust input gain. The gain ranges are as follows:

- Mic: -12dB - 64dB

- Line: -6dB - 20dB

- Hi-Z (inputs A1 and A2): 0dB - 40dB

48V Button (in mic mode)

Click to activate or deactivate 48V phantom power for condenser microphones.

Peak Meter

Visualizes input gain.

Link Button ('stereo' symbol)

Click to link adjacent inputs in pairs of two. Any change made to one channel applies the same exact change to its neighboring channel.

Input Type Button ('mic' symbol)

Click to switch inputs between mic, line, or Hi-Z (inputs A1 - A2).

Mic Emulations Button ('cog' symbol, when in mic mode)

Click to open the 'Mic Emulations' window. More information is available in the Edge & Verge Mic Emulations chapter.

Input Selectors

| COMPUTER PLAY 1 | PREAMP 2 | PREAMP 3 | PREAMP 4 | PREAMP 5 | PREAMP 6 | PREAMP 7 | PREAMP 8 |

Input Selectors are found above each analog and digital output channel. Click an input selector to choose the audio input assigned to its related output channel. The following choices are available:

PREAMP 1 – 8	These are the four mic/combo inputs.
EMU MIC 1 – 8	These are the four mic/combo inputs with Edge & Verge Mic Emulations applied. This way, you can record 'dry' and 'mic emulation' audio on different channels.
COMPUTER PLAY 1 – 32	These inputs represent DAW Outputs 1 – 32. This is where you receive audio from your DAW. Assign an audio track to Output 1 – 32 in your DAW and choose the COMPUTER PLAY input with the same number. This way, you can route DAW audio to the analog and digital outputs and apply FPGA FX to it.
ADAT IN 1 – 16	ADAT audio inputs 1 – 16.
S/PDIF IN 1 – 2	Two channels of incoming S/PDIF stereo digital audio.
MUTE M	Choose to mute this channel
OSCILLATOR 1 – 2	Test signal from oscillator 1 or 2.

AFX Strip

Labeled 'AFX' on the far left. Available in the 'MONITORS & HEADPHONES' and 'DAW' tabs. Click inside the AFX area above each output channel to open the FX Rack and apply FPGA FX. Click the 'BP' button to bypass all FX applied to the channel. The FX Rack looks like this:

The following functionality is available:

- Use the 'SAVE' and 'LOAD' buttons to store and recall FX Chains.

- Click the 'BP ALL' button to bypass all FX in the rack. Click again to re-activate.

- Click the 'DEL ALL' button to clear the FX Rack.

- Click the drop-down menu below the input label to load factory presets.

- Click the 'ADD NEW EFFECT' button to choose and load FPGA FX. Their controls appear in the right section.

- The left section lets you click and drag to re-order FX. A 'BP' button is available next to each effect to bypass it.

- Hold Ctrl (Windows) or Command (Mac) and drag to adjust controls in smaller steps.

- The 'How To' button points your Internet Browser to a video tutorial playlist in the Antelope Audio YouTube channel.

Note: User manuals for the equalizers and compressors are available here.

Output Tabs

Four tabs containing Input Selectors, Mixer controls and Peak Meters for the Discrete 8's analog and digital audio outputs. Please read the explanations for each tab before you continue:

MONITORS & HEADPHONES

This tab contains four 32-channel virtual mixers – one dedicated mixer for each headphone and monitor output.

Use the Input Selectors to assign an audio input to each channel and the 'AFX' area to apply FPGA FX to 8 audio channels.

Note that audio inputs are shared among the four mixers. You can't have different inputs for each mixer, but you can still create four separate mixes as the Solo, Mute, Pan, Link, and Volume controls are individual for each mixer.

For example, if you want a particular audio input in the 'HEADPHONES 1' mix but don't want it in the 'MONITOR 2' mix, simply silence (mute, bring down the fader, etc.) its channel in the 'MONITOR 2' mixer.

Master volume knobs, Master peak meter, AuraVerb, and a switch extending the mix view from 8 to 32 channels are found at the bottom. Let's have a deeper look at AuraVerb:

AuraVerb

AuraVerb provides richness and color using a special new approach and an unique algorithm. The reverb features eight different controls, including a 'Color' parameter to create everything between darkened textures to bright, sizzling presence. In addition, there are 24 presets done by award-winning audio engineer and producer Brian Vibberts.
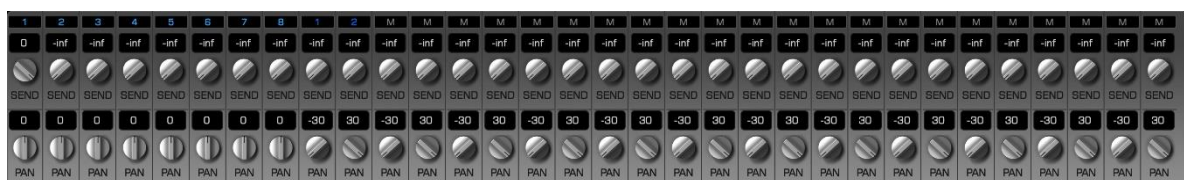
AuraVerb is a Send effect designed for live performance and monitoring. Turn the 'Send' knob on a mixer channel to hear the reverb applied to it.
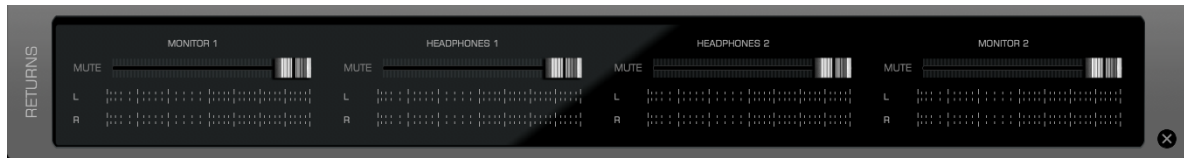
Drag the faders in the 'Returns' area to hear AuraVerb from the monitor and/or headphone outputs.

Parameters

The following parameters are available in AuraVerb:

Color

The Color control lets you adjust the overall tone of the reverb. At 0, the space created is darker, like a lushly carpeted area. At 100, the reverb is at its brightest, which can add some 'sizzle' to a lead vocal, for example.

PreDelay

Common for most reverbs, the pre-delay lets you create a bit of space between the source and the onset of reverb. This happens by controlling the amount of delay time that precedes the initial sound from the reverb. This parameter is used to place the reverberated signal later in time with respect to the unprocessed signal.

Natural settings for this are based on the size of the environment and range from 0 to 32 milliseconds. Fine adjustment of this parameter with respect to the tempo of the song or dramatic timing of the piece can help set the feel of the reverb within the mix.
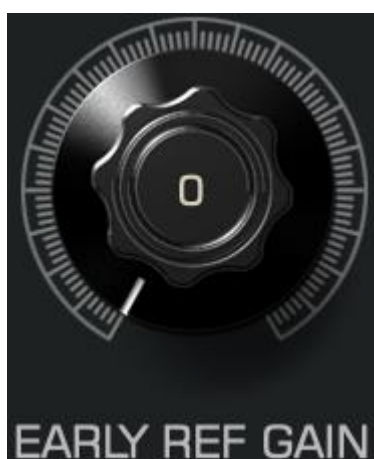
Early Reflection Gain

This is the linear gain value for all early reflections. These reflections are perceptually grouped with the direct sound when set at lower levels and can nicely thicken a track when increased.
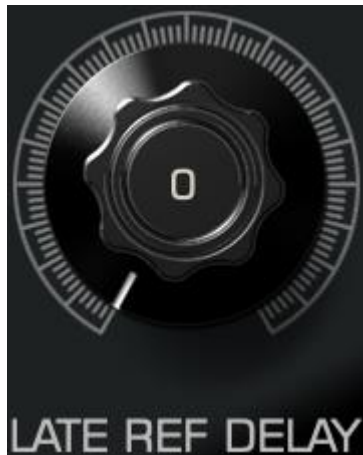
Late Reflection Delay

Among other things, AuraVerb calculates reflected energy from the side walls and ceiling of the virtual space. Late Reflection Delay controls the delay of these bursts of reflections, either creating echoes or supporting the spatial impression of the simulated acoustic space.

Richness

Richness controls the complexity of the reverb envelopment and dampening nuances. At 0, there is less dampening and a brighter decay. This sound is

---

light or airy, but by increasing the Richness, you can add a sense of spaciousness to the sound and smoothly increase reverb time for lower frequencies.

Reverb **Time**

Reverb Time controls the length of decay, while Room Size increases the virtual space dimensions. The perceived decay time will also be affected by Richness and Color on sources with a lot of high frequency content. Generally, as the size of the space increases, the Reverb Time will also increase.

Setting Reverb Time to 50% gives a natural sounding tail for all room sizes. Interesting big spaces or subtle ambience reverbs can be created by setting Reverb Time unusually high or low with respect to the Room Size parameter.

Room Size

Room Size increases the virtual space dimensions

Reverb Level

This is the output level control of the reverb. Since inputs for AuraVerb are assigned to Send knobs on Mixer 1's channels, we recommend balancing the channel volume levels from the Send controls and using Reverb Level to adjust the amount of reverb in the Master bus.

REVERB FX ON/OFF Switch

Use it to enable and disable AuraVerb.
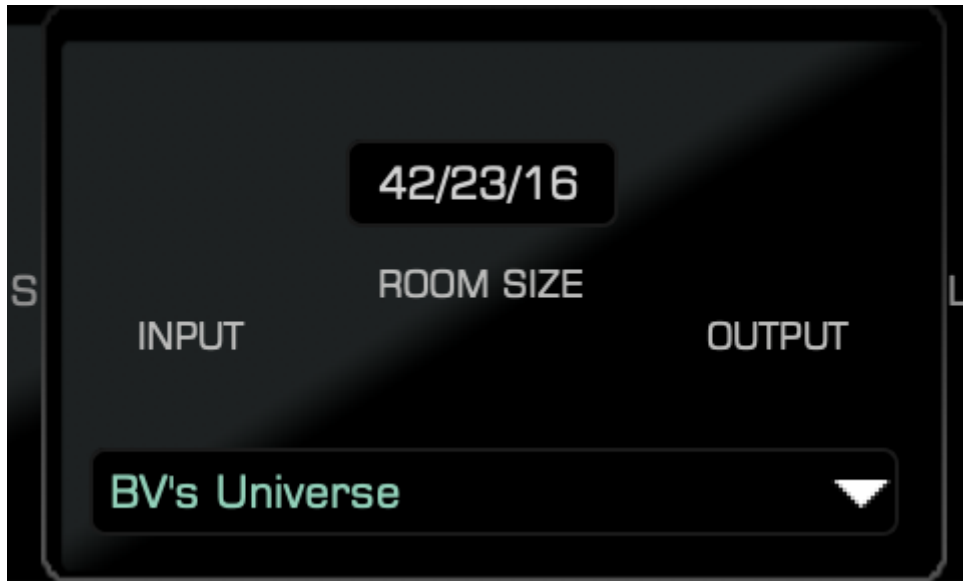
Preset Manager

The Preset Manager lets you save and load presets. Use the drop-down menu to choose a preset. Use the 'S' button to save a preset. Use the 'L' button to load a preset.

Back to the Output Tabs section...
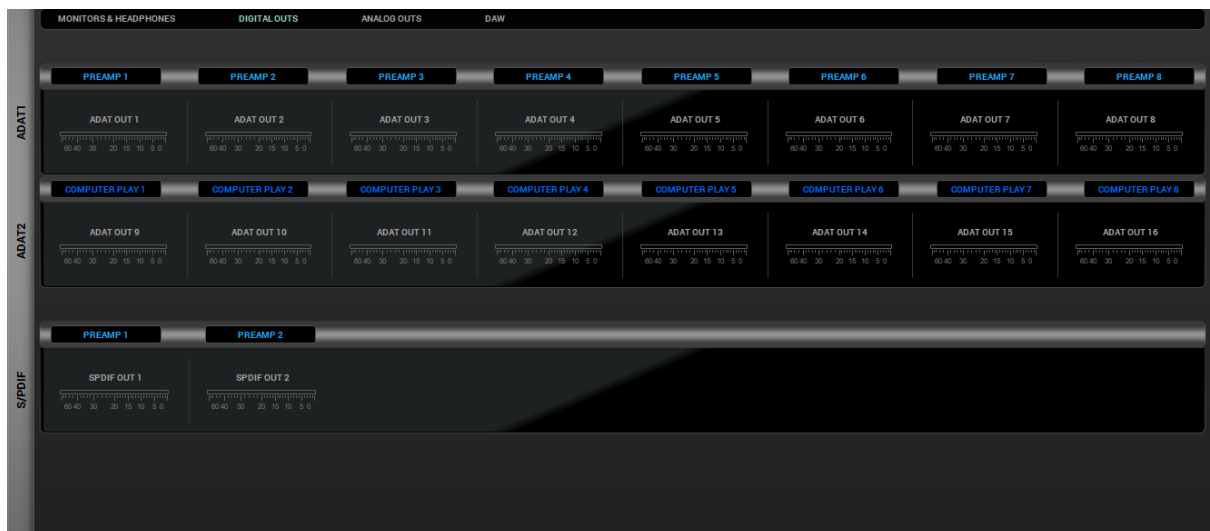
DIGITAL OUTS

This tab lets you route all available audio inputs to the ADAT and S/PDIF digital outputs. Each ADAT and S/PDIF output channel has a dedicated Input Selector and Peak Meter.
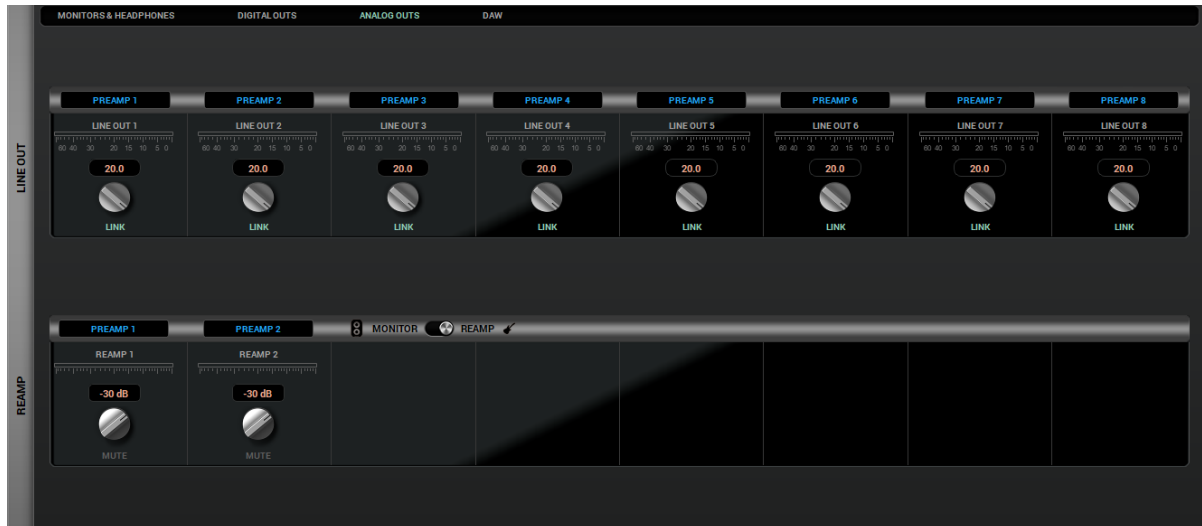
ANALOG OUTS

This tab lets you route all available audio inputs to the line and REAMP outputs. Note the switch for switching between MONITOR 2 and REAMP modes. In MONITOR mode, the REAMP outputs on the Discrete 8 double as second pair of monitor outputs.

Each line and REAMP output have a dedicated Input Selector, Peak Meter, and Trim knob.

DAW

This tab provides an overview of audio going in and out of your DAW. Here's how to make sense of what's going on:

Channels 1 – 32 of the four virtual mixers in the 'MONITORS & HEADPHONES' tab are hard-wired to Inputs 1 – 32 in your DAW. You already know that the four mixers share inputs, correct? So, think of it like this – the audio from Mixer 'Channel 1' will enter your DAW when you create a new track and assign it to 'Input 1'.

For your convenience, the Input Selectors and AFX areas from the 'MONITORS & HEADPHONES' tab are mirrored in the 'DAW' tab. You can clearly see which audio input you are recording, which FX are being applied to it (if any) and make changes without going back and forth between tabs.

Peak Meters are available for all incoming and outgoing DAW audio channels. If you assign a 'COMPUTER PLAY' input to a channel, you will see peak metering for it in the 'FROM DAW' row. That's because the 'COMPUTER PLAY' 1 – 32 inputs receive audio from your DAW Outputs 1 – 32.

So, if you want to send an audio track from your DAW to the analog and digital outputs, or into the FPGA FX – assign this track to Output 1 – 32, go back to the Control Panel, and assign the 'COMPUTER PLAY' input with the same number anywhere you want.

GUITAR AMPS & CABS

A suite of 11 guitar amps and matching cabinets lets you hear and record the roar of your electric guitar in real-time. There's a bass rig in there too, so plug-in and get slappin'! If you don't play guitar, but like the sound of cooked-up tubes and speaker cabinets pushing air, route any audio into these bad boys and check what happens!

Getting Started

Guitar amps and cabs are used like almost any other FPGA effect. Here are the basics:

1. Connect your guitar to A1 and your studio monitors to the Monitor L/R outputs of the Discrete 8.

2. Open the Control Panel and head to the leftmost area in the 'PREAMPS' row. Click the middle symbol to the right of the volume indicator until you get an electric guitar symbol.

3. Click the input selector above the 'AFX' area and choose PREAMPS > PREAMP 1 from the menu.

4. Click the 'AFX' area below the input selector to launch the FPGA FX Rack. Click 'ADD NEW EFFECT' and make your guitar amp and cabinet choices from the menu. If you don't know where to start, the 'Modern (US)' amp and 'Modern 4 x 12' cabinet combination make for a great modern rock/metal rig.

While the guitar amps don't really need an explanation, the cabinet module is worth examining:

- Change the cabinet model anytime from the 'Cabinet' drop-down menu.
- Change your cabinet's mics from the 'Mic A' and 'Mic B' drop-down menus. Click the adjacent 'Phase' button if your choice of microphones results in phasing issues.
- Click and drag the virtual microphones to adjust their vertical and horizontal positioning.
- Click and turn the 'Mic A' and 'Mic B' knobs to dial-in the amount of signal you want from each microphone.
- Click and turn the 'Rear Mic' knob to mix-in signal from an additional mic behind the cabinet.
- Click and turn the '45-degree Mic' knob to mix-in signal from an additional mic positioned at a 45-degree angle from a speaker cone.
- Click the 'ReSPiRe' button to hear some cab sim mojo courtesy of our friends from Overloud. In their own words, the ReSPiRe technology lets you switch between the 'real' response of the cabinet and a processed version optimized to fit into a mix and avoid frequency overlap with the other instruments.
- Click the 'HPF' button to engage a preset high-pass filter (tames excessive low end).
- Click the 'LPF' button to engage a preset low-pass filter (tames harsh or shrill-sounding highs).
- Click the 'BP' button to bypass the cab sim.

Note: You can disable the FPGA cab sim and use custom guitar cabinet IRs in your DAW with your preferred IR Loader.

Software Re-amping

In addition to hardware re-amping through the REAMP outputs, you can re-amp DI guitar tracks through the FPGA amps & cabs:

1. Open your DAW. Place your DI on a track and assign it to one of Outputs 1–32. Remember: DAW Outputs = 'COMPUTER PLAY' inputs.

2. Open the Control Panel and click the 'DAW' tab. Click an Input Selector on channels 1–4 and choose the 'COMPUTER PLAY' input with the same number as your DAW output.

4. Stack your amps, cabs and FX from the FX Rack by clicking inside the AFX area.

5. Create a new track in your DAW and enable live monitoring. Assign the correct input channel (same number as the output channel) and hit 'Play' in the transport controls. You should be hearing your re-amped track and be able to record it.

EDGE & VERGE MIC EMULATIONS

Edge & Verge mic emulations are intended for use with the Antelope Audio Edge & Verge modeling microphones only. We cannot guarantee optimal (or even usable) results with other microphones.

Getting Started

Connect your headphones to HP1 on the front panel. Connect your Antelope Audio Edge or Verge modeling microphone to the preamp/combo inputs. In our example, we are using the Edge Duo, which is connected to inputs A1 and A2.

1. Open the Control Panel and head to the leftmost preamp from the PREAMPS row. Click the input selector above the 'AFX' area and choose PREAMPS > PREAMP 1 from the menu.

2. Click the middle symbol to the right of the volume indicator until you reach the 'mic' symbol. Then, click the 'cog wheel' symbol. This will launch the mic emulations window. Choose Edge Duo with the dial.

3. Adjust microphone gain with the gain knobs. Note that preamps A1 and A2 are now linked and have identical settings between them. You should be hearing mic audio in your headphones at this point. Use the HP1 gain knob on the bottom or the mix faders for Channels 1 and 2 to adjust output volume.

Gain Calibration

Gain adjustment for the Edge Solo and Verge is straightforward, but the Edge Duo and Edge Quadro are multi-membrane microphones. There may be differences in the input signal strength from each membrane, which may have to be compensated for with individual gain adjustments.

Note that engaging mic emulations for Edge Duo and Edge Quadro automatically 'links' their input channels, thus individual gain adjustments per input are not possible while using their mic emulations.

Using Mic Emulations

In the 'Mic Emulations' window, click and rotate the dial to access the emulations available for your modeling microphone:

Following is a guide to using the mic emulations for each Antelope Audio modeling microphone.

Edge Solo

Edge Solo Mic Emulations Window

The following functionality is available:

- Choose mic emulations from the drop-down menu on the right.
- Click and turn the 'Phase Invert' dial to flip the microphone's polarity.
- Click and drag the '48'V switch to activate or turn off phantom power.

Recording and Monitoring Edge Solo

Edge Solo is a single-membrane condenser microphone. This means the microphone will occupy one physical mic preamp input and one virtual 'MIC EMU' output.

Edge Solo mic emulations work on a single input audio channel. Recording and monitoring both 'dry' and 'mic emulation' audio means dealing with two mono tracks.

- Route the 'PREAMP' input for Edge Solo to your desired outputs to monitor 'dry' audio.
- Route the 'EMU MIC' output for Edge Solo (same number as the 'PREAMP' input) to your desired analog and digital outputs to monitor/record 'mic emulation' audio.
- Route 'PREAMP' and 'EMU MIC' channels to different outputs and record or monitor from them to get both 'dry' and 'mic emulation' audio.

For more information about Edge Solo, visit its product page.

Edge Duo

Note to owners of the legacy 'Edge' modeling microphone: 'Edge' and 'Edge Duo' have nearly identical hardware, so feel free to use the 'Edge Duo' emulations with your legacy 'Edge' mic.

Edge Duo Mic Emulations Window

The following functionality is available:

- Choose mic emulations from the drop-down menu in the middle.
- Click and turn the 'Phase Invert' dial to flip the microphone's polarity.
- Click and drag the '48V' switch to activate or turn off phantom power.
- Click and turn the 'Channel Swap' dial to swap the Edge Duo inputs.
- Click and turn the 'Pattern' knob to adjust the polar pattern. Note that some mic models have fixed or limited polar pattern adjustment.

Recording and Monitoring Edge Duo

Edge Duo is a dual-membrane condenser microphone – it has one capsule with dual membranes and connects with an Y-XLR cable (included), one XLR connector for each membrane. The Left (white) connector is the front membrane, the Right (red) is for the rear membrane.

The microphone occupies two physical mic preamp inputs and two 'EMU MIC' virtual outputs.

Note: You can use Edge Duo as a single-membrane condenser mic by disconnecting one of the XLR connectors. In this case, the mic emulations will be visible, but they won't function correctly, you cannot swap inputs and you cannot adjust polar pattern.

Recording and monitoring Edge Duo as a single-membrane condenser mic

Route the 'PREAMP' input for Edge Duo to your desired outputs to monitor 'dry' audio and record from Inputs 1 – 32 in your DAW (e.g. you are using Channel 1 in the mixer, so you are recording from Input 1).

Recording and monitoring Edge Duo as a dual-membrane condenser mic

In this case, you will record and monitor two concurrent mono inputs, one coming from each membrane. They will sound slightly different in tone and volume, due to the physical distance between the membranes and the performer. You may have to compensate with individual gain adjustments for each membrane.

Route the 'PREAMP' inputs occupied by Edge Duo to your desired outputs to monitor 'dry' audio and record from Inputs 1 – 32 in your DAW (e.g. you are using Channel 1 in the mixer, so you are recording from Input 1).

Recording and monitoring Edge Duo as a modeling microphone

Make sure that 'Edge Duo' mic emulations are enabled. Route the 'MIC EMU' inputs corresponding to the 'PREAMP' inputs occupied by Edge Duo to your desired outputs for monitoring and record from Inputs 1 – 32 in your DAW (e.g. you are using Channel 1 in the mixer, so you are recording from Input 1).

Recording and monitoring 'dry' and 'mic emulation' audio simultaneously

With the Edge Duo, monitoring and recording 'dry' and 'mic emulation' audio simultaneously means handling four concurrent mono signals – two 'dry' tracks and two 'mic emulation' tracks. 'Dry' audio comes from the 'PREAMP' inputs, and 'Mic Emulation' audio comes from the 'MIC EMU' outputs. Route them anywhere you want and record from Inputs 1 – 32 in your DAW (e.g. you are using Channel 1 in the mixer, so you are recording from Input 1).

For more information about Edge Duo, visit its product page.

Edge Quadro

Connecting Edge Quadro

Edge Quadro is a quad-membrane condenser microphone – it has two heads, each with dual membranes. The Top head rotates 360-degrees, enabling stereo recording techniques such as M/S, X/Y, Blumlein, and even 3D sound. Therefore, the microphone is bundled with a pair of Y-XLR cables. Their Left (White) connectors are for the front membranes, and their Right (red) connectors are for the rear membranes.

However, each cable is designated for either the Top or Bottom head and labeled accordingly – T (Top) or B (Bottom). The inputs on the microphone are labeled too, letting you know where each cable needs to be connected.

There's a bevy of options for connecting Edge Quadro to your Discrete 8:

As a single-membrane (rotatable) condenser mic. Connect just one XLR from the Top (rotatable) or Bottom head using the corresponding cable. The possible configurations are:

1. Top Head – Front Membrane.

2. Top Head – Rear Membrane.

3. Bottom Head – Front Membrane.

4. Bottom Head – Rear Membrane.

As a dual-membrane (rotatable) condenser mic. Connect two XLRs from either (or both) the Top and Bottom heads with the corresponding cables. The possible configurations are:

1. Top Head – Front and Rear Membranes.

2. Bottom Head – Front and Rear Membranes.

3. Top Head – Front Membrane. Bottom Head – Front Membrane.

4. Top Head – Front Membrane. Bottom Head – Rear Membrane.

5. Top Head – Rear Membrane. Bottom Head – Front Membrane.

6. Top Head – Rear Membrane. Bottom Head – Rear Membrane.

As a quad-membrane rotatable condenser microphone. Connect all XLRs from both heads with the corresponding cables. This is the only option for using the Edge Quadro mic emulations.

Edge Quadro Mic Emulations Window

Edge Quadro and Edge Duo mic emulations are identical, except for the ability to apply two different mic emulations in unison - one for each head – complete with two

different polar patterns that are also swappable. All in all, the functionality is the same, but with two mic emulation selectors and two polar pattern changers.

Monitoring and recording Edge Quadro

Taking full advantage of the Edge Quadro's 360-degree recording and dual-emulation capabilities means the microphone will occupy four physical mic preamp inputs and four 'MIC EMU' virtual outputs.

Monitoring and recording 'dry' and 'mic emulation' audio simultaneously with the Edge Quadro mean handling eight concurrent mono tracks – two 'dry' tracks from its Top head, two 'dry' tracks from its Bottom head, two 'mic emulation 1' tracks and two 'mic emulation 2' tracks.

With so many signals available, the routing and processing possibilities are extensive. Put the manual down and explore your skills and creativity.

For more information about Edge Quadro, visit its product page.

Verge

Verge is a small-diaphragm condenser microphone that's as simple to use as the Edge Solo. Its dimensions and ability to handle high sound pressure levels make it a

---

better fit for positioning in tight spaces and recording very loud sources, such as drum kits.

Verge Mic Emulations Window

The following functionality is available:

- Choose mic emulations from the drop-down menu on the right.
- Click and turn the 'Phase Invert' dial to flip the microphone's polarity.
- Click and drag the '48'V switch to activate or turn off phantom power.

Recording and Monitoring Verge

Verge is a single-membrane, small-diaphragm condenser microphone. This means the microphone will occupy one physical mic preamp input and one 'MIC EMU' virtual output.

Verge mic emulations work on a single input audio channel. Recording and monitoring both 'dry' and 'mic emulation' audio means dealing with two mono tracks simultaneously.

- Route the 'PREAMP' input for Verge to your desired outputs to monitor 'dry' audio.
- Route the 'EMU MIC' output for Verge (same number as the 'PREAMP' input) to your desired outputs to monitor 'mic emulation' audio.

- Route 'PREAMP' and 'EMU MIC' blocks to your desired outputs to monitor and record both 'dry' and 'mic emulation' audio.
- Record from Inputs 1 – 32 in your DAW.

For more information about Verge, visit its product page.

AFX2DAW

Available as a separate purchase (or included in the Discrete 8 Premium Pack), AFX2DAW is a bridge plug-in for using FPGA FX as inserts in your DAW. All FPGA FX processing and I/O audio streaming activity is handled by the DSP and FPGA processors in your interface. AFX2DAW provides a more immediate workflow with the added bonus of FPGA FX automation in your DAW, which isn't available otherwise.

At the time of writing, AFX2DAW is supported only on Mac computers via Thunderbolt™. A Windows version is under development.

Click here to learn more and purchase AFX2DAW.

Setting up AFX2DAW

If you have assigned the Discrete 8 Premium Pack to your Discrete 8, there is no need to claim AFX2DAW. Otherwise, after purchasing AFX2DAW, you will receive a Claim Code at the e-mail address you used to register your Antelope Audio user account.

Note: If the e-mail doesn't seem to arrive in your inbox, please check your 'Spam' and 'Junk' folders.

1. Log-in to antelopeaudio.com and head to the 'Claim Features' page to enter your Claim Code.

2. Open Antelope Launcher and click the 'Plug-ins' button. Download and install the latest version of 'AFX2DAW'.

3. Click the 'Devices' button and launch the Discrete 8 Control Panel.

4. Click 'Manage' under your Discrete 8's serial number. Choose 'Register device or assign features' and follow the on-screen instructions to assign AFX2DAW to your Discrete 8.

6. Launch your DAW and load an instance of AFX2DAW on a mono or stereo track. The plug-in behaves almost exactly like the Control Panel 'FX Rack'.

The following functionality is available:

- Click the 'ADD NEW EFFECT' drop-down menu to choose and add effects. Their instances will appear in the FX Rack to the right. The list on the left lets you click and drag to re-order.
- Use the 'SAVE' and 'LOAD' buttons to store FX chains.
- Use the 'BP ALL' and 'DEL ALL' buttons to bypass or clear all FX currently in the rack.
- Use the drop-down menu below these buttons to load presets.
- Individual 'BP' (bypass) buttons are available next to each effect on the left side.

- Command-click and drag on an FX parameter to adjust it in smaller incre-
ments.

Note: Closing all open AFX2DAW windows in your DAW session eliminates the use of CPU power to animate peak meter movement, as such is no longer being rendered on or off-screen.

ADVANCED USER TIPS

Use the Discrete 8 as a Master clock

We recommend taking advantage of the Discrete 8's highly stable and musical clocking, provided by proprietary 64-bit Antelope Audio algorithms (Acoustically Focused Clocking & Jitter Management) to generate timing reference for other digital audio devices in your setup.

This is done in a Master - Slave arrangement where the Master device "clocks" the Slave device with its timing reference signal. To set up the Discrete 8 as a Master clock, connect Word Clock Out 1 or 2 to the Slave device's Word Clock In using a standard BNC cable. The Discrete 8 does not require any specific setup, but the receiving device might require modifying its settings to act as a Slave.

Further reading:

- For a primer on digital clocking and jitter, read this article. More in-depth information can be found here.

- This interview with Antelope Audio founder and CEO, Igor Levin, is also very illuminating.

CUSTOMER SUPPORT INFORMATION

Antelope Audio Customer Support can be reached by the following means:

Online

Visit support.antelopeaudio.com

Phone

US time: 12AM (midnight) – 8PM (CST), Monday – Friday

US Phone Number: (916) 238-1643

European time: 6AM – 2AM (GMT), Monday – Friday.

UK Phone Number: +44 1925933423

Live Chat

US time: 12AM (midnight) – 2PM (CST), Monday – Friday

European time: 6AM – 8PM (GMT), Monday – Friday.

Note: If you're trying to reach us outside working hours, we advise you to file a ticket in our customer support system or leave a voice message.

Additional Resources

- The Antelope Audio YouTube channel is home to various tutorial videos and endorser content which you may find helpful and inspiring.

- The Antelope Audio Users Facebook group lets you interact with fellow users and some of our employees. Note, however, that it is not meant to be a support group. Please contact our customer support team for such inquiries.

- The Knowledge Base in our Customer Support section is an often-overlooked source of troubleshooting information, answers to commonly asked questions and Antelope know-how.

MY ANTELOPE AUDIO PRODUCT ISN'T WORKING.

WHAT SHOULD I DO?

If you can't find a solution on your own, please get in touch with us so we check if you are having a hardware-related issue. If this is the case, we'll guide you through the repair process. If the product should be returned, a RMA number will be issued so we can begin the procedure.

What's an RMA number?

Issuing a RMA (Return Merchandise Authorization) number is required for any factory service or repair procedure. Please, don't attempt to send us your device without receiving a RMA number first, as the device will be returned and not serviced.

How do I get an RMA number?

The Antelope Audio Customer Support team is in charge of issuing RMA numbers. Visit support.antelopeaudio.com and get in touch.

After your RMA has been issued, you will receive an email with instructions on how to proceed.

RMA shipping information

Alongside the product you are returning please, include a letter containing your full name, shipping address, RMA number issued by our technical support team and a note with a short information about the technical issue.

Please use the original box if possible, because a worn out one will surely not protect your product sufficiently on its way to the Antelope Audio HQ. Additional cushioning materials in multiple layers between the unit and the box walls to prevent from shock, vibration and various tears and scratches.

Please remove any labels or old shipment markings it may have and ensure you add your shipping address inside the box in case the original shipment label becomes illegible during transportation.

The shipping costs are covered by the owner of the product. Antelope Audio will not cover any local customs charges.

We recommend using a courier service of your choice (e.g. DHL, UPS, FedEx). The package should be insured for its real value, marked as fragile and a tracking number should be provided. We do not recommend using standard mail delivery services.

Please, don't forget to add the RMA number, issued by the Antelope Audio technical support, on all shipping paperwork.

Antelope Audio cannot be held responsible for undelivered packages – lost or damaged on the way to the Antelope Audio HQ. For damage claims, please contact your shipping service provider of choice.

Antelope Audio cannot cover any repair costs for product damages due to poor packaging.

LIMITED WARRANTY POLICY

This is a non-transferable voluntary Limited Product Warranty provided to end-customers who have purchased Antelope Audio-branded hardware product (hereinafter referred to as "Product") from an authorized Antelope Audio re-seller.

For customers covered by consumer protection laws or regulations in their country of purchase or, if different, their country of residence, the benefits conferred by Antelope Audio's Limited Warranty are in addition to, and not instead of, rights and remedies convened by such consumer protection laws and regulations and it does not exclude, limit or suspend buyer's rights arising from consumer law. Consumers have

the right to choose whether to claim service under the Antelope Audio Limited Warranty or under their consumer law rights.

All claims made under the Antelope Audio Limited Warranty will be governed by the terms set out in this warranty document.

Warranty Coverage

Antelope Audio warrants that the Product will be free from defects in material and workmanship for the period of 1 (one) year commencing on the date of purchase of Product by end-customer from authorized Antelope Audio's re-seller.

Except where explicitly prohibited by applicable local law, this warranty is limited to the original purchaser and is non-transferable. This warranty provides you with specific legal rights, and you may have additional rights that vary under local laws.

In general, this warranty means your Antelope Audio hardware product will operate in accordance with published technical specifications, as specified by its data-sheet, and in the operating environment for which it was intended for the length of the warranty period.

This version of the warranty applies to products purchased on or after January1,2018. For prior versions of the Antelope Audio limited warranty, please contact customer service.

Limited Factory Refurbished (B-stock) Warranty

Antelope Audio warrants products sold as "B-stock, Factory Refurbished or Open Box" to be free from defects in materials (unless otherwise stated in product description) and workmanship. Only products purchased from an authorized dealer or directly from Antelope Audio are covered by this Warranty.

The Limited Factory Refurbished (B-stock) Warranty is valid for the period of 6 (six) months, commencing on the date of purchase of Product, if local regulations do not require otherwise.

All warranty terms contained hereunder apply also to the B-stock Warranty, unless otherwise specified.

Remedies

Antelope Audio's entire liability and your exclusive remedy for any Antelope Audio Product that is not operating in accordance with its published technical specifications is at Antelope Audio's discretion:

1) to repair the Product at Antelope Audio's expense using new or equivalent-to new refurbished parts in good working condition; or

2) to replace the Product at Antelope Audio's expense with a product with equivalent functionality formed from new and/or equivalent-to new refurbished parts in good working condition, or

3) to refund the price paid. Should Antelope Audio decide to refund the price paid, it may deduct from the paid Product's price any damages caused to the Product; where, within fourteen (14) days of the expiration of the warranty period,(i) Antelope Audio has received written notice of any nonconformity;(ii) after Antelope Audio's written authorization, customer has returned the nonconforming product to the designated place; and (iii)Antelope Audio has determined that the Product is nonconforming and that such non conformity is not the result of any of the exclusions designated below.

These warranty obligations are conditioned upon the hardware being returned to the original place of purchase, or another place as directed by Antelope Audio, with the original sales receipt attached. You will be required to pay shipping and handling charges for returning the product. You may be required to pay any other applicable tariffs, duties, taxes, or other fees with regard to returning the products.

Any repaired or replacement Product will be warranted for the remainder of the original warranty period.

Obsolete or Discontinued Products

An obsolete or discontinued product will be repaired or replaced with the same product if available. If Antelope Audio is unable to replace your obsolete or discontinued product with the same product, Antelope Audio will replace the obsolete or discontinued product, in its sole discretion, with a product having similar function and capacity.

Exclusions

This warranty does not cover problems or damage resulting from, but not limited to, any of the following: (i)Wear and tear associated with normal use; (ii)Any modification, abuse, accident, disassembly, misapplication, misuse, negligence, acts of God, accident; (iii)Unauthorized repair or attempted repair by anyone other than Antelope Audio or someone authorized by Antelope Audio to do warranty work; any unauthorized repairs will void this warranty(iv)Any improper operation, maintenance or installation, including any use not in accordance with any supplied product instructions; (v)Connection to any improper voltage supply; (vi)Use of consumables or spare parts not supplied by Antelope Audio, except where such restriction is prohibited by applicable local law; (vii)Any other cause which does not relate to a Product defect in materials or workmanship.

The warranty does not apply to any Products which have been subject to misuse, neglect, accident or modification or which have been soldered or altered such that they are not capable of being tested under normal test conditions.

This warranty does not cover (i) any counterfeit products, i.e. Products that Antelope Audio, at its sole discretion, determines were not manufactured by Antelope Audio or any of its authorized manufacturing partners; (ii) Products purchased from a person or entity which is not an authorized dealer or re-seller of Antelope Audio; (iii)Product sold "as is" or "with all faults", to the extent permitted by local law.

This warranty is not valid in case any manufacturer label(s), serial numbers, date stamp(s) or warranty sticker(s) has been altered or removed from the Product.

Limitation of Liability

ANTELOPE AUDIO SHALL NOT BE LIABLE FOR ANY SPECIAL, INCIDENTAL, INDIRECT, OR CONSEQUENTIAL DAMAGES WHATSOEVER, INCLUDING BUT NOT LIMITED TO LOSS OF PROFITS, REVENUE, OR DATA (WHETHER DIRECT OR INDIRECT) OR COMMERCIAL LOSS FOR BREACH OF ANY EXPRESS OR IMPLIED WARRANTY ON YOUR PRODUCT EVEN IF Antelope Audio HAS BEEN ADVISED PREVIOUSLY OF THE POSSIBILITY OF SUCH DAMAGES. Some local laws do not allow the exclusion or limitation of special, indirect, incidental or consequential damages, so this limitation or exclusion may not apply in your jurisdiction. ANTELOPE AUDIO WILL NOT ASSUME OR AUTHORIZE ANY OTHER PERSON TO ASSUME FOR IT ANY OTHER LIABILITY IN CONNECTION WITH ITS PRODUCTS.

Data Recovery

In the event of data loss using Antelope Audio storage devices, Antelope Audio is not responsible for backing up or recovering any data that you may have lost.

No Other Warranties

No Antelope Audio employee, dealer, re-seller, or other agent is authorized to make any modification, extension, or addition to this warranty.

How to Make a Warranty Claim

Valid warranty claims should be processed through your point of purchase. Please also verify the return policy directly with the retailer where you purchased your product. Any warranty claims that cannot reprocessed through your original point of purchase should be addressed directly to Antelope Audio. Our customer service contact information can be found on the web or in the documentation included with your Product.

Returning Your Product

In the event that you need to return your Antelope Audio products for repair or replacement, Antelope Audio will provide you with a Return Merchandise Authorization Number (RMA#) as well as return instructions. Do not return your product without prior approval from Antelope Audio. Any product returned without a valid unique RMA# will be refused and returned to the sender at the sender's expense. To avoid problems at the time of receipt, clearly write your RMA# on the outside of the package and include a copy of your RMA confirmation-mail within the package.

In certain situations, for in-warranty units, we may (entirely at our opinion) offer you a temporary replacement unit, provided that we have such on stock in your state. To request a temporary replacement unit, a valid credit card must be provided to secure the new replacement unit for shipping prior to Antelope Audio receiving the defective one.

Request a Return Material Authorization Number (RMA#)

Please follow these steps to obtain an RMA number:

(I) For end user customers, submit a claim online at: support.antelopeaudio.com. For business to business (B2B) / Direct customers of Antelope Audio please email us at techsupport@antelopeaudio.com

(ii) A valid proof of purchase is required for RMA processing (i.e. receipt, invoice, etc). Antelope Audio will provide you with the RMA number within 2 working days as of the claim submission date.

RMA Return Addresses

We have multiple RMA receiving locations worldwide. Your RMA confirmation will specify the specific return address you must use when sending your RMA package. Any packages received at an unauthorized location may be refused and returned to the sender at the sender's expense.

Products Lost or Damaged During Transit

The original packaging material should be used to pack the product for return; if the original packaging is not available, you should use such materials that provide the same or greater protection to the product. All packages that arrive with any external damage or appear inadequately packed will be refused and returned to the sender at the sender's expense. We are not responsible for damage incurred during shipping to our RMA receiving locations or for lost or stolen products.

Company information

Antelope Audio is the trade name, under which the company Elektrosfera ltd., registered under the legislation of the Republic of Bulgaria with UIN: 131052590, is doing business and is worldwide known. Elsewhere in this document where the trade name **Antelope Audio** is used shall refer to Elektrosfera ltd., with address of management: Tsarigradsko Shose Blvd., 7th km, Building of BIC IZOT, floor 6, Mladost region, Sofia, Bulgaria.

If any term hereunder is held to be illegal or unenforceable, it shall be severed from this warranty and the legality or enforce ability of the remaining terms shall not be affected.

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. Switch off the device and then 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.
- Do not handle the power cables with wet hands!
- Make sure the device is switched off when plugging/unplugging it to/from the power source.
- 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, turn off the device first and then 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.
- This unit is connected via its power cord to the mains safety earth.
- Never operate the unit without this earth connection.
- 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.
- Both occasional and continued exposure to high sound pressure levels can cause permanent ear damage via headphones and monitors.
- Your unit should always be un-racked when traveling or in a flight case.
- The device is designed to operate in a temperate environment, with a correct Operating Temperature of 0-50° C, 32-122° F.

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

Hi-Z Input
Discrete JFET design
Maximum input: 14dBu (At min. gain)
Gain Range: 0-40dB
Input Impedance: 1Mohm

Headphone Output
Output Level (unloaded)
20dBu max
Output impedance 120 ohms
Dynamic Range: 121dB
THD + N: – 100dB
Recommended HP Impedance 16Ω to 600Ω

✓ 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