



AC-MX-44X

User Manual

48 Gbps 4x4 HDMI Matrix Switcher

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Important Safety Instructions

Before installing, configuring, and operating this device and other vendor equipment, AVPro Edge strongly recommends that each dealer, integrator, installer, and all other necessary personnel access and read all the required technical documentation, which can be located by visiting AVProEdge.com.

Read and understand all safety instructions, cautions, and warnings in this document and the labels on the equipment.

Safety Classifications in this Document

■ Note:	Provides special information for installing, configuring, and operating this device with other equipment.
💡 Tip:	Provides suggestions and considerations for installing, configuring, and operating this device with other equipment.
▲ Important:	Provides special information that is critical for installing, configuring, and operating this device with equipment.
▲ Caution:	Provides special information to avoid situations that may cause damage to this device and other equipment.
▲ Warning:	Provides special information for avoiding situations that may cause physical danger to the installer, end user, etc.

Electrical Shock Prevention

▲ Electric Shock:	Provides special information that is critical for installing, configuring, and operating this device and other equipment.
▲ Electrical Disconnect:	Provides special information to avoid situations that may cause damage to this device and other equipment.

Weight Injury Prevention

▲ Weight Injury:	Two installers are required to handle some of the devices and equipment safely. Failure to use two installers may result in injury.
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Safety Statements

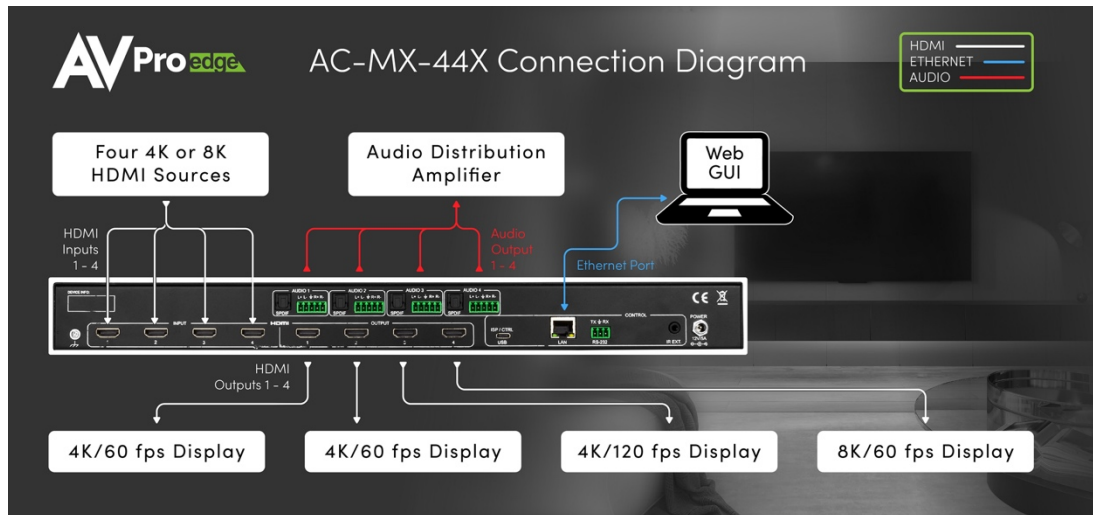
Follow all of the safety instructions listed below and apply them accordingly. Additional safety information will be included where applicable.

- 1 Read and keep these instructions.
- 2 Heed and follow all warnings.
- 3 Clean devices and equipment only with a dry cloth.
- 4 Do not use the devices near water or expose them to rain and moisture.
- 5 Do not block any ventilation openings.
- 6 The devices and accessories should never be exposed to flames or excessive heat.
- 7 Only use attachments and accessories specified by the manufacturer.
- 8 Install in accordance with the manufacturer's instructions.
- 9 Do not install near any heat sources, such as radiators, heat registers, stoves, or other heat apparatus.
- 10 Do not defeat the safety purpose of the polarized / grounding-type plug. A polarized plug has two blades, one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade, or third prong, is provided for your safety.
- 11 Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and where they exit from the devices.
- 12 Unplug the devices during lightning storms or when unused for long periods.
- 13 Never handle or touch the devices and power cord with damp hands to reduce the risk of electrical shock or damage to them and their operators.
- 14 To reduce the risk of injury, some devices and equipment may require two installers to ensure safe handling during installation. Failure to use two installers may result in injury.
- 15 Refer all servicing to qualified service personnel. Servicing is required when the devices have been damaged in any way, such as the power cord or plug, liquid spilled, objects fallen into the devices, exposed to rain or moisture, do not operate normally, or have been dropped.

Introduction

Thank you for choosing the AC-MX-44X, a 48 Gbps 8K capable HDMI matrix switcher designed for HDMI signals up to 48 Gbps 8K HDMI with HDR, Variable Refresh Rate (VRR), and High Frame Rate (HFR) technology. Equipped with four HDMI inputs and four HDMI outputs, the AC-MX-44X supports resolutions up to 8K with HDR, Dolby Vision, and VRR. It features advanced EDID management, an 8K-to-4K scaler, and audio de-embedding for surround sound and multi-zone audio setups. Built-in troubleshooting tools, such as test pattern generation, make installation and maintenance easy. Ideal for a range of applications, the AC-MX-44X excels in high-end home theaters, enterprise conference rooms with ultra-wide displays, and hospitality venues like sports bars and casinos, where stunning visuals plus reliable performance are essential.

The diagram below shows the basic application of the AC-MX-44X:



Features

- 48 Gbps 8K HDMI 2.1 support with HDR technology
- Variable Refresh Rate (VRR) and High Frame Rate (HFR) support is compatible with next-gen game consoles and gaming PCs
- Ultra-Wide Aspect Ratio for enterprise conferencing systems and the latest collaboration displays
- Intuitive user interface for easy installation and configuration with additional limited user UI
- Test pattern generation to verify cabling, extenders/baluns, and displays
- Advanced EDID management to overcome issues with legacy displays and equipment
- Audio de-embedding to break out audio for surround and multi-zone sound systems
- Audio delay to sync video and audio across all switched outputs, up to 630 ms
- Downscale 8K sources to 4K & 1080p legacy displays

Product Overview

Box Contents

(1x) AC-MX-44X Matrix Switcher
(1x) 12 VDC Locking Power Supply w/ Cord
(1x) IR Remote Control
(1x) IR Extension Cable
(4x) 6-Pin 2-CH Audio Extraction Cables
(1x) 3-Pin Euroblock Connector
(2x) 1RU Rack Mount Brackets
(6x) Screws for Mounting Brackets
(4x) Rubber Feet
(4x) Rubber Feet Screws
(1x) Ground Wire

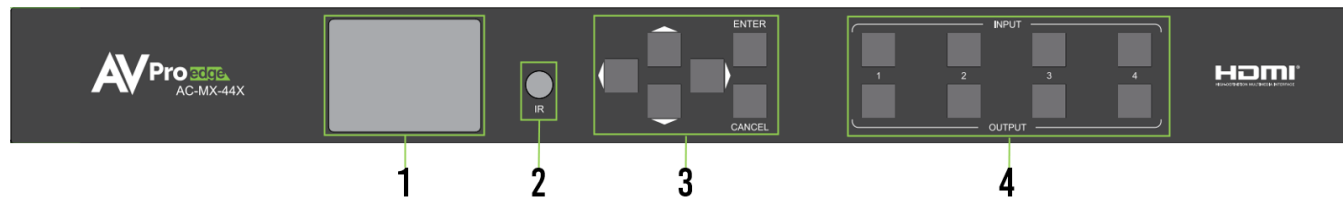
Technical Specifications

Video	
Video Resolutions	Up to 8K/60 Hz 4:2:0, 8K/30 Hz 4:4:4, 4K/144 Hz
HDR Formats	Dolby Vision, HDR10, HDR10+, HLG
Color Space	YUV (Component), RGB (CSC: ITU-R BT.601, ITU-R BT.709, ITU-R BT.2020, DCI-P3 D65)
Chroma Subsampling	4:4:4, 4:2:2, 4:2:0
Deep Color	Up to 16-bit (1080p), up to 12-bit (4K), up to 10-bit (8K)
Video Scaling (Optional)	8K to 4K and 8K/4K to 1080p
HDCP	HDCP 2.3 and earlier
Additional HDMI 2.1 Features	ALLM, VRR, QMS, QFT, HFR
Audio	
Audio Formats Supported by HDMI	LPCM up to 7.1, 192 kHz 24-Bit, Dolby Digital, Dolby Digital Plus, Dolby TrueHD, Dolby Atmos (All Formats), Dolby AC-4, DTS-Digital Surround, DTS-ES Discrete, DTS-HD High Res Audio, DTS-HD Master Audio, DTS:X
Audio Formats Supported Extracted (S/PDIF)	LPCM up to 5.1, 96 kHz 24-bit, Dolby Digital 5.1, DTS-HD High Resolution Audio
Audio Formats Supported Extracted (2-Ch. Port)	PCM 2-Ch.
Audio Extraction Location	Bind to Input, Bind to Output, or Matrix (Independent)
Audio Delay (Per Output, Extracted)	Up To 630 ms
Distance	
HDMI In/Out (4K/60 Hz 4:4:4)	Up to 50 ft.**
HDMI In/Out (w/ AOC Cable) (4K/60 Hz 4:4:4)	Up to 130 ft.**
Control	
Ports	LAN, RS-232, IR
Drivers	C4, RTI, ELAN, CRESTRON, URC (others available)
Web Interface	Yes
Ports	
HDMI	Type-A
LAN	RJ45 w/ Web Interface & Control
Audio (Extracted Digital)	S/PDIF

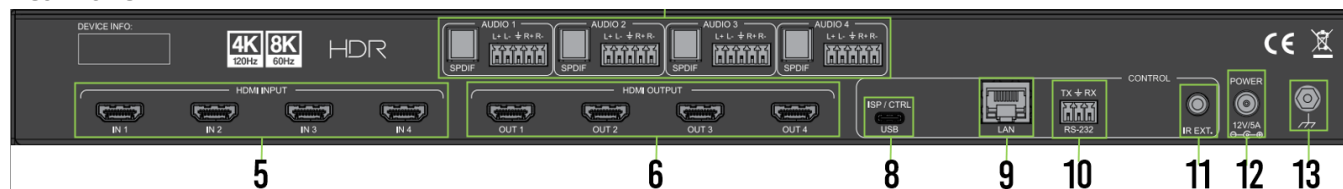
Audio (Extracted Analog)	5-pin Euroblock (Balanced)
IR Extension RX	3.5 mm Stereo (3-pin Euroblock Conductor)
RS-232	3-pin Euroblock
ISP/CTL	USB-C
Environmental	
Operating Temperature	23° to 125° F (-5° to 51° C)
Storage Temperature	-4° to 140° F (-20° to 60° C)
Humidity Range	5% to 90% RH (No Condensation)
Power	
Power Consumption (Total)	40 W Max
Power Supply	Input: 100-240 VAC ~ 50/60 Hz Output: 12 VDC, 5 A
Dimensions	
Mounting	1RU Rack Mount Brackets Rubber Feet
Dimensions (Unit Length/Width/Height)	mm: 225.425 X 439.7502 X 44.45 in: 8.875 X 17.313 X 1.75
Dimensions (Packaged Length/Width/Height)	mm: 336.55 x 495.3 x 88.9 in: 13.25 x 19.5 x 3.5
Weight (Unit)	6.78 lbs. (3.08 kg)
Weight (Packaged)	8.9 lbs. (4.04 kg)
Regulatory	CE/FCC
Product Warranty	10 Years
*Specifications are subject to change without notice. Mass & dimensions are approximate	
**Distances achieved with Bullet Train HDMI and AOC cables	

Front and Rear Panel Overview

Front Panel



Rear Panel



1	Front Panel Display	- Color LED display for control and status reporting - Control matrix switching, EDID, audio output, and network settings
2	IR Sensor	- IR Sensor for receiving signals from included IR remote control - Remote can be used for HDMI matrix switching
3	Front Panel buttons	- Push-button controls (Up, Down, Left, Right, Enter, Cancel) - Use buttons to navigate the front panel display menu
4	Matrix Switch buttons	- Input buttons 1 to 4, Output buttons 1 to 4 - Select Output from bottom buttons 1 to 4, then select from Input buttons 1 to 4 to switch
5	HDMI INPUT (1-4)	(4x) 19-pin HDMI Type-A female connector port - HDMI source signal input connections
6	HDMI OUTPUT (1-4)	(4x) 19-pin HDMI Type-A female connector ports - HDMI signal output to display connections
7	SPDIF (1-4) Balanced Audio Output (1-4)	(4x) Digital Optical (S/PDIF) audio output ports (4x) Balanced stereo output 5-pin Euroblock connector ports
8	ISP / CTL USB TYPE-C	Proprietary service port for AVPro Edge technical assistance
9	LAN	8-pin RJ45 female connector - Connect to the LAN, router, or third-party control system
10	RS232	3-pin Euroblock connector port
11	IR Extender	- IR extension receiver port 3.5 mm (3-conductor)
12	Power In	- Barrel Connector 12 VDC / 5 A power unit

- Ground screw
 - Connect the provided wire to Earth ground
-

Installation

Rack Mounting

The AC-MX-44X is one RU in height and may be mounted in any compatible standard 19-inch wide enclosure. Two mounting brackets are included with the unit.

Align the holes on the mounting brackets with the holes on both sides of the rack.

- 1 Attach the mounting brackets to the rack with rack screws (not included).
- 2 Attach the mounting brackets to the rack with rack screws (not included).

Mounting Feet Assembly

Four rubber feet may be attached to the unit with the provided mounting screws.

- 1 Align the holes on the rubber feet with the holes underneath the unit.
- 2 Attach the rubber feet to the unit with the provided screws.

Wiring and Connections

HDMI Cables

The AC-MX-44X uses standard 19-pin HDMI female ports for inputs and output connections.



Important things to consider when planning or installing this device:

- Ensure all HDMI cables and devices support the input signal. With 8K sources, ultra-high-bandwidth/Ultra High Speed HDMI cables rated for 48 Gbps are recommended. For 4K and lower resolutions, High-Speed HDMI cables with Ethernet rated for 18 Gbps are sufficient if all connected devices are rated to handle the signal.
- Ensure HDMI cables are the correct length. AVPro engineers have determined that HDMI cables 2 meters and longer help eliminate EDID and HDCP issues associated with shorter HDMI cable lengths.

USB Ports

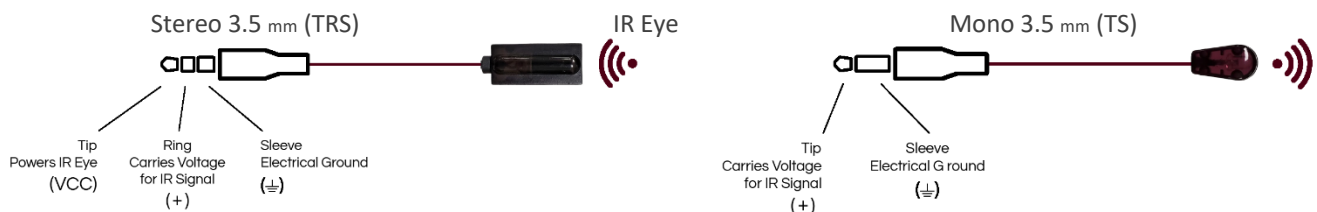
The device also has one USB Type-C port. This is a service port intended for AVPro Edge technical support if troubleshooting or testing is required.



Type C

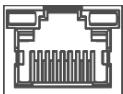
IR Wiring

IR connections are made using the provided 3.5 mm IR Emitter and IR Eye (receiver).

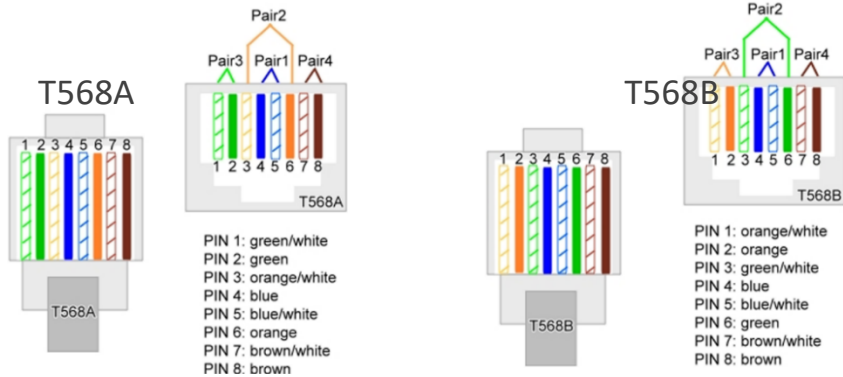


Ethernet/LAN

The NETWORK/LAN port on the rear panel communicates with the AC-MX-44X via a LAN, router, or third-party control system processor and uses a standard RJ45 connector plug.



The recommended termination is based on the TIA/EIA T568A or T568B standards for the wiring of the twisted pair cables. For TCP/IP control, commands use Telnet port 23.



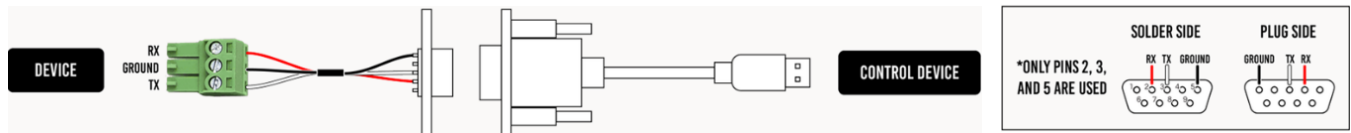
RS-232 Control

The RS-232 control port on the rear panel allows a computer or third-party control system to communicate with the AC-MX-44X.

Serial control connections are made using the provided 3-pin Euroblock connector. Insert the wire into the appropriate hole, then secure it by tightening the screw located at the top of the connector.

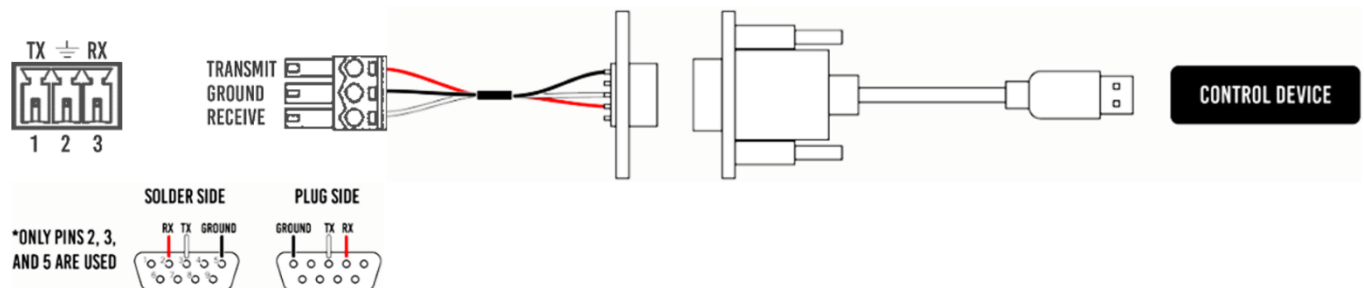


Wiring for this port uses a 3-pin Euroblock-to-DB9 connector, where only pins 2, 3, and 5 are used. If the control devices do not have a DB9 port, a USB-to-DB9 adapter may be required.



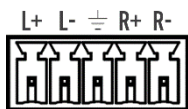
For RS-232 control, use a null modem serial cable adapter and set the serial communications to:
Baud: 57600, no parity, 8 data bits, 1 stop bit, with no handshaking.

Add a carriage return (Enter key) after each command when using direct commands. The unified command list (ASCII) can be found [here](#).



Analog Audio Output Ports

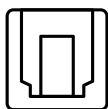
The AC-MX-44X has four 5-pin Euroblock balanced audio output ports on the unit's rear panel. These ports output a balanced 2-channel audio signal and can be used for break-out audio to receivers and multi-zone audio systems.



Analog Audio

S/PDIF Audio Output Ports

The AC-MX-44X has four S/PDIF audio output ports on the unit's rear panel. These ports can output multi-channel audio signals to receivers for surround sound or multi-zone audio systems.



S/PDIF Audio

AC Power Connection

- ▲ **Electric Shock:** Use a surge-protected circuit for all components and power supplies.
- ▲ **Electrical Disconnect:** The power source outlet and power supply input sockets should be easily accessible to disconnect power in the event of an electrical hazard or malfunction.

Initial Setup

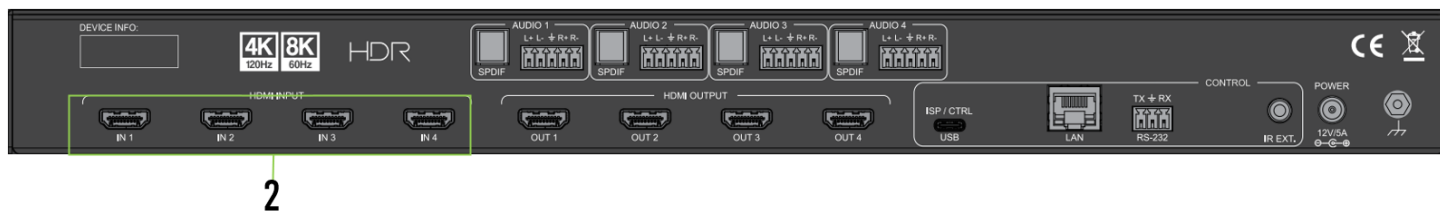
Use the steps below to connect physically to the input and output devices. For the initial setup, once all the physical connections are made, connect the AC-MX-44X to a LAN (Local Area Network) using a control PC on the same network and then access the Web UI.

Connecting Devices

- 1 Use a screwdriver to attach the yellow ground wire to the pre-installed screw on the back of the unit, then attach the other end to a suitable grounded object.

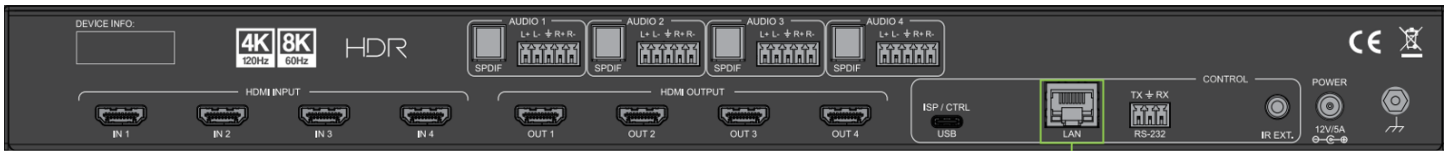


- 2 Connect HDMI sources 1-4 to the HDMI Input connectors on the rear of the matrix switcher.

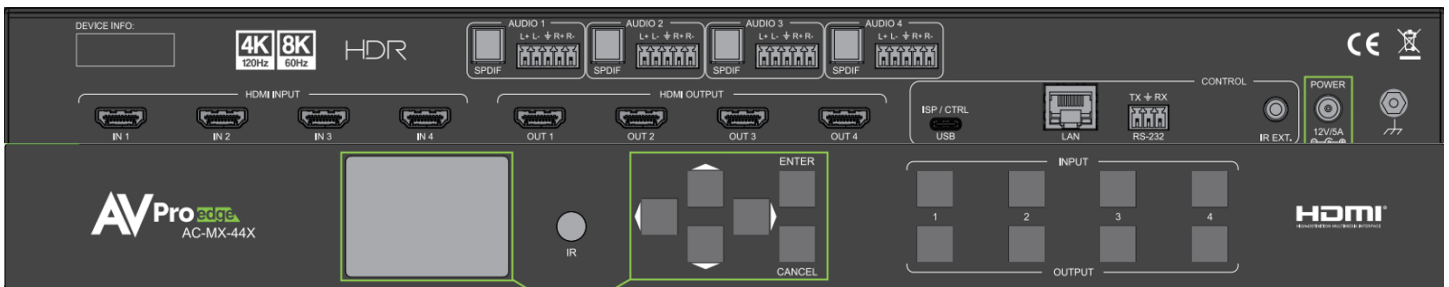


Initial Setup

- 3 Connect display cables 1-4 to the HDMI Output connectors on the rear of the matrix switcher.
- 4 Connect an RJ45 cable from the ETHERNET port of the AC-MX-44X to the LAN or a PC.



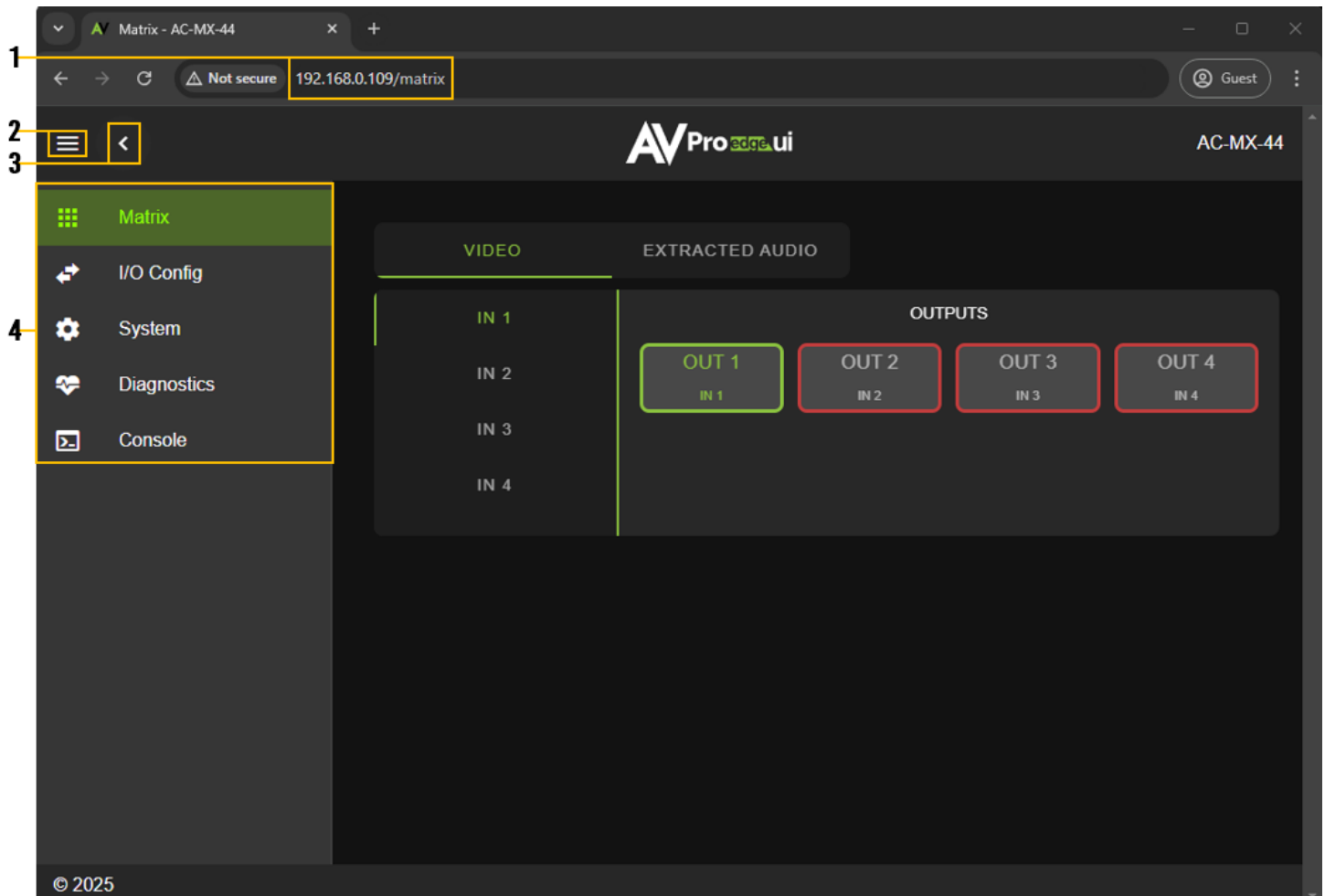
- 5 Power on the sources connected to the HDMI INPUT ports.
- 6 Power on the displays connected to the HDMI OUTPUT ports.
- 7 Connect the 12 VDC power supply to the POWER input port on the rear of the matrix switcher and plug it into a suitable power source.



- 8 Using the front panel display and navigation buttons, select the "NETWORK" icon and push the Enter button. The HIP IP Address shown on the front panel display can be used to access the web UI via the browser.

Navigating the Web UI

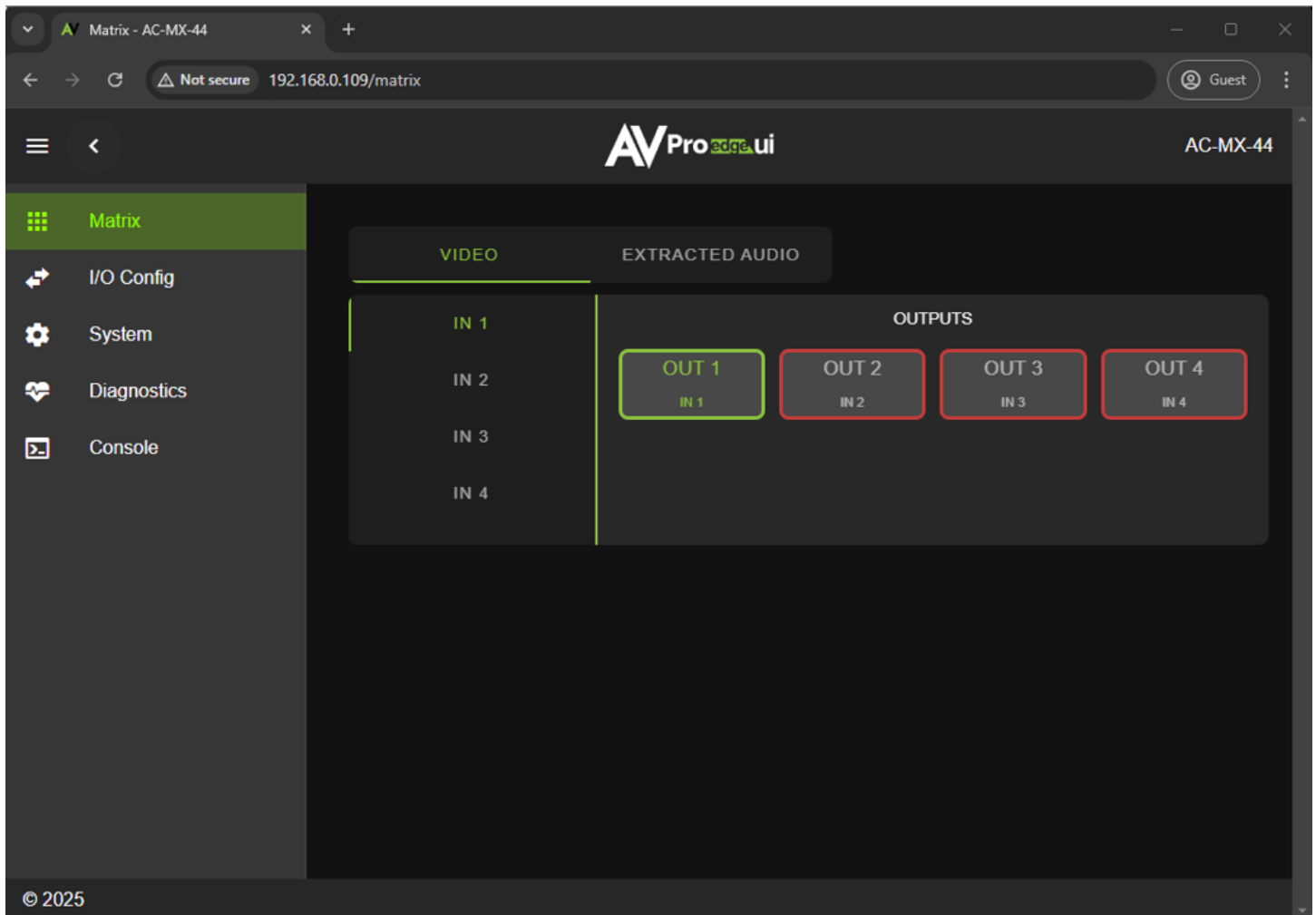
The AC-MX-44X features a built-in User Interface (UI) that can be accessed through a web browser for configuration and control. Different tools and settings can be selected from the tab pages on the navigation menu column on the left side of the screen.



- 1 Enter the unit IP address into a web browser like Chrome or Edge to access the Web UI.
- 2 To hide the navigation menu, select the *hamburger* menu icon .
- 3 Select the *left arrow* icon to hide the navigation menu text and show only the menu icons .
- 4 Select the individual tab pages from the navigation menu to navigate the different pages. This will highlight the tab page in green to indicate the currently selected page.

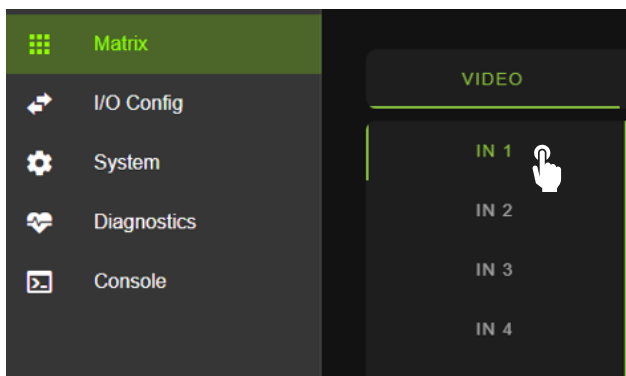
Matrix

The **Matrix** page layout consists of the **Video Inputs** column on the left and the **Outputs** row on the right. Each *Input* and *Output* can be individually selected to route an HDMI input signal to a single or multiple outputs.

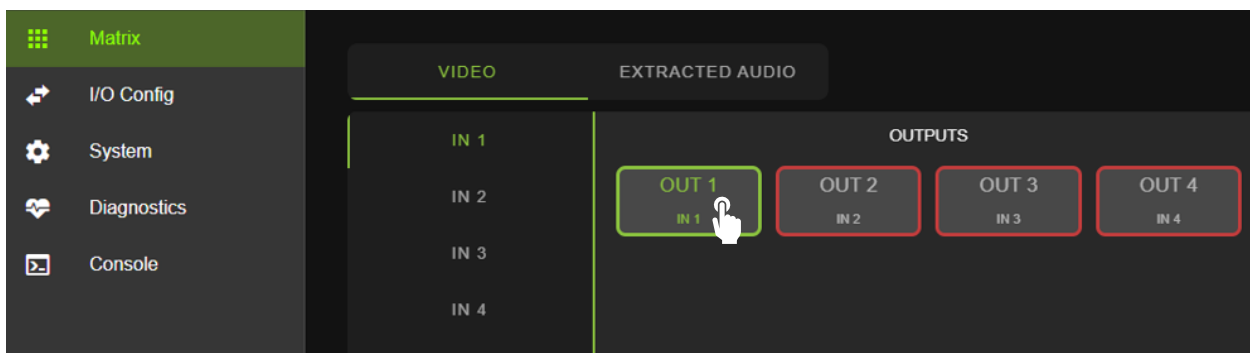


Video Matrix Switching

- 1 From the *Inputs* column, select a desired input. This will highlight the input with green text to indicate a selection was made.



- 2 From the *Outputs* column, select one or multiple desired outputs to route the selected input. This will highlight the outputs with a green border, indicating a selection was made.

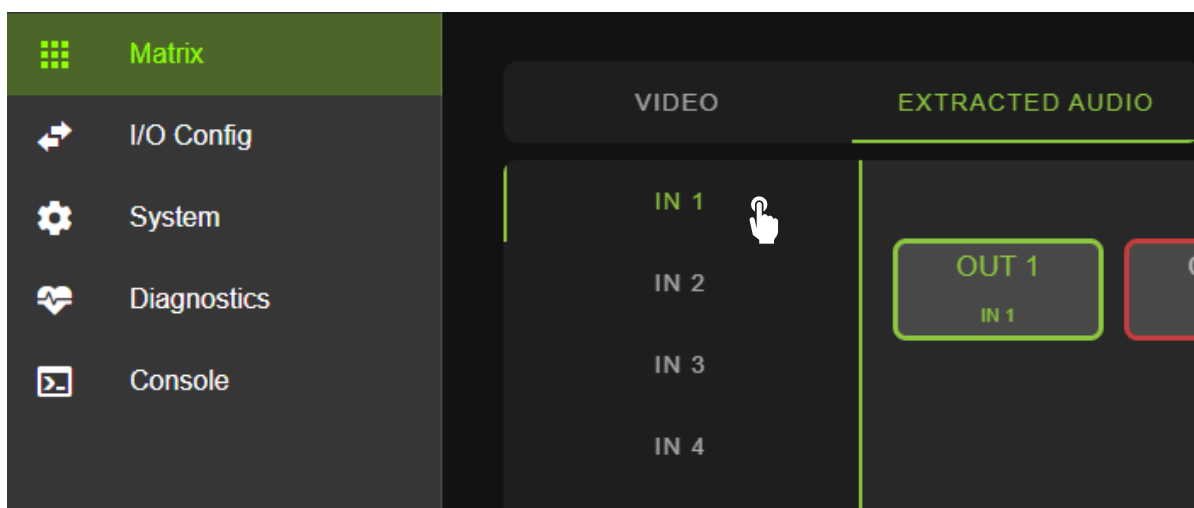


- 3 The selected HDMI input signal is routed to the desired output path.

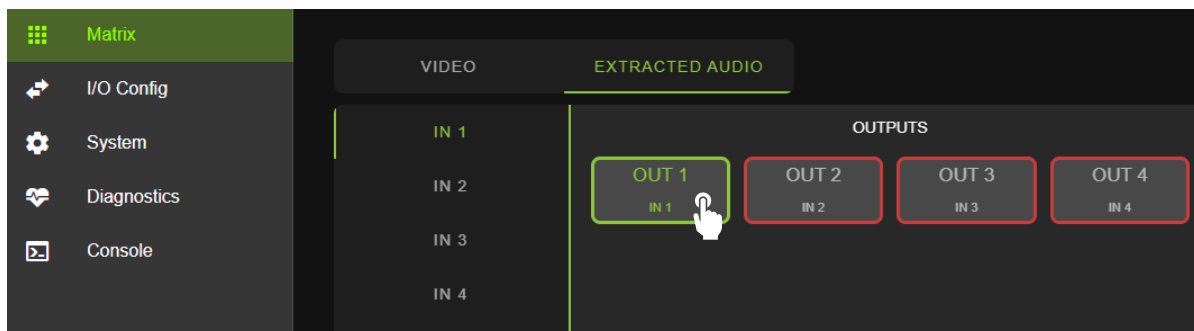
Extracted Audio Matrix Switching

This menu becomes available when the **Audio Mode** settings are configured for *Matrix*.

- 1 . From the Inputs column, select the desired input. This will highlight the input with green text to indicate that a selection was made.



- 2 From the *Outputs* row, select the desired output routing path. The output path is highlighted with a green border, indicating a selection was made.



- 3 The selected input's extracted audio signal is now routed to the selected output(s).

I/O Config

The **I/O Config** tab page features tools and settings for configuring audio and video inputs and outputs.

Matrix

I/O Config

System

Diagnostics

Console

AVProedge ui

AC-MX-44

Input Settings

Port	Label	Enabled	EDID					Signal
1	IN 1	☒	8k60HzY420	HDR	8CH	APPLY		
2	IN 2	☒	8k60HzY420	HDR	6CH	APPLY		
3	IN 3	☒	8k60HzY420	HDR	8CH	APPLY		
4	IN 4	☒	8k60HzY420	HDR	8CH	APPLY		

Video Output Settings

Port	Label	State	Video Scaling	Signal
1	OUT 1	Enabled	BYPASS	
2	OUT 2	Enabled	BYPASS	
3	OUT 3	Enabled	BYPASS	
4	OUT 4	Enabled	BYPASS	

Extracted Audio Output Settings

Audio Mode: Bind to Output

Port	Label	Enabled	Volume
------	-------	---------	--------

Input Settings

The screenshot shows the 'Input Settings' window. Callout 1 points to the 'Port' field showing '1'. Callout 2 points to the 'Label' field showing 'IN 1'. Callout 3 points to the 'Enabled' toggle switch, which is currently green (enabled). Callout 4 points to the 'EDID' section, which includes three dropdown menus: '8k60HzY420', 'HDR', and '8CH'. Callout 5 points to the green 'APPLY' button. Callout 6 points to the 'Signal' indicator, which is a red dot, indicating the input is not detected.

1	Port	Indicates the HDMI input port number.
2	Label	Select the text field to enter a custom name for the input. <i>(Limited to 15 characters)</i>
3	Enabled	Select the <i>Enabled</i> toggle switch to enable (green) or disable (red) the HDMI input.
4	EDID	Select the EDID from the drop-down menu. The first drop-down group configures resolution and refresh rate. The second drop-down group configures dynamic range, with options for HDR or SDR. The third drop-down group configures the audio channels with 2CH, 6CH, and 8CH options. NOTE: When selecting USER1, USER2, or USER3 EDID, the drop-down menus will update, allowing the user to choose an HDMI Out to copy EDID values. Select one of the four HDMI Outs and click the COPY button to apply (this replaces the APPLY button).
5	APPLY	This button applies the settings to the HDMI Input. NOTE: This button will change to COPY when selecting USER1, USER2, or USER3.
6	Signal	Shows the status of the HDMI Input. Green indicates the HDMI input has been detected; red indicates the HDMI connection or device has not been detected.

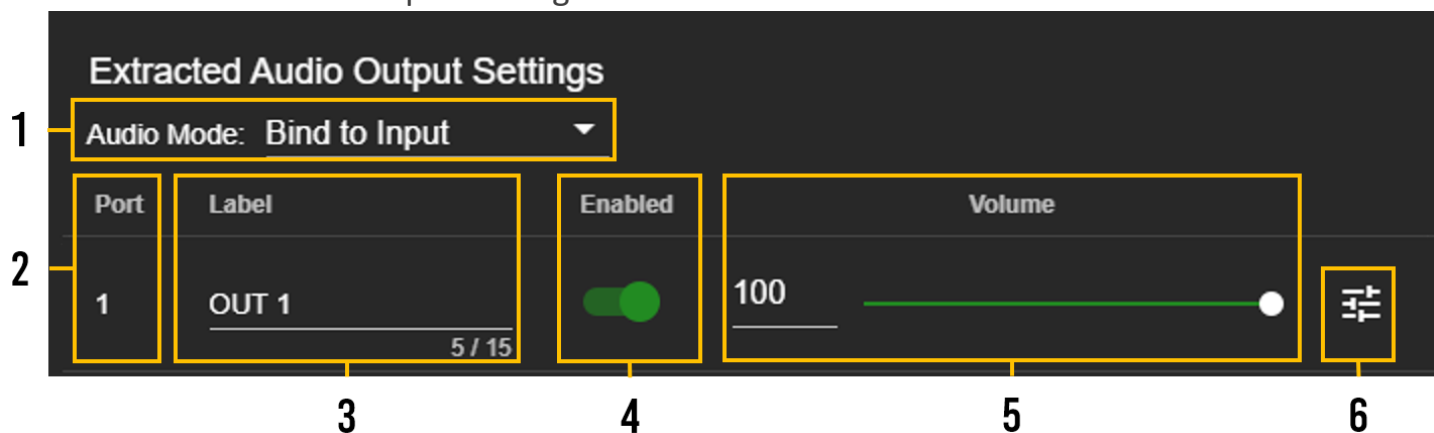
Video Output Settings

The screenshot shows the 'Video Output Settings' window. Callout 1 points to the 'Scale Mode' dropdown menu, which is set to '1080p'. Below this is a table with four rows representing HDMI outputs. Callout 2 points to the 'Port' column (1-4). Callout 3 points to the 'Label' column (OUT 1-4). Callout 4 points to the 'Enabled' column, where all four outputs have green toggle switches. Callout 5 points to the 'Pattern State' column, where all four outputs are set to 'Disabled'. Callout 6 points to the 'Video Scaling' column, where all four outputs are set to 'Passthrough'. Callout 7 points to the 'Signal' column, where outputs 1-3 have red dots (not detected) and output 4 has a green dot (detected).

1	Scale Mode	Use the drop-down menu to set the global scaler to downscale all scaled streams from 8K/4K to 1080p or 8K-to-4K.
2	Port	Indicates the HDMI output port number.

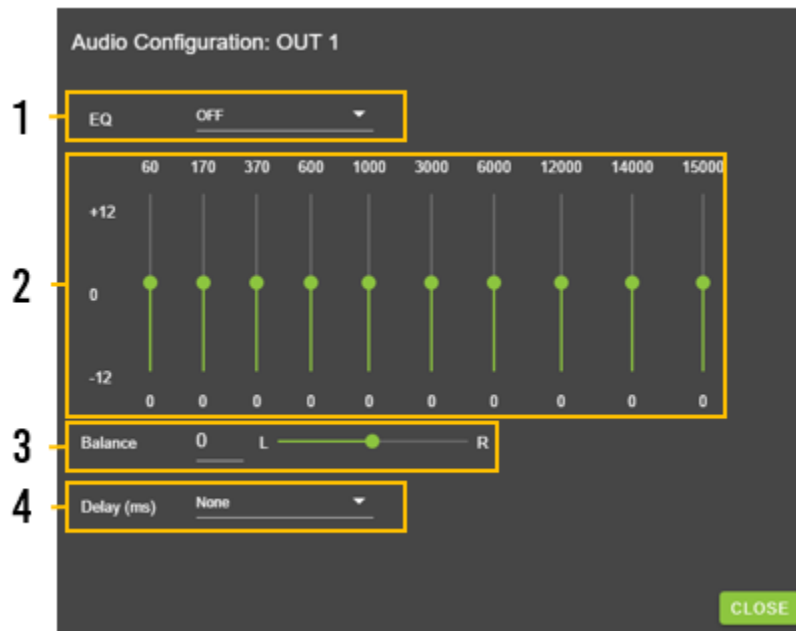
3	Label	Select the text field to enter a custom name for the output. <i>(Limited to 15 characters)</i>
4	Enabled	Select the <i>Enabled</i> toggle switch to enable (green) or disable (red) the HDMI output.
5	Pattern State	Use the drop-down to enable the test pattern selecting the resolution, 720p 60Hz, 1080p 60Hz, 4K 30Hz, 4K 60Hz, 8K 30Hz.
6	Video Scaling	Use the drop-down menu to set the HDMI output too Passthrough or Scaled Stream following the Scale Mode setting.
7	Signal	Shows the status of the HDMI Output. Green indicates the HDMI output has been detected, and red indicates the HDMI output connection or device has not been detected.

Extracted Audio Output Settings



1	Audio Mode	Extracted audio ports have three distinct modes: Bind to Input (Default): The audio port number corresponds to the input signal. This mode is ideal with systems that route audio separately to a zoned amplifier. Bind to Output: Audio automatically follows the HDMI Output. This mode is ideal for a system using a local AVR for a dedicated zone. Matrix: Extracted audio signals are routed independently of the HDMI outputs. A new tab on the Matrix page appears, allowing audio signal routing. An overview of this menu can be found here: Extracted Audio Matrix Switching .
2	Port	Indicates the audio input port number.
3	Label	Select the text field to enter a custom name for the input. <i>(Limited to 15 characters)</i>
4	Enabled	Select the <i>Enabled</i> toggle switch to enable (green) or turn off (red) an extracted audio output.
5	Volume	Adjust the volume using the slider bar or entering a value (0~100) in the text field.
6	EQ	Select to view <i>Audio Configuration</i> output settings.

Audio Configuration



1	EQ	The dropdown menu contains a list of several preset equalizer settings that may be applied to change the frequency response of the audio output.
2	Frequency	Graphic depiction detailing individual frequency band equalization to the audio signal of a particular output. NOTE: This graphic equalizer is intended only as a visual representation of the individual audio frequency adjustments. Manual adjustments cannot be made to it.
3	Balance	Adjust the Left and Right channel audio output volume by using the slider bar or entering a value (-10 to +10) in the text field. NOTE: -10 is left channel weighted, 0 is balanced, and +10 is right channel weighted.
4	Delay (ms)	Adjust the delay of audio output from 0 to 630 ms. This setting addresses lip sync issues.

System

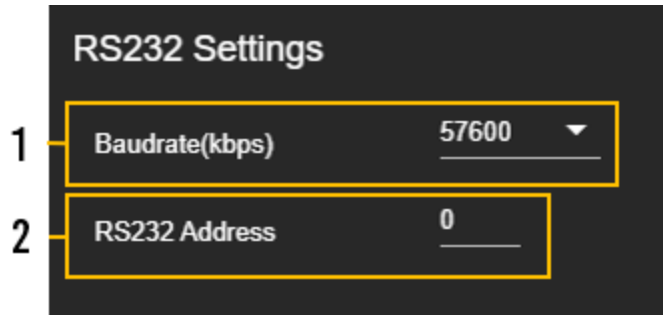
IP Settings

The screenshot shows the 'IP Settings' configuration page. It includes fields for Host Name, Model Name, Serial Number, and MAC Address. Below these is the 'IP assignment' dropdown menu set to 'Manual', followed by an 'APPLY' button. Further down are fields for IP Address, Subnet Mask, Gateway, Primary DNS, and Secondary DNS. Numbered callouts 1 through 10 point to each of these fields in order.

When the IP Assignment is set to Automatic, these will be assigned by a DHCP reservation from the router, or they can be manually entered when the *IP Assignment* is set to *Manual*. Select the *Apply* button when manually entering the *IP Assignment*, *IP Address*, *Subnet Mask*, *Gateway*, *Primary DNS*, and *Secondary DNS* for changes to take effect.

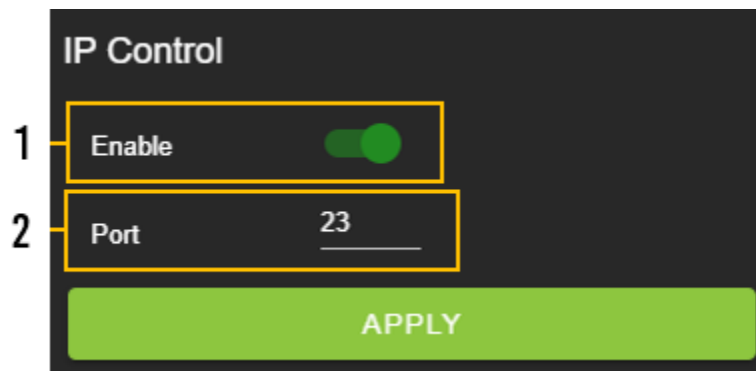
1	Host Name	Select the text field to enter a custom name for the unit. The default shows its model number.
2	Model Name	Shows the AVPro Edge model number.
3	Serial Number	Shows the unique serial number.
4	MAC Address	Shows the unique MAC address.
5	IP Assignment	Select the dropdown menu to set the unit's IP mode to <i>DHCP</i> (default) or <i>Manual (Static IP)</i> , then select the <i>Apply</i> button.
6	IP Address	Shows the IP address.
7	Subnet Mask	Shows the subnet mask.
8	Gateway	Shows the default gateway.
9	Primary DNS	Shows the primary domain name server.
10	Secondary DNS	Shows the secondary domain name server.

RS-232 Settings

A screenshot of the 'RS232 Settings' interface. It features two numbered callouts: '1' points to a 'Baudrate(kbps)' dropdown menu currently set to '57600', and '2' points to an 'RS232 Address' text field currently set to '0'. The interface has a dark background with white text and yellow callout boxes.

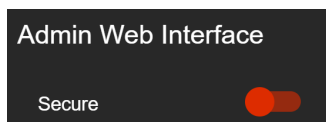
1	Baudrate (kbps)	Select the drop-down menu to set the RS-232 Baudrate.
2	RS232 Address	Shows the unit's RS-232 address, from 0-99.

IP Control

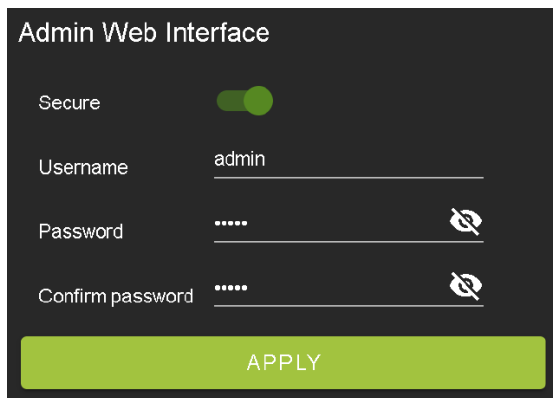
A screenshot of the 'IP Control' interface. It features two numbered callouts: '1' points to an 'Enable' toggle switch which is currently turned on (green), and '2' points to a 'Port' text field currently set to '23'. Below these fields is a large green 'APPLY' button. The interface has a dark background with white text and yellow callout boxes.

1	Enable	Select the toggle switch to turn IP/TCP control on or off.
2	Port	Select the text field to set the Telnet port. Default is Telnet port 23.

Admin Web Interface

A screenshot of the 'Admin Web Interface' section. It shows a 'Secure' label next to a toggle switch. The toggle switch is currently turned off, indicated by a red circle. The interface has a dark background with white text.

Select the *Secure* toggle switch to enable (green) or to turn off (red). When enabled, the username and password can be changed.

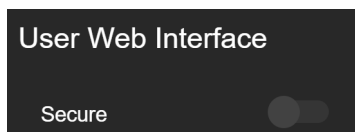


With the *Admin Web Interface* enabled, the only menu that will be accessible on the Web UI will be the **Matrix** tab page. The rest of the settings will require the *Admin* login.

Default username: *admin*

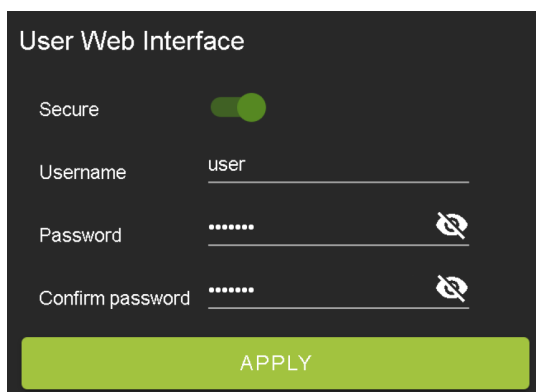
Default password: *admin*

User Web Interface



Select the *Secure* toggle switch to enable (green) or turn off (grey). When enabled, the username and password can be changed.

 **NOTE:** The *Admin Web Interface* must first be enabled before this setting can be changed.



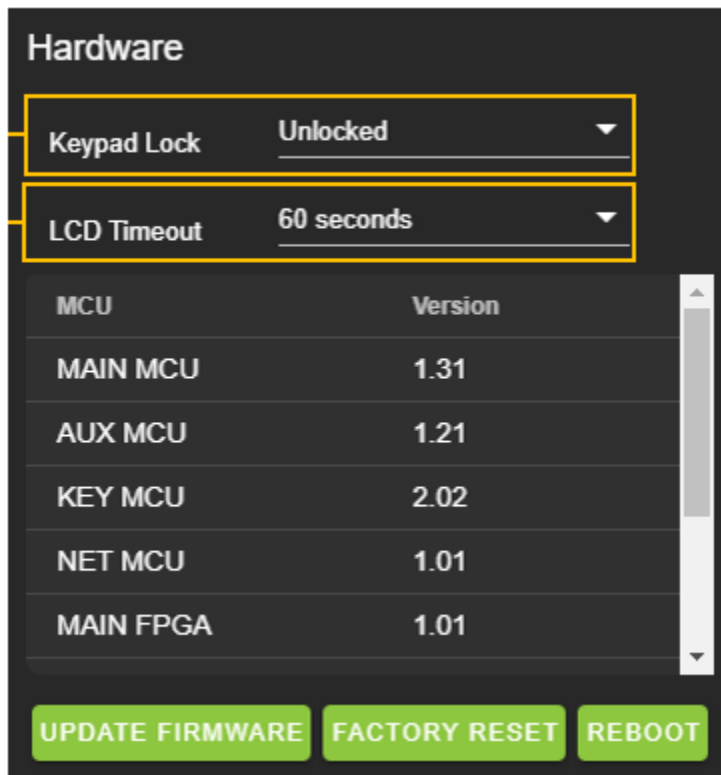
With the *Admin* and *User Web Interfaces* enabled, the Web UI's menus are inaccessible without first logging in.

After logging in with the *User* credentials, the only menu accessible on the Web UI will be the **Matrix** tab page. The rest of the settings will require the *Admin* login.

Default username: *user*

Default password: *user123*

Hardware



This section shows the unit's current firmware versions and provides options for updating firmware, factory resetting, and rebooting the unit.

1	Keypad Lock	Select the drop-down menu to select Unlocked to allow use of the front panel display and buttons or Locked to turn off the front panel display and buttons.
2	LCD Timeout	Select the drop-down menu to select the interval at which the LCD will power off due to inactivity.  NOTE: Setting the LCD Timeout to Always On may shorten the lifespan of the LCD screen or result in image burn-in.

Cloud Services and Firmware Updates

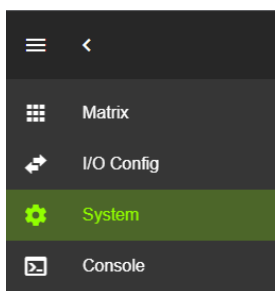
Cloud Services allows OTA (Over-the-Air) firmware updates to be performed on the unit. This allows the unit to search the Cloud for the latest firmware versions and enable third-party remote management services. If the *Cloud Services* setting is turned off, the unit will opt out of any previously enabled services and will not be able to access OTA firmware updates.

 **NOTE:** When updating firmware, some settings and configurations may revert to their original factory default settings and may need to be re-applied after the updates are complete. It is always recommended that settings and configurations are backed up before updating firmware.

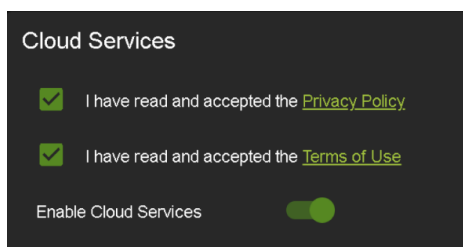
- 1 Enter in the unit's IP address into a Chrome or Edge web browser to access the unit's Web UI.



- 2 Navigate to the *System* tab page.

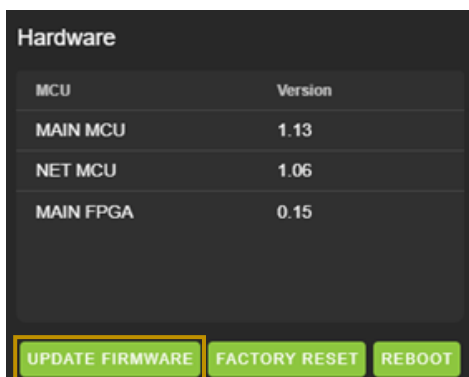


- 3 Review the *Privacy Policy* and *Terms of Use* in the Cloud Services section, then check both boxes and select *Enable Cloud Services* toggle setting

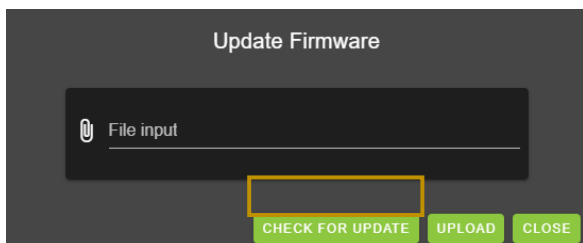


IMPORTANT: This is required for the unit to perform OTA firmware updates.

- 4 In the *Hardware* section, select the *Update Firmware* button. A new dialog box will open.



- 5 In the *Update Firmware* dialog box, select *Check for Update*. The unit will now check the Cloud for available firmware updates.



- 6 If the current firmware version is the latest, a notification window will prompt the message "No update available!" at the top of the page. Select the *Close* button.

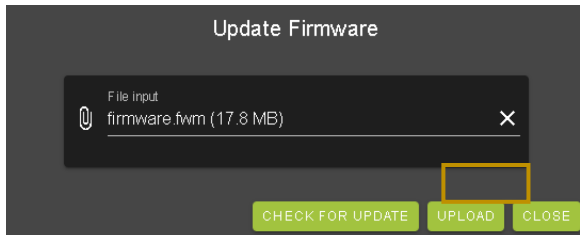


- 7 If a newer version of firmware is detected from the Cloud, a notification window will prompt the message

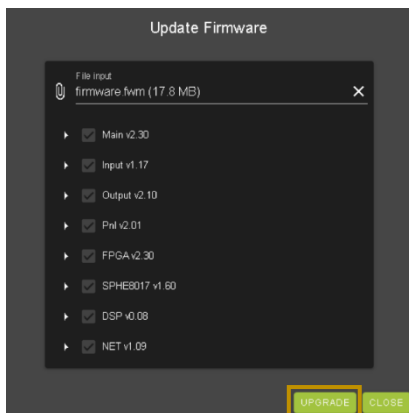
"New firmware update is available!". Select the *Update* button.



- 8 A new firmware file will automatically populate into the *File input* field from the Cloud. Select the *Upload* button.



- 9 From this screen, a newer firmware version is displayed before installation. Select the *Upgrade* button. The unit will then begin installing the latest firmware version. **DO NOT** refresh the webpage or power off the unit during the update!

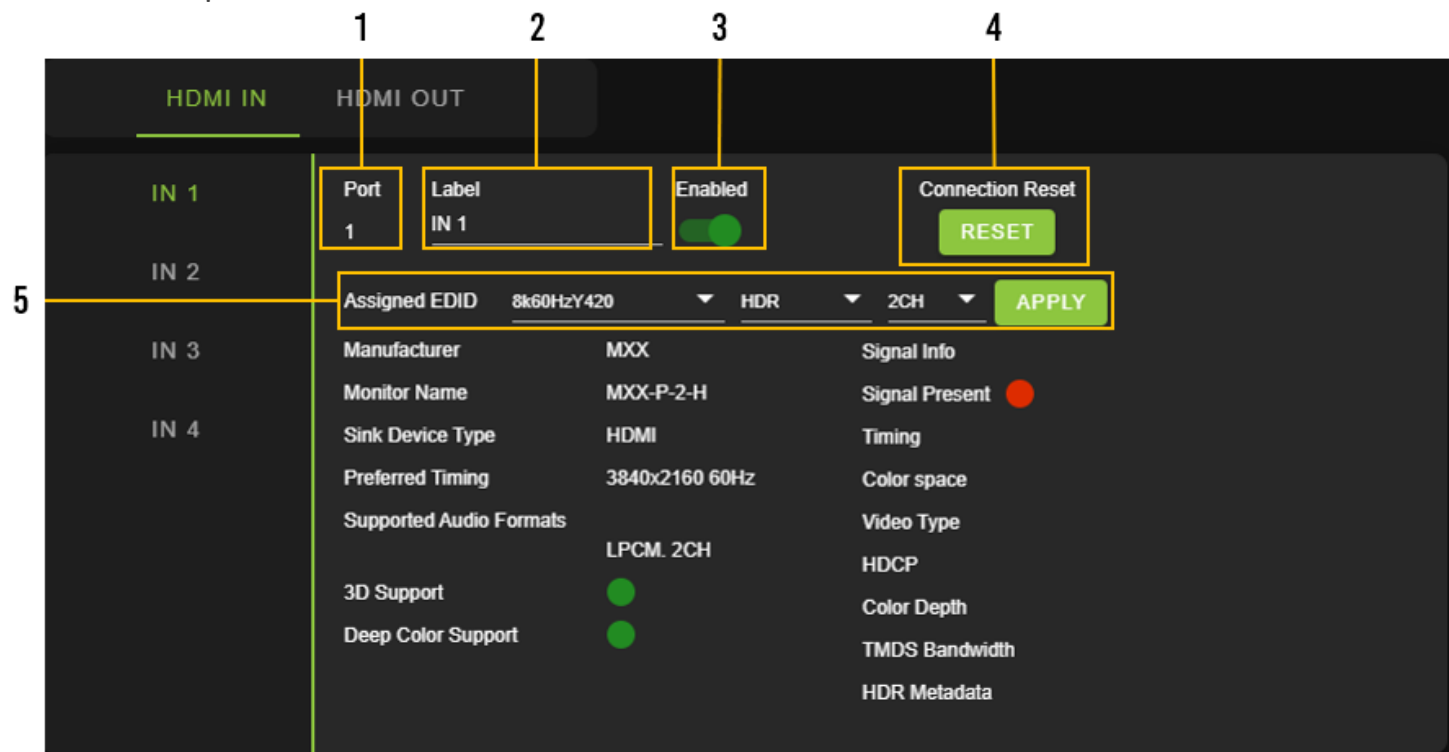


- 10 Once the progress bar reaches 100%, select the *Close* button. Once the firmware updates are complete, the unit will automatically reboot. After the unit reboots, refresh the webpage.

Diagnostics

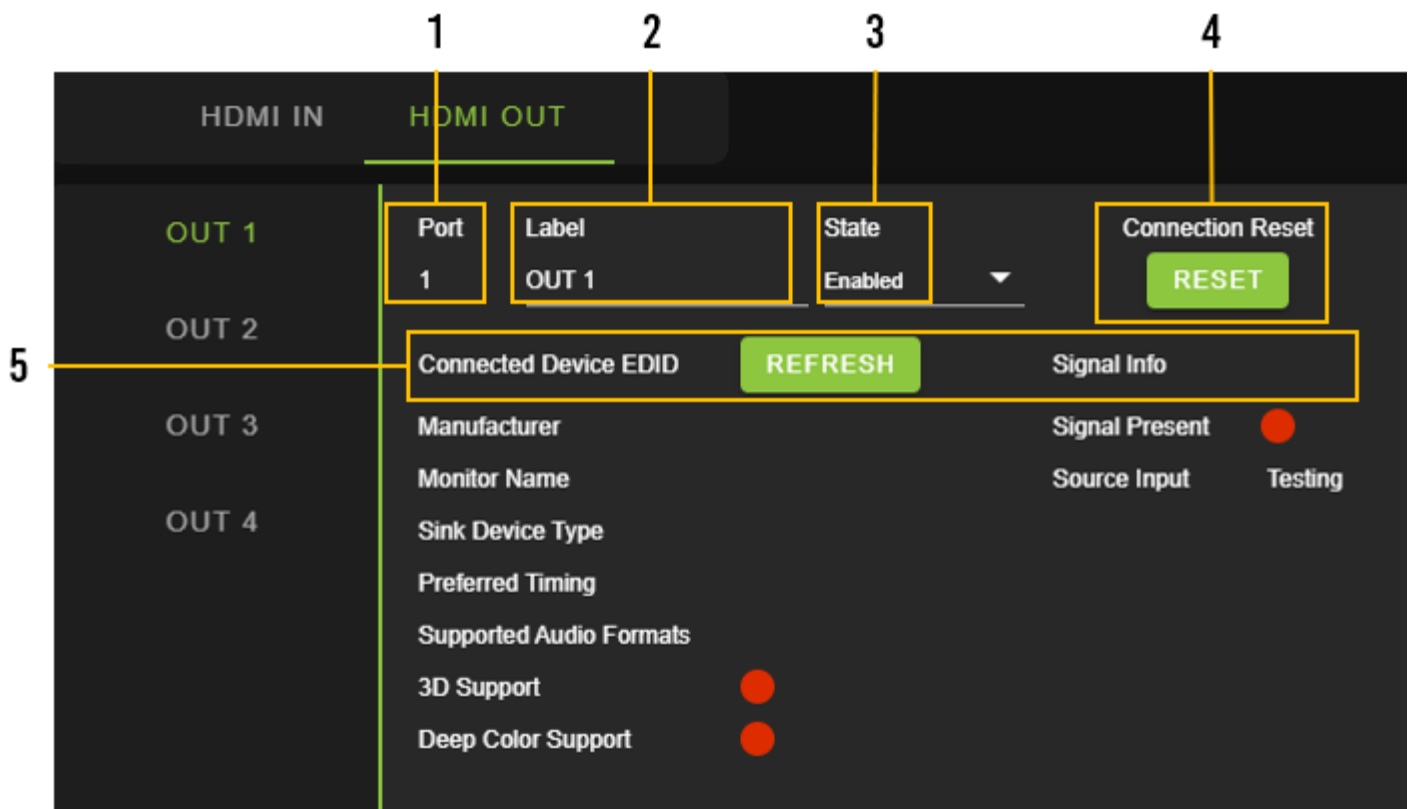
The Diagnostics menu is designed to troubleshoot issues with EDID, HDMI sources, and HDMI displays. HDMI connections can be reset, and valuable information about the source and sink devices can be obtained from the status menus.

HDMI Inputs



1	Port	Indicates the HDMI output port number.
2	Label	Select the text field to enter a custom name for the output. <i>(Limited to 15 characters)</i>
3	Enabled	Select the <i>Enabled</i> toggle switch to enable (green) or turn off (red) the HDMI input.
4	Connection Reset	Select the RESET button to reset the HDMI input.
5	EDID	Select the EDID from the drop-down menu. The first drop-down group configures resolution and refresh rate. The second drop-down group configures dynamic range, with options for HDR or SDR. The third drop-down group configures the audio channels with 2CH, 6CH, and 8CH options. NOTE: When selecting USER1, USER2, or USER3 EDID, the drop-down menus will update, allowing the user to choose an HDMI Out to copy EDID values. Select one of the four HDMI Outs and click the COPY button to apply (this replaces the APPLY button).

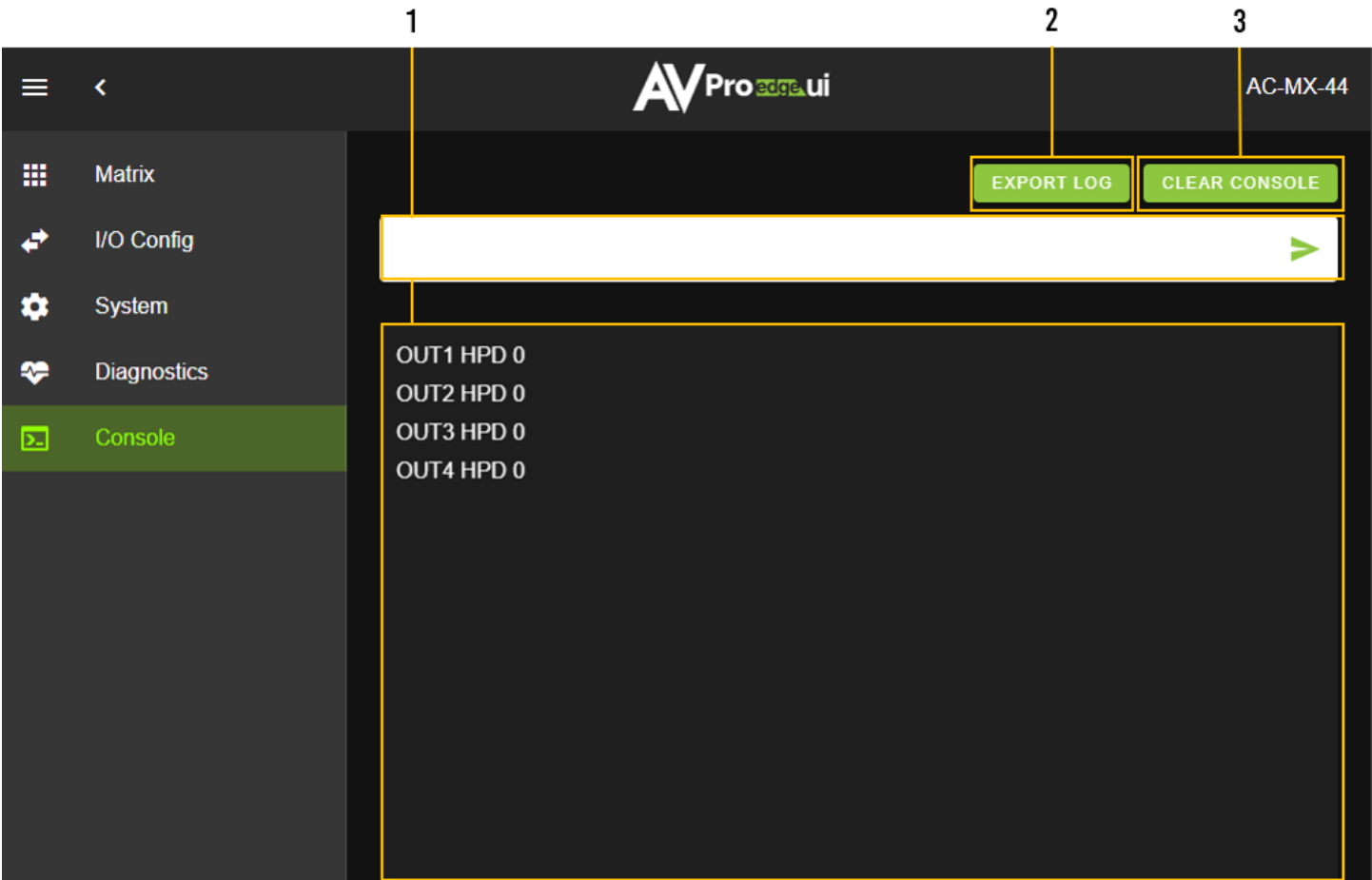
HDMI Outputs



1	Port	Indicates the HDMI output port number.
2	Label	Select the text field to enter a custom name for the output. <i>(Limited to 15 characters)</i>
3	State	You can use the drop-down menu to turn the HDMI output on or off or generate a test pattern at various resolutions and refresh rates.
4	Connection Reset	Select the RESET button to reset the HDMI input connection.
5	Refresh	Click the REFRESH button to poll the sink device (display) for EDID information.

Console

The Web UI features a built-in command console, allowing API commands to be sent directly to the unit.



1	Text Field	Enter API commands into this field. System events generated by the unit will be recorded continuously while the <i>Console</i> tab page is open within the Web UI.
2	Export Log	Select to download a .txt file of the information recorded by the console log. The console log only records unit information when the Web UI is opened to the <i>Console</i> tab page and does not record or store information internally.
3	Clear Console	Select to clear the information recorded in the console log.

Command-List

Command	Action
H	Help
STA	Show Global System Status
SET RST	Reset to Factory Defaults
SET RBT	System Reset to Reboot
SET ADDR xx	Set System Address to xx {xx = [00~99] (00 = Single)}
SET BAUDR x	Set System BaudRate to x {x = [0~5] (0=9600,1=14400,2=19200,3=38400,4=57600,5=115200)}
SET LCD ON Tx	Set LCD Remain On Time {x = [0~3] (0 = Always ON, 1 = 15, 2 = 30, 3 = 60 Sec)}
SET KEY LOCK ON/OFF	Set Key Lock On/Off
GET ADDR	Get System Address
GET STA	Get System Status
GET BAUDR	Get System BaudRate
GET INx SIG STA	Get Input x Signal Status {x = [0~4] (0 = ALL)}
GET OUTx SIG STA	Get Output x Signal Status {x = [0~4] (0 = ALL)}
GET OUTx HPD	Get HDMI Output x HPD Status {x = [0~4] (0 = ALL)}
GET INx VID FMT INF	Get Input x Video Format Info {x = [0~4] (0 = ALL)}
GET LCD ON T	Get LCD Remain On Time
GET KEY LOCK	Get Key Lock Status
Output Setup Commands: (Note: output number(x)=HDMI,x=[1~4])	
SET OUTx VS INy	Set Output x to Input y {x = [04] (0 = ALL), y = [14]}
SET OUTx SGMT y	Set Output Signal Generator Timing {x = [0~4] (0 = ALL), y = [0~5] (0 = OFF, 1 = 1080p 60Hz, 2 = 4K 30Hz, 3 = 4K 60Hz, 4 = 4K 120Hz, 5 = 8K 30Hz)}
SET OUTx VIDEOy	Set Output VIDEO Mode {x=[0~4](0=ALL), y=[0~1](0=Bypass,1=Scaled)}
SET GSCALE VFMTx	Set Global Scale Vfmt {x=[0~1](0=8K/4K->2K,1=8K->4K)}
SET OUTx EXA EN/DIS	Set Ex-Audio Output Enable/Disable {x = [0~4] (0 = ALL)}
SET OUTx EXADL PHy	Set Ex-Audio Delay {x = [0~4] (0 = ALL), y = [0~7] (0 = Bypass, 1~7 = 90,180,270,360,450,540,630 ms)}
SET EXAMX MODEx	Set Ex-Audio Matrix Mode {x = [0~2] (0 = Bind to Output, 1 = Bind to Input, 2 = Matrix)}
SET OUTx AS INy	Set Ex-Audio Output x to Input y {x = [0~4] (0 = ALL), y = [1~4]}
SET OUTx EXAUD LEVy	Set Output x EQ-Audio Volume Level y {x = [0~4] (0 = ALL), y = [0~100]}
SET OUTx EXA LVLy	Set Output x Ex-Audio (Balanced) Left Volume Level y {x = [0~4] (0 = ALL), y = [0~10]}
SET OUTx EXA RVLy	Set Output x Ex-Audio (Balanced) Right Volume Level y {x = [0~4] (0 = ALL), y = [0~10]}
SET OUTx EXEQ MODEy	Set Output x EX-Audio Volume EQ Mode y {x = [0~4] (0 = ALL), y = [0~7]} (0 = OFF, 1 = Classical, 2 = Headphone, 3 = Hall, 4 = Live, 5 = Pop, 6 = Rock, 7 = Vocal)
SET OUTx STREAM ON/OFF	Set Output x Stream ON/OFF {x = [0~4] (0 = ALL)}
GET OUTx VS	Get Output x Video Route {x = [0~4] (0 = ALL)}
GET OUTx VIDEO	Get HDMI Output x Video Mode{x=[0~4](0=ALL)}
GET GSCALE VFMT	Get Global Scale Vfmt
GET OUTx SGMT	Get Output Signal Generator Timing Status {x = [0~4] (0 = ALL)}
GET OUTx EXA	Get Ex-Audio Output Enable/Disable Status {x = [0~4] (0 = ALL)}
GET OUTx EXADL PH	Get Ex-Audio Output Delay Status {x = [0~4] (0 = ALL)}
GET EXAMX MODE	Get Ex-Audio Matrix Mode
GET OUTx AS IN	Get Output x Ex-Audio Route {x = [0~4] (0 = ALL)}
GET OUTx EXAUD LEV	Get Output x EQ-Audio Volume Level {x = [0~4] (0 = ALL)}
GET OUTx EXA LVL	Get Output x Ex-Audio (Balanced) Left Volume Level {x = [0~4] (0 = ALL)}
GET OUTx EXA RVL	Get Output x Ex-Audio (Balanced) Right Volume Level {x = [0~4] (0 = ALL)}
GET OUTx EXEQ MODE	Get Output x EX-Audio Volume EQ Mode Status {x = [0~4] (0 = ALL)}

GET OUTx STREAM	Get Output x Stream ON/OFF Status {x = [0~4] (0 = ALL)}	
GET OUTx EDID DATA	Get Output x EDID Data {x = [1~4]}	
GET OUTx CRC VAL	Get Output x CRC Value {x = [0~4] (0 = ALL)}	
Input Setup Commands:(Note:input number(x)=HDMI(x),x=[1-4])		
SET INx EDID y	Set Input x EDID{x=[0~4](0=ALL), y=[0~23](None:[18~20])}	
0. 1080P_2CH_SDR	1. 1080P_6CH_SDR	2. 1080P_8CH_SDR
3. 4K60Hz_2CH	4. 4K60Hz_6CH	5. 4K60Hz_8CH
6. FRL3_4K120Hz_Y420_2CH	7. FRL3_4K120Hz_Y420_6CH	8. FRL3_4K120Hz_Y420_8CH
9. FRL3_8K30Hz_Y420_2CH	10. FRL3_8K30Hz_Y420_6CH	11. FRL3_8K30Hz_Y420_8CH
12. FRL5_4K120Hz_10b_2CH	13. FRL5_4K120Hz_10b_6CH	14. FRL5_4K120Hz_10b_8CH
15. FRL5_8k60Hz_Y420_2CH	16. FRL5_8k60Hz_Y420_6CH	17. FRL5_8k60Hz_Y420_8CH
21. USER1_EDID	22. USER2_EDID	23. USER3_EDID
SET INx EDID CY OUTy	Copy Output y EDID To Input x(USER1 BUF){x=[0~4](0=ALL), y=[1~4]}	
SET INx Uy EDID CY OUTz	Copy Output z EDID To User y Buff Input x{x=[0~4](0=ALL), y=[1~3],z=[1-4]}	
SET INx EDID Uy DATAz	Write EDID To User y Buffer of Input x{x=[0~4](0=ALL), y=[1-3],z=[EDID Data]}	
SET INx TMDS ON/OFF	Set Input x Port Power Status ON/OFF {x = [0~4] (0 = ALL)}	
GET INx EDID	Get Input x EDID Index {x = [0~4] (0 = ALL)}	
GET INx EDID y DATA	Get Input x EDID y Data {x = [1~4] (0 = ALL), y = [0~23]}	
GET INx TMDS	Get Input x Port Power Status {x = [0~4] (0 = ALL)}	
Network Setup Command: (xxx=[000-255], zzzz=[0001~9999]		
SET RIP xxx.xxx.xxx.xxx	Set Route IP Address to xxx.xxx.xxx.xxx	
SET HIP xxx.xxx.xxx.xxx	Set Host IP Address to xxx.xxx.xxx.xxx	
SET NMK xxx.xxx.xxx.xxx	Set Net Mask to xxx.xxx.xxx.xxx	
SET TIP zzzz	Set TCP/IP Port to zzzz	
SET DHCP y	Set DHCP {y = [0~1] (0 = Disable, 1 = Enable)}	
GET RIP	Get Route IP Address	
GET HIP	Get Host IP Address	
GET NMK	Get Net Mask	
GET TIP	Get TCP/IP Port	
GET DHCP	Get DHCP Status	
GET MAC	Get MAC Address	
IR Code Setup Command:		
SET IR SYS xx.yy	Set IR Custom Code {xx = [00-FFH], yy = [00-FFH]}	
SET IR OUTx INy CODE zz	Set IR Data Code {x = [1~4], y = [1~4], zz = [00-FFH]}	
GET IR SYS	Get IR Custom Code	
GET IR OUTx INy CODE	Get IR Data Code {x = [1~4], y = [1~4]}	

Troubleshooting

- Verify Power – Ensure the power supply is connected correctly and on an active circuit.
- Verify Connections – Ensure all cables are securely connected and properly terminated.
- Verify Current Versions—Ensure that any firmware/software/driver updates are available for the devices.
- No Sound—Verify that the signal being sent is compatible with the connected devices in the signal chain. Ensure the device's volume level is properly adjusted and not set to mute. If a signal is present from the input source, the selected output(s) will have a visible red optical light that can be seen from the TOSLINK port.
- Static, Buzzing, or Humming Noises - Use shielded RCA cables between the AC-MX-44X and analog devices to reduce noise. Make sure the matrix is grounded to metal components like racks or conduit. This helps prevent ground loops, which can cause unwanted audio buzzing or humming.

Maintenance

Please observe the following instructions to ensure the reliable operation of this product and protect the safety of any person using or handling this device while powered.

- Use the provided power supply. If an alternate supply is required, check its voltage and polarity to ensure that it has sufficient power to supply the device.
- Do not operate these products outside the specified temperature and humidity range in the above specifications.
- Ensure there is adequate ventilation to allow this product to operate efficiently.
- Equipment repair should only be carried out by qualified professionals, as these products contain sensitive components easily damaged by mistreatment.
- Only use this product in a dry environment. Do not allow any liquids or harmful chemicals to come into contact with these products.
- Clean this unit with a soft, dry cloth. Never use alcohol, paint thinner, or benzene for cleaning.

Damage Requiring Service

The unit should be serviced by qualified service personnel if:

- The DC power supply cord or AC adapter has been damaged
- Objects or liquids have gotten into the unit
- The unit has been exposed to rain
- The unit does not operate normally or exhibits a marked change in performance
- The unit has been dropped, or the housing damaged

Support

If you experience any problems while using this product, refer to the Troubleshooting section of this manual before contacting Technical Support. When calling, the following information should be provided:

- Product name and model number

- Product serial number
- Details of the issue and any conditions under which the issue is occurring
- Clean this unit with a soft, dry cloth. Never use alcohol, paint thinner, or benzene to clean this unit.

Warranty

The Basics

AVPro Edge warranties its products purchased from Authorized AVPro Edge Resellers or direct purchases. Products are guaranteed free from manufacturing defects and in sound physical and electronic condition.

AVPro Edge has developed a warranty that anyone can support. We wanted to remove all the “red tape” from a warranty and make it simple. Our 10-year NO-BS warranty hinges on three elements:

- If you are having trouble, call us. We will attempt to troubleshoot your issue over the phone.
- If it's broken, we will replace it in advance on our dime and cover the return shipping. Repair is an option, too, but that is YOUR call.
- We know you know what you are doing. We will not make you go through unnecessary steps to troubleshoot an extender...

Coverage Details

AVPro Edge will replace or repair (at the customer's choice) any defective product within the warranty period. If the product is out of stock or on backorder, it can be replaced with a comparable product of equal value/feature set (if available) or repaired.

Your warranty begins upon receipt of the product (as confirmed by the shipping firm's tracking). If tracking information is unavailable, the warranty will commence 30 ARO (After Receipt of Order). The coverage continues for 10 years.

Red Tape

AVPro Edge is not responsible for untraceable purchases or those made outside an authorized channel.

If we conclude that a product or serial number has been tampered with, as identified by the warranty seal or physical examination, the warranty will be void. Additionally, excessive physical damage (beyond normal wear and tear) may result in the warranty being voided or prorated based on the extent of the damage, as examined by an AVPro Edge representative.

Damage caused by “acts of God” is not covered. These can include natural disasters, power surges, storms, earthquakes, tornadoes, sinkholes, typhoons, tidal waves, hurricanes, or any other uncontrollable event related to nature.

Damage caused by incorrect installation will not be covered. Examples include an incorrect power supply, inadequate cooling, improper cabling, inadequate protection, and static discharge.

The Authorized AVPro Edge Reseller will service products installed or sold by a third party to AVPro Edge. The warranty does not include accessories (IR Cables, RS-232, Power Supplies, etc.). We will make acceptable efforts to source and supply replacements for defective accessories at a discounted rate as needed.

Obtaining an RMA

Dealers, Re-sellers, and Installers can request an RMA from the AVPro Edge Tech Support Rep or their Sales Engineer.

You may also email support@avproedge.com or fill out the general contact form at avproedge.com/contact

End users may not request an RMA directly from AVPro Edge and will be referred back to the Dealer, Re-seller, or Installer.

Shipping

For the USA (not including Alaska and Hawaii). Shipping is covered on advanced replacements for FedEx Ground (some expressed exceptions may apply). Defective product return shipping is covered by AVPro Edge using an emailed return label. Items must be returned within 30 days of receipt of the replacement product; after 30 days, the customer will be billed. Other return shipping methods will not be covered.

The returnee will be responsible for the shipping costs for International (and Alaska and Hawaii) returns. Once the unit is scanned for return shipping, AVPro Edge will ship the new unit for replacement.

Limitation on Liability

AVPro Global Holdings LLC's maximum liability under this limited warranty shall not exceed the actual purchase price paid for the product. AVPro Global Holdings LLC is not responsible for direct, special, incidental, or consequential damages resulting from any breach of warranty or condition or under any other legal theory to the maximum extent permitted by law. Taxes, Duties, VAT, and freight forwarding service charges are not covered or paid for by this warranty.

This warranty does not cover obsolescence or incompatibility with newly invented technologies (after the product's manufacture).

Obsolescence is defined as:

"Peripherals are rendered obsolete when current technology does not support product repair or re-manufacture. Obsolete products cannot be re-manufactured because advanced technologies supersede original product manufacturer capabilities. Product redevelopment is not an option because of performance, price, and functionality issues."

Discontinued or out-of-production items will be credited toward a current product of equal or comparable capabilities and cost at fair market value. AVPro Edge determines fair market value.

Exclusive Remedy

This limited warranty and the remedies above are exclusive to the maximum extent law permits, instead of all other warranties, remedies, and conditions, whether oral or written, express or implied. To the maximum extent permitted by law, AVPro Global Holdings LLC expressly disclaims any implied warranties, including, without limitation, warranties of merchantability and fitness for a particular purpose. If AVPro Global Holdings LLC cannot lawfully disclaim or exclude implied warranties under applicable law, all implied warranties covering this product, including merchantability and fitness for a particular purpose, shall apply to this product as provided under applicable law.

This warranty supersedes all other warranties, remedies, and conditions, whether oral or written, express or implied.