AC-FRESCO-44

User manual

2x2 4K Video Wall Processor

Contents

Important Safety Instructions

Before installing, configuring, and operating the devices 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 the devices and equipment.
Tip:	Provides suggestions and considerations for installing, configuring, and operating the devices and equipment.
Important:	Provides special information that is critical for installing, configuring, and operating the devices and equipment.
Caution:	Provides special information for avoiding situations that may cause damage to the devices and 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 the devices and equipment.
Electrical Disconnect:	Provides special information for avoiding situations that may cause damage to the devices and equipment.

Weight Injury Prevention

Weight Injury:	Installing some of the devices and equipment requires two installers to ensure safe handling during installation. Failure to use two installers may result in injury.

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 their accessories should never be exposed to open 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 apparatus that produce heat.

10 Do not defeat the safety purpose of the polarized / grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade, or third prong, are provided for your safety.

11 Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where they exit from the devices.

12 Unplug the devices during lightning storms or when unused for long periods of time.

13 To reduce the risk of electrical shock or damage to the devices and their operators, never handle or touch the devices and power cord with damp or wet hands.

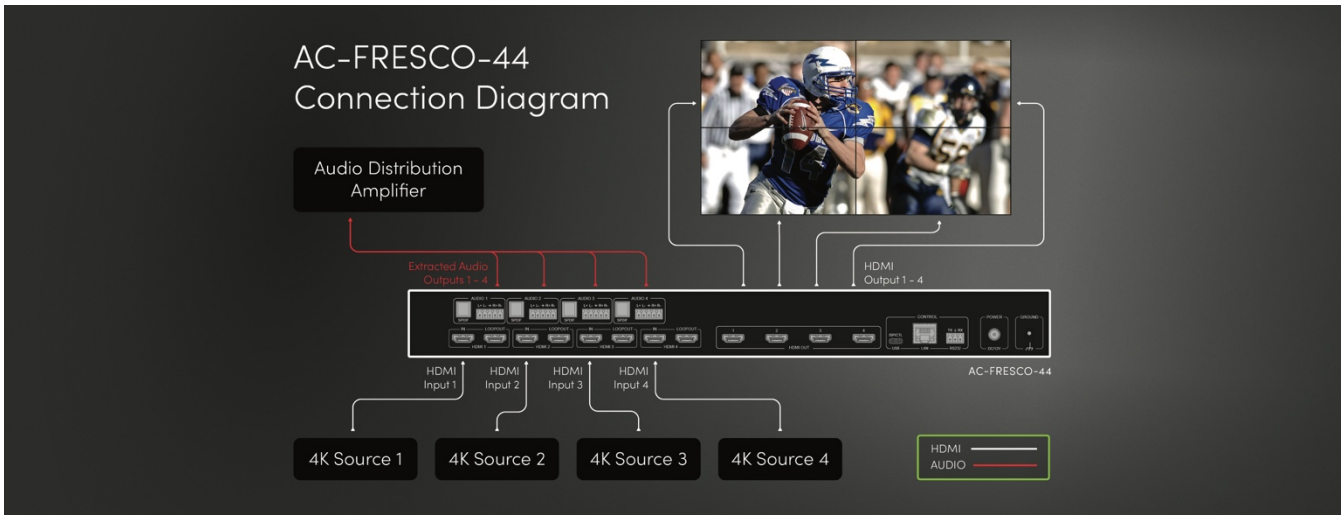
14 To reduce the risk of injury, some of the devices and equipment may require two installers to ensure safe handling during installation. Failure to use two installers may result in injury.

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 is damaged, liquid has been spilled, objects have fallen into the devices, the devices have been exposed to rain or moisture, do not operate normally, or have been dropped.

Introduction

The AC-MX-FRESCO-44 is a powerful and flexible 18 Gbps video wall processor and HDMI matrix switcher, featuring four HDMI inputs and four outputs. It supports resolutions up to 4K/60Hz 4:4:4 with HDR and Dolby Vision, making it ideal for professional AV setups in conference rooms, sports bars, casinos, and home theaters. Create stunning 2x2 video walls with intuitive cropping and scaling, easily managed via a web interface or front panel. Built-in features include audio embedding/de-embedding, EDID management, and test pattern generation for fast setup and reliable performance.

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



Features

- Two Operating Modes:
  - *Video Wall Mode*: 2x2 Video Wall Processor
  - *Matrix Mode*: 4x4 switch HDMI Matrix Switcher
- HDMI sources up to 18 Gbps 4K/60 Hz with HDR and Dolby Vision support
- Advanced EDID management to overcome issues with legacy displays and equipment
- Scaling, cropped and bezel compensation to customize video wall output
- RS-232 interface for control and integration into control systems
- Intuitive user interface for easy installation and configuration with additional limited user UI
- 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

Product Overview

Box Contents

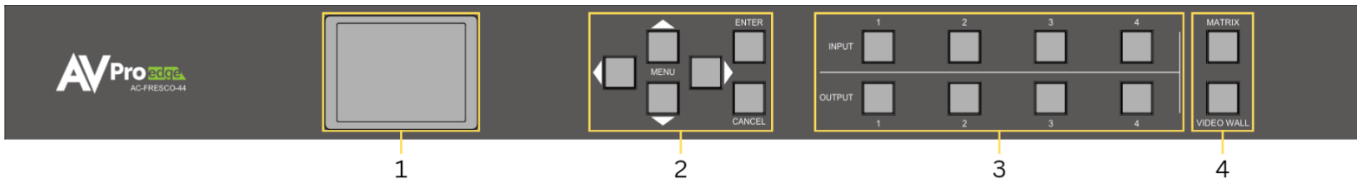
(1x) AC-FRESCO-44 2x2 Video Wall Processor
(2x) 1U Rack Mounting Brackets
(6x) Screws for Mounting Brackets
(4x) x Rubber Feet & Screws
(4x) 5-Pin 2 Channel Audio Extraction Cables
(1x) 3-Pin Terminal Block Connector
(1x) 12V Locking Power Supply
(1x) Grounding Cable

Technical Specifications

Video:	
Video Resolutions	Up to 4K60
HDR Formats/Resolutions	420, 422, 444 (10 AND 12 DEEP COLOR) HDR10, HDR10+, DOLBY VISION, HLG
Color Space	YUV (Component), RGB (CSC: Rec. 601, Rec. 709, BT2020, DCI, P3 D6500)
Chroma Subsampling	4:4:4, 4:2:2, 4:2:0 Supported
Deep Color	Up to 16 bit
Output Timing Format	4K60HzRGB, 4K60HzY420, 4K30HzY444, 1080p60Hz, 720p60Hz, EDID Preferred Timing, 1080P60HzYUV12Bit
Audio:	
Audio Formats Supported HDMI	PCM 2.0 Ch, LPCM 5.1 & 7.1, Dolby Digital, DTS 5.1, Dolby Digital Plus, Dolby TrueHD, DTS-HD Master Audio, DTS-X, Dolby Atmos
Audio Formats Supported Extracted (TOSLINK)	LPCM up to 5.1 96KHz 24 Bit, Dolby Digital 5.1, DTS HiRes Audio
Audio Formats Supported Extracted (2CH 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 (4k60 4:4:4)	UP TO 50 FEET (USING BULLET TRAIN HDMI)
HDMI In/Out (W/ AOC Cable) (4k60 4:4:4)	UP TO 130 FEET (USING BULLET TRAIN AOC)
Other:	
Bandwidth	18 Gbps (TMDS)
HDCP	HDCP 2.3 and Earlier
Control:	
Ports	Lan, RS232, USB-C
Drivers	C4, RTI, ELAN, URC (for more - see Drivers Page)
AVPro WebUI	Yes
Ports:	
HDMI	Type A
HDMI Loopout	Type A
LAN	RJ45 w/ Web Interface/ Control
Audio (Extracted Digital)	Toslink
Audio (Extracted Analog)	5 PIN Terminal Block (Balanced)
ISP/CTL	USB C
RS232	3 Pin Terminal Block
Environmental:	
Operating Temperature	23 to 125°F (-5 to 51°C)
Storage Temperature	-4 to 140°F (-20 to 60°C)
Humidity Range	5-90% RH (No Condensation)
Power:	
Power Consumption (Total)	33 W Max
Power Supply	Input: AC 100-240 V ~ 50/60 Hz Output: DC 12 V 5 A
Dimensions:	
Dimensions (Unit Only Length/Width/Height)	mm: 227.1 X 441.452 X 44.5 inch: 8.94 X 17.38 X 1.75
Dimensions (Packaged Length/Width/Height)	mm: 377.952 X 571.5 X 128.6 inch: 14.88 X 22.5 X 5.063
Weight (Unit)	6.29 lbs (2.85 Kg)
Weight (Packaged)	8.98 lbs (4.07 Kg)
*Specifications subject to change without notice. Mass & dimensions are approximate	

Front and Rear Panel Overview

Front Panel



Rear Panel

1	**Front Panel Display**	• Front panel display for settings and status • Up, Down, Menu and Back buttons for navigation • IP settings and EDID can be changed from front panel
2	**Front Panel buttons**	• Push-button controls (Up, Down, Left, Right, Enter, Cancel) • Use buttons to navigate the front panel display menu
3	**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
4	**Matrix/ Video Wall**	• Push-button controls to select the Matrix or Video Wall work modes
5	**HDMI INPUT (1-4)** **HDMI Loop Out (1-4)**	• (8x) 19-pin HDMI Type-A female connector port • HDMI source signal input connections
6	**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
7	**HDMI OUTPUT (1-4)**	• (4x) 19-pin HDMI Type-A female connector ports • HDMI signal output to display connections
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	**Power In**	• Barrel Connector • 12 VDC / 5 A power unit
12	**Ground**	• Ground screw • Connect the provided wire to Earth ground

Installation

Rack Mounts

The AC-FRESCO-44 can be mounted in a 1U rack-style enclosure and is compatible with all standard 19-inch rack mounts. The (2x) mounting brackets are included with the purchase of a unit.

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

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

Wiring and Connections

HDMI Cables

The AC-FRESCO-44 uses the standard 19-pin HDMI female connector ports for the inputs and outputs.

Some important things to consider when planning or installing this device:

- Ensure all HDMI cables and devices can support the signal being sent. For most 4K and below use cases, a High-Speed HDMI cable with Ethernet rated for 18Gbps will be more than sufficient to satisfy signal transport if every device in the system can handle the signal.
- Ensure your HDMI cable is the correct length. The current HDMI specification calls for cables to be between 2 to 10 meters (6.6 to 33 feet) for 4K and below signals. Smaller wire cables may be unable to transmit higher bandwidth signals.

USB Ports

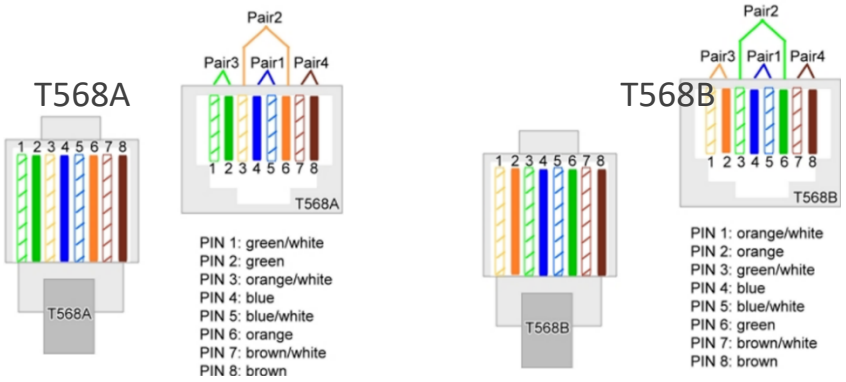
The device also has one USB Type C port and is only a servicing port intended for AVPro Edge technical support in the event of troubleshooting and testing.

Type

Ethernet/LAN

The NETWORK/LAN port located on the rear panel is used to communicate with the AC-FRESCO-44 via a LAN, router, or third-party control system processor and uses a standard RJ45 connector plug.

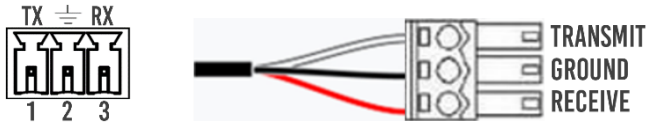
The recommended termination is based on the TIA/EIA T568A or T568B standards for the wiring of the twisted pair cables. For TCP/IP control, commands use Telnet port 23.



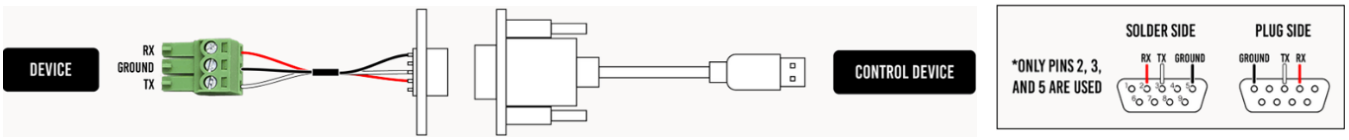
RS-232 Control

The RS-232 control port located on the rear panel is used to communicate with the AC-FRESCO-44 via a computer or third-party control system.

Serial control connections are made using the provided 3-pin terminal block connector. The wire slips into the hole and locks with a screw located at the top of the connector.

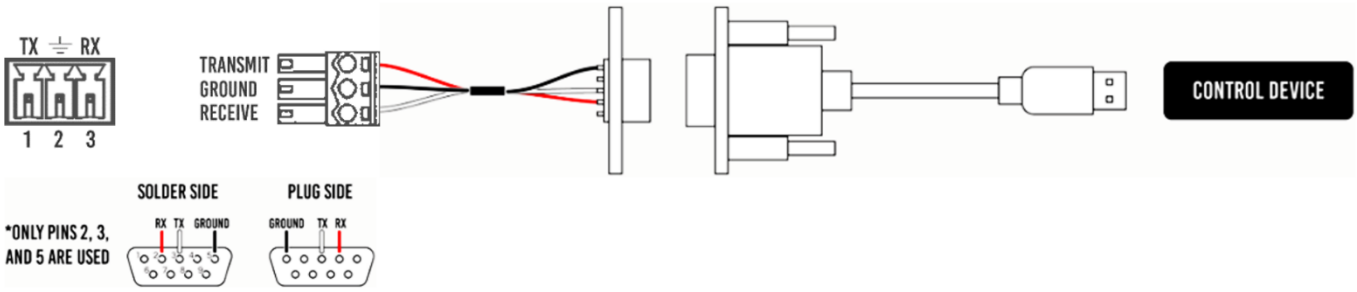


Wiring for this port uses a 3-pin terminal block connector to DB9, where only pins 2, 3, and 5 are used. If the control devices do not have a DB9 port, a USB to DB9 adapter may be required.



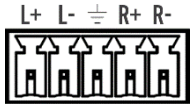
For RS-232 control, use a null modem serial cable adapter and set the serial communications to:
Baud: 57600, no parity, 8 data bits, 1 stop bit, with no handshaking.

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



Balanced audio output port

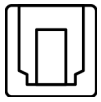
The AC-FRESCO-44 has four 5-pin terminal block balanced audio output port.



5-pin terminal block pin-out

S/PDIF Audio Output Ports

The AC-FRESCO-44 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

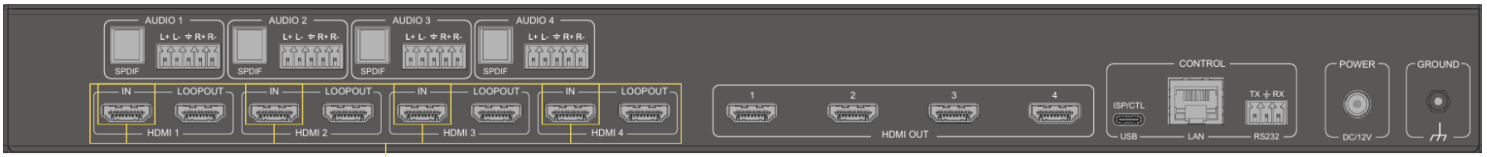
▲ Electric Shock:	Use a surge-protected circuit for all components and power supplies.
▲ Electrical Disconnect:	The power source outlet and power supply input sockets should be easily accessible to disconnect power in the event of an electrical hazard or malfunction.

Initial Setup

Make physical connections to the input and output devices using the following steps below. For the initial setup, it is recommended to connect the AC-FRESCO-44 to a LAN (Local Area Network) using a control PC on the same network once all the physical connections are made followed by accessing the Web UI.

Connecting Devices

1 Connect the HDMI input source(s) to the HDMI INPUT connector on the rear of the AC-FRESCO-44.



Connect HDMI Inputs

2 Connect the HDMI displays/devices to the HDMI OUTPUT(s) on the rear of the AC-FRESCO-44.

Connect HDMI Outputs

3 Connect the video wall processor to the LAN or directly to a PC using an RJ45 cable on the ETHERNET port on the rear of the AC-FRESCO-44.

Connect LAN

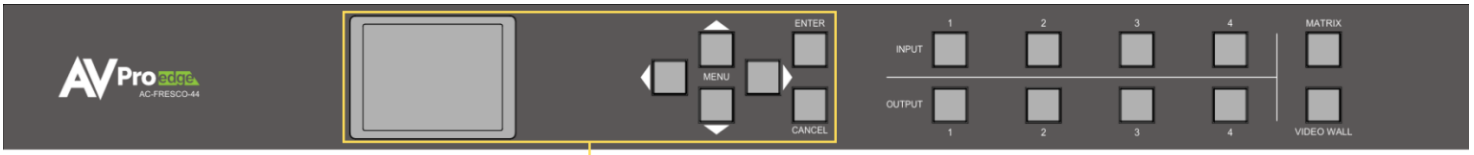
4 Power on the source(s) connected to the HDMI INPUT port.

5 Power on the sink(s) connected to the HDMI OUTPUT port(s).

6 Connect the 12V power supply to the POWER input port on the rear of the AC-FRESCO-44, then plug the power supply into a suitable power source.

Connect Power Supply

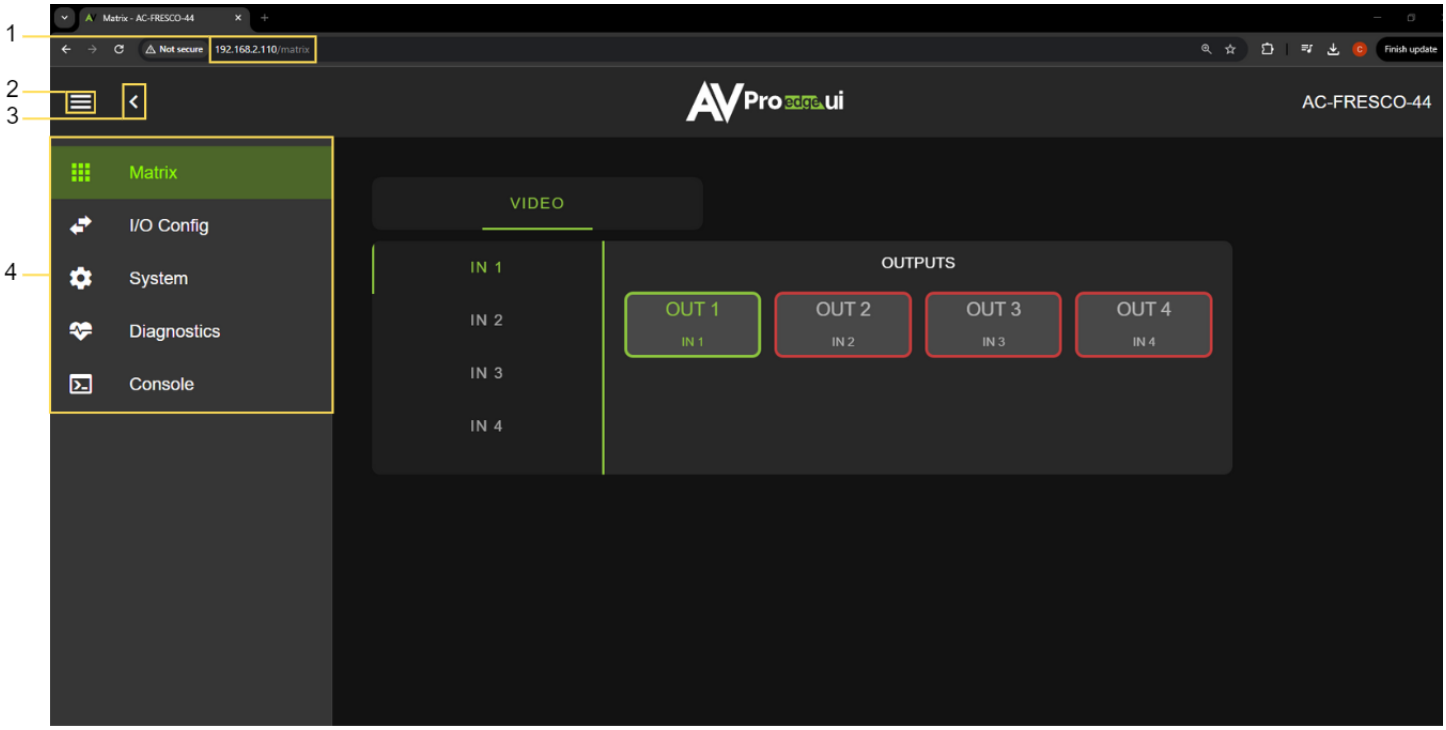
7 To check the current IP settings, use the front panel display and buttons to navigate to the menu option labeled NET. Press MENU, DOWN, and then MENU for IP settings.



Front Panel Display &
Navigation Buttons

Navigating the Web UI

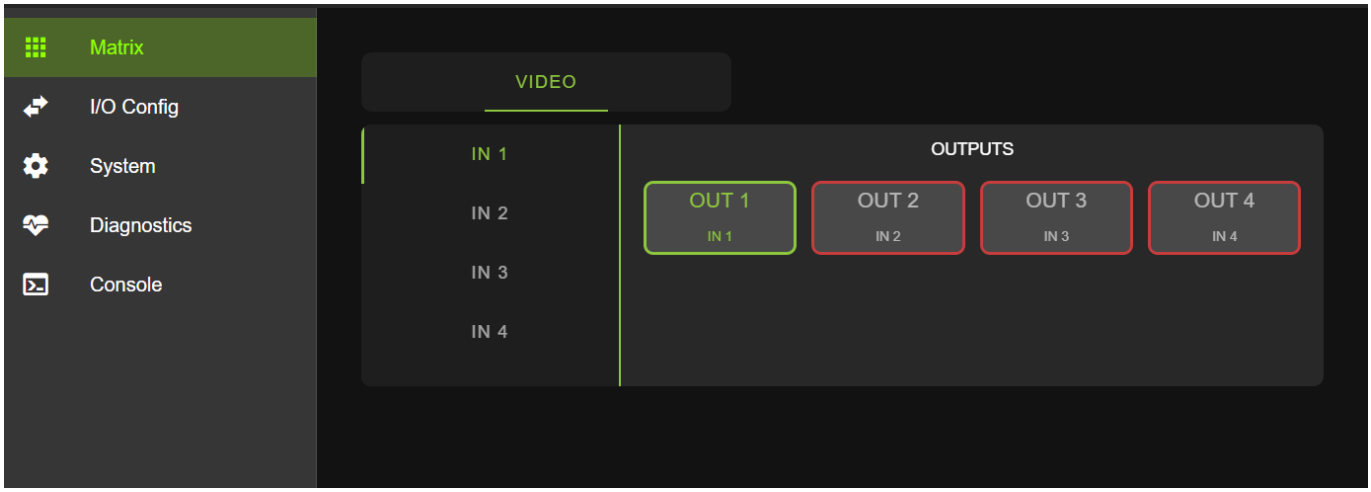
The AC-FRESCO-44 features the built-in User Interface (UI) that can be accessed through a web browser for configuration and control. Different tools and settings can be selected from the tab pages located on the navigation menu column on the left side of the screen.



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

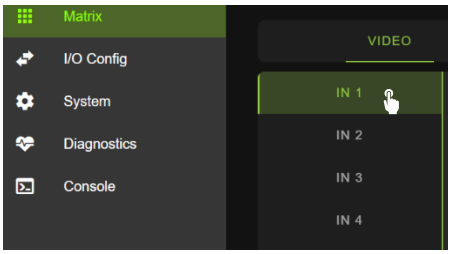
Matrix

The **Matrix** page layout consists of the **Video** *Inputs* column on the left and the *Outputs* grid on the right. Each *Input* and *Output* can be individually selected to route the input's audio signals to the output(s).

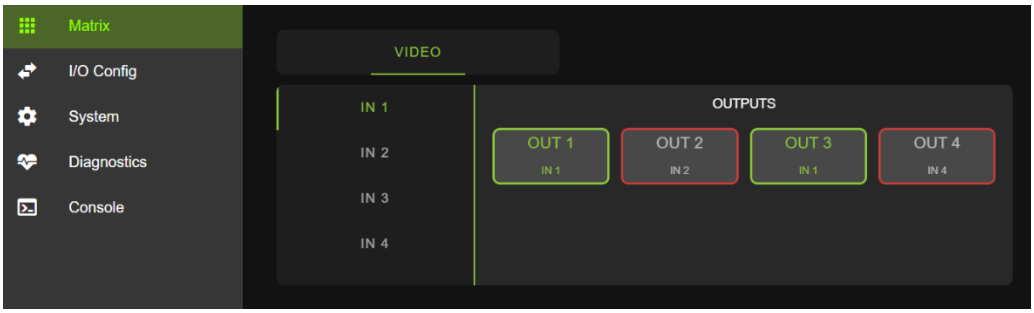


Video Matrix Switching

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



2 From the *Outputs* grid, select the desired output(s) to route the selected input to. This will highlight the output(s) with a green border to indicate the selection was made.

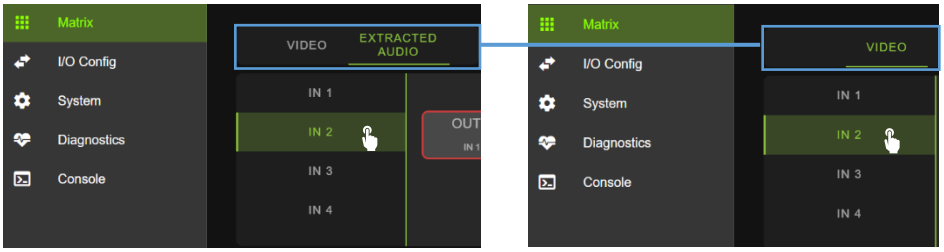


3 The selected input's video signals are now routed to the selected output(s).

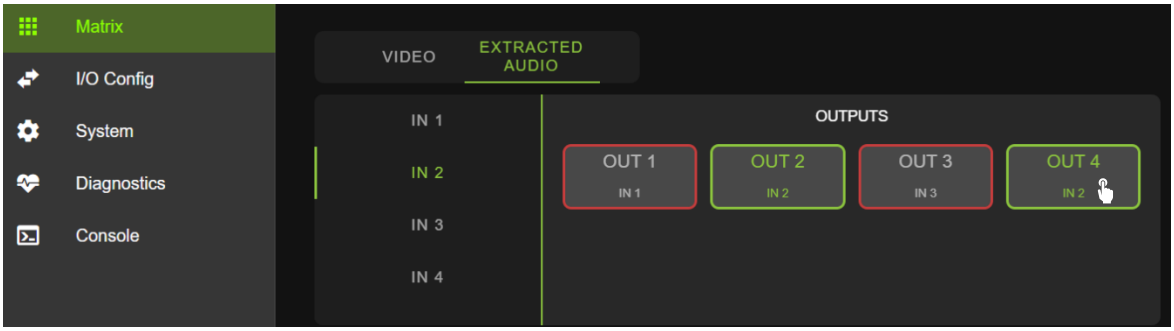
Audio Matrix Switching

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

NOTE: The extracted audio ports can only be manually changed (matrixed) when in Matrix Mode. When the extracted audio is set to Bind to Input (default) or Bind to Output then this tab will not be visible, example below.



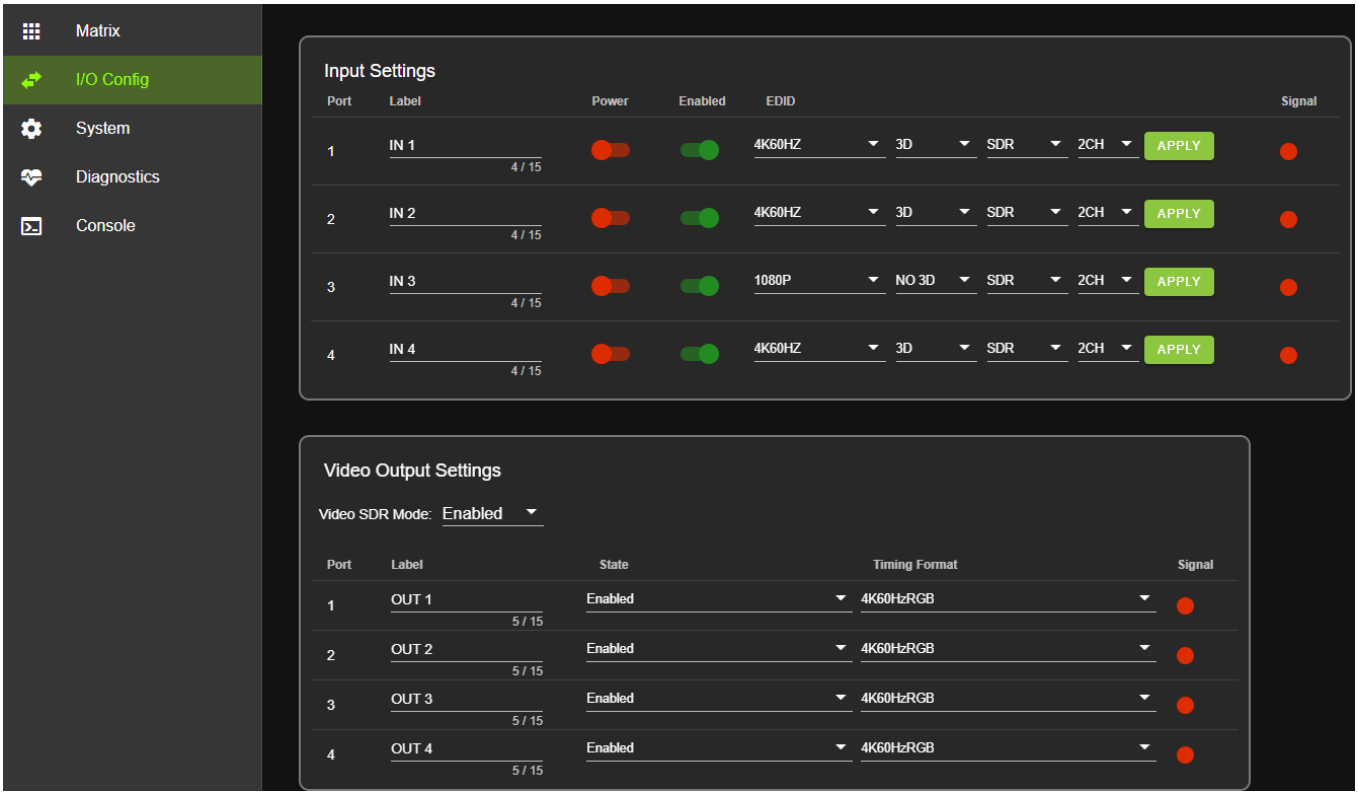
2 From the *Outputs* grid, select the desired output(s) to route the selected input to. This will highlight the output(s) with a green border to indicate the selection was made.



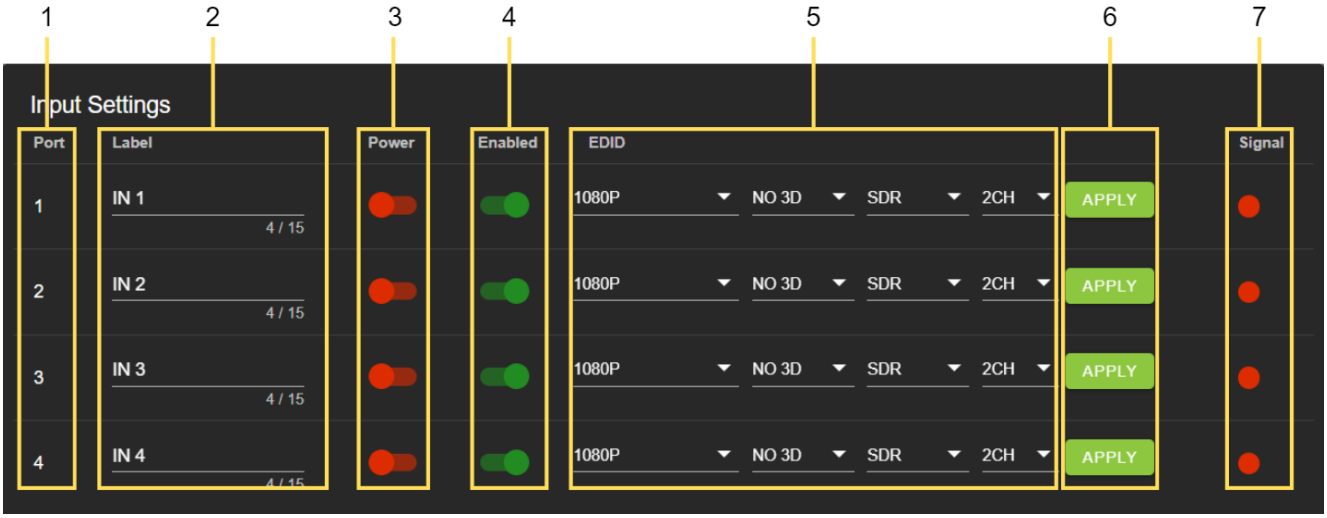
3 The selected input's audio signals are now routed to the selected output(s).

I/O Config

The **Config** tab page features tools and settings for configuring HDMI inputs and outputs.

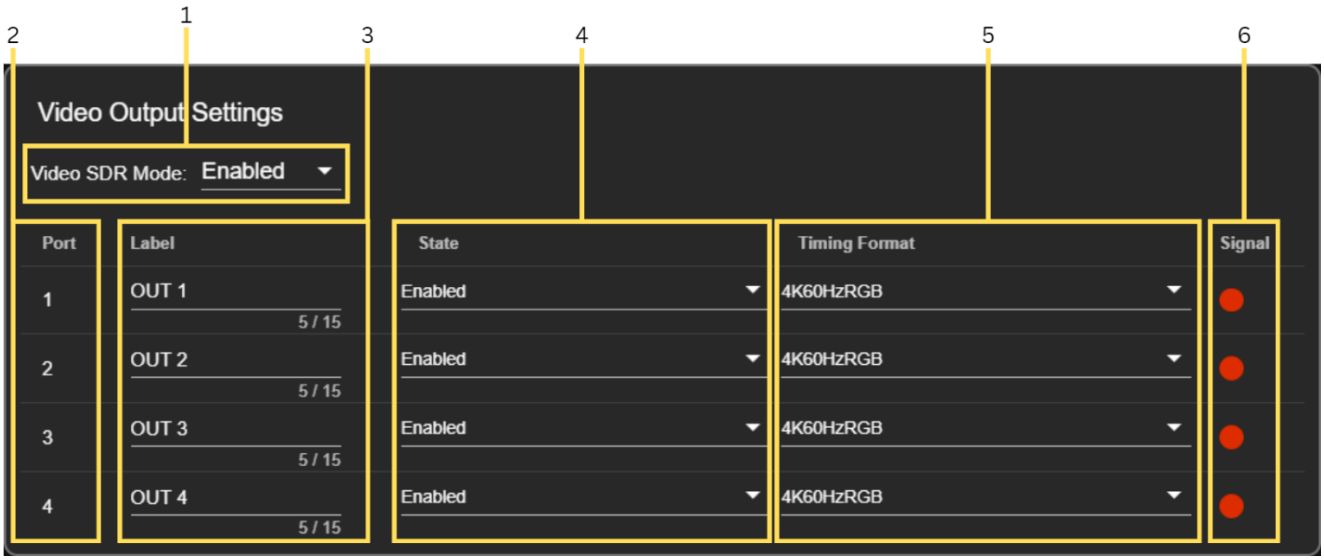


Input Settings



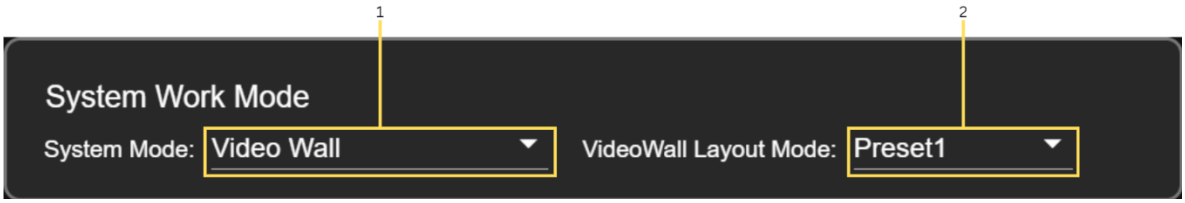
1	**Port**	Shows the HDMI input port number.
2	**Label**	Select the text field to enter in a custom name for the input. *(Limit of 15 characters)*
3	**Power**	Use the toggle to enable or disable the input HDMI 5v
4	**Enabled**	Use the toggle to enable or disable the HDMI input.
5	**EDID**	Select the EDID from the drop-down menu. The first drop-down configures the resolution and refresh rate. The second drop-down configures the Dynamic range, with options for HDR or SDR. The third drop-down configures the audio channels with options for 2CH, 6CH and 8CH. **NOTE:** Selecting USER1, USER2 or USER3 EDID, the drop-down menus will update, allowing the user to choose a HDMI Out to copy EDID values from. Select one of the four HDMI Outs and click the COPY button to apply (this replaces the APPLY button).
6	**APPLY**	This button applies the settings to the HDMI Input. **NOTE:** This button will change to COPY if the user selects USER1, USER2 or USER3.
7	**Signal**	Shows the status of the HDMI Input. Green means the HDMI input is detected, red means that the HDMI connection or device is not detected.

Video Output Settings



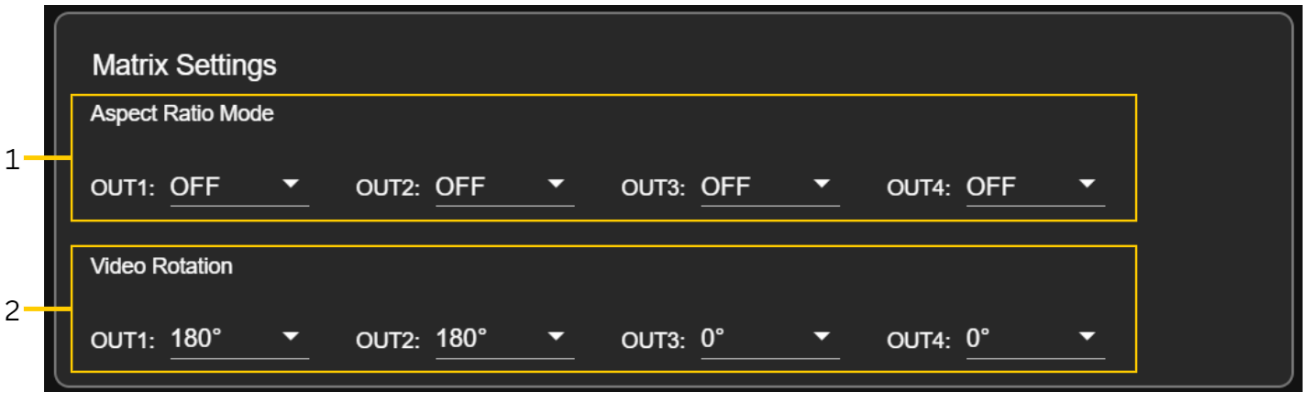
1	**Video SDR Mode**	Use the drop-down to enable or disable force SDR mode on all outputs.
2	**Port**	Shows the HDMI output port number.
3	**Label**	Select the text field to enter in a custom name for the output. *(Limit of 15 characters)*
4	**State**	Use the drop-down to enable or disable the HDMI output.
5	**Timing Format**	Use the drop-down to select the HDMI output
6	**Signal**	Shows the status of the HDMI Output. Green means the HDMI output is detected, red means that the HDMI output connection or device is not detected.

System Work Mode



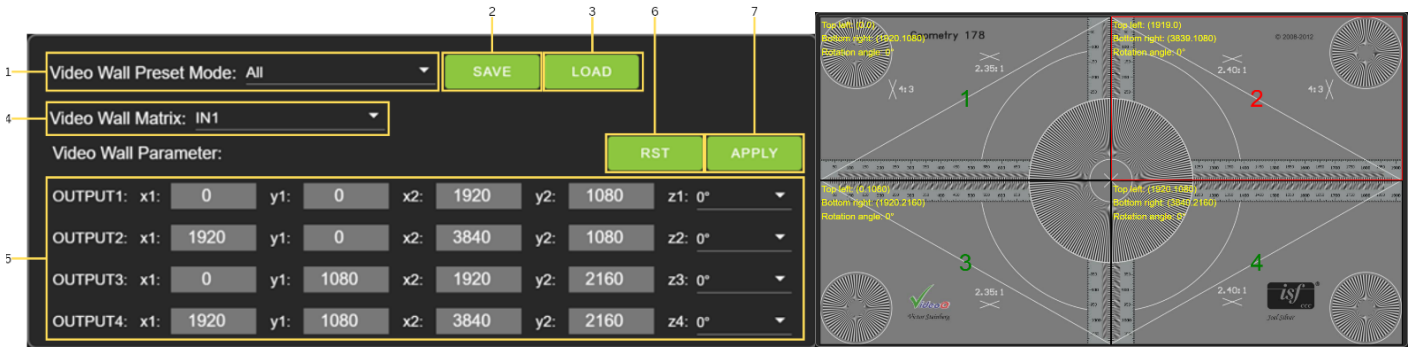
1	**System Mode**	Use dropdown to switch the unit between Matrix and Videowall mode functionality • Matrix: 4x4 seamless switch matrix • Videowall: 2x2 switching videowall processor
2	**Videowall Layout Mode**	Use dropdown to select the active Videowall layout preset

Matrix Settings



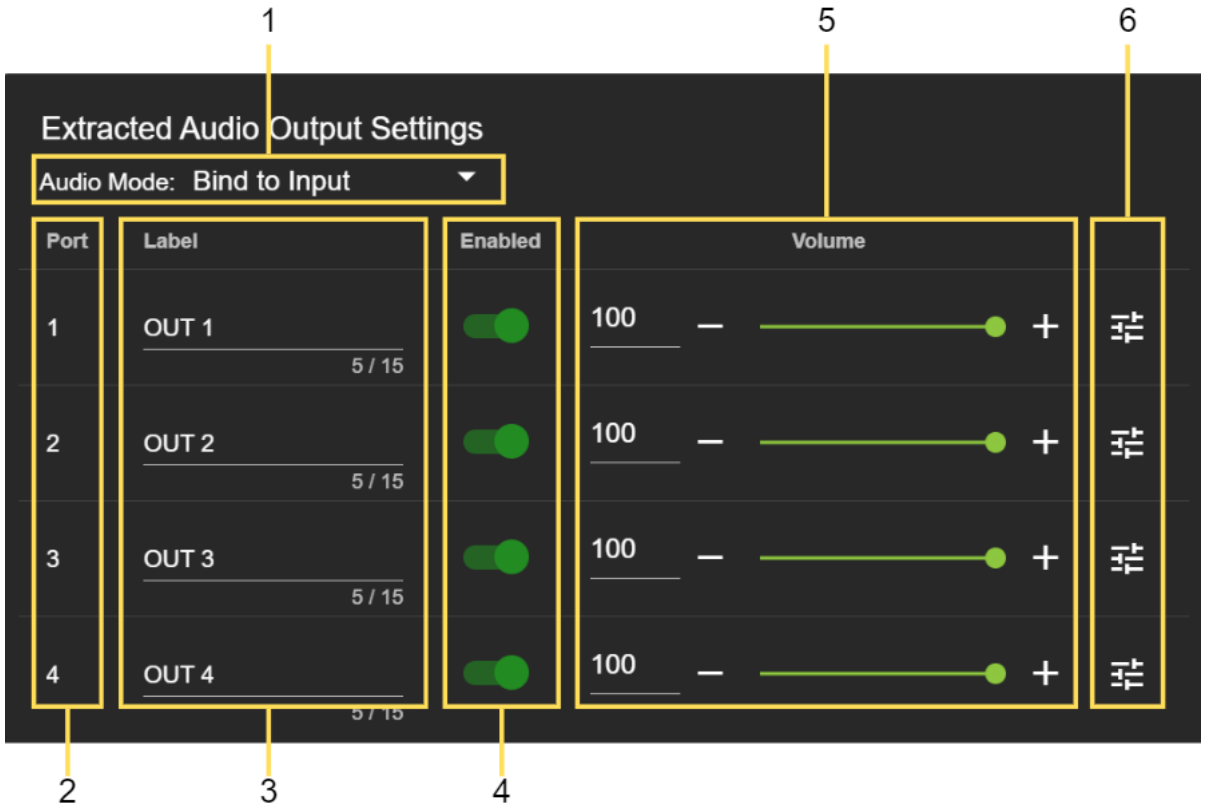
1	**Aspect Ratio Mode**	When in matrix mode all 4 outputs can have their aspect ratio's set to OFF (default/ passthrough),4/3, 16/9 and 21/9.
2	**Video Rotation**	Dropdown used to select either 0 or 180-degree rotation for each output while in matrix mode.

Video Wall



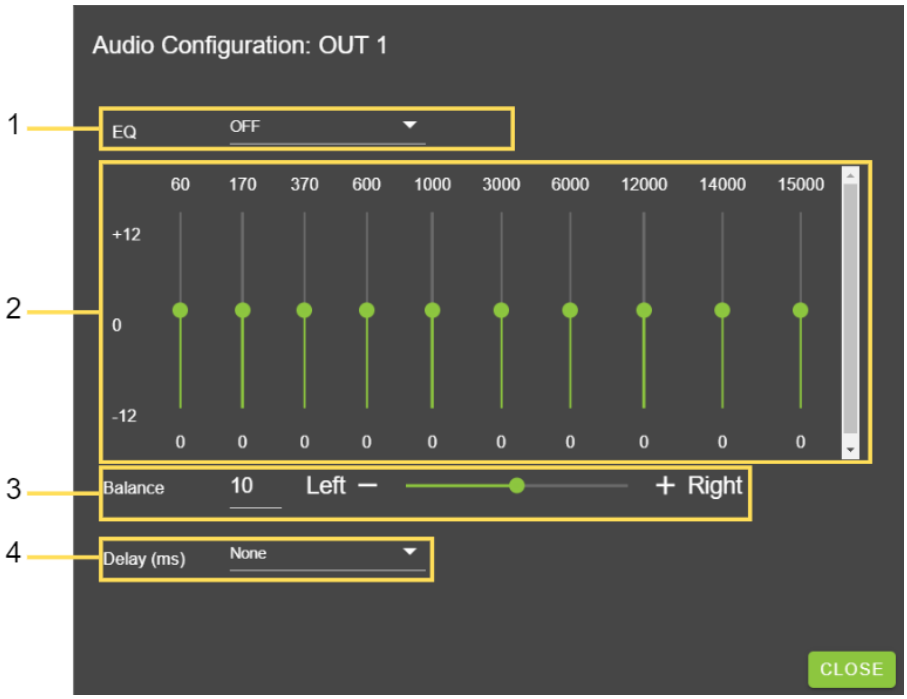
1	**Video Wall Preset Mode**	Selects which preset slot in which a layout config file is loaded
2	**Save**	Saves a Config file of the active layout preset selected in Videowall Layout Mode under Video Output Settings
3	**Load**	Loads a saved preset config file to selected output. When the selected preset isn't the active video wall layout, the config file will be loaded to the preset but will need to be applied after switching to the intended preset.
4	**Video Wall Matrix**	Changes the input being routed for the videowall
5	**Video Wall Parameter**	Can be adjusted by clicking and dragging the intended panel in the video wall preview, for more precise adjustments the x & y coordinates can be changed using the up and down arrow keys.
6	**RST**	Resets the preset selected under VideoWall Layout Mode to the default video coordinates
7	**APPLY**	Applies the video coordinate values and rotation of each output

Extracted Audio Output Settings



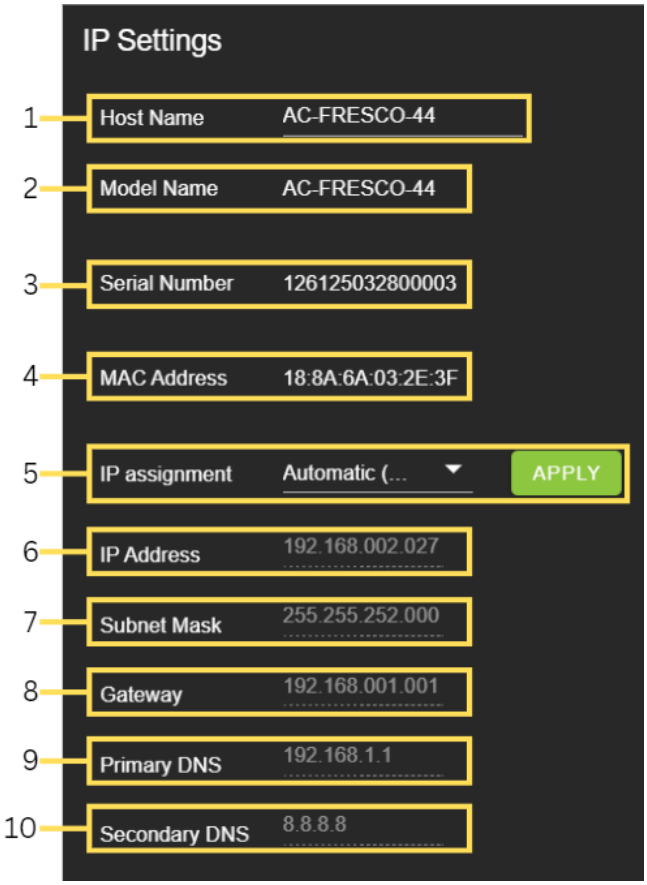
1	**Audio Mode**	Dropdown menu containing the audio binding settings that can be applied to change the extracted audio routing.
2	**Port**	Shows the audio output port number.
3	**Label**	Select the text field to enter in a custom name for the output. *(Limit of 15 characters)*
4	**Enabled**	Select the toggle switch to enable or disable the audio output.
5	**Volume**	Adjust the volume by using the slider bar or entering a value (0~100) in the text field.
6	**EQ**	Select to view the output's *Audio Configuration* settings.

Audio Configuration



1	**EQ**	Dropdown menu containing a list of several preset equalizer settings that can be applied to change the frequency response of the audio output.
2	**Frequency**	Graphic equalizer showing the individual frequency bands of the output's audio. **NOTE:** This graphic equalizer is only intended to be used as a visual reference of the individual audio frequency gains. Manual adjustments cannot be made to it.
3	**Balance**	Adjust the Left and Right volume by using the slider bar or entering a value (-10 to +10) in the text field. **NOTE:** -10 is balanced left, 0 is balanced, and +10 is balanced right.
4	**Delay (ms)**	Dropdown menu containing a list of several values that can be applied to change the delay duration of the audio output

IP Settings

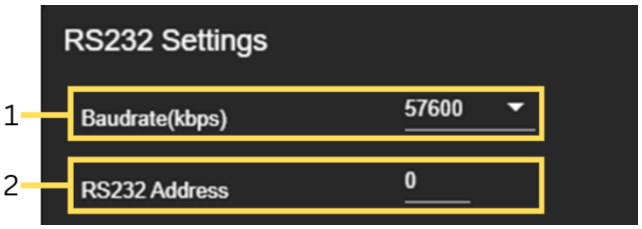


These will be assigned by a DHCP reservation from the router when the *IP Assignment* is set to *Automatic*, or they can be manually entered in when the *IP Assignment* is set to *Manual*.

Select the *Apply* button when manually entering in the *IP Assignment*, *IP Address*, *Subnet Mask*, *Gateway*, *Primary DNS*, and *Secondary DNS* for changes to take effect.

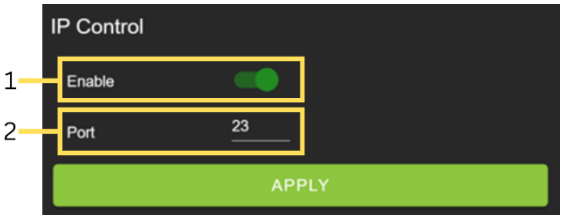
1	**Host Name**	Select the text field to enter in a custom name for the unit. The default shows the unit's model number.
2	**Model Name**	Shows the unit's AVPro Edge model number.
3	**Serial Number**	Shows the unit's unique serial number.
4	**MAC Address**	Shows the unit's unique MAC address.
5	**IP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

RS232 Settings



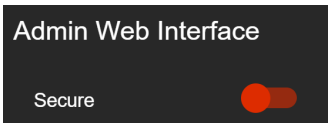
1	**Baudrate(kbps)**	Select the drop-down to set the system Baud Rate. Default is 57600
2	**RS232 Address**	Select the text field to set the system Address. Default is 00

IP Control

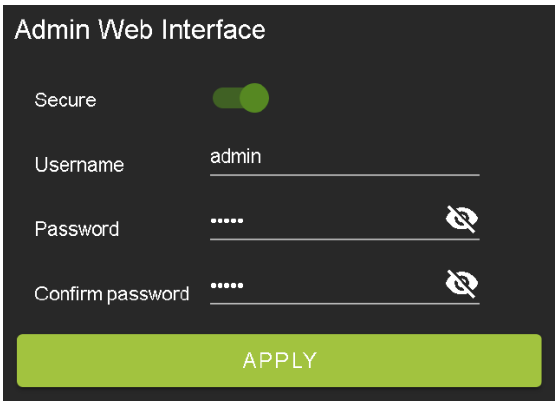


1	**Enable**	Select the toggle switch to enable or disable IP/TCP control.
2	**Port**	Select the text field to set the Telnet port. Default is Telnet port 23.

Admin Web Interface



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



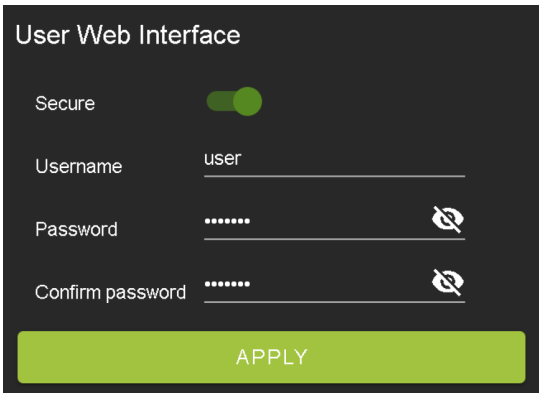
With the *Admin Web Interface* enabled, the only menu that will be accessible on the Web UI will be the **Matrix** tab page. The rest of the settings will require the *Admin* login.

Default username: *admin*
Default password: *admin*

User Web Interface

Select the *Secure* toggle switch to enable (green) or disable (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.

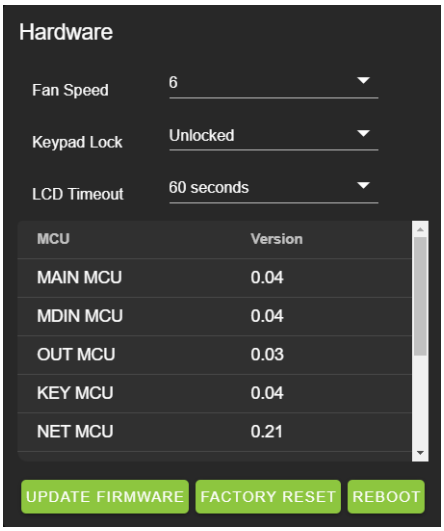


With the *Admin* and *User Web Interfaces* enabled, no menus will be accessible on the Web UI without first logging in.

Logging in with the *User* credentials, 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: *user*
Default password: *user123*

Hardware



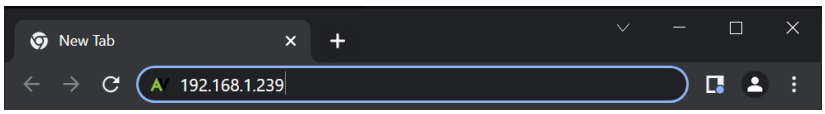
This section shows the unit's current firmware versions, internal fan speed, keypad lock and LCD timeout while providing options for updating firmware, factory resetting the unit, and rebooting the unit.

Cloud Services and Firmware Updates

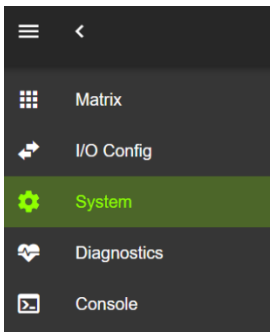
Cloud Services allows OTA (Over-the-Air) firmware updates to be performed onto the unit. This allows the unit to search the Cloud for the latest versions of firmware If the *Cloud Services* setting is disabled, the unit will not be able to access OTA firmware updates.

> 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 firmware updates are complete. It is always recommended to backup and save your settings and configurations before updating firmware.

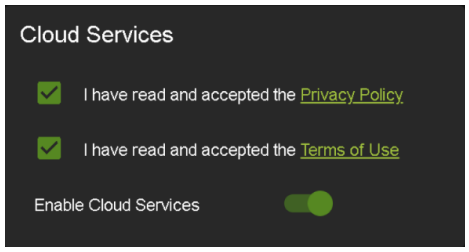
1 Enter the unit's IP address into a Chrome or Edge web browser to access the unit's Web UI.



2 Navigate to the *System* tab page.

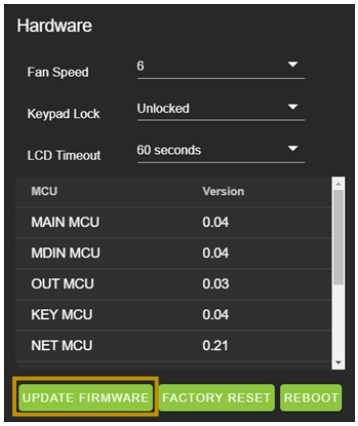


3 In the *Cloud Services* section, review the *Privacy Policy* and *Terms of Use*, then check both boxes and select the *Enable Cloud Services* toggle setting.

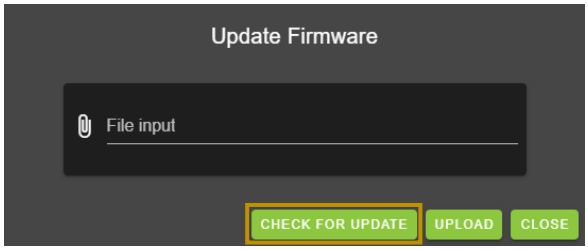


IMPORTANT: This is a required step in order for the unit to perform OTA firmware updates.

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



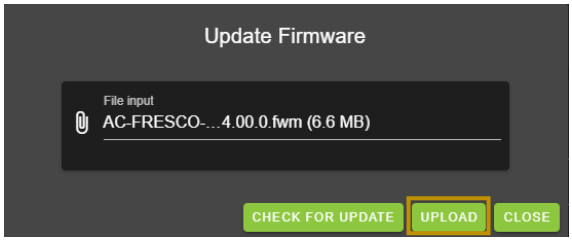
5 In the *Update Firmware* dialog box, select *Check for Update*. The unit will now check the Cloud for available firmware updates.



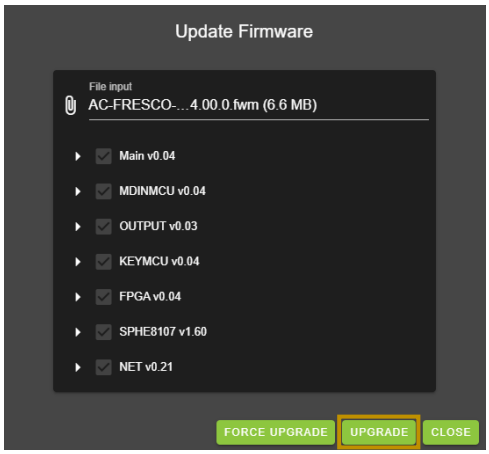
6 If the unit is already installed with the latest version of firmware, a notification window will prompt the message “No update available!” at the top of the page. Select the *Close* button.

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 The unit’s new firmware file will automatically populate into the *File input* field from the Cloud. Select the *Upload* button.



9 From this screen, newer versions of firmware can be viewed before they are installed. Select the *Upgrade* button. The unit will now begin installing the latest versions of firmware. DO NOT refresh the webpage or power off the unit during the update.

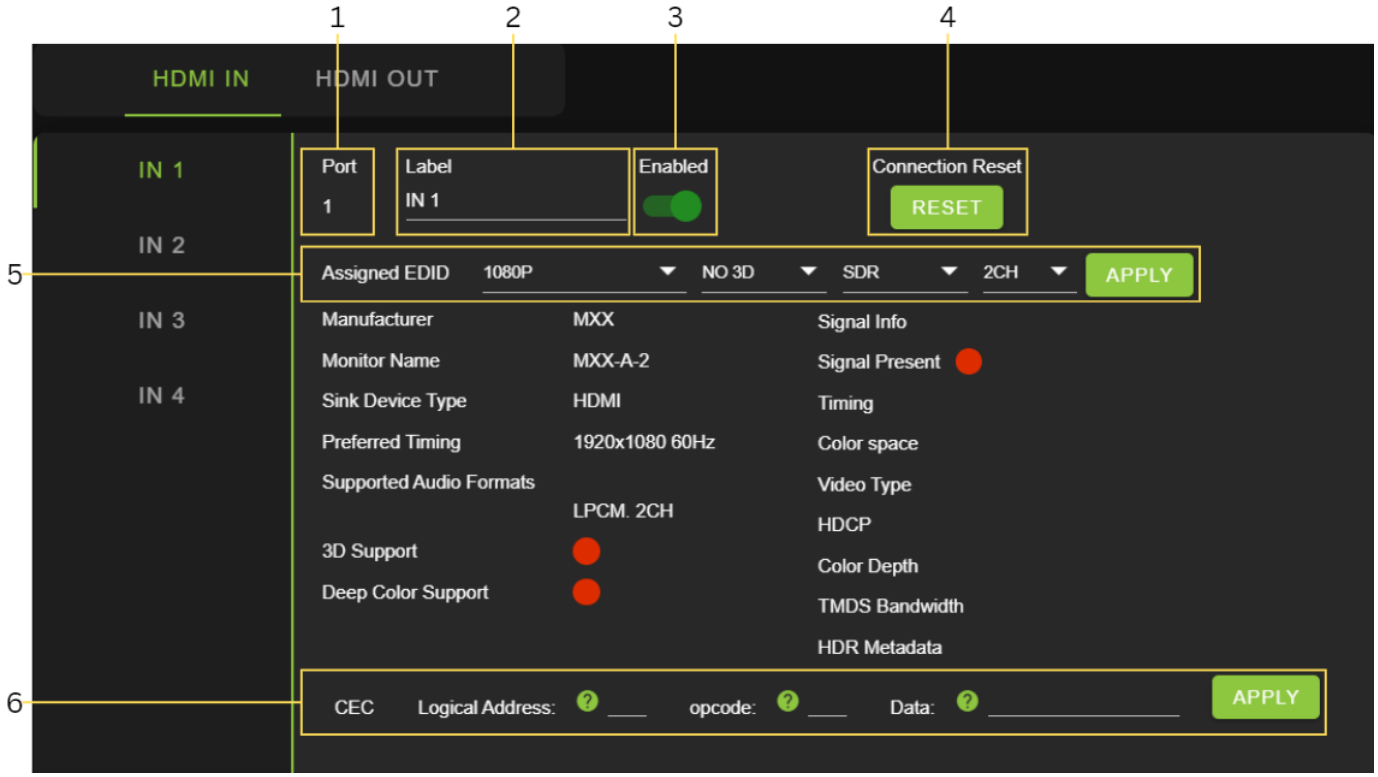


10 Once the progress bar reaches 100%, select the *Close* button. The unit will automatically reboot once the firmware updates are complete. After the unit reboots, refresh the webpage.

Diagnostics

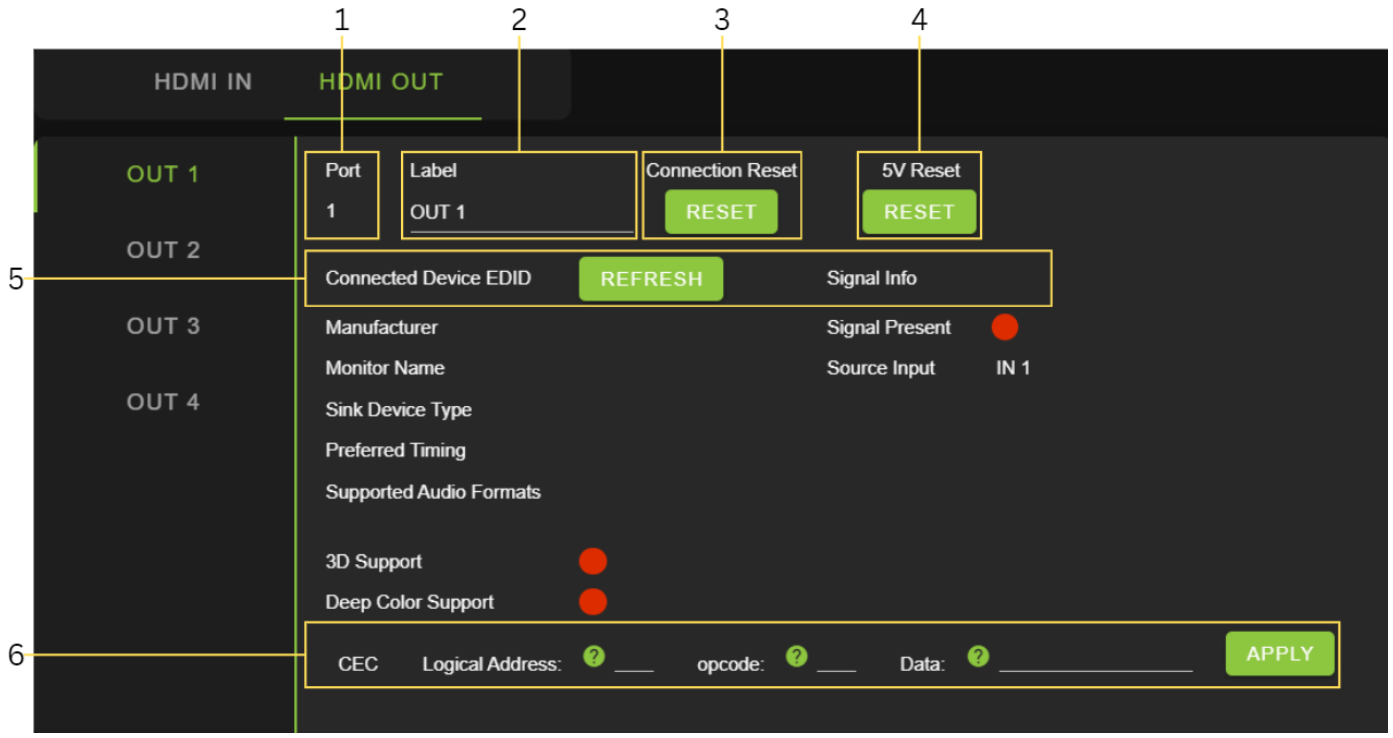
The Diagnostics menu is designed to troubleshoot issues with EDID, HDMI sources, and HDMI displays. HDMI connections can be reset, and valuable information about the source and sink devices can be obtained from the status menus.

HDMI Inputs



1	**Port**	Indicates the HDMI input port number.
2	**Label**	Select the text field to enter a custom name for the input. *(Limited to 15 characters)*
3	**Enabled**	Select the *Enabled* 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).
6	**CEC**	Select the text fields to input CEC command data to send from the HDMI Input.

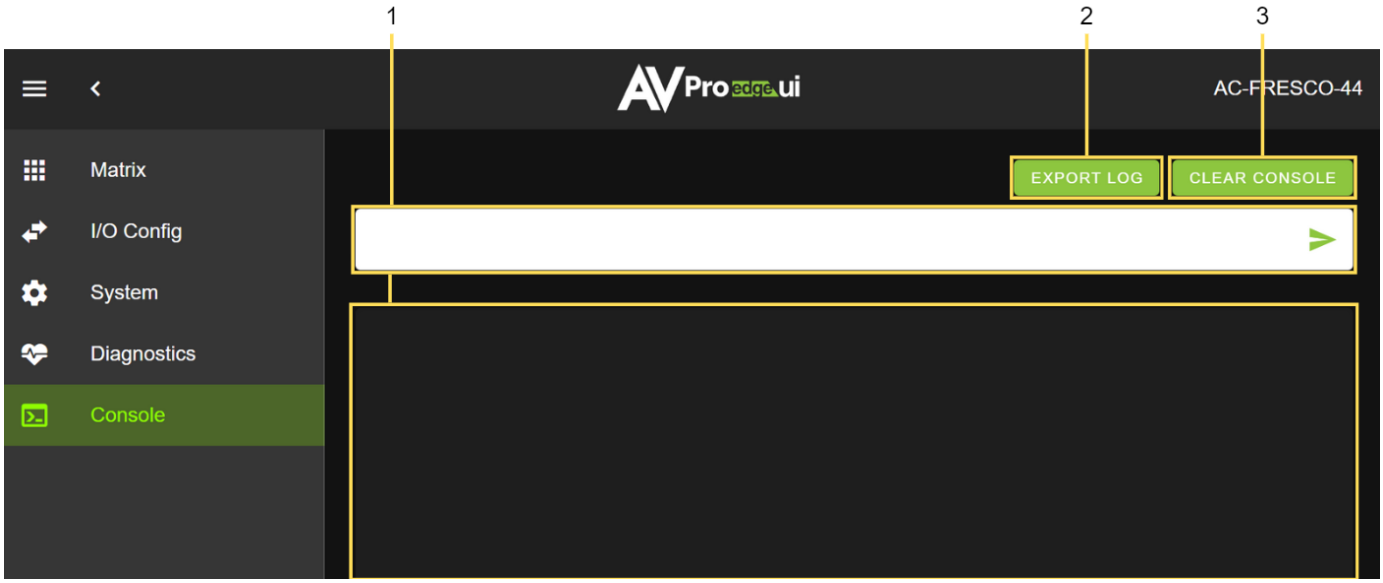
HDMI Outputs



1	**Port**	Indicates the HDMI output port number.
2	**Label**	Select the text field to enter a custom name for the output. *(Limited to 15 characters)*
3	**Connection Reset**	Select the RESET button to reset the HDMI output HPD.
4	**5V Reset**	Select the RESET button to reset the HDMI output 5V.
5	**Refresh**	Click the REFRESH button to poll the sink device (display) for EDID information.
6	**CEC**	Select the text fields to input CEC command data to send from the HDMI output.

Console

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



1	**Text Field**	Enter the unit's API commands into this field. System events generated by the unit will be recorded in a continuous stream while the *Console* 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 information while the unit's Web UI is opened to the *Console* 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 INx HPD RST	Reset Input X hot plug detect to re-establish HDMI handshake {x=[0-4](0=ALL]}
SET OUTx HDMI 5V RST	Reset Output x HDMI 5V to re-establish HDMI handshake {x=[0~4](0=ALL)}
SET OUTx HPD RST	Reset Output x HDMI 5V to re-establish HDMI handshake {x=[0~4](0=ALL)}
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=60Sec)}
SET KEY LOCK ON/OFF	Set Key Lock On/Off
SET FAN SPEED x	Set Fan Speed{x=[0~6]}
GET ADDR	Get System Address
GET STA	Get System 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 Internal 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
GET FAN SPEED	Get Fan Speed Value
GET HW REV	GET HW REV
System Work Mode Commands:	
SET SSWMODE x	Set System Work Mode x{x=[0-1](0-Matrix Mode,1-Video Wall)]}
GET SSWMODE	Set System Work Mode Status
Matrix Settings Commands:	
SET OUTx ASPRy	Set Output x Video Aspect Ratio Mode y(Does Not Apply to Video PIP Mode) {x=[0-4](0=ALL), y=[0-3](0=OFF,1=4/3,2=16/9,3=21/9)}
SET OUTx ROTATE y	Set Output x Video Rotation Angle y{x=[0-4](0=ALL),y=[0,180]}
GET OUTx ASPR	Get Output x VIDEO Aspect Ratio Mode Status{x=[0-4](0=ALL)}
GET OUTx ROTATE	Get Output x Video Rotation Angle Status{x=[0-4](0=ALL)}
Video Wall Settings Commands:	
SET VWOUTx VSINy	Set Video Wall Mode Output x To Input y{x=[0](0=ALL), y=[1~4]}
SET VWPSMx	Set Video Wall Preset Mode {x=[1~10]
SET OUTx VWXYZ x1.y1.x2.y2.z	Set Output Video Wall Parameter, start from(x1,y1) to (x2,y2), Rotation angle(z) {x=[0~4](0=ALL),x1=[0~3840],y1=[0~2160],x2=[x1~3840],y2=[y1~2160], z=[0,90,180,270](Note1:If z=90,270, output 3 or output 4 will have no video output!) (Note2:If z=90,270, The maximum valid parameter value for x2-x1 is 2160}
GET VWOUTx VSIN	Get Video Wall Mode Output x To Input Status{x=[0](0=ALL)}
GET VWPSM	Get current Video Wall Preset Mode
GET OUTx VWXYZ	Get Output Video Wall Parameter {x=[0-4](0=ALL)}
Input/Output CEC Settings Commands:	
SET INx CEC x1x2.yy.mm.pp	Send CEC Command x1x2.yy.mm.pp for Input x{x=[0-4](0=ALL),x1x2=logical address: Initiator x1[0~F], Destination x2[0~F];yy=opcode [00~FF],mm=payload length [0~14], pp=payload [mm bytes]} : Example: [SET IN1 CEC 04.44.01.02]

SET OUTx CEC x1x2.yy.mm.pp	Send CEC Command x1x2.yy.mm.pp for Output x{x=[0~4](0=ALL),x1x2=logical address: Initiator x1[0~F],Destination x2[0~F];yy=opcode [00~FF],mm=payload length [0~14], pp=payload [mm bytes]} : Example: [SET OUT1 CEC 40.84.3.10.00.05]	
Output Setup Commands: (Note:output number(x)=HDMI,x=[1-4])		
SET OUTx VS INy	Set Output x To Input y{x=[0~4](0=ALL), y=[1~4]}	
SET OUTx VFMTy	Set Output x Video Timing Format{x=[0-4](0=ALL),y=[0-6] (0:4K60HzRGB,1:4K60HzY420,2:4K30HzY444,3:1080p60Hz,4:720p60Hz,5:EDID Preferred Timing,6:1080P60HzYUV12Bit)}	
SET OUTx FORCE SDR EN/DIS	Set Output x Force Video SDR EN/DIS{x=[0](0=ALL)}	
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=90,180,270,360,450,540,630MS)}	
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 EXA VOLy	Set Output x EQ-Audio Volume Levely{x=[0-4](0=ALL),y=[0~100]}	
SET OUTx EXA VOL+y	Set Output x EQ-Audio Volume Level Increase+y {x=[0-4](0=ALL),y=[1~100,optional default=1]}	
SET OUTx EXA VOL-y	Set Output x EQ-Audio Volume Level Decrease-y {x=[0-4](0=ALL),y=[1~100,optional default=1]}	
SET OUTx EXA BALy	Set Output x Balance y{x=[0-4](0=ALL), y=[0~20, Left = 0, Right = 20, Balanced = 10]}	
SET OUTx EXA BAL+y	Increase Output x Balance by y {x=[0-4](0=ALL),y=[1~20, optional default=1]}	
SET OUTx EXA BAL-y	Decrease Output x Balance by y {x=[0-4](0=ALL),y=[1~20, optional default=1]}	
SET OUTx EXEQ MODEy	Set Output x EX-Audio Volume EQ Modey{x=[0-4](0=ALL),y=[0~7] y=[0-OFF],[1-Classical],[2-Headphone],[3-Hall],[4-Live],[5-Pop],[6-Rock],[7-Vocal]}	
SET OUTx STREAM ON/OFF	SET OUTx STREAM ON/OFF{x=[0~4](0=ALL)	
GET OUTx VS	Get Output x Video Route{x=[0~4](0=ALL)}	
GET OUTx VFMT	Get Output x Video Timing Format{x=[0~4](0=ALL)}	
GET OUTx FORCE SDR	Get Output x Force Video SDR Status{x=[0](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 EXA VOL	Get Output x extracted audio Volume Level{x=[0-4](0=ALL)}	
GET OUTx EXA BAL	Get Output x Balance Value{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]}	
Input Setup Commands:(Note: input number(x)=HDMI(x),x=[1-4])		
SET INx EDID y	Set Input x EDID {x=0~4, y=[0~32]}	
0:1080P_2CH	1:1080P_6CH	0:1080P_2CH
3:1080P_3D_2CH	4:1080P_3D_6CH	3:1080P_3D_2CH
6:4K30HZ_3D_2CH	7:4K30HZ_3D_6CH	6:4K30HZ_3D_2CH
9:4K60HzY420_3D_2CH	10:4K60HzY420_3D_6CH	9:4K60HzY420_3D_2CH
12:4K60HZ_3D_2CH	13:4K60HZ_3D_6CH	12:4K60HZ_3D_2CH
15:1080P_2CH_HDR	16:1080P_6CH_HDR	15:1080P_2CH_HDR
18:1080P_3D_2CH_HDR	19:1080P_3D_6CH_HDR	18:1080P_3D_2CH_HDR
21:4K30HZ_3D_2CH_HDR	22:4K30HZ_3D_6CH_HDR	21:4K30HZ_3D_2CH_HDR
24:4K60HzY420_3D_2CH_HDR	25:4K60HzY420_3D_6CH_HDR	24:4K60HzY420_3D_2CH_HDR
27:4K60HZ_3D_2CH_HDR	28:4K60HZ_3D_6CH_HDR	27:4K60HZ_3D_2CH_HDR
30:USER1_EDID	31:USER2_EDID	30:USER1_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 Inputx Port Power Status ON/OFF{x=[0~4](0=ALL)}
SET INx PW 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],y=[0~32]}
GET INx TMDS	Get Inputx Port Power Status{x=[0~4](0=ALL)}
GET INx PW	Get Input x Port Power Status{x=[0~4](0=ALL)}
GET INx HDMI 5V	Get Input x HDMI 5V 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=Dis,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

Troubleshooting

- Verify Power -Check that the power supply is properly connected and on an active circuit.
- Verify Connections - Check that all cables are securely connected and properly terminated.
- Verify Current Versions - Check if there are any firmware/software/driver updates available for the devices.
- No Sound - Verify 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.

Maintenance

To ensure reliable operation of this product as well as protecting the safety of any person using or handling this device while powered, please observe the following instructions.

- Use the power supplies provided. If an alternate supply is required, check voltage, polarity and that it has sufficient power to supply the device it is connected to.
- Do not operate these products outside the specified temperature and humidity range given in the above specifications.
- Ensure there is adequate ventilation to allow this product to operate efficiently.
- Repair of the equipment should only be carried out by qualified professionals as these products contain sensitive components that may be damaged by any 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 to clean this unit.

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

Should you experience any problems while using this product, first, 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 that are purchased from all Authorized AVPro Edge Resellers or direct purchases. Products are guaranteed to be free from manufacturing defects and of sound physical and electronic condition.

AVPro Edge has developed a warranty that anyone can get behind. We really wanted to take all the “red tape” out of a warranty and just make is simple. Our 10 YEAR NO BS warranty hinges on 3 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 we’ll also cover the return shipping. Repair is an option too, but it’s 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 customer choice) the defective product. If the product is out of stock or on backorder it can either be replaced with a comparable product of equal value/feature set (if available) or repaired.

Your warranty begins at receipt of product (as confirmed by shipping firm tracking). If tracking information is unavailable for any reason, 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 that were made outside of an authorized channel.

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

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

Damage caused by incorrect installation will not be covered. Incorrect power supply, inadequate cooling, improper cabling, inadequate protection, static discharge are examples of this.

Products installed or sold by a third party to AVPro Edge will be serviced by the Authorized AVPro Edge Reseller. Accessories (IR Cables, RS-232, Power Supplies, etc.) are not included in the warranty. 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 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 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.

For International (and Alaska and Hawaii) return shipping costs will be the responsibility of the returnee. Once the unit is scanned for return shipping AVPro Edge will ship the new unit for replacement.

Limitation on Liability

The maximum liability of AVPro Global Holdings LLC 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.

Obsolescence or incompatibility with newly invented technologies (after manufacture of product) is not covered by this warranty.

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. Because of performance, price and functionality issues, product redevelopment is not an option.”

Discontinued or out of production items will be credited at fair market value towards a current product of equal or comparable capabilities and cost. Fair market value is determined by AVPro Edge.

Exclusive Remedy

To the maximum extent permitted by law, this limited warranty and the remedies set forth above are exclusive and in lieu 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 specifically disclaims any and all 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, then all implied warranties covering this product, including warranties of 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.