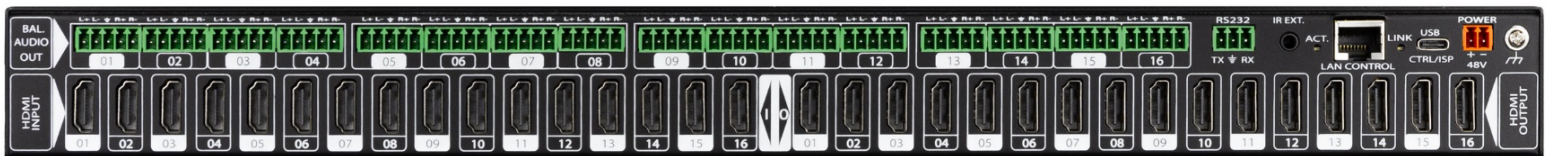


User Manual

18Gbps True 4K60 4:4:4

16x16 Matrix



AC-MX-1616

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Introduction

The AC-MX-1616 is a 16x16 HDMI matrix switch that supports HDMI 2.0(a/b), HDCP 2.3, up to 4K video resolution, and up to 18 Gbps bandwidth. This switch allows any source (Blu-ray, UHD Blu-ray, satellite receiver, game consoles, PCs, etc ...) to show on any connected displays. This matrix equalizes and amplifies the output to ensure the HDMI signal transmits through long HDMI cables without losing quality.

Audio Delay is “On-Board” so integrators can manage lip-sync issues before they become a problem. Video signal management is also possible with built-in scalers. So, if the installation has a couple of older displays, integrators don’t need to forfeit 4K signals to pass the signal to all displays. In addition to scalers, this matrix supports complete EDID management, allowing maximum flexibility with today’s broad mixture of sources and displays.

Features

- HDMI 2.0(a/b)
- 18Gbps Bandwidth Support
- 4K60 4:4:4 Support
- Full HDR Support (HDR 10 & 12 Bit)
- Dolby Vision, HDR10+ and HLG Support
- HDCP 2.3 (and all earlier versions supported)
- 4K > 1080p Down Scalers on each output
- Advanced EDID Management
- IR, RS-232 and LAN Control Options
- Balanced Analog Out (2CH PCM)
- Audio Delay for Analog Out
- Driver Support for Crestron, C4, RTI, ELAN and more
- Extracted Audio Now Has 3 Operating Modes. Bound to Input, Bound to Output, or Independent Matrix
- Built in Test Pattern on Each Output to Verify Infrastructure

What’s in the box

- AC-MX-1616 (Matrix Switch)
- 12V Locking Power Supply
- 1 x Ground Strap
- 1 x IR Remote Control (Battery not included)
- 1 x IR Extension Cable
- 16 x 5-Pin 2 Channel Audio Extraction Cables
- 1 x 3 Pin Terminal Connector (For RS232)
- Mounting Brackets
- 4 x Rubber Feet



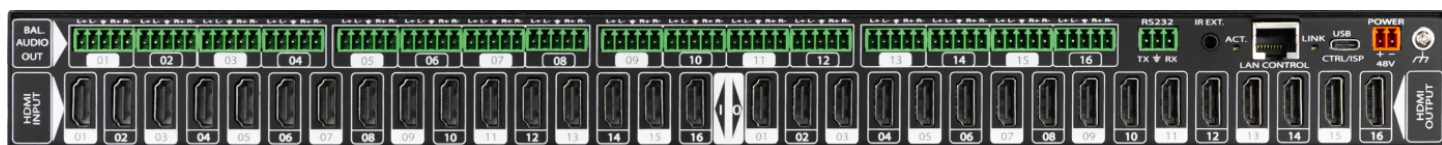
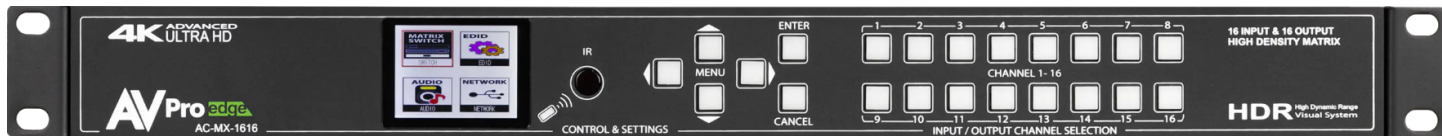
Not Included

3V CR2025 Battery Required for IR Remote Control.

Specifications

Video:	
Video Resolutions	Up to 4K 60Hz 4:2:0 & 4K 30Hz 4:4:4
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
Scaling	4k to 1080p
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 (Balanced 5Pin)	PCM 2 CH
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
Drivers	C4, RTI, ELAN, URC (for more - see Drivers Page)
AVPro WebUI	YES
Ports:	
HDMI	Type A
LAN	RJ45 w/ Web Interface/ Control
Audio (Extracted Analog)	5 PIN Terminal Block (Balanced)
Firmware	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)	92 Watts Max
Power Supply	Input: AC 100-240V ~ 50/60Hz Output: DC 48V 2.7A
Dimensions:	
Dimensions (Unit Only Length/Width/Height)	mm: 258.7752 X 439.7502 X 44.45 inch: 10.188 X 17.313 X 1.75
Dimensions (Packaged Length/Width/Height) (Kit)	mm: 444.5 X 495.3 X 88.9 inch: 17.5 X 19.5 X 3.5
Weight (Unit)	9.13 lbs (4.14 Kg)
Weight (Packaged)	12.09 lbs (5.48 Kg)
*Specifications subject to change without notice. Mass & dimensions are approximate	

Front and Rear Panel Overview



Initial Setup: WebUI

The AC-MX-1616 can be controlled using the Micro USB port, 3pin RS232, or over TCP/IP using the LAN connection. For initial setup it is recommended to connect the matrix to a local area network (LAN) and use a computer on the same network in conjunction with the built in WebUI. After making all the physical connections, the first step will be to check for any Firmware Updates. The steps below are an example of this setup, other control options are covered in separate sections of this user manual.

1. With the AC-MX-1616 placed into its new home (AV Rack, cabinet, tabletop) take a Phillips head screwdriver and attach the included yellow ground strap to the back of the chassis using the pre-installed screw, then attach the other end to a suitable grounded object.



2. Connect the HDMI Input sources to the HDMI Inputs on the back of the matrix.

3. Connect the HDMI/devices to the HDMI Outputs.

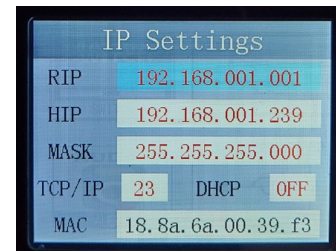
4. Connect the network LAN cable to the RJ45 port labeled LAN (between the Micro USB and 3pin RS232 port).

5. Power on the sources (Inputs).

6. Power on the Output devices/displays.

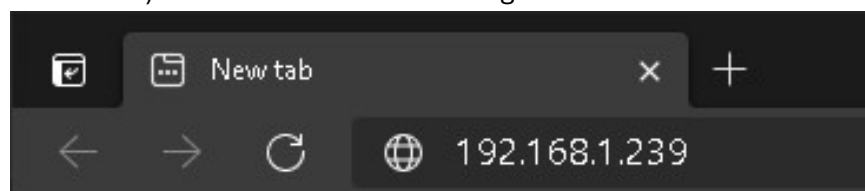
7. Connect the 48V power supply to power on the matrix and then to a suitable power source.

8. Using the front panel display and control/arrow buttons navigate to NETWORK and press the OK button to enter the IP Settings menu.

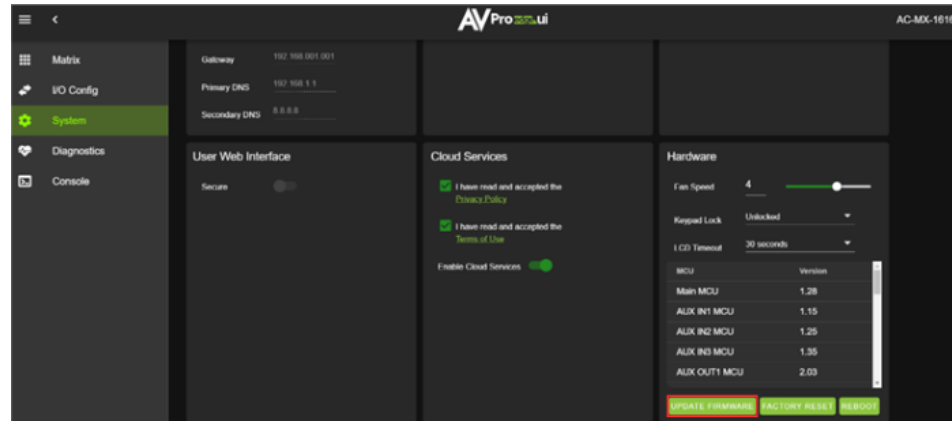
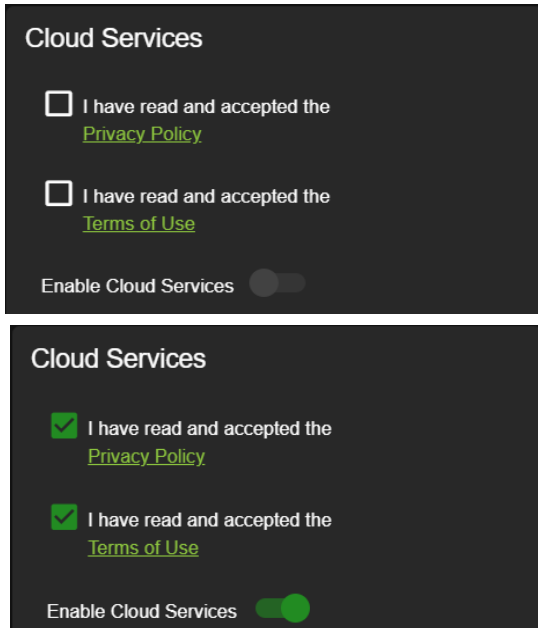


9. Either manually enter your desired IP settings or enable DHCP and let your network assign the correct settings. Use the UP/DOWN arrow keys to highlight the row you want to change (HIP, RIP, TCP Port, etc), click OK, use left/right arrow keys to select and the UP/DOWN arrow keys to change the setting. Click the OK button again to confirm those changes.

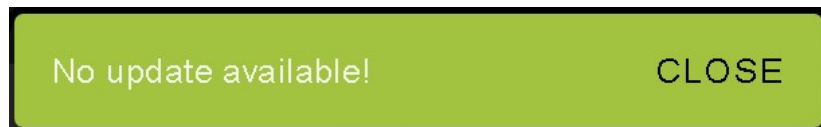
10. With the matrix connected to the local network, using a computer on the same network open a web browser and type the HIP (Host IP Address) into the address bar to navigate to the WebUI.



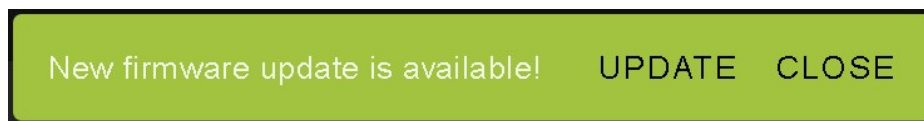
11. With the WebUI open, navigate to System. Click on the Privacy Policy and Terms of Use, this will open these documents in a new tab for review. Once read click on the boxes next to each to agree. When both are checked the switch for Enable Cloud Services will be selectable (will be red or disabled by default). Click to enable (the switch will turn green).



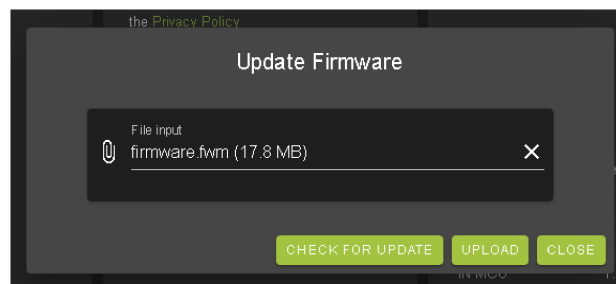
12. With Cloud Services enabled under the Hardware section click the Update Firmware button to check for new Firmware OTA (over the air). This will compare the firmware versions currently loaded on the AC-MX-1616 and compare them to the latest available. If it is up to date, you will see a prompt stating “No update available!”



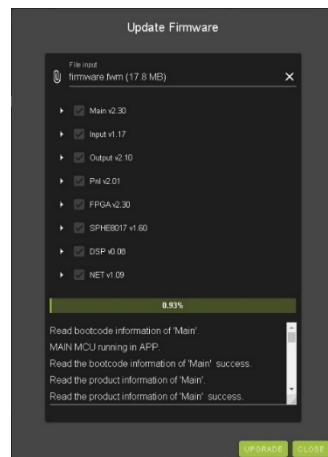
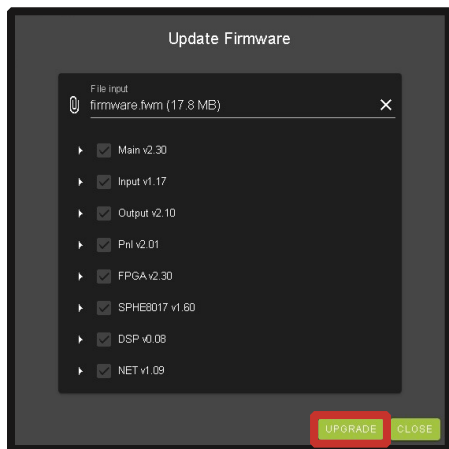
13. If an update is available, the following prompt will show. Simply click UPDATE.



14. If a new update is available a file will automatically be selected, simply click the UPLOAD button to load the firmware files to the Matrix. Uploading does not install the Firmware, that is the next step.

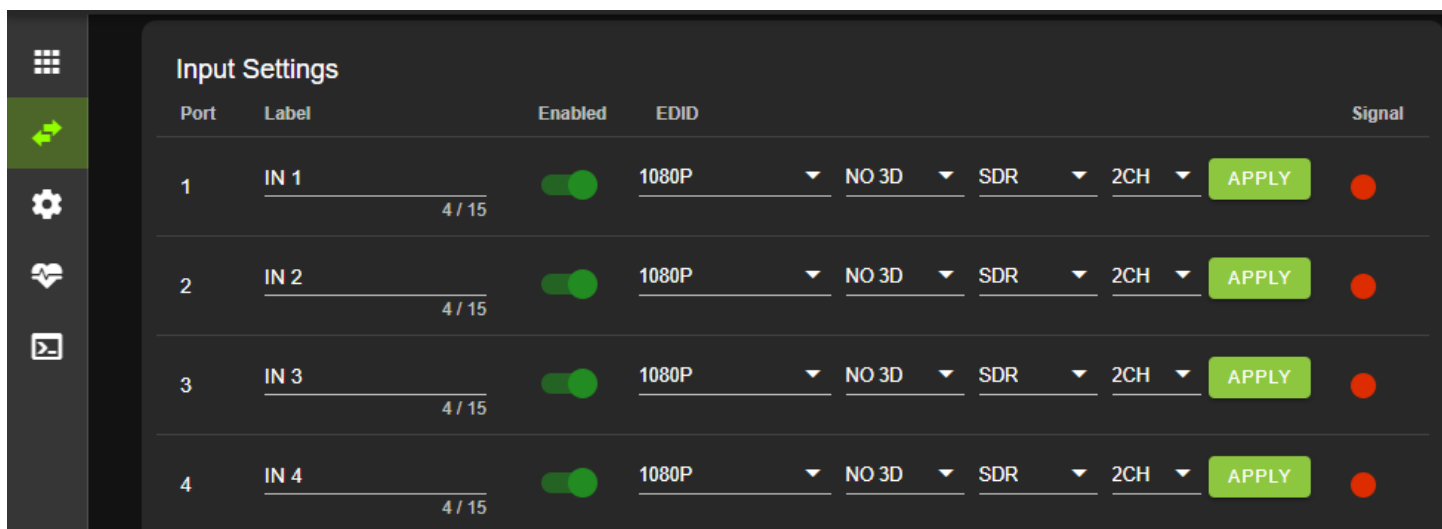


15. Once the firmware file has been uploaded, it will display all containing firmware files. Here you can select individual firmware files to load or simply leave all files/options selected. If the version currently installed is not newer (does not need to be updated), then that update will be skipped automatically. Click the UPLOAD button to start.

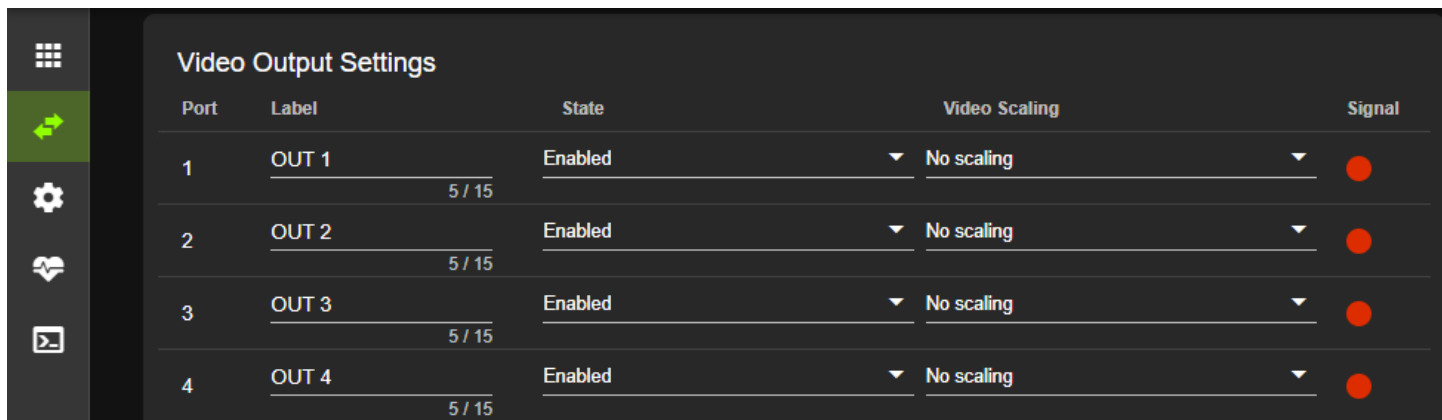


16. Once the progress bar hits 100%, click the CLOSE button, the firmware upgrade process is complete.

17. With the Firmware up to date it's time to start setting up the matrix. With the AVPro Edge WebUI open, navigate to the I/O Config section. Label the applicable Inputs (Apple TV, Cable Box, Roku, etc) under the Input Settings - Label.



18. Label the Outputs (Living Room, Bedroom, Den, etc) under the Video Output Settings - Label.



19. Set the HDMI Video Scaling if needed. HDMI outputs can down-scale a 4K signal to 1080P.
20. With the system and all its components powered up it's time to verify signal path from source to sync. For now, leave EDID settings to their default 1080P 2CH, the next section Advanced Setup will cover the more advance settings.
21. Use Signal Indicator on the HDMI INPUTS. Green means HDMI source is detected, red means that the source is not detected. If red verify that the input is powered on and that the HDMI cable is properly connected to the source and to the back of the matrix.
22. Now verify that the connections to the HDMI outputs using the Signal indicator. Green means HDMI sync is detected, red means that the HDMI sync is not detected. If red verify that the sync devices are powered on and that the HDMI/HD cables are properly connected to the back of the matrix.
23. With everything connected and powered on, green indicators across the applicable inputs and outputs verify you are getting all of your sources on all of your displays.
24. Problems with a source or sync, see the Troubleshooting section for help.

Advanced Setup: WebUI Input Settings

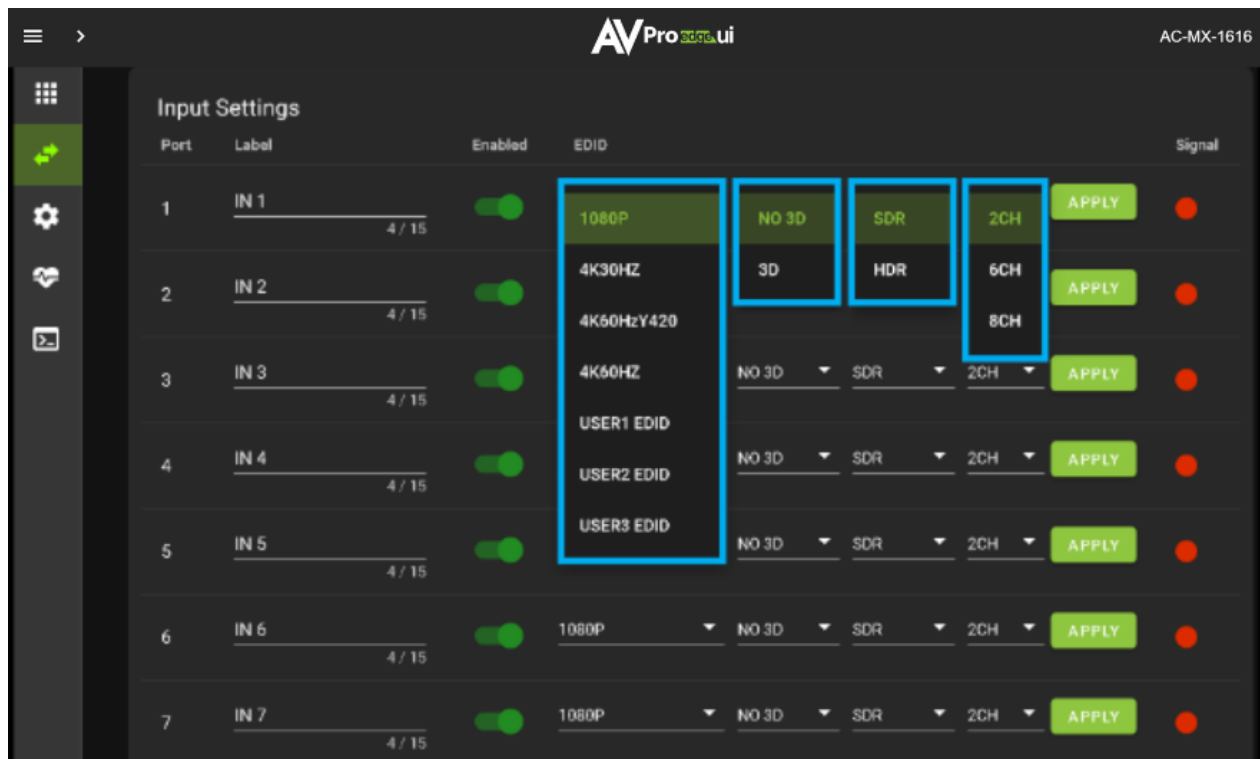
After verifying the good signal path from source to sync now it is time to go through the rest of the settings to maximize the setup. Starting with the input side with the EDID and Audio Mode settings.

1. With the WebUI open, navigate to the I/O Conifg tab and focus on the Input Settings section at the top.
2. Set the EDID on each input by selecting the resolution drop-down first (default is set to 1080P). The options are 1080P, 4K30Hz, 4K60Hz Y420, and 4K60Hz. If you select USER1 EDID, then the dropdowns change to allow you to select from and output to copy from. You can select any of the 16 HDMI outputs then click the COPY button. This will save that outputs EDID to the USER1 slot.

3. Next use the drop-down to select NO 3D, or 3D depending on the display's capability.

NOTE: Currently the only resolution you can choose NO 3D for is 1080P.

4. Next drop-down select either SDR (standard dynamic range) or HDR (High Dynamic Range).
5. The fourth drop-down in the EDID section is for the audio, you can select 2CH, 6CH, or 8CH.
6. Click the APPLY button to set the EDID.



7. Verify you are still getting that source to all your displays and that the image looks correct.

NOTE: Some older displays may take an HDR signal and display correctly (ignoring the HDR Metadata) others will not ignore the HDR part of the signal and may display incorrectly.

8. Signal - The Signal Indicator on the HDMI INPUTS shows the current state of the connection HDMI source. Green means the HDMI source is detected, red means that the source is not detected. If red verify that source is powered on and that the HDMI cable is properly connected to the source and to the back of the matrix.

9. Global Input Settings (Applies to all inputs)

· **Support Dolby MAT** - Check this box to enable Dolby MAT audio

· **Requires Dolby Vision Low Latency (Recommended)** - Check this box to require Dolby Vision Low Latency (Player-led) over Standard Dolby Vision (TV-Led). Sources like the Apple TV and X-Box Series X use Dolby Vision Low Latency.

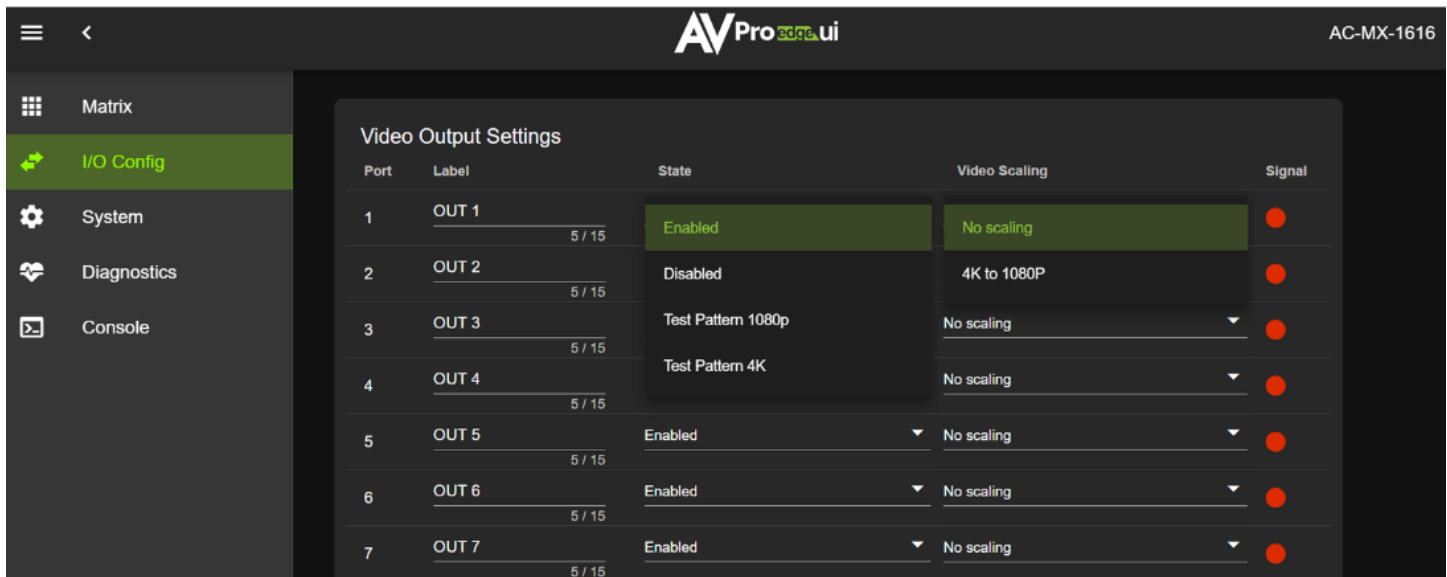
10. Now navigate to the Video Output Settings under I/O Config

Advanced Setup: WebUI Output Settings

11. In addition to the output Label (name/alias), there are 3 settings for each HDMI output.

12. Under State there are 4 options.

- Enabled (Default) - HDMI Port is on (normal functionality)
- Disabled - HDMI Output Port will not output a signal
- Test Pattern 1080P - Enables a 1080P Color bar test pattern on that port
- Test Pattern 4K - Enables a 4K Color bar test pattern on that port



13. Under the Video Scaling mode, you can choose No Scaling (off), 4K to 1080P.

- No Scaling (Default) - Signal remains untouched
- 4K to 1080P - Down-scales any 4K signal down to 1080P

14. Signal - The Signal Indicator on the HDMI outputs show the current state of the connected HDMI device. Green means HDMI signal is detected, red means that the signal is not detected. If red verify that the HDMI cable is properly connected to both the matrix and HDMI sync device.

Advanced Setup:

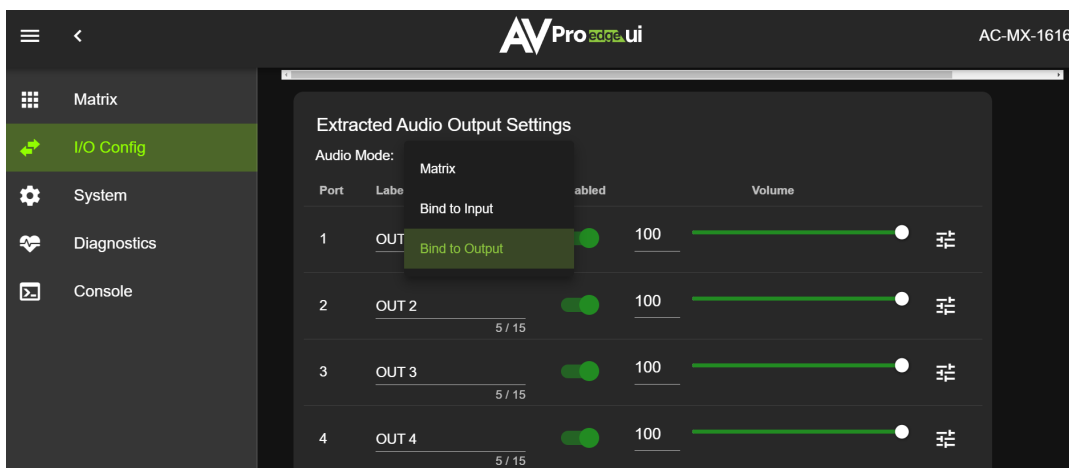
WebUI Extracted Audio Output Settings

1. Now navigate to the Extracted Audio Output Settings under I/O Config.
2. The extracted audio ports have 3 distinct operating modes, use the drop-down at the top to select. The three options are.

Bind to Input (Default) - where the audio port number corresponds to the input signal. This is ideal for systems where audio is matrixed separately in a zoned amplifier.

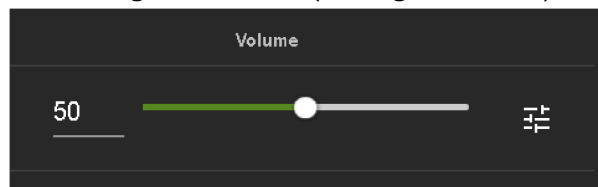
Bind to Output - this configuration the audio will automatically follow the HDMI output. This is ideal for systems that use local AVR's for some of the Zones.

Matrix - This mode allows you to matrix the extracted audio ports independently from the HDMI outputs. In this mode there will be a Tab for the extracted audio under the Matrix page, allowing you to route the audio just like routing the video. If the matrix is set to Bind to Input or Bind to Output this tab will not be visible.

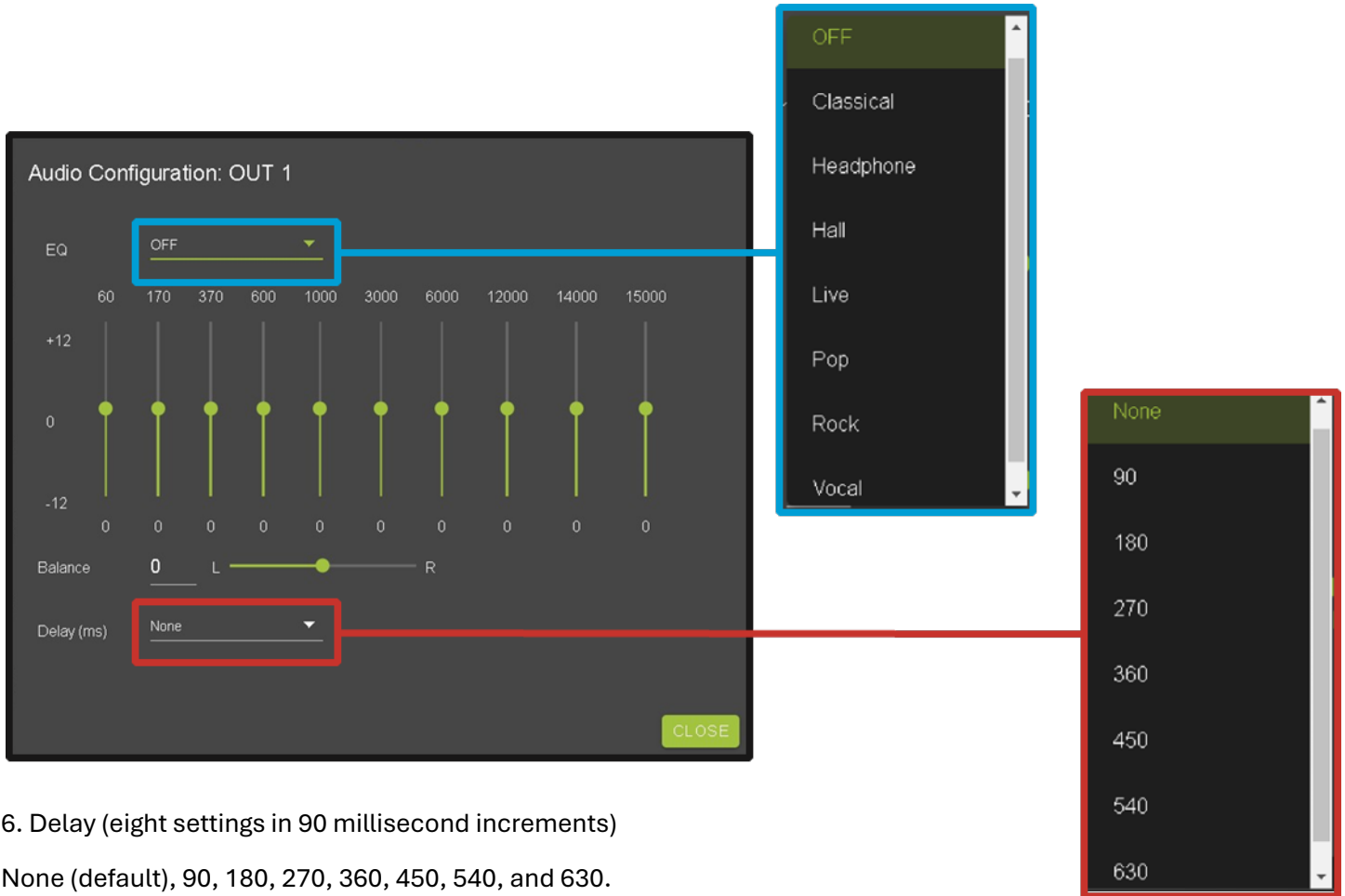


3. Other available settings for the extracted audio ports include Enable/Disable, Volume control (1-100), EQ presets (7 generic preset options to choose from), Left/Right balance, and audio delay. Each of these 5 settings can be changed per extracted audio port.

4. You can use the slider or text box to change the volume (settings are 0-100).



5. To change the EQ settings of that port, click on the emblem to the right of the volume slider. This will bring up the Audio Configuration Page. Here you can choose from 8 different EQ settings, change the Left / Right balance, and set the audio delay.



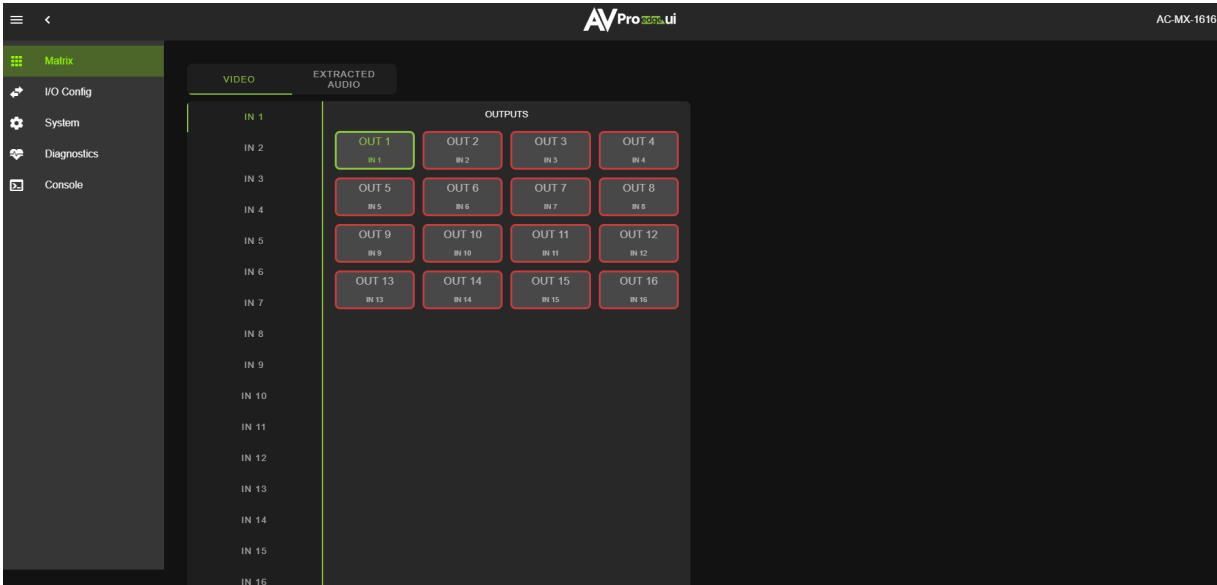
6. Delay (eight settings in 90 millisecond increments)

None (default), 90, 180, 270, 360, 450, 540, and 630.

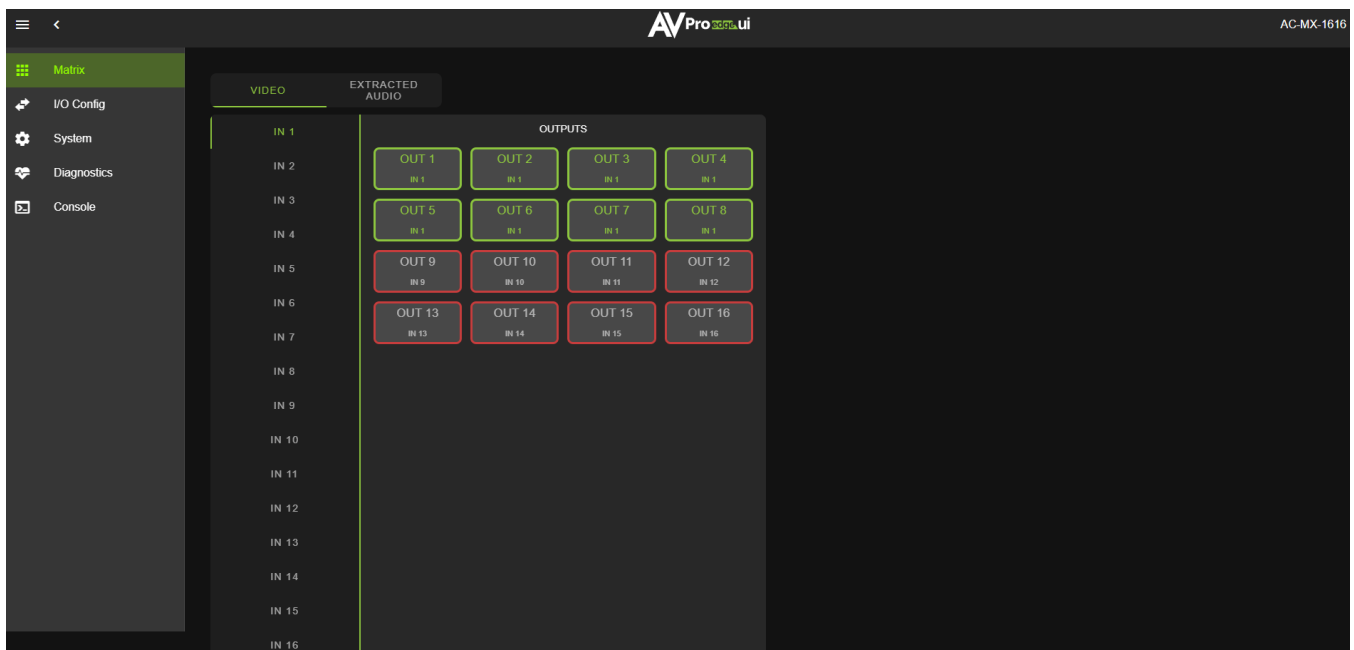
WebUI: Video Matrix

Use this page to route the video INPUTS and OUTPUTS.

- Click on the INPUT number to select (example below shows IN 1)



- With the INPUT selected simply click on the OUTPUT you want to send that source to.



- Note: If you rename the INPUTS/OUTPUTS using the I/O Config page they will display here.

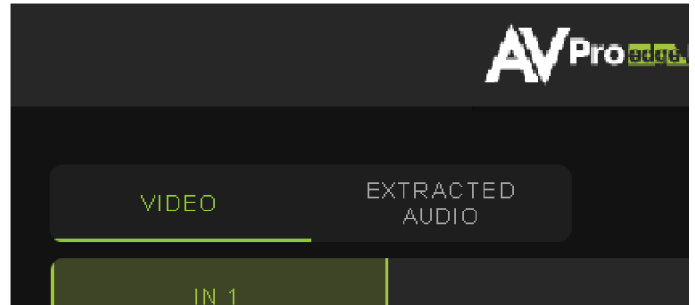
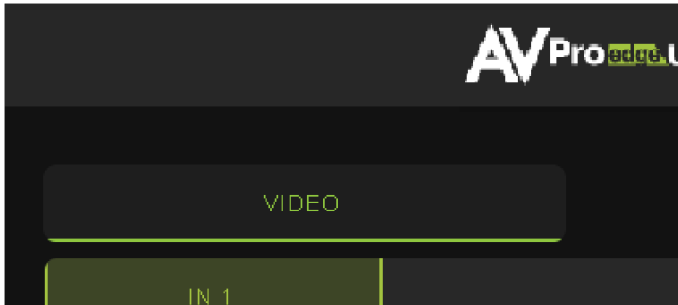
The screenshot displays the AVProedge user interface for configuring a matrix. The interface is divided into several sections:

- Header:** AVProedge logo and the model number AC-MX-1616.
- Left Sidebar:** A navigation menu with options: Matrix (highlighted), I/O Config, System, Diagnostics, and Console.
- Matrix Configuration:**
 - VIDEO:** A vertical list of input channels labeled IN 2 through IN 16.
 - EXTRACTED AUDIO:** A sub-section containing a grid of output channels labeled OUT 2 through OUT 16. Each output channel is associated with an input channel (e.g., OUT 2 is linked to IN 2).
 - SOURCE 1:** A specific source is highlighted in green and labeled "Family Room".

WebUI: Audio Matrix

Use this page to route the extracted audio.

NOTE: The extracted audio ports can only be manually changed (matrixed) when in Matrix Mode. If the extracted audio is set to Bind to Input (default) or Bind to Output then this tab will not be visible, example below. See Page 14 “Advanced Setup: WebUI Extracted Audio Output Settings” for more info.



- Click on the INPUT number to select
- With the INPUT selected simply click on the OUTPUT you want to send that audio too.
- Note: If you rename the INPUTS/OUTPUTS using the I/O Config page they will display here.

WebUI: I/O Config - Input Settings

Input Settings Label - Use this to give a name/alias to your inputs (Apple TV, Cable Box, Roku, etc). Note: There is a 15-character limit to this field, the name will replace the default "IN #" throughout the rest of the WebUI (for instance the Video Matrix tab).



Input Settings Enable switch - Use this enable/disable switch to turn the corresponding Input port on or off. The default setting is enabled (green) by default.

Disabled Enabled

WebUI: I/O Config - Input Settings Cont.

Input Settings EDID - Use these four dropdowns to select your preferred EDID. The available combinations are as follows.

0. 1080P_2CH	9. 4K60HzY420_3D_2CH	18. 1080P_3D_2CH_HDR	27.4K60HZ_3D_2CH_HDR
1. 1080P_6CH	10. 4K60HzY420_3D_6CH	19. 1080P_3D_6CH_HDR	28.4K60HZ_3D_6CH_HDR
2. 1080P_8CH	11. 4K60HzY420_3D_8CH	20. 1080P_3D_8CH_HDR	29.4K60HZ_3D_8CH_HDR
3. 1080P_3D_2CH	12. 4K60HZ_3D_2CH	21. 4K30HZ_3D_2CH_HDR	31. USER1_EDID
4. 1080P_3D_6CH	13. 4K60HZ_3D_6CH	22. 4K30HZ_3D_6CH_HDR	32. USER2_EDID
5. 1080P_3D_8CH	14. 4K60HZ_3D_8CH	23. 4K30HZ_3D_8CH_HDR	33. USER3_EDID
6. 4K30HZ_3D_2CH	15. 1080P_2CH_HDR	24. 4K60HzY420_3D_2CH_HDR	
7. 4K30HZ_3D_6CH	16. 1080P_6CH_HDR	25. 4K60HzY420_3D_6CH_HDR	
8. 4K30HZ_3D_8CH	17. 1080P_8CH_HDR	26. 4K60HzY420_3D_8CH_HDR	

NOTE: If you select USER1 EDID, then drop-downs change to allow you to select from and output to copy from. You can select any of the 16 HDMI outputs then click the COPY button (this replaces the Apply button). This will save that outputs EDID to the USER1 slot.

Input Settings Signal - The Signal Indicator on the HDMI INPUTS shows the current state of the connection HDMI source. Green means the HDMI source is detected, red means that the source is not detected. If red verify that source is powered on and that the HDMI cable is properly connected to the source and to the back of the matrix.



Global Input Settings

- There are two settings available

Global Input Settings (Applies to all inputs)

Support Dolby MAT Require Dolby Vision Low Latency (Recommended)

- **Supports Dolby MAT** - Check this box to enable Dolby MAT audio
- **Requires Dolby Vision Low Latency** - Check this box to require Dolby Vision Low Latency (Player-led) over Standard Dolby Vision (TV-Led). Sources like Apple TV and X-Box Series X use Low Latency.

Web: I/O Config - Output Settings

Video Output Settings					
Port	Label	State		Video Scaling	Signal
1	OUT 1 5 / 15	Enabled	▼	No scaling	●
2	OUT 2 5 / 15	Enabled	▼	No scaling	●
3	OUT 3 5 / 15	Enabled	▼	No scaling	●
4	OUT 4 5 / 15	Enabled	▼	No scaling	●
5	OUT 5 5 / 15	Enabled	▼	No scaling	●
6	OUT 6 5 / 15	Enabled	▼	No scaling	●
7	OUT 7 5 / 15	Enabled	▼	No scaling	●
8	OUT 8 5 / 15	Enabled	▼	No scaling	●
9	OUT 9 5 / 15	Enabled	▼	No scaling	●
10	OUT 10 6 / 15	Enabled	▼	No scaling	●
11	OUT 11 6 / 15	Enabled	▼	No scaling	●
12	OUT 12 6 / 15	Enabled	▼	No scaling	●
13	OUT 13 6 / 15	Enabled	▼	No scaling	●
14	OUT 14 6 / 15	Enabled	▼	No scaling	●
15	OUT 15 6 / 15	Enabled	▼	No scaling	●
16	OUT 16 6 / 15	Enabled	▼	No scaling	●

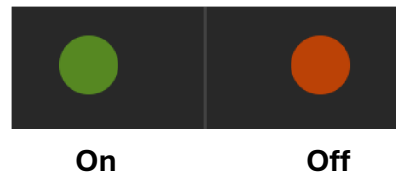
Output Settings Label - Use this to give a name/alias to your outputs (Living Room, Den, Kitchen, etc).

Note: There is a 15-character limit to this field, the name will replace the default “OUT #” throughout the rest of the WebUI (for instance the Video Matrix tab).

Output Settings State - This drop-down has 4 settings, just like the input settings you can Enable or disable this port. In addition, you can also choose Test Pattern to enable a 1080P or 4K color bar test pattern on that output. This is helpful in verifying the signal chain from Matrix to sync (display). To disable the test pattern, change the state back to Enabled (default).

Output Settings Video Scaling - The HDMI outputs can down-scale a 4K signal down to 2K (1080P).

Output Settings Signal - The Signal Indicator on the HDMI OUTPUTS shows the current state of the connection HDMI Output. Green means HDMI sync is detected, red means that the sync is not detected. If red verify that the output is powered on and that the HDMI cable is properly connected to the sync and to the back of the matrix.



WebUI: I/O Config – Extracted Audio Output

Audio Mode – This dropdown switches between the three audio binding modes

- BIND TO OUTPUT (extracted audio switches with the video, this is the default mode)
- BIND TO INPUT (extracted audio is fixed to the corresponding input by the same number)
- MATRIX (extracted audio can be routed independently of video to function as a separate audio matrix)

Output Settings Label - Use this to give an alias/name to your extracted audio outputs.

Note: There is a 15-character limit to this field, the name will replace the default “OUT #” throughout the rest of the WebUI (for instance the Video Matrix tab).

Output Settings Enabled - This is an enable/disable switch. By default, this will be Enabled/Green. To change the setting simply click to switch. Disabled/Red there will be no Audio passed on that extracted audio port

Output Settings Volume - Here you can use the slider bar to adjust the extracted port volume (0~100). You can also use the text box and enter a value (0~100).

Output Settings EQ Settings - To open the EQ Settings click on the symbol next to the Volume slider.

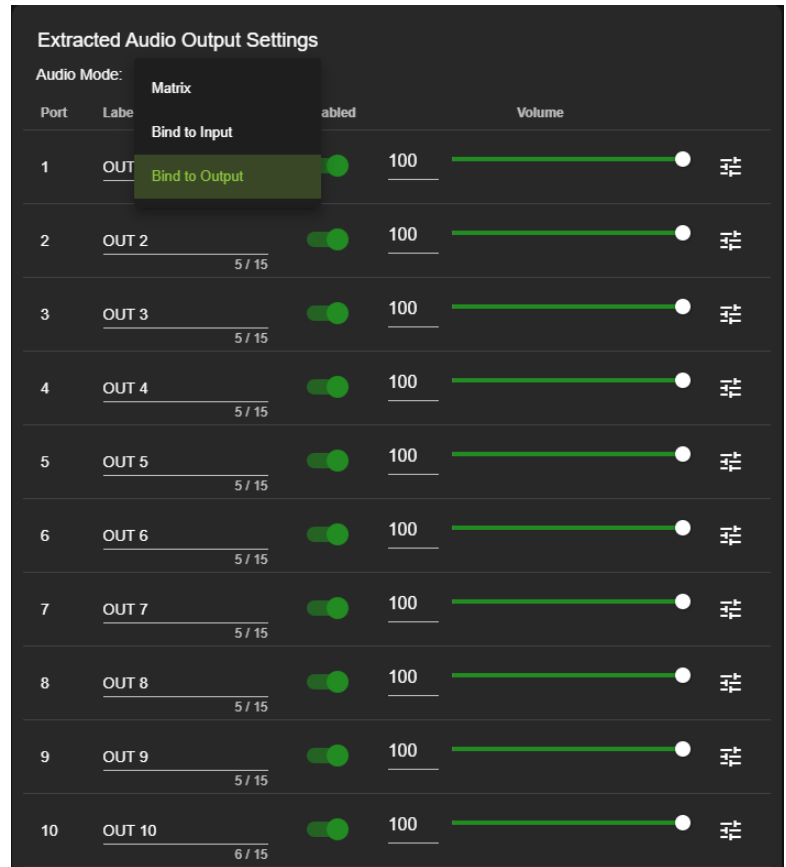
EQ Drop-down contains 8 settings. The default off, Classical, Headphone, Hall, Live, Pop, Rock, and Vocal.

Output Settings Balance - Use this slider to adjust the Left/Right balance.

Note: Default is 0 (zero), value can be -10~10

Output Settings Delay (ms) - Audio delay drop-down has eight available settings, these are measured in milliseconds.

None (default), 90ms, 180ms, 270ms, 360ms, 450ms, 540ms, and 630ms.



WebUI: System - IP Settings

This area contains relevant network information for the AC-MX-1616.

Host Name - Devices name on the network. This field is automatically filled with Model Name by default.

Model Name - Displays the AVPro Edge Model/Part number.

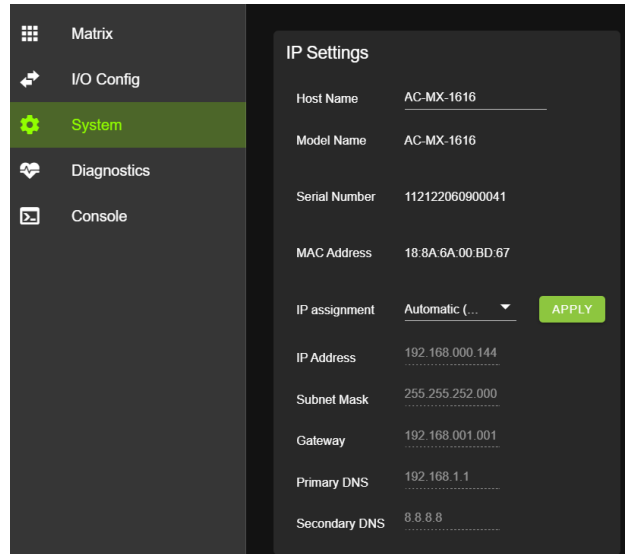
Serial Number - Displays the Serial Number of the matrix.

MAC Address - Displays the devices MAC Address.

IP assignment - This drop-down has two options.

1. Manual
2. Automatic (DHCP)

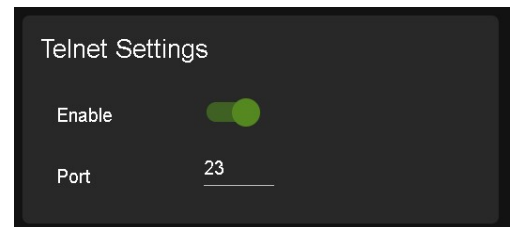
Default out of the box will be set to Automatic (DHCP), the IP Address, Subnet Mask, Gateway, Primary DNS, and Secondary DNS will be assigned by your network controller. If you select Manual, you can use the text fields to enter your own Network settings. Once all fields have been filled out, click the green Apply Button to set. A prompt will appear to confirm the change, click OK to confirm.



WebUI: System - Telnet Settings

This area contains relevant Telnet settings for the AC-MX-1616. There are two fields that can be changed, Enable Disable switch and Port Number.

- Enable - This switch has two options, Green/Enabled (Default) and Red/Disabled.
- Port - This field is used to change the Telnet Port of the AC-MX-1616. You can use the text field to enter a number or use the Up/Down arrow buttons to increase/decrease the number.

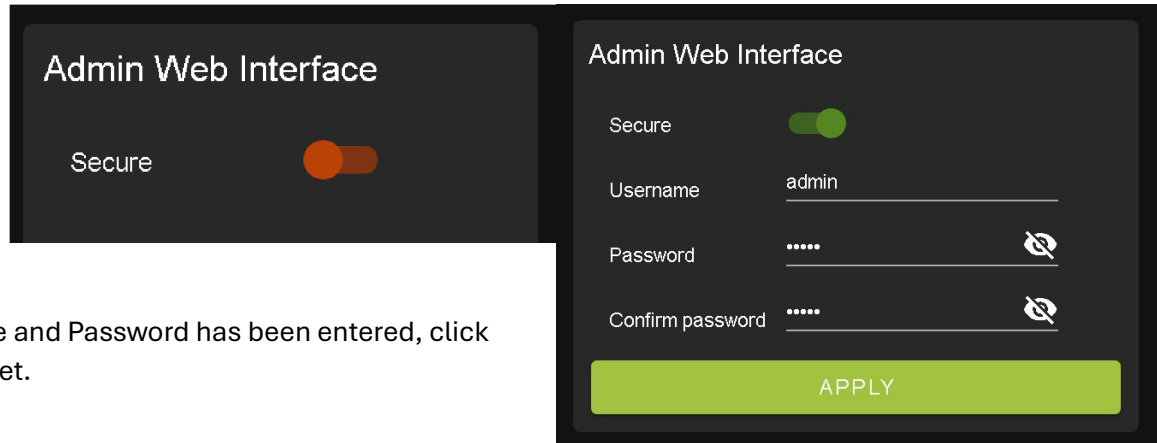


WebUI: System - Admin Web Interface

This switch has two options, Red/Disabled (Default) and Green/Enabled. When enabled (green) there will be three fields that appear, Username, Password, and Confirm Password.

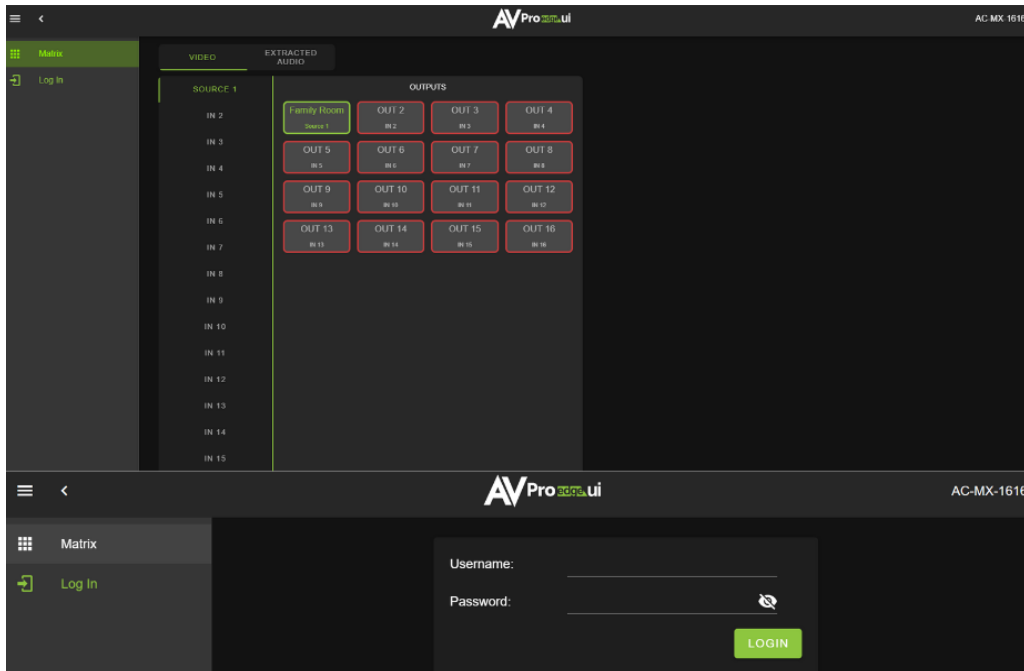
Default Username - admin

Default Password - admin



Once the desired Username and Password has been entered, click the green APPLY button to set.

With the Admin Web Interface enabled, the only menu that will be accessible using the WebUI will be the Matrix tab. The rest of the settings will require the admin log in to access.



WebUI: System - User Web Interface

This switch has two options, Red/Disabled (Default) and Green/Enabled. When enabled (green) there will be three fields that appear, Username, Password, and Confirm Password.

NOTE: The Admin Web Interface must first be Enabled and set up before this field will be available to change.

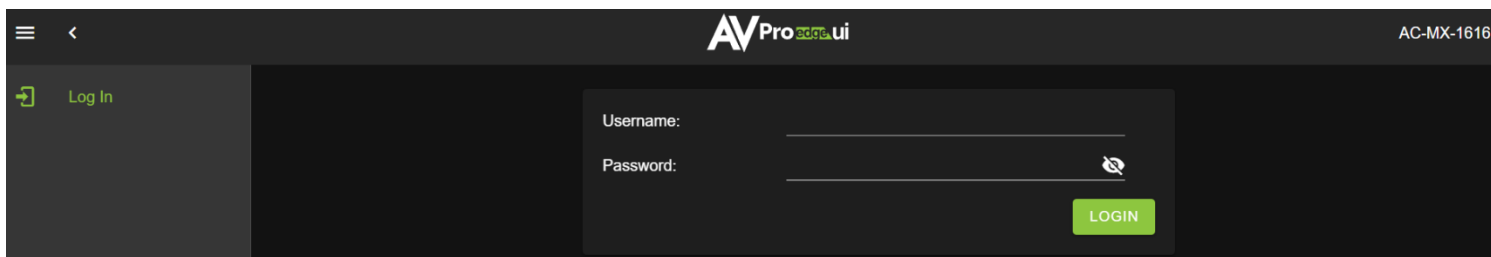
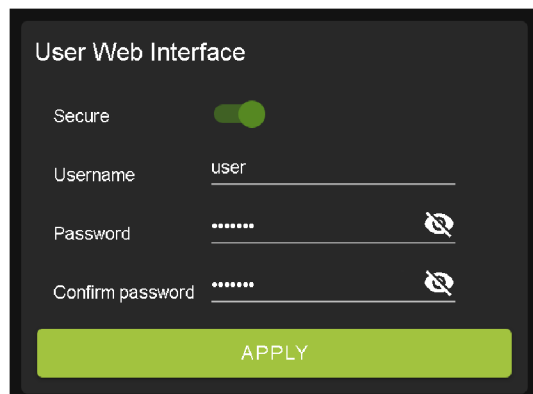
Default Username - user

Default Password - user123

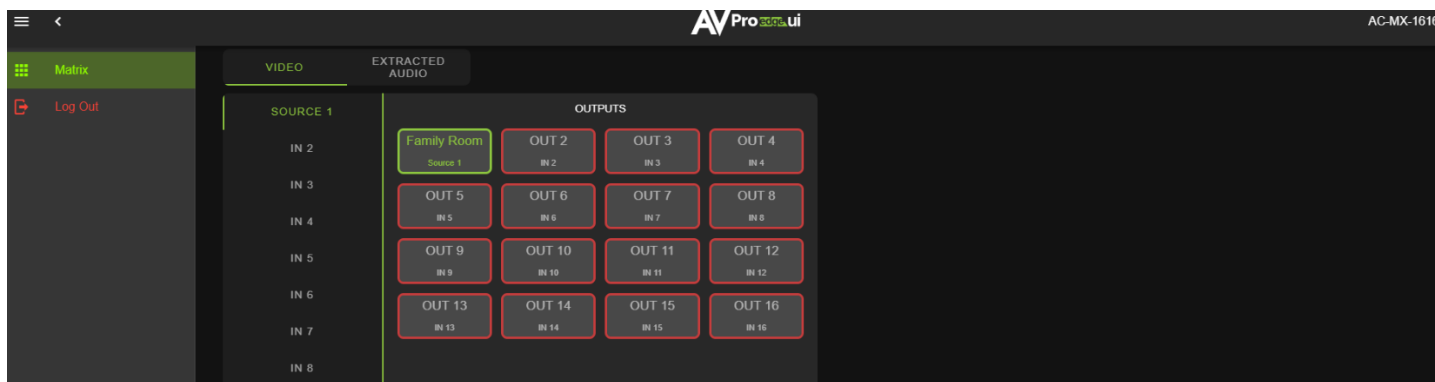
Once the desired Username and Password has been entered, click the green APPLY button to set.

Note: The webpage will reload to the Log In page.

With both Admin and User Web Interfaces enabled, no menus will be accessible using the WebUI without first logging in (see image below).



Logging in with the User credentials, the only menu that will be accessible will be the Matrix tab. The rest of the settings will require the admin user to log in.

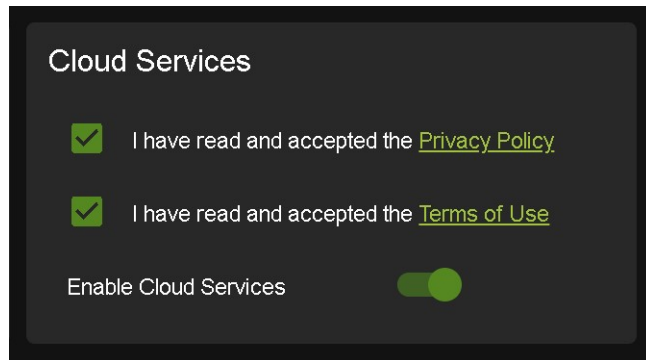
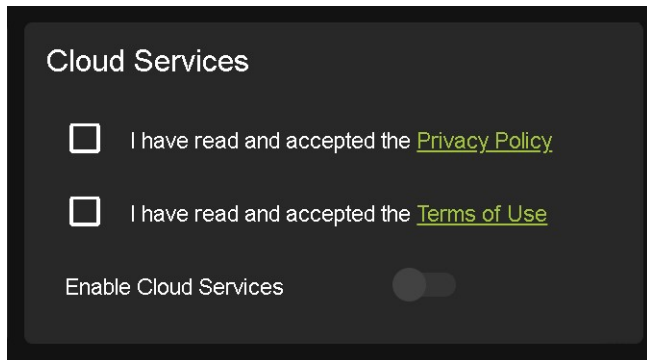


WebUI: System - Cloud Services

By enabling Cloud Services your device will have the ability to connect to firmware servers for over-the-air (OTA) updates and enable third-party remote management services. If Cloud Services are disabled, your device will opt-out of any previously enabled services and will not be able to access OTA updates.

Before you can enable the cloud services you must first agree to the “Privacy Policy” and “Terms of Use”.

You can view these documents by clicking on Privacy Policy or Terms of Use links, this will open a PDF copy of that document in a new tab.

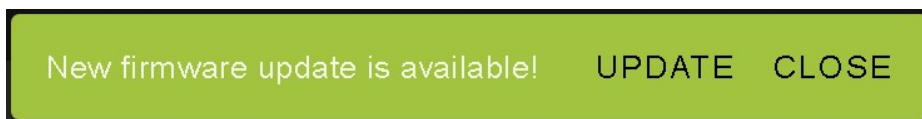


With the Cloud Services enabled you can use the System tab to check for new Firmware OTA (over the air).

This will check the firmware versions currently loaded on the AC-MX-1616 and compare them to the latest available. If it is up to date, you will see a prompt stating “No update available!” click CLOSE to exit.

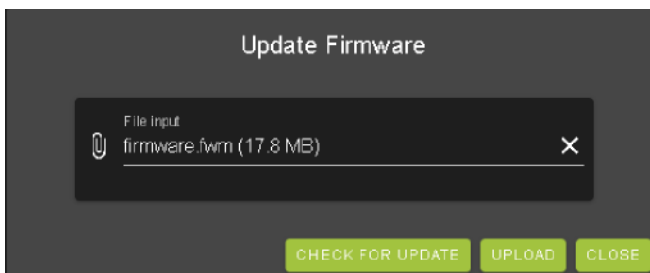


If an update is available, the following prompt will show. Simply click the UPDATE button to load.



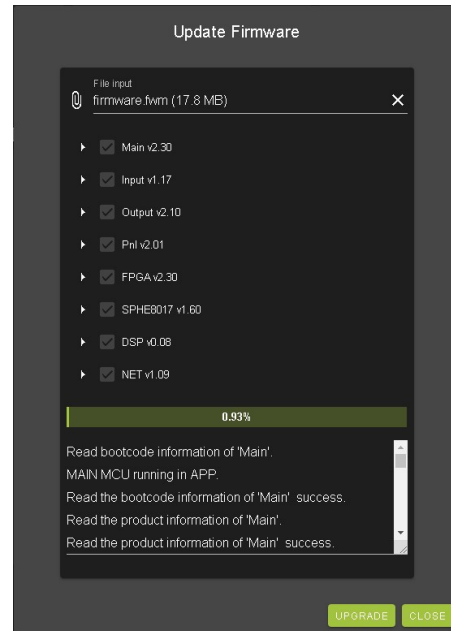
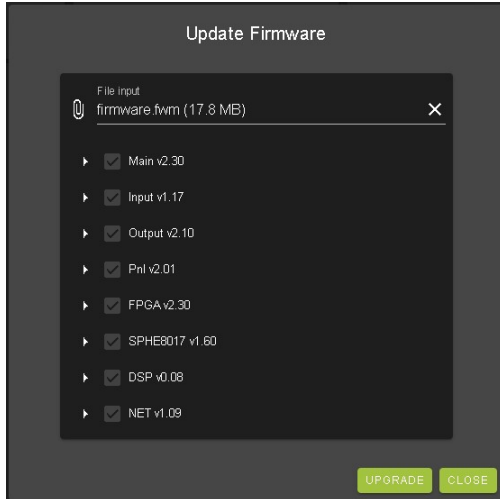
NOTE: When loading firmware (depending on the firmware files that are being updated) some settings will revert to Factory Defaults. Take note of the I/O Config tab. Settings like the INPUT/OUTPUT labels, EDID Settings, Video Scaling, Audio Settings, etc. as they will have to be re-applied after the firmware updates are completed.

If an update is available a file will automatically be selected, simply click the UPLOAD button to load the firmware files to the Matrix.



WebUI: System - Firmware Update

Once the firmware file has been uploaded, it will display all containing firmware files. Here you can select individual firmware files to load or simply leave all files/options selected. If the version is currently installed not newer, then that update will be skipped automatically.



Once the progress bar hits 100% click the CLOSE button, the firmware upgrade process is complete.

Now you will want to go back and re-apply settings like INPUT/OUTPUT Labels, applied EDIDs, Video Scaler Settings, Audio Settings, etc.

WebUI: System - Hardware

Fan Speed – This adjusts the AC-MX-1616’s internal fan speeds.

LCD Timeout - This adjusts the time the front panel display will stay lit up when a button is pressed.

There are four settings available

1. Always on (Default)
2. 15 Seconds
3. 30 Seconds
4. 45 Seconds

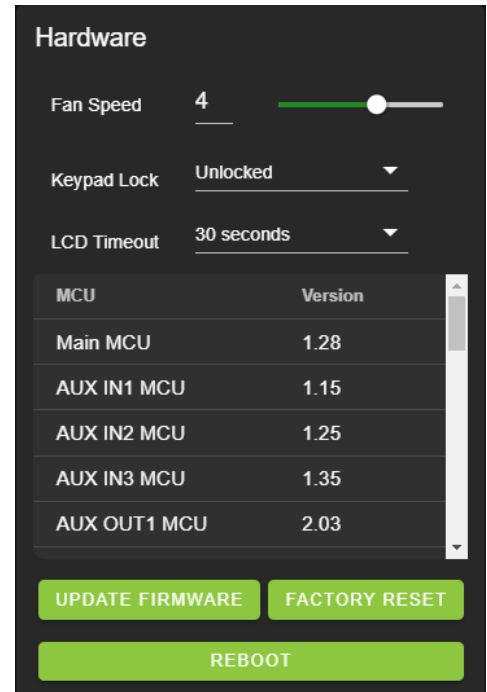
Keypad Lock - Enable or Disable (default) the front panel Keypad Lock.

MCU/Version - Lists the current Firmware Versions

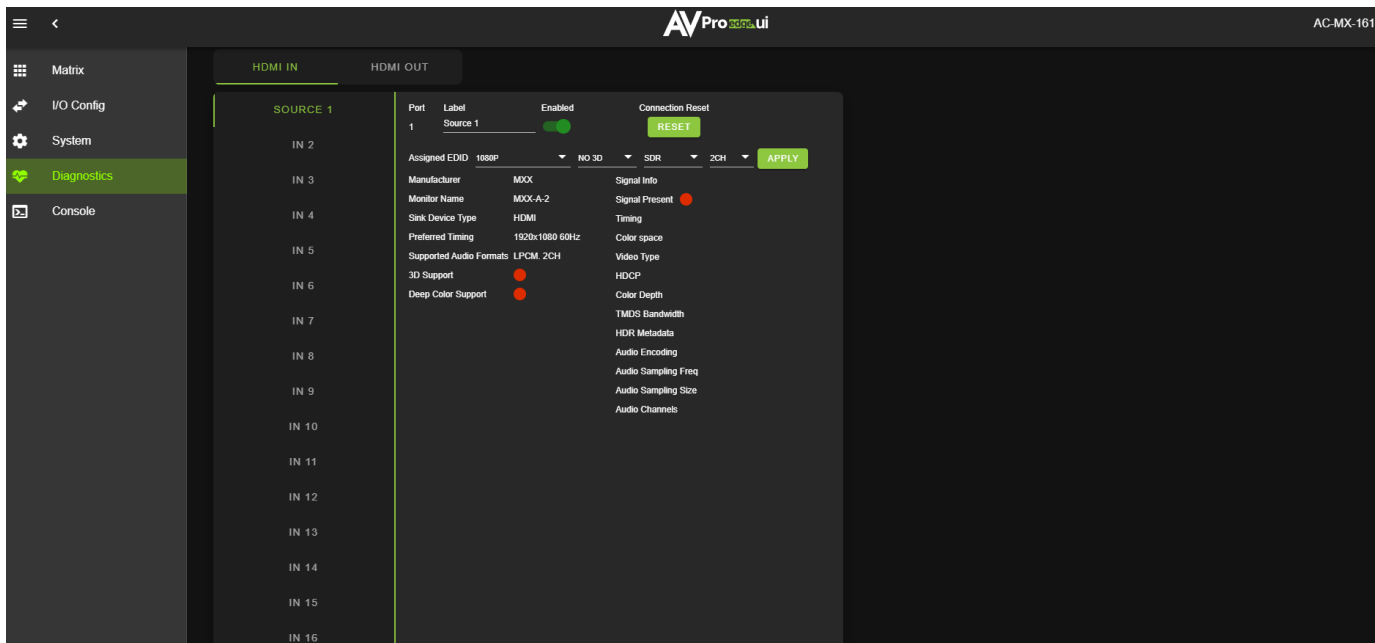
UPDATE FIRMWARE -Check/upload firmware.

FACTORY RESET - Restores matrix to Factory Defaults

REBOOT - Reboots the AC-MX-1616



WebUI: Diagnostics - HDMI IN



Input Settings Label - Use this to give a name/alias to your inputs (Apple TV, Cable Box, Roku, etc). Note: There is a 15-character limit to this field, the name will replace the default “IN #” throughout the rest of the WebUI (for instance the Video Matrix tab).

Input Settings Enable switch - Use this enable/disable switch to turn the corresponding Input port on or off. The default setting is enabled (green) by default.



Disabled Enabled

Connection Reset - Use this button to perform a reset of the HDMI Input connection.

Input Settings EDID - Use these four dropdowns to select your preferred EDID. The available combinations are as follows.

0. 1080P_2CH	9. 4K60HzY420_3D_2CH	18. 1080P_3D_2CH_HDR	27. 4K60HZ_3D_2CH_HDR
1. 1080P_6CH	10. 4K60HzY420_3D_6CH	19. 1080P_3D_6CH_HDR	28. 4K60HZ_3D_6CH_HDR
2. 1080P_8CH	11. 4K60HzY420_3D_8CH	20. 1080P_3D_8CH_HDR	29. 4K60HZ_3D_8CH_HDR
3. 1080P_3D_2CH	12. 4K60HZ_3D_2CH	21. 4K30HZ_3D_2CH_HDR	31. USER1_EDID
4. 1080P_3D_6CH	13. 4K60HZ_3D_6CH	22. 4K30HZ_3D_6CH_HDR	32. USER2_EDID
5. 1080P_3D_8CH	14. 4K60HZ_3D_8CH	23. 4K30HZ_3D_8CH_HDR	33. USER3_EDID
6. 4K30HZ_3D_2CH	15. 1080P_2CH_HDR	24. 4K60HzY420_3D_2CH_HDR	
7. 4K30HZ_3D_6CH	16. 1080P_6CH_HDR	25. 4K60HzY420_3D_6CH_HDR	
8. 4K30HZ_3D_8CH	17. 1080P_8CH_HDR	26. 4K60HzY420_3D_8CH_HDR	

HDMI IN
HDMI OUT

	Port	Label	Enabled	Connection Reset
SOURCE 1	1	Source 1	<input checked="" type="checkbox"/>	RESET
IN 2				
IN 3				
IN 4				
IN 5				
IN 6				
IN 7				
IN 8				
IN 9				
IN 10				

Assigned EDID	1080P	▼	NO 3D	▼	SDR	▼	2CH	▼	APPLY
Manufacturer	MXX		Signal Info						
Monitor Name	MXX-A-2		Signal Present	●					
Sink Device Type	HDMI		Timing						
Preferred Timing	1920x1080 60Hz		Color space						
Supported Audio Formats	LPCM. 2CH		Video Type						
3D Support	●		HDCP						
Deep Color Support	●		Color Depth						
			TMDS Bandwidth						
			HDR Metadata						
			Audio Encoding						
			Audio Sampling Freq						
			Audio Sampling Size						
			Audio Channels						

On the left, you will see the current applied EDID information. In the example above, you will see a canned 1080P - No 3D - SDR - 2CH EDID applied to IN 1. Any EDID change once applied will be displayed here.

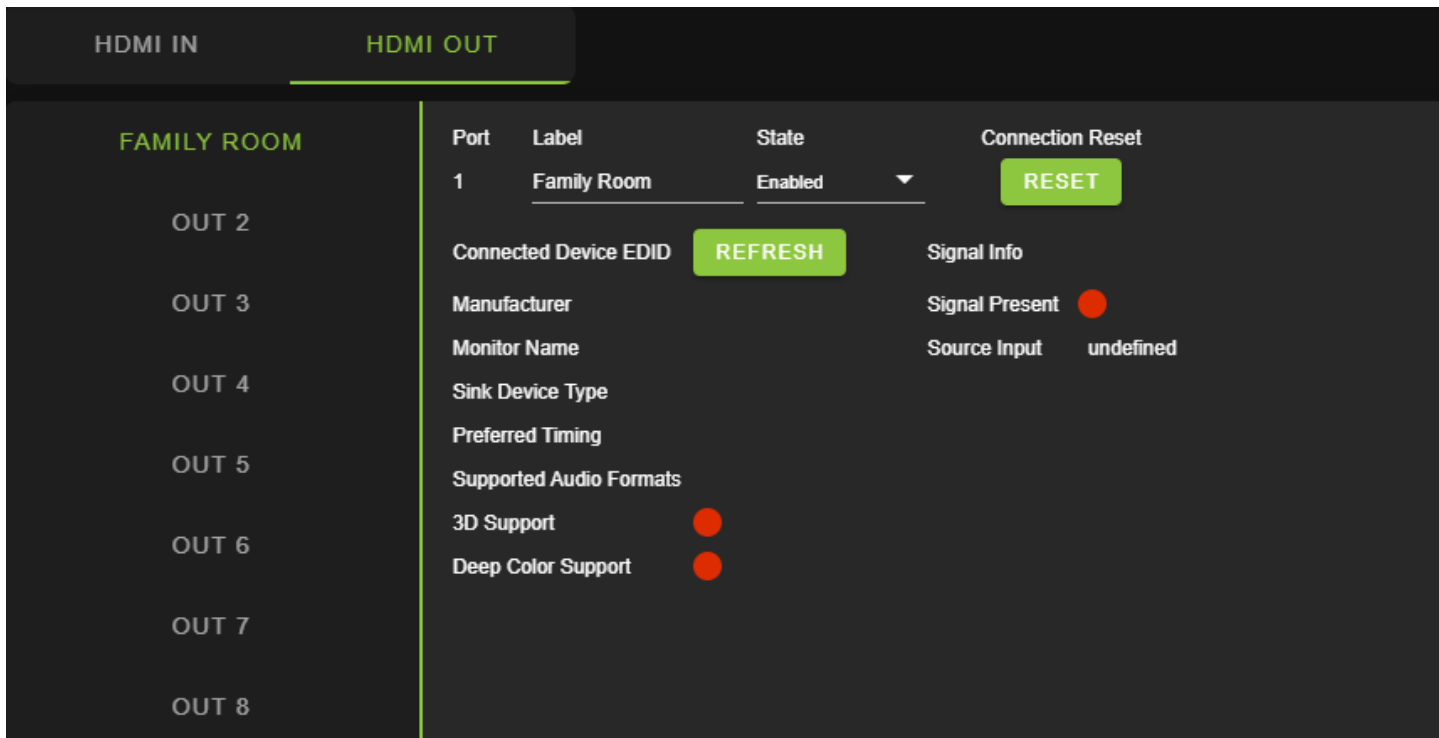
Signal Info shows the connected source's current output information. This includes

- Timing
- Color Space
- Video Type
- HDCP Version
- TMDS Bandwidth
- HDR Metadata
- Audio Sampling Frequency
- Audio Sampling Size
- Audio Channels

	Port	Label	Enabled	Connection Reset
SOURCE 1	1	Source 1	<input checked="" type="checkbox"/>	RESET
IN 2				
IN 3				
IN 4				
IN 5				
IN 6				
IN 7				
IN 8				
IN 9				
IN 10				

Assigned EDID	1080P	▼	NO 3D	▼	SDR	▼	2CH	▼	APPLY
Manufacturer	MXX		Signal Info						
Monitor Name	MXX-A-2		Signal Present	●					
Sink Device Type	HDMI		Timing						
Preferred Timing	1920x1080 60Hz		Color space						
Supported Audio Formats	LPCM. 2CH		Video Type						
3D Support	●		HDCP						
Deep Color Support	●		Color Depth						
			TMDS Bandwidth						
			HDR Metadata						
			Audio Encoding						
			Audio Sampling Freq						
			Audio Sampling Size						
			Audio Channels						

WebUI: Diagnostics - HDMI OUT

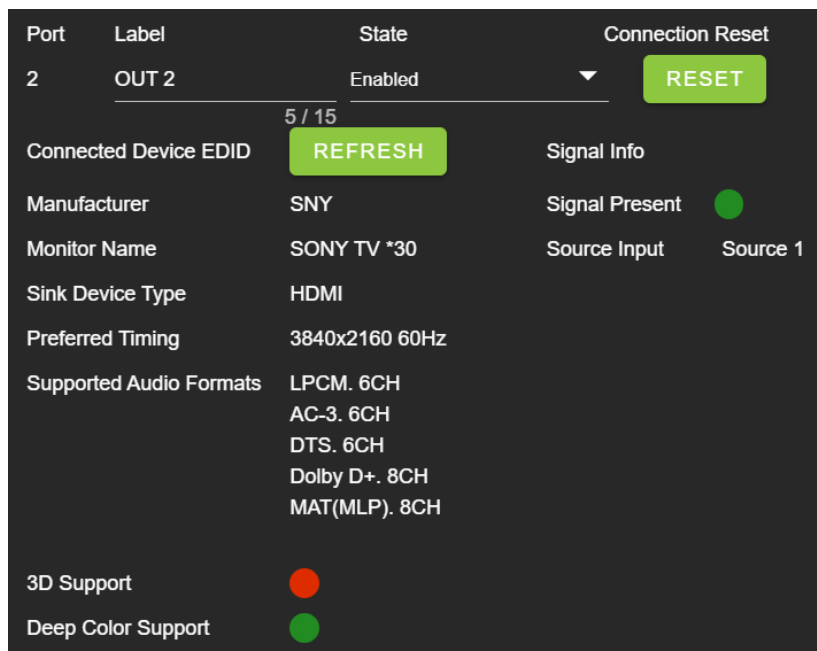


HDMI Output Label, State, and Connection Reset.

Connected Device EDID shows the connected sync's preferred EDID information and current state.

This includes

- Manufacturer
- Monitor Name
- Sink Device Type
- Preferred Timing
- Supported Audio Formats
- 3d Support
- Deep Color Support
- Signal Present
- Source Input



WebUI: Console

There is a built in Command Console

Using the command API (command list) you can send device specific commands or use as a live monitor while sending commands from a control system (helpful in troubleshooting)

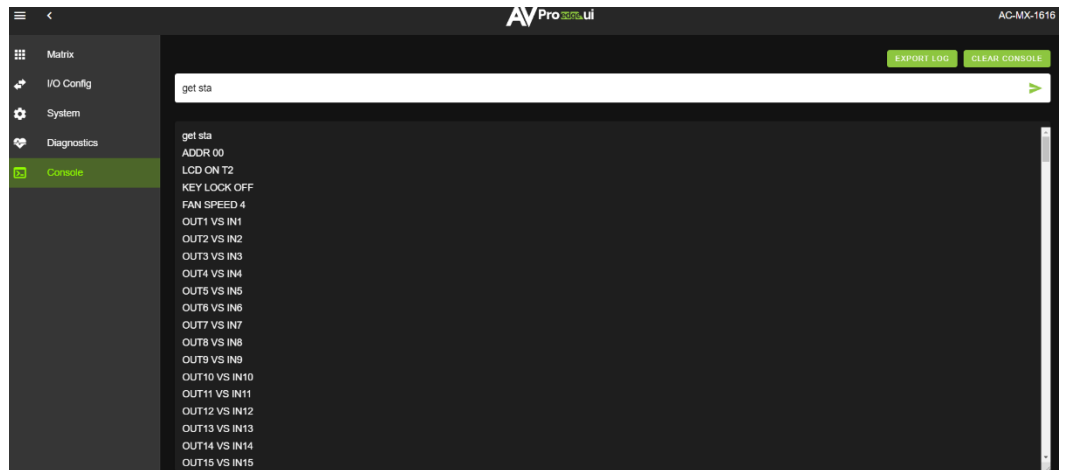
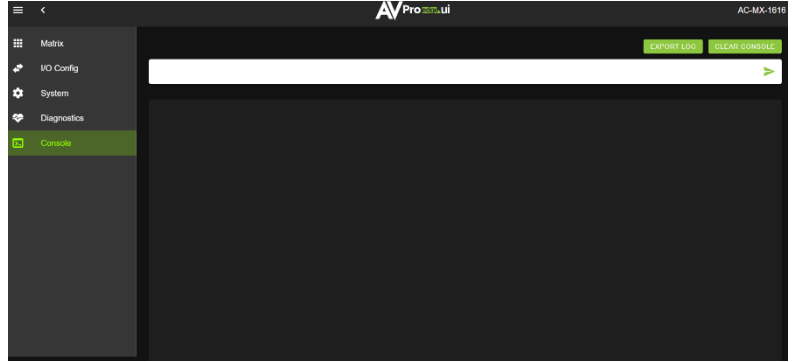
Example

1. Click in the white box and type

a. GET STA

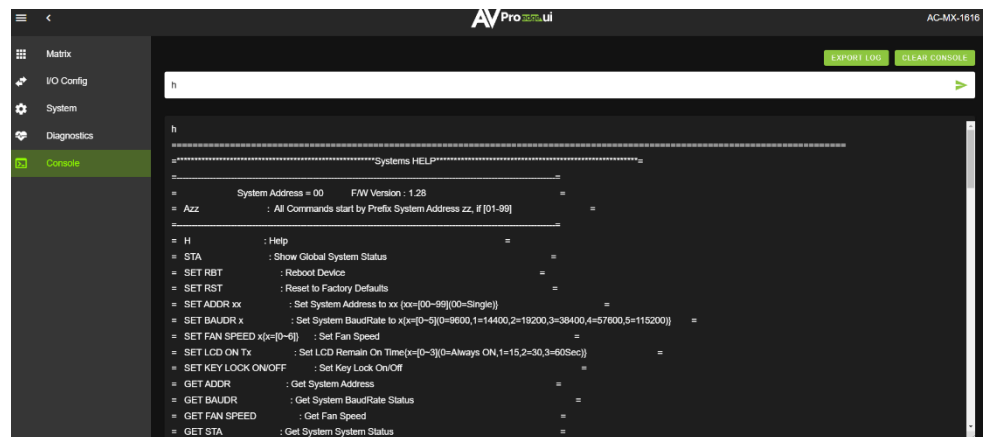
Click the green arrow or hit ENTER/RETURN on your keyboard

The command response will be shown in the field below.



Example - “GET STA”

Get status



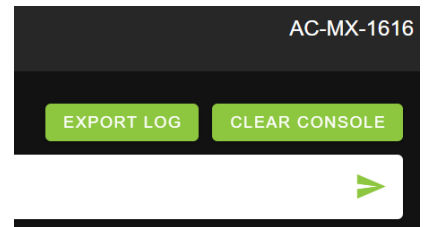
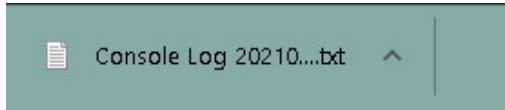
Example - “H”

Help command

Returns all Available Commands

EXPORT LOG - Button

This button will generate a text file containing the console information in your web browser's download folder.



CLEAR CONSOLE - Button

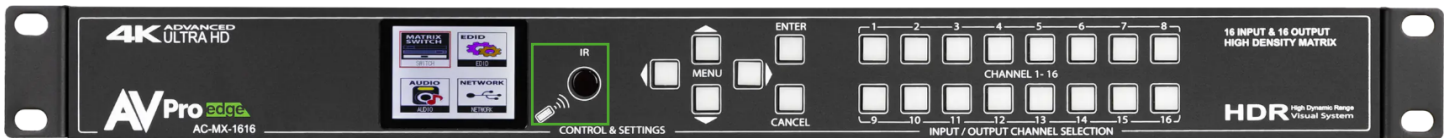
This button will clear the current console session.

Command List

Command	Action
H	Help
STA	Show Global System Status
SET RBT	Reboot Device
SET RST	Reset to Factory Defaults
SET ADDR xx	Set System Address to xx {xx=00~99}
SET BAUDR x	Set System BaudRate to x{x=0~5}
SET FAN SPEED x{x=[0~6]}	Set Fan Speed
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
GET ADDR	Get System Address
GET BAUDR	Get System BaudRate Status
GET FAN SPEED	Get Fan Speed
GET STA	Get System System Status
GET DEV TEMP	Get Device Temperature
GET INx SIG STA	Get Input x Signal Status{x=0~16}
GET OUTx SIG STA	Get Output x Signal Status{x=0~16}
GET INx AUD FMT INF	Get Input x Audio information{x=0~16}
GET INx VID FMT INF	Get Input x Video information{x=0~16}
GET OUTx HPD	Get Output x HPD Status{x=0~16}
GET LCD ON T	Get LCD Remain On Time
GET KEY LOCK	Get Key Lock Status
Output Setup Commands:	
SET OUTx VS INy	Set Output x To Input y{x=0~16, y=[1~16]}
SET OUTx VIDEOy	Set Output x VIDEO Mode {x=0~16, y=1,2}
SET OUTx EXAUD LEVy	Set Output x Ex-Audio(Balanced) Volume Levely{x=0~16,y=[0~100]}
SET OUTx EXA LVLy	Set Output x Ex-Audio(Balanced) Left Volume Levely{x=0~16,y=[0~10]}
SET OUTx EXA RVLy	Set Output x Ex-Audio(Balanced) Right Volume Levely{x=0~16,y=[0~10]}
SET OUTx EXEQ MODEy	Set Output x EX-Audio Volume EQ Modey{x=0~16, y=[0~7]} y=[0-OFF],[1-Classical],[2-Headphone],[3-Hall],[4-Live],[5-Pop],[6-Rock],[7-Vocal]
SET OUTx EXA EN/DIS	Set Ex-Audio Output Enable/Disable{x=0~16}
SET OUTx EXADL PHY	Set Ex-Audio Delay{x=0~16, y=0~7}
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=0~16, y=[1~16]}
SET OUTx SGM T y	Set Output x Signal Generator Timing {x=0~16,y=[0~2]}(0=Signal Generator OFF,1=1080p 60Hz,2=4K 30Hz)}
SET OUTx STREAM ON/OFF	Set Output x Stream ON/OFF{x=0~16}
GET OUTx VS	Get Output x Video Route{x=0~16}
GET OUTx VIDEO	Get Output x Video Mode{x=0~16}
GET OUTx EDID DATA	Get Output x EDID DATA{x=[1~16]}
GET OUTx EXAUD LEV	Get Output x Ex-Audio(Balanced) Volume Level{x=0~16}
GET OUTx EXA LVL	Get Output x Ex-Audio(Balanced) Left Volume Level{x=0~16}

GET OUTx EXA RVL	Get Output x Ex-Audio(Balanced) Right Volume Level{x=0~16}	
GET OUTx EXA RLVL	Get Output x Ex-Audio(Balanced) Right Left Volume Level{x=0~16}	
GET OUTx EXEQ MODE	Get Output x EX-Audio Volume EQ Mode Status{x=0~16}	
GET OUTx EXA	Get Ex-Audio Output Enable/Disable Status{x=0~16}	
GET OUTx EXADL PH	Get Ex-Audio Output Delay Status{x=0~16}	
GET EXAMX MODE	Get Ex-Audio Matrix Mode	
GET OUTx AS	Get Output x Ex-Audio Route{x=0~16}	
GET OUTx SGMT	Get Output x Signal Generator Timing Status{x=0~16}	
GET OUTx STREAM	Get Output x Stream ON/OFF Status{x=0~16}	
Input Setup Commands:		
SET INx EDID y	Set Input x EDID{x=0~4, y=[0~32]}	
0:1080P_2CH	1:1080P_6CH	2:1080P_8CH
3:1080P_3D_2CH	4:1080P_3D_6CH	5:1080P_3D_8CH
6:4K30HZ_3D_2CH	7:4K30HZ_3D_6CH	8:4K30HZ_3D_8CH
9:4K60HzY420_3D_2CH	10:4K60HzY420_3D_6CH	11:4K60HzY420_3D_8CH
12:4K60HZ_3D_2CH	13:4K60HZ_3D_6CH	14:4K60HZ_3D_8CH
15:1080P_2CH_HDR	16:1080P_6CH_HDR	17:1080P_8CH_HDR
18:1080P_3D_2CH_HDR	19:1080P_3D_6CH_HDR	20:1080P_3D_8CH_HDR
21:4K30HZ_3D_2CH_HDR	22:4K30HZ_3D_6CH_HDR	23:4K30HZ_3D_8CH_HDR
24:4K60HzY420_3D_2CH_HDR	25:4K60HzY420_3D_6CH_HDR	26:4K60HzY420_3D_8CH_HDR
27:4K60HZ_3D_2CH_HDR	28:4K60HZ_3D_6CH_HDR	29:4K60HZ_3D_8CH_HDR
30:USER1_EDID	31:USER2_EDID	32:USER3_EDID
SET INx EDID CY OUTy	Copy Output y EDID To Input x (USER1 BUF) {x=0~16, y=[1~16]}	
SET INx Uy EDID CY OUTz	Copy Output z EDID To Input x and User y Buffer {x=0~16, y=[1~3], z=[1~16]}	
SET INx EDID Uy DATAz	Write EDID To User y Buffer of Input x {x=0~16, y=[1~3], z=[EDID Data]}	
SET INx TMDS ON/OFF	Set Input Port Power On/Off {x=0~16}	
GET INx EDID	Get Input x EDID Index {x=0~16}	
GET INx EDID y DATA	Get Input x EDID y Data {x=[1~16], y=[0~32]}	
GET INx TMDS	Get Input Port Power On/Off State {x=0~16}	
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 mm.nn	Set IR Code for Output x and Input y {x=[1~16], y=[1~16], mm=[00FFH, Output], nn=[00FFH, Input]}	
GET IR SYS	Get IR Custom Code	
GET IR OUTx INy CODE	Get IR Code for Output x and Input y {x=[1~16], y=[1~16]}	

IR Control: IR Remote



IR Remote Control:

When routing HDMI, the matrix can be controlled by using the IR remote supplied with the product (battery not included, requires CR2025).

The buttons on the top are the **INPUTS**.

The buttons on the bottom are the **OUTPUTS**. To make a change, press the desired OUTPUT button on the bottom first, then press the INPUT button you want to route. So, to route INPUT14 to OUT9, you would press OUTPUT#9 on the bottom, then press the INPUT#14 button



*Not Included



IR Control: Extension Port

The IR EXT. port on the back can accept an IR Receiving Eye (one included in the box).



RS-232 and TCP/IP Control:

The AC-MX-1616 can be controlled with either RS-232 or TCP/IP commands. Certain switching or format configurations can only be done using these commands. We recommend using either the MyUART (RS-232 - free) or Hercules (TCP/IP - free) apps as they are very easy to use for sending commands to the machine.

For TCP/IP control commands use Telnet Port 23.



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

Please add a carriage return (Enter key) after each command when using direct commands. The unified command list (ASCII) is listed on the following pages. Text version available here, and under the resources tab of on the products web page.

Extracted Audio:

The extracted audio ports have three distinct operating modes. Your desired mode can be set to suit your installation.

The 3 modes are:

Bind to Input - This is the default configuration. In this mode the audio port number corresponds to the INPUT signal. This is ideal for systems where audio is matrixed separately in a zoned amplifier.

Bind to Output - This configuration will automatically have the audio follow OUTPUT, so the audio from the extracted port always matches the HDMI output. This is ideal for systems that use local AVR's for some of the zones.

Matrix/ Independent - This mode allows you to matrix the extracted audio outputs independent of HDMI. In this mode a new set of commands becomes available to be able to route audio however you want. This can be used as a separate zoned audio matrix with only using an amplifier.

Balanced 5 pin 2Ch Audio Port:

2 Ch audio only This means for these ports to function the sources must be set to 2 Ch PCM this unit does NOT down mix the audio.

Audio Output Logic and Cable Prep:

You can extract audio from balance 2CH Audio.

2CH Balanced Audio Port - Supports 2CH PCM audio only, which is ideal for 2 Channel systems and zoned audio systems.

You can use balanced analog outputs in a balanced system, but you can also prepare a cable as shown below to convert to a traditional 2CH unbalanced (L/R) system. You can also purchase pre-made cables (AC-CABLE-5PIN-2CH) four of these are included in the box when purchased.



Troubleshooting

- Verify Power - Check that the power supply is properly connected and on an active circuit.
- Verify Connections - Check that all cables are properly connected.
- IR Issues - Verify correct connections
- Lights indicate everything is good but still not getting a picture, this may be a bandwidth limitation. See Bandwidth Chart below to verify the signal is not exceeding the bandwidth of the Extender kit (limited to 10.2Gbps).

Bandwidth Chart

TYPE	RESOLUTION	FRAME RATE (FPS)	COLOUR COMPRESSION	DEEP COLOUR BIT DEPTH	HDR	WIDE COLOR GAMUT (BT2020)	HDMI VERSION	DATA RATE	AUHD SERIES
HD	1920x1080	24	4:2:2	8 BIT	NO	NO	1.4	0.75 GBPS	YES
HD	1920x1080	60	4:2:2	8 BIT	NO	NO	1.4	4.45 GBPS	YES
HD	1920x1080	60	4:4:4	16 BIT	NO	NO	1.4	5.91 GBPS	YES
UHD	3840x2160	24	4:2:0	8 BIT	NO	NO	1.4	8.91 GBPS	YES
UHD	3840x2160	24	4:4:4	8 BIT	NO	NO	1.4	8.91 GBPS	YES
4K	4096x2160	24	4:4:4	8 BIT	NO	NO	1.4	8.91 GBPS	YES
UHD OR 4K	3840x2160	60	4:2:0	8 BIT	NO	NO	1.4/2.0	8.91 GBPS	YES
UHD OR 4K	3840x2160	24	4:2:0	10 BIT	YES	YES	2.0(A/B)	8.91 GBPS	YES
UHD OR 4K	3840x2160	24	4:2:2	12 BIT	YES	YES	2.0(A/B)	11.14 GBPS	YES
UHD OR 4K	3840x2160	24	4:4:4	10 BIT	YES	YES	2.0(A/B)	11.14 GBPS	YES
UHD OR 4K	3840x2160	24	4:4:4	12 BIT	YES	YES	2.0(A/B)	13.37 GBPS	YES
UHD OR 4K	3840x2160	60	4:2:0	10 BIT	YES	YES	2.0(A/B)	11.14 GBPS	YES
UHD OR 4K	3840x2160	60	4:2:0	12 BIT	YES	YES	2.0(A/B)	13.37 GBPS	YES
UHD OR 4K	3840x2160	60	4:2:2	12 BIT	YES	YES	2.0(A/B)	17.82 GBPS	YES
UHD OR 4K	3840x2160	60	4:4:4	8 BIT	YES	YES	2.0(A/B)	17.82 GBPS	YES

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 warrants 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 “redtape” out of a warranty and just make it simple. Our 10 YEAR NO BS warranty hinges on 3 elements.

1. If you are having trouble, call us. We will attempt to troubleshoot your issue over the phone.
2. If it's broke - We'll replace it in advance on our dime. (We'll cover return shipping too.) Repair is an option too, but it's YOUR call.
3. 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 back order it can either be replaced with a comparable product of equal value/feature set (if available) or repair.

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 pro-rated 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 Re-seller.

Accessories (IR Cables, RS-232, Power Supplies, etc...) are not included in the warranty. We will make an acceptable effort 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 AVPro Edge Tech Support Rep or their Sales Engineer. Or you may email support@avproedge.com or fill out the general contact form at www.avproedge.com

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. Item must be returned within 30 days of receipt of 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 new unit for replacement.

LEGAL STUFF.

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.

Thank you for choosing AVPro Edge!

Please contact us with any questions, we are
happily at your service!



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