

User Manual

AC-MX88-AUHD-GEN2 & AC-MX44-AUHD

18 Gbps True 4K60 4:4:4 8x8 HDMI Matrix w/ Dual Audio De-Embedding, Scaling & Audio Delay.



The AC-MX88/44-AUHD is a true 4K60 4:4:4 8x8/4x4 HDMI matrix switch. Supporting HDMI 2.0, HDCP 2.2, HDR and up to 18 Gbps bandwidth. This switch allows any source (Blu-ray, UHD Blu-ray, satellite receiver, game consoles, PCs, etc...) to be shown on any of the connected displays.

Audio Delay is "On-Board" so lip-sync issues are able to be managed before they become a problem. Also, with built-in scalers there is no need to forfeit 4K signals just because there are a couple of older displays. Additionally, full EDID management allows maximum flexibility with today's wide mixture of sources and displays.

This matrix equalizes and amplifies the output to ensure that HDMI signals can be transmitted through long HDMI cables without loss of quality. For long runs, stretch your distance further with the AC-EX70-UHD or AC-EX40-444 HDMI Extenders.

This is an ideal solution for digital entertainment centers, HDTV retail, show sites, data centers, schools, conference and training centers and more!

Features:

- Advanced equalization and amplification of outputs for smooth switching
- 1080p > 4K & 4K > 1080p Up /Down Scalers on each output
- Advanced EDID Management
- HDMI 2.0
- 4K60 4:4:4 Support
- Full HDR Support
- HDCP 2.2
- IR, RS-232 and LAN Control Options
- Digital Toslink Out
- Balanced Analog Out
- Audio Delay for Digital & Analog Out
- Extracted Audio Matrixing

Easy to use:

- Install in seconds
- Feature rich
- Powerful EDID management
- Front Panel Control
- IR Remote
- IR & RS-232 Control
- LAN Control

In The Box:

- AC-MX88-AUHD-GEN2/AC-MX44-AUHD Matrix Switch
- IR Remote Control
- IR Extension Cable
- 12V/4A Locking Power Supply
- RS-232 Control Cable

Quick Installation:

1. Connect the HDMI input sources (Blu-ray, Set Top Box, etc...) to the AC-MX88-AUHD-GEN2/AC-MX44-AUHD.
2. Connect the HDMI output devices (AVR, Display, Distribution Amplifier, Extender) to the AC-MX88-AUHD-GEN2/AC-MX44-AUHD.
3. Power on the sources.
4. Connect the power supply into the AC-MX88-AUHD-GEN2/AC-MX44-AUHD.
5. Turn on output devices/displays.
6. Use the front panel controls, supplied IR remote or free PC software to control the switch.

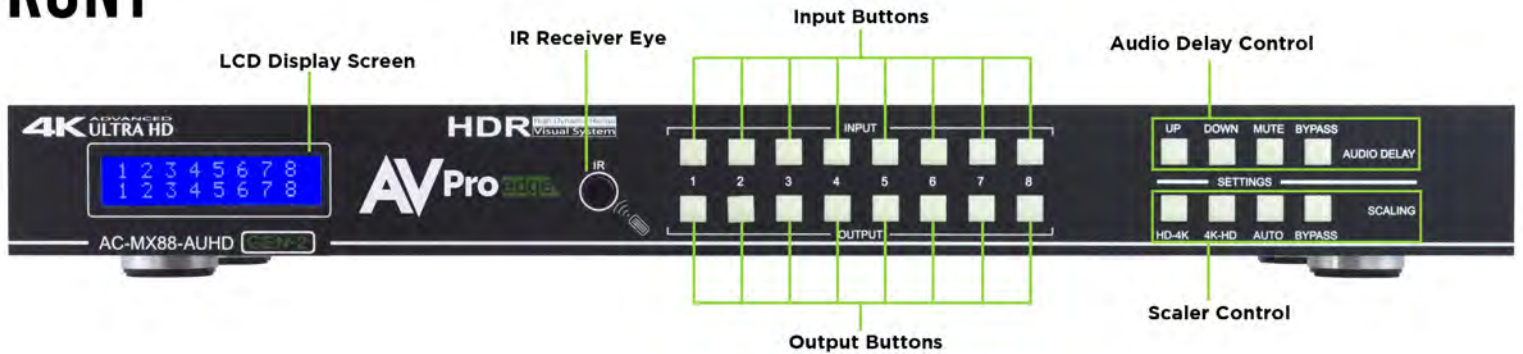
VIDEO:	
VIDEO RESOLUTIONS	UP TO 4K 60HZ 4:4:4
VESA RESOLUTIONS	UP TO DCI 4K (4096X2160) 5K (UP TO 5120X3200)
HDR FORMATS/RESOLUTIONS	420, 422, 444 (10 AND 12 DEEP COLOR) HDR10, HDR10+, DOLBY VISION, HLG
COLOR SPACE	YUV (COMPONENT), RGB (CSC: REC. 601, REC. 709, BT2020, DCI, P3 D6500)
CHROMA SUBSAMPLING	4:4:4, 4:2:2, 4:2:0 SUPPORTED
DEEP COLOR	UP TO 16 BIT (1080), UP TO 12 BIT (4K)
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)	PCM 2.0 CH, LPCM 6 CH, LPCM 7 CH, DOLBY DIGITAL, DOLBY DIGITAL PLUS, DTS- MASTER 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 630MS
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
HDCP	HDCP 2.2 AND EARLIER
CONTROL:	
PORTS	LAN, RS232, IR
DRIVERS	C4, RTI, ELAN, CRESTRON, URC (FOR MORE - SEE DRIVERS PAGE ON AVPROEDGE.COM/DRIVERS)
PC SOFTWARE	YES
LAN WEBOBS	YES
PORTS:	
HDMI	TYPE A
LAN	RJ45 W/ WEB INTERFACE/ CONTROL
AUDIO (EXTRACTED DIGITAL)	TOSLINK
AUDIO (EXTRACTED ANALOG)	5 PIN TERMINAL BLOCK (BALANCED)
IR RX	3.5MM STEREO (3-CONDUCTOR)
RS232	3 PIN TERMINAL BLOCK
ENVIRONMENTAL:	
OPERATING TEMPRATURE	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)	38 WATTS MAX
POWER SUPPLY - MATRIX	INPUT: AC 100-240V ~ 50/60HZ OUTPUT: DC 12V 4A
DIMENSIONS:	
DIMENSIONS (UNIT ONLY - HEIGHT/DEPTH/WIDTH)	MM: 50.8 X 260.35 X 441.33 INCH: 2 X 10.25 X 17.375
DIMENSIONS (PACKAGED LENGTH/WIDTH/HEIGHT)	MM: 88.9 X 444.5 X 495.3 INCH: 3.5 X 17.5 X 19.5
WEIGHT (UNIT)	11LBS (4.98KG)
WEIGHT (PACKAGED)	14LBS (6.35KG)
*SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE. MASS & DIMENSIONS ARE APPROXIMATE	

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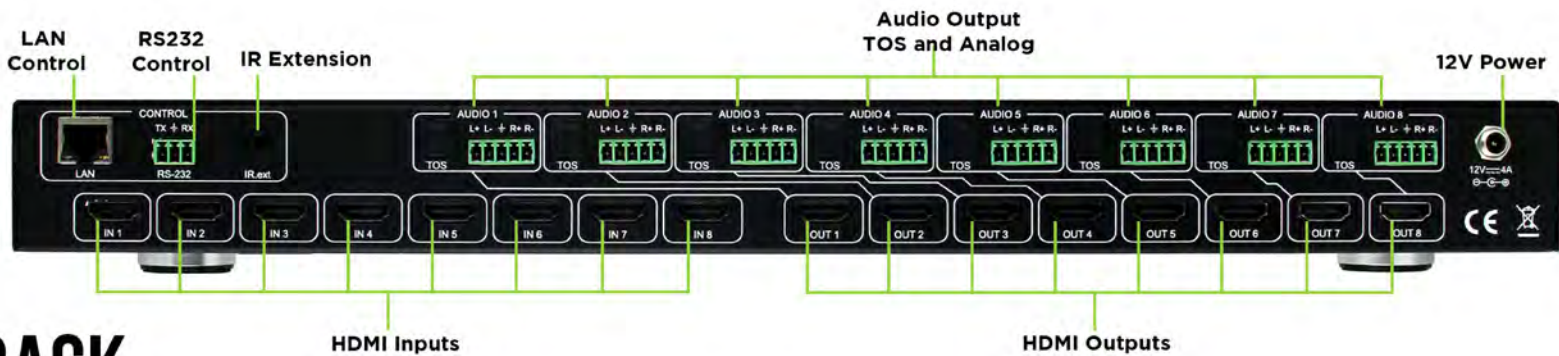
Device Overview:

- Definition - Matrix switches provide the ability to route any input to any output or to multiple outputs at any time. Depending on the model, a matrix switch can route HD, UHD or AUHD content in this manner. Additionally, since most venues have both, audio zones and video zones, the requirement to breakout or strip off the audio is often necessary and has become almost a standard feature on most matrix switches.
- Control - Matrix switches are generally controlled via a third-party controller (like Control 4, RTI, Crestron, etc...). Many integrators want ready-made drivers for their control system in order to make programming and deployment easier.
- Matrix Switches are widely used in both, Commercial and Residential Applications.

FRONT

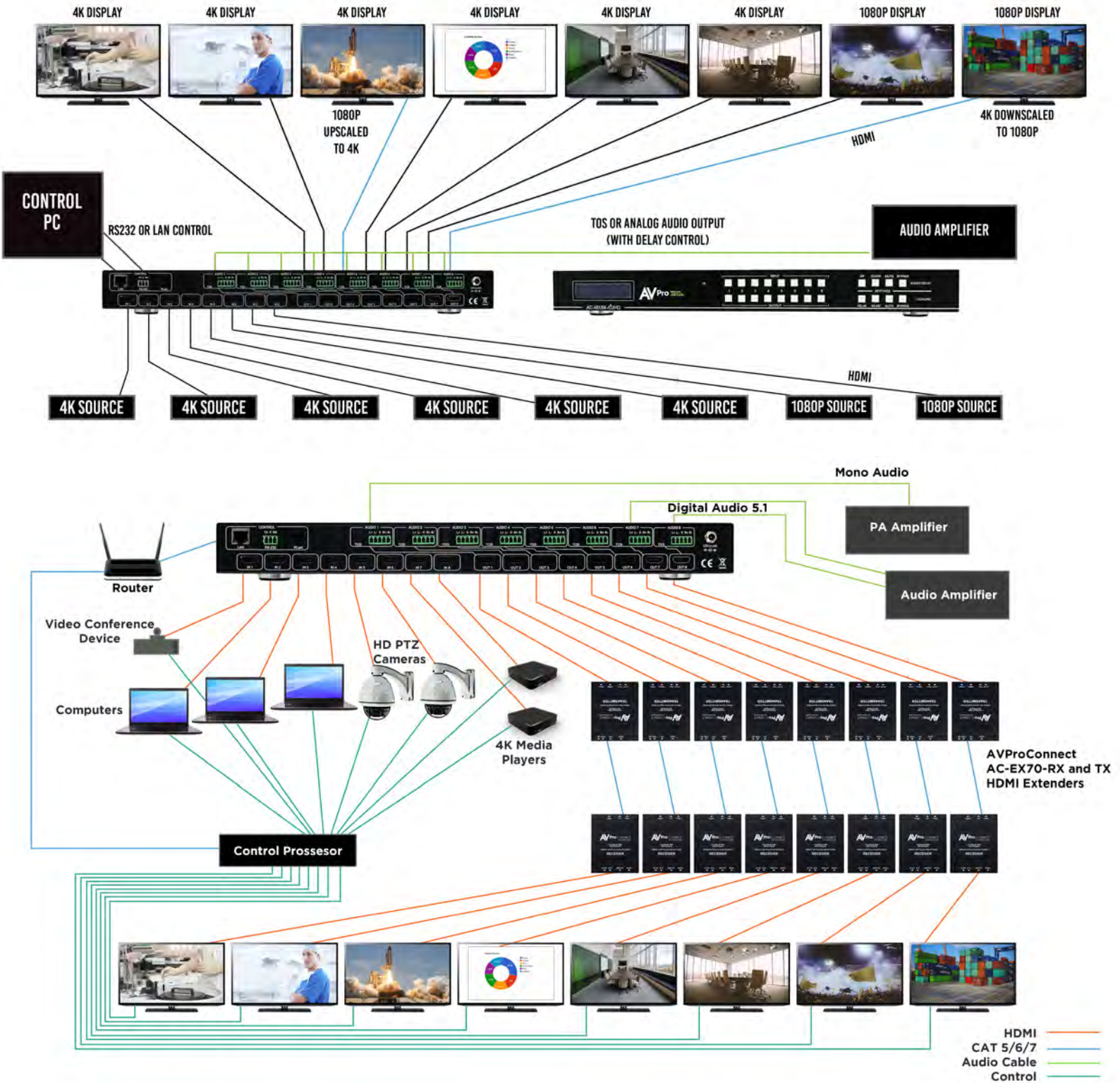


BACK



AVProedge
AC-MX88-AUHD

CONNECTION DIAGRAM



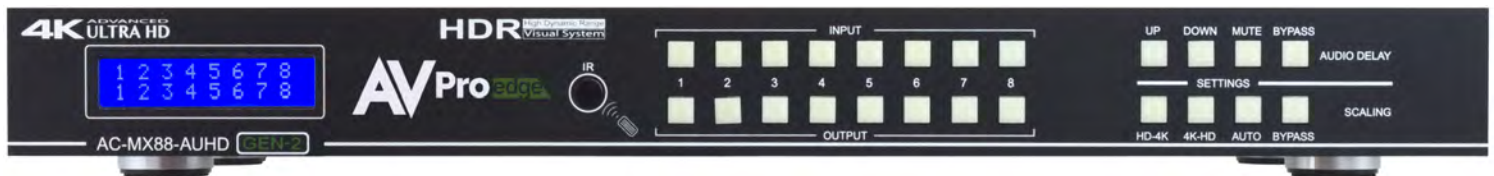
Parameter	How To	Options
Switching Control	<ol style="list-style-type: none"> 1. Press the OUTPUT button you want to switch. 2. Press the desired INPUT button. 	
EDID Setup	<ol style="list-style-type: none"> 1. Press and hold (3 seconds) the INPUT button of the source you want to set the EDID for. 2. Use the "UP" & "DOWN" buttons that have lit up to navigate to your desired EDID setting. 3. Quick press the same INPUT button to lock in the selection. 	See EDID Management in the manual for a full list of available EDIDs.
Scaling Control	<ol style="list-style-type: none"> 1. Press and hold (3 seconds) the OUTPUT button that you would like to scale. 2. The bottom row of buttons on the right hand side of the machine light up, allowing you to make your selection. Press one of the 4 options to change, the front screen will display the current selection. 3. To set, press the same OUTPUT button from step one. You can also wait 5 seconds and the matrix will exit from the scaling menu, saving any changes you have made. 	<ul style="list-style-type: none"> - HD -->4K - 4k --> HD - AUTO (Detetcs Display) - BYPASS (No Scaling) DEFAULT
Audio Delay Control	<ol style="list-style-type: none"> 1. Press and hold (3 seconds) the OUTPUT button that you would like to delay/mute 2. The TOP row of buttons on the right hand side of the machine light up, allowing you to make your selection. 	<ul style="list-style-type: none"> - UP - DOWN - MUTE (Turns off audio) - BYPASS (No Delay)
Set Extracted Audio Bindings	<ol style="list-style-type: none"> 1. Press and hold (3 seconds) the BYPASS button on the audio settings (top right set of buttons). 2. Press the "UP" & "DOWN" buttons to switch between the desired settings. 3. Press the BYPASS button again to set the selection. <p>Note: If "Matrix" is selected, you will be able to route audio. Please see "Extracted Audio Switching"</p> <ol style="list-style-type: none"> 4. Press the BYPASS button again to exit. 	<ul style="list-style-type: none"> - Bind to OUTPUT - Bind to INPUT - Matrix <p>Note: Send switching commands from the front panel by selecting "Matrix" when in audio mode.</p>
Extracted Audio Switching	<ol style="list-style-type: none"> 1. Press and hold (3 seconds) the BYPASS button on the audio settings (top right set of buttons). 2. The screen will say "Matrix" 3. Quick press the BYPASS button again to enter Extracted Audio Switching, to switch <ul style="list-style-type: none"> - Press the OUTPUT you would like to change - Press the INPUT you would like to route to the previously selected OUTPUT 4. When finished, press the BYPASS button again in order to exit. 	<p>Note: Audio switching commads are ONLY available from the front panel when the audio mode is set to "MATRIX".</p> <p>Note: The web interface may be easier for active, live, switching.</p>
Initialize Test Pattern Output	<ol style="list-style-type: none"> 1. Press and hold (3 seconds) the desired INPUT & OUTPUT buttons together 2. Repeat step 1 to turn off the test pattern 	<p>Example: Pressing and holding INPUT 1 & OUTPUT 1 at the time for 3 seconds will generate a test pattern out of OUTPUT 1</p>
Toggle DHCP Mode	<ol style="list-style-type: none"> 1. Press and hold (3 seconds) INPUT 1 & INPUT 4 together 	Toggles DHCP OFF/ON
View Network Settings	<ol style="list-style-type: none"> 1. Press and hold (3 seconds) INPUT 3 & INPUT 4 together 	<p>The Screen will flash the following:</p> <ul style="list-style-type: none"> - Device IP - Host IP - Subnet Mask - MAC Address
View Firmware Versions	<ol style="list-style-type: none"> 1. Press and hold (3 seconds) INPUT 2 & INPUT 4 together 	Displays Current Firmware
Factory Reset	<ol style="list-style-type: none"> 1. Press and hold (10 seconds) HD->4k/4k->HD/MUTE/ and BYPASS buttons at the same time. 	Resets to Factory Defaults

Front Panel Control

Switching:

The AC-MX88-AUHD-GEN2/AC-MX44-AUHD can be switched from the front panel by selecting the OUTPUT button first and then selecting the INPUT button:

1. Press the button (1 through 8) on the bottom row that corresponds with the OUTPUT (Display, or Sink Device) you would like to send to a source.
2. Once pressed, the switch will illuminate the OUTPUT button that you have selected, along with the INPUT row (as pictured), indicating that it is ready for you to select the INPUT.
3. Select the desired INPUT.



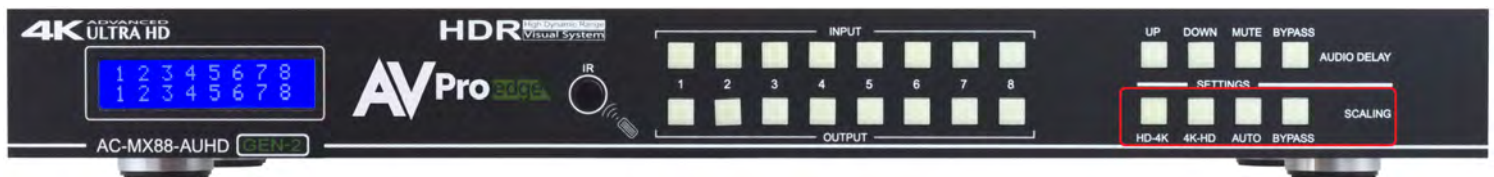
*Figure 1 – Switching with the front panel controls.
NOTE: Select the OUTPUT and then the INPUT.*

Scaler Control:

The AC-MX88-AUHD-GEN2/AC-MX44-AUHD has scalers built into every output. The scalers are set on the OUTPUT side of the switch and each can have separate settings. Control the scaler in four ways:

- HD-4K (Scales 1080P to 2160P)
- 4K-HD (Scales 2160P to 1080P)
- AUTO (Automatically detects capabilities of attached display)
- BYPASS (There will be no scaling set)

***NOTE:** There is additional control when using the web interface. Also, with LAN control, you can set HDBT-C mode, which reduces 10-18Gbps content to 9Gbps for legacy infrastructures. This mode maintains 4K resolution, but removes HDR.



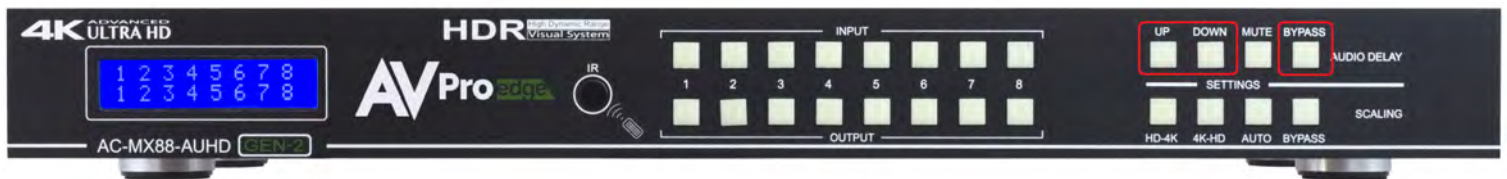
Audio Binding Setup:

The AC-MX88/44-AUHD can be configured to extract audio in 3 ways:

- Bind to OUTPUT (Default)
- Bind to INPUT
- Matrix

To Set:

1. Press and hold (3 sec) BYPASS from the audio settings (top right of machine).
2. Toggle selection by pressing the "UP" and "DOWN" buttons, which are now lit up.
3. Once a desired selection is found, quick press the BYPASS button again.

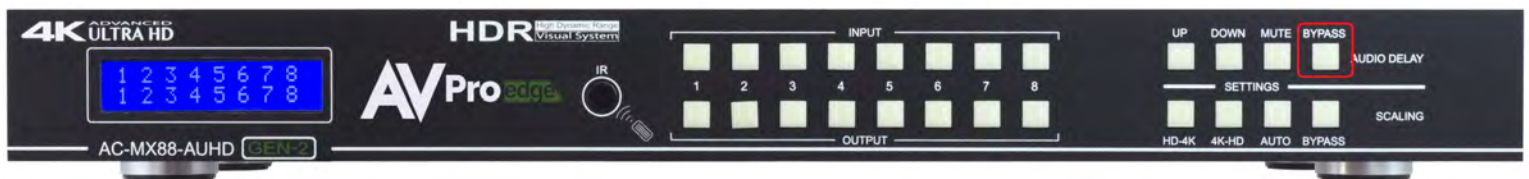


Audio Matrix Control:

Once in "Matrix" mode for audio, the extracted audio routing on the AC-MX88-AUHD-GEN2/AC-MX44-AUHD can be controlled from the front panel:

To Control

1. Press and hold (3 sec) BYPASS button from the audio settings (top right of machine).
2. Make sure the screen says "Matrix" and quick press the BYPASS button again in order to enter the AUDIO MATRIX.
3. Press the desired extracted audio OUTPUT.
4. Press the INPUT for the desired audio source.
5. Quick press BYPASS button again to exit audio matrix .



Audio Delay Control:

The AC-MX88/44-AUHD has an Audio Delay feature built-in. Audio Delay is set on the extracted audio OUTPUT (Digital and Analog) of the switch, and each can have separate settings.

The Audio Delay has 4 controls:

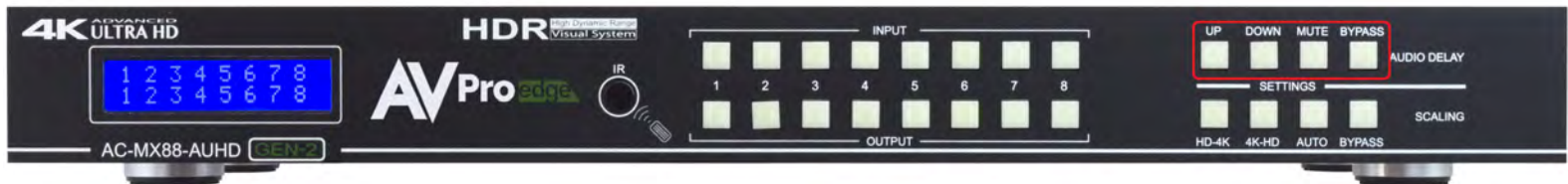
- UP (Increase Delay)
- DOWN (Decrease Delay)
- MUTE (The audio will be muted)
- BYPASS (There will be no delay set)

*Delay settings are in increments of 90 milliseconds.

Settings are: 90MS, 180MS, 270MS, 360MS, 450MS, 540MS, and 630MS

Control this feature from the front panel:

1. Press and hold the OUTPUT number for which you want to delay the audio
2. The available options will light up
3. Press UP, DOWN, MUTE or BYPASS to change the delay
4. The current setting will be indicated on the LCD screen



Audio Output Logic and Cable Prep:

You can extract audio from toslink or balance 2CH Audio. Audio outputs are an un-decoded output. This means that what goes in, is what goes out.

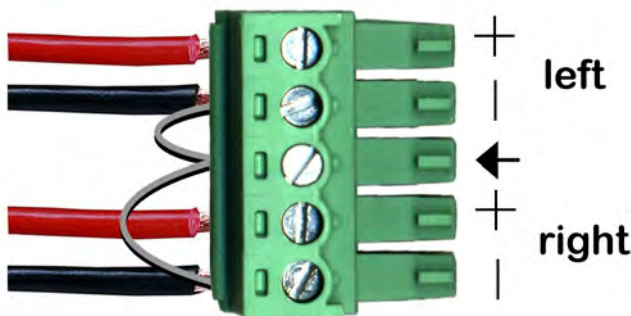
2CH Balanced Audio Port - Supports 2CH PCM audio only, which is ideal for 2 Channel systems and zoned audio systems.

Toslink Audio Port - Supports PCM, LPCM (up to 7CH), Dolby Digital, Dolby Digital Plus, DTS, DTS-HD, DTS Master Audio, which is ideal for multi-channel audio systems and older AVR's that do not support 18Gbps.

Need to down-mix for combination, uncompressed and 2CH systems? Check out the AC-ADM-AUHD and AC-ADM-COTO.

You can use balanced analog outputs in a balanced system, but you can also prep 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)

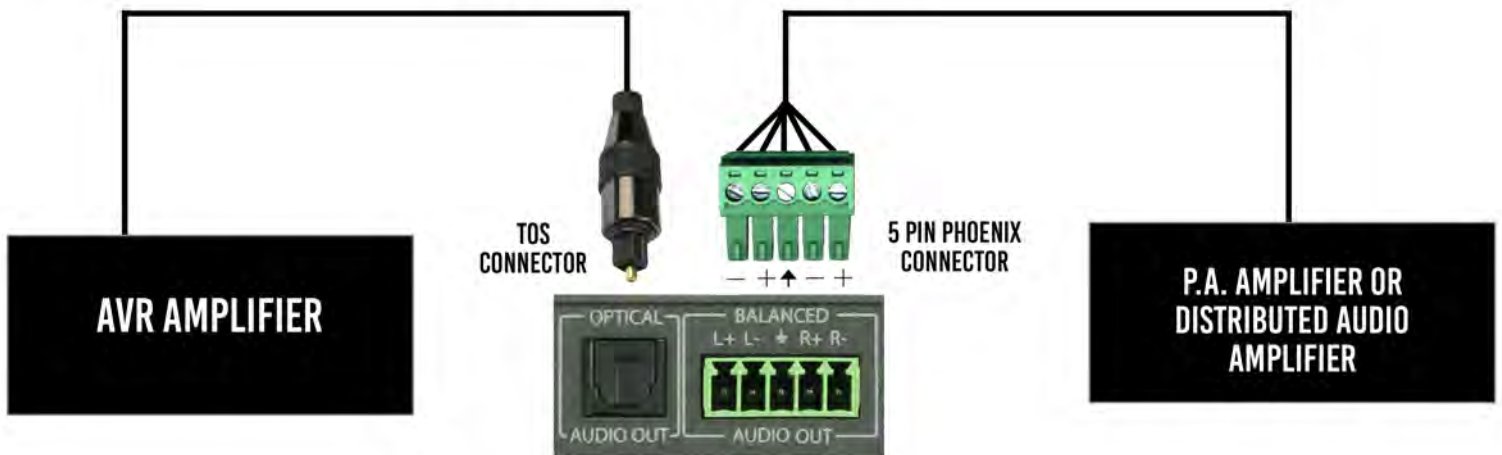


AC-CABLE-5PIN-2CH

***NOTE: Make sure ground is always connected**

Audio Wiring Diagram:

AUDIO DIAGRAM



EDID Management:

This matrix has 29 factory defined EDID settings. It also has 3 user defined EDID memories. The user EDID memories are independent to each input and can be set differently. The user defined EDID can be uploaded using the free PC Control software or RS-232. In addition, you can choose to read the EDID from the desired output and the captured EDID will automatically store and overwrite the EDID in "USER EDID 1" and will be applied to the selected source.

By default, the matrix is set to a 1080P EDID, this is to maximize plug and play capability. When using 4K sources, you will want to define a 4K EDID on each input (or read from the display).

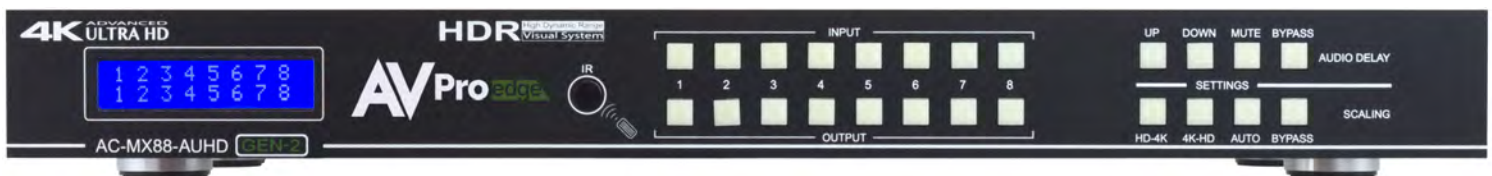
To Change the EDID setting:

1. Press and hold (for 3 seconds) the INPUT you want to change.
2. The "UP" and "DOWN" button's will illuminate (as pictured below), and the LCD will show the active EDID.
3. Toggle through the EDID options by pressing up or down repeatedly.
4. Press the "INPUT" you had selected in order to apply the EDID (this will still be illuminated).

These are the pre-defined EDID settings that you can toggle through:

0: 1080P_2CH(PCM)	17: 1080P_8CH_HDR
1: 1080P_6CH	18: 1080P_3D_2CH(PCM)_HDR
2: 1080P_8CH	19: 1080P_3D_6CH_HDR
3: 1080P_3D_2CH(PCM)	20: 1080P_3D_8CH_HDR
4: 1080P_3D_6CH	21: 4K30Hz_3D_2CH(PCM)_HDR
5: 1080P_3D_8CH	22: 4K30Hz_3D_6CH_HDR
6: 4K30Hz_3D_2CH(PCM)	23: 4K30Hz_3D_8CH_HDR
7: 4K30HZ_3D_6CH	24: 4K60Hz(Y420)_3D_2CH(PCM)_HDR
8: 4K30HZ_3D_8CH	25: 4K60Hz(Y420)_3D_6CH_HDR
9: 4K60Hz(Y420)_3D_2CH(PCM)	26: 4K60Hz(Y420)_3D_8CH_HDR
10: 4K60Hz(Y420)_3D_6CH	27: 4K60Hz_3D_2CH(PCM)_HDR
11: 4K60Hz(Y420)_3D_8CH	28: 4K60Hz_3D_6CH_HDR
12: 4K60HZ_3D_2CH	29: 4K60Hz_3D_8CH_HDR
13: 4K60HZ_3D_6CH	30: USER_EDID_1
14: 4K60HZ_3D_8CH	31: USER_EDID_2
15: 1080P_2CH(PCM)_HDR	32: USER_EDID_3
16: 1080P_6CH_HDR	

*You may also copy EDID from any output and apply to any input, simply select "Copy EDID from Output x" (x=1-8). This will copy the EDID from the display attached and store it into "User EDID 1" and apply it to the input you have selected.



Display IPData:

In order to see the current IP settings, press and hold (for 3 seconds) INPUT 3 and INPUT 4 buttons simultaneously. This screen will change every 3 seconds showing additional settings (host, net mask, router IP).

NOTE: This screen always starts with the current IP address of the matrix:



HOST IP:
192.168.001.239

In order to toggle DHCP on and off, press and hold (for 3 seconds) the INPUT 1 and INPUT 4 buttons simultaneously.

In order to prevent potential IP problems, most IP settings have to be managed in the Free PC Software or by using RS-232 commands.

NOTE: The default IP address is 192.168.001.239 (as pictured above).

Quick Network Connect to Web Interface:

Use the following steps to quickly and immediately connect to the matrix switch:

1. Connect the LAN port into an active router port.
2. On most networks you can simply type the Default IP address into any web browser. The Default IP Address is 192.168.1.239.

If you are on a closed network or non-standard, the following may work better when using DHCP:

1. Use an Ethernet cable to connect the LAN port on the switch to an unused, active port on the router.
2. Enable DHCP by pressing the INPUT 1 and INPUT 4 buttons simultaneously for 3 seconds.
3. Wait 5 seconds, then press and hold (for 3 seconds) the INPUT 3 and INPUT 4 buttons simultaneously. The display will show the assigned IP address.
4. Input the IP Address into any web browser.
Setting a Static IP:
 - Once connected, you can use the web interface to set a static IP address.
 - A static IP can also be set by using the RS-232 software or a direct command (see RS-232 below for more information).

Web Interface: Switching

Use this page to switch between inputs and outputs from the web interface.

The screenshot shows a web interface for the AC-MX88-44-AUHD device. At the top, there is a navigation menu with six tabs: 'Sense Switch' (highlighted in blue), 'Video Setting', 'Audio Setting', 'Audio Matrix', 'EDID Manage', and 'System Setting'. Below the menu is the AV Pro edge logo. The main content area is titled 'Sense Switch' and contains a grid of buttons. The grid has 9 rows and 8 columns. The rows are labeled 'OUT1' through 'OUT8' and 'ALL' on the left. The columns are labeled 'IN1' through 'IN8' at the top. Each cell in the grid contains a button with its corresponding input/output label. The 'IN1' button in the 'OUT1' row is highlighted in blue, indicating it is the selected input for that output.

	IN1	IN2	IN3	IN4	IN5	IN6	IN7	IN8
OUT1	IN1	IN2	IN3	IN4	IN5	IN6	IN7	IN8
OUT2	IN1	IN2	IN3	IN4	IN5	IN6	IN7	IN8
OUT3	IN1	IN2	IN3	IN4	IN5	IN6	IN7	IN8
OUT4	IN1	IN2	IN3	IN4	IN5	IN6	IN7	IN8
OUT5	IN1	IN2	IN3	IN4	IN5	IN6	IN7	IN8
OUT6	IN1	IN2	IN3	IN4	IN5	IN6	IN7	IN8
OUT7	IN1	IN2	IN3	IN4	IN5	IN6	IN7	IN8
OUT8	IN1	IN2	IN3	IN4	IN5	IN6	IN7	IN8
ALL	IN1	IN2	IN3	IN4	IN5	IN6	IN7	IN8

AC-MX88-AUHD
V2.10

Web Interface: Video Setting



Video Scaler Modes:

With the video scaler mode, you can scale each HDMI output independently

- **BP** = Bypass - Scaler is disabled (Default)
- **2K** = 4K --> 2K - If incoming signal is 4K, it will be downscaled to 1080P or 1900x1200 depending on the input format.
- **4K** = 2K --> 4K - If the incoming signal is 1080P it will be upscaled to 4K.
- **HDBT** = HDBaseT Compatibility Mode - If incoming 4K signal is above 9Gbps, it can be compressed to fit through legacy (non-18G) infrastructures. 4K resolution will still come through, but HDR will not.
- **AUTO** = Auto detect - Scaler will be set based on the connected display's EDID (ie, if the EDID is 1080P the scaler will be set to 2K).

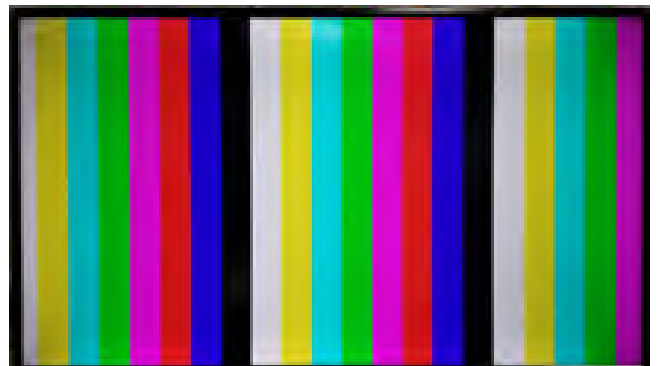
Image Enhancement:

The Image Enhancement feature will add extra sharpness to edges in the image. This effect may be desirable for presentations in corporate or classroom environments. **NOTE:** Image Enhancement only works when upscaling from 2k to 4k.

- **W** = Weak - Minimum level of enhancement
- **M** = Medium - Medium level of enhancement
- **S** = Strong - Strongest setting for image enhancement
- **OFF** = None - Feature disabled

Output Signal Generator:

The Output Signal Generator will output an internally stored 1080p color bar test pattern (see the image on the right) to test infrastructure. It can be turned on and off for each output, but remember to turn it off to resume normal functionality.



Web Interface:Audio Settings

Ex-Audio Output Delay(MS)								Audio Status			
OUT1	90	180	270	360	450	540	630	Bp	OUT1	ON	OFF
OUT2	90	180	270	360	450	540	630	Bp	OUT2	ON	OFF
OUT3	90	180	270	360	450	540	630	Bp	OUT3	ON	OFF
OUT4	90	180	270	360	450	540	630	Bp	OUT4	ON	OFF
OUT5	90	180	270	360	450	540	630	Bp	OUT5	ON	OFF
OUT6	90	180	270	360	450	540	630	Bp	OUT6	ON	OFF
OUT7	90	180	270	360	450	540	630	Bp	OUT7	ON	OFF
OUT8	90	180	270	360	450	540	630	Bp	OUT8	ON	OFF

*Bp = Bypass

AC-MX88-AUHD
V2.10

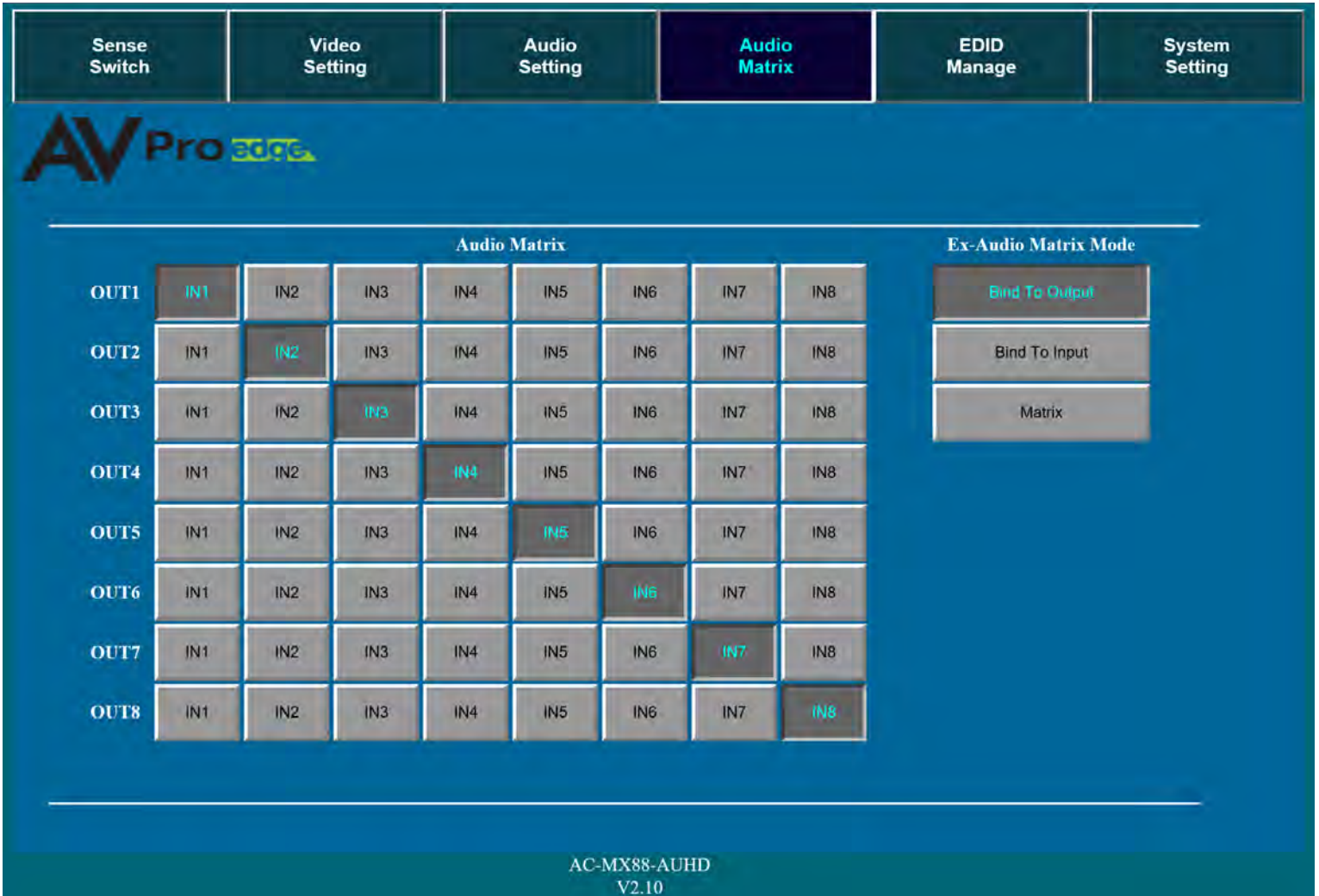
EX-Audio Delay:

This setting allows the user to change the audio delay to overcome lip-sync issues when using audio separate from HDMI. The user can choose from the above options in milliseconds. Bp = Bypass or No Delay. Delay can be different per audio output port.

Audio Status:

This allows the user to turn ON and OFF the extracted audio output. When this is set to OFF the audio is muted from the extracted port.

Web Interface: Audio Matrix



AudioMatrix:

This allows the user to route the audio in a matrix fashion for the extracted audio ports.

***NOTE: The Audio Matrix Function only works if "MATRIX" is selected on the right (See next explanation).**

Ex-Audio Matrix Mode:

This allows the user to set a binded audio setting or set the extracted audio to Matrix. The options are:

Bind to Input - The extracted audio port is always fixed to a specific input. For example, when a source is plugged into INPUT 1, OUTPUT 1 will always have the audio signal from INPUT 1. This will happen regardless of which input is selected for OUTPUT 1.

Bind to Output (Default) - The extracted audio always follows the corresponding HDMI output. For example, in this mode AUDIO OUT 1 and HDMI OUT 1 are the same (Switched Together).

Matrix - You can set to "Matrix" and it will allow routing of the audio as a separate, stand-alone "Matrix". This allows use of the "Audio Matrix" buttons pictured above.

WebInterface:EDID Manage



EDID Manage:

Using the built-in EDID manager, a multitude of EDID's can be set for each input, and each input can be assigned a different EDID. This should be used to optimize sources or to manage infrastructure.

The EDID options are:

- | | |
|-----------------------|---------------------------|
| 1. 1080P_2CH | 17. 1080P_8CH_HDR |
| 2. 1080P_6CH | 18. 1080P_3D_2CH_HDR |
| 3. 1080P_8CH | 19. 1080P_3D_6CH_HDR |
| 4. 1080P_3D_2CH | 20. 1080P_3D_8CH_HDR |
| 5. 1080P_3D_6CH | 21. 4K30HZ_3D_2CH_HDR |
| 6. 1080P_3D_8CH | 22. 4K30HZ_3D_6CH_HDR |
| 7. 4K30HZ_3D_2CH | 23. 4K30HZ_3D_8CH_HDR |
| 8. 4K30HZ_3D_6CH | 24. 4K60HzY420_3D_2CH_HDR |
| 9. 4K30HZ_3D_8CH | 25. 4K60HzY420_3D_6CH_HDR |
| 10. 4K60HzY420_3D_2CH | 26. 4K60HzY420_3D_8CH_HDR |
| 11. 4K60HzY420_3D_6CH | 27. 4K60HZ_3D_2CH_HDR |
| 12. 4K60HzY420_3D_8CH | 28. 4K60HZ_3D_6CH_HDR |
| 13. 4K60HZ_3D_2CH | 29. 4K60HZ_3D_8CH_HDR |
| 14. 4K60HZ_3D_6CH | 30. User EDID 1 |
| 15. 4K60HZ_3D_8CH | 31. User EDID 2 |
| 16. 1080P_2CH_HDR | 32. User EDID 3 |
| 17. 1080P_6CH_HDR | |

*You can copy the EDID from any output and apply it to any input. Select "Copy EDID from Output x" (x=1-8). This will copy the EDID from the display and apply it to the selected input. This new EDID will be stored as "USER EDID 1".

WebInterface: System Settings



IP Settings:

Set network settings such as:

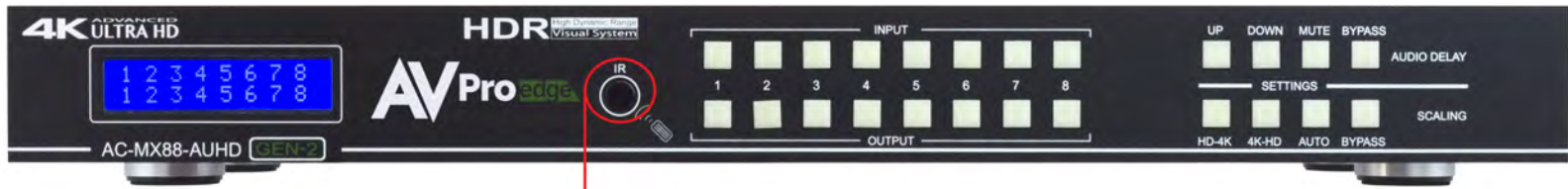
- Static IP
- Subnet Mask
- Router IP
- TCP Port
- Enable DHCP

Port Alias Settings:

Rename inputs and outputs for easy management. Each custom name is limited to eight (8) characters.

IR Control:

For IR Control there is an IR Window on the front face of the device. The supplied IR Extension Cable can also provide a different receiver position. If needed, plug the IR Extension Cable into the IR Extension Socket on the back of the matrix and place the receiver in a more convenient location.



IR Receiving Eye



AC-MX88-AUHD IR Controls



IR Extension Cable

IR Remote Control:

When routing HDMI, the matrix can be controlled by using the IR remote supplied with the product.

The labels on the left are the OUTPUT numbers.

The left arrow button decrements to the next input port, and the right arrow increments to the next input port.



AC-MX88-AUHD-GEN2 IR Remote

RS-232 and TCP/IP Commands:

The AC-MX88-44-AUHD-GEN2 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.

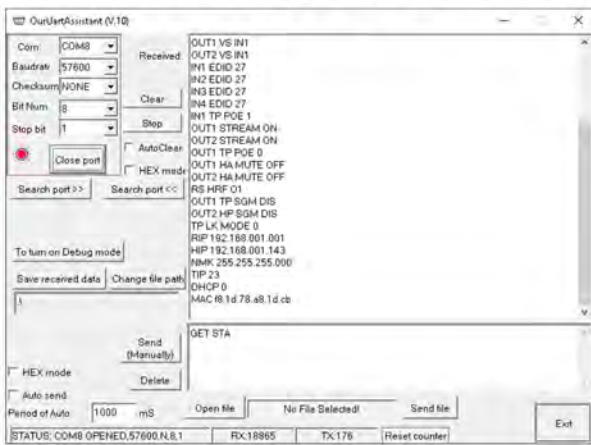
For TCP/IP control commands use Telnet Port 23.

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 return (Enter key) after each command when using direct commands.

The unified command list (ASCII) is listed below.

USB CONTROL FOR AVPRO EDGE



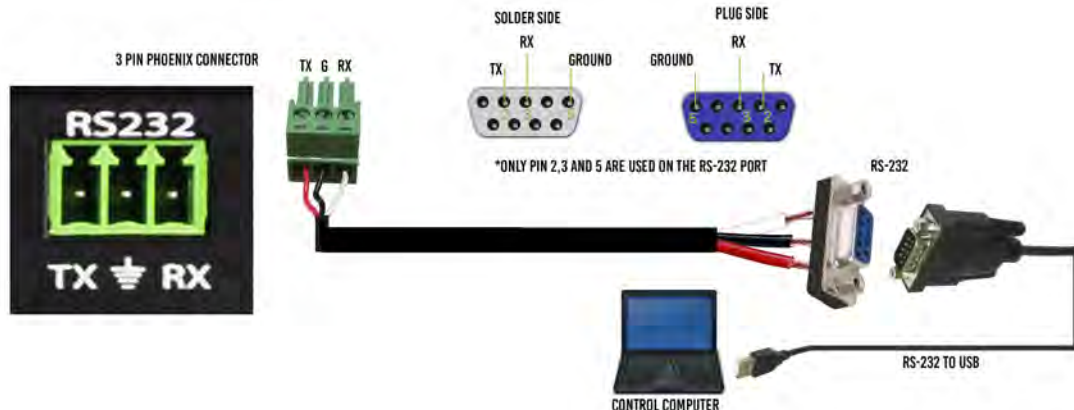
WWW.AVPROEDGE.COM/DRIVERS

OTHER TOOLS & DRIVERS

MyUART Serial Communications Used to send direct serial commands to our products.

Inversal FT232RL USB to Serial Driver Used with SD-G/SIX-A B For 8 Hour and several USB-Serial converters supplied by AVPro Edge.

RS-232 CABLE FOR AVPRO EDGE



RS-232 and TCP/IP Commands:

The Matrix 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 return (Enter key) after each command when using direct commands. The unified command list (ASCII) is listed on the next page.

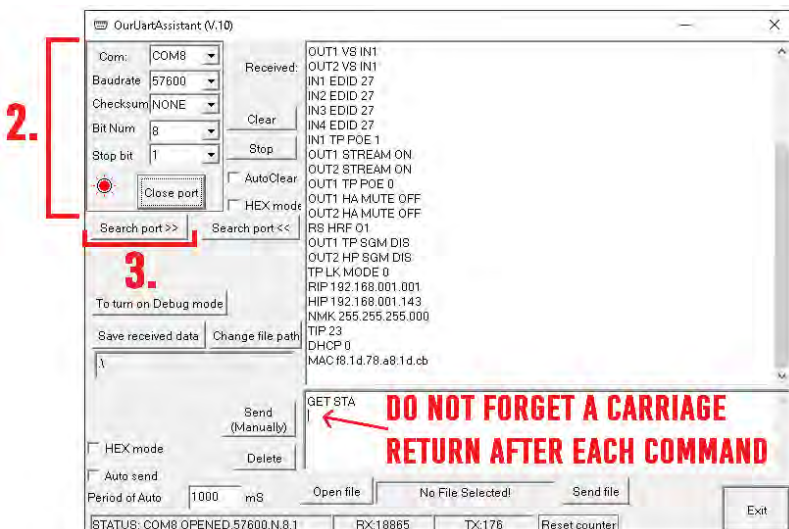


Command Example: DHCP and setting the IP Address

1. Connect your computer to one of the control ports (Micro USB/3pin Terminal)
2. Open up MyUart and verify the correct settings
 - a. Baudrate: 57600, no parity, 8 data bits and 1 stop bit) with no handshaking.
3. On MyUart click Search Port>> (you will see a red indicator once connected)
 - a. You can verify the COM port by using Windows Device Manger. Both USB and 3pin connections should show up as a COM#.
4. Send "GET DHCP" with a carriage return (no " " and hit Enter/Return on keyboard).
 - a. Default is OFF so the return message should be "DHCP 0" (0=Off, 1=On)
5. Send "SET DHCP 1", the return message should read "DHCP 1"
 - a. This will also return the current IP Settings. If there is no connection it will reply with the Default Settings.
6. You can now connect to the WebUI by typing in the HIP address into a web browser. There you can alter the IP address of the Matrix to one of your choosing.
7. You can also set the address of the matrix by sending the following command
 - a. "SET HIP xxx.xxx.xxx.xxx" (SET HIP 192.168.1.143)
8. Once configured it is recommended to turn DHCP back off so the settings are set to Static and will not change (this can also be done from the WebUI).
 - a. "SET DHCP 0"
9. You can verify the settings by getting the status of the matrix
 - a. "GET STA"



```
DHCP 0
DHCP 1
HIP 192.168.001.239
RIP 192.168.001.001
NMK 255.255.255.000
```



- > Portable Devices
- > Ports (COM & LPT)
- > USB-SERIAL CH340 (COM8)
- > Print queues

AC-MX44-AUHD RS-232 TCP/IP 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](00=Single)}
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 STA	: Get System System Status
GET INx SIG STA	: Get Input x Signal Status{x=[0~4](0=ALL)}
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=[0-4](0=ALL), y=[1-4]}
SET OUTx VIDEOy	: Set HDMI Output VIDEO Mode {x=[0~4](0=ALL), y=[0~4](0=AUTO,1=BYPASS,2=4K->2K,3=2K->4K,4=HDBT C Mode)}
SET OUTx IMAGE ENH y	: Set Output Image Enhancement {x=[0~4](0=ALL), y=[0~3](0=OFF,1=WEAK,2=MEDIUM,3=STRONG)}
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 SGM EN/DIS	: Set Output Signal Generator Enable/Disable{x=[0~4](0=ALL)}
SET OUTx STREAM ON/OFF	: Set Output x Stream ON/OFF{x=[0~4](0=ALL)}
GET OUTx VS	: Get Output x Video Route {x=[0~4](0=ALL)}
GET OUTx VIDEO	: Get Output x Video Mode{x=[0~4](0=ALL)}
GET OUTx IMAGE ENH	: Get Output Image Enhancement Mode{x=[0~4](0=ALL)}
GET OUTx EDID DATA	: Get Output x EDID DATA{x=[1~4]}
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 SGM	: Get Output Signal Generator Enable/Disable Status{x=[0~4](0=ALL)}
GET OUTx STREAM	: Get Output x Stream ON/OFF Status{x=[0~4](0=ALL)}

AC-MX44-AUHD Command List Continued:

Input Setup Commands:	
SET INx EDID y	: Set Input x EDID{x=[0~4](0=ALL), y=[0~32]}
0:1080P_2CH(PCM)	1:1080P_6CH
3:1080P_3D_2CH(PCM)	4:1080P_3D_6CH
6:4k30Hz_3D_2CH(PCM)	7:4k30Hz_3D_6CH
9:4K60Hz(Y420)_3D_2CH(PCM)	10:4K60Hz(Y420)_3D_6CH
12:4K60HZ_3D_2CH	13:4K60HZ_3D_6CH
15:1080P_2CH(PCM)_HDR	16:1080P_6CH_HDR
18:1080P_3D_2CH(PCM)_HDR	19:1080P_3D_6CH_HDR
21:4K30Hz_3D_2CH(PCM)_HDR	22:4K30Hz_3D_6CH_HDR
24:4K60Hz(Y420)_3D_2CH(PCM)_HDR	25:4K60Hz(Y420)_3D_6CH_HDR
27:4K60Hz_3D_2CH(PCM)_HDR	28:4K60Hz_3D_6CH_HDR
30:USER1_EDID	31:USER2_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 EDID Uy DATAz	: Write EDID To User y Buffer of Input x{x=[0~4](0=ALL), y=[1~3],z=[EDID Data]}
SET INx TMDS ON/OFF	: Set Input Port Power 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 Input Port Power On/Off State{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
IR Route Setup Command:	
SET IR SYS xx.yy	: Set IR Custom Code{xx=[00-FFH],yy=[00-FFH]}
SET IR OUTx INy CODE zz	: Set IR Data Code{x=[1~4],y=[1~4],zz=[00-FFH]}
GET IR SYS	: Get IR Custom Code
GET IR OUTx INy CODE	: Get IR Data Code

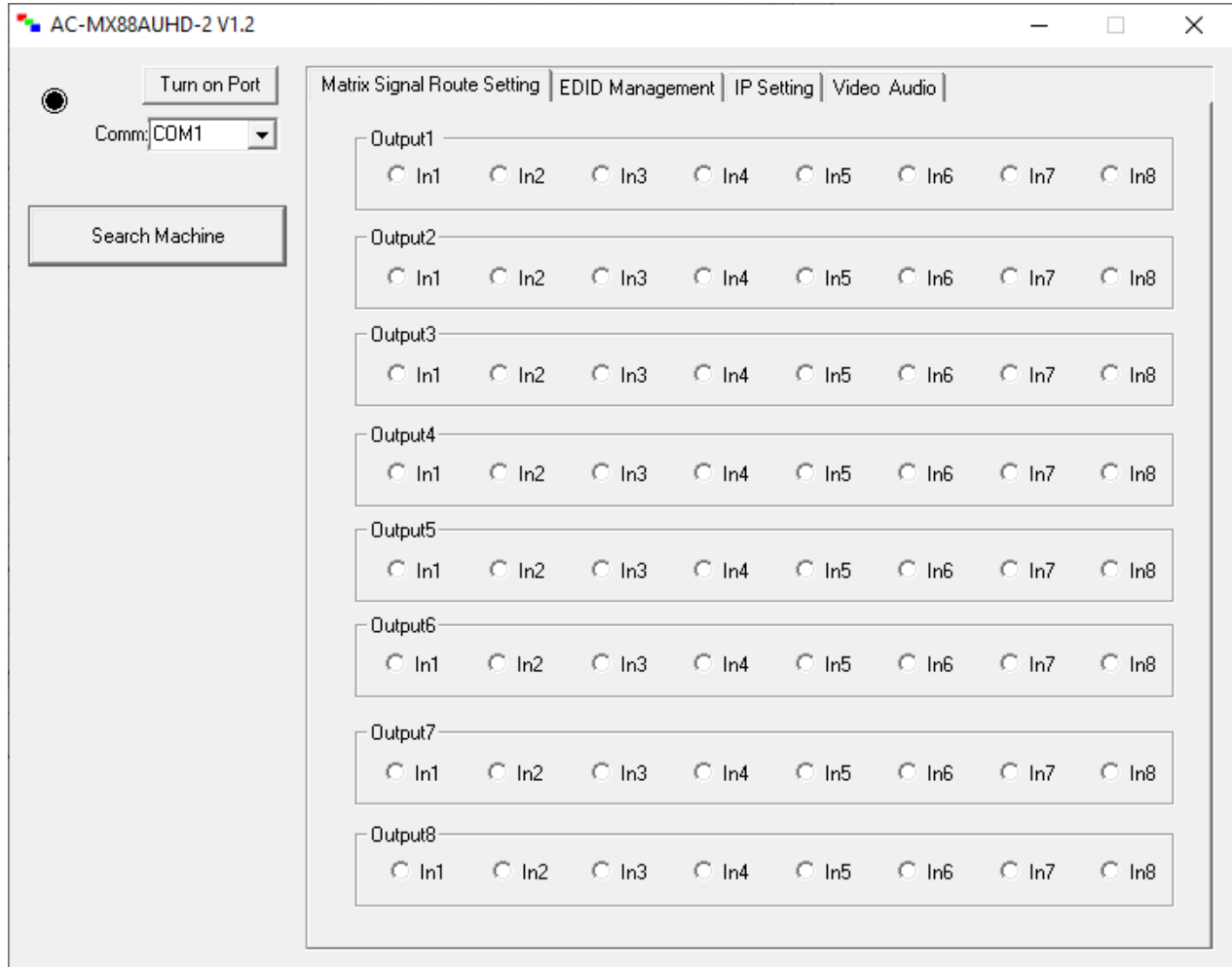
AC-MX88-AUHD-GEN2 RS-232 TCP/IP Command List:

Command:	Action
H	: Help
STA	: Show Global System Status
SET RST	: Reset to Factory Defaults
SET ADDR xx	: Set System Address to xx {xx=[00-99](00=Single)}
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 STA	: Get System System Status
GET INx SIG STA	: Get Input x Signal Status{x=[0~8](0=ALL)}
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=[0~8](0=ALL), y=[1~8]}
SET OUTx VIDEOy	: Set Output VIDEO Mode {x=[0~8](0=ALL), y=[0~4](0=AUTO,1=BYPASS,2=4K->2K,3=2K->4K,4=HDBT C Mode)}
SET OUTx IMAGE ENH y	: Set Output Image Enhancement {x=[0~8](0=ALL), y=[0~3](0=OFF,1=WEAK,2=MEDIUM,3=STRONG)}
SET OUTx EXA EN/DIS	: Set Ex-Audio Output Enable/Disable{x=[0~8](0=ALL)}
SET OUTx EXADL PHY	:Set Ex-Audio Delay{x=[0~8](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=[0~8](0=ALL), y=[1~8]}
SET OUTx SGM EN/DIS	: Set Output Signal Generator Enable/Disable{x=[0~8](0=ALL)}
SET OUTx STREAM ON/OFF	: Set Output x Stream ON/OFF{x=[0~8](0=ALL)}
GET OUTx VS	: Get Output x Video Route{x=[0~8](0=ALL)}
GET OUTx VIDEO	: Get Output x Video Mode{x=[0~8](0=ALL)}
GET OUTx IMAGE ENH	: Get Output Image Enhancement Mode{x=[0~8](0=ALL)}
GET OUTx EDID DATA	: Get Output x EDID DATA{x=[1~8]}
GET OUTx EXA	: Get Ex-Audio Output Enable/Disable Status{x=[0~8](0=ALL)}
GET OUTx EXADL PH	: Get Ex-Audio Output Delay Status{x=[0~8](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 SGM	: Get Output Signal Generator Enable/Disable Status{x=[0~4](0=ALL)}
GET OUTx STREAM	: Get Output x Stream ON/OFF Status{x=[0~8](0=ALL)}

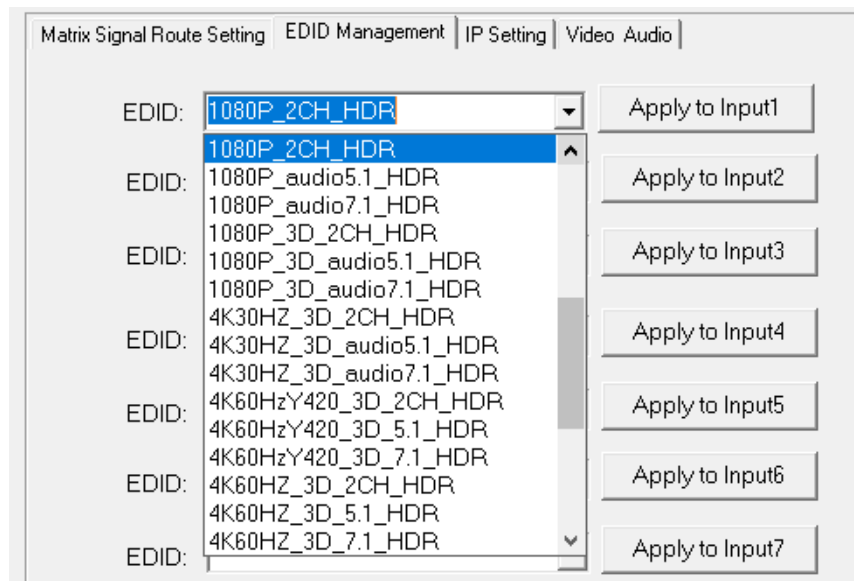
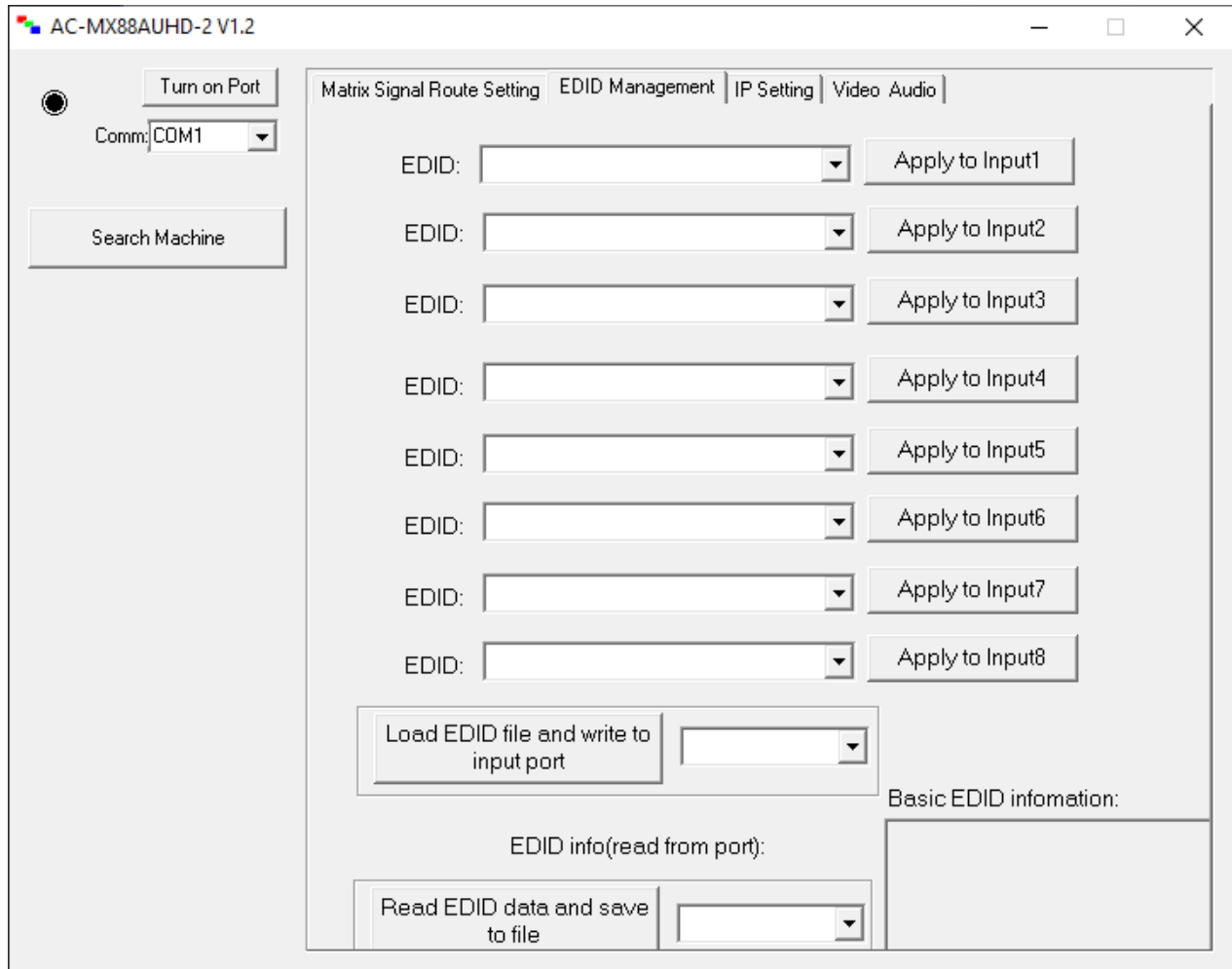
AC-MX88-AUHD-GEN2 Command List Continued:

Input Setup Commands:		
SET INx EDID y	: Set Input x EDID{x=[0~8](0=ALL), y=[0~32]}	
0:1080P_2CH(PCM)	1:1080P_6CH	2:1080P_8CH
3:1080P_3D_2CH(PCM)	4:1080P_3D_6CH	5:1080P_3D_8CH
6:4k30Hz_3D_2CH(PCM)	7:4k30Hz_3D_6CH	8:4k30Hz_3D_8CH
9:4K60Hz(Y420)_3D_2CH(PCM)	10:4K60Hz(Y420)_3D_6CH	11:4K60Hz(Y420)_3D_8CH
12:4K60HZ_3D_2CH	13:4K60HZ_3D_6CH	14:4K60HZ_3D_8CH
15:1080P_2CH(PCM)_HDR	16:1080P_6CH_HDR	17:1080P_8CH_HDR
18:1080P_3D_2CH(PCM)_HDR	19:1080P_3D_6CH_HDR	20:1080P_3D_8CH_HDR
21:4K30Hz_3D_2CH(PCM)_HDR	22:4K30Hz_3D_6CH_HDR	23:4K30Hz_3D_6CH_HDR
24:4K60Hz(Y420)_3D_2CH(PCM)_HDR	25:4K60Hz(Y420)_3D_6CH_HDR	26:4K60Hz(Y420)_3D_8CH_HDR
27:4K60Hz_3D_2CH(PCM)_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=[0~8](0=ALL), y=[1~8]}	
SET INx EDID Uy DATAz	: Write EDID To User y Buffer of Input x {x=[0~8](0=ALL), y=[1~3],z=[EDID Data]}	
GET INx EDID	: Get Input x EDID Index {x=[0~8](0=All)}	
GET INx EDID y DATA	: Get Input x EDID y Data {x=[1~8],y=[0~32]}	
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	
IR Code Setup:		
SET IR SYS xx.yy	: Set IR System Code {xx=[00~FFH],yy=[00~FFH]}	
SET IR OUTx INy CODE zz	: Set IR Data Code {x=[1~8],y=[1~8],zz=[00~FFH]}	
GET IR SYS	: Get IR System Code	
GET IR OUTx INy CODE	: Get IR Data Code {x=[1~8](0=All),y=[1~8]}	

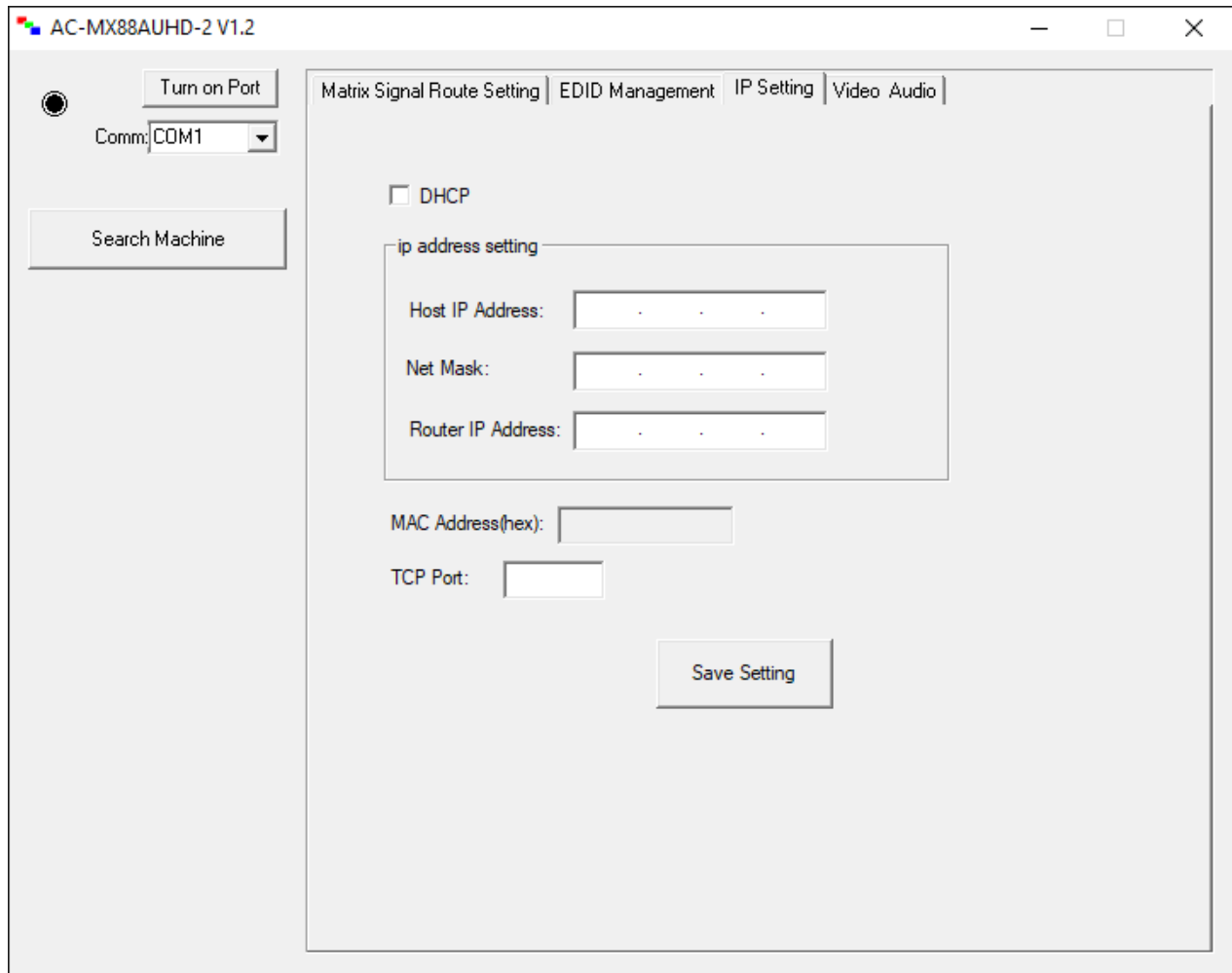
Using the Free PC Software: General Matrix Control



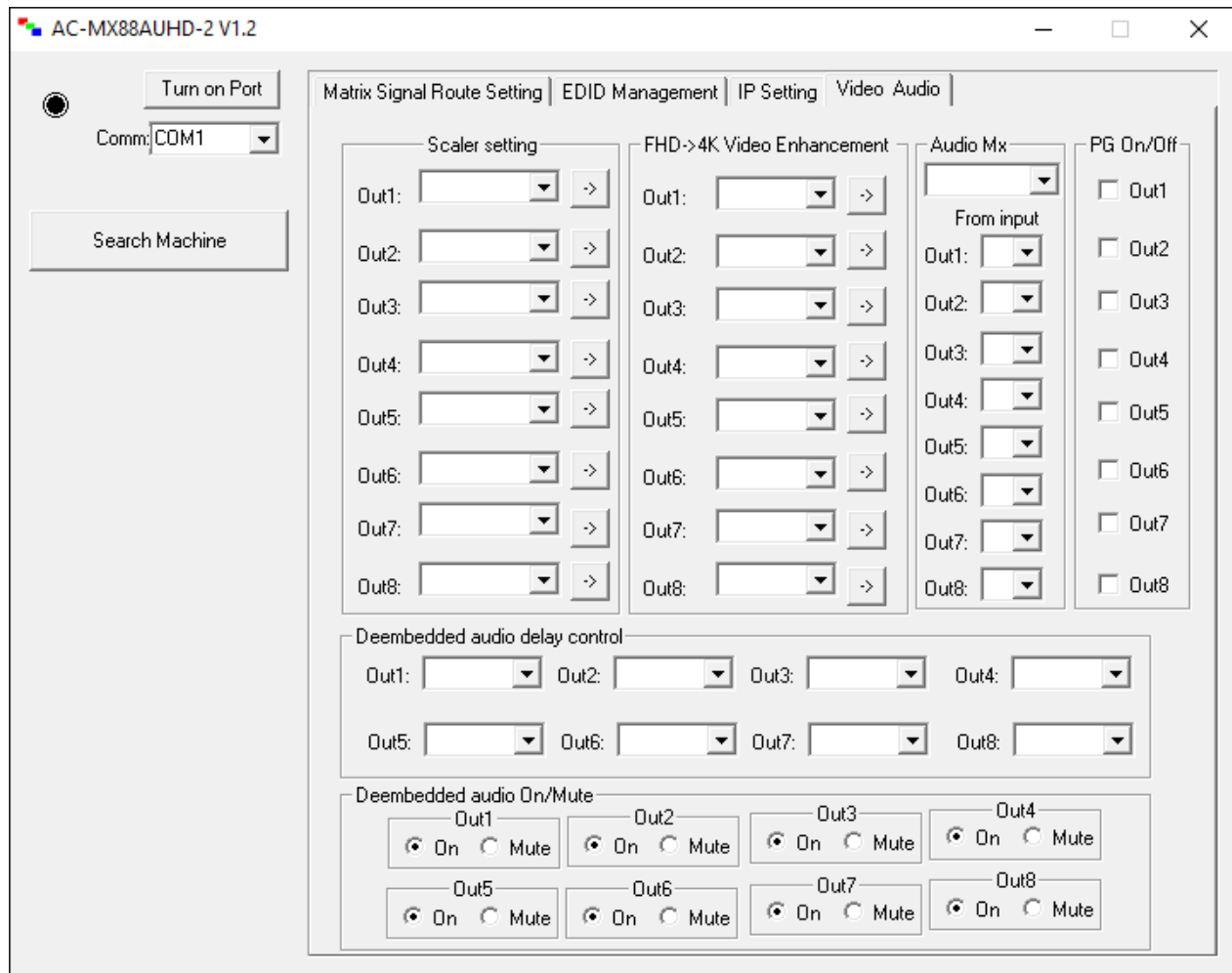
Using the Free PC Software: EDID Management



Using the Free PC Software: IP Settings



Using the Free PC Software: Video and Audio Control



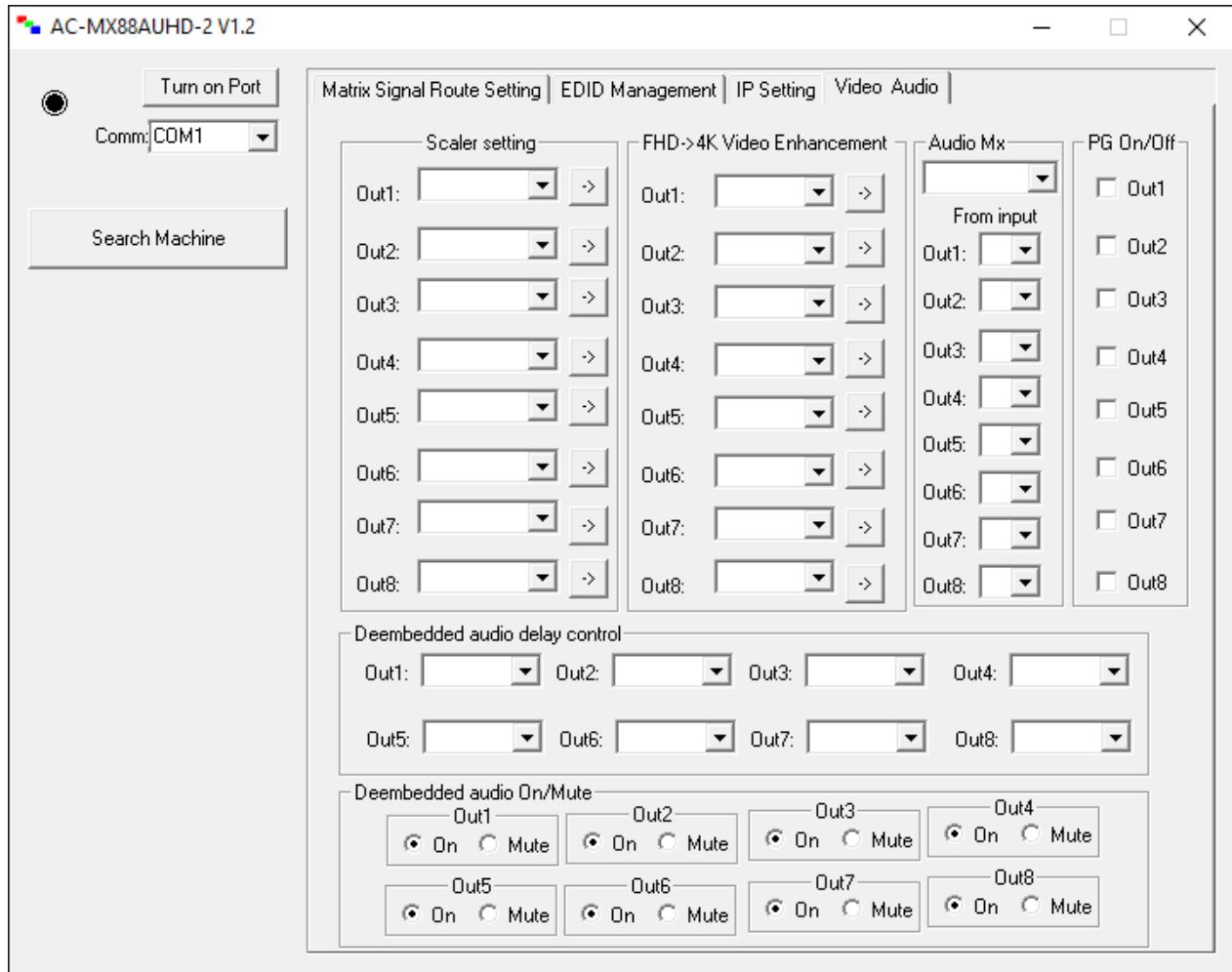
Scaler Setting -- This setting scales the HDMI output. You can also scale each output independently.

- **BP** = Bypass - Scaler will be disabled (Default).
- **2K** = 4K --> 2K - If incoming signal is 4K, it will be downscaled to 1080P or 1900x1200 depending on the input format.
- **4K** = 2K --> 4K - If the incoming signal is 1080P it will be upscaled to 4K.
- **HDBT** = HDBaseT Compatibility Mode - If incoming 4K signal is above 9Gbps, it can be compressed to fit through legacy (non-18G) infrastructure. 4K resolution will still come through, but HDR will not.
- **AUTO** = Auto detect - Scaler will be set based on the connected displays EDID (ie, If the EDID is 1080P the scaler will be set to 2K).

Video Enhancement is ONLY functional when upscaling from 2K-->4K. It adds sharpness and edges to the image. The effect can be desirable in corporate environments for presentations.

- **W** = Weak - Minimum level of enhancement
- **M** = Medium - Medium level of enhancement
- **S** = Strong - Strongest setting for image enhancement
- **OFF** = None - Feature disabled

Using the Free PC Software: Video and Audio Control cont.



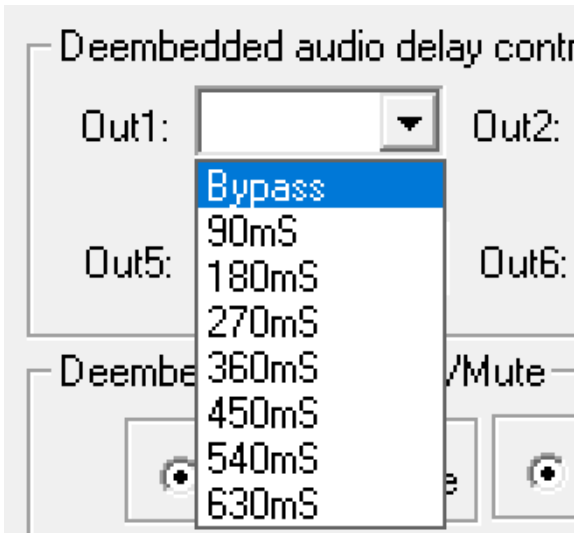
Audio Mx -- Set audio binding (FROM INPUT, FROM OUTPUT, MATRIX)

and chose audio route when in MATRIX Mode. **PG On/Off** -- Enables and

disables the internal 1080P test pattern per output.

De-embedded audio delay control -- Allows user to set delay for each output, available options are:

De-embedded audio mute -- This feature allows the user to mute or enable de-embedded audio ports.



▪ 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 DC power supply cord or AC adaptor 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

The unit should be serviced by qualified service personnel if:

■ 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

■ Warranty

If your product does not work properly because of a defect in materials or workmanship, AVProEdge (referred to as “the warrantor”) will, for the length of the period indicated as below, (Parts/Labor (10) Years), which starts with the date of original purchase (“Limited Warranty period”), at its option either (a) repair your product with new or refurbished parts, or (b) replace it with a new or a refurbished product. The decision to repair or replace will be made by the warrantor. During the “Labor” Limited Warranty period there will be no charge for labor. During the “Parts” warranty period, there will be no charge for parts. You must mail-in your product during the warranty period. This Limited Warranty is extended only to the original purchaser and only covers product purchased as new. A purchase receipt or other proof of original purchase date is required for Limited Warranty service.

This warranty extends to products purchased directly from AVPro or an authorized dealer. AVPro is not liable to honor this warranty if the product has been used in any application other than that for which it was intended, has been subjected to misuse, accidental damage, modification or improper installation procedures, unauthorized repairs or is outside of the warranty period. Please direct any questions or issues you may have to your local dealer before contacting AVPro.

▪ Troubleshooting

- Verify Power - The LCD screen on the front of the matrix should be lit up when power is applied. Check that the power supply is connected to the matrix and powered
- Verify Connections - Check that all cables are properly connected
- Issues with one INPUT/OUTPUT - Swap ports/cables/etc to help narrow down if the issue stays with the input/output/etc
 - Follows the device, then it may be an EDID issue. Default out of the box is a 1080p 2ch. Try another canned EDID or use the COPY FROM OUTx command to copy the connected displays EDID - Pg. 7, 12, 18, 21, and 24
- Issues with 4k but 1080p or less is working
 - Verify all connected devices are capable of the signal you are sending
 - You can generate a test pattern from each OUTPUT of the switch, you can verify connection from switch to display - Pg. 15, and 26

TYPE	RESOLUTION	FRAME RATE (FPS)	COLOUR COMPRESSION	DEEP COLOUR BIT DEPTH	HDR	WIDE COLOR GAMUT (BT2020)	HDMI VERSION	DATA RATE	AUHD SERIES	444 SERIES	UHD SERIES
HD	1920x1080	24	4:2:2	8 BIT	NO	NO	1.4	0.75 GBPS	YES	YES	YES
HD	1920x1080	60	4:2:2	8 BIT	NO	NO	1.4	4.45 GBPS	YES	YES	YES
HD	1920x1080	60	4:4:4	16 BIT	NO	NO	1.4	5.91 GBPS	YES	YES	YES
UHD	3840x2160	24	4:2:0	8 BIT	NO	NO	1.4	8.91 GBPS	YES	YES	YES
UHD	3840x2160	24	4:4:4	8 BIT	NO	NO	1.4	8.91 GBPS	YES	YES	YES
4K	4096x2160	24	4:4:4	8 BIT	NO	NO	1.4	8.91 GBPS	YES	YES	YES
UHD OR 4K	3840x2160	60	4:2:0	8 BIT	NO	NO	1.4/2.0	8.91 GBPS	YES	YES	YES
LINE OF INNOVATION											
UHD OR 4K	3840x2160	24	4:2:0	10 BIT	YES	YES	2.0(A/B)	8.91 GBPS	YES	YES	YES
UHD OR 4K	3840x2160	24	4:2:2	12 BIT	YES	YES	2.0(A/B)	11.14 GBPS	YES	YES	NO
UHD OR 4K	3840x2160	24	4:4:4	10 BIT	YES	YES	2.0(A/B)	11.14 GBPS	YES	YES	NO
UHD OR 4K	3840x2160	24	4:4:4	12 BIT	YES	YES	2.0(A/B)	13.37 GBPS	YES	YES	NO
UHD OR 4K	3840x2160	60	4:2:0	10 BIT	YES	YES	2.0(A/B)	11.14 GBPS	YES	YES	NO
UHD OR 4K	3840x2160	60	4:2:0	12 BIT	YES	YES	2.0(A/B)	13.37 GBPS	YES	YES	NO
UHD OR 4K	3840x2160	60	4:2:2	12 BIT	YES	YES	2.0(A/B)	17.82 GBPS	YES	YES	NO
UHD OR 4K	3840x2160	60	4:4:4	8 BIT	YES	YES	2.0(A/B)	17.82 GBPS	YES	YES	NO

Thank you for choosing AVProEdge!

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



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