

4K HDR 8x8 Pure HDMI Matrix with Scaling Outputs, Audio De-embed & ARC

MX-0808-H2A-MK2

WyreStorm

Quickstart Guide

WyreStorm recommends reading through this document in its entirety to become familiar with the product's features prior to starting the installation process.

4K HDR 2160p 4:4:4 60 HDMI HDCP 2.2

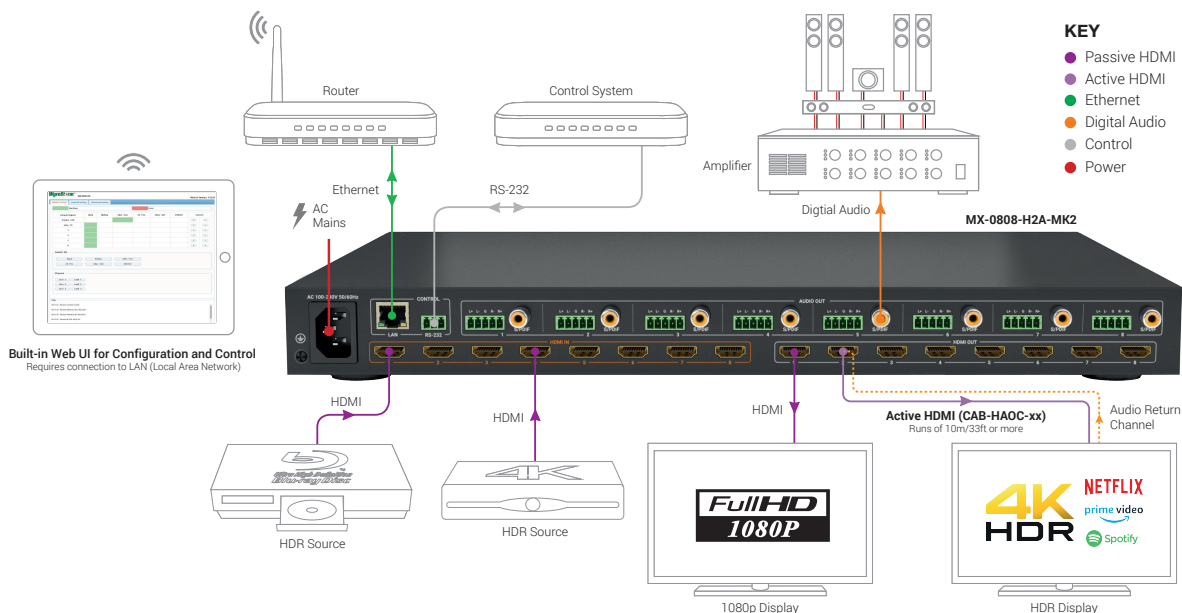
IMPORTANT! Installation Requirements

- Visit the product pages to download the latest firmware, document version, additional documentation, and configuration tools.
- Read through the [Wiring and Connections](#) section for important wiring guidelines before creating or choosing premade cables.
- While these products support CEC for the HDMI outputs, WyreStorm cannot guarantee compatibility with all forms of CEC communication.

In the Box

- 1x MX-0808-H2A-MK2 Matrix
- 1x AC Power Cord (US/UK/EU/AU)
- 8x 3.5mm 5-Pin Terminal Block
- 1x 3.5mm 3-Pin Terminal Block
- 1x IR Remote (CR2025 Battery not Included)
- 2x Matrix Mounting Brackets with screws
- 1x Quickstart Guide (this document)

Basic Wiring Diagram



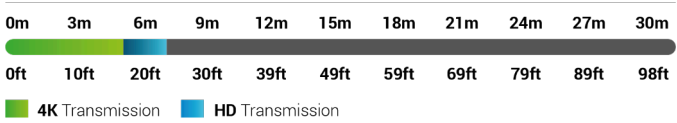
Wiring and Connections

WyreStorm recommends that all wiring for the installation is run and terminated prior to making connections to the switcher. Read through this section in it's entirety before running or terminating the wires to ensure proper operation and to avoid damaging equipment.

⚠ IMPORTANT! Wiring Guidelines

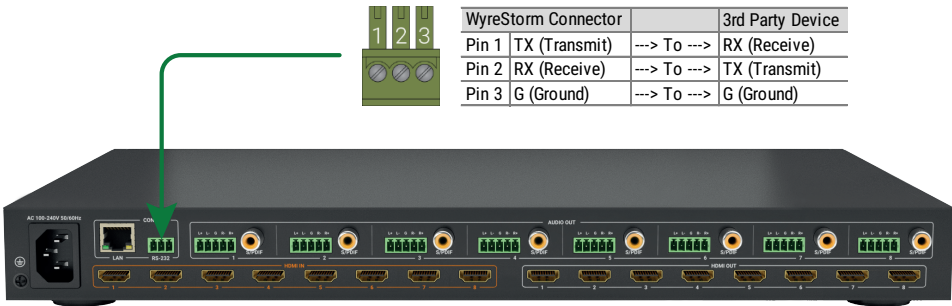
- The use of patch panels, wall plates, cable extenders, kinks in cables, and electrical or environmental interference will have an adverse effect on signal transmission which may limit performance. Steps should be taken to minimize or remove these factors completely during installation for best results.
- WyreStorm recommends the use of shielded category cable to minimize signal noise and interference.
- WyreStorm recommends using pre-terminated HDMI cables due to the complexity of these connector types. Using pre-terminated cables will ensure that these connections are accurate and will not interfere with the performance of the product.

HDMI Cable Performance Guide



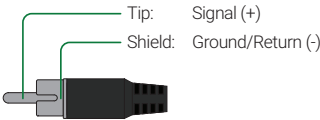
RS-232 Wiring

Most control systems and computers are DTE where pin 2 is RX, this can vary from device to device. Refer to the documentation for the connected device for pin functionally to ensure that the correct connections can be made.



Audio Wiring

This matrix contains audio connections for Digital Audio.



This matrix contains audio connections for Analog Audio.

	WyreStorm Connector		3rd Party Device
Pin 1	Left Positive (L+)	---> To --->	Left Positive (L+)
Pin 2	Left Negative (L-)	---> To --->	Left Negative (L-)
Pin 3	Ground (G)	---> To --->	Ground (G)
Pin 4	Right Negative (R-)	---> To --->	Right Negative (R-)
Pin 5	Right Positive (R+)	---> To --->	Right Positive (R+)

Setup and Configuration

Accessing the Web UI

This matrix uses an Auto IP method to generate the initial IP address based on the network connections. By default the IP address is set to DHCP and will pull the IP address from a connected DHCP server. Should the network not contain a DHCP server the IP address will be generated based on the units mac address. The above operation will occur unless the IP Address setting in the web UI is set to static.

1. Connect the matrix to the same network as a PC.
2. Using a 3rd party network scanner, scan the network for the IP address of the matrix.
3. Open a web browser and enter the IP Address of the matrix.
4. Enter the password for the matrix. Default Password: admin

IP Address Notes

- The IP address of the unit can be displayed by pressing and holding the **UP** and **Down** buttons on the front panel for 3 seconds. The IP address will be displayed on the front panel.
- The installer password and general password are the same by default. WyreStorm recommends changing the password for installer login to avoid any unwanted changes being made to the matrix configuration.

Low Power Mode (Standby)

This matrix contains a Low Power Mode that will place the unit into Standby using less power than normal operating mode. While in this mode the Front Panel display and LEDs will be Off and outputs will be powered down. Once a command is sent via the Front Panel buttons, IR remote/control system, or RS-232/IP control system the unit will wake from Standby and be fully operational. The unit can be placed back into standby via the Web UI or by sending an API command as described in the following sections.

Enabling Low Power Mode via Web UI

1. Access the Web UI. Refer to [Accessing the Web UI](#).
2. Navigate to the Settings tab within the Admin section of the Web UI. Default password is admin.
3. Under Low Power Mode, select On to enable.

Enabling via RS-232/IP

Refer to the products API document for information on Com port and IP addressing settings.

- To place the unit into Standby send the command `STANDBY<CR><LF>`.
- To remove the unit from Standby send the command `WAKE<CR><LF>`.
- To query the current Standby state send the command `GET STANDBY<CR><LF>`.

Troubleshooting

No or Poor Quality Picture (snow or noisy image)

- Verify that A/V mute is not enabled. Check Web UI for status on the selected output.
- Verify that the matrix is not in Standby. Refer to Low Power Mode (Standby) for details.
- Verify that power is being supplied to the source and receiving device and they are not in standby mode
- Verify that all HDMI connections are not loose and are functioning properly.
- Verify that the output resolution of the source and display is supported by this matrix and receiver.
- If transmitting 3D or 4K, verify that suitable HDMI cables are being used.

No or Intermittent 3rd party Device Control

- Verify that the IR and RS-232 cables are properly terminated following the [Wiring and Connections](#) section.
- Change the matrix IR code set in order to avoid interference with other devices. Refer to [IR Code Settings](#).

Troubleshooting Tips:

- WyreStorm recommends using a cable tester or connecting the cable to other devices to verify functionality.

Specifications

Audio and Video		
Inputs	8x HDMI In: 19-pin type A	
Outputs	8x HDMI Out 19-pin HDMI type A 8x 5-pin Phoenix Balanced Analog Audio 8x S/PDIF Digital Audio	
Video Encoding	Uncompressed 18Gbps	
End to End Latency	None	
Audio Formats	2ch PCM Multichannel: LPCM and Up to DTS:X and Dolby Atmos	
ARC	Supported	
Video Resolutions (Max)	Video Resolution	HDMI
	1920x1080p @60Hz 16bit	7m/23ft
	3840x2160p @60Hz 10bit 4:2:2 HDR10/10+	5m/16ft
	3840x2160p @60Hz 12bit 4:2:0 Dolby Vision	5m/16ft
	3840x2160p @50Hz 10bit 4:2:2 HLG	5m/16ft
	4096x2160p @60Hz 8bit 4:4:4	5m/16ft
Supported Standards	DCI RGB HDR10 HDR10+ Dolby Vision HLG BT.2021	
Maximum Pixel Clock	600MHz	
Communication and Control		
HDMI	HDMI 2.0 HDCP 2.2 EDID CEC (display power trigger)	
RS-232	1x 3-pin Phoenix for API control	
LAN	1x 8-pin RJ-45 for API control	
Power		
Power Supply	100 ~ 240V 50/60Hz AC	
Max Power Consumption	60W	
Environmental		
Operating Temperature	32°F ~ 113°F (0°C ~ 45°C) 10% ~ 90%, non-condensing	
Storage Temperature	-4°F ~ 158°F (-20°C ~ +70°C) 10% ~ 90%, non-condensing	
Maximum BTU	205 BTU/hr	
Dimensions and Weight		
Rack Units Wall Box	<1U	
Height	43.5mm/1.72in	
Width	440mm/17.33in	
Depth	300mm/11.82in	
Weight	3.58kg/7.88lbs	
Regulatory		
Safety and Emission	CE FCC RoHS RCM EAC	

Note: WyreStorm reserves the right to change product specification, appearance or dimensions of this product at any time without prior notice.

Warranty Information

WyreStorm Technologies ProAV Corporation warrants that its products to be free from defects in material and workmanship under normal use for a period of five (5) years from the date of purchase. Refer to the Product Warranty page on wyrestorm.com for more details on our limited product warranty.

