



WyreStorm EXP-MX-0402-H2 4K HDR 4 Input Matrix Switcher with 2 Scaling Outputs User Guide

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WyreStorm EXP-MX-0402-H2 4K HDR 4 Input Matrix Switcher with 2 Scaling Outputs



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

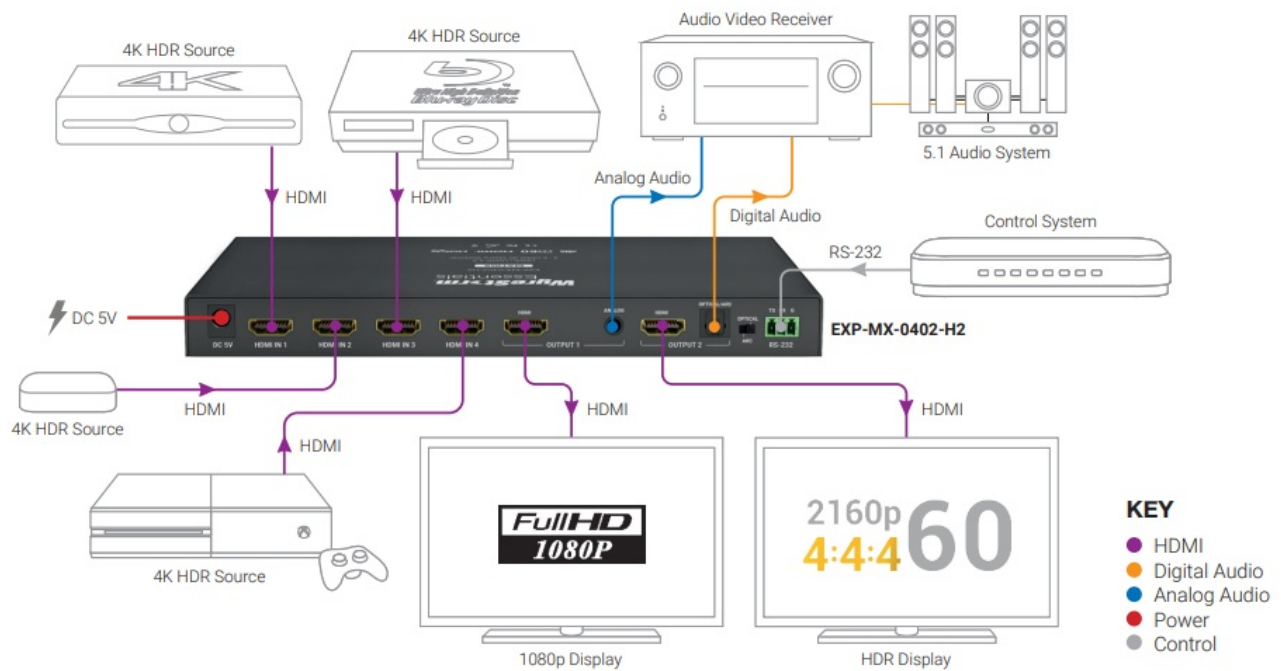
IMPORTANT! Installation Requirements

- Visit the product page to download the latest firmware, document version, additional documentation, and configuration tools.
- Read through the Wiring and Connections section for important guidelines before creating or choosing premade cables.

In The Box

- 1x EXP-MX-0402-H2 Matrix
- 1x 5V DC 1A power supply
- 1x 3.5mm 3-pin Terminal Block
- 1x Remote Control Handset (CR2025 Battery not Included) 2x Mounting Brackets

Basic Wiring Diagram



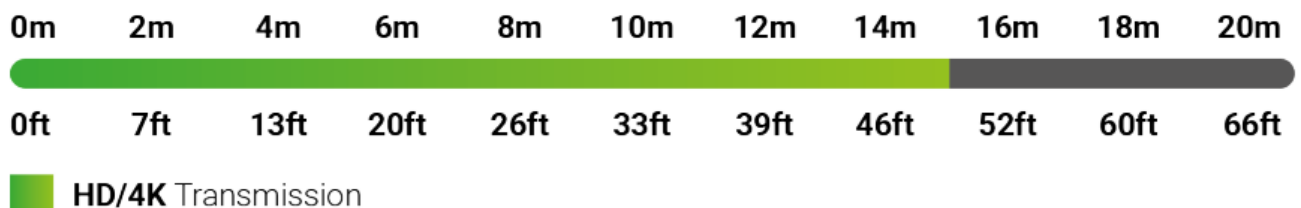
Wiring and Connections

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 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



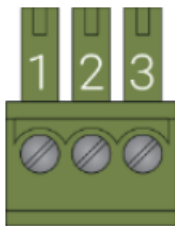
Installation and Operation

1. Connect HDMI sources to INPUT ports 1-4 using good quality HDMI cables.
2. Connect an HDMI display device to the HDMI OUT ports of the switcher.
3. Turn the power on using the included remote handset, ensuring LED power indicators are fully lit on the front of the switcher. If not, check to make sure the HDMI cables are firmly connected.

- 4. To operate the switcher, press the SWITCH buttons on the front of the unit to scroll numerically through connected sources.
- 5. Alternatively, use the remote control handset to scroll forwards and backward through the inputs or push buttons 1-4 corresponding to the connected sources. Furthermore, a RS-232 connection from a control system can be used to control the device.

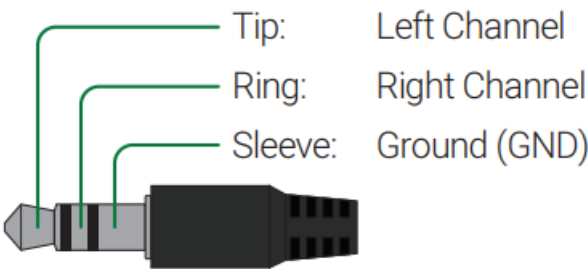
RS-232 Wiring

The EXP-MX-0402-H2 uses a 3-pin RS-232 with no hardware flow control. 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 functionality to ensure that the correct connections can be made. Refer to RS-232 Mode Settings for details on setting RS-232 modes.



WyreStorm Connector			3rd Party Device
Pin 1	TX (Transmit)	---> To --->	RX (Receive)
Pin 2	RX (Receive)	---> To --->	TX (Transmit)
Pin 3	G (Ground)	---> To --->	G (Ground)

Audio Connections

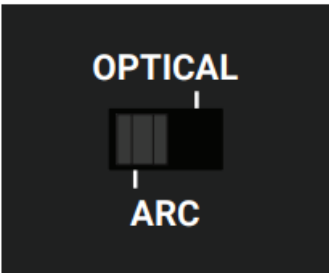


Setup and Configuration

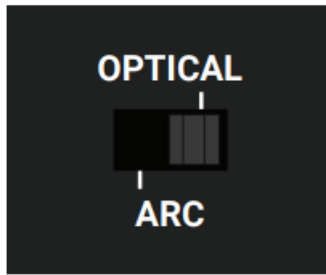
Optical / ARC Audio Mode Settings

The audio output of the matrix switcher can be configured to either audio de-embed or ARC audio signals from the connected display. Set the switches based on the desired audio method.

Set the audio switch to ARC to return audio signals from the Display Device to the Matrix and send audio to an external AVR etc.



Set the audio switch to OPTICAL to send digital audio signals from the Matrix to an external AVR etc.



Troubleshooting

No or Poor Quality Picture (snow or noisy image)

- Verify that power is being supplied to all devices in the system and that they are powered on.
- Verify that all HDMI connections are not loose and are functioning properly.
- If transmitting 3D or 4K, verify that the HDMI cables used are 3D or 4K rated.

Troubleshooting Tips:

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

Specifications


Audio and Video		
Inputs	4x HDMI In: 19-pin type A	
Outputs	2x HDMI Out: 19-pin type A 1x 3.5mm Analog Stereo 1x S/PDIF Toslink	
Audio Formats	HDMI: 2ch PCM Multichannel: LPCM and up to DTS-X and Dolby Atmos Analog: 2ch LPCM Toslink: 5.1ch surround sound	
	Resolution	HDMI
Video Resolutions (Max)	1920x1080p @60Hz 12bit 1920x1080p @60Hz 16bit 3840x2160p @24Hz 10bit 4:2:0 HDR 3840x2160p @30Hz 8bit 4:4:4 3840x2160p @60Hz 10bit 4:2:0 HDR 4096x2160p @60Hz 8bit 4:2:0 4096x2160p @60Hz 8bit 4:4:4	15m/49ft 7m/23ft 5m/16ft 7m/23ft 5m/16ft 7m/23ft 5m/16ft
Supported Standards	DCI RGB HDR HDR10 Dolby Vision up to 30Hz HLG BT.2020 BT.2100	

Maximum Pixel Clock	600MHz	
Communication and Control		
HDMI	HDCP 2.2 DVI-D supported with adapter (not included)	
IR	1x Front Panel Sensor	
RS-232	1x 3-Pin Terminal Block	
Power		
Power Supply	5V DC 1A	
Max Power Consumption	5W	
Environmental		
Operating Temperature	0 to + 45°C (32 to + 113 °F), 10% to 90%, non-condensing	
Storage Temperature	-20 to +70°C (-4 to + 158 °F), 10% to 90%, non-condensing	
Maximum BTU	17.06 BTU/hr	
Dimensions and Weight		
Rack Units/Wall Box	<1U	
Height	22mm/0.86in	
Width	182mm/7.16in	
Depth	77mm/3.03in	
Weight	0.34kg/0.74lbs	
Regulatory		
Safety and Emission	CE FCC RoHS	

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

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 UK: +44 (0) 1793 230 343 | ROW: 844.280.WYRE (9973) support@wyrestorm.com

Documents / Resources

	<p>WyreStorm EXP-MX-0402-H2 4K HDR 4 Input Matrix Switcher with 2 Scaling Outputs [pdf]</p> <p>User Guide</p> <p>EXP-MX-0402-H2, 4K HDR 4 Input Matrix Switcher with 2 Scaling Outputs</p>
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References

- [WyreStorm - Professional Audio Visual Solution Provider](#)