Manuals+

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WyreStorm MX-0403-H3-MST 4×3 Multi-Input Conference Room Switcher

INTRODUCTION

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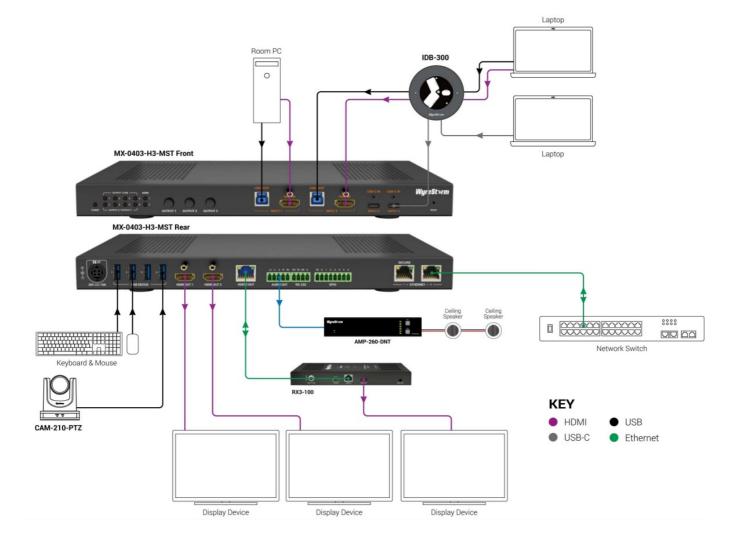
SAFETY INSTRUCTION

- ⚠️**IMPORTANT! Installation Requirements**
- 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.
- Visit the product pages to download the latest firmware, document version, additional documentation, and configuration tools.

In the Box

- 1 x MX-0403-H3-MST
- 7 x 20V 7 OA Power Supply (US/UK/EU/ AU)
- 2x USB-C 2m cables
- 2x USB 3.0 A to B 1.Bm Cables
- 4x Mounting Brackets
- 4x Bracket Screws
- 1 x 5-pin Phoenix Connector
- 7 x 3-pin Phoenix Connector
- 7 x 8-pin Phoenix Connector
- 7 x Quickstart Guide (This Document)

Basic Wiring Diagram

Wiring and Connections

- WyreStorm recommends that all wiring for the installation be run and terminated before making connections to the switcher.
- Read through this section in its entirety before running or terminating any wires to ensure proper operation and to avoid damaging the equipment.
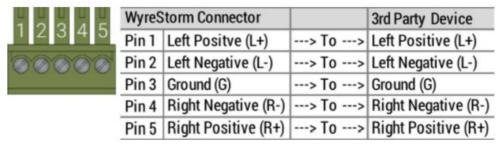
⚠️IMPORTANT! Wiring Guidelines

- The use of patch panels, wall plates, cable transmitters, kinks in cables, and electrical or environmental interference will harm signal transmission, which may limit performance.
- Steps should be taken to minimize or remove these factors completely during installation for the best results.
- WyreStorm recommends using pre-terminated HDMI, USB, and Ethernet cables due to the complexity of these connector types.
- Using preterminated cables will ensure that these connections are accurate and will

not interfere with the performance of the product.

Audio Connections

- A 5-pin Phoenix connector is used for balanced stereo audio output.

	WyreStorm Connector			3rd Party Device
Pin 1	Left Positve (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+)

- This product contains two USB-C connections that can be used as an audio/Video input. When using this connection, verify that the USB-C cable used supports audio/Video functionality, as not all USB-C cables support this requirement.
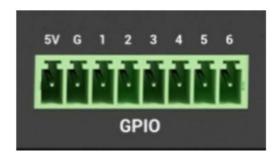
GPIO Ports

- 8-pin 3.5mm Phoenix female connector. This connector features 5V, GND, and 6 GPIO pins.
- Each GPIO pin can be independently configured as either a Digital Input or a Digital Output, with the default setting being Digital Input.

GPIO Voltage and Current Specifications:

- **5V Pin:** 5V/500mA
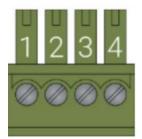- **GPIO Pins:** 5V/50mA each

Communication Connections

RS-232 Wiring

- The MX-0403-H3-MST uses a 4-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.

4-Pin Phoenix Terminal

WyreStorm Connector			3rd Party Device
Pin 1	12V DC Out	No Connection	Reserved
Pin 2	TX (Transmit)	---> To --->	RX (Receive)
Pin 3	RX (Receive)	---> To --->	TX (Transmit)
Pin 4	G (Ground)	---> To --->	G (Ground)

Setup and Configuration

- Access the MX-0403-H3-MST settings through its Web User Interface by entering the unit's IP address into your preferred web browser.

RS-232 and IP Settings

- **Baud Rate:** 115200
- **Data Bits:** Bbits
- **Parity:** None
- **Stop Bits:** 1 bit
- **Flow Control:** None
- **Default IP Address:** DHCP
- **Default IP Port:** 23

USB-C MST

- The MX-0403-H3-MST features two USB-C ports, labeled USB-C IN 3 and USB-C IN 4, for connecting laptop devices. By default, both ports operate in SST mode (Single Screen).
- However, the USB-C IN 4 port can also support MST mode (Multi-Stream Transport), enabling dual-screen output. When USB-C IN 4 is in MST mode, the USB-C IN 3 port will be disabled.

- The USB-C IN 4 port will then transmit two video streams through a single USB-C cable, with these streams being output to both HDMI OUT ports.
- The resolution of the video streams will be limited to 4K at 30Hz, and the priority of the USB-C IN 4 port will be set to the highest level.

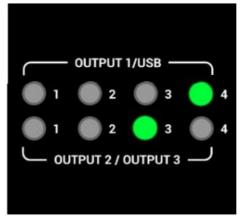## LED & Button

LED indicators

- The MX-0403-H3-MST has video, USB, and audio indicator LEDs on the front panel.
- All LEDs support two colors: green and red
- The color of the LED indicators corresponds to different statuses.
- **Red:** Selected USB input
- **Green:** Selected video/audio input
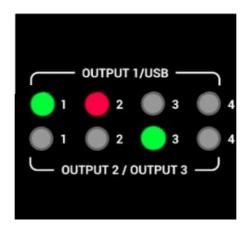- **White:** Unselected input

Button

- Two buttons are provided for video switching.
- One button is available for audio switching.
- **Note:** There is no independent button for USB switching. When the USB follows video, the video button is used to switch to the USB.

Example:

- **Example 1:** USB Follow H DM I OU Tl.
- OUT & USB » USB-C IN 4
- OUT 2/3 » USB-C IN 3

- **Example 2:** USB Independent switch.
- **OUT** » HDMI IN 1
- **USB** » USB HOST IN 2
- **OUT2/3** » USB-C IN 3

Troubleshooting

- **No or Poor Quality Picture (snow or noisy image)**
  - Verify that the USB-C & HDMI inputs and HDMI output connections are not loose and are functioning properly.
  - Make sure you are using full-featured USB Type-C cables made by
  - WyreStorm or other reliable brands.
  - Verify that the output resolution of the source and display is supported by this switcher.
  - Configure EDID Settings to a lower resolution.
  - If transmitting 4K, verify that the HDMI & USB-C cables used are 4 K-rated.
- **No or Intermittent 3rd party Device Control**
  - Verify that the IR, RS-232, and Ethernet cables are properly terminated.
- **Reset**
  - Click the "RESET' button through the Web UI.
  - Send "RESET' API via RS232 or Telnet.

- **Hardware:** Press and hold the Reset button for 15 seconds, all LEDs will flash 4 times quickly.

Troubleshooting Tips:

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

Specifications

Audio and Video	
Inputs	2x HDMI In 7 9-pin Type A 2x USB-C
Outputs	2x HDMI Out: 19-pin Type A 7 x Analog Audio Out (5-pin Phoenix Male Connector) 1x HDBaseT 3 Out: RJ45
Output Video Encoding	18Gbps
Audio Formats	**USB-C IN/HDMI IN/ HDMI OUT:** Up to 7.lch, including PCM 2.0/5.1/ 7.lch, Dolby Digital, Dolby Digital Plus, Dolby TrueHD, Dolby Atmos, DTS 5.1, DTS-HD Master Audio, and DTS: X. **Analog Audio de–embedding:** 2ch Analog/PCM
Video Resolutions (Max)	3840x2160p @60Hz 4:4:4 8bit

Data Rate	**USB-C IN:** 7 OGbit/s (per lane). **HDMI:** 7 8Gbps. **USB 3.2:** 5Gbit/s.
HOR Format	All HOR formats, including HOR 10, HLG, HOR 10+, and Dolby Vision
Supported Standards	DCII RGB
Maximum Pixel Clock	600MHz
Power	
Power Supply	20V
Power Consumption	Up to 200W
Environmental	
Operating Temperature	O to+ 45°C (32 to+ 713 °F), 7 0% to 90%, non-condensing
Storage Temperature	-20 to+ 70°C (-4 to+ 7 58 °F), 70% to 90%, non-condensing

| Maximum BTU | Power consumption 13.1W (No USB-A load and USB-C charging), a 44.7 BTU/hr |
| | Power consumption 35.6W (with 22.5W USB-A and no USB-C charging), a 127.5 BTU/hr. Power consumption 155.6W (with 22.5W USB-A and 2x 60W USB-C charging), a 531.1 BTU/hr |

Dimensions and Weight	
Length x Width x Height	300mm x 180mm x 25mm
Weight	l .37kg/3.02lbs

Regulatory	
Safety and Emission	CEIFCCIRoHSIRCMIEACIUKCA

- 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.

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- **MX-0403-H3-MST** Quickstart Guide 250724

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Documents / Resources

	[WyreStorm MX-0403-H3-MST 4x3 Multi Input Conference Room Switcher](#) [[pdf](#)] User Guide MX-0403-H3-MST, MX-0403-H3-MST 4x3 Multi Input Conference Room Switcher, 4x3 Multi Input Conference Room Switcher, Multi Input Conference Room Switcher, Conference Room Switcher

References

- [User Manual](#)

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🏷 4x3 Multi Input Conference Room Switcher, Conference Room Switcher, Multi Input Conference Room Switcher, MX-0403-H3-MST, MX-0403-H3-MST 4x3 Multi Input Conference Room Switcher, WyreStorm

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