18Gbps HDMI In-line Signal Re-Clocker with EDID Management

CON-H2-EDID

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.
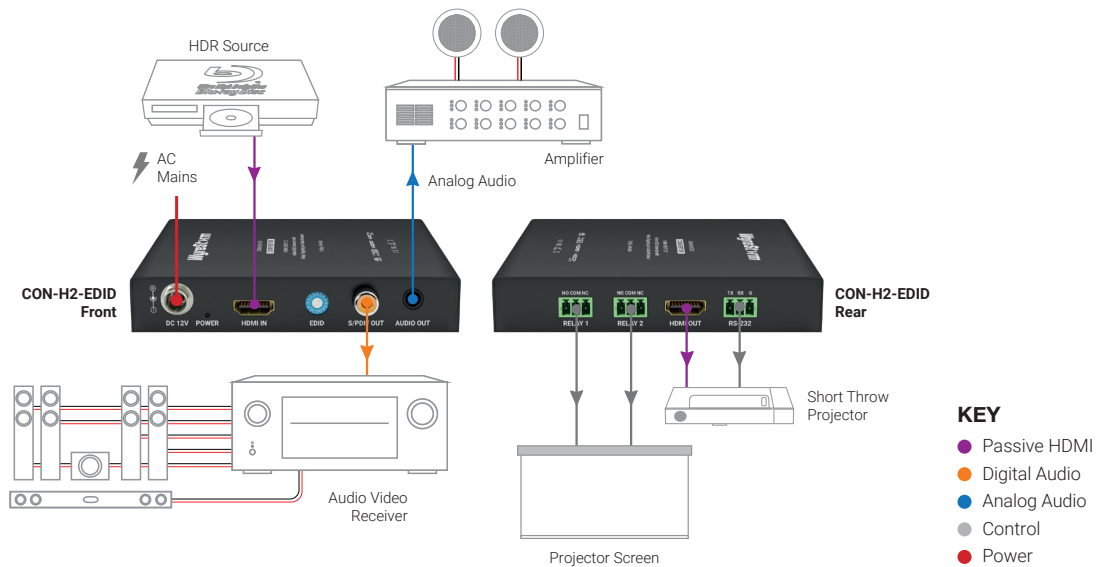
4K HDR **2160p 4:4:4 60** **HDMI®** **HDCP 2.2**

⚠️ **IMPORTANT! Installation Requirements**

- Advanced configuration of this product requires the use of the use of the WyreStorm Management Suite v1.6 or higher configuration tool. Download the latest version from the product page before continuing with the installation.
- 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 wiring guidelines before creating or choosing premade cables.
- While this product supports CEC for the HDMI outputs, WyreStorm cannot guarantee compatibility with all forms of CEC communication.

In the Box

1x CON-H2-EDID
1x DC 12V 1A Power Supply (US/UK/EU/AU)
3x 3-Pin Terminal Block
2x Mounting Brackets
1x Quick Start Guide (This Document)

Basic Wiring Diagram

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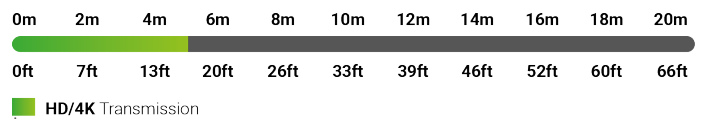support@wyrestorm.com

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 its entirety before running or terminating the wires to ensure proper operation and to avoid damaging equipment.
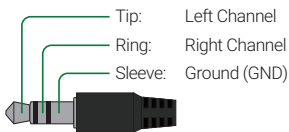
⚠ IMPORTANT! Wiring Guidelines

- 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

0m	2m	4m	6m	8m	10m	12m	14m	16m	18m	20m
0ft	7ft	13ft	20ft	26ft	33ft	39ft	46ft	52ft	60ft	66ft

■ **HD/4K** Transmission

Audio Connections

Analog Audio Out

Tip:	Left Channel
Ring:	Right Channel
Sleeve:	Ground (GND)

S/PDIF Digital Audio Out
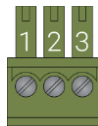

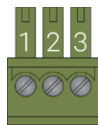| Tip:	Signal (+)
Shield:	Ground/Return (-)

RS-232 Guidelines

This product 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 functionally to ensure that the correct connections can be made.

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)

Relay Wiring

The relays on this product can be used to be trigger devices such as projector screens that are Normally Open (NO) or Normally Closed (NC).

WyreStorm Connector			3rd Party Device
Pin 1	NO (Normally Open)	---> To --->	NO (Normally Open)
Pin 2	Common (Ground)	---> To --->	Common (Ground)
Pin 3	NC (Normally Closed)	---> To --->	NC (Normally Closed)

Troubleshooting

No or Poor Quality Picture (snow or noisy image)

- Verify that the output resolution of the source and display is supported by this product.
- If transmitting 3D or 4K, verify that the HDMI cables used are 3D or 4K rated.
- Verify that all source and display connections are not loose and are functioning properly.

No or Intermittent 3rd party Device Control

- Verify that the RS-232 cables are properly terminated.Refer to RS-232 Guidelines and/or Relay Wiring sections for pinout information.

Setup and Configuration

EDID Dial Settings
The dial located on the front of the product is used to set the EDIDs based on the following table.

Resolution	Dial Set		Resolution	Dial Set
EDID copy from Output	0		1440x900 @60Hz 2Ch	9
1024x728 @60Hz 2Ch	F		1600x1200 @60Hz 2Ch	7
1280x1024 @60Hz 2Ch	C		1600x900 @60Hz 2Ch	8
1280x720p @60Hz 2Ch	4		1680x1050 @60Hz 2Ch	6
1280x768 @60Hz 2Ch	E		1920x1080p @60Hz 2Ch	3
1280x960 @60Hz 2Ch	D		1920x1200 @60Hz 2Ch	5
1360x768 @60Hz 2Ch	B		3840x2160p @30Hz 2Ch	2
1400x1050 @60Hz 2Ch	A		3840x2160p @60Hz 2Ch	1

Advanced Configuration
The following steps require the use of the use of the WyreStorm Management Suite v1.6 or higher. Download the latest version from the product page before continuing with the installation.

Initial Configuration Tool Setup
1. Connect the converter to a PC using the RS-232 port. Refer to RS-232 Guidelines for pinout.
2. Open the WyreStorm Management Suite and select the CON-H2-xxxx Configuration Tool from the menu.
3. Under RS-232 Port Configuration select the COM port for the PC and set the baud rate to 57600.
4. Select the Connect button to connect the PC to the converter.

EDID Write from a File
If an EDID file is available it can be uploaded into the converter for setting the desired EDID.

1. Under RS-232 Port Configuration select the COM port for the PC and set the baud rate to 57600.
2. Under EDID Write select Choose File to select the file to upload.
3. Once the selection dialog closes, select Import to upload the file to the converter.

Connected Device On/Off Triggering
Devices such as projectors or displays connected to this product can be controlled from via connection to the RS-232 port. Commands for the devices are entered within the CON-H2-xxxx Configuration Tool.

1. Under Power On/Off Pre Loading set the baud rate for the device to be controlled.
2. Select Send next to the Baud Rate to send it to the converter.
3. Enter a command for Power On and select HEX if the command is HEX.
4. Select Send next to Power On to send the command to the converter.
5. Enter a command for Power Off and select HEX if the command is HEX.
6. Select a delay time for powering Off the device after no HDMI signal is detected.
7. Select Send next to Power Off to send the command to the converter.
8. Select a String terminator to use for the commands and select the Set button.

Configuring Relays
The relays on the converter can be programmed to be Latch or Momentary based on the functionality of the connected device. This setting is the same for both relays.

1. Under Set Relay Mode select Latch or Momentary for Relay Mode.
2. Select the Set button to send the setting to the converter.

Specifications

Audio and Video	
Inputs	1x HDMI In: 19-pin type A
Outputs	1x HDMI Out: 19-pin type A 1x Audio Out: 3.5mm (1/8in) TRS Stereo 1x S/PDIF Out: S/PDIF Coaxial Digital
Audio Formats	HDMI Pass-through: 2ch PCM | Multichannel: LPCM and Up to DTS-X and Dolby Atmos S/PDIF Out: De-Embed: 2ch PCM | Multichannel: Up to 5.1 DTS and Dolby Digital Analog Out: 2ch

Video Resolutions (Max)	Video Resolution	HDMI
	1920x1080p @60Hz 12bit	15m/49ft
	3840x2160p @24Hz 10bit 4:2:0 HDR	7m/23ft
	3840x2160p @30Hz 8bit 4:4:4	7m/23ft
	3840x2160p @60Hz 10bit 4:2:0 HDR	5m/16ft
	3840x2160p @60Hz 12bit 4:2:2 HDR	3m/10ft
	4096x2160p @60Hz 8bit 4:2:0	7m/23ft
	4096x2160p @60Hz 8bit 4:4:4	3m/10ft

Supported Standards	DCI | RGB | HDR | HDR10 | Dolby Vision | HLG | BT.2020 | BT.2100
Maximum Pixel Clock	600MHz

Communication and Control	
HDMI	HDMI 2.0 | HDCP 2.2 | EDID | CEC Triggering Inputs supports DVI/D and DisplayPort Dual-Mode (DP++) v1.3 with adapter (not included)
CEC	CEC Power Triggering | Requires CEC compatibility
RS-232	1x RS-232: 3-pin Terminal Block - 3.5mm
Relays	1x Relay 2: 3-pin Terminal Block - 3.5mm | 1x Relay 1: 3-pin Terminal Block - 3.5mm | Max 1A load

Power	
Power Supply	12V DC 0.5A
Max Power Consumption	≤2W

Environmental	
Operating Temperature	32°F ~ 113°F (0°C ~ 45°C) | 10% ~ 90%, non-condensing
Storage Temperature	-4°F to ~ 158°F (-20°C ~ +70°C) | 10% ~ 90%, non-condensing
Maximum BTU	7 BTU/hr

Dimensions and Weight	
Rack Units | Wall Box	<1U
Height With | Without Feet	20mm/0.79in
Width With | Without Brackets	120mm/4.73in
Depth With | Without Handles	80mm/3.15in
Weight	0.23kg/0.51lbs

Regulatory	
Safety and Emission	CE | FCC | RoHS | RCM

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 LLC 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.