

4K HDMI over HDBaseT™ 2-Gang In Wall Transmitter with PoH (100m/328ft)

TX-IW-70-POH

WyreStorm

Quickstart Guide

A PoH compatible HDBaseT transmitter with an HDMI input, fitting into a decora 2-Gang wall box.

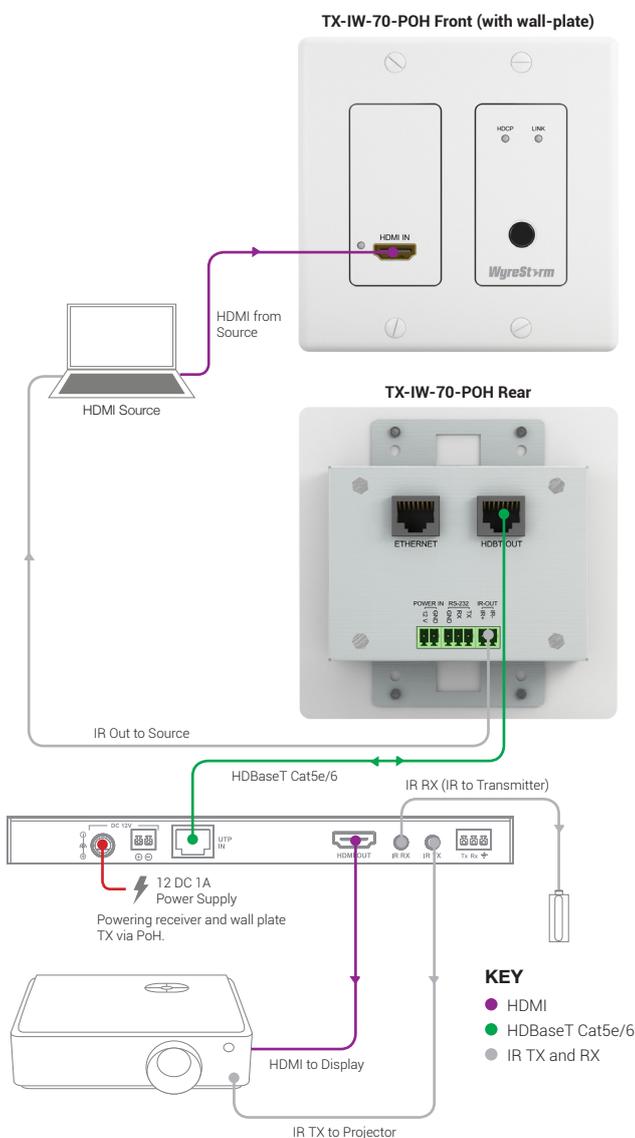
WyreStorm recommends reading through this document in its entirety to become familiar with the product's features prior to starting the installation process.



In the Box

- 1 x TX-IW-70-POH HDBaseT Wall Plate Transmitter
- 1 x 3-pin Plug-in Phoenix Connector
- 2 x 2-pin Plug-in Phoenix Connector
- 1 x Decorative Wall Plate with 4 screws
- 4 x 6-32x20mm Installation Screws

Basic Wiring Diagram

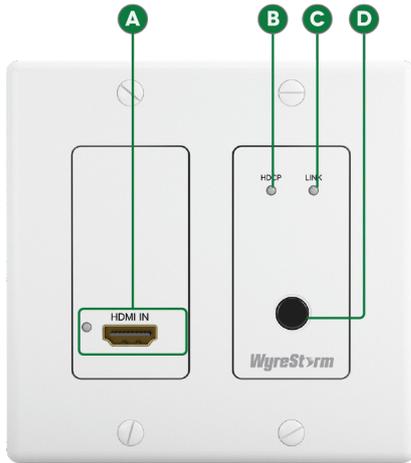


Installation

IMPORTANT! Do not connect or disconnect (hot plug) the HDMI, or HDBaseT connections while the transmitter is powered on. Doing so may cause damage to the transmitter or connected devices.

1. Verify that all items are included in the packaging per the list under the **In the Box** section.
2. Run a Cat5/5e/6 cable from the transmitter location to the receiver location. Terminate the cable per the **HDBaseT Wiring** section and connect to the **HDBT Out** on the transmitter.
3. (Optional) Terminate an IR emitter or cable per the **IR Wiring** section and connect to the **IR Out** on the transmitter. Place the IR emitter onto the source device near the IR receiver or connect to an IR port on the source.
4. (Optional) Terminate a cable per the **RS-232 Wiring** section and connect to the RS-232 pass-through on the transmitter. Connect the opposite end to a port on a control system.
5. Connect the opposite end of the HDBaseT cable to a **WyreStorm HDBaseT receiver**, switcher, or 3rd party display device with built-in HDBaseT receiver. Power on the receiver.
6. (Optional) If power for the transmitter is not being supplied by the receiver via PoH, connect a 12V DC 1A power supply (not included) to the **Power In** connection on the transmitter. See **Power Supply Wiring**.
7. Install the TX-IW-70-POH in a dual-gang wall box located near the source.
8. Connect an HDMI source to the **HDMI In** on the transmitter using an HDMI cable from a high quality brand such as **WyreStorm Express**.
9. Power on the HDBaseT receiver or connect the power supply to an AC outlet.

Front Panel



A HDMI IN and HDMI LED

19-pin type A HDMI female digital video/audio input: Supports HDMI and DVI/D (requires adapter-not included). Limited to 297MHz pixel clock. LED illuminates when HDMI source is selected.

B HDCP LED

Solid: Audio and Video signal is HDCP protected.
Flashing: Audio and Video signal is not HDCP protected.
Off: No Audio and Video signal.

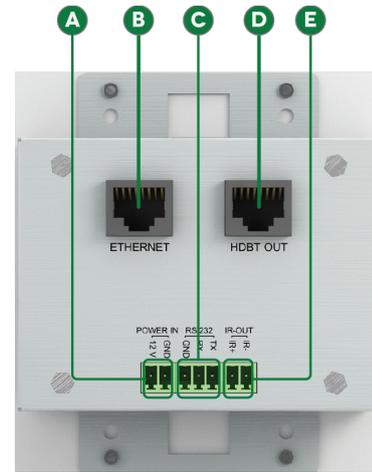
C LINK LED

Solid: Link to receiver has been established.
Flashing: Link to receiver has not been established.

D IR Sensor

30-55kHz IR Receiver.
 Receives an IR signal from hand-held remote or flasher that is transmitted to the remote display via HDBaseT.

Rear Panel



A POWER IN

2-pin Screw Down Phoenix Connector (Optional) Connect to a 12V DC 1A power supply (not included). Do not use when powering transmitter via PoH. See [Power Supply Wiring](#).

B ETHERNET

8-pin RJ-45 female
 Connect to a router or switch to supply Ethernet to remote location.

C RS-232

3-pin Screw Down Phoenix Connector
 Used to send/receive bi-directional RS-232 signals to/from the remote display location via HDBaseT. See [RS-232 Wiring](#).

D HDBT OUT

8-pin RJ-45 female
 Connect to an HDBaseT receiver. See [HDBaseT Wiring](#) for wiring details.

E IR OUT

2-pin Screw Down Phoenix Connector
 Used to send IR signals received from the remote display location via HDBaseT to a device (source) located near the transmitter. See [IR Wiring](#).

Wiring and Connections

HDBaseT Wiring

Wiring for HDBaseT follows the EIA T568B standard.



! IMPORTANT! Wiring Guidelines

- The use of patch panels, wall plates, cable extenders, kinks in cables, and electrical or environmental interference can have an adverse effect on HDBaseT transmission limiting performance. Steps should be taken to minimize these factors (or remove completely) during installation for best results.
- While similar in nature, the HDBaseT protocol is different than Ethernet and voltages provided for PoH can be higher than those provided by PoE. For this reason, never connect an HDBaseT link to an Ethernet router or switch to avoid damaging the connected devices.

Supported Video Resolutions

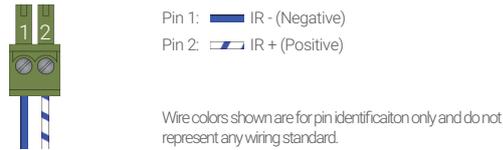
The type of category cable used and the distance between the transmitter and receiver can restrict the available video resolution.

Cable Type	Range	Supported Resolution
Cat5/5e/6	100m/328ft	1080p @ 60Hz 36bit
	70m/230ft	3840 x 2160 @ 30Hz 4:4:4
Cat6a	100m/328ft	1080p @ 60Hz 36bit
		1080p @ 60Hz 48bit
		1080p @ 60Hz 3D

Note: When connected to a class B HDBaseT receiver, the supported resolution is limited to 70m/230ft 1080p.

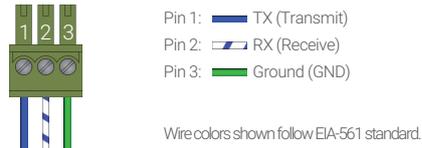
IR Wiring

Connection for an IR emitter or cable to control the local source use a 2-pin Screw Down Phoenix connector.



RS-232 Wiring

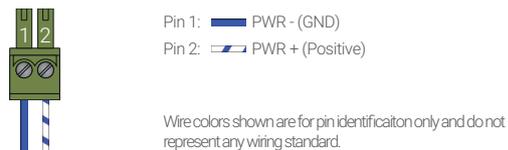
Connection for RS-232 pass-through to the display at the remote location uses a 3-pin Screw Down Phoenix connector. The connector type and pinout on the control system may vary, refer to the 3rd party manufacturer's instructions for details.



Power Supply Wiring

Power for the TX-IW-70-POH is supplied via PoH when connected to a compatible HDBaseT receiver

When PoH is not available from the connected receiver, connect a 12V DC 1A power supply (not included) using a 2-pin Screw Down Phoenix Connector.



Specifications

Audio and Video	
Audio Formats	Up to 7.1 DTS Master HD and Dolby True HD
Video Resolution	HDMI: Up to 4096x2160p@60Hz 4:2:0 VGA: Up to 1920 x 1200 See Supported Video Resolutions for cable distance restrictions
3D Support	Blu-ray: Frame packing/sequential Satellite/Cable: Interlaced stereoscopic
Video Input Impedance	100 Ω
Maximum Pixel Clock	297 MHz
Power	
PoH	Power over HDBaseT
Power Supply (Optional)	12V DC 1A
Max Power Consumption	25W
Dimensions (Internal) and Weight	
Height	105.6mm/4.16in
Width	91mm/3.58in
Depth	29.4mm/1.16in
Weight	0.2kg/0.44lbs
Environmental	
Operating Temperature	32°F ~ 113°F (0°C ~ 45°C) 10% ~ 90%, non-condensing
Storage Temperature	-4°F ~ 140°F (-20°C ~ 70°C) 10% ~ 90%, non-condensing
Regulatory	
Safety and Emission	CE FCC RoHS

Troubleshooting

No or Poor Quality Picture (snow or noisy image)

- Verify that power is connected to the transmitter and receiving device. If using a display with a built in receiver, verify that the device is powered On.
- Verify that the transmitter supports the output resolution of the source. See [Supported Video Resolutions](#).
- Verify that the receiving device and display support the output resolution of the source. Lower the resolution of the source to verify output on the display. If transmitting 3D or 4K, verify that the HDMI cables used are 3D or 4K rated.
- Verify that the HDBaseT cable is properly terminated per the [HDBaseT Wiring](#) section.
- Verify that all source and HDBaseT connections are not loose and are functioning properly.

No or Intermittent 3rd party Device Control

- Verify that the IR or RS-232 cable(s) is properly terminated. See [IR Wiring](#) for IR and [RS-232 Wiring](#) for RS-232.
- Verify that the IR emitter is located near the IR receiver on the device.

Troubleshooting Tips:

- WyreStorm recommends using a cable tester or connecting the cable to other devices to verify functionality.
- Use a flashlight to locate the IR receiver behind any tinted panels on the device being control.

Warranty Information

This product is covered by a 3 year limited parts and labor warranty. During this period there will be no charge for unit repair, component replacement or complete product replacement in the event of malfunction. The decision to repair or replace will be made by the manufacturer. This limited warranty only covers defects in materials or workmanship and excludes normal wear and tear or cosmetic damage.

Visit the product page located at wyrestorm.com for additional information on this product including important technical information not provided in this document and warranty terms & conditions.

