



Quickstart Guide

WyreStorm 4K HDBaseT 5-Play Extender Set
with 2-Way IR, RS232, Ethernet and PoH
(4K: 70m/230ft - 1080p: 100m/328ft)

EX-70-4K



Before Installation

70m/230ft @ 4K and 100m/328ft @1080p video are maximum recommended transmission distances for this model and denotes recommended transmission conditions - including straight cable runs with no electrical interference, bends, kinks, patch panels or wall outlets. If any of the above is a factor in your installation, transmission range may be affected – take care to avoid where possible.

We strongly recommend using supplied mounting brackets to secure the receiver to a flat surface behind/near the display device. Sudden movement of these devices could lead to loss of picture/sound if connections become loose or strained, resulting in unnecessary service call-backs.

Setup and Operation

- Using quality HDMI cables, connect an HDMI source (such as Blu-Ray, games console, satellite/cable TV, media server etc.) to the HDMI IN of the EX-70-4K Transmitter. **NOTE: Ensure source and display are 4K compatible if attempting to transmit an UltraHD signal.**
- Connect a good quality, well-terminated Cat5e/6 cable of no more than 70m/230ft for 4K or 100m/328ft for 1080p between the HDBT OUT of the EX-70-4K Transmitter to the HDBT IN Input of the EX-70-4K Receiver.
- Connect the HDMI display device (LED/LCD display or projector) to the HDMI OUT of the EX-70-4K Receiver.
- Connect the included 12v power supply to either the EX-70-4K Transmitter or Receiver and power on. The two-way PoH function carries power along the length of the cable in both directions to power either the Receiver or Transmitter depending on power availability. Local power supply is required at one end of the cable run only, with no additional power required at the other end. **NOTE: Optional 12v power connectivity is available if required - for example, if the cable is too weak to carry the power.**
- Check POWER, STATUS & LINK lights are illuminated on both units to indicate successful connection, with a lit HDCP light illustrating the presence of encryption within the signal.

STATUS should be flashing slowly for correct operation. HDCP should be static to signify HDCP within the transmission but will flash quickly if non-HDCP is being transmitted. POWER and LINK are both static LED, with strength of transmission illustrated by the 5-level LINK LED - the stronger the signal the more lights will be lit. Similarly, no or one light indicates a transmission issue that should be investigated.

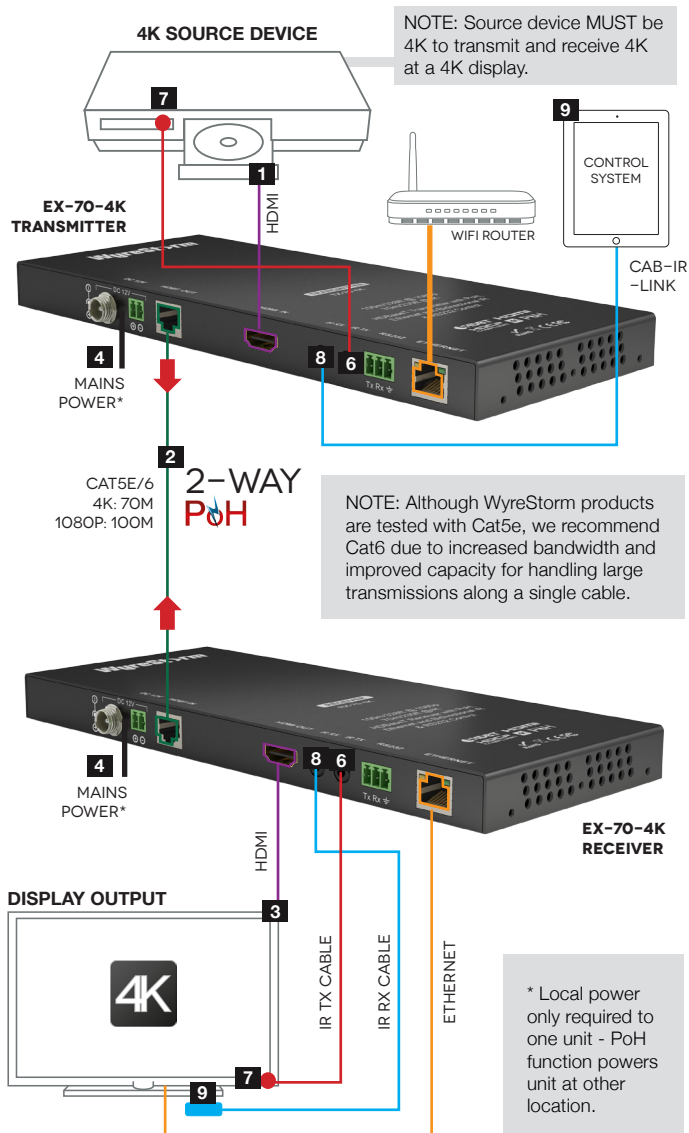
NOTE: If daisy-chaining extenders, repeat process for all EX-70-4K Transmitters and Receivers used.

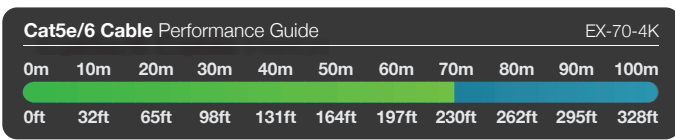
Signal IR/RS232 Control Connection

- For two-way IR control of connected sources and displays, connect IR transmitters to the IR TX ports of the EX-70-4K Transmitter and EX-70-4K Receiver.
- Firmly attach the IR emitter eye directly over the infrared receiving sensors of the devices to be controlled (source at Transmitter location, and display device at receiver location). Location of the emitter eye on the device may need to be adjusted later to achieve best IR performance.
- Insert IR receivers into IR RX ports of the EX-70-4K Receiver and EX-70-4K Transmitter.
- At both display and source locations, position the IR receiver on or near the device to be controlled, ensuring a clear line of sight to the remote handset used to control it.

For linking with a control system, a WyreStorm IR Integration Cable (CAB-IR-LINK) should be used to connect the IR RX port of the EX-70-4K Transmitter to the control system.

For an RS232-based control system, RS232 cables should be connected between RS232 ports of the EX-70-4K Transmitter and control system, and RS232 ports of the EX-70-4K Receiver and the display device to enable serial control between devices.





■ 4K Transmission ■ HD Transmission



Cat5e/6 Wiring Guide

The quality of termination for every RJ45 is essential. Poor terminations leads to intermittent performance and longer install times.

enabled, correctly configured and outputting compatible transmissions. If combining 4K and HD devices within the same system, a scaling device (EXP-CON-4K-DD) may be required.

IR Control

■ Check IR emitter and receiver eyes are correctly positioned over device receiving area to allow infrared signals to be transmitted and received through the extenders. IR emitter eye should be fixed firmly over infrared sensors of devices. IR receiver eye should be attached on or near devices ensuring a clear line of sight to the remote control used to operate.

■ If unsure of IR emitter/receiver positioning, IR receiving areas on devices can be located by shining a flashlight onto the fascia of the device - the IR receiving area should be identifiable as a small round sensor behind the panel. Consult your device manufacturer handbook if difficulties are experienced.

■ Is any remote handset used powered and sending a signal? As IR is invisible to the naked eye, check your remote is transmitting a signal by viewing the remote handset sensor through a digital camera/camera phone – the sensor should flash when a button on the handset is held down.

■ IR signal dropout can be experienced due to environmental infrared radiation. Ensure IR emitters and receivers are away from direct sunlight, halogen lighting and plasma screens that may interfere with IR signals.

Safety Recommendations:

- Do not expose this apparatus to any form of moisture, including the placement of anything containing liquids on the unit.
- To prevent risk of electric shock or fire hazard, ensure apparatus is installed in an unobstructed, well ventilated area away from any external heat sources - including other electrical devices which may produce heat.
- Only use attachments/accessories specified by the manufacturer and refer all servicing to qualified service personnel.
- Failure to adhere to these recommendations may invalidate your warranty.

Warranty Information



This product is covered by a 3 year limited parts and labour 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 our website for full details on this product and to download the complete user guide including technical specification, EDID settings and warranty information.

wyrestorm.com

Troubleshooting

Regardless of manufacturer or product, the majority of installation difficulties can typically be attributed to communication problems between devices or when high bandwidth transmissions are attempted with insufficient cable/connections. Should you find yourself in such a situation, we have drawn up the following checklist of general issues and causes that should help you shoot your way out of trouble without seeking further assistance.

No or poor quality picture?

■ Device Connection - Are you connected and powered? Double check all HDMI, HDBaseT and 12v power connections are firmly inserted into correct ports and that all devices are powered.

NOTE: If PoH powering issues are experienced at either end, connect a 12v local power supply to the unit.

■ Cable length – is your signal struggling to transmit signals or power the distance of your cable? You may be experiencing interference that exceeds the maximum capacity of your transmission cable distance. Try a shorter cable run, swap out a unit for one you know is functioning normally or use EDID/DIP management on the unit - **see full manual for EDID DIP switch settings**

■ Signal strength – the use of cable joins, stranded patch panels, wall outlets and stranded patch leads as interconnects between them, can significantly reduce signal strength. Use solid core straight, straight through connections wherever possible.

■ Resolution - If you reduce the resolution of the source, do you get a picture? If so, this suggests a conflicting resolution between source and display or a bandwidth capacity issue with your cable. Check all inputs and outputs share the same resolution and make sure the signal is being successfully transmitted the full length of your cable run.

■ Picture 'snow'/HD 'noise' – signifies a failure to fully establish a signal and can often be caused by poorly terminated RJ45 connectors or excessive cable lengths. Ensure your cable is correctly wired to 568B standards. Try swapping in a display and receiver from a fully functioning location – if the problem continues on the same output, turn off all equipment and swap your signal carrying cables at both ends.

■ Cable quality and condition – HDMI cable/connectors can be easily damaged and the quality of material can vary, especially in the lowest price brackets. Successful transmission of video, audio and control, can all be affected by cable and termination quality. Always use good quality leads and cables, with RJ45 connectors wired to the 568B standard at both ends - we recommend using WyreStorm Express high speed HDMI cables.

Should transmission problems be experienced, try swapping cables/leads for those already working to see if this improves your image to identify cable issue as source of problem.

■ Blu-ray, 3D - Make sure all your equipment has been configured and enabled to transmit and accept the signal, or is capable of passing a signal. Are resolutions between source and display compatible and cable adequate for the large bandwidth required by Blu-ray and 3D transmissions?

■ 4K - Are you trying to pass a 4K signal or are you combining 4K and HD source and display? Ensure connected devices are compatible, 4K