PURPOSE

INSTRUCTION MANUAL
MODEL: PAV-EX40-UHD

100% PERFORMANCE GUARANTEE

DAILY IN-STOCK PROMISE

SEAMLESS SUPPORT

3 YEAR WARRANTY

GIVES BACK TO CHARITY

OVERVIEW

- The PAV-EX40-UHD-KIT is an HDMI extender featuring HDBaseT technology, allowing for the extension of 4K HDMI signals up to 40 Meters. Equipped with Bi-directional POC, IR, and RS232 the PAV-EX40-UHD-KIT is an essential integrator tool for extending HDMI.

MODEL NUMBERS

- PAV-EX40-UHD-T – HDBaseT Transmitter w/ IR and RS232
- PAV-EX40-UHD-R – HDBaseT Receiver w/ IR and RS232

FEATURES

- HDMI 2.0b
- Max Resolution 4K30 4:4:4/4K60 4:2:0
- HDCP 1.X/2.2 Support
- CEC Pass-Through
- Up to 40M (Cat6a) at 4K
- Up to 70M (Cat6a) at 1080p
- Bi-Directional POC
- 3-20V IR Support with Direct Control System Support
- Bi-Directional RS232 Transport
- Supports audio formats up to uncompressed LPCM 7.1, Dolby TrueHD (including Atmos), and DTS (up to DTS:X)

PACKAGE CONTENTS

- Power Supply
- X2 IR Target (Eye/Receiver)
- X2 IR Blaster (Emitter)
- X2 Velcro Strip
- Mounting Brackets
- X2 3.5MM TRS (Stereo) to Open Cable

SPECIFICATIONS

VIDEO

Video Resolutions	Up to 4K30 4:4:4 & 4K60 4:2:0
VESA Resolutions	Up to 4096X2160 (DCI 4K)
Chroma Supported	4:4:4, 4:2:2, 4:2:0, RGB (Limited and Full)
Deep Color	Up to 16 Bit (1080p) Up to 12 Bit (4K)

AUDIO

LPCM (Up to 192KHz 24 bit)	2.0, 5.1, 7.1
Dolby	Dolby Digital, Dolby Digital Plus, Dolby TrueHD, Dolby Atmos
DTS	DTS 6.1 ES, DTS HRA, DTS Master Audio, DTS:X

HDBASET DISTANCE (CAT 6A)

4K Resolutions	40 Meters (131 Feet)
1080p Resolutions	70 Meters (230 Feet)

TRANSMITTER

INDICATOR LIGHTS (FRONT OF UNIT)

Power LED – Indicates that power is connected to the unit.

1. Light is On = Power Supply/POC Connected and Unit is operating
2. Light is Off = Power Supply is not connected, or no power is present

HDMI Sync LED – Indicates that an HDMI Source is connected to the Transmitter.

1. Light is On = HDMI Source is Active on the HDMI Input
2. Light is Off = HDMI Input sense no active HDMI Source

HDBaseT Link LED – Indicates that the HDBaseT Transmitter is linked with an HDBaseT Receiver.

1. Light is On = Unit has linked with an HDBaseT Receiver and is sending Data
2. Light is Off = Unit has not linked with an HDBaseT Receiver

DIP SWITCH TABLE (POSITION: 0 = UP | 1 = DOWN)

EDID		IR	
DipSwitch 1-4	EDID	Dipswitch 5	IR Input Selection
0000	EDID Bypass	0	IR Target (Eye)
0001	1080p 444 2CH	1	IR from Control System
0010	1080p 444 6CH		
0011	1080p 444 8CH		
0100	4K30 444 2CH		
0101	4K30 444 6CH		
0110	4K30 444 8CH		
0111	4K30 HDR 2CH		
1000	4K30 HDR 6CH		
1001	4K30 HDR 8CH		
1010	4k60 420 2CH		
1011	4K60 420 6CH		
1100	4k60 420 8CH		
1101	1080p RGB 2CH		
1110	4k30 RGB 2CH		
1111	EDID Copy		

RECEIVER

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2. Light is Off = Power Supply is not connected, or no power is present

HDMI Sync LED – Indicates that an HDMI Source is connected to the Transmitter.

1. Light is On = HDMI Output is connected to an active HDMI Input
2. Light is Off = HDMI Output does not sense an active HDMI Input

HDBaseT Link LED – Indicates that the HDBaseT Transmitter is linked with an HDBaseT Receiver.

1. Light is On = Unit has linked with an HDBaseT Transmitter and is receiving Data
2. Light is Off = Unit has not linked with an HDBaseT Transmitter

RS232 CONFIGURATION

- RS232 can be used to pass control signals bi-directionally between any two RS232 compatible devices. Commonly used in extending control from a control system
- The RS232 ports on the PAV-EX40-UHD-KIT are pinned null modem:

Control System	RS232 Port	3.5MM TRS PIN
Receive	Transmit	Tip
Ground	Ground	Ring
Transmit	Receive	Sleeve

IR CONFIGURATION
IR COMMUNICATION CAN BE SENT TWO WAYS

1. Downstream (From transmitter)
   • Plug an IR Receiving Eye or Control System IR output direct into the IR Sensor port of the PAV-EX40-UHD-T to pass infrared signals to the IR Out port on the Receiver
   • Set IR Dipswitch according to input signal device
   • Connect the IR Out Port of the Receiver to an IR Emitter or Direct IR Input

2. Upstream (From Receiver)
   • Plug an IR Receiving Eye into the IR Sensor port of the PAV-EX40-UHD-R to pass infrared signals to the IR Out port on the Transmitter
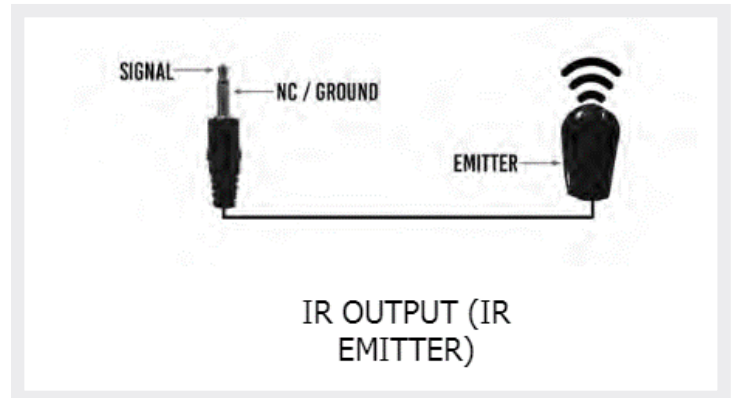   • Connect the IR Out Port of the Transmitter to an IR Emitter or Direct IR Input

• IR Input (Receiving Eye) (Dipswitch 5 = 0)

VCC (+)
GROUND
IR SIGNAL
IR SENSOR

IR INPUT
(RECEIVER EYE)
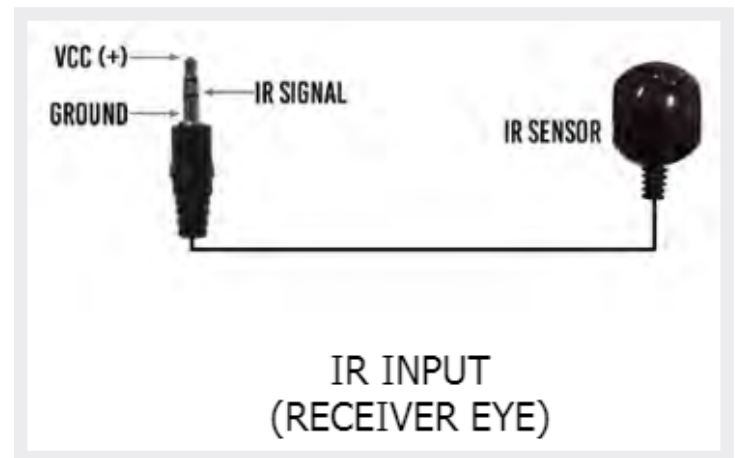
• IR Direct Input from Control System (Transmitter Only) (Mono Tip to Tip/ Sleeve to Sleeve) (Dipswitch 5 = 1)

- IR Output to Emitter

SIGNAL → NC / GROUND

EMITTER →

IR OUTPUT (IR EMITTER)

TROUBLESHOOTING
TRANSMITTER

No Power LED
1. Ensure PSU is sending proper voltage
2. If using POC, ensure that the unit sending POC is connected to power
3. If using POC, try powering the unit direct to ensure unit operates stand alone

No HDMI LED
1. Plug Source direct into display to ensure operability
2. Change the resolution of the source device to 1080p or 4K30 (No HDR)
3. Set a canned EDID. Source may require power cycle
4. Swap HDMI cable between Transmitter and Source. HDMI Handshakes with cables under 2 Meters may not sync properly

No HDBT Link
1. Check cable Length. Max Distances are 40M at 4K or 70M at 1080p. HDBaseT Recommends Cat 6A; Cat 6 and Cat 5e may experience a 5-20% loss of distance
2. Remove Excess Service Loops and Bundles of Cable. HDBaseT Recommends up to 6 runs of Cat in a single bundle
3. Bypass all patch-panels and punch down blocks
4. Re-terminate connectors. IP Continuity testers may indicate correct pinouts; However, HDBaseT Signals are transmitted differently than Ethernet Signals

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RS232 TRANSMISSION

- Ensure correct pinout between both the transmitter and receiver side. A null modem adaptor may be used for quick pinout changing

IR TRANSMISSION

- If sending downstream, ensure dipswitch is in the correct position for Input device type
- The Visible IR Emitters can be used to ensure signal is being sent from one point to the other