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WP-789T Quick Start Guide

This guide helps you install and use your **WP-789T** for the first time.

Go to www.kramerav.com/downloads/WP-789T to download the latest user manual and check if firmware upgrades are available.

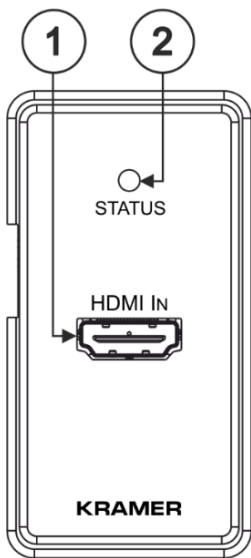
Step 1: Check what's in the box

- ✓ **WP-789T** HDMI 4K Wall-Plate Line Transmitter
- ✓ 1 Quick start guide
- ✓ Installation accessories
- ✓ 1 Power adapter (with open DC head) and cord
- ✓ Frame (or frame set) and faceplate

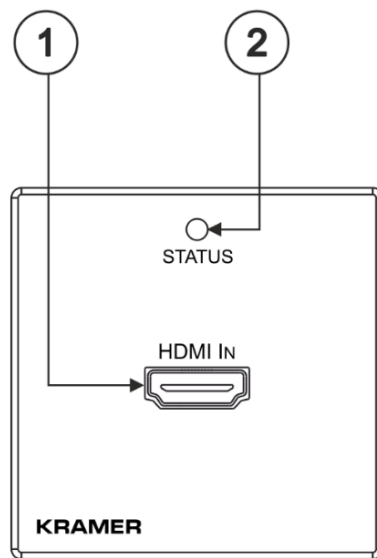
Step 2: Get to know your WP-789T

WP-789T

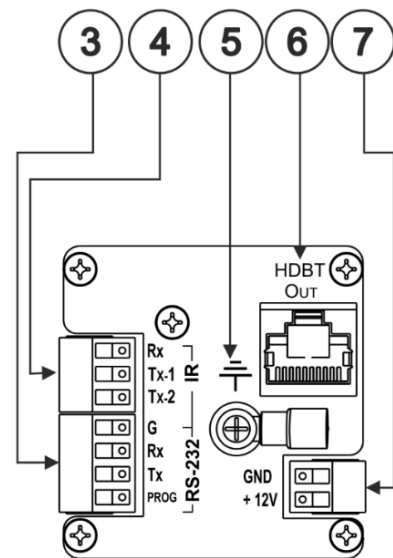
US-D Version
Front



EU/UK Version
Front



US-D/EU/UK Version
Rear



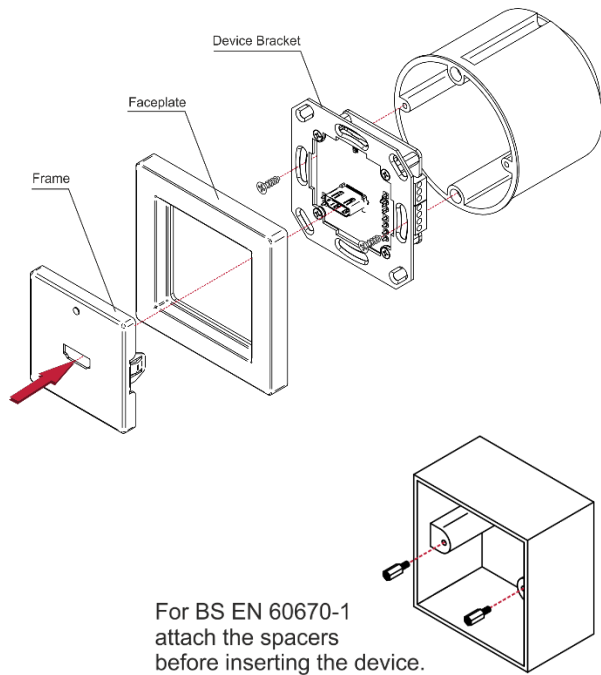
#	Feature	Function																				
1	HDMI™ IN Connector	Connects to an HDMI source.																				
2	STATUS LED	<table border="1"> <thead> <tr> <th>LED Color</th> <th>HDBT Connected</th> <th>Source Detected</th> <th>Acceptor Detected</th> </tr> </thead> <tbody> <tr> <td>Blue</td> <td>Yes</td> <td>Yes</td> <td>Yes</td> </tr> <tr> <td>Green</td> <td>Yes</td> <td>Yes</td> <td>No</td> </tr> <tr> <td>Yellow</td> <td>Yes</td> <td>No</td> <td>N/A</td> </tr> <tr> <td>White</td> <td colspan="3">Device is powered with no detected connections.</td> </tr> </tbody> </table>	LED Color	HDBT Connected	Source Detected	Acceptor Detected	Blue	Yes	Yes	Yes	Green	Yes	Yes	No	Yellow	Yes	No	N/A	White	Device is powered with no detected connections.		
		LED Color	HDBT Connected	Source Detected	Acceptor Detected																	
		Blue	Yes	Yes	Yes																	
		Green	Yes	Yes	No																	
		Yellow	Yes	No	N/A																	
White	Device is powered with no detected connections.																					
STATUS LED is off only when the device does not receive power.																						
3	RS-232 (G, Rx, Tx, PROG) 4-pin Terminal Block Connector	Connects to an RS-232 port (see Step 5: Configure the WP-789T).																				
4	IR (Rx, Tx-1, Tx-2), 3-pin Terminal Block Connectors	Connect to an external IR infrared emitter (see Step 5: Configure the WP-789T).																				
5	Ring Tongue Terminal Grounding Screw	Connect to grounding wire (optional).																				
6	HDBT OUT RJ-45 Connector	Connect to the HDBT IN connector on a receiver (for example, TP-789R).																				
7	Power Supply 2-pin Terminal Block Connector	Connect to a power supply (if required). Connect GND to GND, +12V to +12V.																				



Step 3: Install the WP-789T

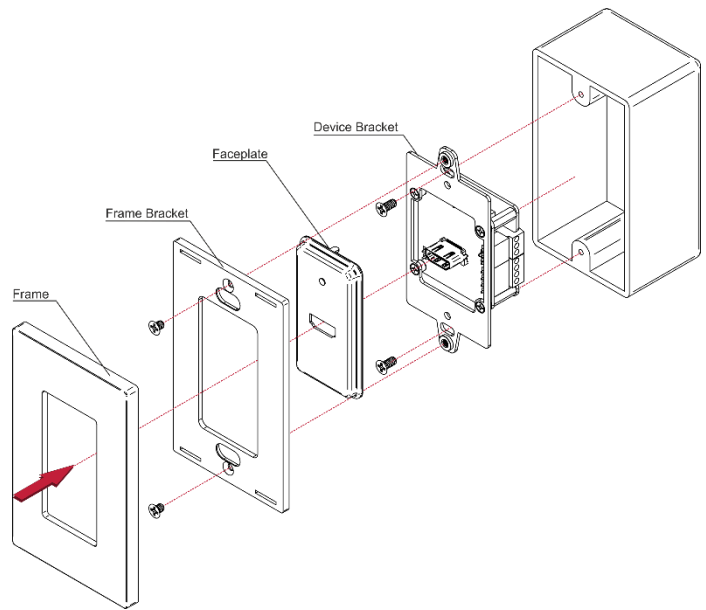
Insert the device into the in-wall box (note that first you need to connect the HDBT cable and power) and connect the parts as shown in the illustrations below:

EU/UK Version



For BS EN 60670-1 attach the spacers before inserting the device.

US-D Version



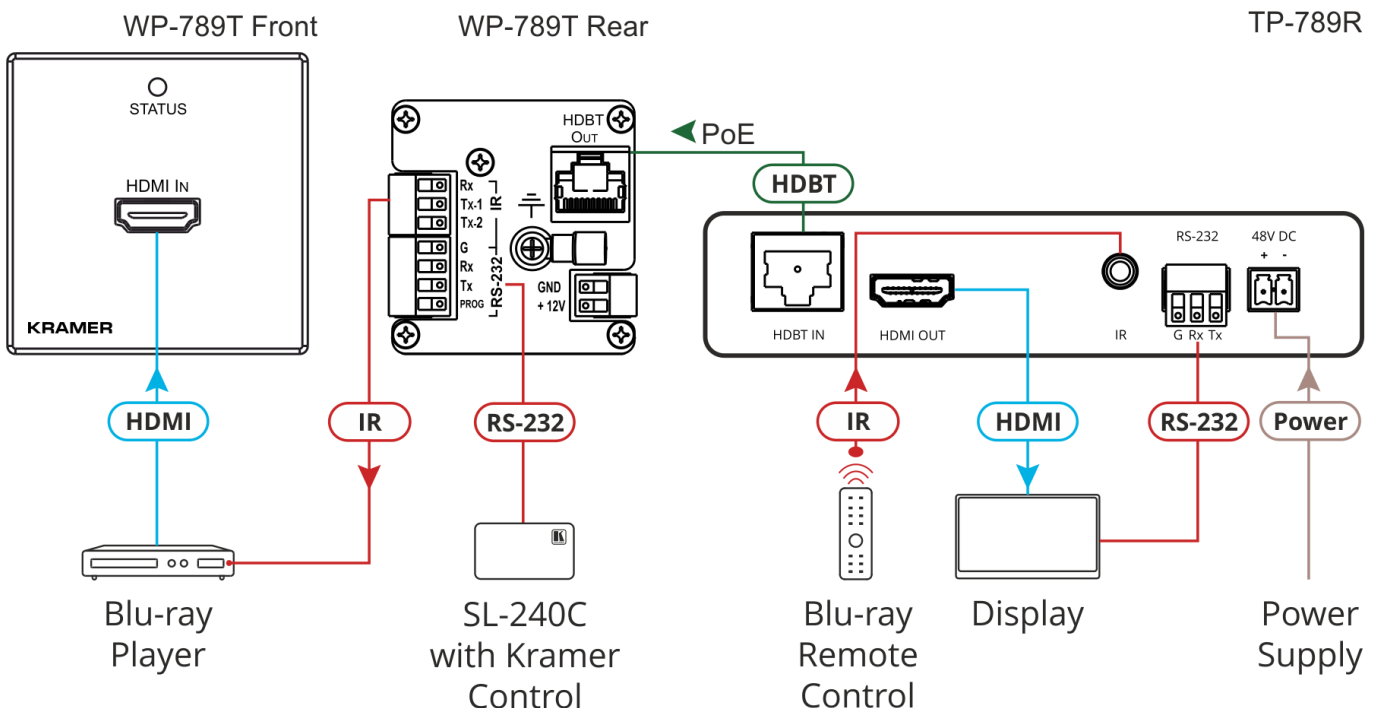
DECORA® design frames are included in US-D models.

We recommend that you use any of the following standard 1 Gang in-wall junction boxes (or their equivalent):

- **US-D:** 1 Gang US electrical junction boxes.
- **EU:** 1 Gang in-wall junction box, with a cut-hole diameter of 68mm and depth that can fit in both the device and the connected cables (DIN 49073).
- **UK:** 1 Gang in-wall junction box, 75x75mm (W, H) and depth that can fit in both the device and the connected cables (BS 4662 or BS EN 60670-1 used with supplied spacers and screws).

Step 4: Connect the inputs and outputs

Always switch OFF the power on each device before connecting it to your **WP-789T**. For best results, we recommend that you always use Kramer high-performance cables to connect AV equipment to the **WP-789T**.



Step 5: Configure the WP-789T

RS-232 Configuration

Required Function	RS-232 Wiring
<p>Extend 2-way RS-232 communication, via HDBT, between an RS-232 controller (for example, Kramer SL-240C) and an acceptor (for example, a display) that is connected to the RS-232 port of the HDBT receiver (for example, Kramer TP-789R).</p> <p>To do so, connect the wires to the RS-232 port of a controller.</p>	
<p>Perform device firmware upgrade using a laptop.</p> <p>To do so, connect the wires to the RS-232 port of a laptop.</p>	

IR Configuration

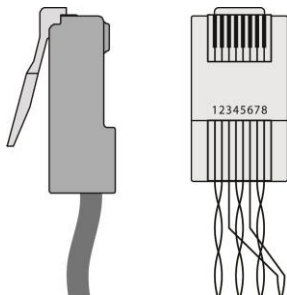


Both the transmitter and receiver need to have identical IR frequency settings.

Required Function	IR Wiring
<p>Emit a 38kHz IR signal, received via HDBT, to control a device that is connected to WP-789T (for example, a Blu-ray player source).</p> <p>To do so, connect the wires to an IR emitter cable.</p>	
<p>Emit a wide-range modulated IR signal, received via HDBT, to control a device that is connected to WP-789T (for example, a Blu-ray player source).</p> <p>To do so, connect the wires to an IR emitter cable.</p>	
<p>Send IR commands, via HDBT, from the IR port of a controller (for example, the Kramer SL-240C) to an acceptor (for example, a display) that is connected to the IR port of the HDBT receiver (for example, Kramer TP-789R) via IR emitter cable.</p> <p>To do so, connect the wires to the IR port of a controller.</p>	

RJ-45 Pinout

For the HDBT connector, see the wiring diagram below:



PIN EIA /TIA 568b	
PIN	Wire Color
1	Orange / White
2	Orange
3	Green / White
4	Blue
5	Blue / White
6	Green
7	Brown / White
8	Brown

FW Programming RS-232 Configuration

RS-232 FW Programming	
Baud Rate:	115,200
Data Bits:	8
Stop Bits:	1
Parity:	None
Command Format:	ASCII

For optimum range and performance use the recommended Kramer cables available at www.kramerav.com/product/WP-789T.

Step 6: Connect the power

When accepting power over HDBaseT from a PoE provider (for example, the **TP-789R**), there is no need to connect the 12V DC power supply.

Otherwise, connect the 12V power adapter to the device and plug the power supply into the mains electricity.

Safety Instructions



Caution: There are no operator serviceable parts inside the unit.

Warning: Use only the Kramer Electronics power supply that is provided with the unit.

Warning: Disconnect the power and unplug the unit from the wall before installing.

See www.KramerAV.com for updated safety information.

Technical Specifications

Inputs	HDMI	On a female HDMI connector
	IR	On 2-pin terminal block connectors (Tx-1 or Tx-2 and G) for signal extension over HDBT line
Outputs	HDBT	On a female RJ-45 connector
	IR	On 2-pin (Rx (on IR), G) terminal block connectors for emitting signal received from HDBT line
Ports	RS-232	On 3-pin terminal block connectors (G, Rx, Tx) for signal extension over HDBT line On 3-pin terminal block connectors (G, Rx, PROG) for upgrading the FW
	Video	
Video	Max Bandwidth	10.2Gbps
	Max Resolution	4K@60 (4:2:0)
	Compliance	HDMI 2.0, HDCP 1.4 and 2.2 pass-through, EDID and CEC pass-through
Extension Range	4k@60 (4:2:0)	Up to 40m (130ft)
	Full HD (1080p@60Hz)	Up to 70m (230ft)
Extended RS-232	Baud Rate	300 to 115200 baud
Extended IR	Frequency	Wide-range modulated: 20kHz to 100kHz Fixed: 38kHz
Power	Consumption with Power Adapter	12V DC, 250mA
	Source	12V DC, 2A with DC head open
Environmental Conditions	Operating Temperature	0° to +40°C (32° to 104°F)
	Storage Temperature	-40° to +70°C (-40° to 158°F)
	Humidity	10% to 90%, RHL non-condensing
Regulatory Compliance	Safety	CE
	Environmental	RoHs, WEEE
Enclosure	Net Dimensions (W, D, H)	US-D: 7cm x 3.1cm x 11.4cm (2.8" x 1.2" x 4.5) EU: 8cm x 3.1cm x 8cm (3.1" x 1.2" x 3.1) UK: 8.6cm x 3.1cm x 8.6cm (3.4" x 1.2" x 3.4")
	Shipping Dimensions (W, D, H)	23.2cm x 13.6cm x 10cm (9.1" x 5.4" x 3.9")
	Net Weight	0.17kg (0.4lbs)
	Shipping Weight	0.56kg (1.2lbs) approx.
	Type	Aluminum
Cooling	Convection ventilation	
Accessories	Included	1 Power adapter, 1 power cord, installation accessories For the US version: 2 US-D frame sets and faceplates (in black and in white) For the European version: 1 EU white frame, 1 UK white frame, 1 EU/UK white faceplate
Specifications are subject to change without notice at www.kramerav.com		

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