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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](http://www.kramerav.com/downloads/WP-789T) to download the latest user manual and check if firmware upgrades are available.

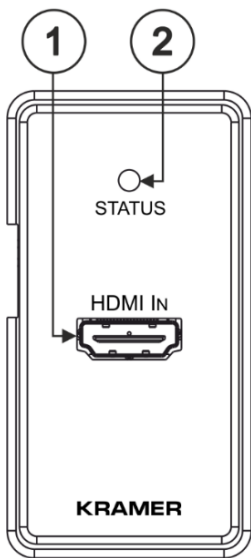
### Step 1: Check what's in the box

- ✓ **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

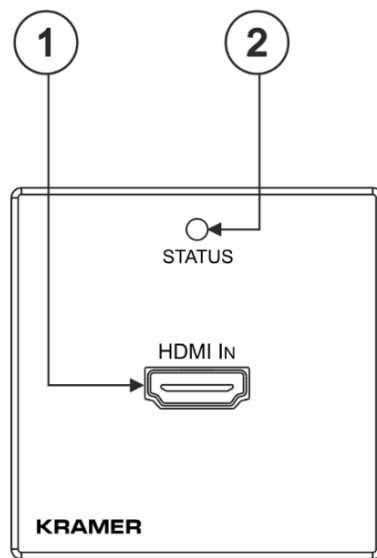
### Step 2: Get to know your WP-789T

#### WP-789T

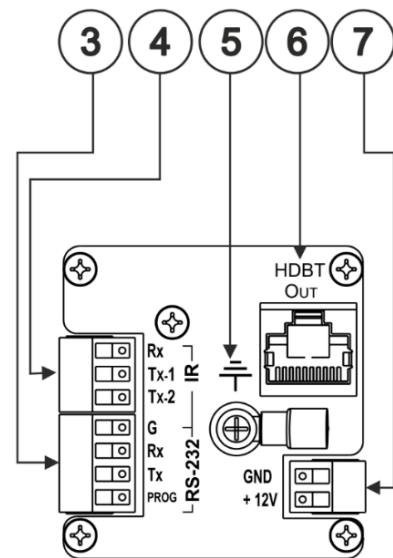
US-D Version  
Front



EU/UK Version  
Front



US-D/EU/UK Version  
Rear



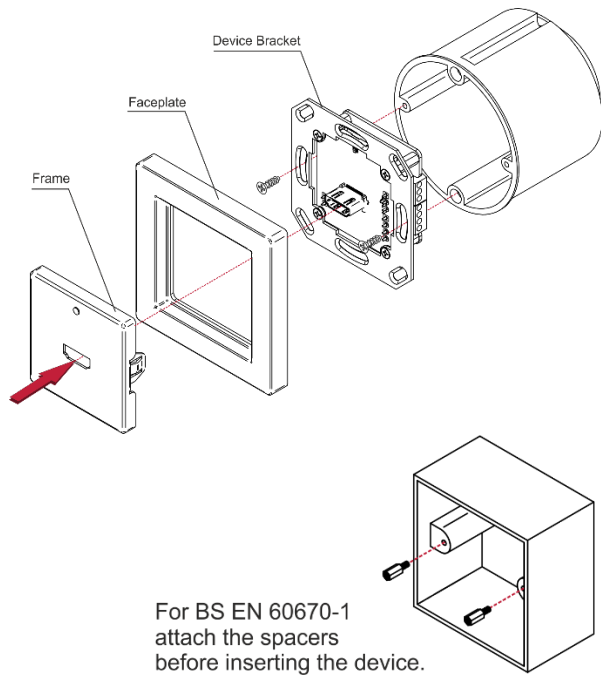
#	Feature	Function																				
1	HDMI™ IN Connector	Connects to an HDMI source.																				
2	STATUS LED	<table border="1"> <thead> <tr> <th>LED Color</th> <th>HDBT Connected</th> <th>Source Detected</th> <th>Acceptor Detected</th> </tr> </thead> <tbody> <tr> <td>Blue</td> <td>Yes</td> <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 <a href="#">Step 5: Configure the WP-789T</a> ).																				
4	IR (Rx, Tx-1, Tx-2), 3-pin Terminal Block Connectors	Connect to an external IR infrared emitter (see <a href="#">Step 5: Configure the WP-789T</a> ).																				
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, <b>TP-789R</b> ).																				
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

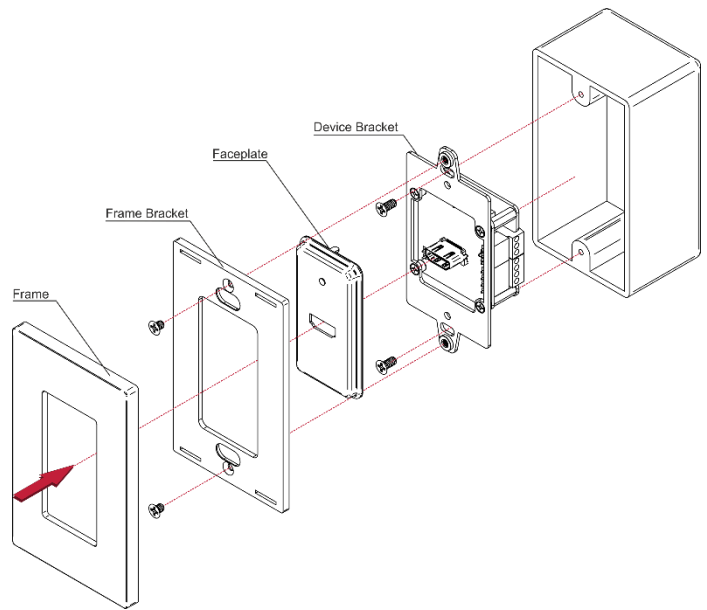
Insert the device into the in-wall box (note that first you need to connect the HDBT cable and power) and connect the parts as shown in the illustrations below:

### EU/UK Version



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

### US-D Version



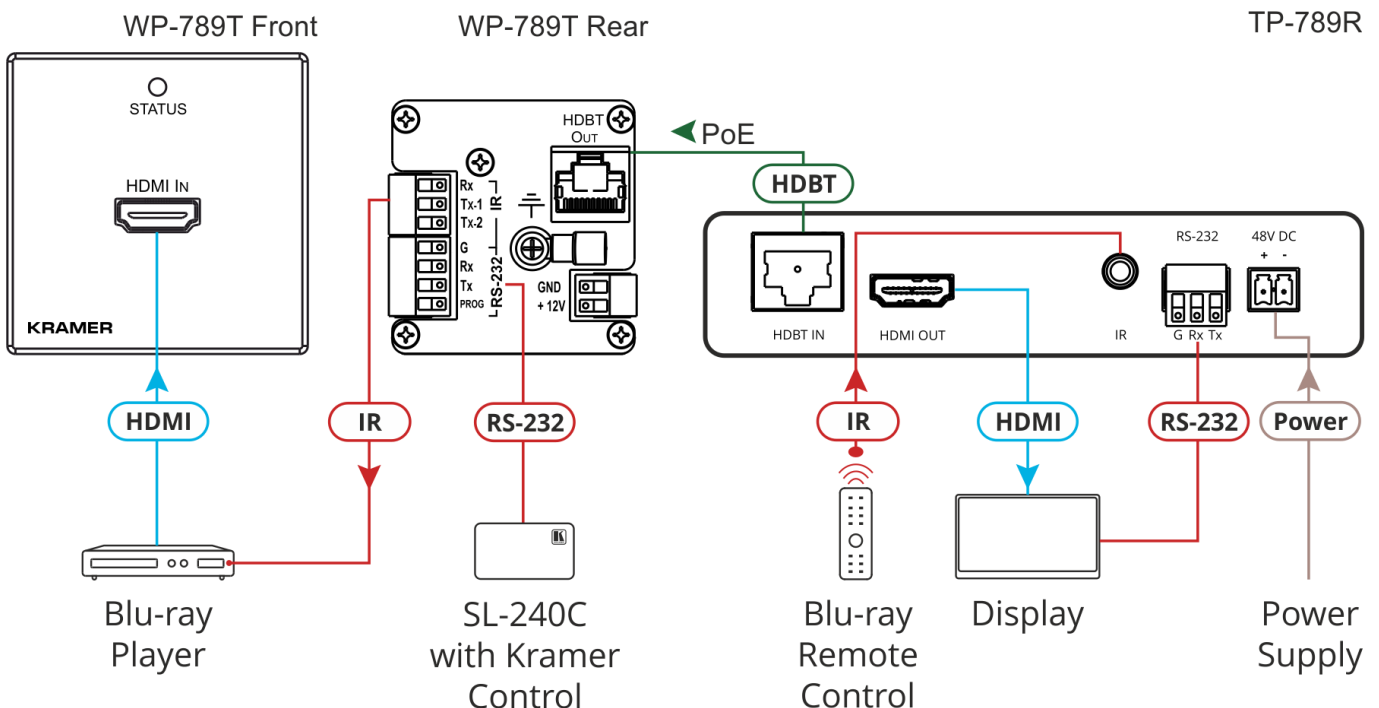
DECORA® design frames are included in US-D models.

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 <b>SL-240C</b>) and an acceptor (for example, a display) that is connected to the RS-232 port of the HDBT receiver (for example, Kramer <b>TP-789R</b>).</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

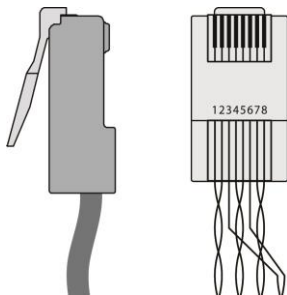


Both the transmitter and receiver need to have identical IR frequency settings.

Required Function	IR Wiring
<p>Emit a 38kHz IR signal, received via HDBT, to control a device that is connected to <b>WP-789T</b> (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 <b>WP-789T</b> (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 <b>SL-240C</b>) to an acceptor (for example, a display) that is connected to the IR port of the HDBT receiver (for example, Kramer <b>TP-789R</b>) 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](http://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](http://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 <a href="http://www.kramerav.com">www.kramerav.com</a>		

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