KRAMER

TP-583Txr/TP-583Rxr Quick Start Guide

This guide helps you install and use your **TP-583Txr/TP-583Rxr** for the first time.

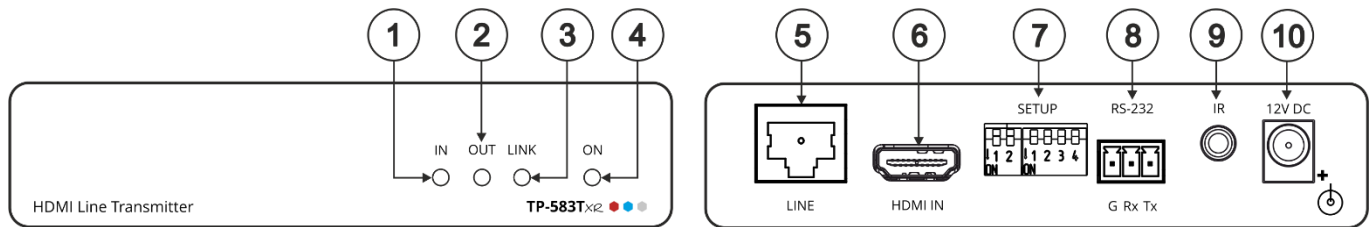Go to www.kramerav.com/downloads/TP-583Txr, TP-583Rxr to download the latest user manual and check if firmware upgrades are available.
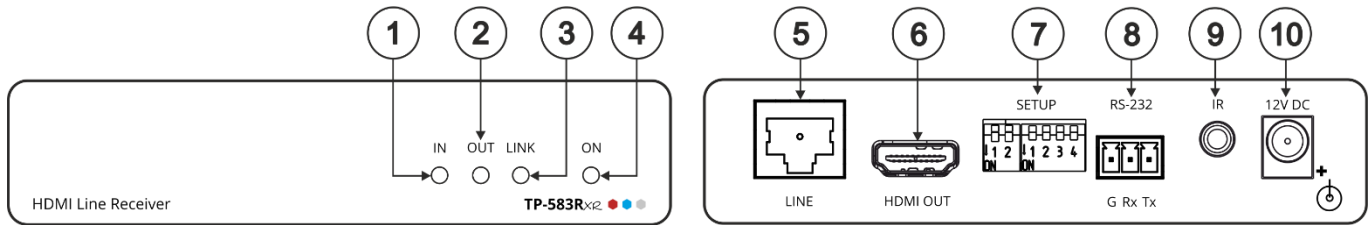
Step 1: Check what's in the box

- ☑ **TP-583Txr** HDMI Line Transmitter **or**
- ☑ **TP-583Rxr** HDMI Line Receiver
- ☑ 1 Power adapter and cord
- ☑ 4 Rubber feet
- ☑ 1 Quick start guide
- ☑ 1 Bracket set

Step 2: Get to know your TP-583Txr and TP-583Rxr

TP-583Txr

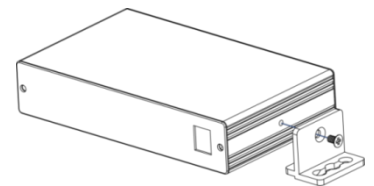| #	Feature	Function
1	IN LED	Lights green when an active source device input signal is detected.
2	OUT LED	Lights green when an active, far-end sink (acceptor) connection is detected via the HDBT link.
3	LINK LED	Lights green when an HDBT link is established with the HDBaseT receiver.
4	ON LED	Lights green when the device receives power.
5	LINE RJ-45 Connector	Connect to the RJ-45 HDBT LINE connector on a receiver (for example, **TP-583Rxr**, **TP-780Rxr** and so on).
6	HDMI™ IN Connector	Connect to an HDMI source.
7	SETUP DIP-switches	Set the operation DIP-switches.
8	RS-232 (G, Rx, Tx) 3-pin Terminal Block Connector	Connect to a laptop to control the receiver or perform firmware upgrade. Connect to a controller device (for example, **SL-240C**) to serially control a remote device (for example, the HDMI OUT acceptor) that is connected to **TP-583Rxr**.
9	IR 3.5mm Mini Jack Connector	Connect to an external infrared emitter / sensor.
10	12V DC Power Connector	12V DC connector for powering the unit.

TP-583Rxr

#	Feature	Function
1	IN LED	Lights green when an active, far-end source device input signal is detected via the HDBT link.
2	OUT LED	Lights green when an active sink (acceptor) connection is detected.
3	LINK LED	Lights green when an HDBT link is established with the HDBaseT transmitter.
4	ON LED	Lights green when the device receives power.
5	LINE RJ-45 Connector	Connect to the RJ-45 HDBT LINE connector on a transmitter (for example, **TP-583Txr**, **TP-780Txr** and so on).
6	HDMI OUT Connector	Connect to an HDMI acceptor.
7	SETUP DIP-switches	Set the operation DIP-switches.
8	RS-232 (G, Rx, Tx) 3-pin Terminal Block Connector	Connect to a laptop to control the receiver or perform firmware upgrade. Connect to a serially controlled device (for example, the HDMI OUT acceptor) to enable its control by a remote controller device (for example, **SL-240C**) that is connected to **TP-583Txr**.
9	IR 3.5mm Mini Jack Connector	Connect to an external infrared emitter / sensor.
10	12V DC Power Connector	12V DC connector for powering the unit.

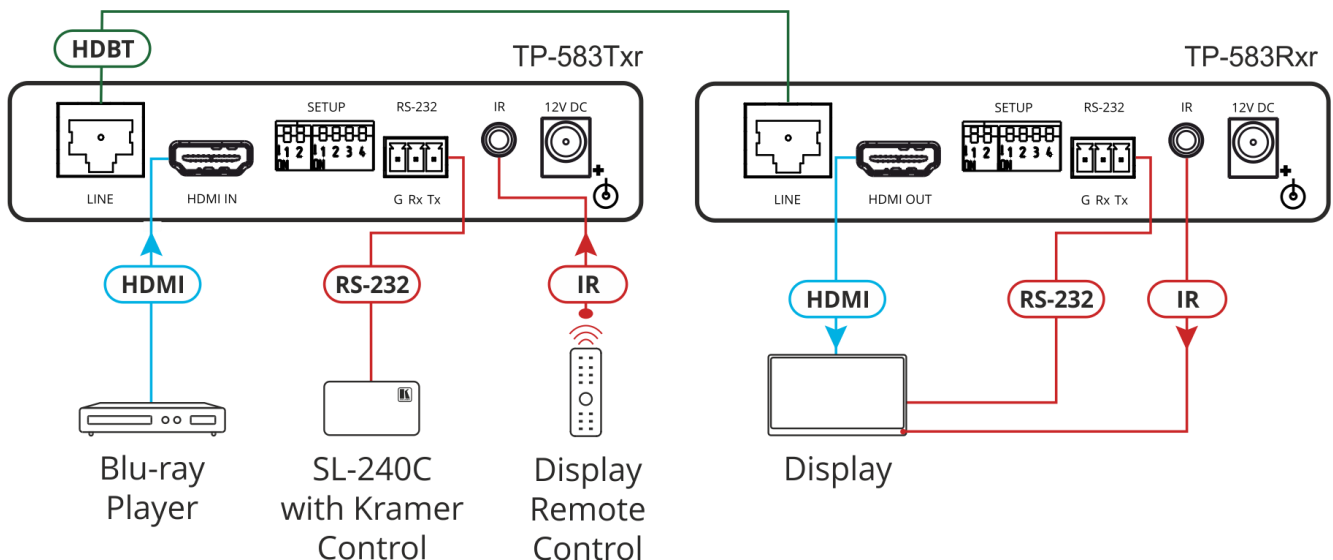## Step 3: Install TP-583Txr/TP-583Rxr

Install **TP-583Txr**/**TP-583Rxr** using one of the following methods:

- Attach the rubber feet and place the unit on a flat surface.
- Fasten a bracket (included) on each side of the unit and attach it to a flat surface. For more information go to www.kramerav.com/downloads/TP-583Txr, TP-583Rxr.
- Mount the unit in a rack using the recommended rack adapter (see www.kramerav.com/product/TP-583Txr, TP-583Rxr).
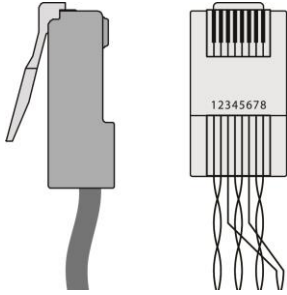

Step 4: Connect the inputs and outputs

Always switch OFF the power on each device before connecting it to your **TP-583Txr**/**TP-583Rxr**. For best results, we recommend that you always use Kramer high-performance cables to connect AV equipment to **TP-583Txr**/**TP-583Rxr**.
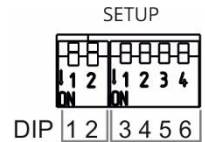
RJ-45 Pinout:

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

DIP-Switch Settings

All DIP-switches are set to OFF (up) by default, Changes to DIP-switches 4 and 5 only take effect after power cycling the device.

#	Feature	Dip-switch Settings
1	HDBT Range Mode	OFF – HDBaseT normal range. ON – HDBaseT ultra-long range (provides increased range at a reduced bandwidth). ⓘ The ultra-long range mode is activated when DIP-switch 1 on at least one of the devices is set to ON.
2	Compression Level	OFF – Low compression level is applied. ON – High compression level is applied to gain better extension reach performance.
3	Compressed Signals	OFF – Compression is applied only to signal resolutions higher than 1080p. ON – Compression is applied to all signal resolutions. ⓘ Compression can be applied for a **TP-583Txr/TP-583Rxr** paired-connection only, thus preserving backward compatibility with standard-HDBT extenders.
4, 5	FW Upgrade	OFF, OFF – Normal operation mode. ON, OFF – HDBT FW upgrade mode. ON, ON – Compression FW upgrade mode. ⓘ When either DIP-switch is set to ON, the device extension operation is disabled.
6	IR Frequency	OFF (up) – Frequency is 38kHz. ON (down) – Wide-range modulated IR frequency.

For optimum range and performance use the recommended Kramer cables available at www.kramerav.com/product/TP-583Txr, TP-583Rxr.

Step 5: Connect the power

Connect the 12V DC power adapter to **TP-583Txr**/**TP-583Rxr** and plug it into the mains electricity.

Safety Instructions

Caution: There are no operator serviceable parts inside the unit.
Warning: Use only the Kramer Electronics power adapter 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.

Step 6: Operate TP-583Txr/TP-583Rxr

Operate **TP-583Txr/TP-583Rxr** remotely, by RS-232 serial commands transmitted by a touch screen system, PC, or other serial controller

RS-232 Control	
Baud Rate:	57,600
Data Bits:	8
Stop Bits:	1
Parity:	None
Command Format:	ASCII

Technical Specifications

TP-583Txr

Input	HDMI	On a female HDMI connector	
Output	HDBT	On an RJ-45 connector	
Port	RS-232	On a 3-pin terminal block connector for serial link extension	
	IR	On a 3.5mm mini jack connector	

TP-583Rxr

Input	HDBT	On an RJ-45 connector	
Output	HDMI	On a female HDMI connector	
Port	RS-232	On a 3-pin terminal block connector for serial link extension	
	IR	On a 3.5mm mini jack connector	

General

Video	Transmitted Data Bandwidth	Up to 18Gbps (6Gbps per graphic channel)	
	Max Resolution	Standard compression level	4096x2160@60Hz (4:4:4) 24bpp
		High compression level	3840x2160@60Hz (4:4:4) 24bpp
	Compliance	HDMI 2.0, HDCP 2.2, HDR 10	
Reach Extension	We recommend that you use Kramer shielded cables to achieve optimum extension ranges.		
	Standard Compression Level	Up to 100m (330ft) at 4K@60Hz (4:4:4) Up to 100m (330ft) at 4K@60Hz (4:2:0) or Up to 180m (590ft) at full HD (1080p @60Hz 36bpp)	
	High Compression Level	Up to 100m (330ft) at 4K@60Hz (4:4:4) Up to 180m (590ft) at 4K@60Hz (4:2:0) Up to 200m (650ft), full HD (1080p @60Hz 36bpp), when using recommended Kramer cables, see www.kramerav.com/product/TP-583Txr, TP-583Rxr	
Extended RS-232	Baud Rate	300 to 115200	
Controls	Front Panel	IN, OUT, LINK and ON LED indicators	
	Rear Panel	DIP-switches	
Power	Consumption	12V DC, **TP-583Txr** 400mA; **TP-583Rxr** 600mA	
	Source	12V DC, 2A	
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, UL	
	Environmental	RoHs, WEEE	
Enclosure	Size	Tool	
	Type	Aluminum	
	Cooling	Convection ventilation	
General	Net Dimensions (W, D, H), each	12cm x 7.2cm x 2.4cm (4.7" x 2.8" x 0.94")	
	Shipping Dimensions (W, D, H)	15.7cm x 12cm x 8.7cm (6.2" x 4.7" x 3.4")	
	Net Weight, each	0.2kg (0.44bs) approx.	
	Shipping Weight	0.72kg (1.6lbs) approx.	
Accessories	Included	1 Power adapter, 1 power cord and 1 bracket set per device	
Specifications are subject to change without notice at www.kramerav.com			

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