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TP-873xr/TP-874xr Quick Start Guide

This guide helps you install and use your **TP-873xr/TP-874xr** for the first time.

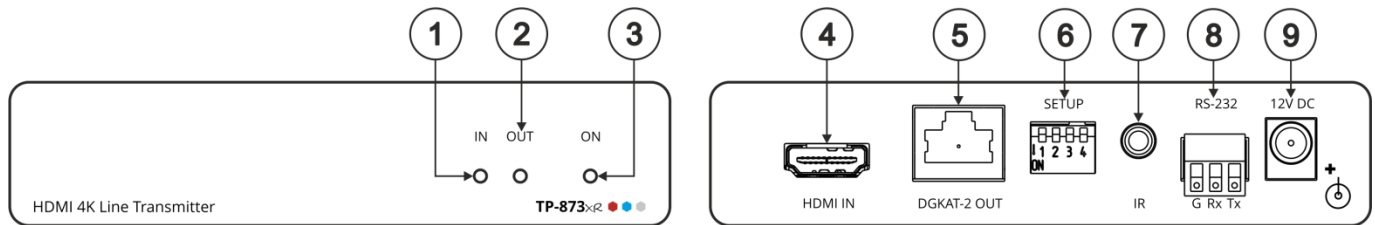
Go to www.kramerav.com/downloads/TP-873xr_TP-874xr to download the latest user manual and check if firmware upgrades are available.

Step 1: Check what's in the box

- ✓ **TP-873xr** HDMI 4K Line Transmitter **or** ✓ 1 Power adapter and cord per device ✓ 1 Quick start guide
- ✓ **TP-874xr** HDMI 4K Line Receiver ✓ 4 Rubber feet ✓ 1 Bracket set

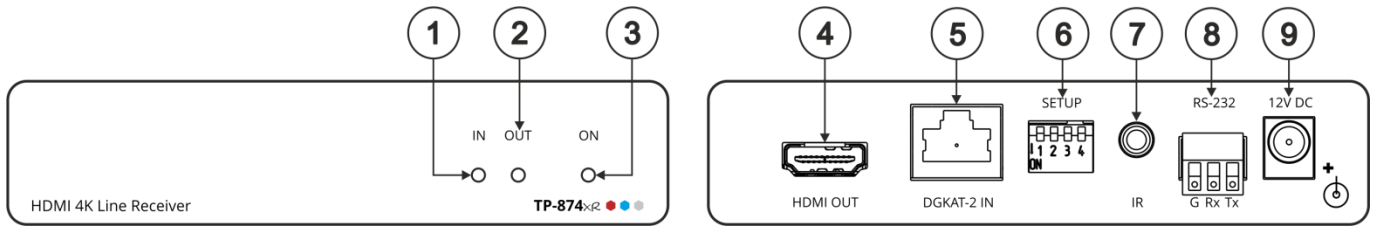
Step 2: Get to know your TP-873xr and TP-874xr

TP-873xr



#	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) output signal is detected via the DGKAT link.
3	ON LED	Lights green when the device receives power.
4	HDMI IN Connector	Connect to an HDMI source.
5	DGKAT-2 OUT RJ-45 Connector	Connect to the DGKAT 2 IN RJ-45 connector on the TP-874xr .
6	SETUP DIP-switches	Set the operation DIP-switches (see Step 4: Connect the inputs and outputs).
7	IR 3.5mm Mini Jack Connector	Connect to an external infrared emitter / sensor for IR signal bidirectional extension to control a remote device. For example, connect to an external infrared sensor to control the HDMI OUT acceptor that is connected to TP-874xr .
8	RS-232 (G, Rx, Tx) 3-pin Terminal Block Connector	Connect to a laptop to perform firmware upgrade or to an RS-232 port for serial signal bidirectional extension to the receiver. For example, connect to an SL-240C controller device to serially control the HDMI OUT acceptor that is connected to TP-874xr .
9	12V DC Power Connector	12V DC connector for powering the unit when it is not powered by TP-874xr via the DGKAT link.

TP-874xr

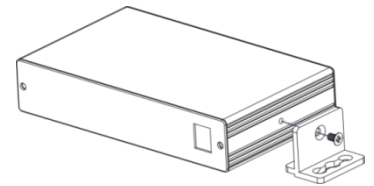


#	Feature	Function
1	IN LED	Lights green when an active source device input signal is detected.
2	OUT LED	Lights green when an active, far-end sink (acceptor) output signal is detected via the HDBT link.
3	ON LED	Lights green when the device receives power.
4	HDMI OUT Connector	Connect to an HDMI acceptor.
5	DGKAT-2 IN RJ-45 Connector	Connect to the DGKAT 2 OUT RJ-45 connector on the TP-873xr
6	SETUP DIP-switches	Set the operation DIP-switches (see Step 4: Connect the inputs and outputs).
7	IR 3.5mm Mini Jack Connector	Connect to an external infrared emitter / sensor for IR signal bidirectional extension. For example, connect to an external infrared sensor to control the HDMI IN source that is connected to TP-873xr .
8	RS-232 (G, Rx, Tx) 3-pin Terminal Block Connector	Connect to a laptop to perform firmware upgrade or to an RS-232 port for serial signal bidirectional extension to the transmitter. For example, connect to an RS-232 device to be controlled, for example, a display.
9	12V DC Power Connector	12V DC connector for powering the unit when it is not powered by TP-873xr via the DGKAT link.

Step 3: Install TP-873xr/TP-874xr

Install **TP-873xr/TP-874xr** using one of the following methods:

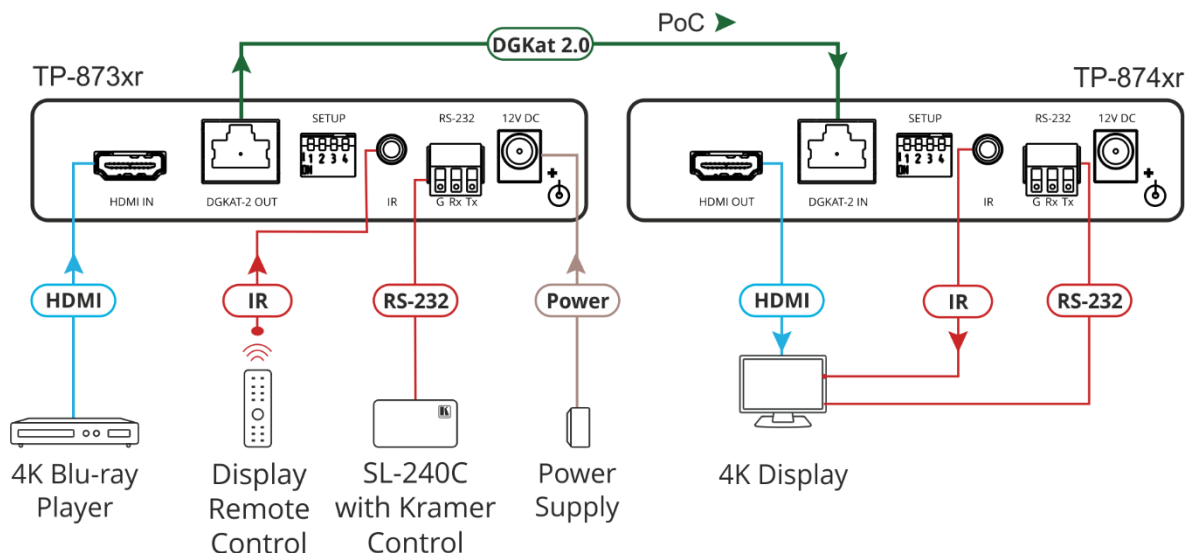
- Attach the rubber feet and place the unit on a flat surface.
- Fasten a bracket (included) on each side of the unit and attach it to a flat surface. For more information go to www.kramerav.com/downloads/TP-873xr, TP-874xr.
- Mount the unit in a rack using the recommended rack adapter (see www.kramerav.com/product/TP-873xr, TP-874xr).



Step 4: Connect the inputs and outputs

Always switch OFF the power on each device before connecting it to your **TP-873xr/TP-874xr**. For best results, we recommend that you always use Kramer high-performance cables to connect AV equipment to **TP-873xr/TP-874xr**.

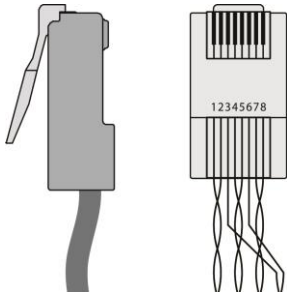
We highly recommend using only Kramer UNIKAT cables with these products. If using 3rd party shielded CAT-6A cables, both ends of the shield must be soldered to the connectors for the products to function properly. Do not use any jumpers, unshielded wall plates or mid-span cable connections. These extenders are not compatible with HDBaseT technologies. Prior to signal extension, ensure that the extension line cable is lying straight and not coiled.



DGKAT RJ-45 Pinout:

For the DGKAT connector pinout, use a straight pin-to-pin cable with RJ 45 connectors.

Note that for DGKAT cables, the ground shielding must be connected/soldered to the connector shield.

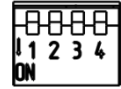


PIN EIA /TIA 568B	
PIN	Wire Color
1	Orange / White
2	Orange
3	Green / White
4	Blue
5	Blue / White
6	Green
7	Brown / White
8	Brown

DIP-Switch Settings

All DIP-switches are set to OFF (up) by default.

SETUP



#	Feature	DIP-switch Settings
1	Compression Options	OFF (up) – Standard compression level. ON (down) – High compression level for additional range extension.
2	IR Frequency Mode	OFF (up) – Frequency is 38kHz. ON (down) – Wide-range modulated IR frequency pass-through.
3	RS-232 Mode	OFF (up) – Serial extension. ON (down) – Serial device service mode.
4	FW Upgrade	OFF (up) – Normal operation mode. ON (down) – FW upgrade mode (DIP-switch 3 needs to be ON).

For optimum range and performance use the recommended Kramer cables available at www.kramerav.com/product/TP-873xr, TP-874xr.

Step 5: Connect the power

Connect the 12V power adapter to either **TP-873xr** or **TP-874xr** and plug it into the mains electricity. This device provides power to its counterpart via DGKat 2.0. Each device can provide or accept power over cable (PoC) via DGKat 2.0.

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-873xr/TP-874xr

Upgrade **TP-873xr/TP-874xr** firmware, by RS-232 serial commands transmitted by a PC, or laptop.

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

Technical Specifications

TP-873xr

Input	HDMI	On a female HDMI connector
Output	DGKAT 2.0	On a female 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 for IR link extension

TP-874xr

Input	DGKAT 2.0	On a female 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 for IR link extension

General

Video	Max 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	
Extension Range	We recommend that you use Kramer shielded cables to achieve optimum extension ranges.		
	Standard Compression Level	Up to 35m (110ft) at 4K@60Hz (4:4:4) Up to 70m (230ft) at 4K@60Hz (4:2:0) or full HD (1080p @60Hz 36bpp)	
	High Compression Level	Up to 50m (160ft) at 4K@60Hz (4:4:4) Up to 70m (230ft) at 4K@60Hz (4:2:0) or full HD (1080p @60Hz 36bpp)	
Extended RS-232	Baud Rate	300 to 57600 baud	
Extended IR	Frequency	20kHz to 100kHz	
	Direction	Bidirectional (IR sensor or emitter)	
Controls	Front Panel	IN, OUT and ON LED indicators	
	Rear Panel	DIP-switches	
Power	Source	12V DC, 2A	
	Consumption	TP-873xr (connected to power, providing power to TP-874xr): 12V, 0.87A TP-874xr (connected to power, providing power to TP-873xr): 12V, 0.87A	
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	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)	0.25kg (0.6lbs) approx.	
	Shipping Weight	0.68kg (1.5lbs) 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			