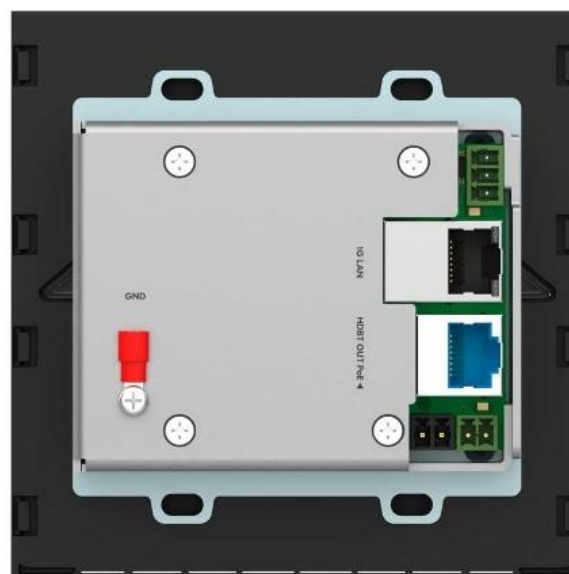




# USER MANUAL

## MODEL:

**EXT3-C-WP-XR-T 4K60 USB-C Wall Plate Transmitter**



# Contents

<b>Introduction</b>	<b>1</b>
Getting Started	1
Overview	2
Typical Applications	4
<b>Defining EXT3-C-WP-XR-T 4K60 USB-C Wall Plate Transmitter</b>	<b>5</b>
Defining the EXT3-C-WP-XR-T Front and Rear Panels	5
Defining the EXT3-C-WP-XR-T Front and Rear Panels EU/UK	7
<b>Mounting EXT3-C-WP-XR-T</b>	<b>9</b>
Mounting EXT3-C-WP-XR-T in a Wall Box	10
Mounting EXT3-C-WP-XR-T (EU/UK) in a Wall Box	11
<b>Connecting EXT3-C-WP-XR-T</b>	<b>12</b>
<b>Connecting EXT3-C-WP-XR-T (EU/UK)</b>	<b>14</b>
Defining the DIP-switches	15
Connecting to EXT3-C-WP-XR-T via RS-232	17
Wiring RJ-45 Connectors	17
<b>Principles of Operation</b>	<b>18</b>
Controlling Display Power On/Off	18
Connecting EXT3-C-WP-XR-T to Other HDBaseT-Compatible Devices	18
<b>Technical Specifications</b>	<b>19</b>

# Introduction

Welcome to Kramer Electronics! Since 1981, Kramer Electronics has been providing a world of unique, creative, and affordable solutions to the vast range of problems that confront the video, audio, presentation, and broadcasting professional on a daily basis. In recent years, we have redesigned and upgraded most of our line, making the best even better!

---

## Getting Started

We recommend that you:

- Unpack the equipment carefully and save the original box and packaging materials for possible future shipment.
- Review the contents of this user manual.



Go to [www.kramerav.com/downloads/EXT3-C-WP-XR-T](http://www.kramerav.com/downloads/EXT3-C-WP-XR-T) to check for up-to-date user manuals, application programs, and to check if firmware upgrades are available (where appropriate).

## Achieving Best Performance

- Use only good quality connection cables (we recommend Kramer high-performance, high-resolution cables) to avoid interference, deterioration in signal quality due to poor matching, and elevated noise levels (often associated with low quality cables).
- Do not secure the cables in tight bundles or roll the slack into tight coils.
- Avoid interference from neighboring electrical appliances that may adversely influence signal quality.
- Position your Kramer **EXT3-C-WP-XR-T** away from moisture, excessive sunlight and dust.

## Safety Instructions



### Caution:

- This equipment is to be used only inside a building. It may only be connected to other equipment that is installed inside a building.
- For products with relay terminals and GPIO ports, please refer to the permitted rating for an external connection, located next to the terminal or in the User Manual.
- There are no operator serviceable parts inside the unit.

**Warning:**

- Use only the power cord that is supplied with the unit.
- Disconnect the power and unplug the unit from the wall before installing.
- Do not open the unit. High voltages can cause electrical shock! Servicing by qualified personnel only.
- To ensure continuous risk protection, replace fuses only according to the rating specified on the product label which is located on the bottom of the unit.

## Recycling Kramer Products

The Waste Electrical and Electronic Equipment (WEEE) Directive 2002/96/EC aims to reduce the amount of WEEE sent for disposal to landfill or incineration by requiring it to be collected and recycled. To comply with the WEEE Directive, Kramer Electronics has made arrangements with the European Advanced Recycling Network (EARN) and will cover any costs of treatment, recycling and recovery of waste Kramer Electronics branded equipment on arrival at the EARN facility. For details of Kramer's recycling arrangements in your particular country go to our recycling pages at [www.kramerav.com/il/quality/environment](http://www.kramerav.com/il/quality/environment).

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## Overview

Congratulations on purchasing your Kramer WW (Worldwide) **EXT3-C-WP-XR-T 4K60 USB-C Wall Plate Transmitter**,

**EXT3-C-WP-XR-T** USB-C transmitter is a high-performance, extended-reach HDBaseT 3.0 transmitter for 4K60Hz (4:4:4) HDMI, USB, Ethernet, RS-232, and IR signals over twisted pair. The **EXT3-C-WP-XR-T** transmitter converts all input signals into the transmitted HDBaseT 3.0 signal and extends it over HDBT to a compatible receiver.

The **EXT3-C-WP-XR-T** transmitter accepts power over the copper extension cable from a PoE provider remote device.

**EXT3-C-WP-XR-T** and its compatible receiver can extend uncompressed video signals up to 100m (330ft) over CAT copper cables at 4K@60Hz (4:4:4) video resolution, providing exceptional quality, advanced and user-friendly operation, and flexible control.

## Exceptional Quality

- Neat Room Integration – Aesthetic and modern front panel look and design that integrates nicely with design of room and podium deployments, in addition with wall-plate clean and convenient user interface, substantially increase customer and user quality of experience.
- High Performance Standard Extender – Professional HDBaseT extenders for providing extended-reach signals over twisted-pair copper infrastructures. **EXT3-C-WP-XR-T** is a standard extender that can be connected to any market-available HDBaseT-compliant receiver. For optimum extension reach and performance, use recommended Kramer cables.
- HDMI Signal Extension – Uncompressed 4K@60Hz (4:4:4) HDMI, HDCP 2.3, EDID and CEC signals are passed through from the source to the display.

- HDMI Support – Support HDR10, deep color, x.v.Color™, HDMI uncompressed audio channels, Dolby TrueHD, DTS-HD, 2K, 4K, and 3D as specified in HDMI 2.0.
- I-EDIDPro™ Kramer Intelligent EDID Processing™ – Intelligent EDID handling, processing, and pass-through algorithm that ensures Plug and Play operation for HDMI source and display systems.
- Multi-channel Audio Transmission – Up to 32 channels of digital stereo uncompressed signals for supporting studio-grade surround sound.

## Advanced and User-friendly Operation

- BYOD Ease and Convenience – Connect any DP-Alt-Mode-capable USB-C device to the transmitter as an AV presentation source, while providing the connected device with USB 2.0 and Ethernet connection, and (if PD-2.0-capable) up to 60 watts of power, via a single USB-C cable connection only.
- HDMI Mirroring – Transmitter-side extender mirrors input HDMI signal to loop output port for connecting a local monitor.
- Convenient Display Power On/Off Control – Simply press the DISPLAY ON button on the **EXT3-C-WP-XR-T** to toggle on and off the power of the remote CEC-enabled display; button LED indicates the power on/off status of the remote display.

## Flexible Connectivity

- Flexible USB 2.0 Extension – An active USB host is connected to the extender at either the transmitter or receiver sides. USB 2.0 signals are extended between the extender transmitter and receiver sides, enabling connection of the active USB host to both local and remote USB devices, such as camera and audio devices, or HID (Human Interface Devices) mouse or keyboard devices.
- Ethernet Extension – Ethernet interface data flows in both directions, allowing extension of up to 1 Gbps Ethernet connectivity for LAN communication and device control.
- Bidirectional RS-232 Extension – Serial interface data flows in both directions, allowing data transmission and device control.
- Infrared Extension – IR interface data flows to output port, allowing remote control of peripheral devices located at the transmitter proximity.
- Remote Powering – The transmitter can be powered by PoE (power over ethernet), reducing the need for power sources. The receiver can either deliver or receive PoE.
- Cost-effective Maintenance – Status LED indicators for HDMI, Loop, HDBT, PoE and USB active host ports, facilitate easy local maintenance and troubleshooting.
- Easy and Elegant Installation – Compactly fits into standard WW 2-gang in-wall box size, supporting decorative integration with room deployed user interfaces such as electrical switches. Wall-plate installation is fast and cost-effective via a single twisted pair cable, providing multiple signals and power connections.

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## Typical Applications

EXT3-C-WP-XR-T is ideal for the following typical applications:

- Corporate – Hybrid and online meetings.
- Education – Hybrid and online learning and training.
- Any AV, Ethernet and USB room extension applications such as conference rooms, boardrooms, and training facilities.

# Defining EXT3-C-WP-XR-T 4K60 USB-C Wall Plate Transmitter

## Defining the EXT3-C-WP-XR-T Front and Rear Panels

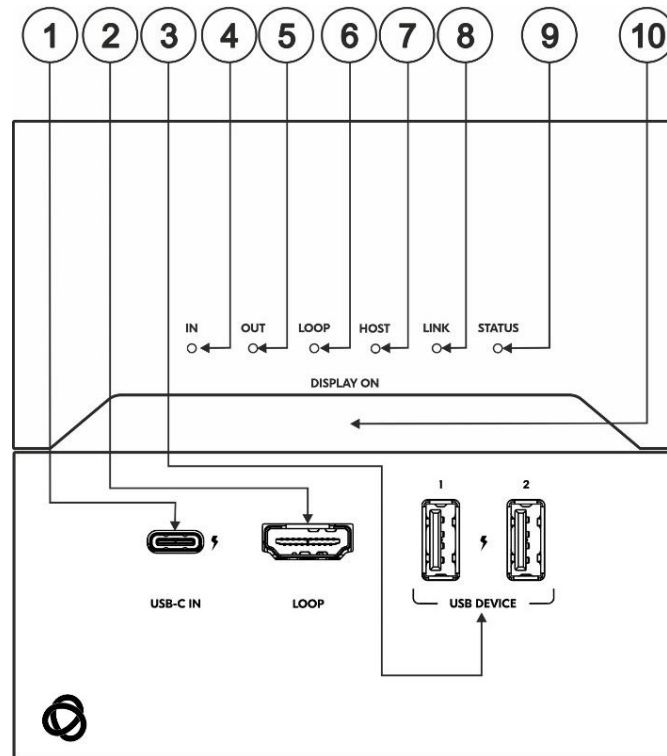


Figure 1: EXT3-C-WP-XR-T 4K60 USB-C Wall Plate Transmitter Front Panel

#	Feature	Function
①	USB-C IN Connector	Connect to a USB-C AV source (that supports DisplayPort Alternate Mode) for AV input, USB host connection to local and remote connected USB devices. Charges sources (that support USB Power Delivery 2.0) up to 60W when the device is powered via the power adapter). While charging, the charging icon (to the right of the connector) becomes visible and lights orange.
②	LOOP HDMI Connector	Connect to a local acceptor to view the AV signal coming from the USB-C IN input.
③	USB A 2.0 Charging Connector 1	Connect to the USB local peripheral devices (for example, a USB camera, a soundbar, microphone and so on). When USB Host PC is disconnected, the USB signal and charging power for this port are inactive.
	USB A 2.0 Charging Connector 2	Connect to the USB local peripheral devices (for example, a keyboard & mouse). When USB Host PC is disconnected, the USB charging power for this port continues to be active.
④	IN LED	Lights blue when an active AV input signal is detected from the source device that is connected to the USB-C IN port.
⑤	OUT LED	Lights blue when an HDMI output device is detected on the receiver side.
⑥	LOOP LED	Lights blue when an active signal is transmitted on the HDMI LOOP port.
⑦	HOST LED	Lights orange when the USB host side is active (defined via DIP-switches, see <a href="#">Defining the DIP-switches</a> on page 15).
⑧	LINK LED	Lights green when the HDBT connection is active.

#	Feature	Function
9	STATUS LED	Lights green when PSU powered and orange when PoE powered.
10	DISPLAY ON Button	Press to toggle power on/off the remote CEC-enabled display that is connected to the receiver side. Button LED lights blue when remote display power is on.

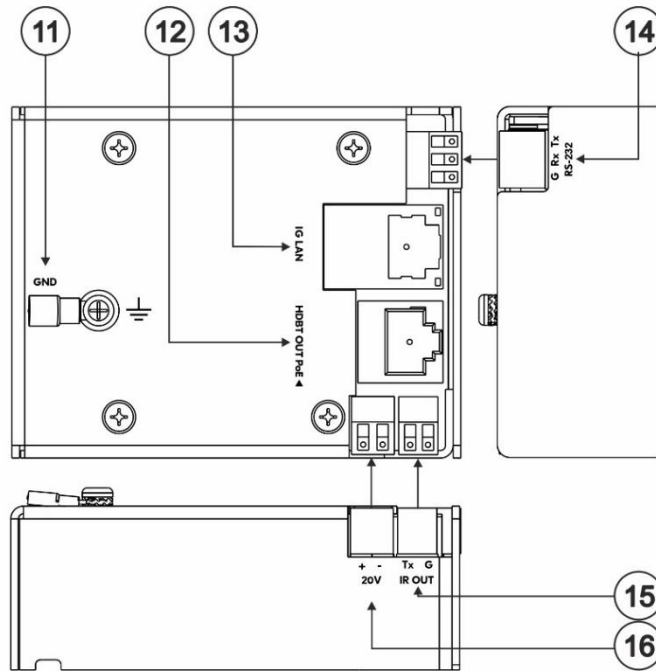


Figure 2: EXT3-C-WP-XR-T 4K60 USB-C Wall Plate Transmitter Rear Panel

#	Feature	Function
11	Ring Tongue Terminal Grounding Screw	Connected to grounding wire.
12	HDBT OUT PoE RJ-45 Connector	Connect to the HDBT IN RJ-45 connector on a receiver (for example, <b>EXT3-POE-XR-R</b> ). Receives PoE (PD).
13	1G LAN RJ-45 Connector	Connect to a LAN to provide Network and Internet to the source device that is connected to the USB-C IN port and/or Ethernet extension to the receiver.
14	RS-232 3-pin Terminal Block Connector	Connect to a controller device (for example, <b>SL-240C</b> ) to control a remote device via serial connection (for example, the remotely connected PTZ USB camera).
15	IR OUT 2-pin Terminal Block Connector	Outputs an extended IR signal from the receiver to a connected IR emitter.
16	20V DC	+20V DC 6A connector for powering the unit and charging the connected input device to USB-C.



## Defining the EXT3-C-WP-XR-T Front and Rear Panels

### EU/UK

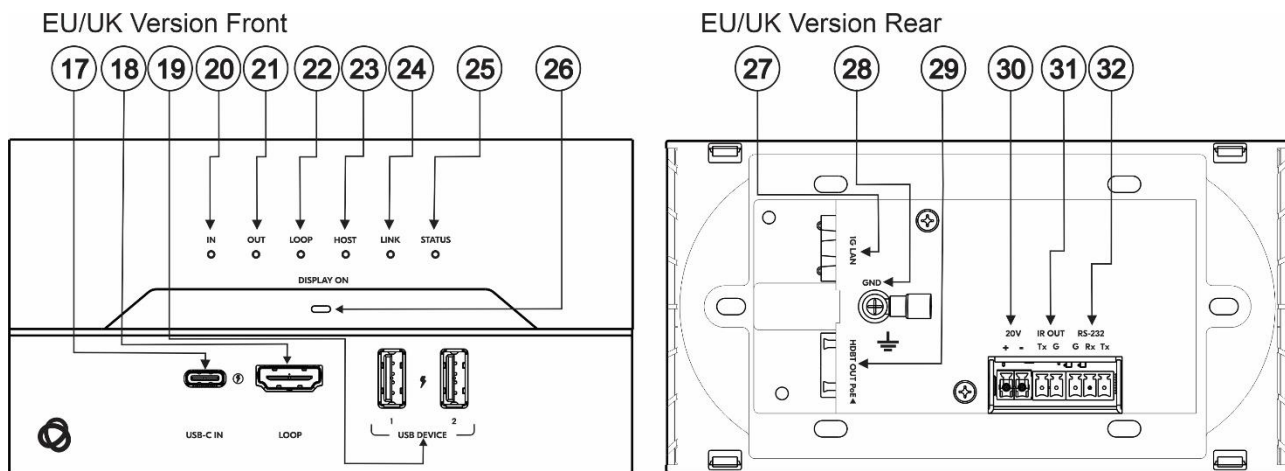


Figure 3: EXT3-C-WP-XR-T (EU/UK) 4K60 USB-C Wall Plate Transmitter Rear Panel

#	Feature	Function
⑰	USB-C IN Connector	Connect to a USB-C AV source (that supports DisplayPort Alternate Mode) for AV input, USB host connection to local and remote connected USB devices. Charges sources (that support USB Power Delivery 2.0) up to 60W when the device is powered via the power adapter). While charging, the charging icon (to the right of the connector) becomes visible and lights orange.
⑱	LOOP HDMI Connector	Connect to a local acceptor to view the AV signal coming from the USB-C IN input.
⑲	USB A 2.0 Charging Connector 1	Connect to the USB local peripheral devices (for example, a keyboard & mouse). When USB Host PC is disconnected, the USB signal and charging power for this port are inactive.
	USB A 2.0 Charging Connector 2	Connect to the USB local peripheral devices (for example, a USB camera, a soundbar, microphone and so on). When USB Host PC is disconnected, the USB charging power for this port continues to be active.
⑳	IN LED	Lights blue when an active AV input signal is detected from the source device that is connected to the USB-C IN port.
㉑	OUT LED	Lights blue when an HDMI output device is detected on the receiver side.
㉒	LOOP LED	Lights blue when an active signal is transmitted on the HDMI LOOP port.
㉓	HOST LED	Lights orange when the USB is set to Host.
㉔	LINK LED	Lights green when the HDBT connection is active.
㉕	STATUS LED	Lights green when PSU powered and orange when PoE powered.
㉖	DISPLAY ON Button	Press to toggle power on/off the remote CEC-enabled display that is connected to the receiver side. Button LED lights orange when remote display power is on.
㉗	1G LAN RJ-45 Connector	Connect to a LAN to provide Network and Internet to the source device that is connected to the USB-C IN port and/or Ethernet extension to the receiver.
㉘	Ring Tongue Terminal Grounding Screw	Connected to grounding wire.
㉙	HDBT OUT PoE RJ-45 Connector	Connect to the HDBT IN RJ-45 connector on a receiver (for example, <b>EXT3-POE-XR-R</b> ). Receives PoE (PD).
㉚	20V DC	+20V DC 6A connector for powering the unit and charging the connected input device to USB-C.
㉛	IR OUT 2-pin Terminal Block Connector	Outputs a received IR signal (from a controller) to a connected IR emitter.

#	Feature	Function
32	RS-232 3-pin Terminal Block Connector	Connect to a controller device (for example, <b>SL-240C</b> ) to control a remote device via serial connection (for example, the remotely connected PTZ USB camera).

# Mounting EXT3-C-WP-XR-T

This section provides instructions for mounting the **EXT3-C-WP-XR-T** transmitter. Before installing, verify that the environment is within the recommended range:



- Operation 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.




**Warning:**


- Ensure that the environment (e.g., maximum ambient temperature & air flow) is compatible for the device.
- Avoid uneven mechanical loading.
- Appropriate consideration of equipment nameplate ratings should be used for avoiding overloading of the circuits.
- Reliable earthing of rack-mounted equipment should be maintained.
- Maximum mounting height for the device is 2 meters.

# Mounting EXT3-C-WP-XR-T in a Wall Box

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 illustration below.

 When installing the device, take care not to obstruct the upper and lower ventilation holes.

### US-D Version

 US model panel size is compatible with DECORA® design frame size.  
DECORA® is a registered trademark of Leviton Manufacturing Co., Inc.

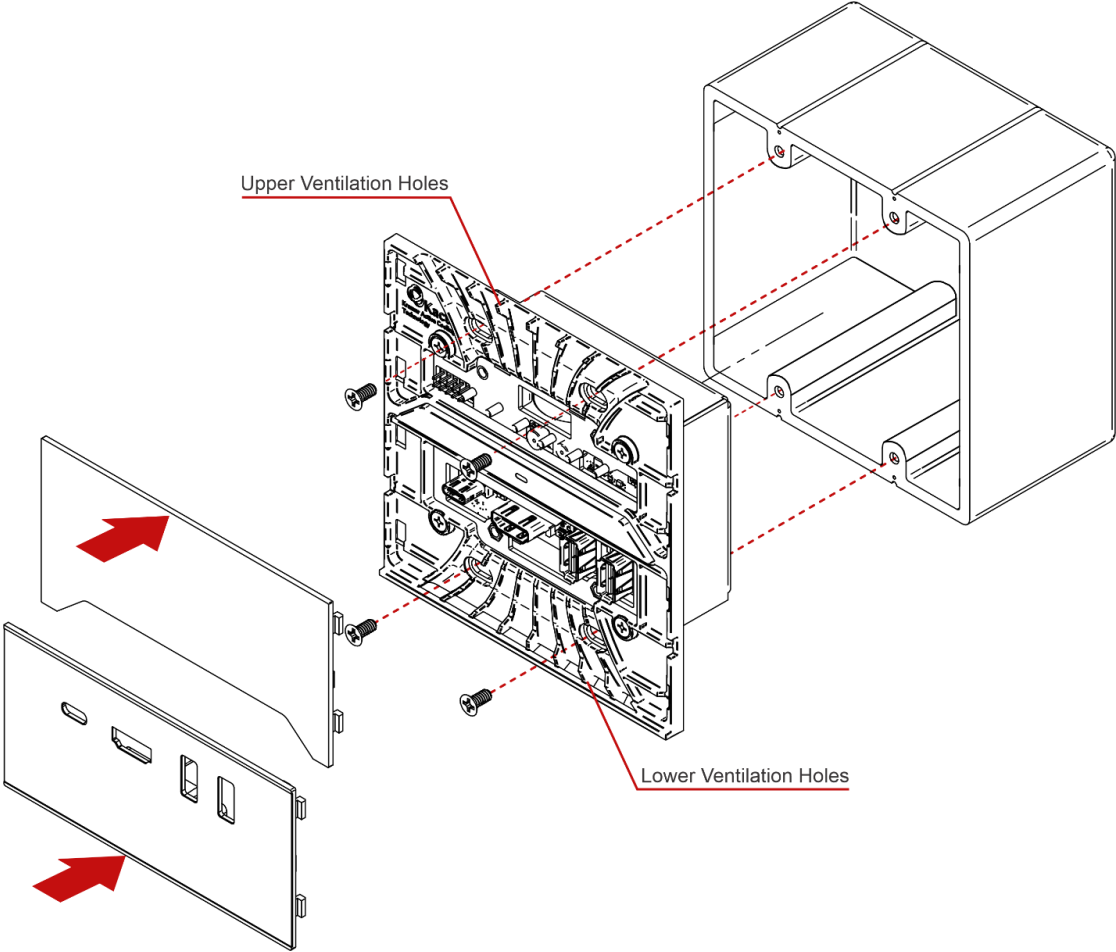


Figure 4: Mounting EXT3-C-WP-XR-T

We recommend that you use any 2 gang US electrical junction box:

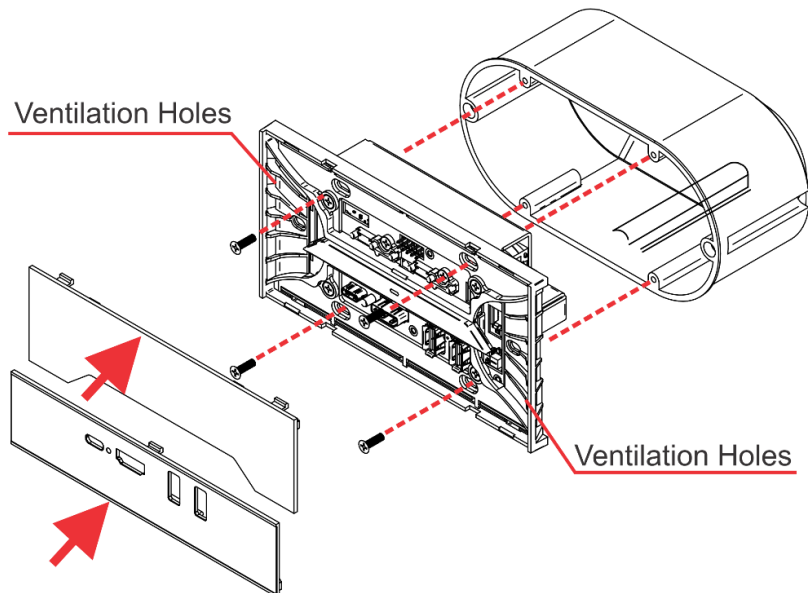
## Mounting EXT3-C-WP-XR-T (EU/UK) in a Wall Box

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 illustration below.



When installing the device, take care not to obstruct the upper and lower ventilation holes.

### EU Version



### UK Version

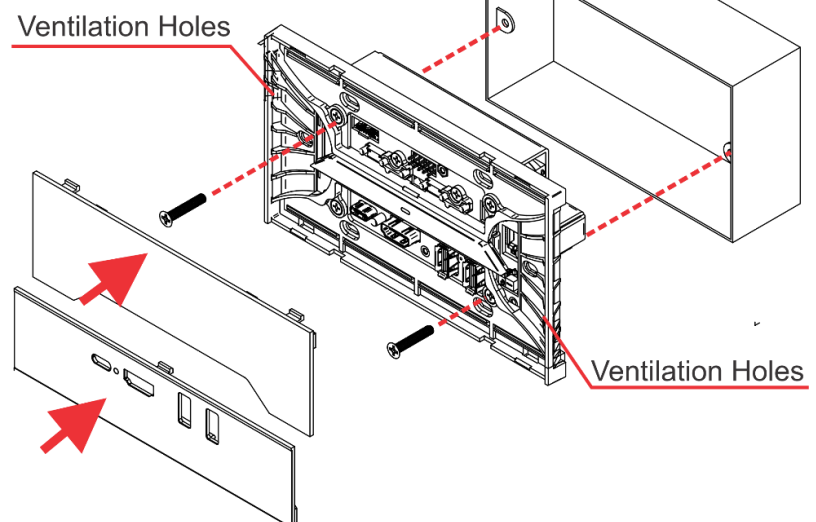



Figure 5: Mounting EXT3-C-WP-XR-T (EU/UK)

We recommend that you use any of the following standard 2 Gang in-wall junction boxes (or their equivalent):

- **EU:** 2 gang in-wall junction box, with a cut-hole diameter of 2x68mm and depth that can fit in both the device and the connected cables (DIN 49073).
- **UK:** 2 gang in-wall junction box (BS 4662), 135x75mm (W, H) and depth that can fit in both the device and the connected cables.

# Connecting EXT3-C-WP-XR-T

This section provides instructions for connecting the **EXT3-C-WP-XR-T** transmitter to a compatible receiver (for example, Kramer **EXT3-POE-XR-R**).

 Switch off and disconnect the power to each device before connecting them. After connecting your devices, connect their power and power-up each device.

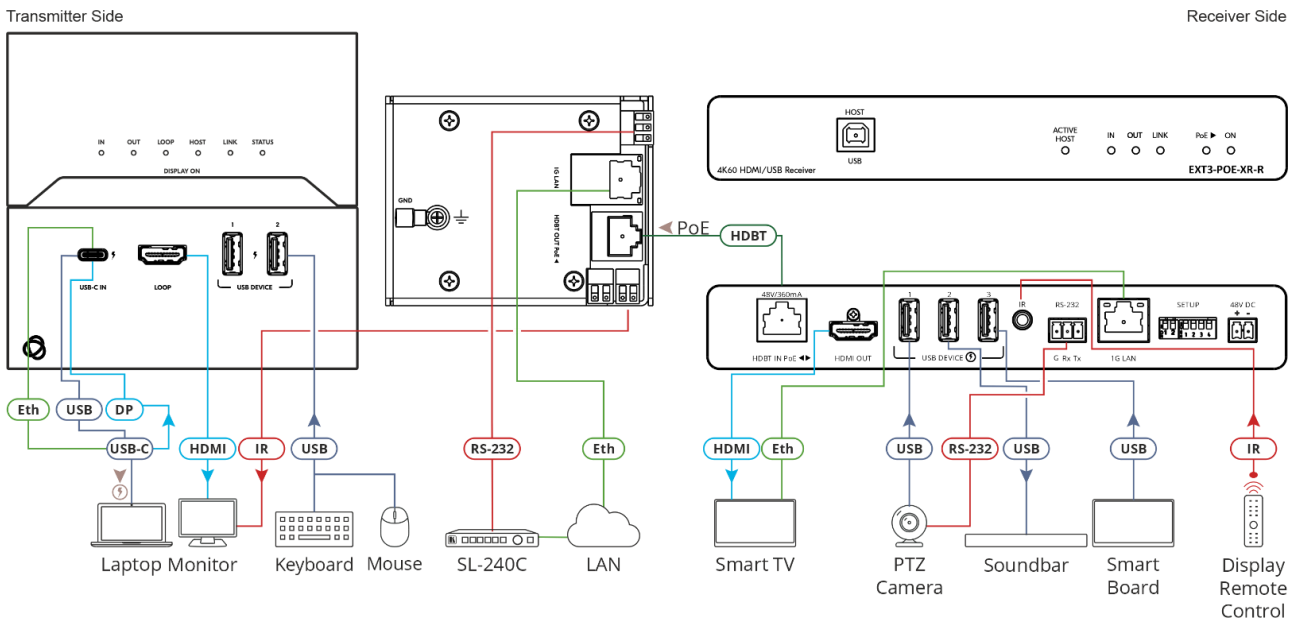




Figure 6: Connecting EXT3-C-WP-XR-T to EXT3-POE-XR-R

 In the example in [Figure 6](#), the connected USB devices, such as the mic or soundbar, are hosted via the transmitter's USB-C port (1). In this configuration, the receiver's host USB-B port is inactive.

To connect **EXT3-C-WP-XR-T** to **EXT3-POE-XR-R** as illustrated in the example in [Figure 6](#):

1. If required, set to active HOST via DIP-switch 2 (see [Defining the DIP-switches](#) on page [15](#)).  
By default, **EXT3-C-WP-XR-T** USB-C port is set active Host.

 Either the **EXT3-C-WP-XR-T** or its compatible receiver (but not both) must be defined as the active USB host.

2. Connect the HDBT OUT port (12) on the **EXT3-C-WP-XR-T** transmitter side to the HDBT IN port on the **EXT3-POE-XR-R** receiver side.
3. On the **EXT3-C-WP-XR-T** transmitter side:
  - Connect a USB-C source (for example, a laptop that supports Display Port Alternate Mode) to the USB-C IN connector (1).
  - Connect an HDMI LOOP connector (2) to an HDMI acceptor.
5. On the **EXT3-POE-XR-R** receiver side, connect the HDMI OUT connector to an HDMI acceptor (for example, a smart TV).

## 6. Connect the USB DEVICE ports:

- On the transmitter side, ports ③, to USB devices (for example, USB 2 to the room mouse, and keyboard).
- On the receiver side, ports to USB devices (for example, a smart board, soundbar and camera).



USB devices can be connected to both the transmitter and receiver sides, as necessary, while considering the needed auto-disconnection behavior.

For example, we recommend connecting a keyboard and mouse to the USB 2 port ③ on the **EXT3-C-WP-XR-T**, as they remain connected when the HOST port is disconnected.

## 7. To control the Monitor via the OUT IR port, connect the following:

- On the **EXT3-C-WP-XR-T** transmitter side, connect an IR emitter cable to the IR 3.5mm mini jack ⑮ and attach the emitter side to the IR sensor of the monitor.
- On the **EXT3-POE-XR-R** receiver side, connect the IR 3.5mm mini jack ⑳ to an IR sensor cable and point the monitor IR remote control to that sensor to carry out IR commands.

## 8. To Control the smart TV via Ethernet, connect the following:

- On the **EXT3-C-WP-XR-T** transmitter side, connect a room controller (for example, the Kramer **SL-240C** with Kramer Control) via LAN to the 1G LAN RJ-45 port ⑬.
- On the **EXT3-POE-XR-R** receiver side, connect the Ethernet RJ-45 port to the smart TV.

Send IP commands via the room controller to the smart TV via LAN.

## 9. To control the PTZ camera, connect the following:

- On **EXT3-C-WP-XR-T** transmitter side connect a controller (for example, **SL-240C** room controller) to the RS-232 port ⑭ (and to the ETHERNET RJ-45 port ⑬).
- On **EXT3-POE-XR-R** receiver side connect the RS-232 port to a PTZ camera.

Send serial commands from **SL-240C** to the camera via RS-232.

10. Connect the power adapter to **EXT3-C-WP-XR-T** and to the mains electricity (not shown in [Figure 6](#)).

To charge the device that is connected to the USB-C port, you need to use a power adapter for powering the **EXT3-C-WP-XR-T** transmitter.

11. Connect the power adapter to **EXT3-POE-XR-R** and to the mains electricity (not shown in [Figure 6](#)).

**EXT3-C-WP-XR-T** and **EXT3-POE-XR-R** are connected.

# Connecting EXT3-C-WP-XR-T (EU/UK)

This section provides instructions for connecting the **EXT3-C-WP-XR-T (EU/UK)** transmitter to a compatible receiver (for example, Kramer **EXT3-POE-XR-R**).



Switch off and disconnect the power to each device before connecting them. After connecting your devices, connect their power and power-up each device.

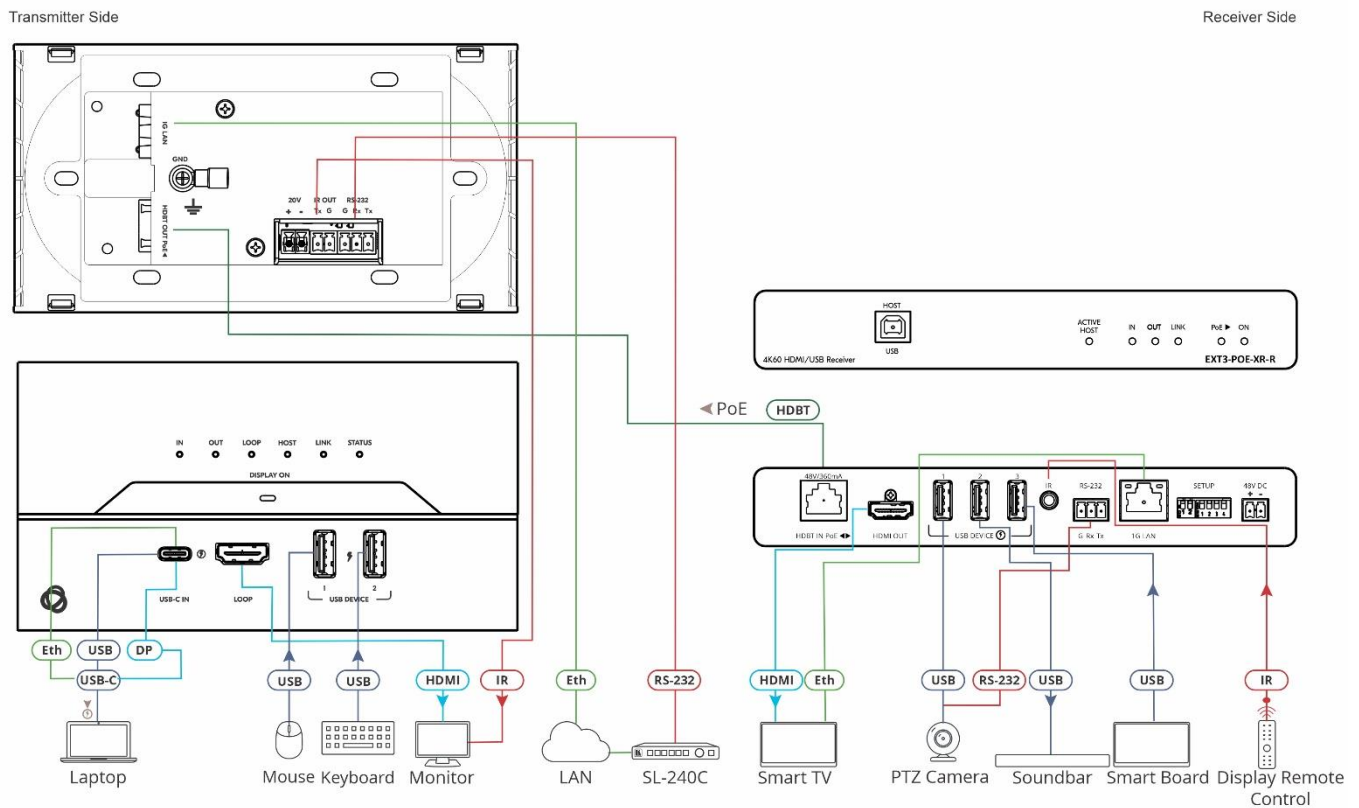


Figure 7: Connecting EXT3-C-WP-XR-T (EU/UK) to EXT3-POE-XR-R

To connect **EXT3-C-WP-XR-T (EU/UK)** to **EXT3-POE-XR-R** as illustrated in the example in [Figure 6](#):

1. If required, set to active HOST via DIP-switch 2 (see [Defining the DIP-switches](#) on page [15](#)).

By default, **EXT3-C-WP-XR-T** USB-C port is set active Host.



Either the **EXT3-C-WP-XR-T** or its compatible receiver (but not both) must be defined as the active USB host.

2. Connect the HDBT OUT port (29) on the **EXT3-C-WP-XR-T** transmitter side to the HDBT IN port on the **EXT3-POE-XR-R** receiver side.
3. On the **EXT3-C-WP-XR-T** transmitter side:



# Defining the DIP-switches

EXT3-C-WP-XR-T US & EXT3-C-WP-XR-T (EU/UK) Setup DIP-switches are located behind the top front panel of the device. To access the DIP-switches, simply remove the top front panel.

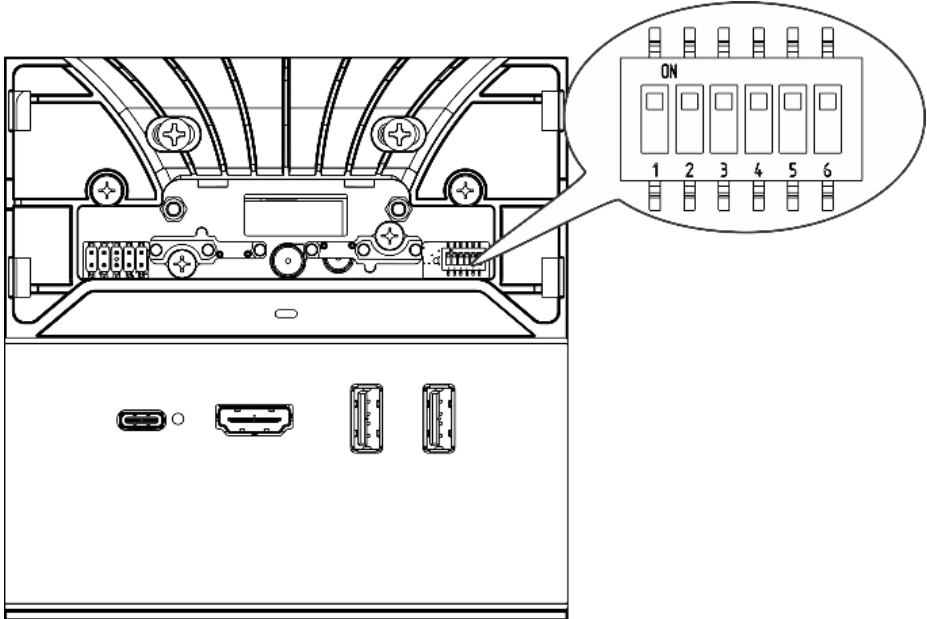


Figure 8: EXT3-C-WP-XR-T (US) DIP-Switches

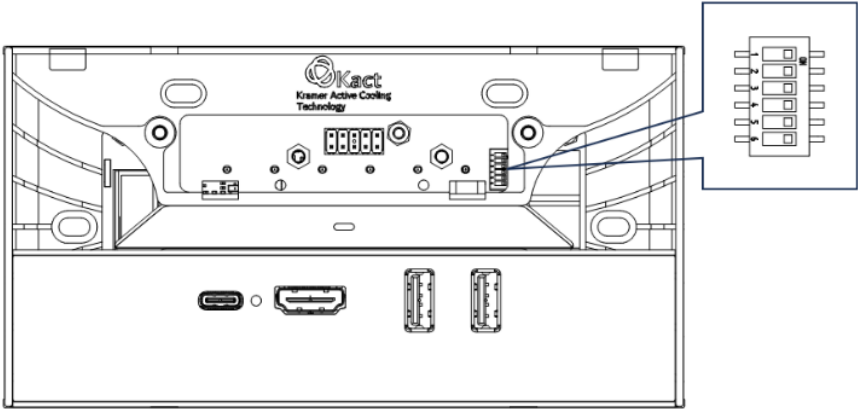




Figure 9: EXT3-C-WP-XR-T (EU/UK) DIP-Switches

-  By default, DIP-Switch 2 is set to **ON** (up), while all the other DIP-switches are set to **OFF** (down) by default.
-  Setting **EXT3-C-WP-XR-T** to active USB host requires device reset (disconnecting and then reconnecting the power).  
We recommend that you set the device to active USB host (if required) before mounting.

The following table describes the DIP-switch optional setups.

DIP #	Feature	DIP-switch Settings
1	Not Used	
2	FW upgrade	OFF (down) – For factory use only
		ON (up) – Mandatory for normal operation (default).
3		OFF (down) – Mandatory for normal operation (default).
		ON (up) – For factory use only.
4	Active USB Host	OFF (down) – USB-C is activated as a HOST for the connected USB devices (default).
		ON (up) – USB-C is activated as a USB device.
5	IR Modulation	OFF (down) – IR pass-thru is enabled (default).
		On – IR pass-thru is disabled (add a 38KHz modulation to the IR output signal).
6	RS-232 Extension	Off (down) – Mandatory for serial extension (default).
		On (up) – For factory use only.

# Connecting to EXT3-C-WP-XR-T via RS-232

You can connect via an RS-232 connection (14) or (31) using, for example, a controller.

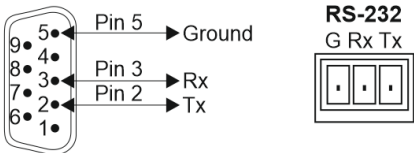
EXT3-C-WP-XR-T features an RS-232 3-pin terminal block connector to extend RS-232 signals via the EXT3-C-WP-XR-T transmitter to the connected receiver.

Connect the RS-232 terminal block on the rear panel to a device, as follows:

From the RS-232 9-pin D-sub serial port connect:



- Pin 2 to the TX pin on the RS-232 terminal block
- Pin 3 to the RX pin on the RS-232 terminal block
- Pin 5 to the G pin on the RS-232 terminal block

RS-232 Device EXT3-C-WP-XR-T

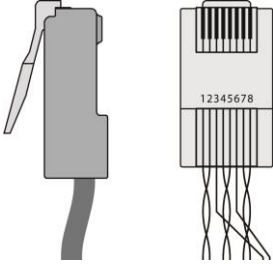


# Wiring RJ-45 Connectors

This section defines the HDBT pinout, using a straight pin-to-pin cable with RJ-45 connectors.

-  It is recommended that the cable ground shielding be connected/soldered to the connector shield.
-  To achieve specified extension distances, use the recommended Kramer cables available at [www.kramerav.com/product/EXT3-C-WP-XR-T](http://www.kramerav.com/product/EXT3-C-WP-XR-T). Using third-party cables may cause damage!

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



# Principles of Operation

The **EXT3-C-WP-XR-T** USB-C port is actually a dock for passing a number of signals therefore you can use one cable to pass full AV, USB, and Eth signals as well as power and presentation content monitor.


This section describes the following actions:

- [Controlling Display Power On/Off](#) on page [18](#).
- [Connecting EXT3-C-WP-XR-T to Other HDBaseT-Compatible Devices](#) on page [18](#).

---

## Controlling Display Power On/Off

**EXT3-C-WP-XR-T** communicates with the remote HDMI display that is connected to the HDBaseT receiver, via the pass-through CEC channel.

Use the DISPLAY ON button  on the **EXT3-C-WP-XR-T** to turn on or off the power of the display that is connected to the receiver. The DISPLAY ON button LED lights blue when display on the receiver side is powered on.



**EXT3-C-WP-XR-T** supports CEC functionality and has been tested and verified with a large number of display models. However, Kramer cannot guarantee CEC compatibility with all CEC displays due to command variations and proprietary commands implemented by some manufacturers in some of their displays.

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## Connecting EXT3-C-WP-XR-T to Other HDBaseT-Compatible Devices

You can connect **EXT3-C-WP-XR-T** to other HDBaseT-compatible devices that support HDBaseT 3.0 release or lower.

When **EXT3-C-WP-XR-T** is paired to devices with a HDBaseT 3.0 release or lower, the features of the lower release device apply.

For example, you can connect:

- **EXT3-C-WP-XR-T** to the Kramer **TP-590R** receiver.

For these paired sets:

- The maximum resolution that is supported is that of the highest common resolution. The **TP-590R** maximum resolution is 4K60 4:2:0 only, therefore the paired **TP-590R** defines the maximum supported resolution.
- A shorter reach and USB extension are supported by each pair, therefore available per **TP-590R** capabilities.
- PoE powering and Ethernet are not supported by **TP-590R** so when paired with **EXT3-C-WP-XR-T**, are not available.

# Technical Specifications

Inputs	1 DP Alt Mode & PD 3.0 USB-C	On a USB-C female connector
Outputs	1 HDBT	On a female RJ-45 connector
	1 LOOP	On a female HDMI connector
	1 IR	On a 3.5mm mini jack for IR link extension
Ports	2 USB 2.0	On USB device type-A female connectors
	1 RS-232	On a 3-pin terminal block for serial link extension
	1 Gbps LAN	On an RJ-45 female connector
Extension Line	Reach	Up to 90m (295ft), when using Kramer HDBaseT cables
	Standards Compliance	HDBaseT 3.0
Video	Max Data Rate	18Gbps bandwidth (6Gbps per graphic channel)
	Max Resolution	4K@60Hz (4:4:4) 24bpp resolution
	Content Protection	HDCP 2.3
	HDMI Support	4K as specified in HDMI 2.0b
Extended USB	Data Rate	Up to 480Mbps
	Transmitted Data Bandwidth	Up to 300Mbps
	Standards Compliance	1.1 and 2.0 USB
Extended Ethernet	Max Data Rate	1Gbps
Extended RS-232	Baud Rate	300 to 115200
Power	Power Adapter	Source: 20V DC, 6A Consumption: 20V DC, 4.35A Max. Power: 88W
	PoE	Consumption: 410mA Max. Power: 19.7W
	USB-C Charging	Max Power: 60W Compliance: PD 3.0
	USB Device Charging	Max. Total Current: 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
	Environmental	RoHs, WEEE
Enclosure	Size	WW 2 Gang Decora-compatible
	Material	Aluminum, ABS PC
	Cooling	Fan Ventilation
General	Net Dimensions (W, D, H)	US: 12.1cm x 4.7cm x 12.1cm (4.8" x 1.85" x 4.8") UK: 15.1cm x 8.6cm x 4cm (5.9" x 3.38" X 1.5") EU: 15.1cm x 8cm x 4cm (5.9" x 3.14" X 1.5")
	Shipping Dimensions (W, D, H)	US: 11.5cm x 4.7cm x 7cm (4.5" x 1.85" x 2.7") UK/EU: 29.1 cm x 24cm x 8cm (11.4" x 9.44" x 3.14")
	Net Weight	US: 0.097kg (0.21lbs) UK: 0.28kg (0.61lbs) EU: 0.264kg (0.58lbs)

	Shipping Weight	U.S: 0.666kg (1.47lbs) approx. UK: 1.14kg (2.5lbs) approx. EU: 1.22kg (2.68lbs) approx.
Accessories	Included	Power adapter and cord, 1 Multi signal USB-C cable (1m)
Specifications are subject to change without notice at <a href="http://www.kramerav.com">www.kramerav.com</a>		

The warranty obligations of Kramer Electronics Inc. ("Kramer Electronics") for this product are limited to the terms set forth below:

### **What is Covered**

This limited warranty covers defects in materials and workmanship in this product.

### **What is Not Covered**

This limited warranty does not cover any damage, deterioration or malfunction resulting from any alteration, modification, improper or unreasonable use or maintenance, misuse, abuse, accident, neglect, exposure to excess moisture, fire, improper packing and shipping (such claims must be presented to the carrier), lightning, power surges, or other acts of nature. This limited warranty does not cover any damage, deterioration or malfunction resulting from the installation or removal of this product from any installation, any unauthorized tampering with this product, any repairs attempted by anyone unauthorized by Kramer Electronics to make such repairs, or any other cause which does not relate directly to a defect in materials and/or workmanship of this product. This limited warranty does not cover cartons, equipment enclosures, cables or accessories used in conjunction with this product.

Without limiting any other exclusion herein, Kramer Electronics does not warrant that the product covered hereby, including, without limitation, the technology and/or integrated circuit(s) included in the product, will not become obsolete or that such items are or will remain compatible with any other product or technology with which the product may be used.

### **How Long this Coverage Lasts**

The standard limited warranty for Kramer products is seven (7) years from the date of original purchase, with the following exceptions:

1. All Kramer VIA hardware products are covered by a standard three (3) year warranty for the VIA hardware and a standard three (3) year warranty for firmware and software updates; all Kramer VIA accessories, adapters, tags, and dongles are covered by a standard one (1) year warranty.
2. Kramer fiber optic cables, adapter-size fiber optic extenders, pluggable optical modules, active cables, cable retractors, ring mounted adapters, portable power chargers, Kramer speakers, and Kramer touch panels are covered by a standard one (1) year warranty. Kramer 7-inch touch panels purchased on or after April 1st, 2020 are covered by a standard two (2) year warranty.
3. All Kramer Calibre products, all Kramer Minicom digital signage products, all HighSecLabs products, all streaming, and all wireless products are covered by a standard three (3) year warranty.
4. All Sierra Video MultiViewers are covered by a standard five (5) year warranty.
5. Sierra switchers & control panels are covered by a standard seven (7) year warranty (excluding power supplies and fans that are covered for three (3) years).
6. K-Touch software is covered by a standard one (1) year warranty for software updates.
7. All Kramer passive cables are covered by a lifetime warranty.

### **Who is Covered**

Only the original purchaser of this product is covered under this limited warranty. This limited warranty is not transferable to subsequent purchasers or owners of this product.

### **What Kramer Electronics Will Do**

Kramer Electronics will, at its sole option, provide one of the following three remedies to whatever extent it shall deem necessary to satisfy a proper claim under this limited warranty:

1. Elect to repair or facilitate the repair of any defective parts within a reasonable period of time, free of any charge for the necessary parts and labor to complete the repair and restore this product to its proper operating condition. Kramer Electronics will also pay the shipping costs necessary to return this product once the repair is complete.
2. Replace this product with a direct replacement or with a similar product deemed by Kramer Electronics to perform substantially the same function as the original product. If a direct or similar replacement product is supplied, the original product's end warranty date remains unchanged and is transferred to the replacement product.
3. Issue a refund of the original purchase price less depreciation to be determined based on the age of the product at the time remedy is sought under this limited warranty.

### **What Kramer Electronics Will Not Do Under This Limited Warranty**

If this product is returned to Kramer Electronics or the authorized dealer from which it was purchased or any other party authorized to repair Kramer Electronics products, this product must be insured during shipment, with the insurance and shipping charges prepaid by you. If this product is returned uninsured, you assume all risks of loss or damage during shipment. Kramer Electronics will not be responsible for any costs related to the removal or re-installation of this product from or into any installation. Kramer Electronics will not be responsible for any costs related to any setting up this product, any adjustment of user controls or any programming required for a specific installation of this product.

### **How to Obtain a Remedy Under This Limited Warranty**

To obtain a remedy under this limited warranty, you must contact either the authorized Kramer Electronics reseller from whom you purchased this product or the Kramer Electronics office nearest you. For a list of authorized Kramer Electronics resellers and/or Kramer Electronics authorized service providers, visit our web site at [www.kramerav.com](http://www.kramerav.com) or contact the Kramer Electronics office nearest you.

In order to pursue any remedy under this limited warranty, you must possess an original, dated receipt as proof of purchase from an authorized Kramer Electronics reseller. If this product is returned under this limited warranty, a return authorization number, obtained from Kramer Electronics, will be required (RMA number). You may also be directed to an authorized reseller or a person authorized by Kramer Electronics to repair the product.

If it is decided that this product should be returned directly to Kramer Electronics, this product should be properly packed, preferably in the original carton, for shipping. Cartons not bearing a return authorization number will be refused.

### **Limitation of Liability**

THE MAXIMUM LIABILITY OF KRAMER ELECTRONICS UNDER THIS LIMITED WARRANTY SHALL NOT EXCEED THE ACTUAL PURCHASE PRICE PAID FOR THE PRODUCT. TO THE MAXIMUM EXTENT PERMITTED BY LAW, KRAMER ELECTRONICS IS NOT RESPONSIBLE FOR DIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM ANY BREACH OF WARRANTY OR CONDITION, OR UNDER ANY OTHER LEGAL THEORY. Some countries, districts or states do not allow the exclusion or limitation of relief, special, incidental, consequential or indirect damages, or the limitation of liability to specified amounts, so the above limitations or exclusions may not apply to you.

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### **Other Conditions**

This limited warranty gives you specific legal rights, and you may have other rights which vary from country to country or state to state.

This limited warranty is void if (i) the label bearing the serial number of this product has been removed or defaced, (ii) the product is not distributed by Kramer Electronics or (iii) this product is not purchased from an authorized Kramer Electronics reseller. If you are unsure whether a reseller is an authorized Kramer Electronics reseller, visit our web site at [www.kramerav.com](http://www.kramerav.com) or contact a Kramer Electronics office from the list at the end of this document.

Your rights under this limited warranty are not diminished if you do not complete and return the product registration form or complete and submit the online product registration form. Kramer Electronics thanks you for purchasing a Kramer Electronics product. We hope it will give you years of satisfaction.



**HDMI™**  
HIGH-DEFINITION MULTIMEDIA INTERFACE



P/N: 2900-301611

Rev: 3



#### SAFETY WARNING

Disconnect the unit from the power supply before opening and servicing

For the latest information on our products and a list of Kramer distributors, visit our website where updates to this user manual may be found.

We welcome your questions, comments, and feedback.

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