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KIT-400 Quick Start Guide

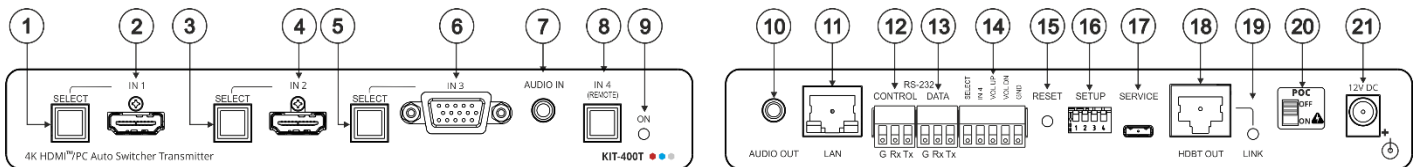This guide helps you install and use your **KIT-400** for the first time.

Go to www.kramerav.com/downloads/KIT-400 to download the latest user manual and check if firmware upgrades are available.

Step 1: Check what's in the box

- ☑ **KIT-400**, including:
  KIT-400T 4K HDMI/PC Auto Switcher Transmitter
  and **KIT-400R 4K HDBT/HDMI Receiver/Scaler**
- ☑ 2 Bracket sets
- ☑ 1 Power adapter and cord
- ☑ 8 Rubber feet
- ☑ 1 Quick start guide

Step 2: Get to know your KIT-400

KIT-400T

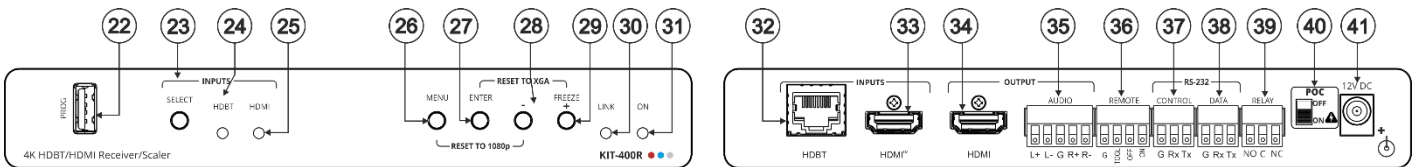| #	Feature		Function
1	IN 1	SELECT Button	Press to select the IN 1 input. Lights red when the analog audio is selected; lights green when the embedded audio is selected.
2		HDMI Connector	Connect to an HDMI source.
3	IN 2	SELECT Button	Press to select the IN 2 input. Lights red when the analog audio is selected; lights green when the embedded audio is selected.
4		HDMI Connector	Connect to an HDMI source.
5	IN 3	SELECT Button	Press to select the IN 3 input. Lights red when the analog audio is selected; lights green when embedded audio from embedded HDMI is selected, see Step 4: Connect inputs and outputs.
6		15-pin HD Connector	Connect to a PC graphics source.
7	AUDIO IN 3.5mm Mini Jack		Connect to an unbalanced, stereo audio source (for example, the audio output of the laptop).
8	IN 4 (REMOTE) Button		Press to select the inputs on **KIT-400R**: • Button lights – HDMI INPUT on **KIT-400R** is selected as the input. • Button off – The selected input on **KIT-400T** is routed via HDBT.
9	ON LED		Lights green when the device is powered by a power adapter; lights red when power is provided via PoC.
10	AUDIO OUT 3.5mm Mini Jack		Connect to the unbalanced, stereo audio acceptor (for example, active speakers).
11	LAN RJ-45 Connector		Connect to the LAN (Ethernet traffic or PC controller).
12	RS-232	CONTROL 3-pin Terminal Block Connector	Connect to a serial controller or PC.
13		DATA 3-pin Terminal Block Connector	Connect to a serial data source or acceptor.
14	Remote Contact-closure 4-pin Terminal Block Connector		Connect to contact closure switches (by momentary contact between the desired pin and GND pin) to select an input, the remote IN 4 and audio volume (up or down), see Step 6: Operate KIT-400.
15	RESET Button		Short press: sends a reset command to **KIT-400R** and then reboots **KIT-400T**. Long press: resets **KIT-400R** to its factory default parameters and then resets **KIT-400T** to its factory default parameters.

P/N: 2900-301388QS   Rev: 5

#	Feature		Function
16	SETUP 4-way DIP-switch		Set the device behavior, see Step 4: Connect inputs and outputs.
17	SERVICE Mini USB Connector		Connect to a PC to perform a firmware upgrade.
18	HDBT OUT RJ-45 Connector		Connect to **KIT-400R**.
19	LINK LED		Lights blue when a link is established with the receiver.

⚠ Follow powering instructions in Step 5: Connect power.
Failure to use PoC and power connector correctly may destroy the devices!

#	Feature		Function
20	PoC (Power over Cable) Switch		Set the PoC switch to ON on both **KIT-400T** and **KIT-400R**.
21	12V DC Connector		Connect to the supplied power adapter, unless the power adapter is connected to **KIT-400R**.

KIT-400R

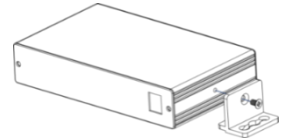| #	Feature		Function
22	PROG USB Connector		Connect to a USB stick to perform firmware upgrades.
23	INPUTS	SELECT Button	Press to select the input (HDBT or HDMI). By default, the SELECT button is locked. You can unlock it via the ADVANCED menu in the OSD.
24		HDBT LED	Lights blue when the HDBT input is selected.
25		HDMI LED	Lights blue when the HDMI input is selected.
26	MENU Button		Press to enter/exit the on-screen display (OSD) menu. Press together with the – button to reset to 1080p.
27	ENTER Button		In OSD, press to choose the highlighted menu item. Press together with the FREEZE/+ button to reset to XGA.
28	–		In OSD, press to move back through menus or decrement parameter values.
29	FREEZE/+ Button		In OSD, press to move forward through menus or increment parameter values. When not in OSD, press to freeze the display.
30	LINK LED		Lights blue when a link is established with the transmitter.
31	ON LED		Lights green when device is powered.
32	INPUTS	HDBT RJ-45 Connector	Connect to **KIT-400T**.
33		HDMI™ Connector	Connect to an HDMI source.
34	OUTPUT	HDMI Connector	Connect to an HDMI acceptor.
35		AUDIO 5-pin Terminal Block Connector	Connect to a balanced stereo audio acceptor.
36	REMOTE Contact-Closure 4-pin Terminal Block Connector		Connect to contact closure switches, an occupancy sensor and/or toggle switches (contact between the desired pin and GND pin), to turn display on or off. See Step 6: Operate KIT-400.
37	RS-232	CONTROL 3-pin Terminal Block Connector	Connect to a serial controller or PC.
38		DATA 3-pin Terminal Block Connector	Connect to a serial data source or acceptor.
39	RELAY 3-pin Terminal Block Connector		Connections to the internal relay: Normally open (NO), normally closed (NC), and common (C). Connect to devices to be controlled by relay (for example, a motorized projection screen).

⚠ Follow powering instructions in Step 5: Connect power.
Failure to use PoC and power connector correctly may destroy the devices!

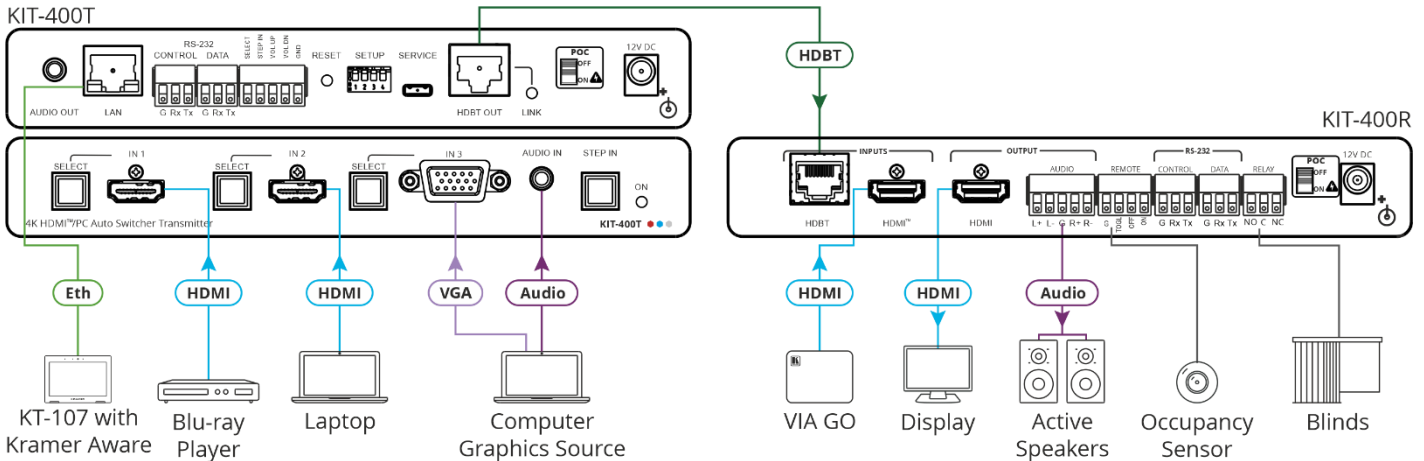| #	Feature	Function
40	PoC (Power Over Cable) Switch	Set the PoC switch to ON on both **KIT-400T** and **KIT-400R**.
41	12V DC Connector	Connect to the supplied power adapter, unless the power adapter is connected to **KIT-400T**.

Step 3: Mount KIT-400

Install **KIT-400** 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 (see www.kramerav.com/downloads/KIT-400).
- Mount the unit in a rack using the recommended rack adapter (see www.kramerav.com/product/KIT-400).
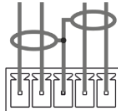
⚠️
- Ensure that the environment (e.g., maximum ambient temperature & air flow) is compatible for the device.
- Avoid uneven mechanical loading.
- Appropriate consideration of equipment nameplate ratings should be used for avoiding overloading of the circuits.
- Reliable earthing of rack-mounted equipment should be maintained.
- Maximum mounting height for the device is 2 meters.
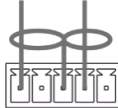
Step 4: Connect inputs and outputs

Connecting the audio output

To a balanced stereo audio acceptor:

L+ L- G R+ R-

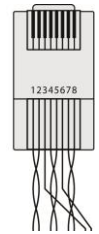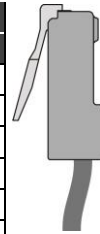To an unbalanced stereo audio acceptor:

L+ L- G R+ R-

Wiring the RJ-45 connectors

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

ℹ️ For HDBT cables, it is recommended that the cable ground shielding be connected/soldered to the connector shield.

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

ℹ️ To achieve specified extension distances, use the recommended Kramer cables available at www.kramerav.com/product/KIT-400.

Using third-party cables may cause damage!

Setting the KIT-400T DIP-switches

A switch that is down is on; a switch that is up is off. By default, all the switches are up (off). After changing a DIP-switch you must power cycle the device to implement the change.

DIP-switch 1 set to off (up).

DIP-switch 2 set to off (up).

Audio Switching Selection

DIP-switch 3	DIP-switch 4	Audio Input Selection
Off (up)	Off (up)	Automatic – Priority selection: Embedded HDMI → analog Audio In (high to low priority).
Off (up)	On (down)	Automatic – Priority selection: Analog Audio In → embedded HDMI (high to low priority).
On (down)	Off (up)	Embedded HDMI.
On (down)	On (down)	Analog Audio In

Step 5: Connect power

To power the devices:

1. Set the PoC switches to **ON** on both devices.
2. Connect the power adapter to one of the devices (**KIT-400T** or **KIT-400R**).

Safety Instructions (**See www.kramerav.com for updated safety information**)

Caution:
- For products with relay terminals and GPI\O 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:
- Failure to use PoC and power connector correctly may destroy the devices!
- Use only the power cord that is supplied with the unit.

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

Step 6: Operate KIT-400
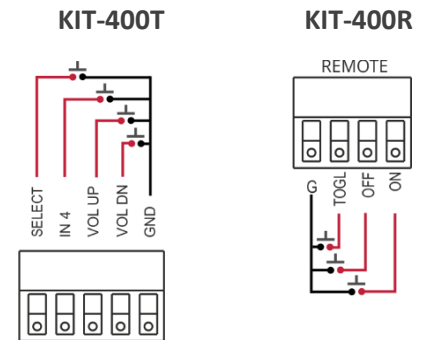
Operate **KIT-400** via:

- Front panel buttons
- Remotely, by RS-232 serial commands transmitted by a touch screen system, PC, or other serial controller
- Embedded web pages via the Ethernet
- Remote control switches.
- Room Automation Panel.

RS-232 Control / Protocol 3000			
Baud Rate:	115,200	Parity:	None
Data Bits:	8	Command Format:	ASCII
Stop Bits:	1		
Example: (Set the Audio out volume level to 75): `#AUD-LVL 1,1,75`			
Default Ethernet Parameters			
IP Address:	192.168.1.39	UDP Port #:	50000
Subnet mask:	255.255.0.0	TCP Port #:	5000
Gateway:	0.0.0.0.		

Operating via the remote control switches

Momentarily connect the desired pin to the GND pin to select an input:

Pin Name	Function
KIT-400T	
SELECT	Short press – Select the input. Long press – Adjust the VGA phase shift.
IN 4	Select the IN 4 input on **KIT-400R**.
VOL UP	Increase the analog audio output level. Short press – Increase volume by one step. Long Press – Increase the volume from 0 to 100% in 10 seconds.
VOL DN	Decrease the analog audio output level. Short press – Decrease volume by one step. Long Press – Decrease the volume from 100% to 0 in 10 seconds.
KIT-400R	
TOGL	One button toggles between display on and display off (instead of using two separate buttons for on and off). Alternatively, using the **KIT-400R** OSD, configure turning the display on or off according to whether a switch is open or closed (for example, when using an occupancy sensor).
OFF	Turn off the display.
ON	Turn on the display.

KIT-400T

KIT-400R

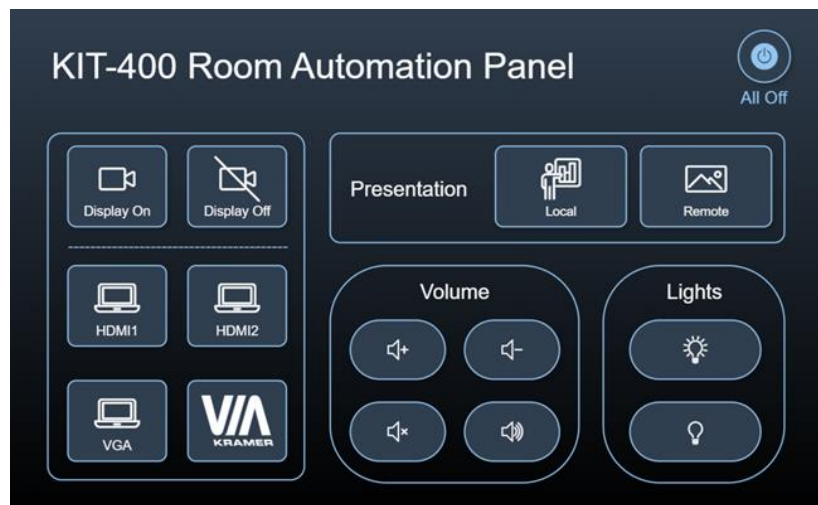## Operating via Room Automation Panel

Control **KIT-400** via any of Kramer's touch panels which include the **Kramer Aware** app (for example, **KT-1010**).

To operate KIT-400 via room automation panel:

1. Open Kramer Aware app on your touch panel.
2. Enter **KIT-400R** IP address. The KIT-400 default control screen appears.

You can change the default control screen configuration via the **KIT-400** embedded web pages.

(i) Kramer Aware App can be connected to **KIT-400** only if password protection (Authentication) is disabled. You can disable authentication via the **KIT-400** web page.