# **Owner's Manual**

# 4K HDMI Matrix Switch with Remote Control

Models: B119-4X2-4K, B119-4X4-4K

Este manual está disponible en español en la página de Tripp Lite: tripplite.com

Ce manuel est disponible en français sur le site Web de Tripp Lite : tripplite.com

Русскоязычная версия настоящего руководства представлена на веб-сайте компании Tripp Lite по адресу: tripplite.com

Dieses Handbuch ist in deutscher Sprache auf der Tripp Lite-Website verfügbar: tripplite.com

#### WARRANTY REGISTRATION

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#### **Package Contents**

- B119-4X2-4K or B119-4X4-4K HDMI Matrix Switch
- External Power Supply\* B119-4X2-4K: (Input: 100-240V, 50/60 Hz, 0.35A; Output: 5V, 2A) B119-4X4-4K: (Input: 100-240V, 50/60 Hz, 0.6A; Output: 5V, 3A)
- IR Extension Cable, 5 ft. (1.5 m)
- RS-232 Phoenix Adapter
- Mounting Hardware
- Remote Control
- Owner's Manual
- \* Plug Adapters (UK, AUS, EU, US) included

#### **Product Features**

- Allows any input to be routed to any output; or the same input to be routed to multiple outputs
- Switches between inputs via push buttons, remote control or RS-232 serial
- Extends the remote-control range, allows discreet placement of the matrix switch and maintains device switching functionality with included 5 ft. IR extension cable
- Monitors can be located up to 15 ft. from the switch
- Supports multi-video resolutions up to 4K @ 60 Hz
- HDCP 2.2, HDR and EDID compatible
- Mounting hardware included
- Plug and play—no software or drivers required
- Compatible with all operating systems
- Compliant with the Federal Trade Agreements Act (TAA) for GSA Schedule purchases

#### **Optional Accessories**

- P569-CERT Series 4K HDMI Cables with Ethernet
- P520-006 RS-232 Serial Extension Cable

### Mounting

The B119-4X2-4K and B119-4X4-4K include mounting hardware that allows them to be mounted in a variety of ways. The following images show the different ways the included mounting brackets can be attached.

**Note:** The model (B126-1A1 HDMI over Cat5 Receiver Unit) shown in the below images is for illustrative purposes only. Your product may vary by model number, size or port orientation. The mounting options for B119-4X2-4K and B119-4X4-4K are the same.

#### **Wall-Mount**



**19" Rack-Mount** 



**Pole-Mount** 



## **Standard Installation**

**Note:** The diagram below shows a B119-4X4-4K installation. The installation will be the same for the B119-4X2-4K, except for the number of ports.



- 1. Make sure all devices being connected are turned off.
- 2. Optional: Connect the RS-232 phoenix adapter to the RS-232 serial port on the switch, then to the serial port on the computer you will be using to control it.
- Connect the included IR extension cable to the unit's 3.5 mm IR jack. Position the cable's infrared sensor in an area that allows a direct line of sight between the sensor and the remote.
- **4.** Connect the first HDMI source to the port on the switch marked Source A.

**Note:** The HDMI cable connecting the source to the switch must be no longer than 15 ft. (4.5 m).

- **5.** Repeat step 3 to connect additional HDMI sources to the remaining ports.
- 6. Connect the external power supply to the switch and plug it into a Tripp Lite Surge Protector, Power Distribution Unit (PDU) or Uninterruptible Power Supply (UPS). When receiving power, the following LEDs will illuminate: green Power LED and orange Source LEDs (for the Source ports that have devices connected to them). Another green LED will illuminate to indicate the source that is being transmitted to each Output port.

### **Standard Installation**

**7.** Connect the first HDMI display to the port on the switch marked Output 1.

**Note:** The HDMI cable connecting the switch to a display must be no longer than 15 ft. (4.5 m).

- **8.** Repeat step 7 to connect additional displays to the remaining ports.
- **9.** Turn on the power to the connected devices. The video image should now be displayed on the connected monitors.
- **10.** Press the switch next to each set of Output LEDs to switch the source being displayed on the corresponding Output monitor. You can also use the included remote control to switch between sources. As with the switch next to the Output LEDs, press the button on the remote control of the desired Output port to switch the source being displayed.

**Note:** The same four-button remote control is included with both the B119-4x2-4K and B119-4X4-4K. See the RS-232 Serial Control section in this manual for details on controlling the switch using Terminal Emulation Software.

# **RS-232 Serial Control**

Before using RS-232 Serial Control, you must first go to the Terminal Emulation Software and update the COM port settings.



**1** Go to the *Setup* drop-down menu and select the *Serial port* option.

2 Select the COM port that is being used, and update the remaining settings as follows: Baud Rate (57600 or 9600), Data (8 bit), Parity (none), Stop (1 bit), Flow Control (none).

**Note:** The baud rate in the below image lists 57600; if 57600 does not work, this value should be changed to 9600.

Port:	COM3	•	OK
Baud rate:	57600	•	
<u>D</u> ata:	8 bit	•	Cance
P <u>a</u> rity:	none	•	
<u>S</u> top:	1 bit	•	Help
Elow control:	none	-	

### **RS-232 Serial Control**

3 Next, you will need to configure your software to allow input control. Go to the *Setup* drop-down menu and select the *Terminal* option.



4 Update the following settings: Receive (LF), Local Echo (enable). The remaining settings can stay as they are.

Terminal size	1.1.1.1.1.1	New-line	OK
98 X 3	9 <u>F</u>	Beceive LF +	
Term <u>size</u> = wir		rans <u>m</u> it: CR •	Cance
Terminal ID: VT10	0 - 0(	Local echo	Help
answerback:		Auto switch (VT<-	>TEK]
Answerback: Kanji (receive)	Kanji (trans		>TEK]
	Kanji (trans UTF-8		⇒тек] _{ \$В ~]

# **RS-232 Serial Control**

**5** Once these settings are updated, the Terminal Emulation Software will recognize the switch, allowing you to enter commands to control it. The following table lists the available commands:

Command	Action
Sw[x] [n]	Switches the source being displayed on the selected output. [x] is the output (1, 2, 3, or 4) and [n] is the desired source (A, B, C, or D). For example, a command of sw1 would display source B on output 1.
PWD	Turns power to the switch on/off.
STE	Displays the current output state and shows which source is being displayed on each output.

### Troubleshooting

If you are unable to get an acceptable image after following the installation instructions, try the troubleshooting tips below:

Is the external power supply included with the product connected and plugged into a working power source? For the product to function properly, it must be connected to and receiving power from the external power supply.

Was the power to the connected devices turned off prior to installation? If not, restart them.

What type of cabling are you using? Inferior cables can result in poor performance, so it is important to use cables that can support the video resolution you are trying to obtain. It is recommended you use Tripp Lite's P569-CERT Series 4K HDMI cables with Ethernet, as they have been tested to work with the B119-4K Series Matrix Switch products.

**Test your cables to ensure they are working properly.** For example, connect your HDMI cables between a source and monitor that you know works to ensure the cable is functioning properly.

Is the switch located in an area that exposes it to higher temperatures? If the product is overheated, it will not function properly.

**What HDMI cable length are you using?** The cable connecting an HDMI source to the switch must be no longer than 15 ft. (4.5 m) in length. The cable connecting the switch to a display must also be no longer than 15 ft. in length.

If you are having trouble getting the Terminal Emulation Software to recognize the switch, you may need to shut down your installation and start from the beginning. The RS-232 phoenix adapter must be wired and connected first. Otherwise, the switch will not be recognized.

If you are still having trouble getting your Terminal Emulation Software to recognize the switch, check to make sure that your serial settings are set according to the instructions in the RS-232 Serial Control section of this manual.

# **Specifications**

Max Distance to Display	Up to 15 ft. (4.6 m)
Max Supported Color Depth	8 bit
HDR Support	Yes
HDMI Specification	Version 2.0
Chroma Sub Sampling	4:4:4
HDCP	2.2
3D Video Support	Yes
Audio Specification	DTS, Dolby, 7.1 channel
Chipset	Yes
IR or RS-232 Extension Support	Both
Consumer Electronic Control (CEO) Support	Yes
Driver Required	No
Operating Temperature Range	32°F to 104°F (0°C to 40°C)
Storage Temperature Range	5°F to 122°F (-15°C to 50°C)
Relative Humidity	0% to 85%, Non-Condensing
Material Construction	Metal
Connector/Contact Plating	Nickel/Gold
External Power Supply*	B119-4X2-4K* Input: 100-240V, 50/60 Hz, 0.35A; Output: 5V, 2A B119-4X4-4K* Input: 100-240V, 50/60 Hz, 0.6A; Output: 5V, 3A

\* Plug Adapters (UK, AUS, EU, US) included

## **Warranty and Product Registration**

#### **3-Year Limited Warranty**

TRIPP LITE warrants its products to be free from defects in materials and workmanship for a period of three (3) years from the date of initial purchase. TRIPP LITE's obligation under this warranty is limited to repairing or replacing (at its sole option) any such defective products. To obtain service under this warranty, you must obtain a Returned Material Authorization (RMA) number from TRIPP LITE or an authorized TRIPP LITE service center. Products must be returned to TRIPP LITE or an authorized TRIPP LITE service center with transportation charges prepaid and must be accompanied by a brief description of the problem encountered and proof of date and place of purchase. This warranty does not apply to equipment which has been damaged by accident, negligence or misapplication or has been altered or modified in any way.

EXCEPT AS PROVIDED HEREIN, TRIPP LITE MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Some states do not permit limitation or exclusion of implied warranties; therefore, the aforesaid limitation(s) or exclusion(s) may not apply to the purchaser.

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Visit tripplite.com/warranty today to register your new Tripp Lite product. You'll be automatically entered into a drawing for a chance to win a FREE Tripp Lite product!\*

\* No purchase necessary. Void where prohibited. Some restrictions apply. See website for details.

## **Warranty and Product Registration**

#### FCC Notice, Class B

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- · Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Any changes or modifications to this equipment not expressly approved by Tripp Lite could void the user's authority to operate this equipment.

# WEEE Compliance Information for Tripp Lite Customers and Recyclers (European Union)



Under the Waste Electrical and Electronic Equipment (WEEE) Directive and implementing regulations, when customers buy new electrical and electronic equipment from Tripp Lite they are entitled to:

- Send old equipment for recycling on a one-for-one, like-for-like basis (this varies depending on the country)
- Send the new equipment back for recycling when this ultimately becomes waste

Use of this equipment in life support applications where failure of this equipment can reasonably be expected to cause the failure of the life support equipment or to significantly affect its safety or effectiveness is not recommended.

Tripp Lite has a policy of continuous improvement. Specifications are subject to change without notice. Photos and illustrations may differ slightly from actual products.



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