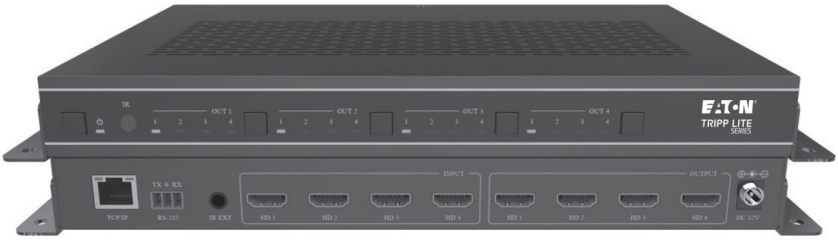
Owner's Manual

TRIPP LITE SERIES

4x4 HDMI Matrix Switch/Splitter – 4K 60 Hz

Model:
B119-4X4-4K6-VW



Purchased product
may differ from image.

Este manual está disponible en español en la página de Eaton:
Tripplite.Eaton.com/support

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Tripplite.Eaton.com/support

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Table of Contents

1. Safety Instructions

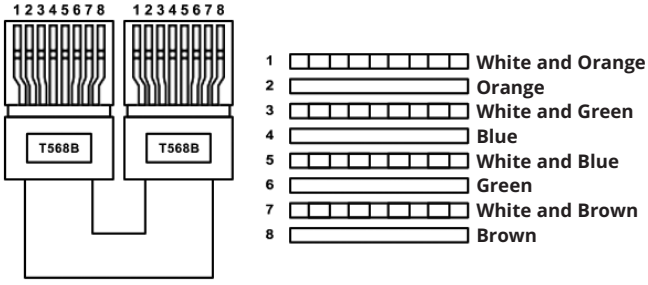
Thank you for purchasing the B119-4X4-4K6-VW. For optimum performance and safety, please read these instructions carefully before connecting, operating or adjusting this product. Please keep this manual for future reference.

Surge Protection Device Recommended

This product contains sensitive electrical components that may be damaged by electrical spikes, surges and other power interruptions. Use of surge protection systems is highly recommended in order to protect and extend the life of your equipment.

CAUTION

This product requires the use of UTP connectors. Please connect in direct interconnection method and do not cross-connect.



2. Introduction

The 4x4 HDMI Matrix Switch/Splitter is a multi-purpose high-speed video processing system that you can configure for two different output modes.

It features a web browser interface module for control and configuration of the unit when used stand-alone or with a third-party control system.

You can control the HDMI Matrix Switch/Splitter using front-panel buttons, the included IR remote, RS-232 commands or TCP/IP.

3. Product Features

- Features 2 operational modes: 4x4 matrix (seamless switch) and video wall (2x2, 4x1, 1x4, etc.)
- Video inputs support all industry-standard video resolutions, including VGA–WUXGA (up to 1920 × 1200 @ 60 Hz) and 480i–4K (3840 x 2160 @ 60 Hz 4:4:4, 4096 x 2160 @ 60 Hz 4:4:4)
- HDCP 2.2 and HDCP 1.4 compliant
- HDMI outputs support upscale or downscale to any resolution up to 4096 x 2160 @ 60 Hz 4:4:4
- Support LPCM, Dolby Digital, Dolby Digital Plus, DTS, Dolby TrueHD and DTS HD-master pass-through
- Advanced EDID management
- Web interface module for control and configuration of the unit
- Control via front-panel buttons, IR remote, RS-232 commands or TCP/IP
- Third-party drivers available for all major home control brands

4. Package Contents

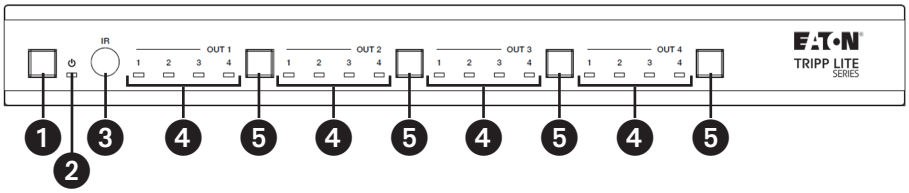
- 4x4 HDMI Matrix Switch/Splitter
- External Power Supply
- 12V 2.5A Locking Power Plug (AS/NZS 3112 Australia, BS 1363 U.K., CEE 7/16 Schuko, NEMA 1-15P North America)
- IR Remote
- 20–60KHz IR Wideband Receiver Cable, 5 ft. (1.5 m)
- 3-Pin 3.81 mm Phoenix Connector
- (4) KM 3x4 Machine Screws
- (2) Mounting Ears
- User Documentation

5. Specifications

Technical	
HDMI Compliance	HDMI 2.0b
HDCP Compliance	HDCP 2.2/1.4
Video Bandwidth	594 MHz/18 Gbps
Video Resolution	Input: VGA–WUXGA (up to 1920 × 1200 @ 60 Hz) and 480i–4K (3840 x 2160 @ 60 Hz 4:4:4, 4096 x 2160 @ 60 Hz 4:4:4) Output: 4096 x 2160p @ 60 Hz, 4096 x 2160p @ 50 Hz, 3840 x 2160p @ 60 Hz, 3840 x 2160p @ 50 Hz, 3840 x 2160p @ 30 Hz, 1920 x 1080p @ 60 Hz, 1920 x 1080p @ 50 Hz, 1920 x 1080i @ 60 Hz, 1920 x 1080i @ 50 Hz, 1920 x 1200p @ 60 Hz, 1360 x 768p @ 60 Hz, 1280 x800p @ 60 Hz, 1280 x720p @ 60 Hz, 1280 x 720p @ 50 Hz, 1024 x768p @ 60 Hz, Auto
Color Space	RGB, YCbCr_4:4:4, YCbCr_4:2:2, YCbCr_4:2:0
Color Depth	8/10/12 bit
IR Level	12Vp-p
IR Frequency	38 kHz
HDMI Audio Formats	LPCM, Dolby Digital/Plus/EX, Dolby True HD, DTS, DTS-EX, DTS-96/24, DTS High Res, DTS-HD Master Audio
Connection	
Input Ports	4 × HDMI [Type A, 19-pin female]
Output Ports	4 × HDMI [Type A, 19-pin female]
Control Ports	1 × RS-232 [3-pin 3.81mm Phoenix Connector] 1 × IR EXT [3.5 mm, Stereo Mini-Jack] 1 x TCP/IP (RJ45)
Mechanical	
Housing	Metal
Color	Black
Dimensions (H x W x D)	1.2 x 10.6 x 6.5 in. / 30 x 270 x 166 mm
Weight	2.6 lb. / 1165 g
Power Supply	Input: AC 100–240V, 50/60 Hz Output: DC 12V 2.5A (US/EU Standard, CE/FCC/UL Certified)
Power Consumption	19.56W (Max)
Operating Temperature	32° - 104°F / 0° - 40°C
Storage Temperature	-4° - 140°F / -20° - 60°C
Relative Humidity	20% - 90% RH (Non-Condensing)

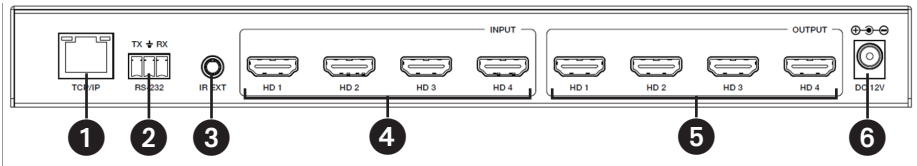
6. Operation Controls and Functions

6.1 Front Panel



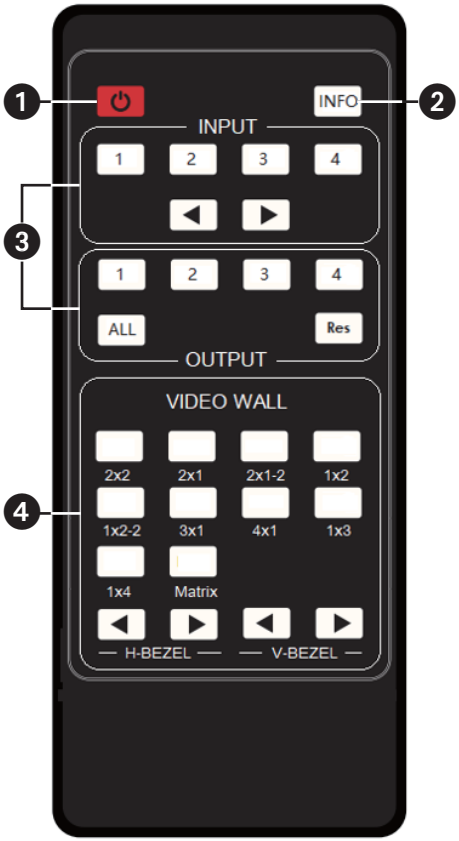
1. **Power Button:** Short-press to power on the unit. In power-on status, press for 1 second to enter standby status.
2. **Power LED:** Lights green during normal operation. Lights red during standby status.
3. **IR Window:** IR signal receiving window.
4. **Signal Source LED:** Indicates OUT 1–OUT 4 ports.
5. **Input Source Switching Button:** Switches between OUT 1–OUT 4 ports.

6.2 Rear Panel



1. **TCP/IP:** Link port for TCP/IP control connects to an active Ethernet link with an RJ45 Ethernet cable.
2. **RS-232 3-Pin Phoenix Connector:** Connects to a PC or control system for serial port upgrade or RS-232 command control.
3. **IR EXT:** IR signal receiving port connects to included IR Receiver cable. If the IR signal receiving window (see **6.1 Front Panel**) is blocked or the unit is installed in a closed area out of infrared line-of-sight, the IR receiver cable can be connected to this port to receive the IR remote signal.
4. **HDMI Input:** HDMI signal input ports connect to the signal source devices.
5. **HDMI Output:** HDMI signal output ports connect to the HDMI displays.
6. **DC 12V:** Connects to included external power supply.

7. IR Remote



1. **Power On or Standby:** Power on the device or set it to standby mode.
2. **INFO:** Displays the serial port baud rate and IP address in the upper-right corner of the screen (information will disappear after 5 seconds).
3. **INPUT/OUTPUT**
   - **INPUT 1/2/3/4:** Select the signal input channel.
   - ◀▶: Select the last or next signal input channel.
   - **OUTPUT 1/2/3/4:** Select the signal output channel.
   - **ALL:** Select all output channels simultaneously. For example, when you press the "ALL" button and then press INPUT "1" button, the input "1" source will be output to all display devices.

     Note: *After the matrix is turned on, the ALL key is selected by default. For example, after turning on the matrix, press the INPUT 1 button directly, and the INPUT 1 signal will be output to all display devices simultaneously.*
   - **Res:** Press this button to switch output channel resolution.
     - **Matrix Mode:** Press OUTPUT 1/2/3/4 or ALL, then press Res to switch the output resolution circularly.
     - **Video Wall Mode:** Press Res directly to switch the output resolution for four output channels simultaneously.
   - **Operation Instruction:** You need to press the OUTPUT button first and then press the INPUT button to select the corresponding input source. For example, press OUTPUT-X (X means output button from 1 to 4, including "ALL" button), then press INPUT-Y (Y means input button from 1 to 4).

7. IR Remote

❹ VIDEO WALL:

- **Video Wall Mode Selection:** Press to enter corresponding mode.
- Source selection for the video wall group:
  - o Press OUTPUT 1/2/3/4 or ◀▶ to select the video wall group first, then press INPUT 1/2/3/4 or ◀▶ to select the input source.
  - o Bezel Adjustment: Press ◀▶ of H-BEZEL / V-BEZEL to adjust the bezel.

8. IR Cable Pin Assignment

Note: *When the angle between the IR receiver and the remote control is ±45°, the transmission distance is 0–5 meters. When the angle between the IR receiver and the remote control is ±90°, the transmission distance is 0–8 meters.*

9. EDID Management

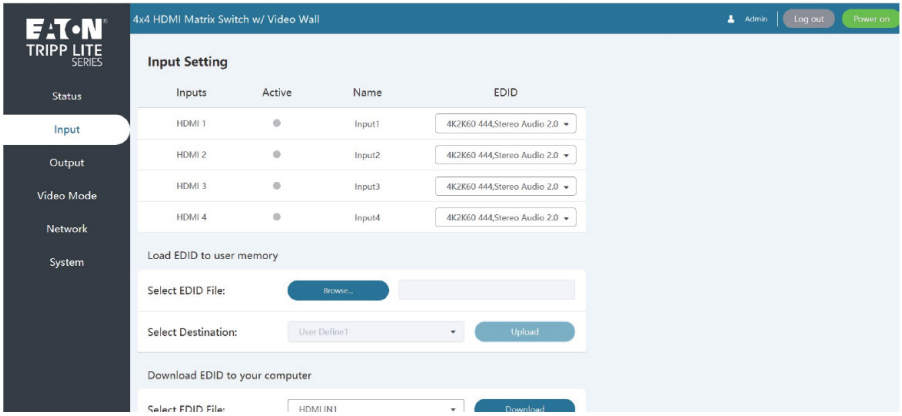
This HDMI Matrix Switch/Splitter has 12 factory-defined EDID settings, two user-defined EDID modes and four copy EDID modes. You can select a defined EDID mode or copy EDID mode to input port through RS-232 control or Web GUI.

RS-232 Control Operation

Connect the HDMI Matrix Switch/Splitter to a PC with a serial cable, then open a Serial Command tool on the PC to send an ASCII command "s edid in x from z!" to set EDID. For details, refer to EDID Setting in the ASCII command list of **12. RS-232 Control Command**.

Web GUI Operation

Check the EDID management in the Input section of **11. Web GUI User Guide**.



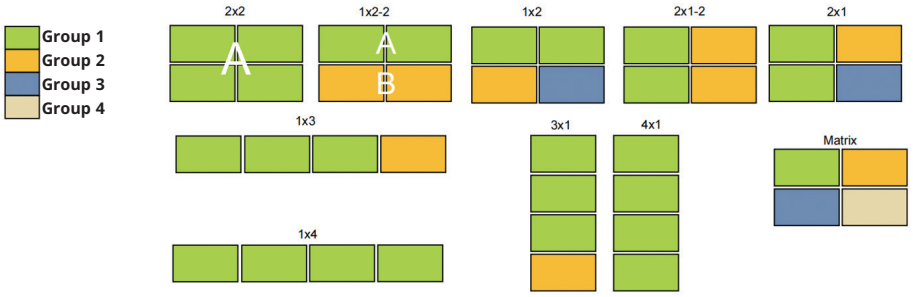
The defined EDID setting list of the product is shown as below:

EDID Mode	EDID Description
1	4k2k60_444, stereo audio 2.0
2	4k2k60_444, Dolby/DTS 5.1
3	4k2k60_444, HD audio 7.1
4	4k2k30_444, stereo audio 2.0
5	4k2k30_444, Dolby/DTS 5.1
6	4k2k30_444, HD audio 7.1
7	1080p, stereo audio 2.0
8	1080p, Dolby/DTS 5.1
9	1080p, HD audio 7.1

EDID Mode	EDID Description
10	1920x1200, stereo audio 2.0
11	1360x768, stereo audio 2.0
12	1024x768, stereo audio 2.0
13	user define1
14	user define2
15	copy from HDMI output 1
16	copy from HDMI output 2
17	copy from HDMI output 3
18	copy from HDMI output 4

10. Video Wall

The HDMI Matrix Switch/Splitter supports 10 categories of display modes as below:



You can select display modes via IR remote, Web GUI or RS-232 commands.

11. Web GUI User Guide

You can control the HDMI Matrix Switch/Splitter by Web GUI. Before connecting and logging into the Web GUI, you must obtain the current IP address. TThe default IP address is 192.168.0.100. You can get the current Matrix IP address in two ways:

- Remote controller: Press "INFO" button on the remote control, and the IP address will show the upper right corner of the screen.
- RS-232 control: Send the ASCII command " r ip addr!" through a Serial Command tool, then you'll get the feedback information as shown below:

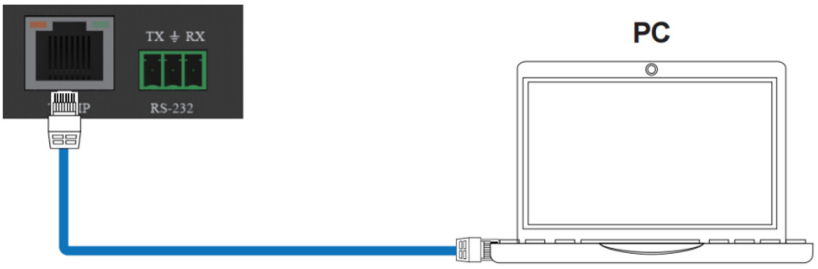
ip address: 192.168.0.100

IP:192.168.0.100 in the above figure is the current Matrix IP address (this IP address is variable, depending on what the specific machine returns). For the details of RS-232 control, please refer to **11. RS-232 Control Command**.

The HDMI Matrix Switch/Splitter supports connecting and logging into the Web GUI through PC or MacBook. The specific device connection and setup methods are as follows:

Connect via PC

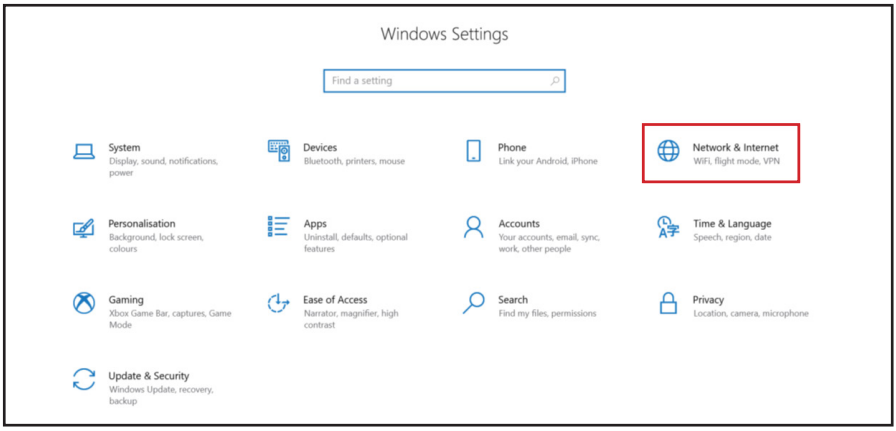
Step 1: Connect the TCP/IP port of the HDMI Matrix Switch/Splitter to a PC with a UTP cable (as shown in the following figure), and connect the Switch/Splitter's power supply to an AC outlet.

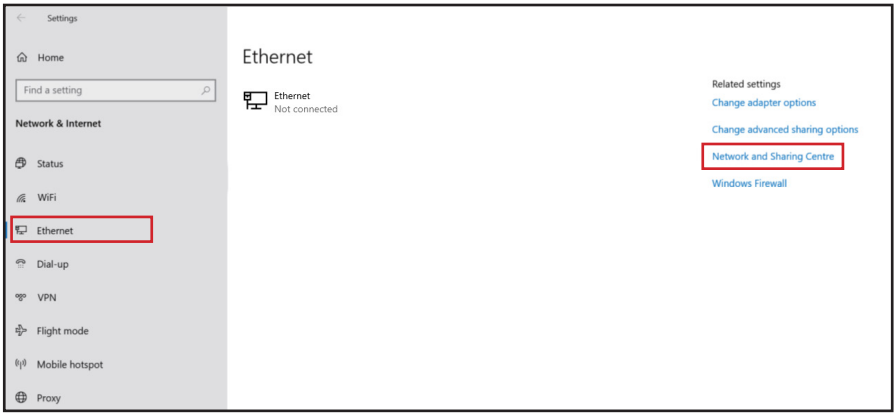


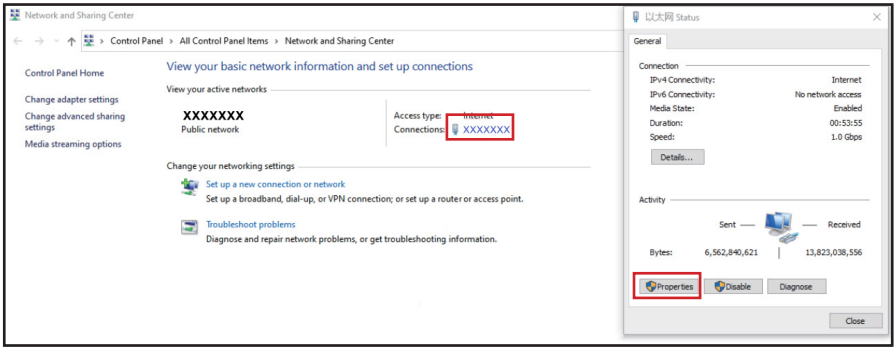
Step 2: Modify the PC's IP address to 192.168.0.xxx, so that it is in the same network segment as the HDMI Matrix Switch/Splitter. For example, if the Switch/Splitter's IP address is 192.168.0.100, the PC's IP address can be changed to 192.168.0.12. Specific operation steps are shown in the following figures.

11. Web GUI User Guide

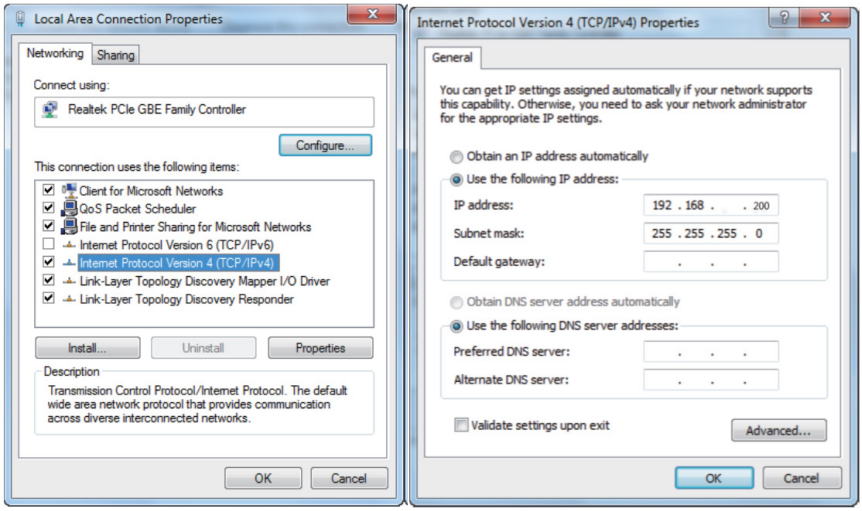
First, open Settings in Windows.





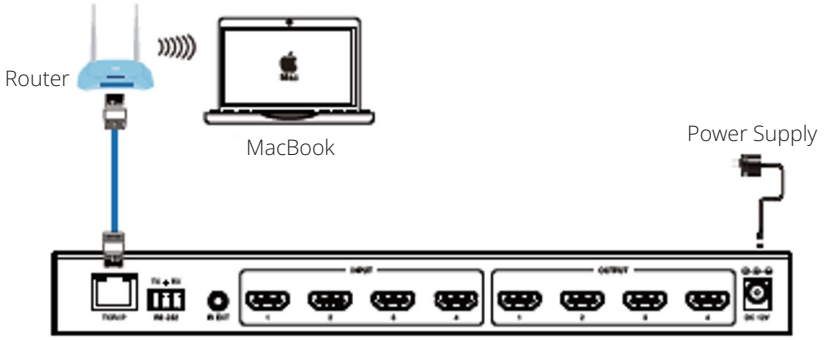


11. Web GUI User Guide



Connect via MacBook

Step 1: Connect the TCP/IP port of the HDMI Matrix Switch/Splitter to the router with a UTP cable (as shown in the following figure), and connect the Switch/Splitter's power supply to an AC outlet.



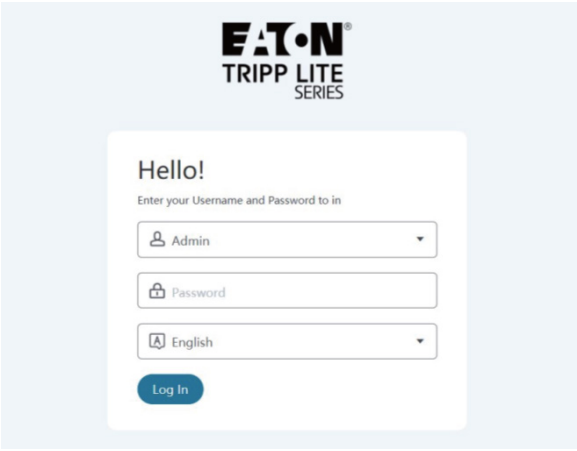
Step 2: Connect the router's wi-fi on the MacBook. Then, modify the MacBooks's IP address to 192.168.0.xxx, so that it is in the same network segment as the HDMI Matrix Switch/Splitter. For example, if the Switch/Splitter's IP address is 192.168.0.100, the MacBooks's IP address can be changed to 192.168.0.12.

To change the IP address, select System Settings in the Apple dropdown menu. Click Network, and then Wi-Fi. Click Details, and then TCP/IP. From there, you will be able to manually change the MacBook's IP address.

11. Web GUI User Guide

Logging In

Enter the HDMI Matrix Switch/Splitter's IP address into the PC or MacBook's web browser to access the Web GUI page.



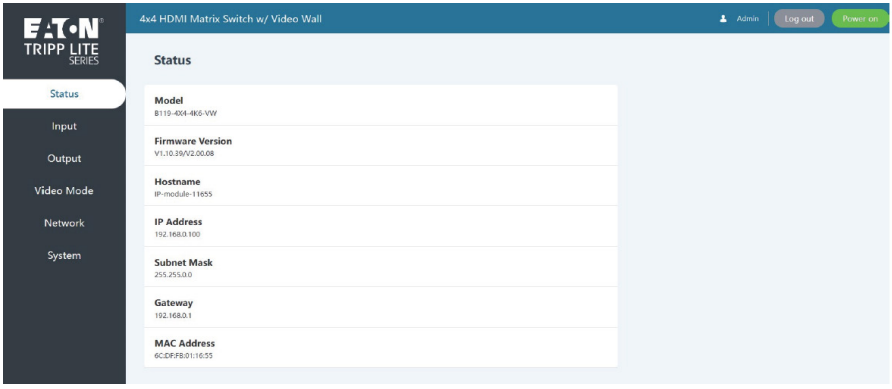
Select the language from the drop-down list to choose English or Simple Chinese. Select the username from the drop-down list and enter the password. The default passwords are:

Username	Password
Admin	admin
User	user

After entering the password, click the "Log In" button to access the Web GUI main page.

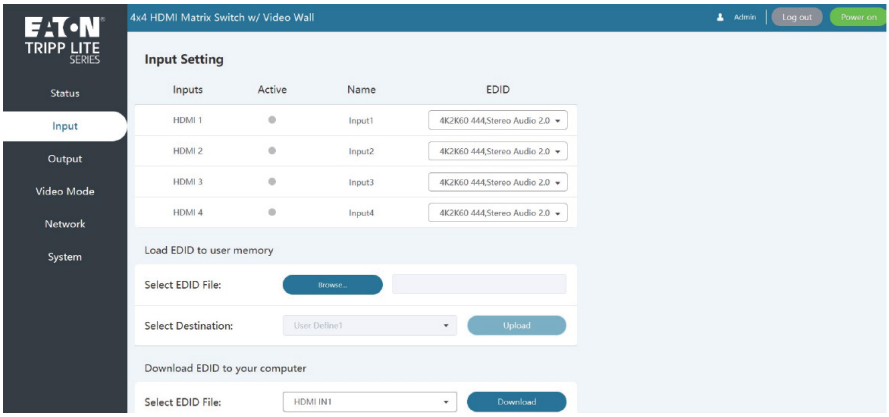
Status Page

The Status Page provides basic information about the product model, installed firmware version and network settings of the device.



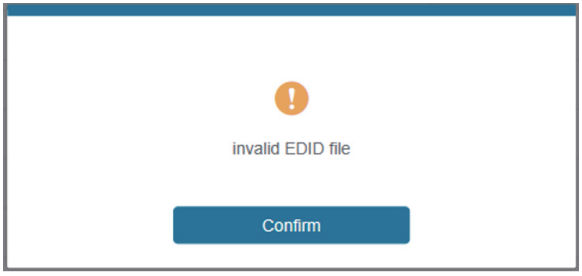
11. Web GUI User Guide

Input Page



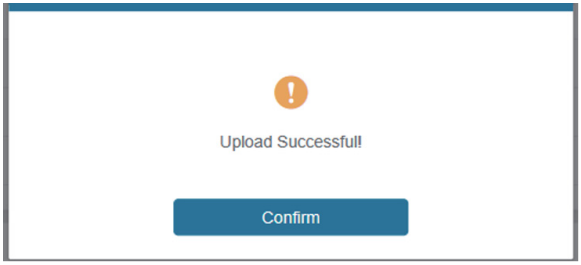
You can do the following operations on the Input page:

- **Inputs:** Input channel of the device.
- **Active:** Indicates whether the channel is connected to a signal source. When the input port is connected to the signal, it shows green. Otherwise, it shows gray.
- **Name:** You can modify the input channel's name by entering the corresponding name (max length: 32 characters) in the input box.
- **EDID:** You can set the current channel's EDID. Click the drop-down list to select.
- **Load EDID to User Memory:** Set EDID for the User. Click the "Browse" button, then select the bin file. If you select the wrong EDID file, there will be a prompt, as shown in the following figure:



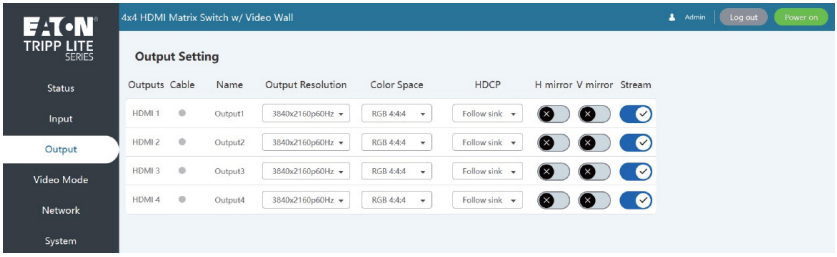
11. Web GUI User Guide

Make sure to select the correct file, then you can check the name of the selected file. Select “User 1” or “User 2”, then click “Upload”. After successful setting, it will prompt as follows:



- **Download EDID to Your Computer:** Click “Select EDID File” in the drop-down menu to select the corresponding input channel. Then click “Download” to download the corresponding EDID file.

Output Page



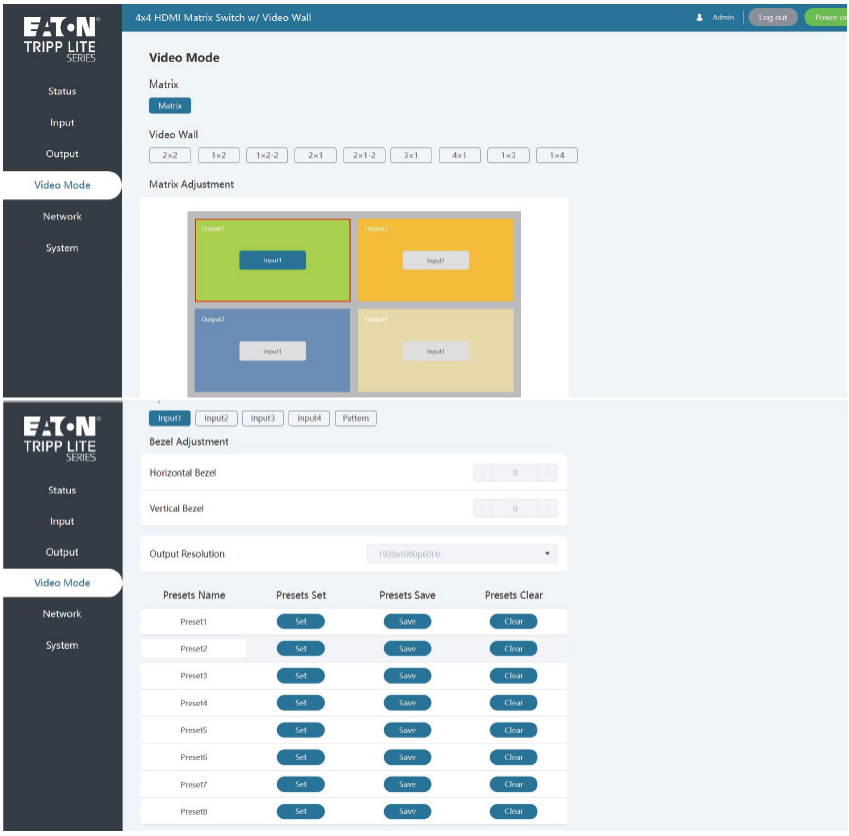
You can do the following operations on the Output page:

- **Outputs:** Output channel of the device.
- **Cable:** It indicates the connection status of output ports. When the output port is connected to the display, it shows green. Otherwise, it shows gray.
- **Name:** You can modify the output channel’s name by entering the corresponding name (max length: 32 characters) in the input box.
- **Output Resolution:** Set the current output resolution mode. Click the drop-down list to select other resolutions.
- **Color Space:** Set the color space of the output signal.
- **HDCP:** Set the HDCP version that the current output port supports.
- **H Mirror:** Turn on/off the horizontal mirroring of the output signal.
- **V Mirror:** Turn on/off the vertical mirroring of the output signal.
- **Stream:** Turn on/off the signal output stream of the output port.

  Note: *User cannot set each output resolution separately in video wall mode.*

11. Web GUI User Guide

Video Mode Page



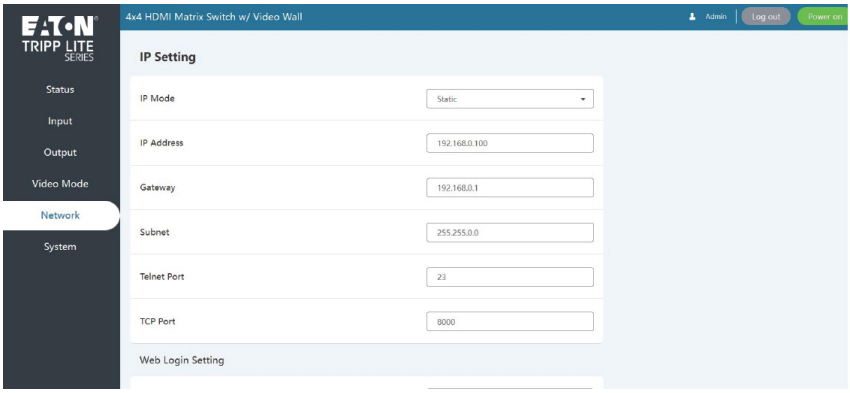
You can do the following operations on the Video page:

- **Matrix:** Click to select the Matrix mode.
- **Video Wall:** Click to select any video wall mode.
- **Matrix/Video Wall Adjustment:** Display the input and output information.
- **Input Source:** Two methods to select the input source:
  - o **Method 1:** Drag Input 1/2/3/4/Pattern to any window of Matrix/Video Wall Adjustment.
  - o **Method 2:** Select any window in Matrix/Video Wall Adjustment, then click Input 1/2/3/4/ Pattern in Input Source, or click ◀▶ to select the last or next signal source.
- **Bezel Adjustment:** Click +/- to adjust the corresponding Horizontal/Vertical Bezel (up to 10 levels).
- **Output Resolution:** Set the resolution of all current output ports. Click the drop-down list to select.

11. Web GUI User Guide

- **Preset:** Set, save and clear the preset scenario as required, supporting up to 8 presets. You can modify the name of the preset by entering the corresponding name (max length: 32 characters) in the input box.

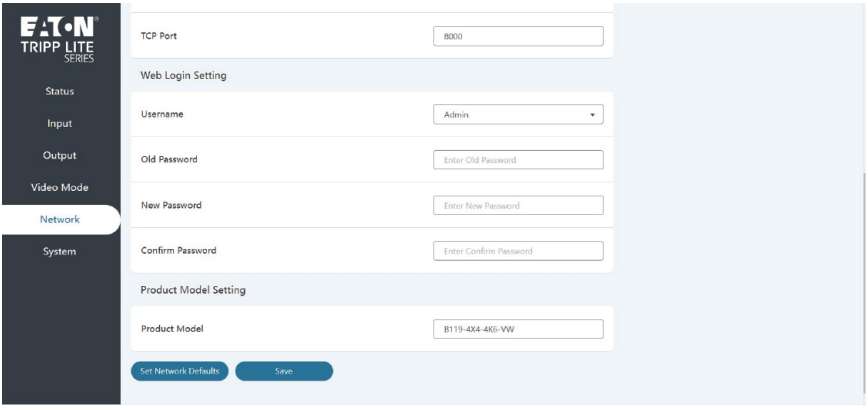
Network Page



You can do the following operations on the Network page:

Modify Network Setting

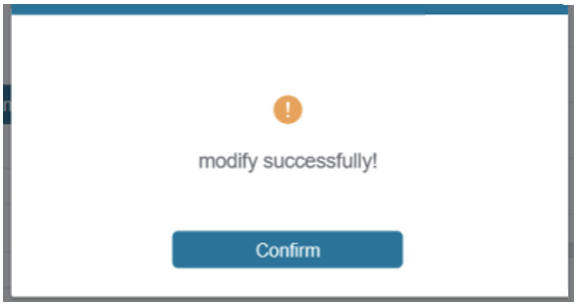
Modify the IP Mode Address/Gateway/Subnet Mask/Telnet Port as required, and click “Save” to save the settings. After modification, if the Mode is “Static”, it will switch to the corresponding IP Address. If the Mode is “DHCP”, it will automatically search and switch to the IP Address assigned by the router.



11. Web GUI User Guide

Modify User Password

Click the "User" button, enter the correct Old Password and New Password, confirm the New Password, then click "Save". After successful modification, there will be a prompt, as shown in the following figure:

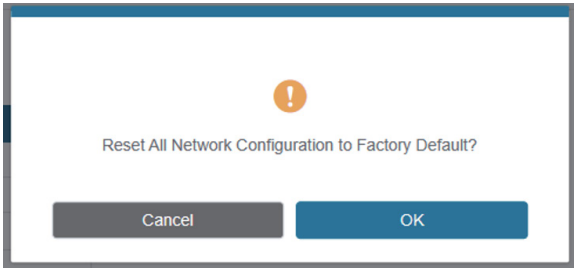


Note: *Input rules for changing passwords:*

- *New password can't be empty.*
- *New Password can't be the same as Old Password.*
- *New Password and Confirm Password must be the same.*

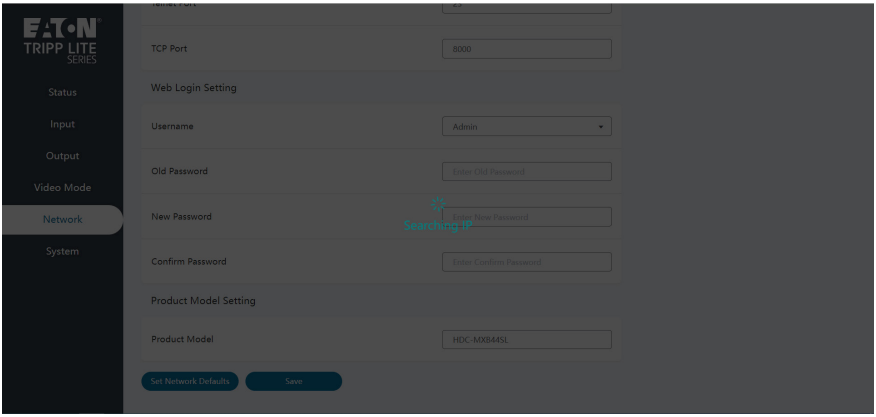
Set the Default Network

Click the "Set Network Defaults" button. You will see a prompt, as shown in the following figure:



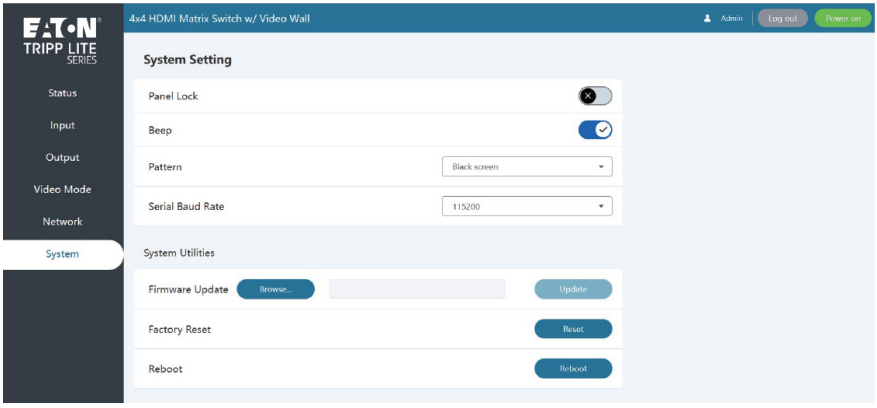
11. Web GUI User Guide

Click “OK” to search the IP Address again, as shown in the following figure:



After searching is completed, it will switch to the login page, and the default network setting is completed.

System Page



11. Web GUI User Guide

You can do the following operations on the System page:

- **Panel Lock:** Click to lock/unlock panel buttons. “ON” indicates that panel buttons are unavailable. “OFF” indicates panel buttons are available.
- **Beep:** Click to turn the beep on or off.
- **Pattern:** Click to select one of 6 patterns.
- **Serial Baud Rate:** Click the value to set the Serial Baud Rate.
- **Firmware Update:** Click “Browse” to select the update file, then click “Update” to complete firmware update.
- **Factory Reset:** You can reset the machine to factory defaults by clicking “Reset”.
- **Reboot:** You can reboot the machine by clicking “Reboot”.

  Note: *After reset/reboot, it will switch to the login page.*

12. RS-232 Control Command

The HDMI Matrix Switch/Splitter supports RS-232 command control. Connect its RS-232 port to a PC with a 3-pin Phoenix connector cable and an RS-232-to-USB cable. The connection method is as follows:

Then, open a Serial Command tool on PC to send ASCII command to control the device. The ASCII command list is shown below.

ASCII Command			
Serial port protocol: Baud rate: 115200 (default)	Data bits: 8	Stop bits: 1	Check bit: 0
x - Parameter 1, y - Parameter 2, z - Parameter 3, ! - Delimiter			

Command Code	Function Description	Example	Feedback	Default Setting
System Setting				
help!	Lists all commands	help!		
r status!	Get device current status	r status!	get the unit all status: power, beep, lock, in/out connection, video/audio crosspoint, EDID, scaler, network status	
r type!	Get device model	r type!	4x4 HDMI seamless matrix	
r fw version!	Get firmware version	r fw version!	mcu fw version x.xx.xx	
s power z!	Power on/off the device, z=0~1 (z=0 power off, z=1 power on)	s power 1!	power on system initializing... initialization finished! mcu fw version x.xx.xx	
r power!	Get current power state	r power!	power on/power off	
s beep z!	Enable/disable buzzer function, z=0~1(z=0 beep off, z=1 beep on)	s beep 1!	beep on/beep off	beep on
r beep!	Get buzzer state	r beep!	beep on/beep off	beep on
s lock z!	Lock/unlock front panel button, z=0~1(z=0 lock off,z=1 lock on)	s lock 1!	panel button lock on panel button lock off	panel button lock off
r lock!	Get panel button lock state	r lock!	panel button lock on/off	

12. RS-232 Control Command

Command Code	Function Description	Example	Feedback	Default Setting
s reboot!	Reboot the device	s reboot!	reboot... system initializing... initialization finished! mcu fw version x.xx.xx	
s reset!	Reset to factory defaults	s reset!	reset to factory defaults system initializing... initialization finished! mcu fw version x.xx.xx	
s save preset z!	Save preset z scenarios (z=1~8)	s save preset 1!	save to preset 1!	
s recall preset z!	Call saved preset z scenarios (z=1~8)	s recall preset 1!	recall from preset 1	
s clear preset z!	Clear preset z scenarios (z=1~8)	s clear preset 1!	clear preset 1!	
r preset z!	Get preset z information (z=1~8)	r preset 1!	video/audio crosspoint	
Output Setting				
s in x av out y!	Set input x to output y~x=1~4~ y=0~4(0=all)	s in 1 av out 2!	input 1 -> output 2	ptp
r av out y!	Get output y signal status y=0~4(0=all)	r v out 0!	input 1 -> output 1 input 2 -> output 2 ..... input 4 -> output 4	
s output y res x!	Set output y resolution (y=0~4, x=1~16) y=0. output all y=1. output 1 y=2. output 2 y=3. output 3 y=4. output 4 1. 4096x2160p60, 2. 4096x2160p50, 3. 3840x2160p60, 4. 3840x2160p50, 5. 3840x2160p30, 6. 1920x1080p60, 7. 1920x1080p50, 8. 1920x1080i60, 9.1920x1080i50, 10. 1920x1200p60rb, 11.1360x768p60, 12.1280x800p60, 13.1280x720p60, 14.1280x720p50, 15.1024x768p60, 16. auto			

12. RS-232 Control Command

Command Code	Function Description	Example	Feedback	Default Setting
r output y res!	Get output y resolution(y=0~4) y=0. output all y=1. output 1 y=2. output 2 y=3. output 3 y=4. output 4	s output 1 csc 1!	output 1 resolution: 3840x2160p60	
s output y csc x!	Set output y color space (y=0~4, x=1~4) y=0. output all y=1. output 1 y=2. output 2 y=3. output 3 y=4. output 4 x=1. rgb444 x=2. ycbcr444 x=3. ycbcr422 x=4. ycbcr420	s output 1 csc 1!	output 1 csc: rgb444	rgb444
r output y csc!	Get output y color space status. (y=0~4) y=0. output all y=1. output 1 y=2. output 2 y=3. output 3 y=4. output 4	r output 1 csc!	output 1 csc: rgb444	
s output y hdcp x!	Set output hdcp(y=0~4, x=1~4) y=0. output all y=1. output 1 y=2. output 2 y=3. output 3 y=4. output 4 x=1. hdcp 1.4 x=2. hdcp 2.2 x=3. follow sink x=4. follow source	s output 1 hdcp 1!	output 1 hdcp: hdcp 1.4	hdcp1.4
r output y hdcp!	Get output y hdcp status.(y=0~4) y=0. output all y=1. output 1 y=2. output 2 y=3. output 3 y=4. output 4	r output 1 hdcp!	output 1 hdcp: hdcp 1.4	
s output y hmirror x!	Set output y h mirror(y=0~4,x=0,1) y=0. output all y=1. output 1 y=2. output 2 y=3. output 3 y=4. output 4 x=0. h mirror off x=1. h mirror on	s output 1 hmirror 1!	output1 h mirror on	output 1 h mirror off output 2 h mirror off output 3 h mirror off output 4 h mirror off

12. RS-232 Control Command

Command Code	Function Description	Example	Feedback	Default Setting
s output y vmirror x!	set output y v mirror(y=0~4,x=0,1) y=0. output all y=1. output 1 y=2. output 2 y=3. output 3 y=4. output 4 x=0. v mirror off x=1. v mirror on	s output 1 vmirror 0!	output1 v mirror off	output 1 v mirror off output 2 v mirror off output 3 v mirror off output 4 v mirror off
r output y mirror!	Get output y mirror status(y=0~4) y=0. output all y=1. output 1 y=2. output 2 y=3. output 3 y=4. output 4	r output 0 mirror!	output 1 h mirror on, v mirror off output 2 h mirror on, v mirror off output 3 h mirror on, v mirror off output 4 h mirror on, v mirror off	
s output y stream x!	Set output y stream enable/disable (y=0~4, x=0~1) y=0. output all y=1. output 1 y=2. output 2 y=3. output 3 y=4. output 4 x=0. stream disable x=1. stream enable	s output 1 stream 1!	output 1 stream: enable	enable
r output y stream!	Get output y stream status. (y=0~4) y=0. output all y=1. output 1 y=2. output 2 y=3. output 3 y=4. output 4	r output 1 stream!	output 1 stream: enable	
s output bg x!	Set output no signal background display mode (x=1~6) x=1. black screen x=2. blue screen x=3. color bar x=4. gray scale x=5. cross x=6. cross hatch	s output bg 1!	output background: black screen	black screen
r output bg!	Get output no signal background display mode	r output bg!	output background: black screen	

12. RS-232 Control Command

Command Code	Function Description	Example	Feedback	Default Setting
EDID Setting				
s edid in x from z!	Set hdmi input x edid mode (x=0~4,z=1~18) x=0. all input x=1. input1 x=2. input2 x=3. input3 x=4. input4 z=1. 4k2k60_444,stereo audio 2.0 z=2. 4k2k60_444,dolby/dts 5.1 z=3. 4k2k60_444,hd audio 7.1 z=4. 4k2k30_444,stereo audio 2.0 z=5. 4k2k30_444,dolby/dts 5.1 z=6. 4k2k30_444,hd audio 7.1 z=7. 1080p,stereo audio 2.0 z=8. 1080p,dolby/dts 5.1 z=9. 1080p,hd audio 7.1 z=10. 1920x1200, stereo audio 2.0 z=11. 1360x768, stereo audio 2.0 z=12. 1024x768, stereo audio 2.0 z=13. user define1 z=14. user define2 z=15. copy from hdmi output 1 z=16. copy from hdmi output 2 z=17. copy from hdmi output 3 z=18. copy from hdmi output 4	s edid in 1 from 1! s edid in 0 from 1!	input 2 edid:1080p, stereo audio 2.0 all inputs edid:1080p, stereo audio 2.0	4k2k60_444, stereo audio 2.0
r edid in x!	Get input x edid mode(x=0~4) x=0. all input x=1. input1 x=2. input2 x=3. input3 x=4. input4	r edid in 0!	input 1 edid: 4k2k60_444, stereo audio 2.0 input 2 edid: 4k2k60_444, stereo audio 2.0 input 3 edid: 4k2k60_444, stereo audio 2.0 input 4 edid: 4k2k60_444, stereo audio 2.0	

12. RS-232 Control Command

Command Code	Function Description	Example	Feedback	Default Setting
Video Wall Setting				
s tw mode x!	Set tv wall display mode(x=1~10) x=1. 2x2 mode x=2. 2x1 mode x=3. 2x1-2 mode x=4. 1x2 mode x=5. 1x2-2 mode x=6. 3x1 mode x=7. 4x1 mode x=8. 1x3 mode x=9. 1x4 mode x=10. matrix mode	s tw mode 1!	tv wall mode: 2x2	tv wall mode: 2x2
r tw mode!	Get tv wall display mode	r tw mode!	tv wall mode: 2x2	
s tw h bezel x!	set tv wall horizontal bezel (x=0~10,+,-)	s tw h bezel 0!	tv wall horizontal bezel: 0	tv wall horizontal bezel: 0
r tw h bezel!	Get tv wall row bezel	r tw h bezel!	tv wall horizontal bezel: 0	
s tw v bezel x!	Set tv wall vertical bezel (x=0~10,+,-)	s tw v bezel 0!	tv wall vertical bezel: 0	tv wall vertical bezel: 0
r tw v bezel!	Get tv wall vertical bezel	r tw v bezel!	tv wall vertical bezel: 0	
s tw group y i nput x!	Set tv wall group y display which source input(y=0~4, x=1~4) y=0. tv wall group all y=1. tv wall group 1 y=2. tv wall group 2 y=3. tv wall group 3 y=4. tv wall group 4 x=1. hdmi input 1 x=2. hdmi input 2 x=3. hdmi input 3 x=4. hdmi input 4	s tw group 1 input 1!	tv wall group 1 input: hdmi input 1	tv wall group 1 input: hdmi input 1
r tw group y source!	Get tv wall group y display which source input(y=0~4) y=0. tv wall group all y=1. tv wall group 1 y=2. tv wall group 2 y=3. tv wall group 3 y=4. tv wall group 4	r tw group 0 source!	tv wall group 1 input: hdmi input 1 tv wall group 2 input: hdmi input 2 tv wall group 3 input: hdmi input 3 tv wall group 4 input: hdmi input 4	

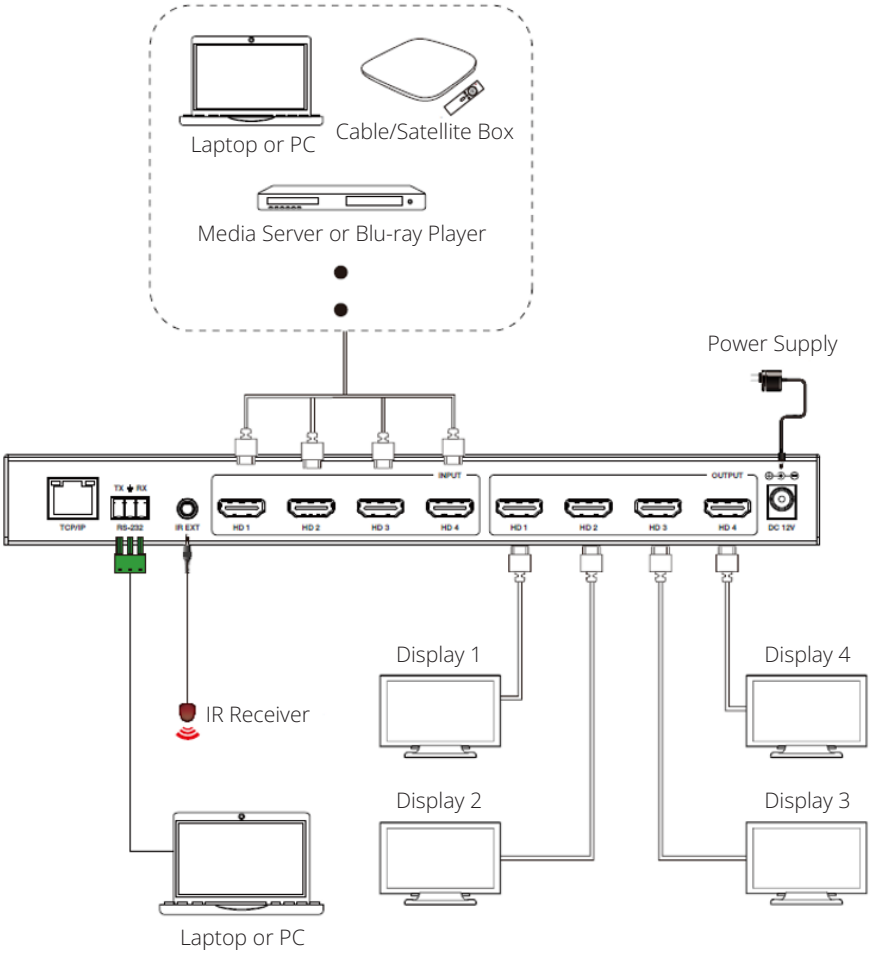
12. RS-232 Control Command

Command Code	Function Description	Example	Feedback	Default Setting
s tw res x!	Set tv wall resolution (x=1~15) 1. 4096x2160p60, 2. 4096x2160p50, 3. 3840x2160p60, 4. 3840x2160p50, 5. 3840x2160p30, 6. 1920x1080p60, 7. 1920x1080p50, 8. 1920x1080i60, 9.1920x1080i50, 10. 1920x1200p60rb, 11.1360x768p60, 12.1280x800p60, 13.1280x720p60, 14.1280x720p50, 15.1024x768p60,	s tw res 3!	tv wall resolution: 3840x2160p60	3840x2160 p60
r tw res!	Get tv wall resolution	r tw res!	tv wall resolution: 3840x2160p60	3840x2160 p60
Network Setting				
r ipconfig!	Get the current ip configuration	r ipconfig !	ip mode: static ip: 192.168.0.100 subnet mask: 255.255.255.0 gateway: 192.168.0.1 tcp/ip port=8000 telnet port=23 mac address: 00:1c:91:03:80:01	
r mac addr!	Get network mac address	r mac addr!	mac address: 00:1c:91:03:80:01	
s ip mode z!	Set network ip mode to static ip or dhcp,z=0~1 (z=0 static, z=1 dhcp)	s ip mode 0!	set ip mode:static. (please use "s net reboot!" command or repower device to apply new config!)	
r ip mode!	Get network ip mode	r ip mode!	ip mode: static	
s ip addr xxx.xxx.xxx.xxx!	Set network ip address	s ip addr 192.168.0.100!	set ip address: 192.168.0.100 (please use "s net reboot!" command or repower device to apply new config!) dhcp on, device can't config static address, set dhcp off first.	
r ip addr!	Get network ip address	r ip addr!	ip address: 192.168.0.100	

12. RS-232 Control Command

Command Code	Function Description	Example	Feedback	Default Setting
s subnet xxx.xxx.xxx.xxx!	Set network subnet mask	s subnet 255.255.255.0!	set subnet mask: 255.255.255.0 (please use "s net reboot!" command or repower device to apply new config!) dhcp on, device can't config subnet mask, set dhcp off first.	
r subnet!	Get network subnet mask	r subnet!	subnet mask: 255.255.255.0	
s gateway xxx.xxx.xxx.xxx!	Set network gateway	s gateway 192.168.0.1!	set gateway: 192.168.0.1 (please use "s net reboot!" command or repower device to apply new config!) dhcp on, device can't config gateway, set dhcp off first.	
r gateway!	Get network gateway	r gateway!	gateway:192.168.0.1	
s tcp/ip port x!	Set network tcp/ip port (x=1~65535)	s tcp/ip port 8000!	set tcp/ip port:8000	
r tcp/ip port!	Get network tcp/ip port	r tcp/ip port!	tcp/ip port:8000	
s telnet port x!	Set network telnet port(x=1~65535)	s telnet port 23!	set telnet port:23	
r telnet port!	Get network telnet port	r telnet port!	telnet port:23	
s net reboot!	Reboot network modules	s net reboot!	network reboot... ip mode: static ip: 192.168.0.100 subnet mask: 255.255.255.0 gateway: 192.168.0.1 tcp/ip port=8000 telnet port=10 mac address: 00:1c:91:03:80:01	

13. Application Example



Warranty

3-YEAR LIMITED WARRANTY

We warrant our products to be free from defects in materials and workmanship for a period of three (3) years from the date of initial purchase. Our obligation under this warranty is limited to repairing or replacing (at its sole option) any such defective products. Visit Tripplite.Eaton.com/support/product-returns before sending any equipment back for repair. 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.

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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 Eaton could void the user's authority to operate this equipment.

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Eaton
1000 Eaton Boulevard
Cleveland, OH 44122
United States
Eaton.com

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