

# User Manual



## MP-44MV-VW-4K

**4x4 Seamless Matrix Switcher with Multiview,  
Video wall & Network Control**



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Version: MP-44MV-VW-4K \_2025V0.0

## Preface

Read this user manual carefully before using the product. Pictures shown in this manual are for reference only. Different models and specifications are subject to real product.

This manual is only for operation instruction, please contact the local distributor for maintenance assistance. The functions described in this version were updated till April, 2025. In the constant effort to improve the product, we reserve the right to make functions or parameters changes without notice or obligation. Please refer to the dealers for the latest details.

## FCC Statement

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. It 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 commercial installation.

Operation of this equipment in a residential area is likely to cause interference, in which case the user at their own expense will be required to take whatever measures may be necessary to correct the interference.

Any changes or modifications not expressly approved by the manufacture would void the user's authority to operate the equipment.



## Safety Precautions

To ensure the best from the product, please read all instructions carefully before using the device. Save this manual for further reference.

- Unpack the equipment carefully and save the original box and packing material for possible future shipment
- Follow basic safety precautions to reduce the risk of fire, electrical shock and injury to persons.
- Do not dismantle the housing or modify the module. It may result in electrical shock or burn.
- Using supplies or parts not meeting the products' specifications may cause damage, deterioration or malfunction.
- Refer all servicing to qualified service personnel.
- To prevent fire or shock hazard, do not expose the unit to rain, moisture or install this product near water.
- Do not put any heavy items on the extension cable in case of extrusion.
- Do not remove the housing of the device as opening or removing housing may expose you to dangerous voltage or other hazards.
- Install the device in a place with fine ventilation to avoid damage caused by overheat.
- Keep the module away from liquids.
- Spillage into the housing may result in fire, electrical shock, or equipment damage. If an object or liquid falls or spills on to the housing, unplug the module immediately.
- Do not twist or pull by force ends of the cable. It can cause malfunction.
- Do not use liquid or aerosol cleaners to clean this unit. Always unplug the power to the device before cleaning.
- Unplug the power cord when left unused for a long period of time.
- Information on disposal for scrapped devices: do not burn or mix with general household waste, please treat them as normal electrical wastes.

## Table of Contents

1. Product Introduction .....	1
1.1 Features .....	1
1.2 Package List .....	1
2. Specification .....	2
3. Panel Description .....	3
3.1 Front Panel .....	3
3.2 Rear Panel .....	4
4. System Connection .....	5
4.1 Usage Precaution .....	5
4.2 System Diagram .....	5
5. Panel Control .....	6
6. Web-GUI .....	8
6.1 Login .....	8
6.2 Control .....	9
6.3 Video Wall .....	10
6.4 Multiview .....	11
6.5 RS232 .....	12
6.6 CEC .....	12
6.7 Network .....	13
6.8 Security .....	13
7. RS-232 Control .....	14
7.1 Installation/uninstallation of RS-232 Control Software .....	15
7.2 Basic Settings .....	15
7.3 RS-232 Commands .....	16
7.3.1 Before use .....	16
7.3.2 System Commands .....	17
7.3.3 Control Management .....	17
7.3.4 Query Commands .....	20
7.3.5 Lock/unlock Commands .....	21
7.3.6 EDID Management .....	22
8. Customer Service .....	24

## 1. Product Introduction

The MP-44MV-VW-4K is a professional 4x4 Seamless Matrix Switcher with TCP/IP. It includes 4 HDMI inputs, 4 HDMI outputs, which are support HDMI 1.4 and resolution up to 3840 x 2160@30Hz. It also features 4 analog audio outputs for audio output. Supports Multiview and Video Wall, with optional modes.

The matrix switcher features comprehensive EDID management to ensure maximum functionality with a wide range of video sources.

User can control it via front panel, RS-232, and TCP/IP.

### 1.1 Features

- Support seamless switching.
- Support Multiview with 12 layouts.
- Support 12 output resolutions.
- Support power-off memory function.
- Support 7 built-in EDIDs and customed EDID.
- support CEC control for the first input/ output port.
- Support Video Wall with Bezel adjustable function.
- Support 4 output channels audio and video separation.
- Support HDMI1.4 and resolution up to 3840 x 2160@30Hz.
- Support bi-directional RS-232, TCP/IP and front panel to control.

### 1.2 Package List

- 1 x MP-44MV-VW-4K
- 1 x Power Adapter
- 1 x RS-232 Cable
- 4 x Trapezoid Feet
- 1 x User Manual

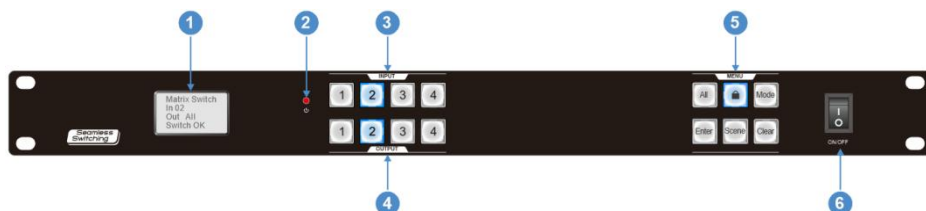
**Note:** Please contact your distributor immediately if any damage or defect in the components is found.


## 2. Specification

<b>Video</b>	
Input	4 x HDMI
Output	4 x HDMI
HDMI Version	HDMI 1.4
HDCP Version	HDCP 1.3
Resolution	Up to 4K@30Hz 4:4:4
<b>Analog Audio Output</b>	
Output	4 x analog audio
Output Port	4 x 3.5mm audio jack
Audio Format	PCM
<b>Control</b>	
Control	1 x RS232-IN 2 x RS232-OUT 1 x TCP/IP Front panel buttons
Control Port	1 x DB9 female port 1 x DB9 male port 2 x RJ45 14 x Illuminated buttons
<b>General</b>	
Transmission Distance	4K 30Hz ≤ 5m 1080p < 15m
Operation Temperature	0 ~ +40°C
Storage Temperature	-10 ~ +50°C
Relative Humidity	10% ~ 90%
External Power Supply	DC 5V 1A
Dimension (W*H*D)	483 x 44 x 236mm
Net Weight	2.55KG

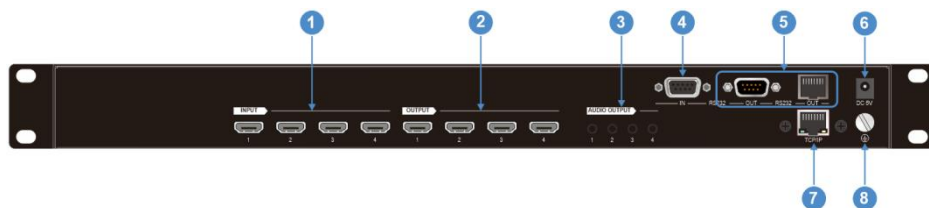
### 3. Panel Description

#### 3.1 Front Panel



No.	Name	Description
①	LCD	Display information and status.
②	POWER INDICATOR	1) Red LED on when working/ standby. 2) Red LED off when power off.
③	INPUT	4 x Illuminated buttons, choose input channels.
④	OUTPUT	4 x Illuminated buttons, choose output channels.
⑤	MENU	<ul style="list-style-type: none"> <li>● <b>All:</b> 1 x illuminated button Press it with other buttons will send one input source to all output channels.</li> <li>● : 1 x illuminated button Lock or unlock the buttons of front panel.</li> <li>● <b>Mode:</b> 1 x illuminated button Press it with other buttons to store the preset scene.</li> <li>● <b>Enter:</b> 1 x illuminated button Confirm the commands.</li> <li>● <b>Scene:</b> 1 x illuminated button Press it with other buttons to recall the scene.</li> <li>● <b>Clear:</b> 1 x illuminated button Eliminate commands.</li> </ul> <p><b>Note:</b> For more details about the MENU, please check 5. <b>Panel Control</b></p>
⑥	POWER	1 x Rocker switch, power switch

### 3.2 Rear Panel



No.	Name	Description
①	<b>INPUT</b>	4 x HDMI IN, connect to HDMI source device.
②	<b>OUTPUT</b>	4 x HDMI OUT, connect to HDMI display.
③	<b>AUDIO OUTPUT</b>	4 x 3.5mm audio jack, supports HDMI audio de-embedding analog output.
④	<b>RS232-IN</b>	1 x DB9 female port, connect to the host device.
⑤	<b>RS232-OUT</b>	1 x DB9 male port and 1 x RJ45 port, connect to the peripherals.
⑥	<b>DC 5V</b>	Power supply, DC 5V 1A
⑦	<b>TCP/IP</b>	1 x RJ45 port with LED, for Web-GUI.
⑧	<b>GND</b>	Ground terminal.

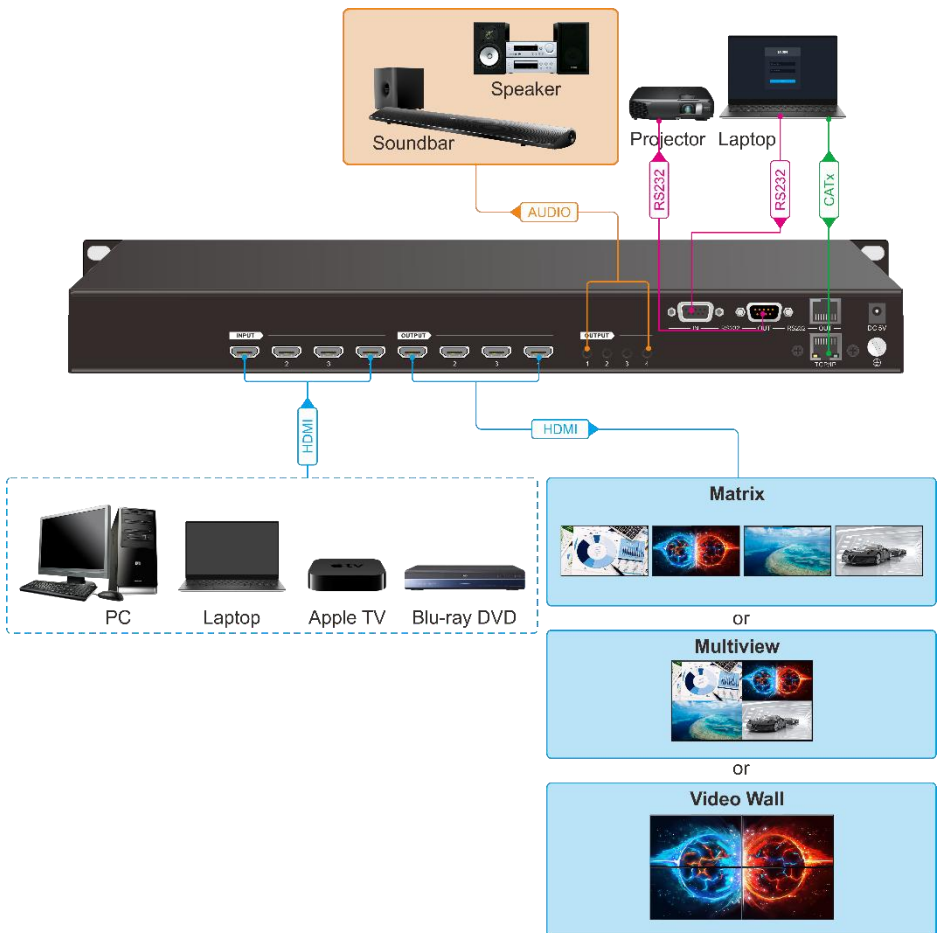


## 4. System Connection

### 4.1 Usage Precaution

- Make sure all components and accessories are included before installation.
- System should be installed in a clean environment with proper temperature and humidity.
- All of the power switches, plugs, sockets, and power cords should be insulated and safe.
- All devices should be connected before power on.

### 4.2 System Diagram



## 5. Panel Control

### • I/O

Here are four input buttons and four output buttons for switching I/O signal on device front panel.


- ✧ 1 input and 1 output:  
Example: Input 1 to Output 3  
Press **INPUT 1 + OUTPUT 3 + Enter** buttons.
- ✧ 1 input and 3 outputs:  
Example: Input 1 to Output 2, Output 3, Output 4.  
Press **INPUT 1 + OUTPUT 2, OUTPUT 3, OUTPUT 4 + Enter** buttons.
- ✧ 1 input and all outputs:  
Example: Input 2 to all Outputs  
Press **INPUT 2 + All + Enter** buttons.

### • All

- ✧ Short press for selecting all output channels.
- ✧ Long press for viewing related information from LCD. As shown in the following figure.

*Note: The picture is for reference only, please refer to the actual product.*



The application of **buttons** for LCD: **Enter** is used to confirm.  represents navigate up. **Scene** represents navigate down. **Clear** represents return to previous page.

*Note: The button will automatically change its function after entering the menu. After the operation is completed, it will return to the main interface.*


- 1) **EDID**  
Use the buttons to select and set the input EDID, including built-in EDID, custom EDID, and copy output EDID.
- 2) **RESOLUTION**  
Use the buttons to select the output resolution.
- 3) **Connection**  
Check whether the input/output is connected to the signal source or display.
- 4) **Version**  
Check the device firmware version.

## 5) Language

LCD display language, supports Chinese and English.



- ✧ Press  for 3s, lock the front panel buttons.

- ✧ Press  for 3s again, unlock the front panel buttons.

- **Mode**

Set up input and output first. Then press **Mode + INPUT X + Enter** to save preset scene.

*Note: X represents the channel number.*

- **Enter**

Press **Enter** to perform the operation.

- **Scene**

Press **Scene + INPUT X + Enter** to recall preset scene.

*Note: X represents the channel number.*

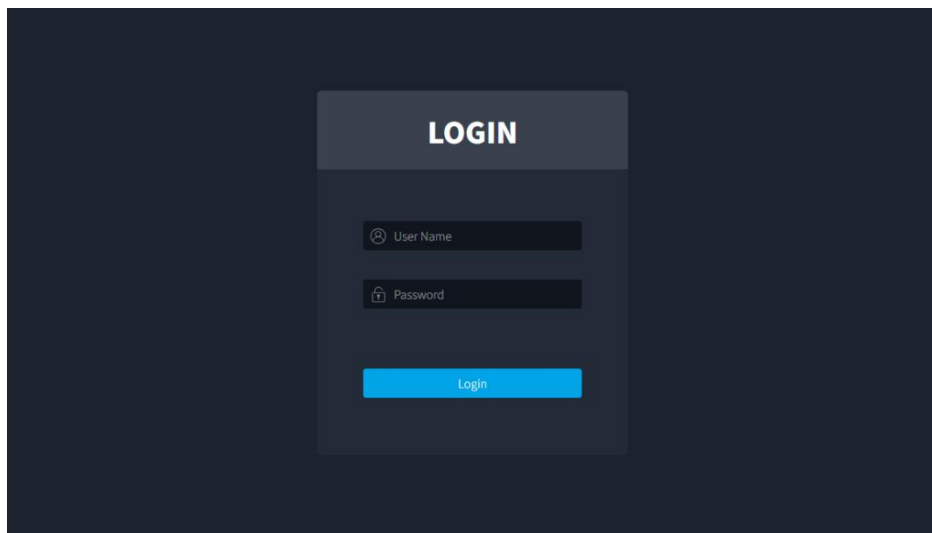
- **Clear**

Press **Clear** to withdraw the operation before the **Enter** button comes into effect.  
Device will return to the previous status.

## 6. Web-GUI

### 6.1 Login

Please make sure the device is connected and enter 192.168.0.178 in the browser input bar. The login interface is as follows:



The default login information is as follows:

User Name: admin

Password: Admin123@

*Note: Please change your password in time to ensure safe use.*

## 6.2 Control

User can set the related functions in matrix mode here.

**Control** 4x4 Seamless Matrix with Video Wall & Multiview

**Mode**

☒ Matrix ☐ Video Wall ☐ Multiview

**Matrix**

	Output 1	Output 2	Output 3	Output 4	All
Input 1	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Input 2	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Input 3	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Input 4	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

**Presets**

☒ Preset 1 ☐ Preset 2 ☐ Preset 3 ☐ Preset 4

[Save](#) [Recall](#)

**EDID**

Input: ☒ Input 1 ☐ Input 2 ☐ Input 3 ☐ Input 4

EDID:  [Apply](#)

User-Defined 1 EDID:  [Apply](#)

User-Defined 2 EDID:  [Apply](#)

User-Defined 3 EDID:  [Apply](#)

User-Defined 4 EDID:  [Apply](#)

**Resolution**

Output 1:  [Apply](#)

Output 2:  [Apply](#)

Output 3:  [Apply](#)

Output 4:  [Apply](#)

**Audio Output**

Analog Audio 1: OFF ☒ ON

Analog Audio 2: OFF ☐ ON

Analog Audio 3: OFF ☒ ON

Analog Audio 4: OFF ☐ ON

GUI: V1.0.0  
Firmware: V1.0.0

### 6.3 Video Wall

User can select the desired Video Wall mode and modify the screen parameters here.

Control

**Video Wall**

Multiview

RS232

CEC

Network

Security

Video Wall

4x4 Seamless Matrix with Video Wall & Multiview

Mode

☐ Matrix
 ☒ Video Wall
 ☐ Multiview

Setting

Input Select

Window Resolution

1920x1200@60Hz

Video Wall

1

1x2

1x3

1x4

2x1

3x1

**4x1**

2x2

Image 1 R:0°

1

Image 2 R:0°

2

Image 3 R:0°

3

Image 4 R:0°

4

	Image	Rotation	Bezel	
			H (Px)	V (Px)
Out 1	Image 1	0°	0	0
Out 2	Image 2	0°	0	0
Out 3	Image 3	0°	0	0
Out 4	Image 4	0°	0	0

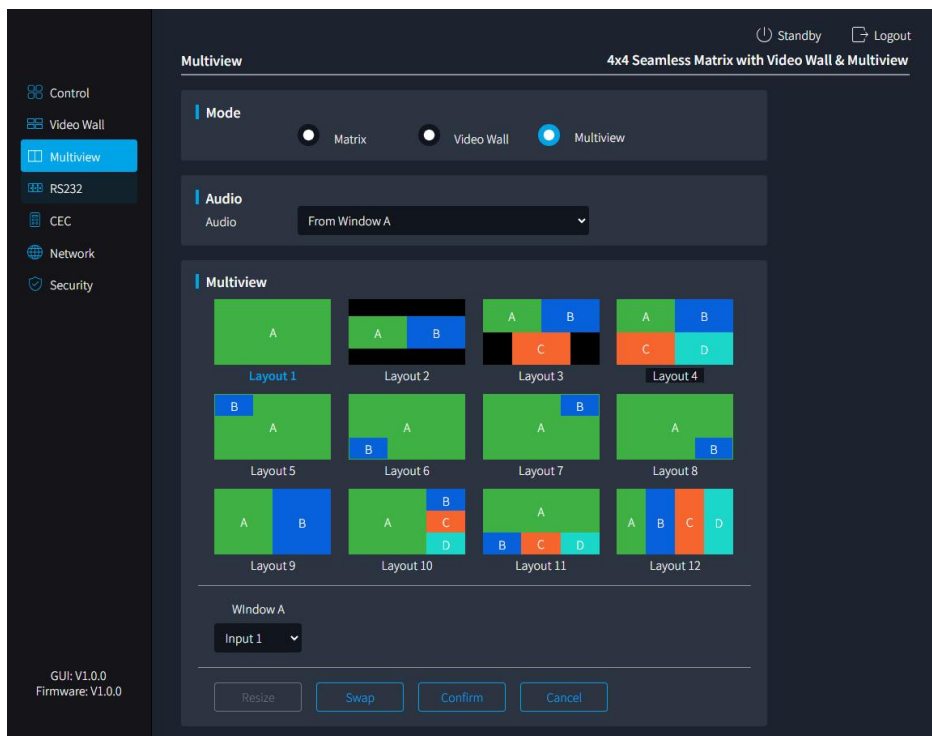
GUI-V1.0.0

Firmware: V1.0.0

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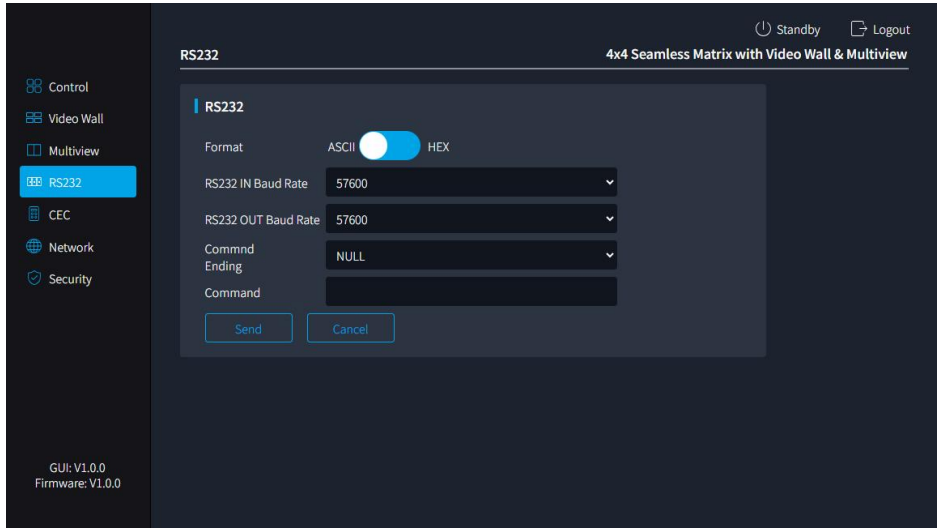
## 6.4 Multiview

User can set the Multiview layout here.



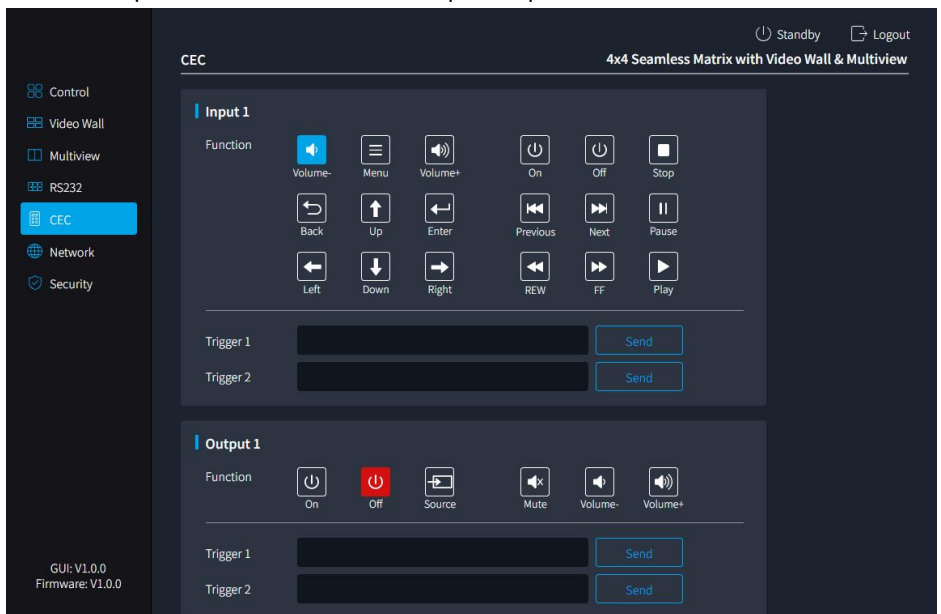
## 6.5 RS232

User can send RS232 commands here to implement RS232 control.



## 6.6 CEC

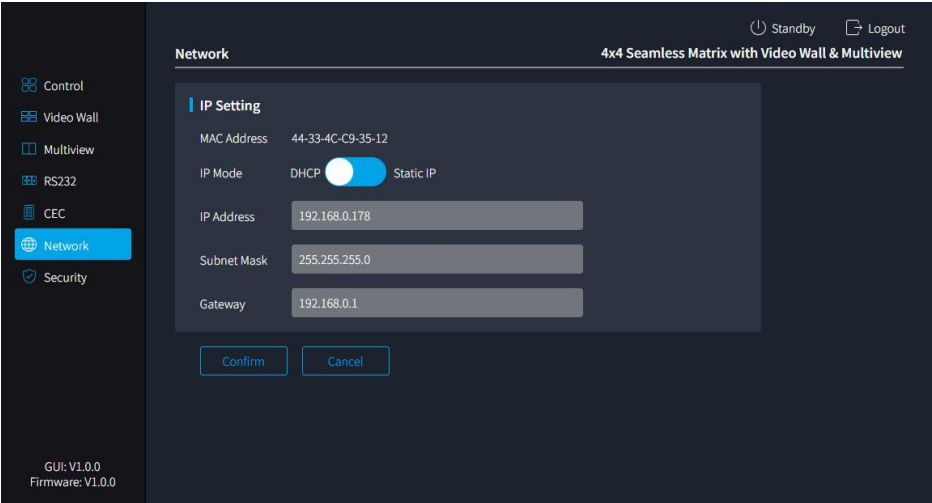
User can implement the first channel of input/ output CEC control here.





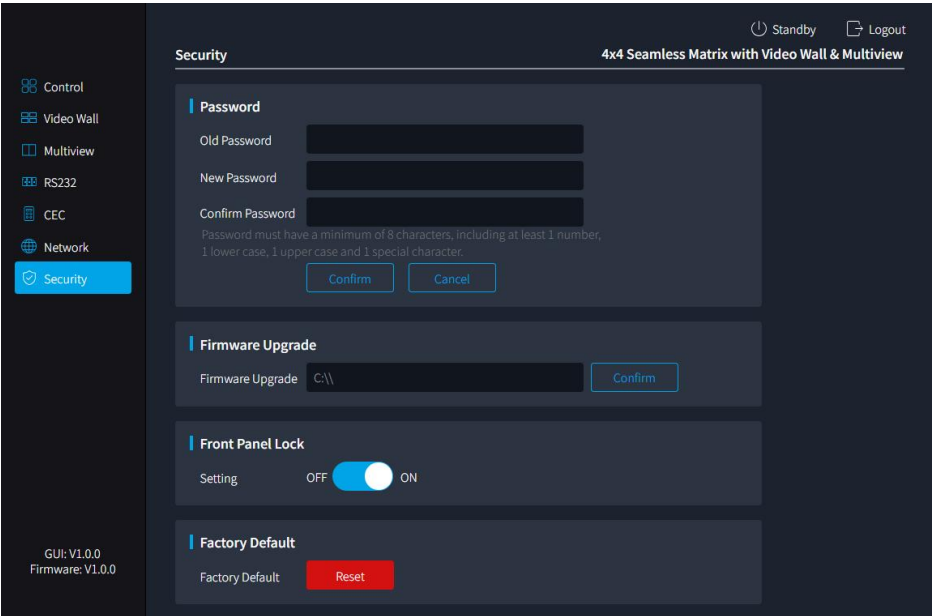
### 6.7 Network

User can set up IP here. Support modes: DHCP and static IP, default mode is Static IP.



### 6.8 Security

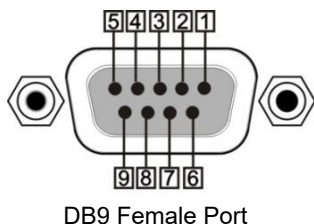
Here users can change the GUI login password, upgrade the firmware, lock the front button to prevent accidental touches, and restore factory settings.



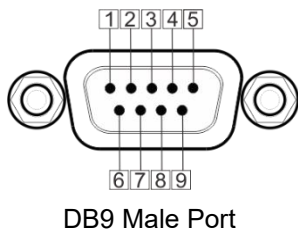
## 7. RS-232 Control

Host connects to the device via RS-232 port to control the device or peripherals.

RS-232 IN port uses DB9 9-pin female port, RS-232 OUT ports use DB9 9-pin male port and RJ45 port as below:



Pin	Name	Function
1	N/u	Blank
2	Tx	Transmit
3	Rx	Receive
4	N/u	Blank
5	GND	GND
6	N/u	Blank
7	N/u	Blank
8	N/u	Blank
9	N/u	Blank



Pin	Name	Function
1	N/u	Blank
2	Rx	Receive
3	Tx	Transmit
4	N/u	Blank
5	GND	GND
6	N/u	Blank
7	N/u	Blank
8	N/u	Blank
9	N/u	Blank



Pin	Color	Function
1	Orange/White	Blank
2	Orange	Blank
3	Green/White	Transmit
4	Blue	GND
5	Blue/White	GND
6	Green	Receive
7	Brown/White	Blank
8	Brown	Blank

## 7.1 Installation/uninstallation of RS-232 Control Software

- **Installation:** Copy the control software file to the control PC.
- **Uninstallation:** Delete all the control software files in corresponding file path.

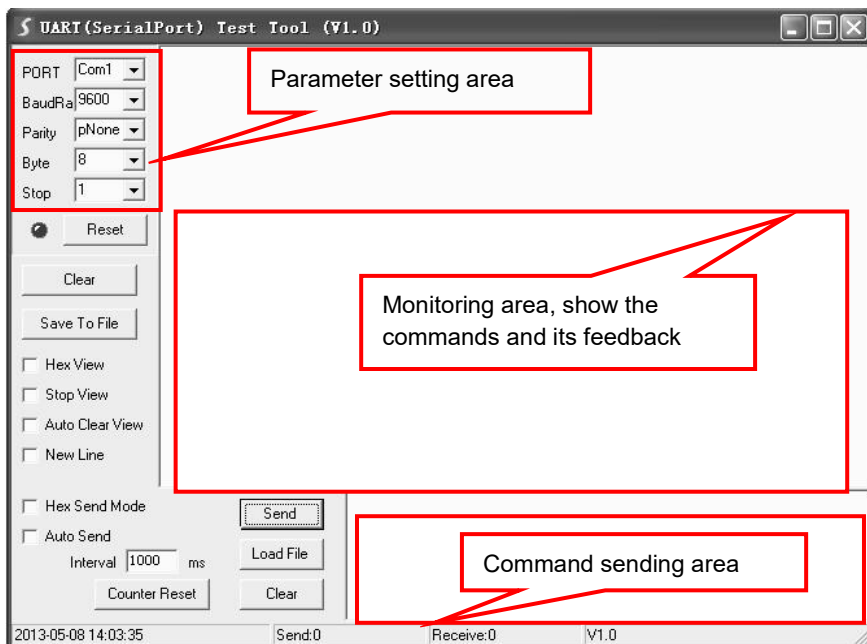
## 7.2 Basic Settings

Firstly, connect MP-44MV-VW-4K with necessary input devices and output devices. Then, connect it with a PC installed RS-232 control software. Double-click the software icon to run this software.

Here we take the software **CommWatch.exe** as example. The icon is showed as below:



The interface of the control software is showed as below:



Set the parameters (PORT, Baud Rate, Parity, Byte and Stop) correctly to ensure reliable RS-232 control.

## 7.3 RS-232 Commands

### 7.3.1 Before use

- 1) Case-sensitive.
- 2) “[, ”] in the commands are for easy recognition only and not necessary in real operations. Other symbols including “.”, “,”, “/”, “%”, “;”, “^”. are parts of the commands.
- 3) Feedback listed in the column “Common Feedback” are only for reference, feedback may vary according to different operations.
- 4) Recommend settings:
  - Baud rate: 115200
  - Data bit: 8
  - Stop bit: 1
  - Parity bit: none

### 7.3.2 System Commands

Command	Function & examples	Command Feedback
(standby)	System standby	system off ok
(wakeup)	System wake up	system on ok
(reset)	Factory reset	factory reset ok
(rename,product, [param])	Set device name. Param=MP-44MV-VW-4K  Example: (rename,product, MP-44MV-VW-4K)	product name: MP-44MV-VW-4K ok

### 7.3.3 Control Management

Command	Function & examples	Command Feedback
(sw, [inch], [outch])	Switch input to output. Inch=Input Channel Outch=Output Channel Example: (sw,1,2)	out 2 in 1 ok
(sw, [inch],a)	Switch input to all output. Inch=Input Channel  Example: (sw,1,a)	out 1 in 1 out 2 in 1 out 3 in 1 out 4 in 1 ok
(scene,save,[Para m])	Save preset scene. Param=Scene number(1-32)  Example: (scene,save,1)	scene 1 saved ok
(scene,call,[Para m])	Recall preset scene Param=Scene number(1-32)  Example: (scene,call,1)	scene 1 called ok

(scene,del,[Param])	Preset scene delete. Param=Scene number(1-32)  Example: (scene,del,1)	scene 1 deleted ok
(set,o.format,[outch], [mode])	Set output [outch] signal format. Outch=1-4 Mode= 0-HDMI Mode= 1-DVI  Example: (set,o.format,1,0)	output hdmi 1 format is hdmi ok
(set,ext.audio,ch,sta)	Set external split audio status ch = 1~4 1~4 - split audio channel sta = 0,1 0 - OFF 1 - ON  Example: (set,ext.audio,1,1)	external audio 1 is on ok
(set,o.res,[ch],[param])	Set output [ch] resolution. Ch=Output 1-4 Param=1~12 1 - 1920x1200@60Hz 2 - 1920x1080@60Hz 3 - 1280x720@60Hz 4 - 1360x768@60Hz 5 - 1280x1024@60Hz 6 - 1024x768@60Hz 7 - 1600x1200@60Hz 8 - 1440x900@60Hz 9 - 1600x900@60Hz 10 - 1280x720@50Hz 11 - 1920x1080@50Hz 12 - 3840x2160@30Hz  Example: (set,o.res,1,1)	out 1 res 1920x1200@60Hz ok
(set,i.baud,[param])	Set input RS-232 baud rate. Param = 1 ~ 5	in baudrate 9600 ok

	1 – 9600 2 - 19200 3 - 38400 4 - 57600 5 - 115200(default)  Example: (set,i.baud,1)	
(set,o.baud,[param])	Set output RS-232 baud rate. Param =1-5 1 – 9600 2 - 19200 3 - 38400 4 - 57600 5 - 115200(default)  Example: (set,o.baud,5)	out baudrate 115200 ok
(set,uart,[param])	Set RS-232 control mode. Param=1 RS232 in and out can control local device in both  Example: (set,uart,1)	rs232 mode: in&out control local ok
	Set RS-232 control mode. Param=2 RS232 in can control local device or RS232 in → RS232 out to control 3rd-party.  Example: (set,uart,2)	rs232 mode: in control local&out ok
(set,netcfg,IPParam1.IPParam2.IPParam3.IPParam4, MASKParam1.MASKParam2.MASKParam3.MASKParam4,GWParam1.GWParam2.GW	Set device IP address, subnet mask, gateway. IPParam1 - ip address 1 IPParam2 - ip address 2 IPParam3 - ip address 3 IPParam4 - ip address 4 MASKParam1 - subnet mask 1 MASKParam2 - subnet mask 2	ip 192.168.0.178 mask 255.255.255.0 gateway 192.168.0.254 ok

Param3.GWParam4)	MASKParam3 - subnet mask 3 MASKParam4 - subnet mask 4 GWParam1 - gateway 1 GWParam2 - gateway 2 GWParam3 - gateway 3 GWParam4 - gateway 4  Example: (set,netcfg,192.168.0.178,255.255.255.0,192.168.0.254)	
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### 7.3.4 Query Commands

Command	Function & examples	Command Feedback
(info,dev)	Get device info	MP-44MV-VW-4K system on unlock ok
(info,link)	Get port connection status	ch 1 2 3 4 in N N N N out N N N N ok
(ver)	Get firmware version	mcu ctrl v1.0.0 ok
(get,i.edid,[inch])	Get EDID status  Example: (get,i.edid,1)	in 1 edid 4 ok
(get,sw)	Get switching status	out 1 in 1 out 2 in 1 out 3 in 1 out 4 in 1 ok
(get,i.res,[inch])	Get current input [ch] resolution.  Ch=1~4	in 1 res 1280x720@60Hz ok



	Example: (get,i,res,1)	
(get,o.format,[outch])	Get output signal format. Outch=1~4  Example: (get,o,format,1)	output hdmi 1 format is hdmi ok
(get,o.res,[ch])	Get output resolution Ch=1~4  Example: (get,o,res,1)	out 1 res 1920x1200@60Hz ok
(get,i.baud)	Get input RS-232 baud rate.	in baudrate 9600 ok
(get,o.baud)	Get output RS-232 baud rate	out baudrate 115200 ok
(get,netcfg)	Get device IP address, subnet mask, gateway.	ip 192.168.0.178 mask 255.255.255.0 gateway 192.168.0.254 ok
(get,ext.audio,ch)	Get the status of external split audio ch = 1~4 1~4 - Split audio channel  Example: (get,ext.audio,1)	external audio 1 is on ok

### 7.3.5 Lock/unlock Commands

Command	Function & examples	Command Feedback
(lock, [param])	Button Lock. Param = 0 ~ 1 1=Lock 0=Unlock  Example: (Lock,1) (Lock,0)	Lock ok
		Unlock ok

## 7.3.6 EDID Management

Command	Function & examples	Command Feedback
(update,edid, [param])	<p>Update custom EDID.</p> <p>param 1~4</p> <ol style="list-style-type: none"> <li>1. User define 1</li> <li>2. User define 2</li> <li>3. User define 3</li> <li>4. User define 4</li> </ol> <p>Example: (update,edid,1)</p> <p>Timeout feedback: Edid update time out ok</p>	<p>please send edid file in 15s</p> <p>Ok</p> <p>edid 1 updated</p> <p>ok</p>
(edid,config,[inch],[param])	<p>Recall EDID.</p> <p>inch= 1~4</p> <p>Param = 1 ~ 11</p> <ol style="list-style-type: none"> <li>1. 1024x768@60Hz PCM2.0</li> <li>2. 1280x720@60Hz PCM2.0</li> <li>3. 1360x768@60Hz PCM2.0</li> <li>4. 1920x1200@60Hz PCM2.0</li> <li>5. 1600x1200@60Hz PCM2.0</li> <li>6. 1920x1080@60Hz PCM2.0</li> <li>7. 3840x2160@30Hz PCM2.0</li> </ol> <p>(default)</p> <ol style="list-style-type: none"> <li>8. User define 1</li> <li>9. User define 2</li> <li>10. User define 3</li> <li>11. User define 4</li> </ol> <p>Example: (edid,config,1,1)</p>	<p>in 1 edid 1</p> <p>ok</p>

(edid,config,[inch],[param])	<p>EDID learning.</p> <p>Param = 12~ 15 inch= 1~4</p> <p>12. Learn output 1 EDID 13. Learn output 2 EDID 14. Learn output 3 EDID 15. Learn output 4 EDID</p> <p>Example: (edid,config,1,14)</p>	in 1 edid 14 ok
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## 8. Customer Service

The return of a product to our Customer Service implies the full agreement of the terms and conditions hereinafter. These terms and conditions may be changed without prior notice.

### 1) Warranty

The limited warranty period of the product is fixed three years.

### 2) Scope

These terms and conditions of Customer Service apply to the customer service provided for the products or any other items sold by authorized distributor only.

### 3) Warranty Exclusion

- Warranty expiration.
- Factory applied serial number has been altered or removed from the product.
- Damage, deterioration or malfunction caused by:
  - ✓ Normal wear and tear.
  - ✓ Use of supplies or parts not meeting our specifications.
  - ✓ No certificate or invoice as the proof of warranty.
  - ✓ The product model showed on the warranty card does not match with the model of the product for repairing or had been altered.
  - ✓ Damage caused by force majeure.
  - ✓ Servicing not authorized by distributor.
  - ✓ Any other causes which does not relate to a product defect.
- Shipping fees, installation or labor charges for installation or setup of the product.

### 4) Documentation

Customer Service will accept defective product(s) in the scope of warranty coverage at the sole condition that the defect has been clearly defined, and upon reception of the documents or copy of invoice, indicating the date of purchase, the type of product, the serial number, and the name of distributor.

**Remarks:** Please contact your local distributor for further assistance or solutions.