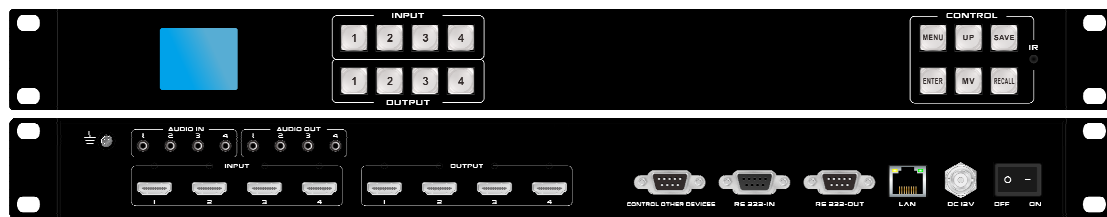


User Manual

4x4 4K60 seamless switching and splitting matrix (APP-type)



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catalogue

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Before powering on the equipment, verify that the chassis is properly grounded to prevent static discharge from the casing, which could pose a risk to the equipment or personnel safety, as well as to ensure effective electromagnetic shielding. During installation, operation, or maintenance, please adhere to the following guidelines:

(Use a single-phase three-wire AC 220 V power supply with a protective earth connection; ensure that the entire project system utilizes the same protective earth connection. Do not use power supplies without a protective earth connection; the grounding terminal of the power cable must not be damaged.)

When moving the device or performing any other tasks that require disconnecting the power supply, turn off all power sources – including the power switch – and unplug the device to ensure your safety and the safety of the device. Note: In rainy, humid weather or when the device will not be used for an extended period, turn off the main power switch.

Do not place any objects on power cables, signal cables, communication cables or other cables; avoid stepping on or squeezing these cables to prevent hazards such as electrical leakage or short circuits.

When plugging or unplugging the signal cable from the device, the device must be powered off. Damage caused by plugging or unplugging the cable while the device is powered on is not covered under the warranty.

Equipment should be properly installed; since the power supply may generate heat during operation, ensure adequate ventilation in the working environment to prevent damage to the equipment due to excessive temperatures. The equipment should be mounted in standard racks, chassis, or cabinets, or placed on a stable workbench surface to prevent it from falling.

The equipment operating environment should be protected against dust and moisture; do not place the system equipment in locations that are excessively cold or excessively hot.

Take care to prevent liquids from soaking into or splashing into the equipment; in particular, avoid allowing chemicals or liquids to spill onto or around the equipment.

All maintenance work shall be performed by qualified maintenance personnel; do not attempt to repair equipment yourself without proper training to avoid the risk of electric shock, which could lead to accidents or exacerbate equipment damage.

1. Product Overview

The 4X4 4K60 Seamless Switching and Splitting Matrix (APP Type) is a 4K60 HDMI seamless video splitting and switching matrix device. It supports 4 HDMI input channels, 4-channel 3.5 mm audio input with embedding, 4 HDMI output channels, and 4-channel 3.5 mm audio extraction. This device supports inputs and outputs at resolutions up to 4K@60 and below, ensuring clear and smooth video playback. The system features intelligent EDID management, providing enhanced on-site compatibility for optimal display performance. It supports any number of rectangular video splicing outputs, offering flexible video layout options. Supports screen roaming and overlay functionality. The device supports multiple control methods—including front-panel buttons, infrared remote control, serial port, Web interface, and TCP/IP—delivering a convenient operating experience for users.

The device features an advanced B/S architecture-based web-based human-machine interface, enabling users to control the device effortlessly without installing any software or drivers on their PC. The device also supports web-based remote firmware upgrade functionality, significantly simplifying device maintenance and software updates. In terms of hardware design, both the 44 and 88 models utilize the standard 1U chassis size, which saves space and facilitates easy installation and integration.

Primarily used in applications such as high-definition video conferencing, broadcast and television engineering, multimedia conference rooms, large-screen display systems, television-based education, and command and control centers.

2. product features

- 1U standard design
- Supports HD resolution (3840×2160 @ 60Hz) for both input and output.
- Supports HDMI 1.4b/2.0b, HDCP 1.4/2.2/2.3, EDID, HDR10/HDR12/Dolby Vision/HLG
- Supports any input/output and scaler-based resolution output
- Supports seamless switching
- Supports video splicing functionality
- Supports screen roaming and overlay functionality
- Supports HDMI audio input with embedding and HDMI audio output with extraction.
- Supports LCD screen status display and operational feedback
- Supports web-based human-machine interface-based state monitoring and control.
- Supports front-panel button switching, infrared remote control, web interface, RS232 serial port, and TCP/IP network connection command control.

3. technical parameter

name	4x4 4K60 seamless switching and splitting matrix (APP-type)
Input port	4×HDMI, 4×3.5 mm, 1×RJ45 (Control), 1×RS232
output port	4×HDMI、 4×3.5mm、 2×RS232
resolution ratio	480i,576i,480p,576p,720p,1080i,1080p@24/30/50/60Hz,1080P3D@60Hz, 4K@24/25/30/50/60Hz

protocol standard	HDMI1.4b/2.0b, HDCP1.4/2.2/2.3, EDID, HDR10/HDR12/Dolby Vision/HLG
electrostatic protection	Human body discharge mode: ± 8 kV (air gap discharge) ± 4 kV (contact discharge)
control	Front panel buttons, RS232, LAN, APP, Infrared Remote Control
source	AC:220V—240V 50/60Hz DC:12V3A
power dissipation	10 W (no-load) – 24.2 W (full-load)
size(mm)	Without earpads: 440 (W) $\times$ 279 (D) $\times$ 44 (H); With earpads: 486 (W) $\times$ 279 (D) $\times$ 59 (H)
weight	3.4kg
working temperature	0 $^{\circ}$ C~50 $^{\circ}$ C
Storage Temperature	0 $^{\circ}$ C~50 $^{\circ}$ C

4. container loading list

name	quantity	unit
matrix	1	Taiwan
telecontroller	1	individual
Matrix Mounting Clip	1	Yes
12V 3A power adapter	1	individual
power line	1	root
earth wire	1	root
instructions	1	stem or root of plants
Certificate of Conformity Warranty Card	1	portion

5. Panel schematic diagram

5.1 Front Panel Functionality Overview



order number	name	explain
A	LCDdisplay screen	Display status, operation prompts
B	INPUT	Enter selection range
C	OUTPUT	Select output range
D	CONTROL	UP: Move upward – when switching modes, transfer the current input to all outputs; when in Scene Mode, move to the next scene upward.
		DOWN: Down – Disables the current input signal when switching

		modes; switches to the next scene when in Scene Mode.
		MENU: Menu Switch
		ENTER: Confirm/One-to-One Match
E	IR	Infrared receiver head

5.2 Rear Panel Functionality Overview



order number	name	explain
F	screw	landing
G	AUDIO IN	3.5 mm audio jack with embedded port
H	AUDIO OUT	3.5 mm audio jack
I	INPUT	Input Area
J	OUTPUT	Output Area
K	CONTROL OTHER DEVICES	Control external devices
L	RS232-IN	External Device Serial Port Control Interface
M	RS232-OUT	Serial port ring-out interface
N	LAN	Network output port
O	DC 12V	12V3A adapter input port
P	OFF-ON	mains switch
Q	UPGRADE	USB flash drive upgrade port

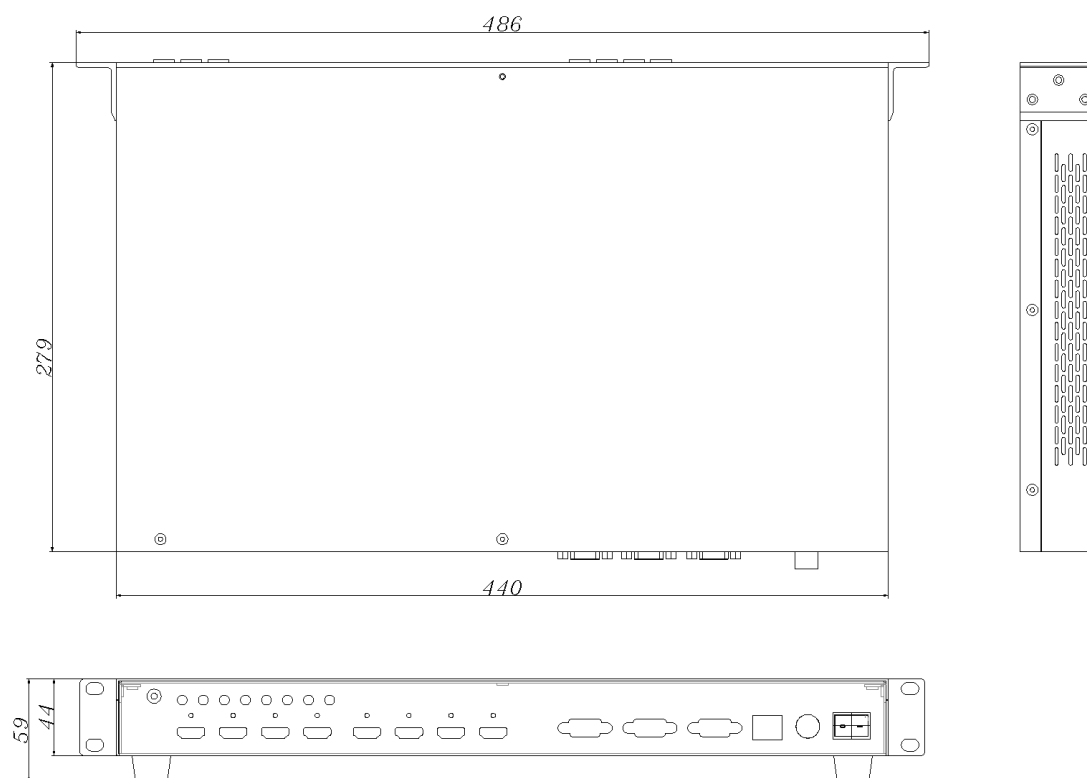
6. Product Usage Guide

6.1 Product Connection Diagram



6.2 Product Dimension Drawing

unit:MM



7. Equipment Operation and Functionality Instructions

When the device is powered on, the LCD screen will remain illuminated and display the current operating status. Each time the MENU button is pressed, the screen will switch between four pages – VIEW, SWITCH, SCENE, and SETUP – with only one page displayed at a time.

7.1 Front Panel Switch Operation

7.1.1 Switch Operation

The device features an industry-exclusive two-key rapid switching function – simply press the input port button first, then the output port button. Details are as follows:

- (1) The device's front panel features four input buttons and four output buttons. Upon powering on, the system will automatically enter the SWITCH interface, allowing you to proceed with the next switching operation;
- (2) First, press the port corresponding to the input signal source within the input area; the respective input button will then remain illuminated with a blue light;
- (3) Then, press the output button corresponding to the desired port number on the Output Button panel; the selected output button will illuminate with a steady blue light. To switch to all outputs, simply press the "UP" shortcut key on the right side;
- (4) To cancel the selection, press the desired cancel button on the output area; the button's indicator will then turn off, or simply press the "DOWN" shortcut key on the right side to cancel the entire selection.

7.1.2 Scenario Operation

- (1) The device can store up to 10 scenes; when the device successfully switches scenes via the SWITCH interface, press the "MENU" shortcut button to navigate to the "SCENE" scene interface;

(2) Enter the scene number you wish to save (1–10), then press the SAVE button to save it; to recall a specific scene, press the RECALL button; to select a scene that appears out of order relative to the current sequence, press the UP or DOWN button.

7.1.3 View Operation

(1) Press the MENU button to switch the display interface to the VIEW mode; this will show the current device switching status.

7.1.4 Remote Control Functionality

Press the MENU button on the remote control to switch between menu pages.

To switch the signal, press the MENU button on the matrix panel to access the SWITCH interface; to switch to single-key switching mode, press the 4K button on the remote control; to switch to dual-key switching mode, press the 720P button. Single-Channel Switching: First press the "Input" button, then press the "Output" button. For example, press "Input 1" first, then press "Output 1, 2, 3" to switch the first input channel to the first, second, or third output channel.

Dual-Channel Switching: First press the "Input" button, then press the "Output" button. For example, press "Input 01" first, then press "Output 01,02,03" to switch the Input Channel 1 to Output Channels 1, 2, or 3.

After selecting an input, press UP to switch to all output interfaces; press DOWN to cancel the current input interface selection; press ENTER to map each input and output interface one-to-one.

Scene Save: First, press the MENU button to switch to the SCENE page; then press the number 1 or any other number; finally, press SAVE to confirm. For example, pressing number 1 followed by SAVE will save the current switching mode to Scene 1.

Scene invocation: First, press the MENU button to switch to the SCENE page; then press the number 1 or any other number; finally, press RECALL to confirm. For example, pressing number 2 followed by RECALL will invoke Scene 2.

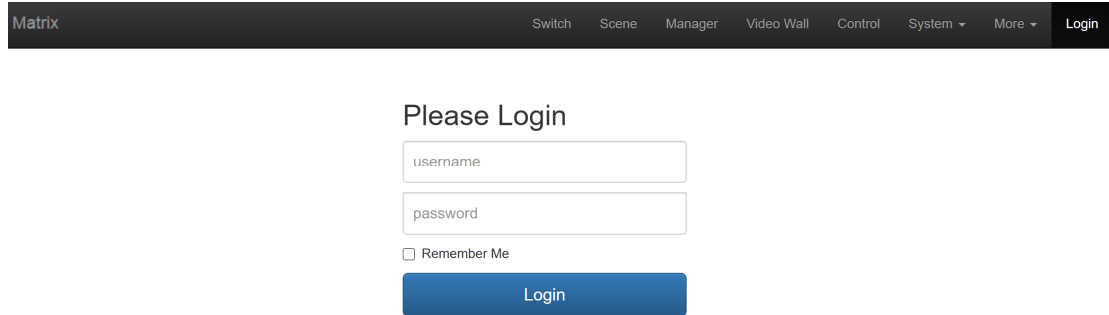


7.2 WEB Control

This matrix product supports web interface control; the default factory IP address is 192.168.0.80.

7.2.1 Login Operation

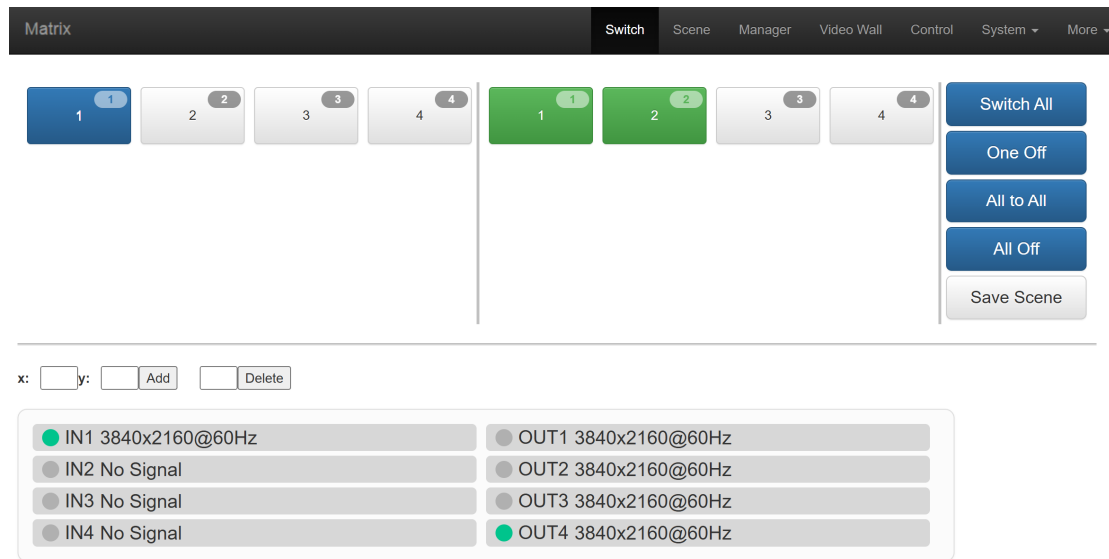
Based on the connected LAN interface, enter the corresponding IP address (192.168.0.80) in your browser; the following window will appear: (It is recommended to use a browser based on the Chrome engine).

The screenshot shows the login page of the Matrix web interface. At the top is a dark navigation bar with the 'Matrix' logo on the left and menu items 'Switch', 'Scene', 'Manager', 'Video Wall', 'Control', 'System', 'More', and 'Login' on the right. The main content area is titled 'Please Login' and contains a 'username' input field, a 'password' input field, a 'Remember Me' checkbox, and a blue 'Login' button.

The default username and password are both "admin"; after logging in, you can begin matrix control.

7.2.2 Switching Operation

Switch Interface: (Select "Switch" from the menu bar)

The screenshot shows the 'Switch' interface in the Matrix web application. The top navigation bar has 'Switch' selected. The interface is divided into three main sections. On the left is the 'Input' area with four numbered buttons (1-4); button 1 is highlighted in blue. On the right is the 'Output' area with four numbered buttons (1-4); button 1 is highlighted in green. To the far right is a vertical column of five buttons: 'Switch All', 'One Off', 'All to All', 'All Off', and 'Save Scene'. Below these sections is a control area with 'x:' and 'y:' input fields, 'Add' and 'Delete' buttons, and a list of input/output channels. The input channels are IN1 (3840x2160@60Hz, selected with a green dot), IN2 (No Signal), IN3 (No Signal), and IN4 (No Signal). The output channels are OUT1 (3840x2160@60Hz), OUT2 (3840x2160@60Hz), OUT3 (3840x2160@60Hz), and OUT4 (3840x2160@60Hz, selected with a green dot).

The area to the left of the vertical line is the input area; the area to the right of the vertical line is the output area; at the far right are five shortcut buttons, listed from top to bottom as: Switch All, Turn Off Single Channel, One-to-One Match, Turn Off All, and Scenario.

- To switch an input channel to an output channel, first select the input channel, then press the "Output" button to switch the corresponding input channel to the output port;

For example: To switch from Input 2 to Output 4, first click on the number "2" in the area to the left of the vertical bar, then click on "4" in the area to the right to complete the switch.

- To switch an input channel to a multiple-output mode, first select the input channel, then sequentially press the corresponding output port buttons to complete the operation.

For example, to switch from Input 3 to Output 1, 2, or 3: first click on "3" in the area to the left of the vertical slider, then click on "1", "2", or "3" in the area to the right – this will complete the switch.

- To switch a specific input to all outputs, first select the input, then press the button located in the top-right corner;

For example: To switch input 1 to all outputs, first click on the number "1" in the area to the left of the vertical bar, then click the first button on the far right to complete the switch.

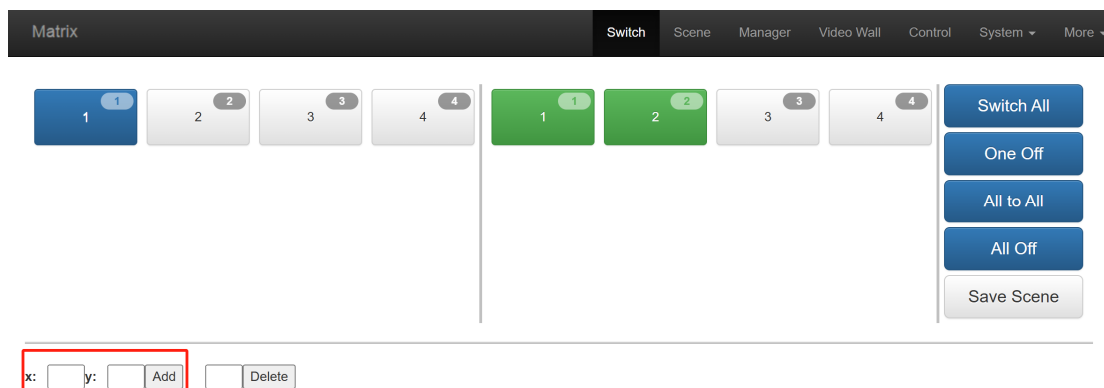
- To disable a specific input channel, first select the input, then press the second button on the right;

For example: To turn off Input 1, first tap the "1" icon in the area to the left of the vertical line, then tap the second button on the far right.

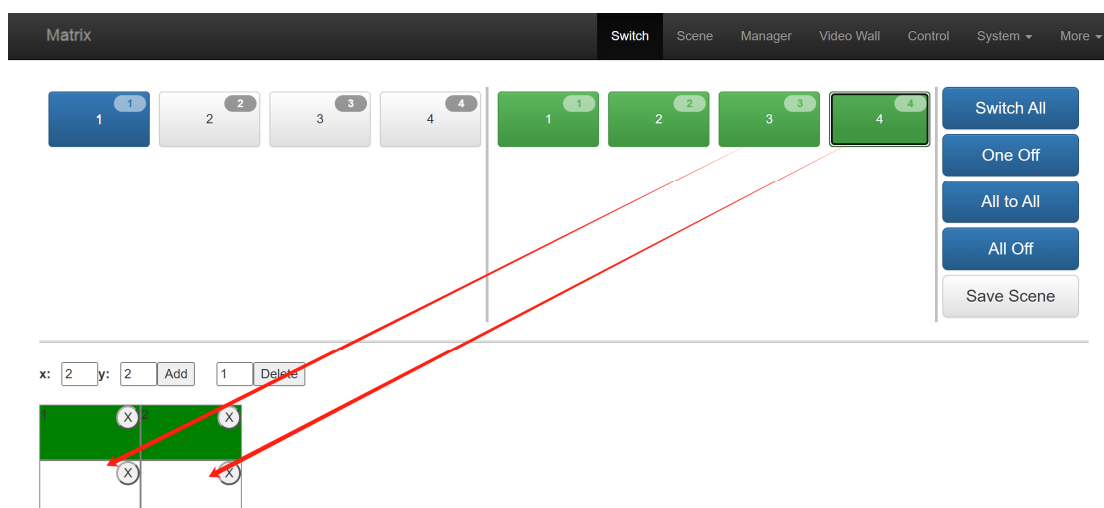
- If you want a one-to-one correspondence between all inputs and outputs – i.e., Input 1 corresponds to Output 1, and Input 2 corresponds to Output 2 – simply click the third button on the right;

- To disable all input and output functions, click the fourth button on the right.

7.2.3 Splicing Mode Operation (Matrix Splicing Operation/Video Wall Operation – only one can be selected)

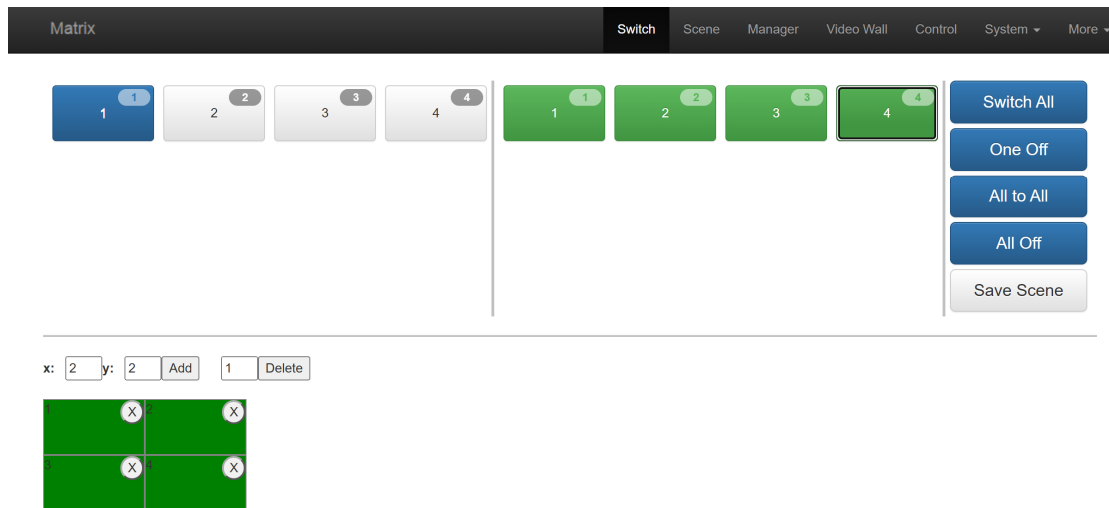


As shown in the figure: locate the red bounding box to determine the required number of splicing units—for example, a 2×2 splicing wall or a 3×3 splicing wall; where X represents the horizontal quantity and Y represents the vertical quantity.

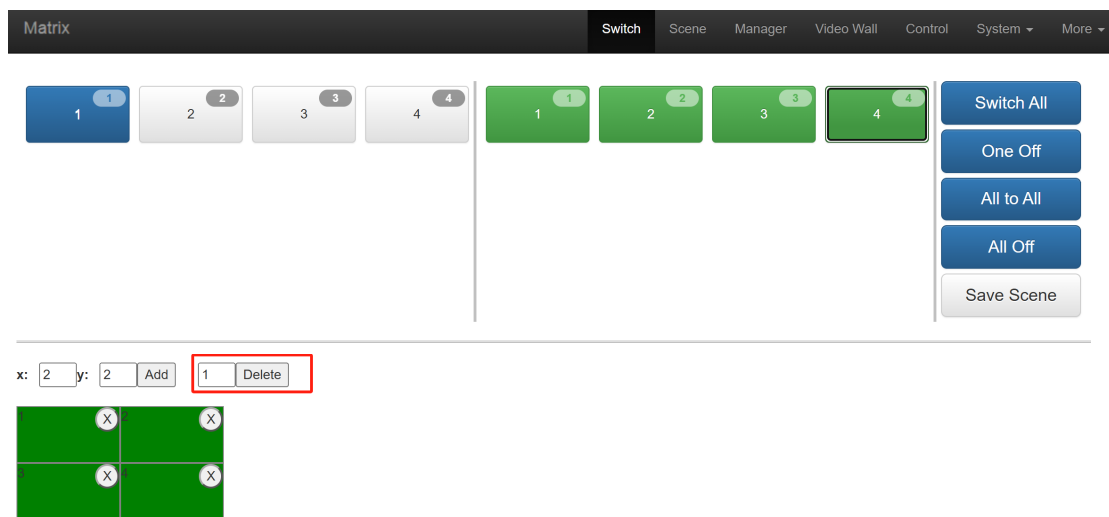


Select the required output splice and lower it; then adjust it according to the actual on-site requirements within the selected area of the frame.

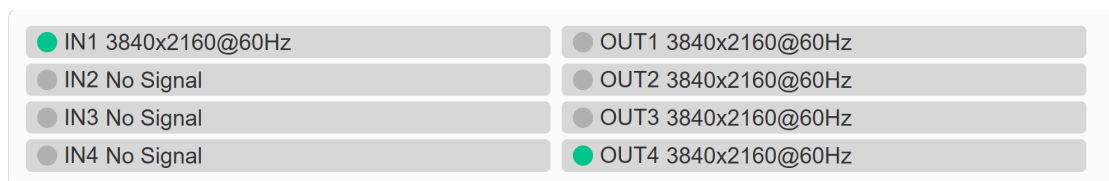
For example, as shown in the figure: the 2×2 splicing wall is now complete.



As shown in the figure: Enter 1 before "Delete" to remove the first splicing screen; to remove any other splicing screen, simply enter the corresponding index.



7.2.4 Input/Output Status Display Operation



As shown in the figure, the left panel displays the connection status and input resolution refresh rate for the four-channel input interfaces, while the right panel displays the connection status and output resolution refresh rate for the four-channel output interfaces; the status is refreshed every 3 seconds.

7.2.5 Scenario Operation

Scene Interface: (Select "Scene" from the menu bar)



The middle section contains 10 scenarios; the right side displays the Save Scenario, Load Scenario, Scenario Renaming, and Return to Top buttons.

After selecting a scene, click "Rename", then enter the scene name in the pop-up window.

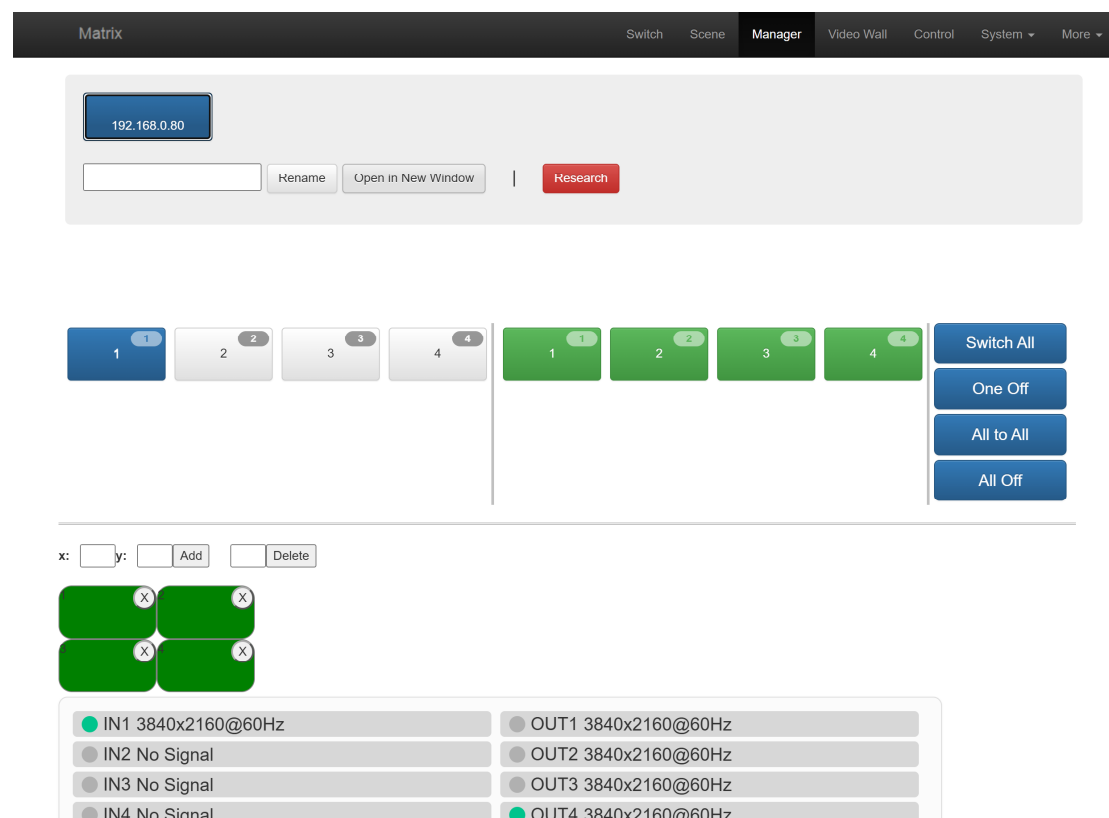
To save the current input/output connection state for a specific scenario, first select the desired scenario number (press 1–10), then press the "Save" button on the rightmost side;

To call a previously saved scene, first select the desired scene number (press 1–10), then press the "Load" button on the far right; press "Back" to return to the top of the scene list.

7.2.6 Centralized Control Operation

Centralized Control Management Interface: (Select "Management" from the menu bar)

Click the "Manage" option to enable centralized control of multiple matrix devices.

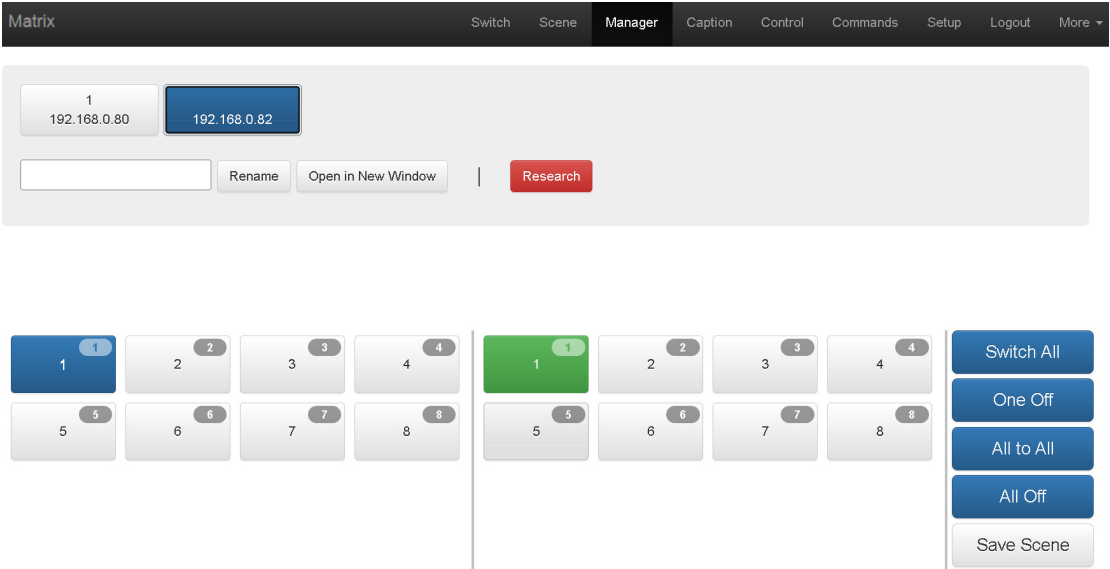


Within the same local area network, you can simultaneously control multiple matrix devices with different IP addresses within the same network segment; a maximum of 254 matrix devices can

be controlled at once. As shown in the figure below, two  matrix devices are connected with IP addresses 192.168.0.80 and 192.168.0.82: the device at 192.168.0.80 is a 4×4 matrix, while the device at 192.168.0.  82 is an 8×8 matrix. Click to search for and control

the available matrix devices. You can rename different matrix devices; for example, to change the web interface name of the device at 192.168.0.80 to "1", simply click on 192.168.0.80, enter the number "1" in the blank field, and then click again to apply the change. See the following interface:

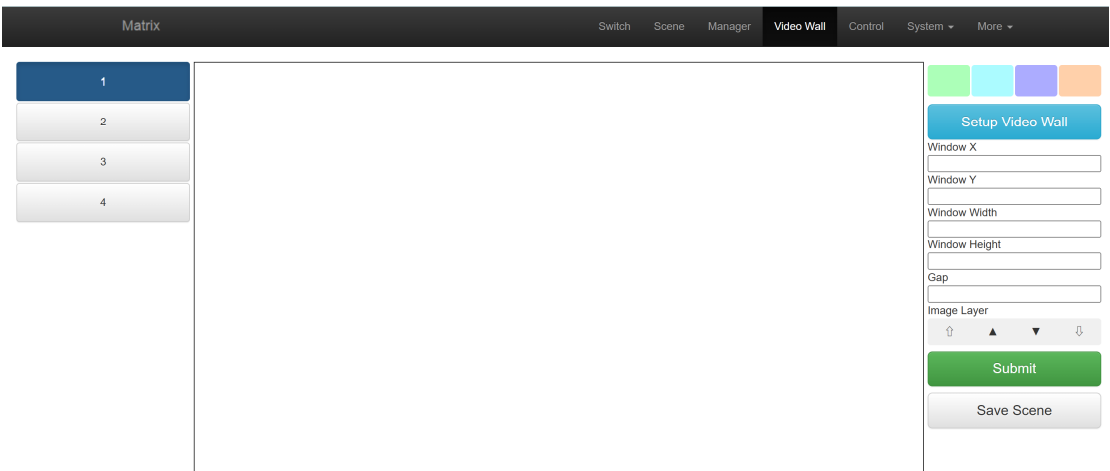
You can click on the IP address above to switch control.



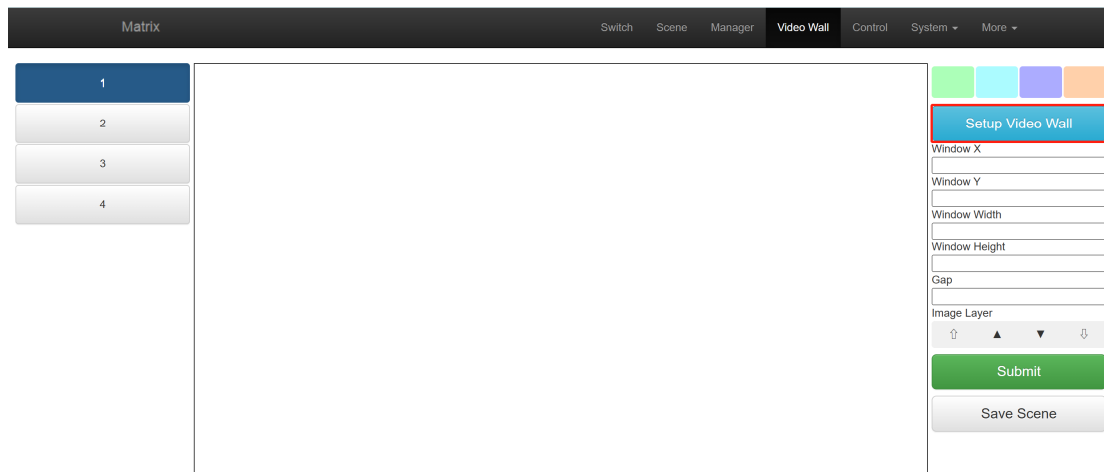
7.2.7 Video Wall Mode Operation (Matrix Splicing Operation/Video Wall Operation – only one can be selected)

If enabling both matrix splicing and video wall simultaneously causes image distortion and you need to restore normal operation, simply delete the splicing wall and video wall settings, then restart the device.

Roaming Overlay Interface: (Select "Video Wall" from the menu bar)



The left side features the input interface; the middle section is the video wall operation area; the right side, from top to bottom, contains: 8 window display/hidden buttons, a video wall configuration button, a window position and size adjustment area, layer adjustment buttons, and a scene save button; the bottom section displays nine preset layouts.



The video wall button on the right side allows you to open a sub-interface for configuring the video wall.



Name: Enter the name for the new video wall; if not specified, a default number will be used.

Row: Vertical size of the video wall.

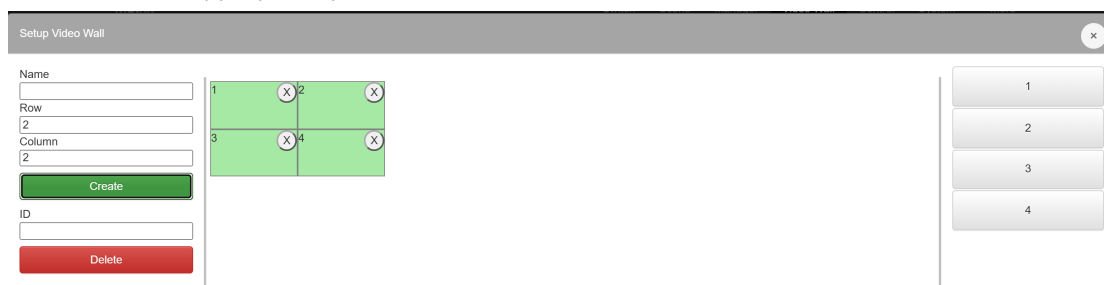
Column: Video wall horizontal size

Create: Click "Create Video Wall" as shown above.

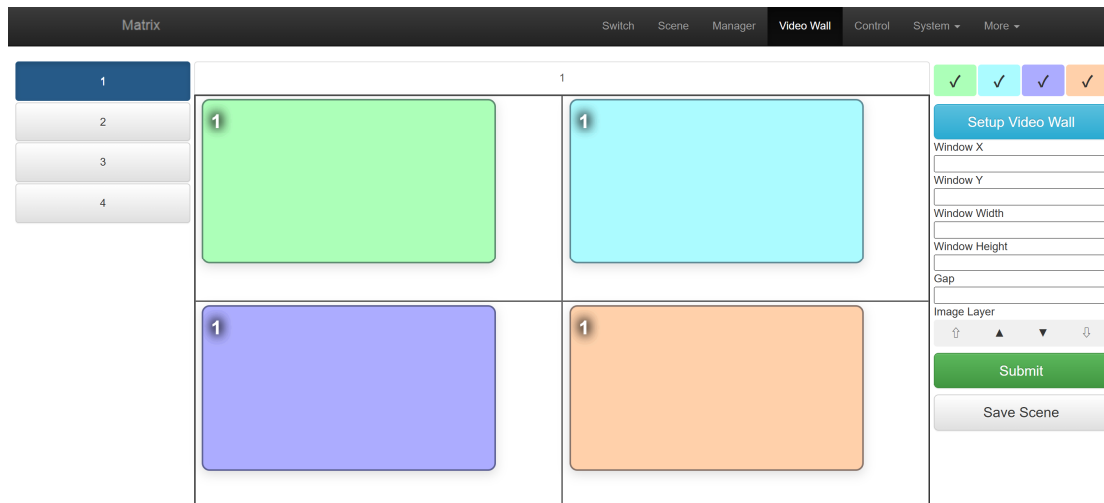
ID: Enter an ID to delete the corresponding video wall.

Delete: After clicking on an existing video wall or entering its ID, tap the "Delete" button to remove the corresponding video wall.

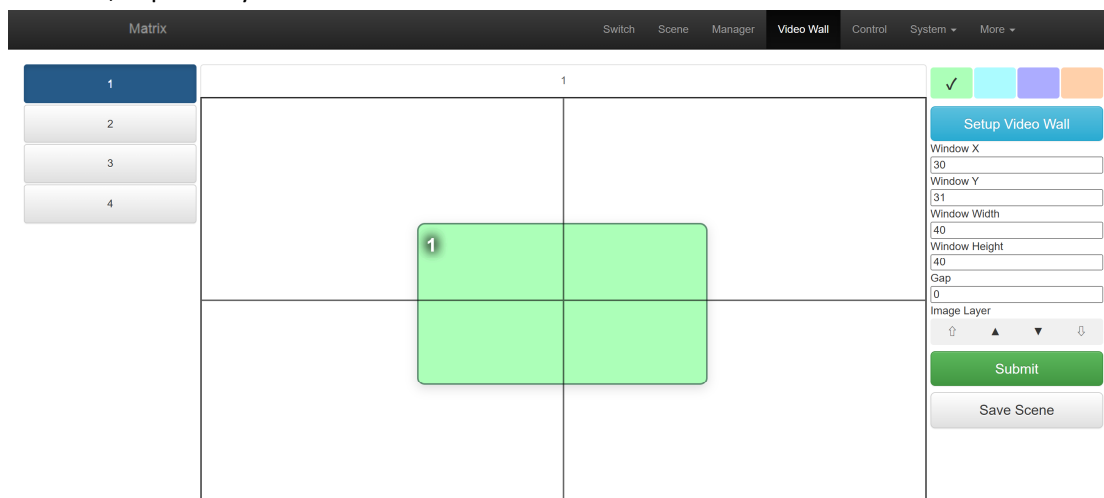
The right-side button corresponds to the output interface; after creating a video wall, drag the interface to the appropriate position on the video wall to bind it.



Click the Close button in the top-right corner or tap the area outside the pop-up window to close the Video Wall page.

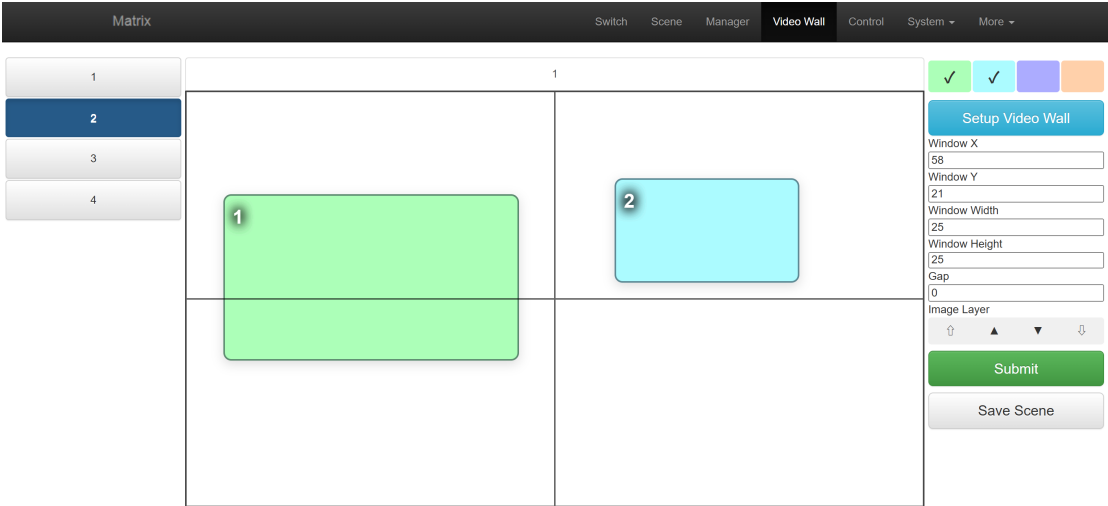
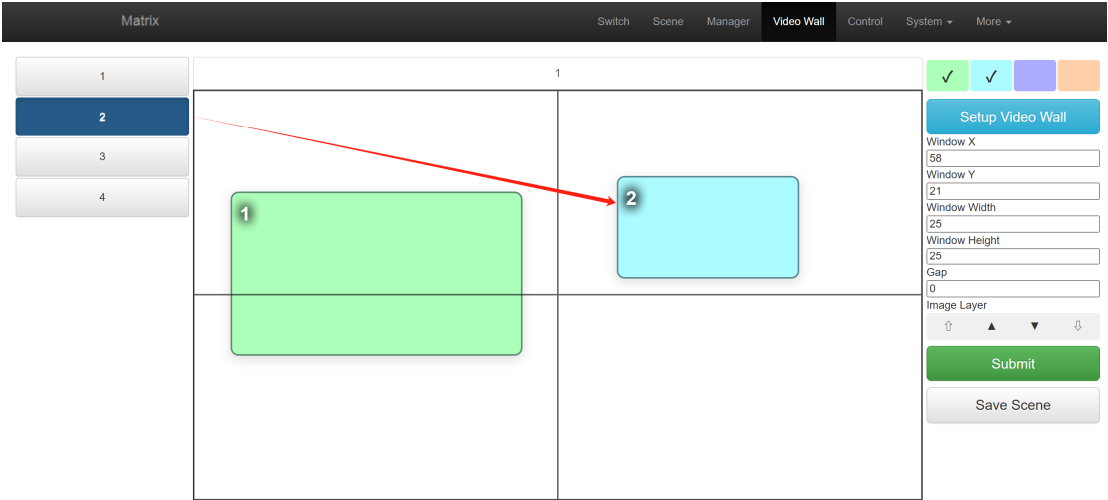


The video wall defaults to a specific resolution, which determines how many windows are automatically created; the diagram shows 1x1 and 2x2 configurations, representing 1 and 4 small windows, respectively.



Long-press to select an input interface and drag it to the video wall area to automatically open a window; tap the left input interface to open a window by sliding within the central video wall

area; drag the input interface into an already open window to replace its signal; or use the input value on the right to adjust the window's size and position.



7.2.8 Send Control Command Operation

Control Interface: (Select "Central Control" from the menu bar)



Click control button 1–20 to send the pre-configured serial port command; the command is transmitted with a mandatory 1-second delay.

Matrix

Switch Scene Manager Video Wall Control System ▾ More ▾

Commands

1 7 13 19 6 12 18

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CommandsSet

Name

test1

Clear Confirm

Command

1all

Type

ASCII

HEX

Interface

UART1

Baudrate

9600

Data Bits

8

Stop Bits

1

Parity

NONE

Delete

Confirm

Supports customizing button labels; there is a dedicated confirmation button for this purpose. The command supports both ASCII and HEX formats; the interface allows users to select Serial Port 1 or Serial Port 2 (corresponding to UART1 or UART2), and enables the baud rate to be configured.

7.2.9 Labeling Operation

Command Interface: (Select "System" → "Tags" from the menu bar)

Control System ▾

- Caption
- Commands
- Signal
- Setup
- Info
- Upgrade
- Configuration

Matrix

Switch Scene Manager Video Wall Control System ▾ More ▾

Input

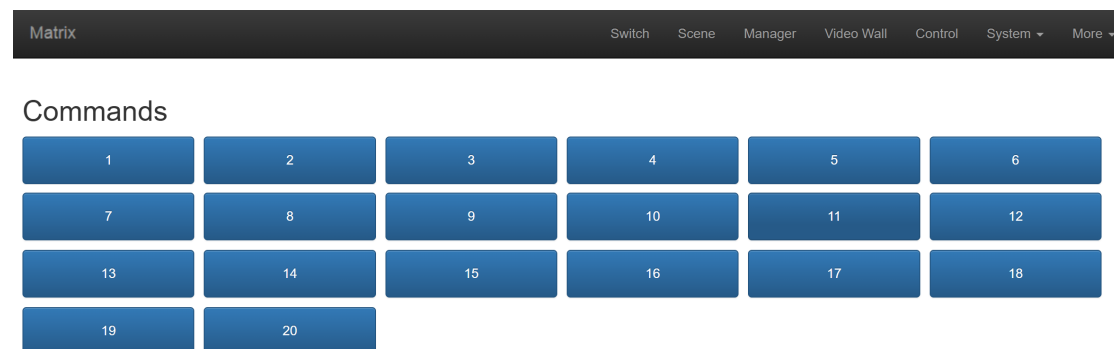
001: 002: 003: 004:

Output

001: 002: 003: 004:

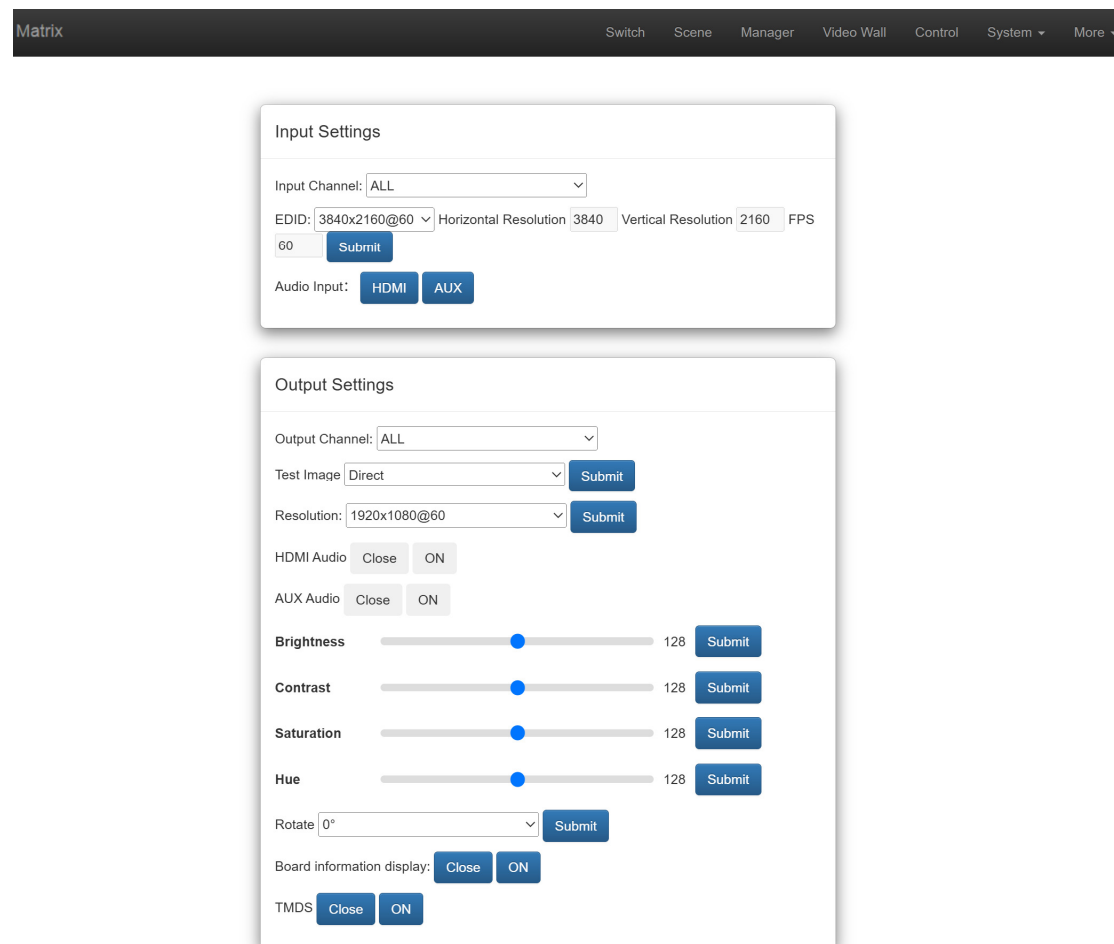
7.2.10 Set Control Command Operation

Command Interface: (Select "System" → "Command" from the menu bar)



7.2.11 Signal Operation Setup

Command Interface: (Select "System" → "Signal" from the menu bar)



Input Settings:

Input Channel: Select one of the four input interfaces; the channel currently selected is displayed below.

EDID: Configure the input EDID; supports selecting from four built-in EDIDs, four-channel output EDIDs, or a custom EDID.

Audio input: Supports selecting either HDMI audio transmission or a 3.5 mm audio jack with embedded connection.

Input Settings

Input Channel: ALL

EDID: 3840x2160@60

Horizontal Resolution 3840

Vertical Resolution 2160

FPS 60

Submit

Audio Input:

HDMI

AUX

Output Settings:

Output Channels: Select one of four output interfaces; the channel currently selected is displayed below.

Test Image: Select the test image output.

Resolution: Allows you to select and change the interface output resolution.

HDMI Audio: Allows you to toggle HDMI audio on or off.

AUX: Supports selecting the 3.5 mm audio output port to enable or disable audio output.

Brightness: Supports adjusting the output brightness.

Contrast: Supports adjusting the output contrast.

Saturation: Allows adjustment of output saturation.

Hue: Supports adjusting the output hue.

Rotate: Rotate the current output image.

Board information display: When enabled, the OSD will display the device status at the output interface.

TMDS: You can enable or disable TMDS; when TMDS is disabled, the output interface will not output any signal; when TMDS is enabled but no signal is present, a black screen signal will be output.

Output Settings

Output Channel:

ALL

Test Image

Direct

Submit

Resolution:

1920x1080@60

Submit

HDMI Audio

Close

ON

AUX Audio

Close

ON

Brightness

128

Submit

Contrast

128

Submit

Saturation

128

Submit

Hue

128

Submit

Rotate

0°

Submit

Board information display:

Close

ON

TMDS

Close

ON

7.2.12 Configuration Operation

Settings Interface: (Select "System" → "Settings" from the menu bar)

Click "Settings" to modify the restart function, IP address, username and password, input card audio settings, or output card resolution.

System

Language:

English

Save

Baudrate:

115200

Save

Reboot

Reboot Interface

Reset Interface

1. The first section is the System Settings area, which supports three operations: Restart Matrix, Restart Interface, and Reset Interface.

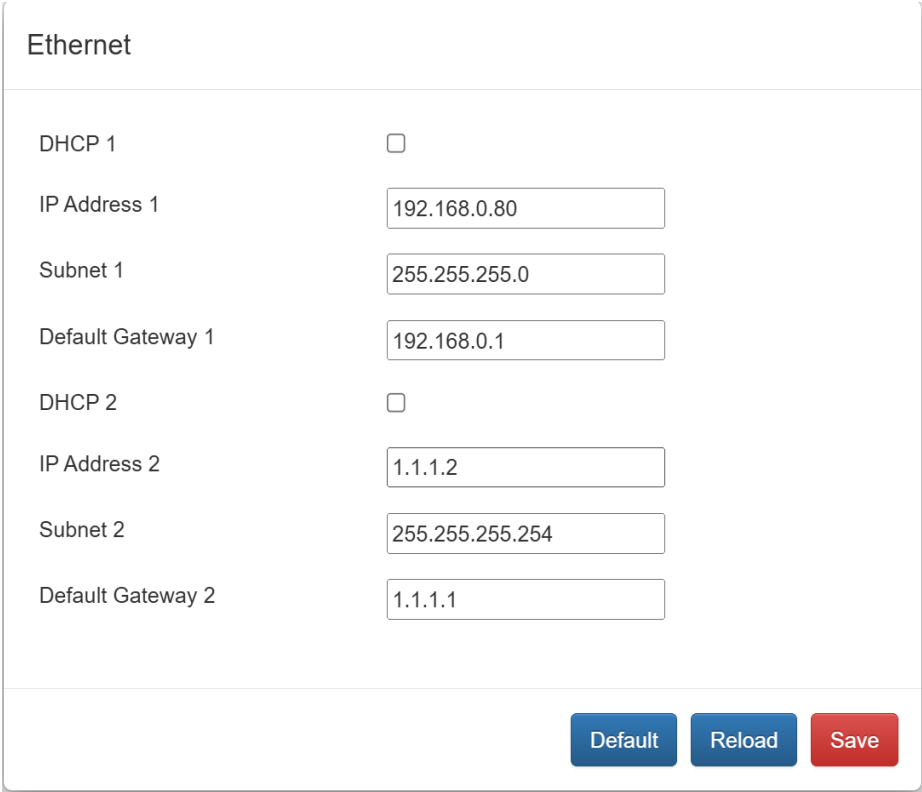
Language: Can be changed to Simplified Chinese, Traditional Chinese, English, or Russian.

Baud rate: Allows modification of the locally controlled baud rate.

Restart System: Click  to restart Matrix.

Reboot Interface:  Click to restart the input/output interface.

Reset Interface: Click  the "Reset Interface" button to enter the EDID and output resolution (default: 4K60 EDID and output resolution).



The image shows a web-based configuration interface for Ethernet settings. It is titled "Ethernet" and contains two sections for DHCP configuration. The first section, "DHCP 1", has an unchecked checkbox and input fields for IP Address 1 (192.168.0.80), Subnet 1 (255.255.255.0), and Default Gateway 1 (192.168.0.1). The second section, "DHCP 2", also has an unchecked checkbox and input fields for IP Address 2 (1.1.1.2), Subnet 2 (255.255.255.254), and Default Gateway 2 (1.1.1.1). At the bottom right, there are three buttons: "Default" (blue), "Reload" (blue), and "Save" (red).

Ethernet	
DHCP 1	☐
IP Address 1	192.168.0.80
Subnet 1	255.255.255.0
Default Gateway 1	192.168.0.1
DHCP 2	☐
IP Address 2	1.1.1.2
Subnet 2	255.255.255.254
Default Gateway 2	1.1.1.1

2. The second area is the Ethernet configuration zone. (The IP address 2 cannot be changed by default; IP1 and IP2 cannot be configured to belong to the same network segment.)

Dynamic IP1: When this option is checked, the network port will automatically obtain an IP address assigned by an external device (the automatically assigned IP address is displayed only on the front panel and will not be displayed in the manual network card configuration section below); when this option is unchecked, the network card parameters configured manually below will be used.

IP Address 1: Enter the IP address for the network card; setting two IP addresses to the same subnet is not supported.

Subnet Mask 1: Enter the subnet mask for the network interface card; direct entry of the mask length is not supported.

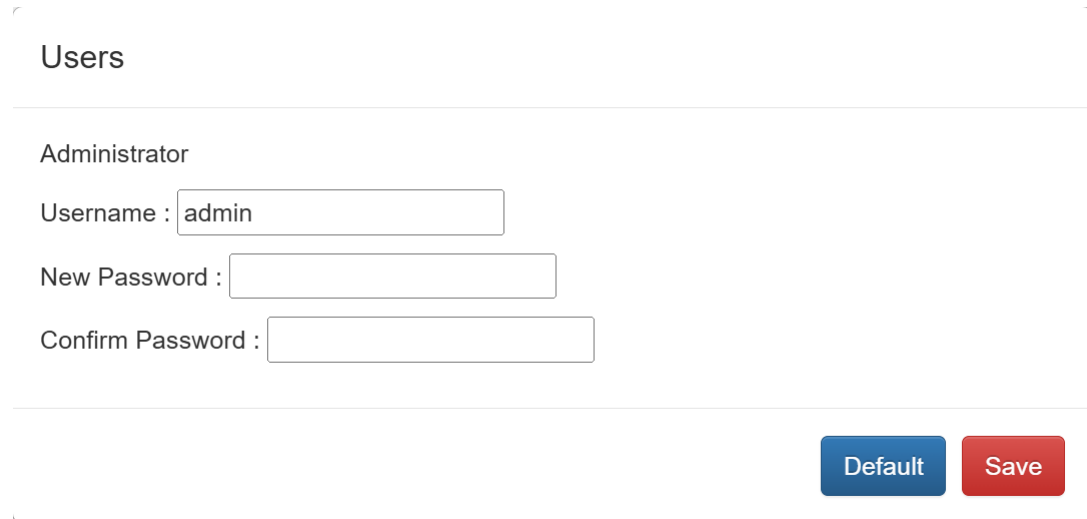
Default Gateway 1: Enter the gateway address for the corresponding network interface card; note that setting two gateways to the same subnet is not supported.

Default:  Resets the IP address to factory settings.

Load: Loads  the system's internal IP address.

Save Settings : To save your changes, click "Save Settings 

address modification , then click the "Restart Matrix" button at the top of the screen. The changes will take effect after the system restarts; otherwise, the modification will fail!



Users

Administrator

Username :

New Password :

Confirm Password :

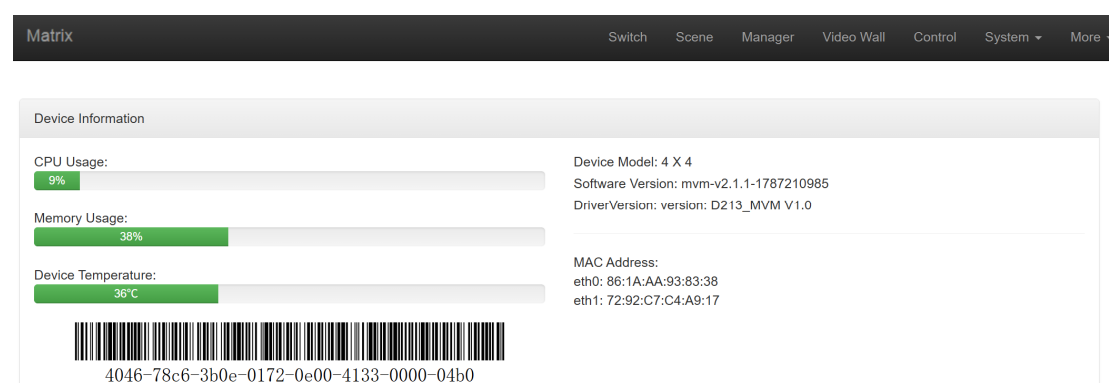
3. The third area is the User Management Area.

You can change the administrator's password ; simply press the "Save" button to save the changes.

7.2.13 Information Configuration Operation

Command Interface: (Select "System" → "Information" from the menu bar)

You can view information such as the current device model, version, MAC address, and more.



Matrix Switch Scene Manager Video Wall Control System More

Device Information

CPU Usage: 9%

Memory Usage: 38%

Device Temperature: 36°C

Device Model: 4 X 4

Software Version: mvm-v2.1.1-1787210985

DriverVersion: version: D213_MVM V1.0

MAC Address:

eth0: 86:1A:AA:93:83:38

eth1: 72:92:C7:C4:A9:17

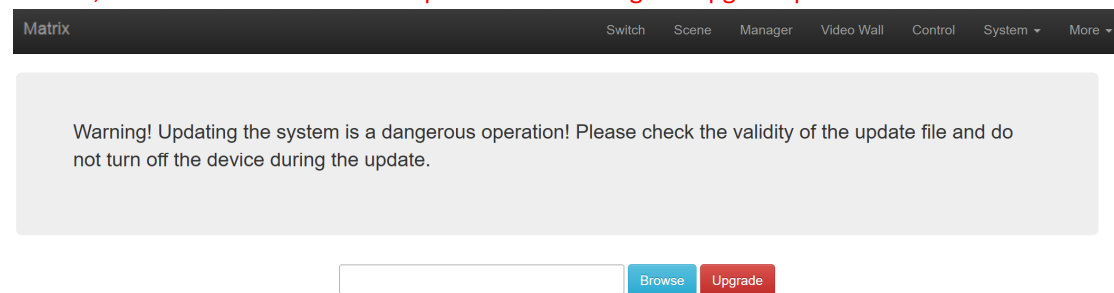
4046-78c6-3b0e-0172-0e00-4133-0000-04b0

7.2.14 Signal Operation Configuration

Command Interface: (Select "System" → "Upgrade" from the menu bar)

• Click "Upgrade" to burn or update the software (click  to select a file , then click to perform a software update on the device).

Performing an upgrade is a highly risky operation; you must ensure that the upgrade files are correct, and the device must not be powered off during the upgrade process!



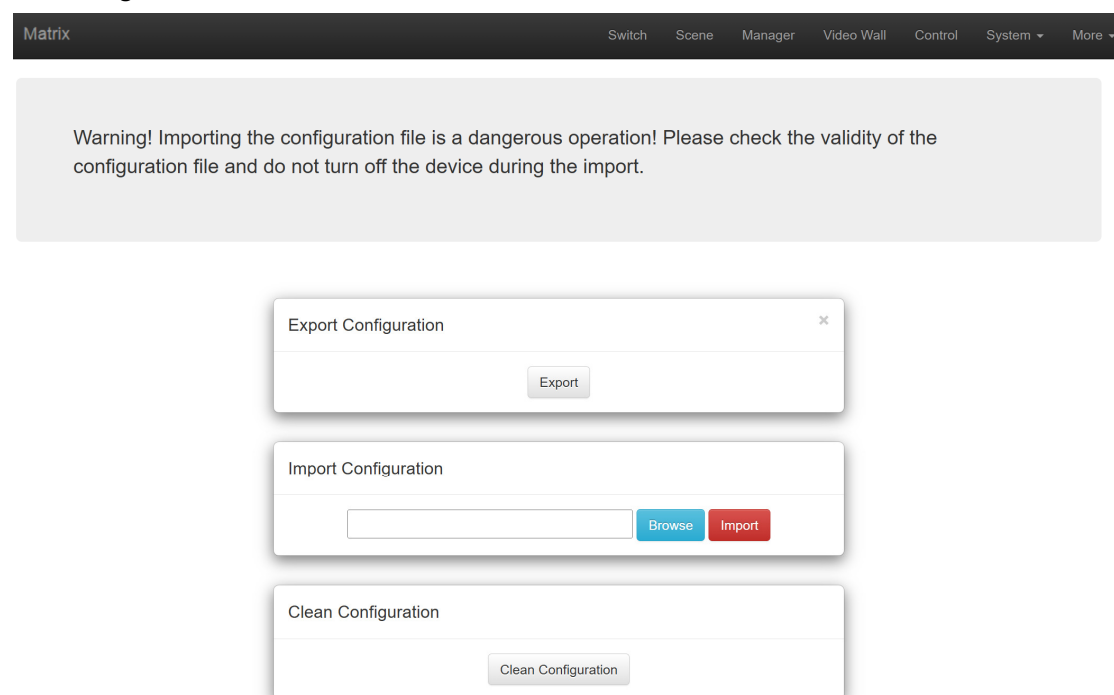
The screenshot shows the top navigation bar of the Matrix interface with the following items: Matrix, Switch, Scene, Manager, Video Wall, Control, System (with a dropdown arrow), and More (with a dropdown arrow). Below the navigation bar is a light gray warning box containing the text: "Warning! Updating the system is a dangerous operation! Please check the validity of the update file and do not turn off the device during the update." Below the warning box is a form with a text input field, a blue "Browse" button, and a red "Upgrade" button.

7.2.15 Configuration Setup Operation

Command Interface: (Select "System" → "Configuration" from the menu bar)

- Click "Configure" to import or export the current configuration, or to clear the configuration.

See the figure below:

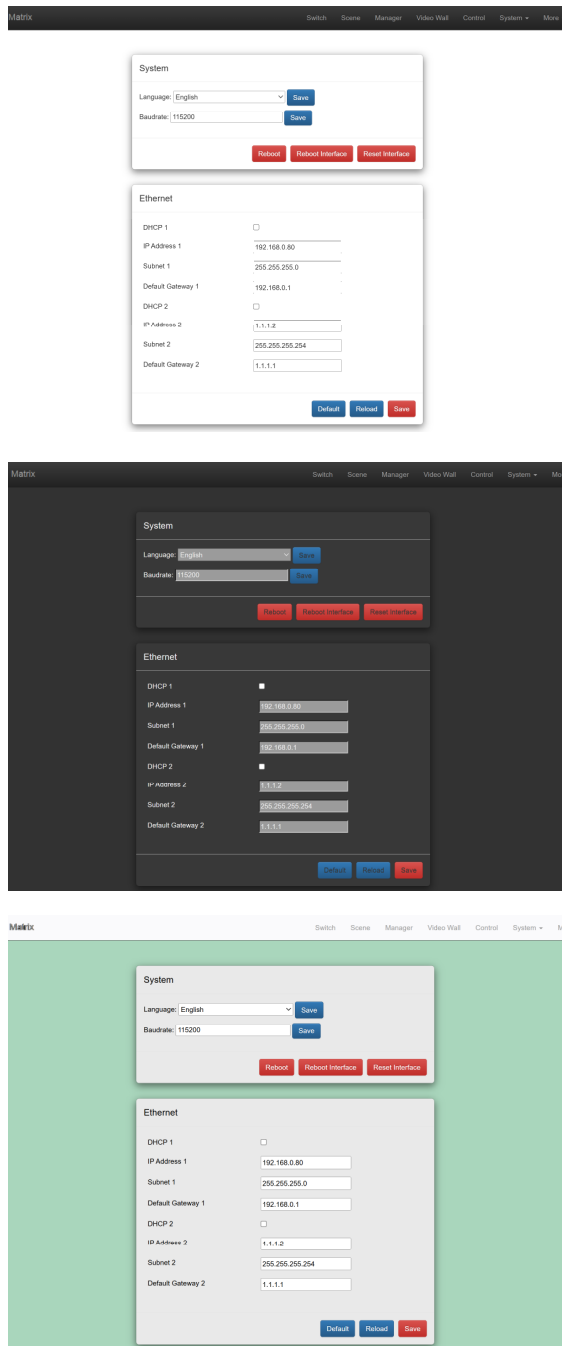


The screenshot shows the same Matrix web interface as before, but with the "System" dropdown menu open, showing "Configuration" as the selected option. Below the navigation bar is a light gray warning box containing the text: "Warning! Importing the configuration file is a dangerous operation! Please check the validity of the configuration file and do not turn off the device during the import." Below the warning box are three modal windows stacked vertically. The first modal is titled "Export Configuration" and has a close button (X) in the top right corner and an "Export" button. The second modal is titled "Import Configuration" and has a text input field, a blue "Browse" button, and a red "Import" button. The third modal is titled "Clean Configuration" and has a "Clean Configuration" button.

7.2.16 Skin Switch Operation

Command Interface: (Select "More" → "Switch Skin" from the menu bar)

Switch skins allows you to toggle between three different skin styles.



7.3 Password-Free Invocation Scenario Operation

When not logged in, click the icon in the top-left corner to access the Password-Free Invocation Scenario Interface (as shown in the figure below); this interface supports only invocation scenarios; the left sidebar provides a link to return to the login page.

Matrix Switch Scene Manager Video Wall Control System More Login

Please Login

username

password

☐ Remember Me

Login

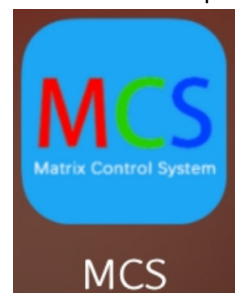
1: 2: 3: 4: 5: 6: 7: 8:

9: 10:

7.4 App Control

This matrix supports app control; iOS users can simply search for "MCS Connect" in the App Store to download and install the app, while Android users can download and install it via the website.

Website URL: <https://en.imqk.com/download/MCS.apk>



MCS

192.168.0.80

☒ save the setting

7.5 Central Control Command Operation

The matrix supports two control methods: LAN connection and RS232 connection.

TCP port number: 5000; UDP port number: 4000.

RS232: Baud rate – 115,200; Data bits – 8; Stop bits – 1; Parity bit – None.

type	control instruction	explain	functional description
Pract ice do finge r Orde r	YAll.	Y=1,2,3,4.....	Switch the Y-channel input to the combined output of all channels; For example: "1ALL." indicates switching the first input channel to the all-channel output.
	All1.		Set up a one-to-one mapping for all channels (e.g., 1->1, 2->2, 3->3,...).
	YXZ.	Y=1,2,3,4..... Z=1,2,3,4.....	Switch the Y-channel input to the Z-channel output; For example: "1X2" indicates switching the first input signal to the second output signal.
	YXZ&Q&W.	Y=1,2,3,4..... Z=1,2,3,4..... Q=1,2,3,4..... W=1,2,3,4.....	Switch the Y-channel input to the Z, Q, or W-channel output; Example: "1X2&3&4" indicates switching the first input signal to the second, third, or fourth output.
	SaveY.	Y=1,2,3,4.....	Save the current state to storage unit Y; Example: "Save2." indicates saving the current scene (state) to the second storage unit.
	RecallY.	Y=1,2,3,4.....	Set the input/output switching state of Storage Unit Y; Example: "Recall2." indicates the invocation of the input/output switching state (scenario) for the second storage unit.
	BeepON.		Turn on the buzzer
	BeepOFF.		Turn off the buzzer
	Y?.	Y=1,2,3,4.....	Query the corresponding output of the input channel; "1?" indicates querying input 1 (changing it to "2" indicates querying input 2); it will return 1×1&2&3. The value following 'x' indicates the corresponding output channel; if there are multiple such channels, they are connected by the '&' symbol;

Note: 1. Y and Z represent the number of input and output channels, respectively, which depend on the control matrix; for example, if the control matrix is a 4×4 matrix, their valid range is 1–4; any value outside this range will be treated as an incorrect command input.

2、The English decimal point "." at the end of each instruction must be included as a closing

character; it should not be omitted.

3、The "X" used to switch from Channel Y input to Channel Z output can be the uppercase or lowercase English letter "X".

3. Command letters are case-insensitive.

4. A successful switch will return "OK"; a failed switch will return "ERR".

8. Common Product Faults and Precautions

8.1 Common Faults

1. Serial port operation failed; unable to control the host switch.

2. The display device exhibits screen flickering, pixelation, blue screen, or black screen issues.

3. LAN control system operation is unresponsive.

8.2 Precautions

1. If the serial port operation fails, check whether the corresponding control software on the control device is running, or verify whether the serial port cable is damaged.

2. When the display device exhibits screen flickering, screen artifacts, blue screen, or black screen issues, please check the following components for potential problems:

(1) Check whether the display screen is damaged or whether any cables at the display interface are loose.

(2) Check whether the signal source is operating normally.

(3) Check whether the HDMI cable is damaged.

(4) Check whether any joints exhibit any looseness.

3. When LAN control fails

(1) Check whether the network cable is damaged.

(2) Is the RJ45 connector damaged?

(3) Is the connection between the network cable and the RJ45 connector incorrect?

(4) Whether the control software is running or whether the control software is damaged

9. after-sale service

9.1 Guarantee Information

Within one year from the date you purchase the product from our company or an authorized distributor, provided you use the product in accordance with its intended use and comply with the official service support requirements, we guarantee that the product does not have any quality defects in its manufacturing process or materials.

If the product experiences a malfunction outside the scope of the aforementioned coverage (i.e., when it is unable to function normally) during the aforementioned warranty period, we will independently select one of the following methods to resolve the issue for you, and all related costs shall be borne by our company:

1. Repair defective products or their components;
2. We will replace your original product or component with a product or component that performs the same function;
3. We will refund you the full amount paid for the purchase of this defective product.

For Your Attention:

- The ownership of all products that have been replaced shall vest in the Company;
- The product or component replaced for you may be brand new, or it may have been professionally repaired to meet quality standards;
- For products or components that have been replaced or repaired, we provide additional warranty coverage: the warranty period is 90 days. If the remaining term of the original product's initial warranty period exceeds 90 days, the remaining term of the original warranty period shall apply (i.e., the longer of the two periods shall be used).

Special Note: Regardless of whether the product is still under warranty, the Company shall not be liable for any software, firmware, information, or stored data contained in, stored within, or integrated into the product returned by you for repair (including, but not limited to, data loss or damage).

9.2 Guarantees, Restrictions and Exceptions

Furthermore, beyond the aforementioned limited coverage scope, the Company shall not be liable for any additional coverage if the product damage is caused by any of the following circumstances:

- Damage caused by misuse, incorrect operation, or negligence when using the product;
- Damage caused by accidental incidents, abnormal physical stress, or abnormal voltage;
- Modifying, tampering with, or altering the product without the prior authorization of the Company;
- Damage resulting from services provided by a third party (other than our company or any third party authorized by us) – such as repair or maintenance.

Please note: If the malfunction is caused by your operation of the product in accordance with its standard usage instructions or by its correct use within the applicable scenarios, it shall still fall within the scope of the aforementioned initial warranty coverage and shall not be subject to the aforementioned exclusion clauses.