



4K HDMI Matrix Switcher

iMatrix H Series



Packing

The complete matrix switcher package consists of the following items:

1. 1x Matrix switcher
2. 1x power cord
3. 1x Power adapter
4. 1x RS232 serial communication cable
5. 1x IR Remote

Please check to make sure that our products have not been damaged during transportation. If there is any damage, please contact your dealer directly.

Please read this manual thoroughly before use. Please use it carefully during installation to prevent damage to the matrix switcher.

Safety Guide

To ensure reliable use of equipment and the safety of personnel, please observe the following when installing, using and maintaining:

1. Use a single-phase three-wire power supply with a protective ground and ensure that the entire system uses the same protective ground. The final grounding point of the matrix should be connected to the ground and its grounding resistance should be less than 1 ohm. The unprotected power supply cannot be used and the grounding pin of the power cord cannot be destroyed. Without perfect grounding, it is easy to cause signal interference and instability, and may also cause personal accidents due to leakage.
2. Do not use a two-pin plug.
3. When equipment movement or other work that requires power failure is required, turn off all power, including turning off the external power outlet and unplugging the power supply.
4. Non-professionals, please do not attempt to disassemble the equipment case without permission. Do not repair it yourself to avoid damage to internal precision parts, or accidents or damage to the equipment.
5. When plugging in or unplugging the signal cable from the device, the device needs to be powered off to avoid breaking through the circuit. Damage caused by hot plugging is not covered by the warranty.
6. Pay attention to moisture and dust, and the ambient temperature should not be too high or too low.
7. Do not press heavy objects on the machine to avoid damage.
8. If you encounter any problems, please refer to this instruction first. If you cannot solve the problem, please contact us.

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1. Overview

The HDM matrix switcher is a high-performance professional switching device with embedded intelligent control, which is used to switch each audio and video input signal synchronously or asynchronously to any output channel of audio and video.

The unique processing method is adopted, which greatly improves the switching speed of the device. Flexible control mode, long-life button panel operation, large-screen dot-matrix LCD screen displays various information, provides standard RS-232 communication interface, convenient for users and various remote control devices (such as Crestron, AMX, etc.) In conjunction with the infrared remote control device (optional).

HDMI matrix switchers are mainly used in radio and television engineering, multimedia conference halls, large-screen display engineering, television teaching, command and control centers and other places.

Front Panel Description



1) Number keys

Input and output channel selection keys for setting the input and output channels of audio and video signals or for status recall or for numbers saving, etc.

2) Function keys

●SAVE——LCD display save button

Press the SAVE key to save the corresponding preset between the input channel and the output channel of the LCD display.

●RECALL - call the saved preset

Call the saved input and output correspondence.

●EDID——EDID learning button

Connect the screen that needs to be learned to the last output interface (OUT interface), press the EDID button, the button panel will automatically prompts the input source that can be learned.

For example: to learn the EDID information of a certain screen to the first input

1. Connect the screen that needs to be learned to the last output of the machine.
2. Press the EDID button;
3. Press the input 1 button, (you can select multiple inputs at the same time, support Simultaneously learn to all the inputs)
4. Wait for the EDID button stop flashing automatically.
- 5.learning is complete, restart the machine

●MENU——Menu button

Buzzer sound switch, host address code, language setting, etc.

●ALL - "All" command execution button

Switch selection, execute all switching commands

●OTO - shortcut corresponding display button

When the OTO button is pressed, the input channel and the output channel are displayed one-to-one (for example, the first port is displayed on the first screen).

●Display

System Monitor - A liquid crystal display that displays the current information of the host.

●Interface

INPUT-- HDM video input port, using HD-15Pin interface, used to connect HD-15Pin video interface peripherals, such as PC, DVD, HD player.

OUT-- HDMI Video output port, using HD-15Pin interface , used to connect HD-15Pin video interface peripherals, such as monitors, Tv , projectors, etc.

The HDM connectors at both ends of each signal line must correspond, otherwise there will be color loss or no signal output.

RS232-N/RS232-OUT - Provides two independent RS-232 interfaces for connecting to a computer or central control device to control the matrix system.

AC220v 50/60Hz—System power input port, supporting AC100~240V 50/60Hz input.

●Other

IR—multi-function infrared remote control receiver port.

2.The Panel Button Operation Instructions

This manual uses the H0808 matrix as an example to explain the usage. For other model matrix, please refer to the instructions of H0808.

Use the front panel buttons to quickly switch audio and video on the HDMI matrix (for details on each button function, please refer to “Front Panel Key Function Description”). The operation method is as follows: Input channel +Output channel

Input channel

The channel to which the source to be switched is currently connected

The INPUT “1~8” button on the front panel represents 1~8 input channels respectively.

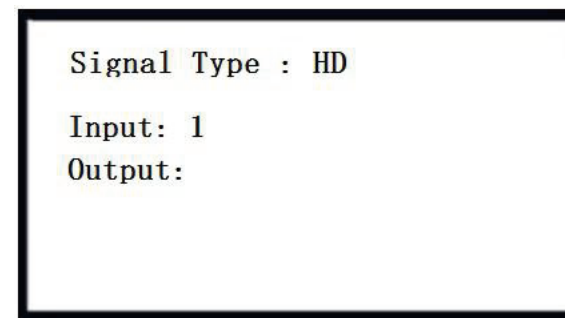
Output channel

The channel to which the peripheral device is connected. The OUT PUT "1~8" button on the front panel represents 1~8 output channels respectively.

Switching example

Example 1: Synchronously switching the first audio and video signals to the third output channel, the steps are as follows:

1. Press the input channel “1” button, and its LCD screen displays as follows:



2. Press the output channel "3" button, The LCD screen displays as follows:

```
Signal Type: HD
Input: 1
Output: 3
```

3. After the switch is successful, if you need to perform the next step, press the next input interface directly.

The operation of switching 1 channel of audio and video signals to multiple output channels synchronously (such as outputting 1-4 channels), after completing the first step, directly press the output "1, 2, 3, 4" keys.

If you need to switch to all output channels, press the "ALL" button after completing the first step.

1.2.2 Storage and Calling Examples

Example 1: The operation of synchronously switching the first audio and video signals to all output channels (for example, all the outputs are 8 channels) is stored as number 01, and the steps are as follows:

1. Press the "SAVE" call button and its LCD screen displays:

```
Scenario mode saving
Please type the scene number
you will save
```

2. Press the output channel "1" button, and its LCD screen will display as shown below:

```
Scenario mode saving
Please type the scene number
you will save
1
```

3. After the operation is successful, the LCD screen returns to display the corresponding channel.

Example 2: Call the above stored content, the steps are as follows:

1. Press the "RECALL" call button, and its LCD screen will display as shown below:

```
Scenario mode calling
Please type the scene number
that you will save
```

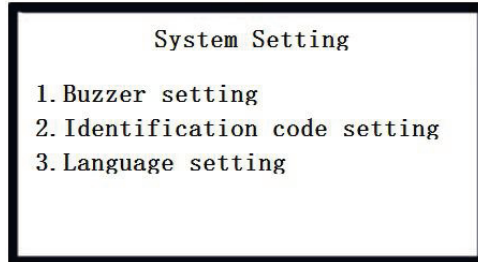
2. Press the output channel "1" button, and its LCD screen will display as shown below:

```
Scenario mode calling
Please type the scene number
that you will save
1
```

3. After the operation is successful, the LCD screen returns to display the corresponding channel.

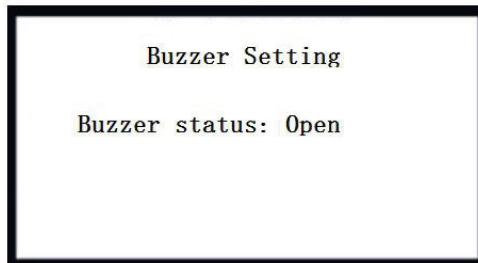
Matrix system setup

Press the "MENU" menu button and its LCD screen will display as shown below:



a) Buzzer settings

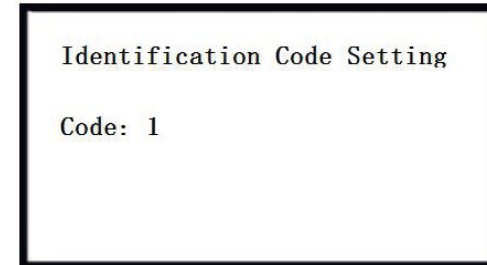
1. As shown in Figure 1, press the input channel "1" button to enter the buzzer setting. The LCD screen displays the following picture:



2. Press the input channel "1" button to switch the buzzer switch. After the operation is successful, the LCD screen returns to the corresponding channel.

b) The identification code is the number of the matrix

1. As shown in Figure 1, press the input channel "2" button to enter the identification code settings, the LCD screen shown below:

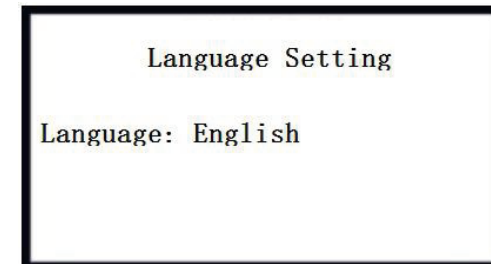


2. Press the input channel "1", "2", "3" and "4" keys to switch the matrix identification code freely.
3. After the operation is successful, the LCD screen returns to display the corresponding channel.

The matrix identification code set must be the same as the address when using the serial port control matrix.

c) Language settings

1. As shown in the interface of Figure 1, press the input channel "3" to enter the language setting. The LCD screen displays the following picture:

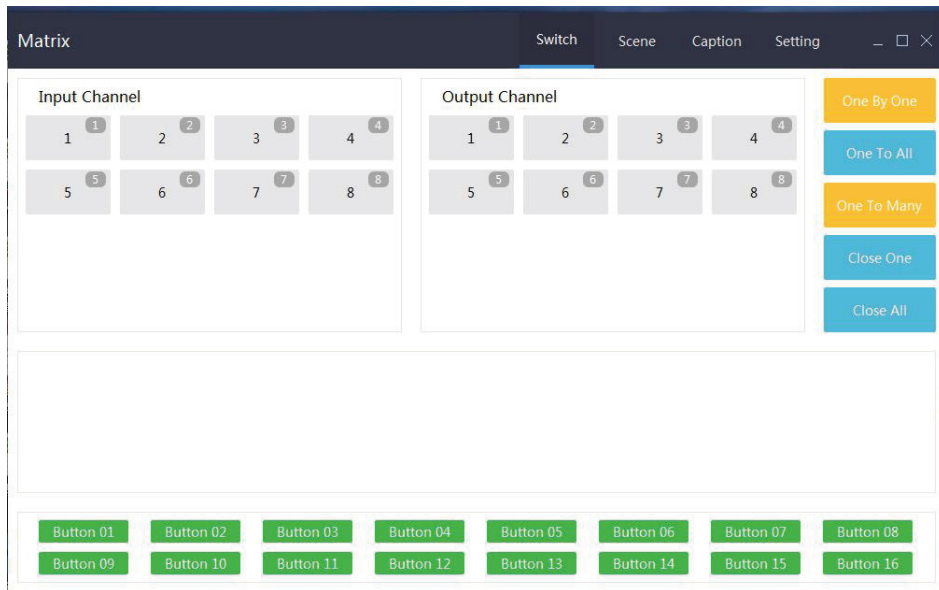


2. Press the input channel "1" to switch between Chinese and English. After the operation is successful, the LCD returns to the corresponding channel.

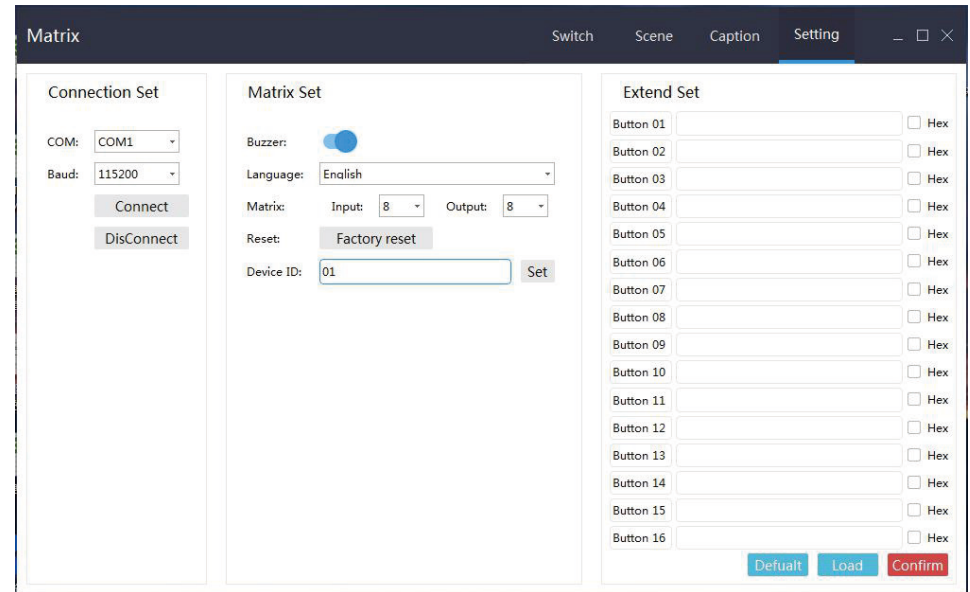
3. Software Operation

Software settings

1. Double-click "Matrix Controller" to open the application, as shown below:



2. Click "Settings" to enter the connection between the matrix and the software. For example, the computer serial port is "com1" and the matrix identification code is "1", like the follow figure shown:



The baud rate is 9600.

The serial port address you set must be the same as the port address of the connected computer.

The matrix identification code you set must be the same as the address when using the serial port control matrix.

2. After the operation is completed, click "Settings" to confirm, then click "Connect" to establish contact with the matrix.

Software control input and output channel correspondence

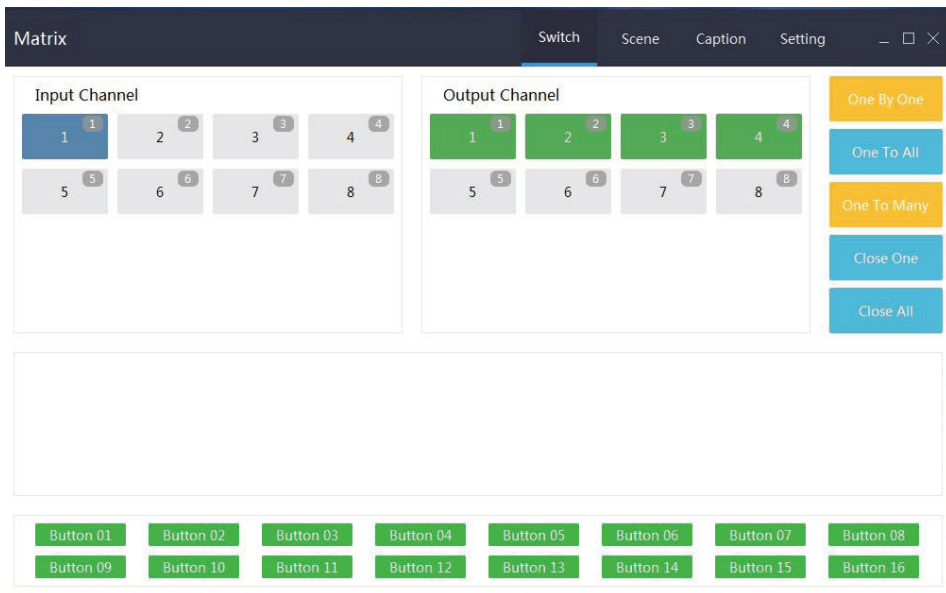
a) One By One: Quick corresponding display button (equivalent to OTO button)

After clicking, the input channel and the input channel are displayed correspondingly (for example, the 3rd input channel is displayed on the 3rd screen).

- b) One To All I: all command execution buttons
After selecting the input channel, click to display this channel on all screens (for example, the 3rd input channel is displayed on all screens).
- c) One To Many: Specify display button
After selecting the input channel, click on the desired output channel to display 1 channel of video on one or multiple screens (for example, the 3rd input channel is displayed on the 3rd, 4th, and 5th screens).
- d) Close One: Close the display screen
Turn off the output screen that does not need to be displayed
- e) Close All: Turn off all displayed screens

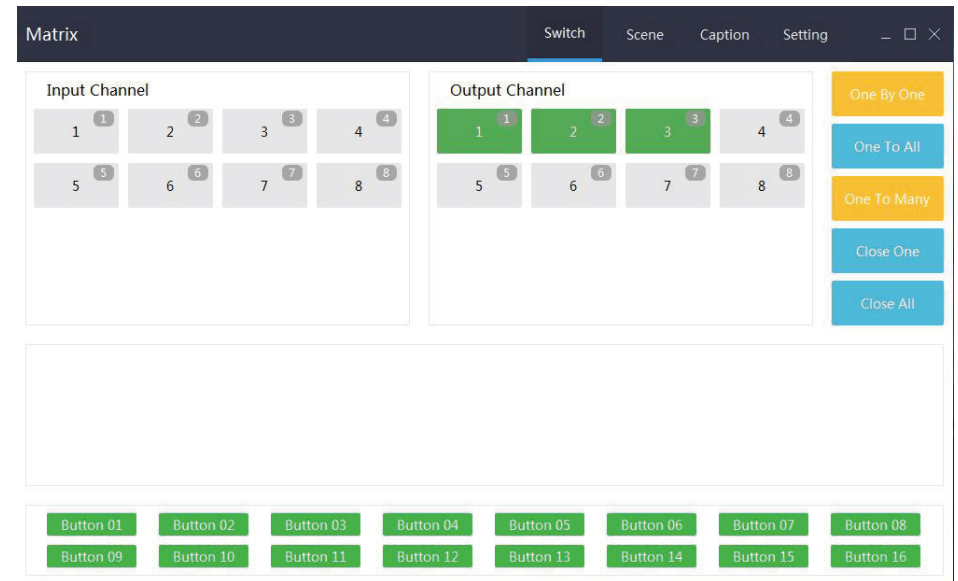
Control display operation

1. Click "Switch" (take the 1st input display to output "1, 2, 3, 4" as an example), select the input channel "1" and output channel "1, 2, 3, 4", click "One To Many", as shown below:



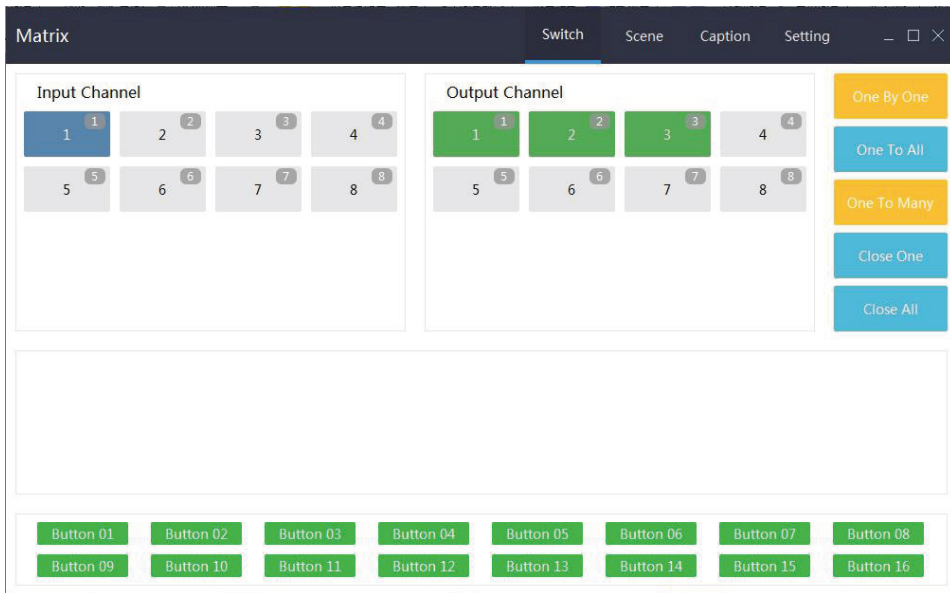
Synchronously switch 1 channel of audio and video signals to all output channels (if all outputs are 8 channels), select the input channel to be displayed and click "One To All" directly. Make the pictures one-to-one correspondingly display, and click one to one directly.

2. For the screen that does not need to be displayed again, click the corresponding output channel, and then click "Close One" as shown below:

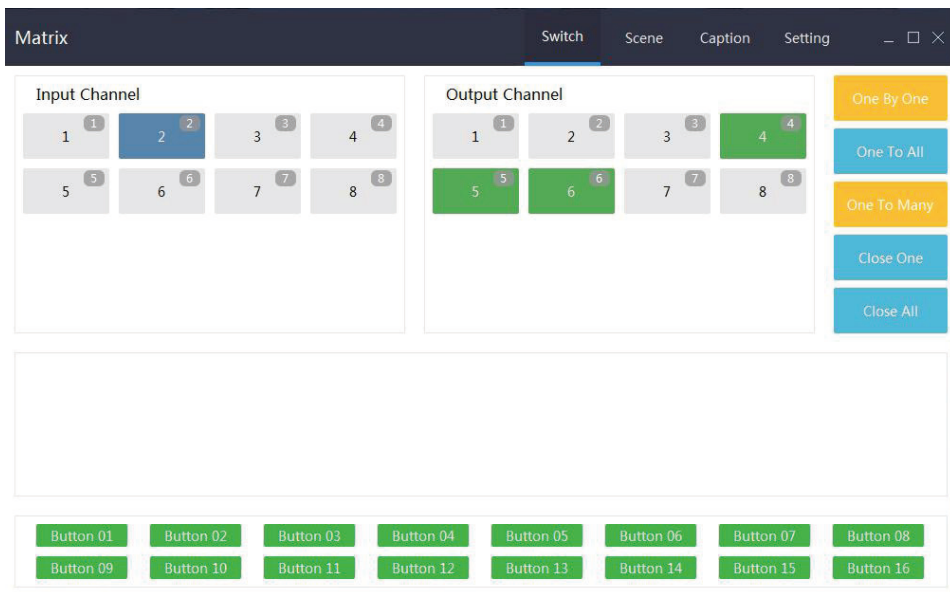


Close all displays and click "Close All".
Save and retrieve channel correspondence
Example: Synchronously switch the first audio and video signals to the first, second, and third output channels, and the second signal is switched to the fourth, fifth, and sixth output channels, saving and recalling operations.

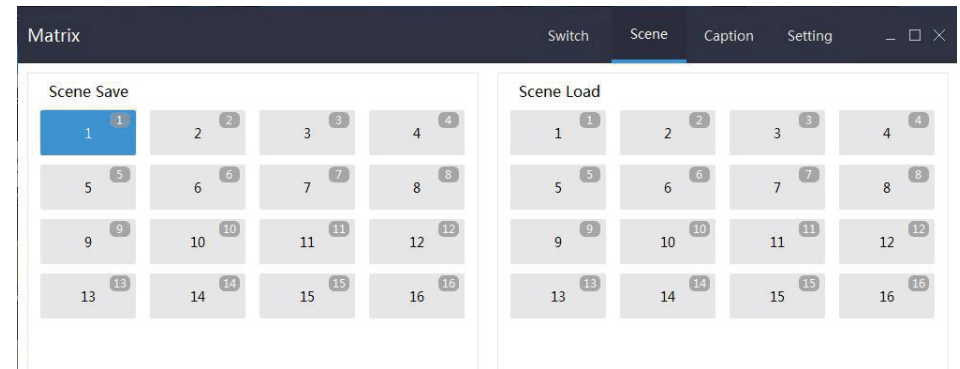
1. Click on "Input Channel 1" - "Output Channel 1, 2, 3" - "One To Many" in turn, as shown below:



2. After the operation is successful, click “Input Channel 2” - “Output Channel 4, 5, 6” - “One To Many” in turn, as shown below:



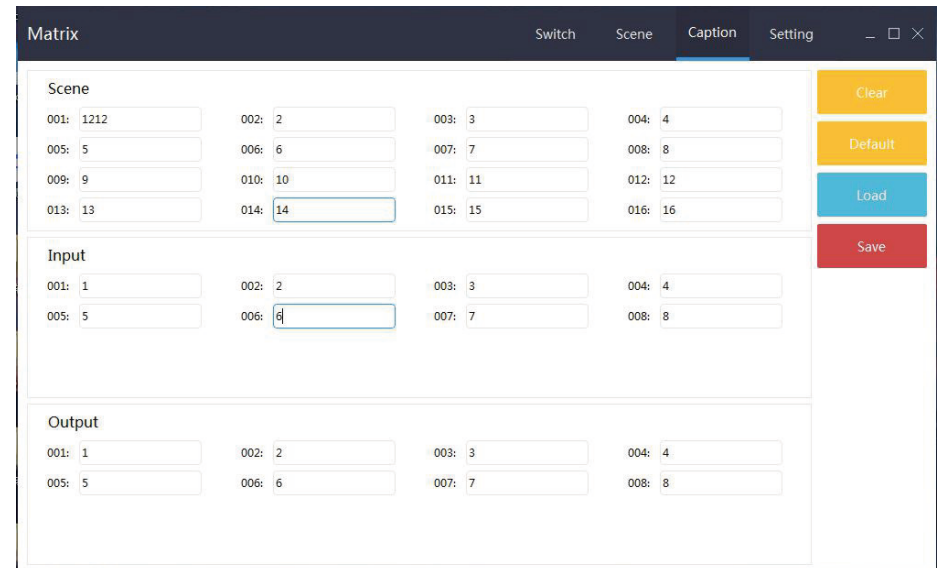
3. After the operation is successful, click “Scene”, (Take saving into Case 1 as an example), click Save Status “1” as shown below:



4. To recall the display of the correspondence between the input and output, directly click on the corresponding Loading Scenario.

Channel naming

1. Click on Caption as shown below:



- Click and directly to enter the scenario and input and output channels for which you want to change the name, as shown in the following figure:

- When the operation is complete, click Save.

4. Remote Operation Instructions

- 1 cut 1 operation steps: 1-AV-1
- 1 cut 12 operation steps: 1-AV-AUDIO-1-2
- 12 cut 1 operation steps: AUDIO-1-2-AV-1
- 12 cut 13 operation steps: AUDIO-1-2-AV-AUDIO-1-3
- 1 cut 1, 2, 3 steps: 1-AV-1-2-3
- 1 cut 10,11,12 operation steps: 1-AV-AUDIO-1-0-AUDIO-1-1-AUDIO-1-2
- 12 cut 1, 2, 3 operation steps: AUDIO-1-2-AV-1-2-3
- 12 cut 11, 12, 13 operation steps: AUDIO-1-2-AV-AUDIO-1-1-AUDIO-1-2-AUDIO-1-3
- Storage scene mode 1 operation steps: SAVE-1

- Storage scene mode 11 operation steps: SAVE-AUDIO-1-1
- Recalling the scene mode 1 operation steps: RECALL-1
- Recalling the scene mode 11 operation steps: RECALL-AUDIO-1-1
- EDID learning the first route operation steps: F1-1
- EDID learning the 11th route operation steps: F1-AUDIO-1-1

5. Common faults and maintenance

- Large signal interference: check whether the signal connection cable and plug are good, whether the cable meets the requirements of the specification, whether the system grounding is good, and whether the AC power grounding system between the devices is consistent;
- When there is color loss or no video signal output, it may be that the connectors at the two ends of the signal line are not connected properly;
- When the serial port (refer to: computer or central control serial port) cannot control the matrix, please check whether the port number of the software serial port is correct.
- If the matrix input and output signals can be switched but there is no BB sound, it may be that you turn off the buzzer sound;
- When the matrix is switched, the buzzer sounds, but there is no corresponding image transmission:
 - 1) See if there is a signal at the corresponding input. (Can be detected by oscilloscope or multimeter) If there is no signal input, it may be that the input wiring is broken, or the connector is loose, replace the connected cable can be ok;
 - 2) See if there is a signal at the corresponding output. (Can be detected by oscilloscope or multimeter) If there is no signal output, it may be that the output is broken, or the connector is loose, replace the connected cable can be ok.

- 3) After the above two conditions are replaced, it still not work. The internal unit may be faulty. Please send it to a professional for repair.
6. If the LCD has no display, the operation does not respond, may be power supply' abnormal.
7. When connecting the connector, if the static electricity come to be strong, the power ground wire may not be connected to the ground. Please connect it properly, otherwise it will easily damage the host and shorten the life of the host.
8. When the matrix panel buttons, serial port and remote control cannot be controlled, the internal host may be damaged. Please send it to a professional for repair.