USER MANUAL

4K2K 8x8 HDMI Matrix Switcher with EDID management

FIX-MANAGER-800-E

Version: V2.0.1

Safety Reminder

To protect the device and operating personnel from electrostatic discharge, you need to check and ensure that the device is grounding well before the device is powered on. Please observe the following when you install, use, maintain this equipment.

Make sure the device ground connection.

Important Safety Instructions

1. Do not expose this apparatus to rain, moisture, dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.

2. Do not install or place this unit in a bookcase, built-in cabinet or in another confined space. Ensure the unit is well ventilated.

3. To prevent risk of electric shock or fire hazard due to overheating, do not obstruct the unit's ventilation openings with newspapers, tablecloths, curtains, and similar items.

4. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

5. Do not place sources of naked flames, such as lighted candles, on the unit.

6. Clean this apparatus only with dry cloth.

7. Unplug this apparatus during lightning storms or when unused for long periods of time.

8. Protect the power cord from being walked on or pinched particularly at plugs.

9. Only use attachments / accessories specified by the manufacturer.

10. Refer all servicing to qualified service personnel.

Warnings of FCC

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 decoder.

    -- Connect the equipment into an outlet on a circuit different from that to which the decoder is connected.

    -- Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Contents

1. Product Introduction

This is a new fixed 4K2K HDMI matrix switcher with 8 HDMI input ports and 8 HDMI output ports, the resolution can up to 4K30Hz and all ports are HDCP compliant. With the friendly user control methods: IR remote control, 2-Press push buttons with background blue light, WEB GUI, APP and PC control software control and the smart EDID management, this matrix switcher can work with the Blu-Ray Players, Set-Top boxes, Home Theater, and game consoles etc HDMI input sources to route to the HDMI displays, it has been widely used in different audio visual applications.

2. Features

➢ 8 HDMI inputs and 8 HDMI outputs

➢ Supports HDMI1.4, HDCP1.4

➢ The resolution can up to 4K@30Hz

➢ Deep Color support 48/36/30/24-bit

➢ Supports LPCM 7.1CH, Dolby TrueHD, Dolby Digital and DTS-HD Master Audio

➢ Supports IR remote control(IR remote control codes are available)

➢ Supports smart EDID management, including 8-output EDID, 15 internal EDID.

➢ Supports RS-232 and TCP/IP Control(WEB GUI, APP and PC control software)

➢ Supports 2-press push buttons control with blue lights

➢ Supports to rename the inputs and outputs

3. Specification

Name	FIXED 4K2K 8x8 HDMI Matrix Switcher
Resolution ratio	Supports：480i, 576i, 480p, 576p, 720p, 1080i, 1080p@24/30/50/60Hz, 4K@30Hz, 1080P3D@60Hz
Input ports	8 * HDMI ports, 1* RS-232(control), 1 * RJ-45(control)
Output ports	8 * Female HDMI, 1* RS-232(control)

ESD Protection	Human-body Model: ± 8kV (Air-gap discharge) ± 4kV (Air-gap discharge)
ESD Protection	12 V/2 A DC (US/EU standards, CE/FCC/UL certified)
Controlling	Supports remote control, front buttons control, RS232, LAN control
Input voltage	AC: 100VAC ~ 260VAC, 50/60 Hz DC:12V 2A
Dimension(mm)	480 * 252 * 44(mm)
Weight	3.5Kg
Operating Temperature	0 ^{o}C~40 ^{o}C/32 ^{o}F~104 ^{o}F
Storage Temperature	−20 ^{o}C~60 ^{o}C/−4 ^{o}F~140 ^{o}F

4. Connection Diagram
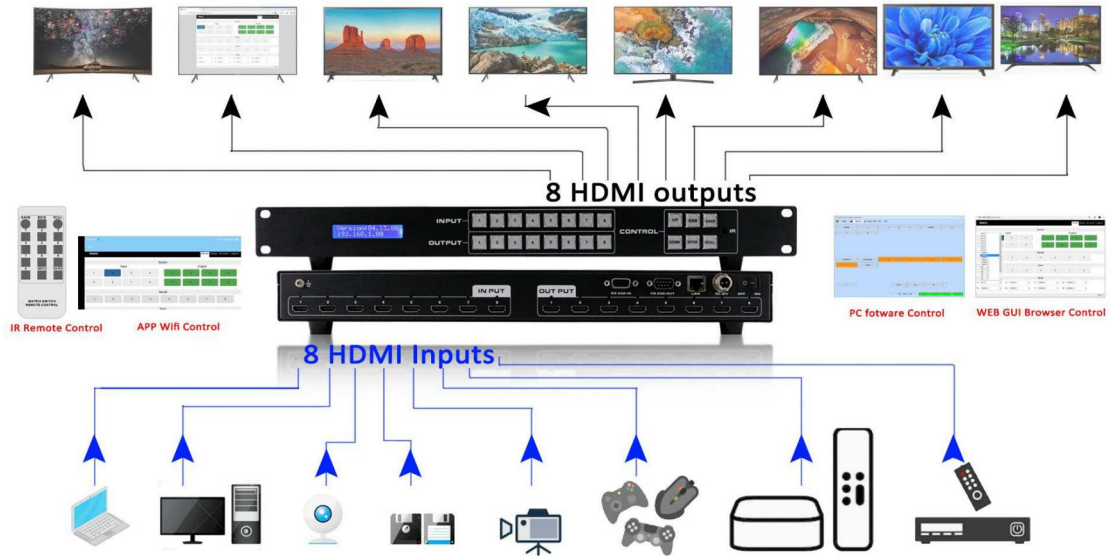
5. Packing

No.	Name	Qty	Unit
1	FIX-MANAGER-800-E	1	Pcs.
2	DC 12V2A power adapter	1	Pcs
3	Remote Control	1	Pcs

6. Panel description

Front panel
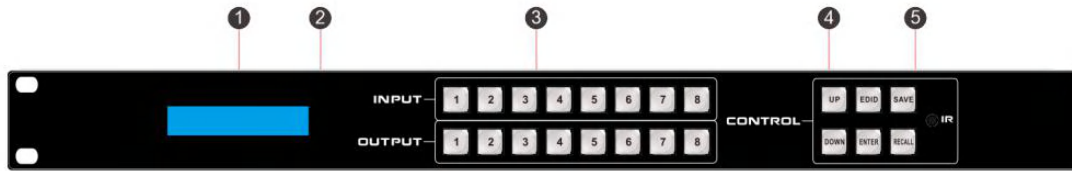
① LCD screen: for the switching, EDID, IP etc information display.

② OUTPUT: 8 HDMI output buttons

③ INPUT: 8 HDMI input buttons

④ CONTROL:

UP：for upward controlling

EDID：Press it to enter EDID set mode. EDID Read：For example，in order to read the EDID of output port OUT5 to input port 1, we need to press the EDID button(the indicator of EDID lights) firstly, press the button 1 on IN side secondly, then press UP or DOWN button to select OUT5, at the same time button 5 on OUT side lights, finally press ENTER button (the indicator of ENTER button will flash for one time).
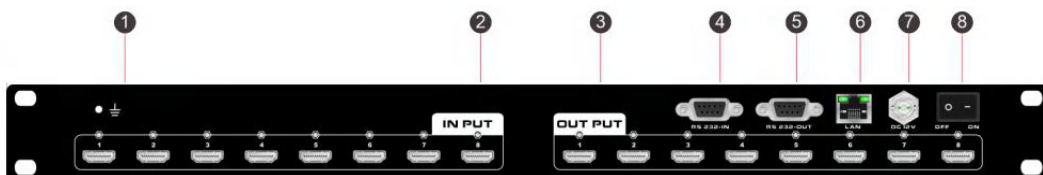
SAVE: Press to save the switching status.

Down：for upward controlling

ENTER: Press to confirm to save the setting.

RECALL: Press it to recall the presets/scenes.

⑤ IR: IR receiver for the IR remote control

Back panel

① For the ground wiring

② INPUT: 8 female HDMI Input ports

③ OUTPUT: 8 female HDMI output ports

④ RS232 IN: Female RS232 port for the R232 control

⑤ LAN: for the IP/TCP control, the default IP address is 192.168.1.80

⑥ DC12V: power supply port

⑦ **ON/OFF:** power off/on switch

7. Matrix Switcher control

This Matrix switcher can support IR remote, APP, RS232/TCP/IP software, WEB GUI browser or

the front push-buttons control.

Remote Control

Users also can control this matrix switcher with the remote control.

Channel switching:

Press the input from number "1~8", then press "SWITCH", then press the
output from number"1~8", can press the outputs continually.

Eg. Switch input 1 to output 1, 2, 3:

1 ——→ SWITCH ——→1, 2, 3

Scene Save:

Press "SAVE", then press the scene number from "1~8".

Eg, Save switching input 1 to output 1,2,3 to scene 2:

"SAVE" ——→ "2"

Scene Recall :

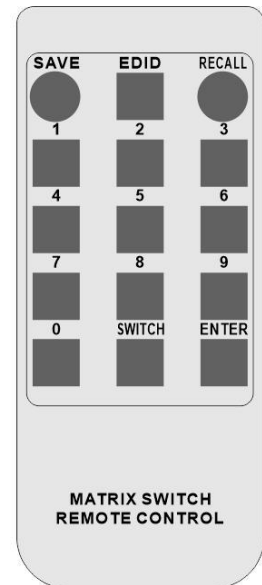Press "RECALL", then press the scene number from "1~8".

Eg, Recall scene 2:

"RECALL" ——→ "2"

EDID Setting:

Press "EDID" button to enter EDID setting mode, then press number "0" to choose the needed
EDID, then press "ENTER" to confirm, or press number "9" to cancel or return to home page.

"EDID" ——→ "0" ——→ "ENTER"

APP control

Users can download the APP from the Google play or Apple store by searching keywords "MCS",
then need to make sure the Matrix switcher is connected to the WIFI router and the mobile devices
is connected to the same WIFI. The default IP address of the matrix switcher is 192.168.1.80.
Open the APP and Enter the IP address of the matrix switcher:
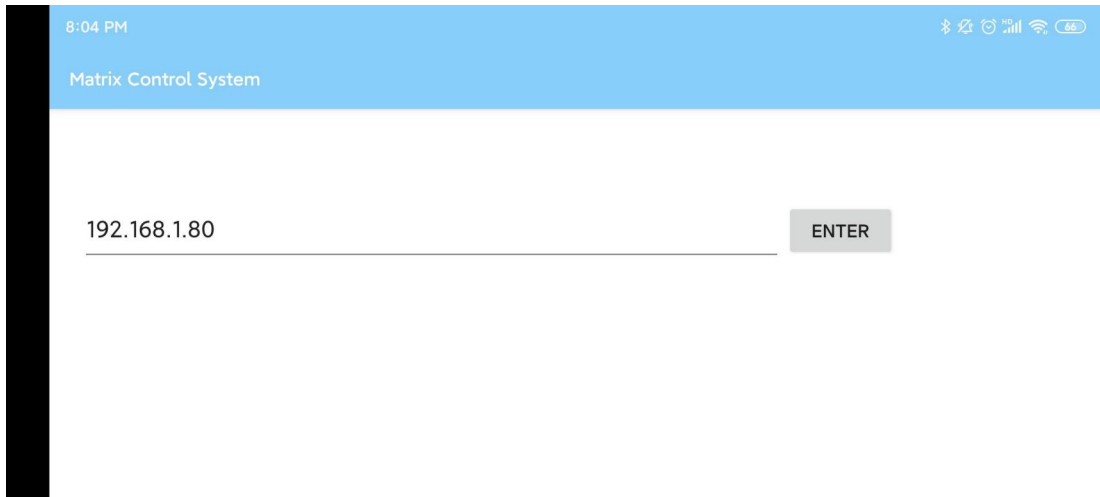
Click Enter and login with the user name and password, the default User name is admin, password is admin.
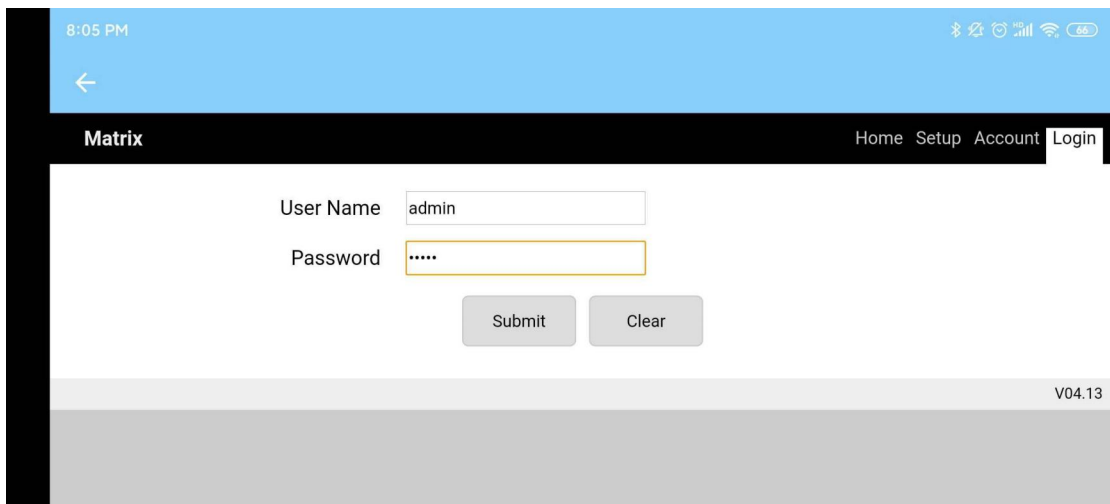
Click Submit to login after typing the correct user name and password, and it will turn to the home interface for the sources Switch, Scene Recall/Save:
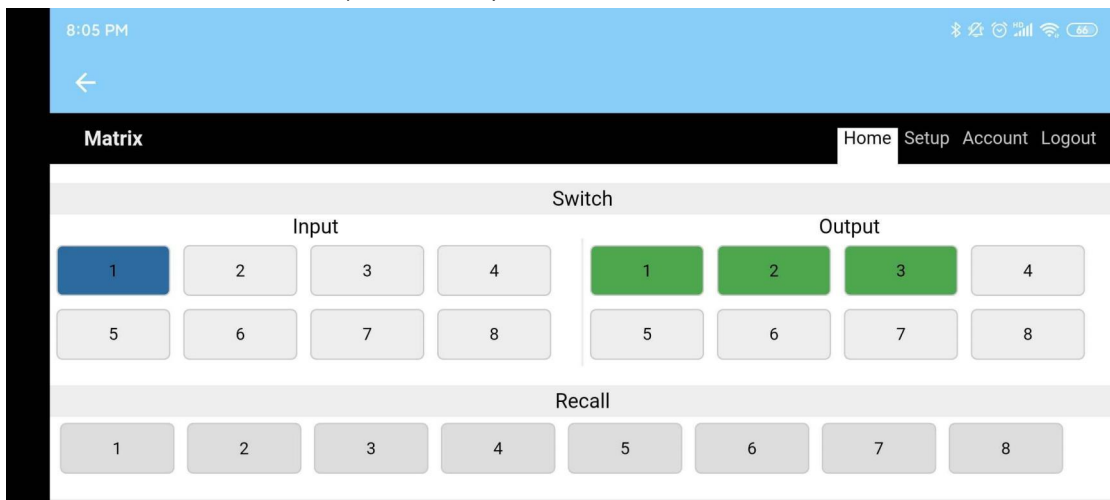
Users also can do the settings for the "Setup" tap:

Users can change the default user name and password from the "Account" Tap:

**WEB GUI browser Control**

Users also can use the WEB browser to control the matrix switcher, users can have the matrix switcher connected with the PC with the LAN cable directly or have the matrix switcher connected the same network switch. The default IP address of the matrix switcher is 192.168.1.80.

After opening the browser, users can type the matrix switcher IP address and press enter:
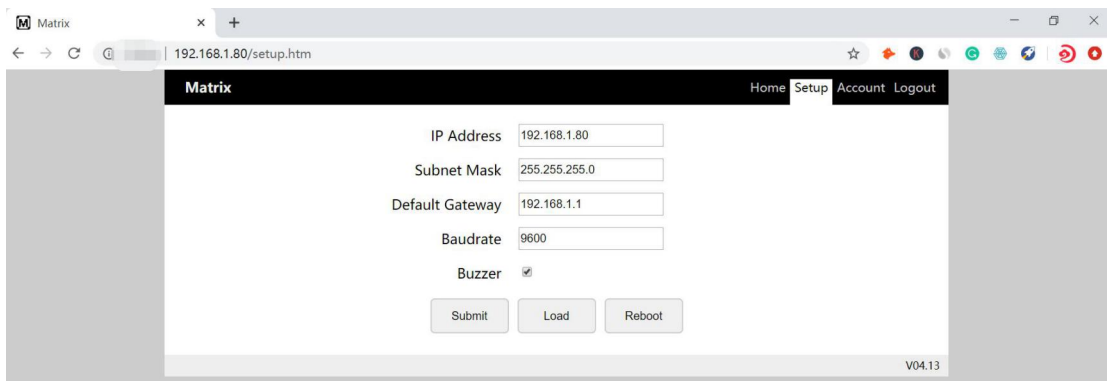
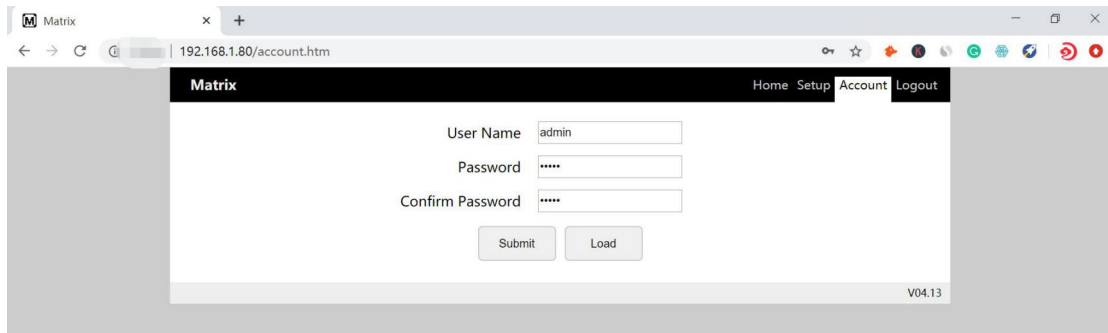The default user name is admin and the password is admin.
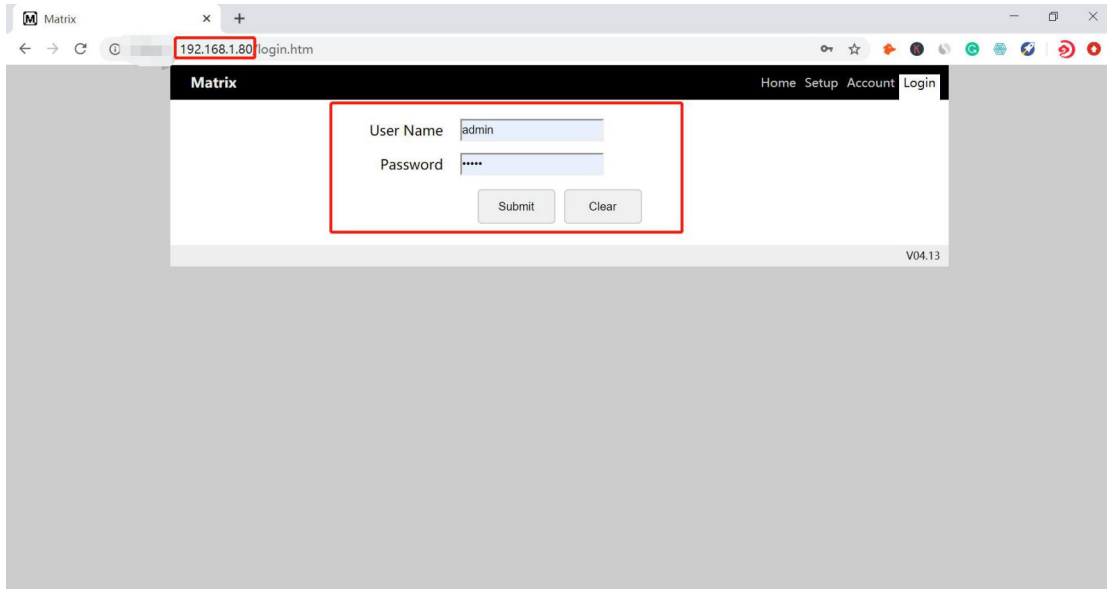
After login, it will turn to "Home" interface, users can do the sources switching, scenes recall, save and the EDID management here.
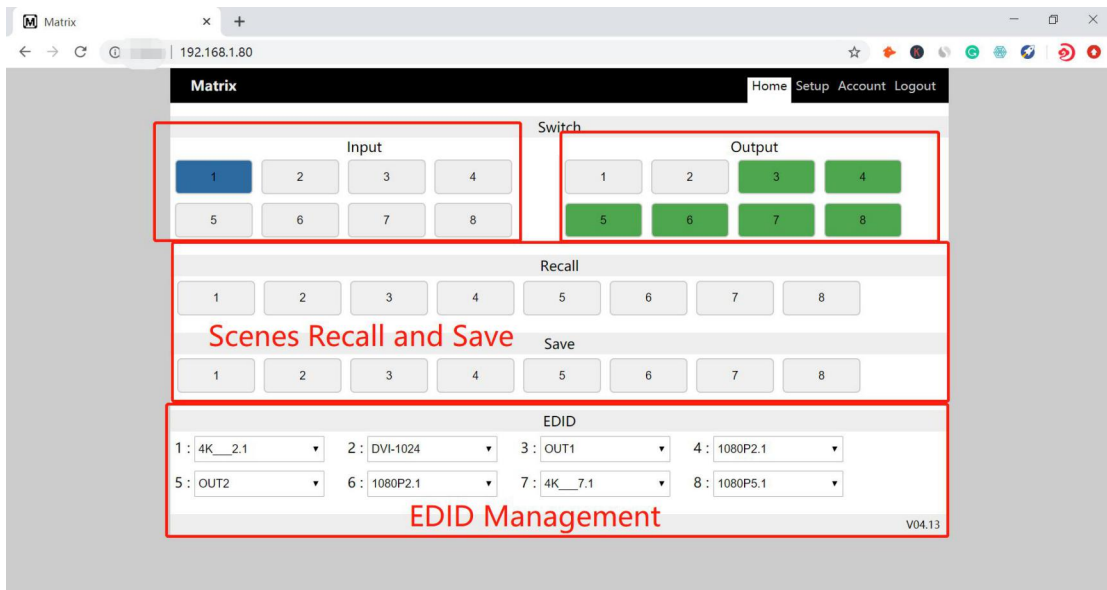
Setup interface for users to do the IP address, COM baud rate and buzzer settings:

Account interface for users to change the login user name and password:

The 3rd Party Control command

IP address: 192.168.1.80 (default IP)

Protocol: UDP

Port: 4000

Command: send as hex

For the HDMI8x8, the output value is y+7

Control codes(HEX)		Functional description
HDMI4X4	EB 90 0C 00 00 80 0B 0z (x-1) (y+3) 00 00	Switch [x] input to [y] output; 0z means the total of switching ports;
	EB 90 0C 00 00 80 0B 0z ff (y+3) 00 00	Switch OFF the input to [y] output; 0z means the total of switching ports;
HDMI8X8	EB 90 0C 00 00 80 0B 0z (x-1) (y+7) 00 00	Switch [x] input to [y] output; 0z means the total of switching ports;
	EB 90 0C 00 00 80 0B 0z ff (y+7) 00 00	Switch OFF the input to [y] output; 0z means the total of switching ports;
For both	EB 90 0C 00 00 80 09 02 (0x) 00 00 00	Save current scene to [x], [x] means number keys from 0 to 8
models	EB 90 0C 00 00 80 08 02 00 (0y) 00 00	Load the saved scene [y], [y] means number keys from 0 to 8

For example on the **HDMI8X8**:(x-1) (y+7)

   Input 1 Switch output 1, send: EB 90 0C 00 00 80 0B 02 00 08 00 00

   (1-1)=0, Hex is 00; (1+7) =8, Hex is 08.

   Input 1 Switch output 1/2/3/4, send: EB 90 0C 00 00 80 0B 05 00 08 09 0A 0B 00

   (1-1)=0, Hex is 00; (1+7) =8/ (2+7) =9/ (3+7) =10/ (4+7) =11, Hex is 08/09/0A/0B.

   Input 2 Switch output 1/2/3/4, send: EB 90 0C 00 00 80 0B 05 01 08 09 0A 0B 00

   (2-1)=1, Hex is 00; (1+7) =8/ (2+7) =9/ (3+7) =10/ (4+7) =11, Hex is 08/09/0A/0B.

   Input 2 Switch output 1/2/3/4/5/6/7/8, send: EB 90 0C 00 00 80 0B 09 01 08 09 0A 0B 0C 0D 0E 0F 00

   (2-1)=1, Hex is 00; (1+7) =8/ (2+7) =9/ (3+7) =10/ (4+7) =11/(5+7) =12/ (6+7) =13/ (7+7) =14/ (8+7) =15,

   Hex is 08/09/0A/0B/0C/0D/0E/0F

Save to 02 Scene: EB 90 0C 00 00 80 09 02 02 00 00 00

Save to 06 Scene: EB 90 0C 00 00 80 09 02 06 00 00 00

Load the 02 scene: EB 90 0C 00 00 80 08 02 00 02 00 00

Load the 08 scene: EB 90 0C 00 00 80 08 02 00 08 00 00

RS232

Baud rate: 115200, N, 8, 1

Use RS232 direct cable

Control Codes(String)	Functional description
[x]X[y].	Switch [x] input to [y] output
Save[x].	Save current scene to [x], [x] means number keys from 0 to 8
Recall[y].	Load the saved scene [y], [y] means number keys from 0 to 8

8. Common Problem Shooting

Q: Serial port operation is out of order, can not control to switch?

A: The serial port is damaged or not started

Solution: Make sure the port uses direct serial port line, check the connection of PC software serial port.

Power failure: Check the power fuses and connecting lines;

Signal interference: Make sure the cables and plugs are connected well, the cables meet the requirements, the system is ground connected well, the AC power between devices have the same grounding system;

Accidental damage：Sent back to the manufacturer for recondition.

9. After-Sales

9.1 Warranty Information

The Company warrants that the process and materials of the product are not defective under normal use and service for 2 (2) years following the date of purchase from the Company or its authorized distributors.

If the product does not work within the guaranteed warranty period, the company will choose and pay for the repair of the defective product or component, the delivery of the equivalent product or component to the user for replacement of the defective item, or refund the payment which users have made.

The replaced product will become the property of the Company.

The replacement product could be new or repaired.

Whichever is longer, any replacement or repaired of the product or component is for a period of ninety (90) days or the remaining period of the initial warranty. The Company shall not be responsible for any software, firmware, information, or memory data contained in, stored in, or integrated with the product repaired by the customer's return, whether or not during the warranty period.

9.2 Warranty limitations and exceptions

Except above limited warranty, if the product is damaged by over usage, incorrectly use, ignore, accident, unusual physical pressure or voltage, unauthorized modification, alteration or services rendered by someone other than the Company or its authorized agent, the company will not have to bear additional obligations. Except using the product properly in the proper application or normal usage.