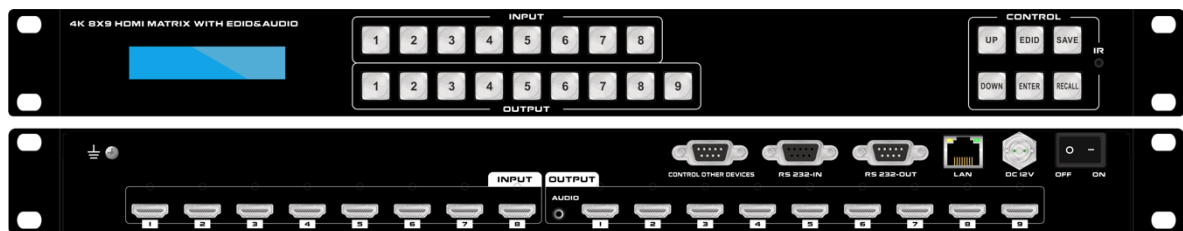


USER MANUAL

4K2K 8x9 HDMI Matrix Switcher with EDID management

CE-MX89-H2

WOXCON



Version: V22.06

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.



6. Clean this apparatus only with dry cloth.



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.



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



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.



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



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



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



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



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.

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1. Product Introduction

This is a new fixed 4K2K HDMI matrix switcher with 8 HDMI inputs and 9 HDMI outputs, the resolution can up to 4K30Hz and all ports are HDCP compliant. With the friendly user control methods by IR remote control, 2-Press push buttons with background blue light, WEB GUI, APP and RS232/UDP commands, 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.

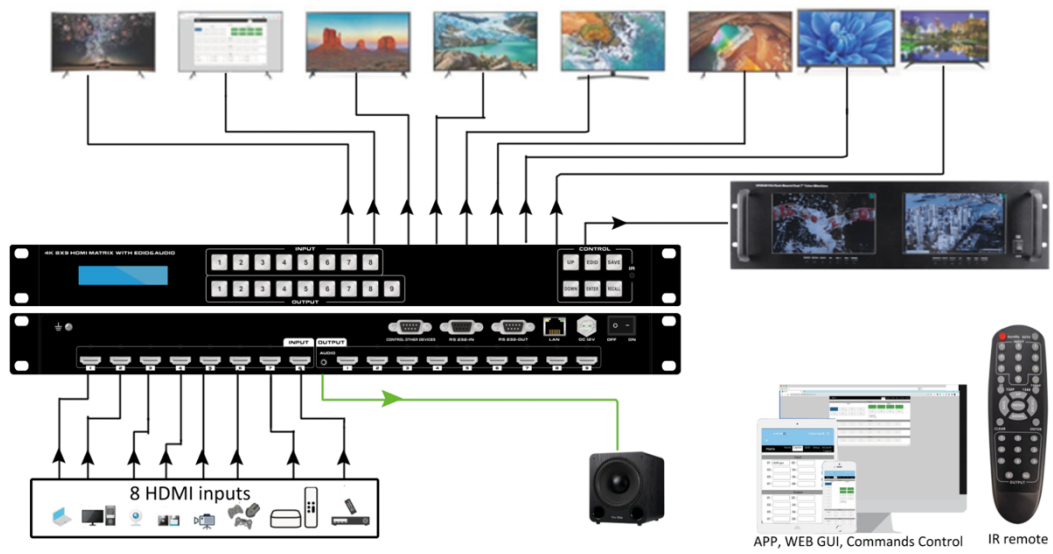
2. Features

- 8 HDMI inputs and 9 HDMI outputs
- Support 1 audio(3.5mm) de-embedded
- 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 IR remote)
- Supports 2-press push buttons control with blue lights
- Supports to rename the inputs and outputs, scenes

3. Specification

Name	CE-MX89-H2 / 4K2K 8x9 HDMI Matrix Switcher
Resolutions	480i, 576i, 480p, 576p, 720p, 1080i, 1080p@24/30/50/60Hz, 4K@30Hz
Input ports	8 * HDMI, 1* RS-232(control), 1 * RJ-45(control)
Output ports	9 * HDMI, 1* RS-232(control)
ESD Protection	±8kV (Air-gap discharge), ±4kV (Air-gap discharge)
Controlling	IR remote control, front buttons control, RS232, UDP
Power	DC:12V 2A
Dimension(mm)	440*150*44(mm)
Weight	2kg

4. Connection Diagram

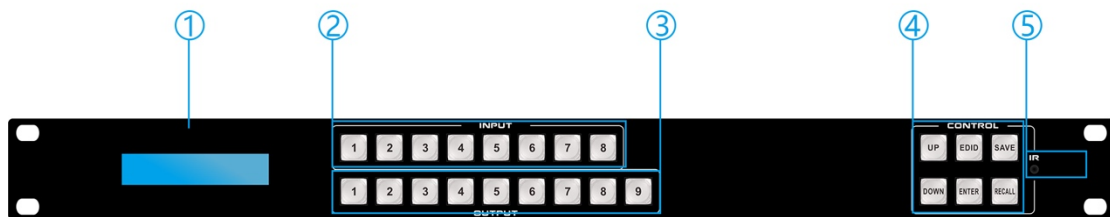


5. Packing

No.	Name	Qty	Unit
1	HDMI Matrix Switcher	1	Pcs.
2	DC 12V2A power adapter	1	Pcs
3	Remote Control	1	Pcs
4	Rack ear	2	Pcs

6. Panel description

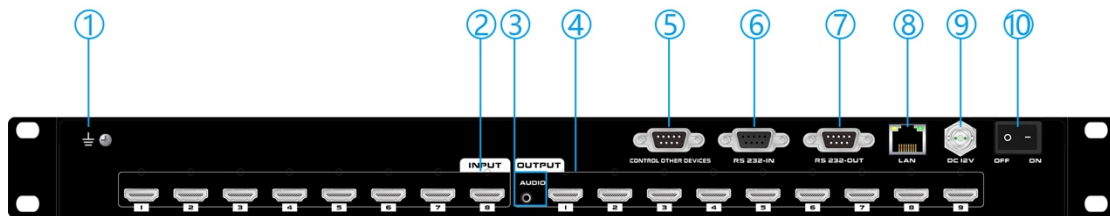
Front panel



- ① **LCD screen:** for the switching, EDID, IP etc information display.
- ② **INPUT:** 8 HDMI input buttons

- ③ **OUTPUT:** 9 HDMI output buttons
- ④ **CONTROL:**
 - UP:** for upward controlling, or when press input and press UP to all outputs
 - EDID:** Press it to enter EDID set mode.
 - 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 3.5mm audio output from output 1
- ④ OUTPUT: 9 female HDMI output ports
- ⑤ Control other devices: from the WEB GUI setup to fill out the commands
- ⑥ RS232 IN: Female RS232 port for the R232 control
- ⑦ RS232 OUT: Male RS232 port for the RS232 control loop
- ⑧ LAN: for the IP/TCP control, the default IP address is 192.168.1.80
- ⑨ DC12V: power supply port
- ⑩ **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. Note the below buttons are not functional on this product: Standby, Auto, 4K, 1080p, 720P, 1366

Channel switching:

Press the input from number “1~8”, then press the output from number “1~9”, can press the outputs continually.

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

INPUT 1 → OUTPUT 1, 2, 3

Switch any inputs to all outputs:

Press input from number “1~8”, then press “UP” or “ALL” button.

SAVE: for the preset save. “SAVE” → select from the INPUT buttons(1~8) OUTPUT buttons(1~9) → “ENTER”, will hear a beep sound.

RECALL: for the saved presets recalling. “RECALL” → select from the INPUT buttons(1~8) OUTPUT buttons(1~9) → “ENTER”, will hear a beep sound.

MENU: for back to homepage/status

CLEAR: to disconnect the selected input to the outputs

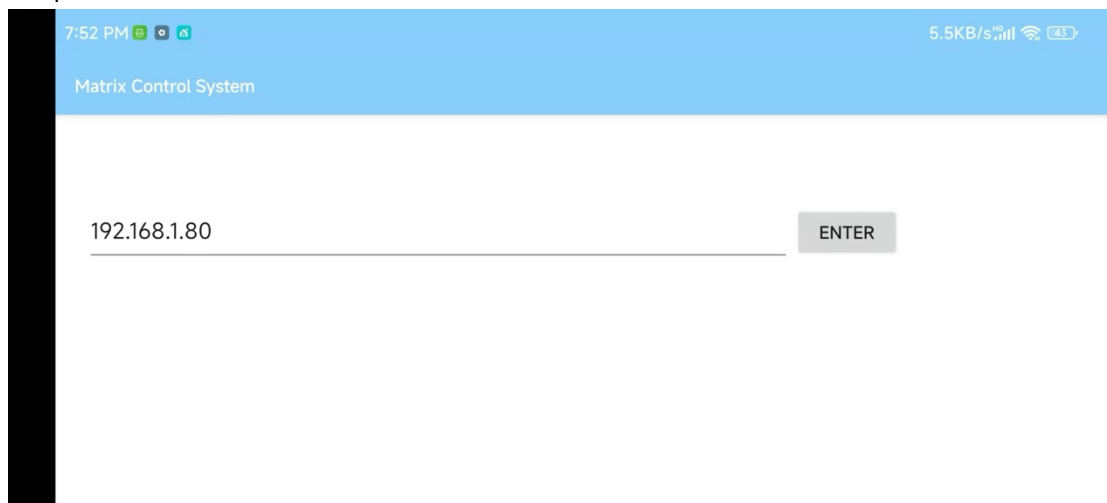
ENTER: to confirm the switching, scenes save&recall



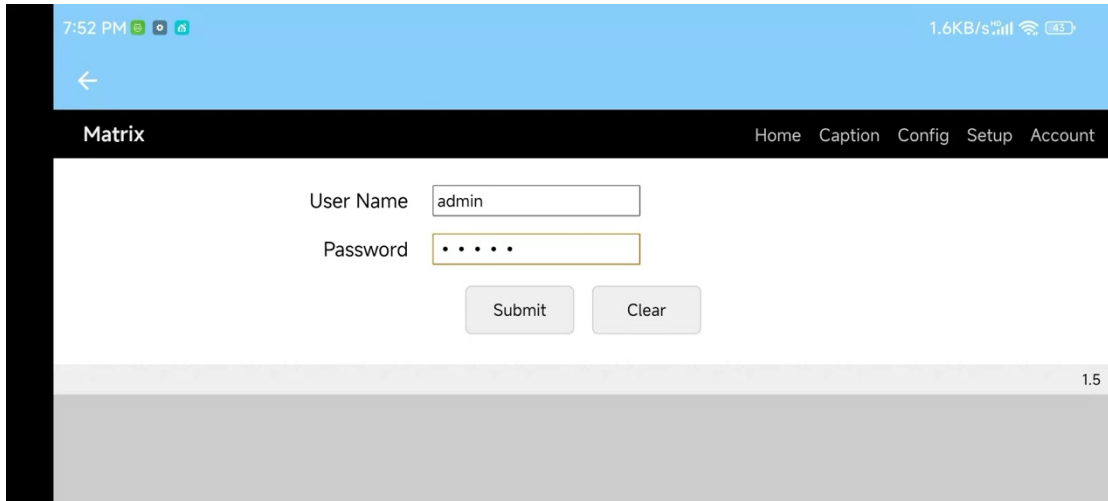
APP control

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.

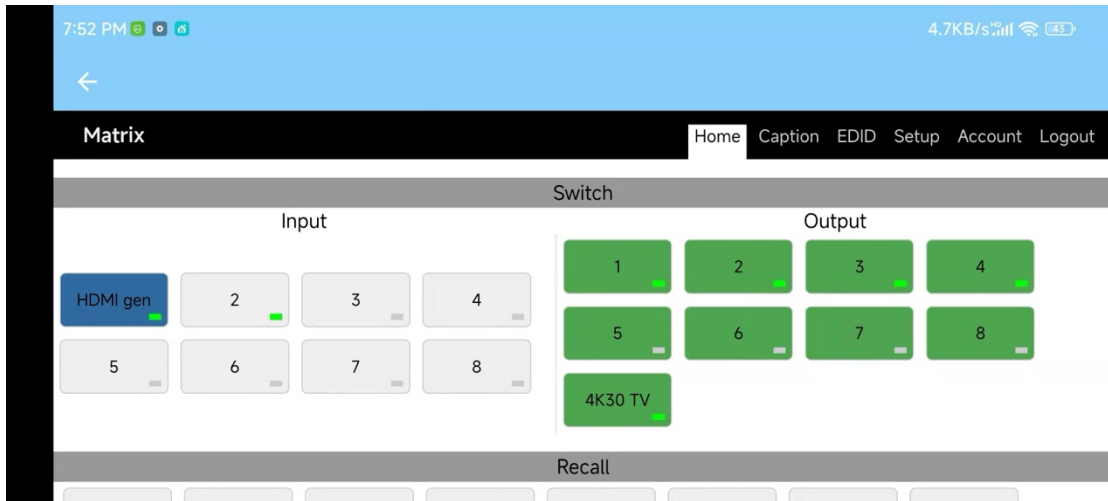
Open the APP and Enter the IP address of the matrix switcher:



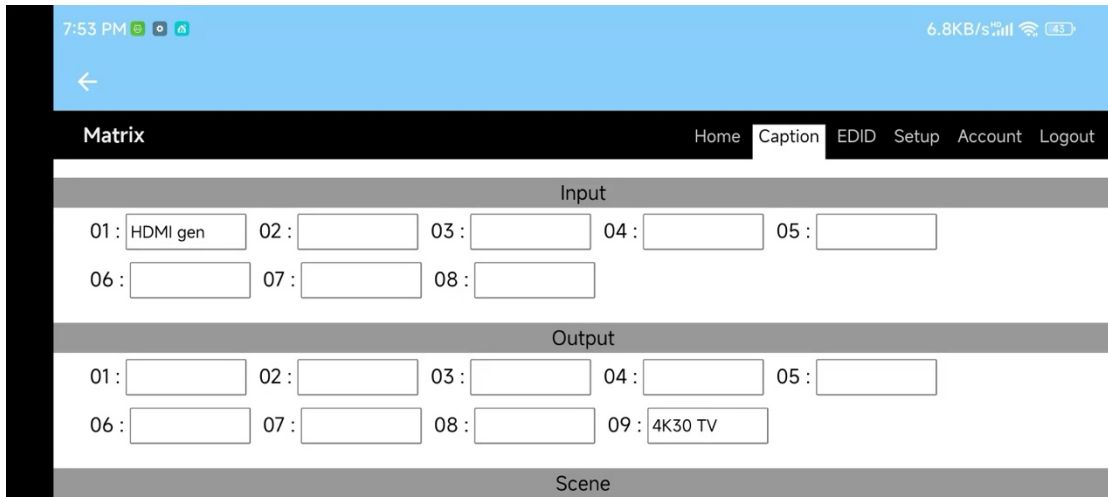
Click Enter and login with the user name and password, the default User name is admin, password is admin.



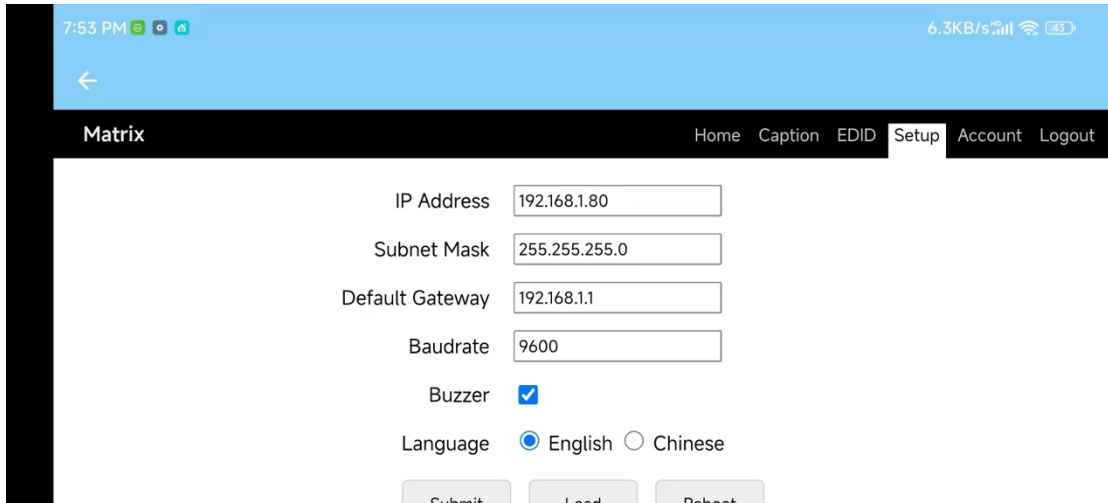
Click Submit to login after typing the correct user name and password, and it will turn to the home interface for the sources Switch, Scene Recall/Save:



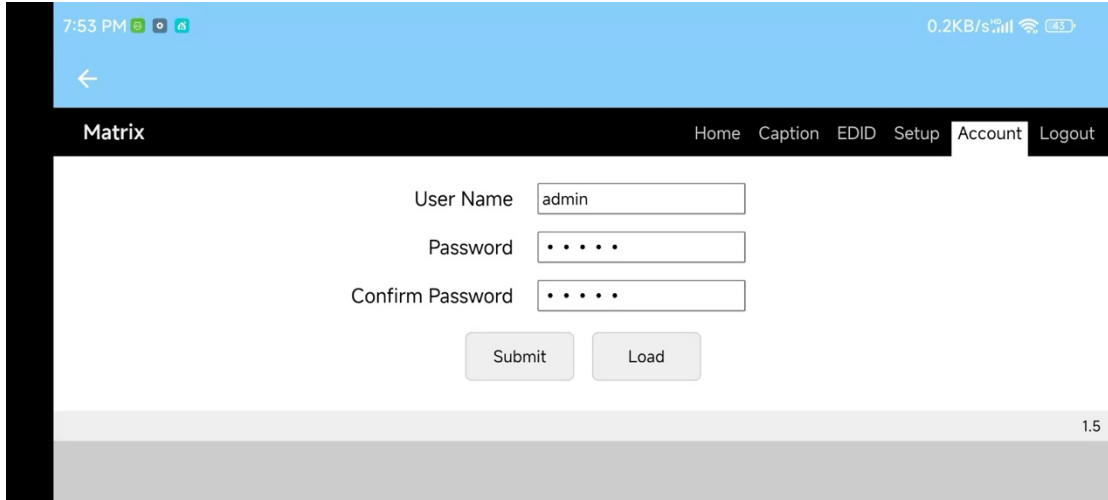
Users can change input, output and Scenes names here, up to 8 characters.



Users also can do the settings for the “Setup” tap

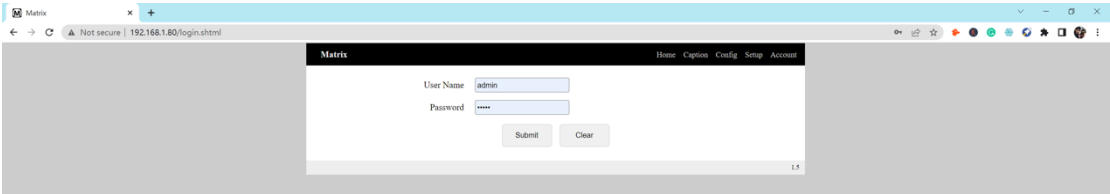


Users can change the default user name and password from the “Account” Tap:

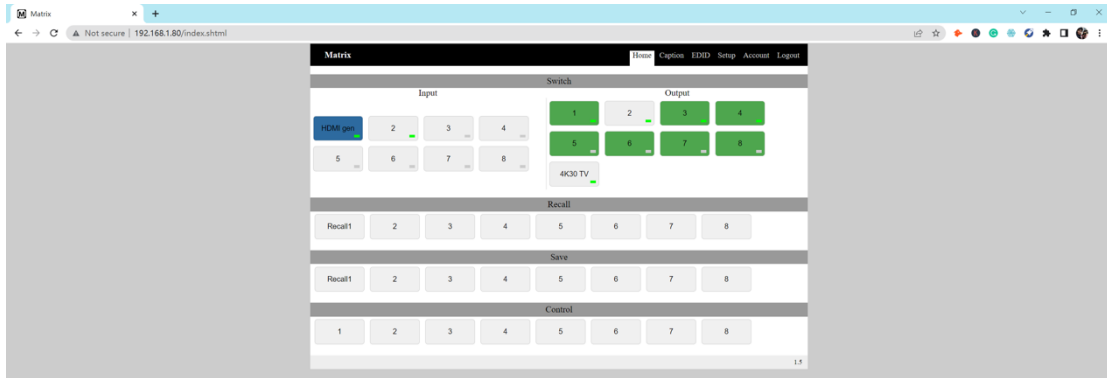


WEB GUI browser Control

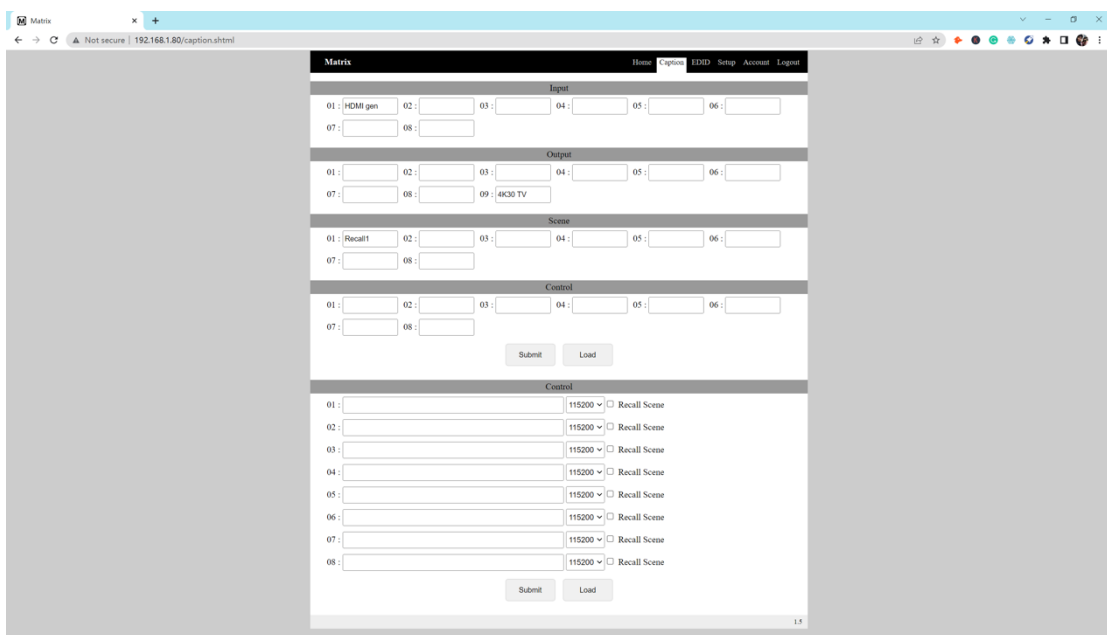
Users also can use the WEB browser to control the matrix switcher, users can have the matrix switcher connected with the PC with the LAN cable directly or have the matrix switcher connected the same network switch. The default IP address of the matrix switcher is 192.168.1.80. After opening the browser, users can type the matrix switcher IP address and press enter: The default user name is admin and the password is admin.



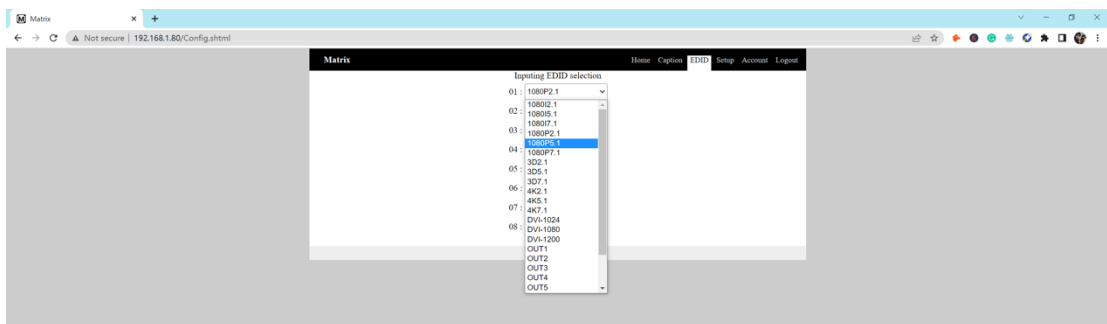
After login, it will turn to “Home” interface, users can do the sources switching, scenes recall, save and the other devices control here.



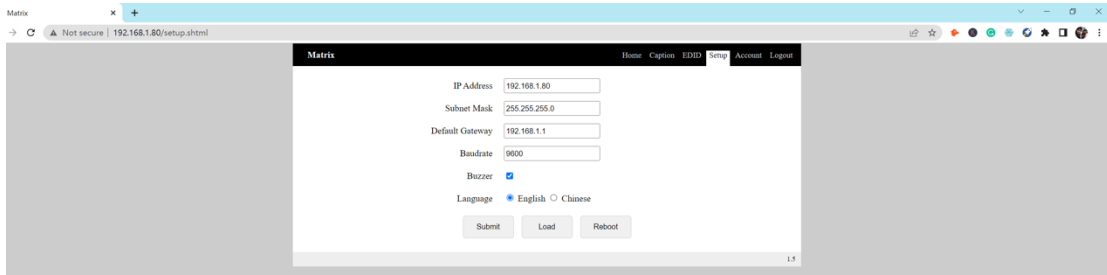
Caption tab is from users to change then input, output, scene names, also can setup the control other devices commands here.



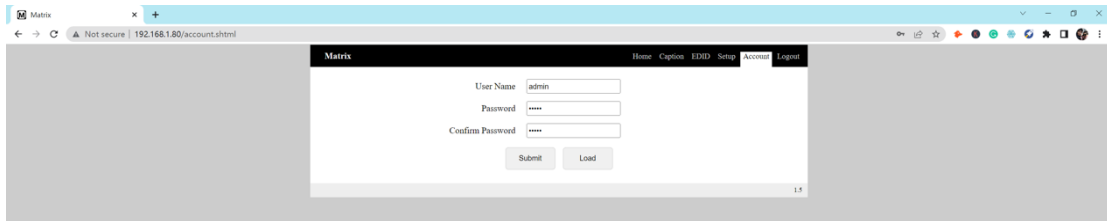
EDID setting tab for users to select or setup the EDID for the specific inputs



Setup interface for users to do the IP address, COM baud rate and buzzer settings:



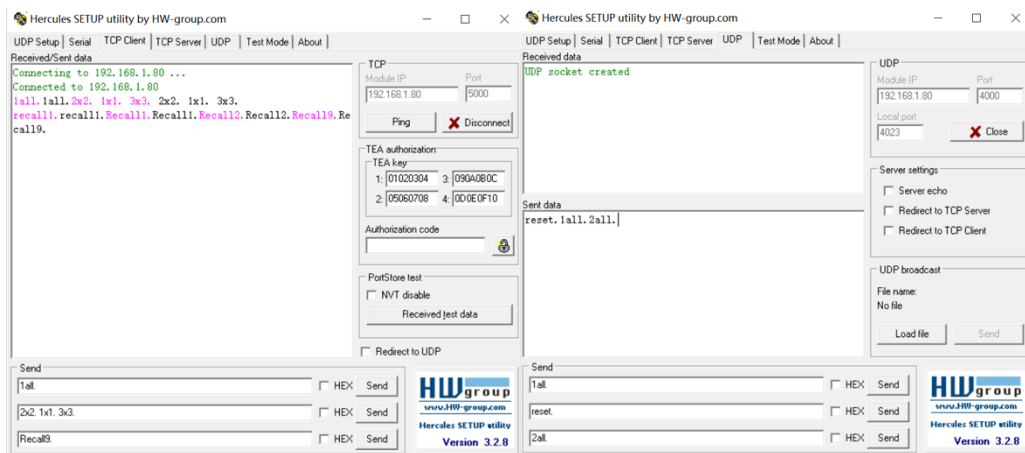
Account interface for users to change the login user name and password:



The 3rd Party Control command

IP address: 192.168.1.80 (default IP)

Protocol: TCP(5000), UDP(4000)



RS232

Baud rate: 9600, N, 8, 1

Use RS232 direct cable

Commands	Functional description	Example
Yall.	Switch input Y to all outputs	Switch 1 to all outputs: 1all .
YxY.	Switch input Y to output Y	Switch input 2 to output 9: 2x9 .
YxY.YxY.YxY.	Switch input Y to output Ys	Switch input 3 to output 2, 3, 4: 3x2.3x3.3x4 .
SaveY.	Save to scene Y	Save to scene2: Save2 .
Recall[y].	Recall the save scene Y	Recall to the scene 10: Recall10 .
Reset.	To reset account to admin/admin, IP address to default 192.168.1.80	

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.