PANIO

CH1610K User manual

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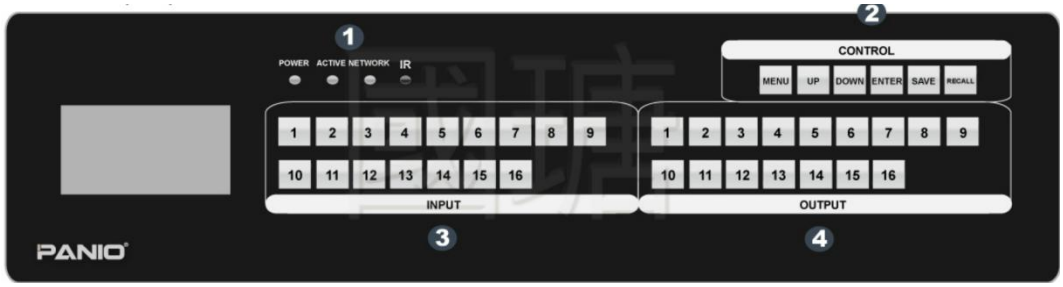
The 3rd Party Control command 9

1. Packing

No.	Name	Qty	Unit
1	CH1610K	1	Pcs.
2	Power Cord	1	Pcs
3	Remote Control	1	Pcs

2. Panel description

Front panel



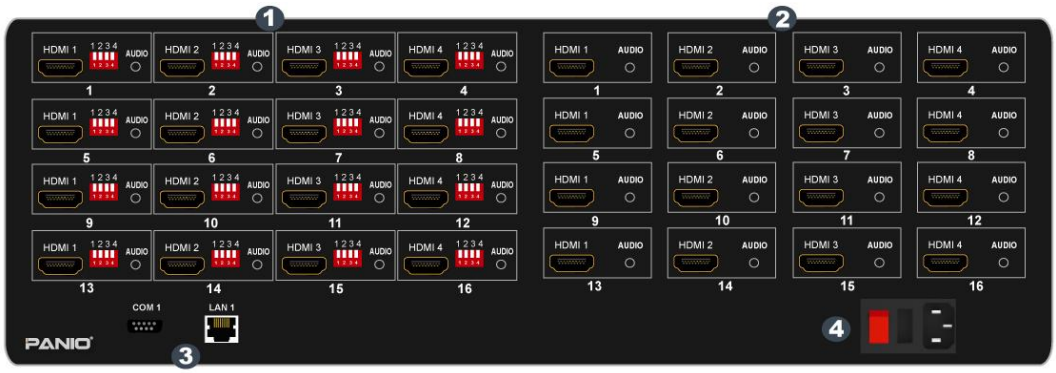
① Status Indicator

② Control buttons.

③ INPUT: 16 HDMI input buttons

④ OUTPUT: 16 HDMI output buttons

Back panel



① INPUT: 16 female HDMI Input ports

② OUTPUT: 16 female HDMI output ports

③ RS232 LAN port

④ Power

1. Matrix Switcher control

This Matrix switcher can support IR remote, APP, RS232/TCP/IP software, WEB GUI browser or the front push-buttons control.

- **Font buttons switching operation**

Switching operation:

Switching with industry 2-key fast switching, first press the input button and then select/press output button. Details are as follow:

There are 8 input buttons, 8 output buttons. First press MENU to show SWITCH interface, then can continue the next switching step.

Press input number at the INPUT area, the input button will light up with blue light.

Then press output number at the OUTPUT area, and the output button will light up. Users also can press the UP button to realize 1 to ALL switching.

If need to cancel switching, can press the button again to cancel. Users also can press the DOWN button to cancel all outputs.

Scene Operation:

The system can save 40 scenes, after switching successfully in the SWITCH interface, press MENU button and switch to SCENE interface.

Enter the wanted scene save number(1~8), then press SAVE. If want to reload the saved scene, press the scene number and press RECALL button.

Setup Operation

First press MENU switch to SETUP interface, then continue next operation

Via SETUP, it can realize IP address changing, in SETUP interface can use UP/ DOWN button to position, enter the needed IP address from the left button side, then press SAVE button to save.

View Operation

Via MENU button switch to VIEW interface, will display the current switching status.

- **Remote Control**

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



Channel switching:

Input number + auto + output number + enter.

Scene Save:

Press “SAVE”, then press the scene number from “1~8”, and finally press “ENTER”

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

SAVE - 2 - ENTER

Scene Recall :

Press “RECALL”, then press the scene number from “1~8”, and finally press “ENTER”

Eg, Recall scene 2:

RECALL - 2 - ENTER

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

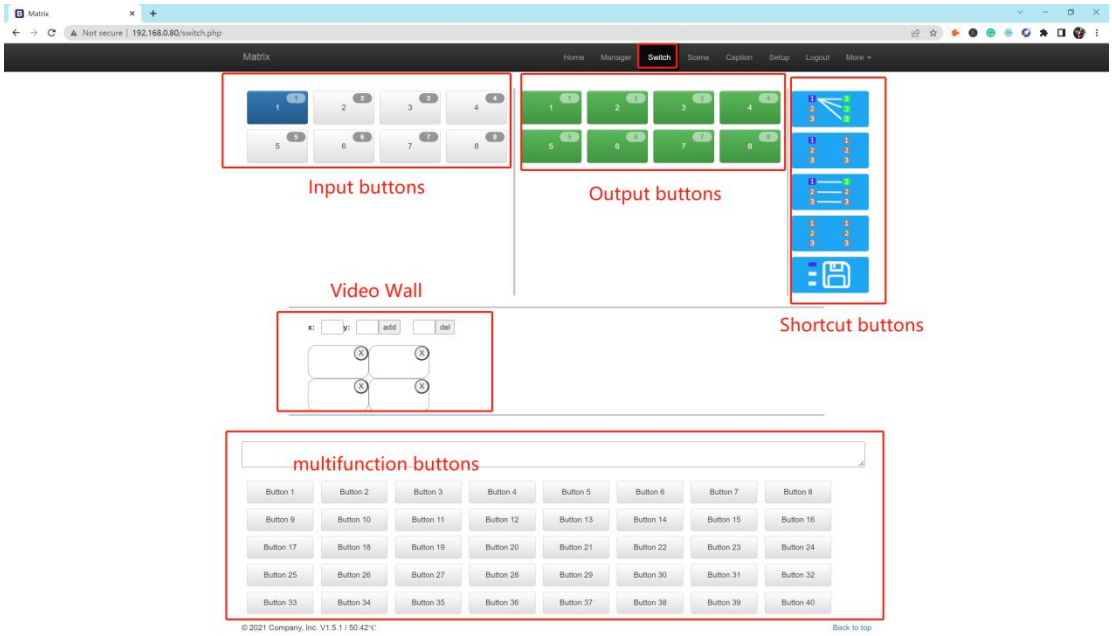
- **WEB GUI browser Control**

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 192.168.0.80.

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**.

1. Switch interface

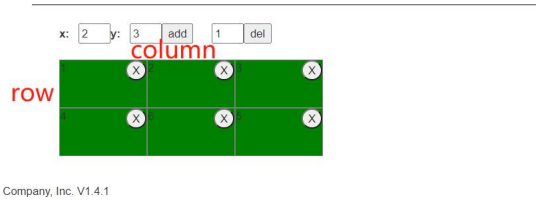


Users can do the input sources switching by clicking the Input buttons first, then pressing the Output buttons.

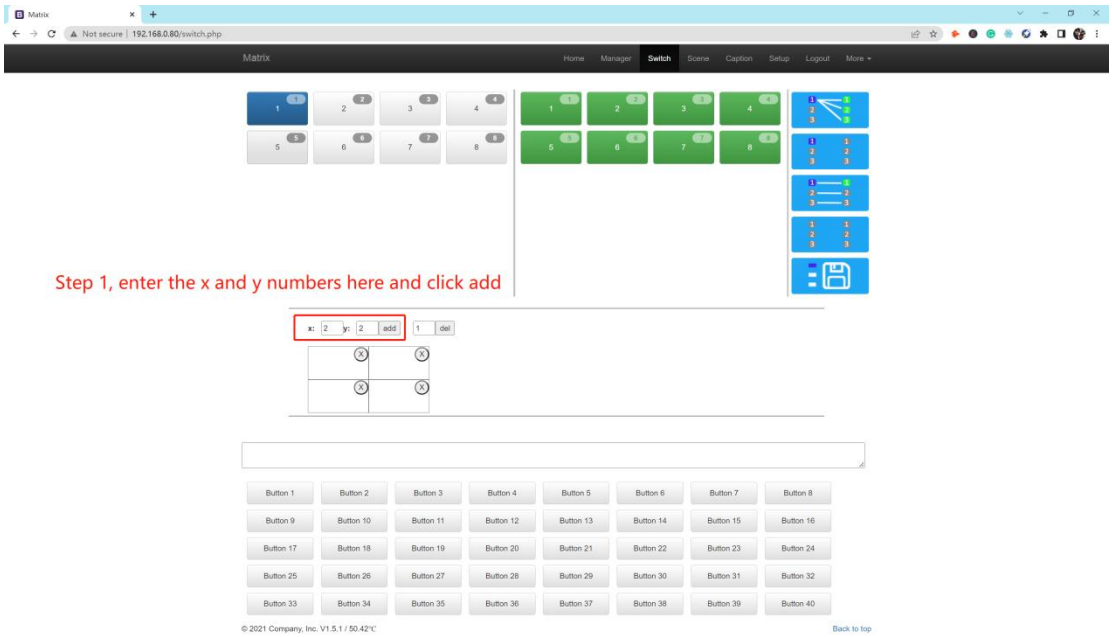
Or users can use the shortcut buttons on the right for the fast switching:

	Switch one input to all the outputs
	Close one input to all the outputs
	Switch all inputs on all outputs
	Close all inputs to all outputs
	Switch to the scenes Save and Recall interface

Users also can do the Video wall settings on the WEB GUI bottom by simply adding the x&y(x: for the rows; y: for column).



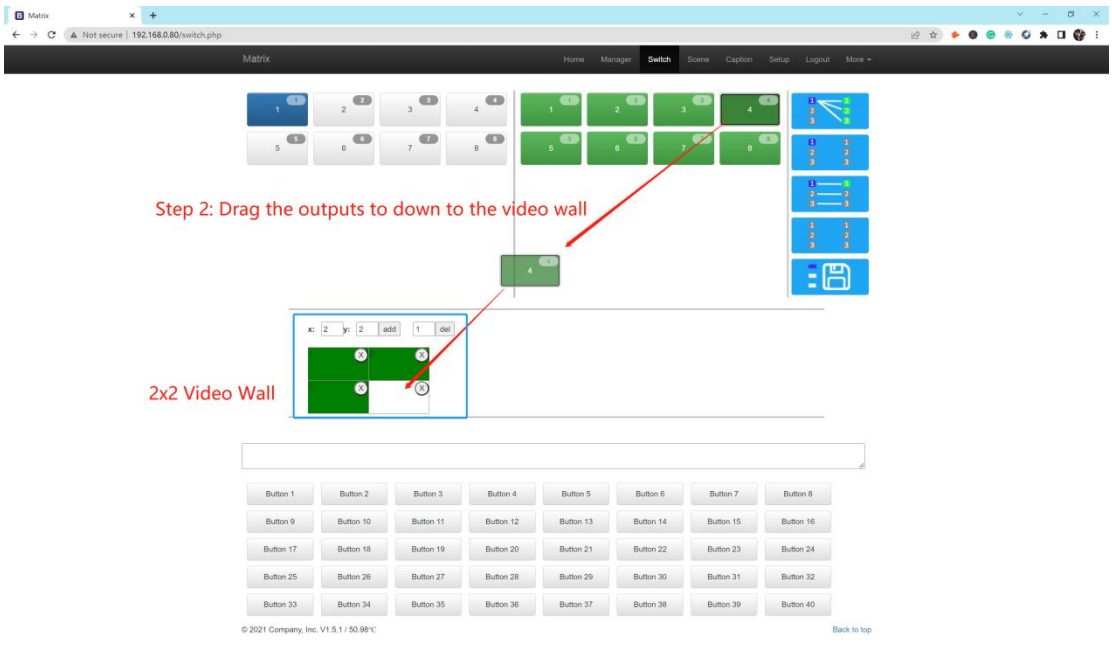
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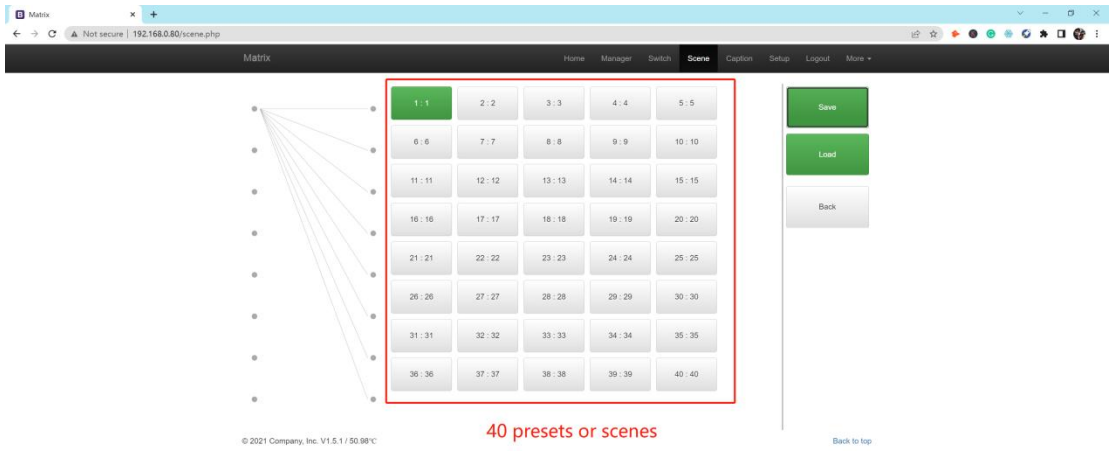
Note that this video wall function only works with the 1080P HDMI/HDBaseT and 4K60 HDMI output card only. Below the steps to create the video walls:

Step1: Enter the video wall Row(x) and column(y) numbers, and then click “add”, example to create a 2x2:

Step2: Click “add” to create the 2x2 video wall, then drag the outputs to the video wall .

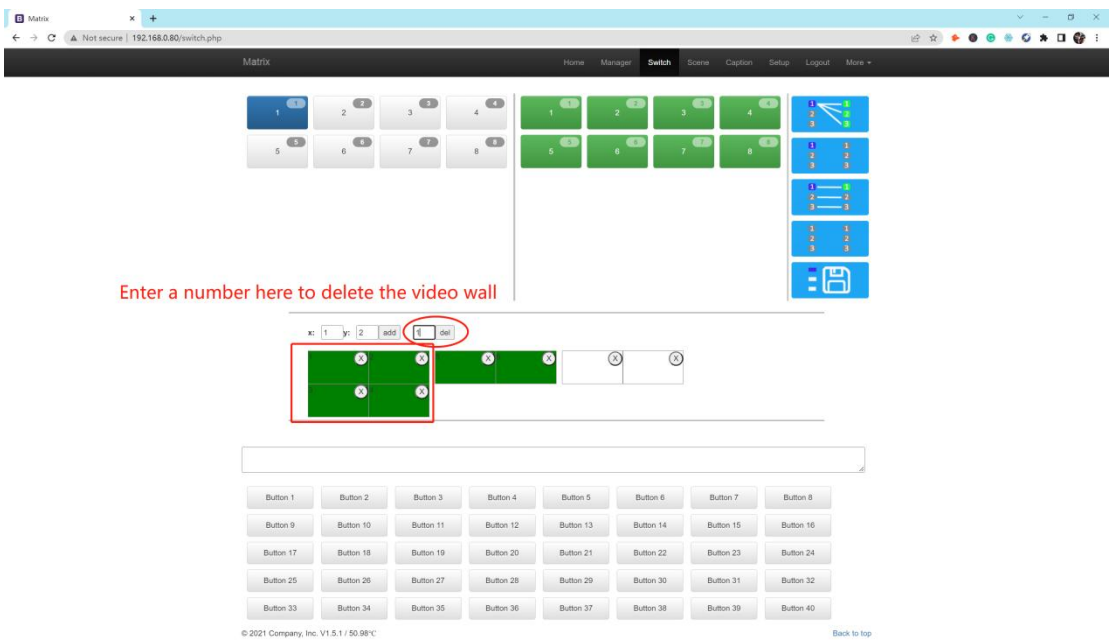


Users can have multiple video walls by the same way to create, for the 9x9 matrix switcher, the video wall configuration will be limited to 9, it means the configuration could be 3x4 video wall.

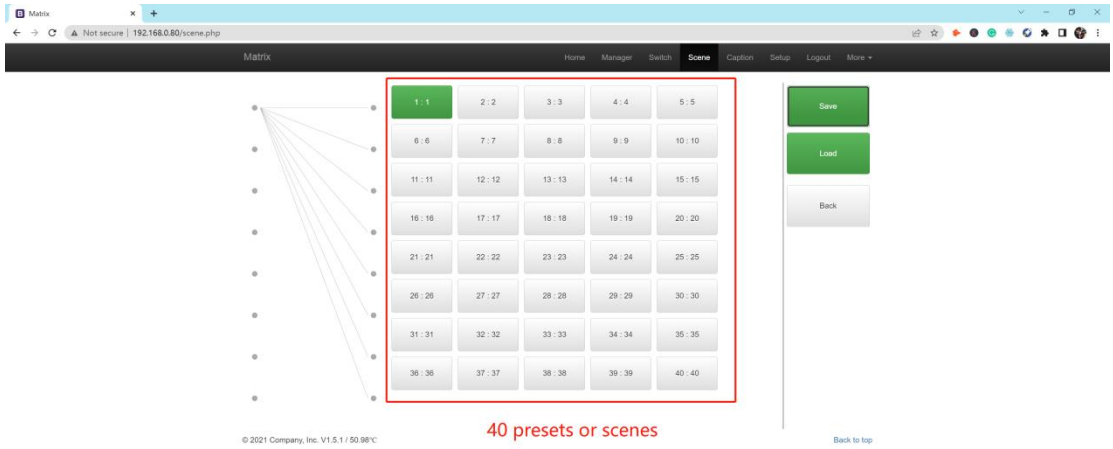




Arrange the TV wall diagram from left to right in the order of 1, 2, 3. Fill in the numbers to delete the case.



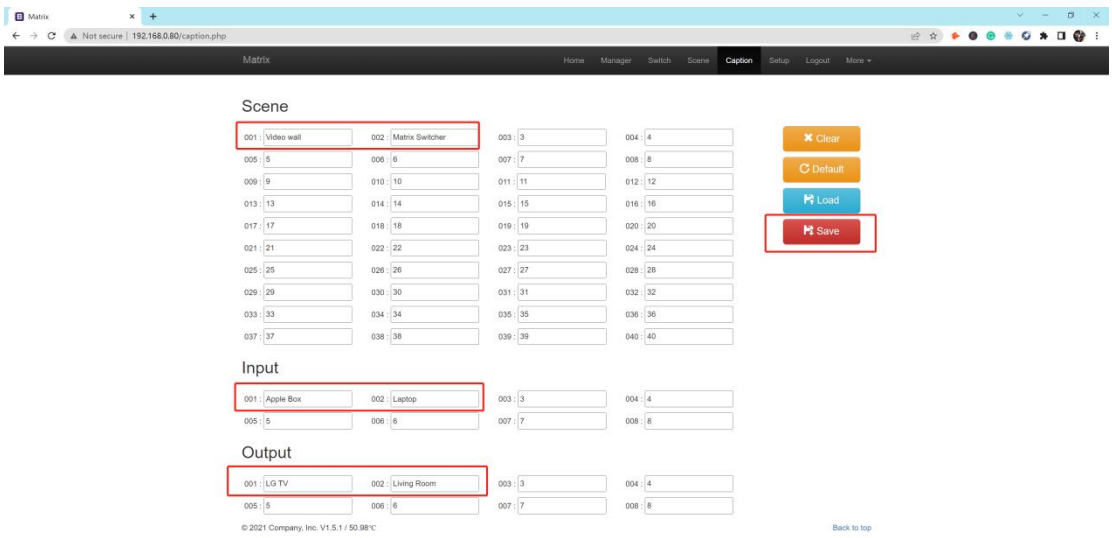
2. Scene Interface:



It can support 40 scenes in total, users can preview each scene switching status by clicking on any of the scene number. Click “Save” to save the switching status, and “Load” to recall the scenes. “Back” to return back to the switch interface.

3. **Caption:** For changing the input, output and scenes name.

Users can rename the scenes, input and output names here, users can change all the names and then need to click the “Save” button on the right. After renamed the names, users will see the input, output and the scenes names have changed once click to the “Switch” and “Scenes” interface. With this renaming function, it can be easier for the users to know the sources and ends.





4. Setup interface:

Users can reboot, change the IP address, set up the login user names, language and the RS232 baud rate settings here. After changed the IP address, will need to reboot the matrix switcher, then the new IP address will take effect.

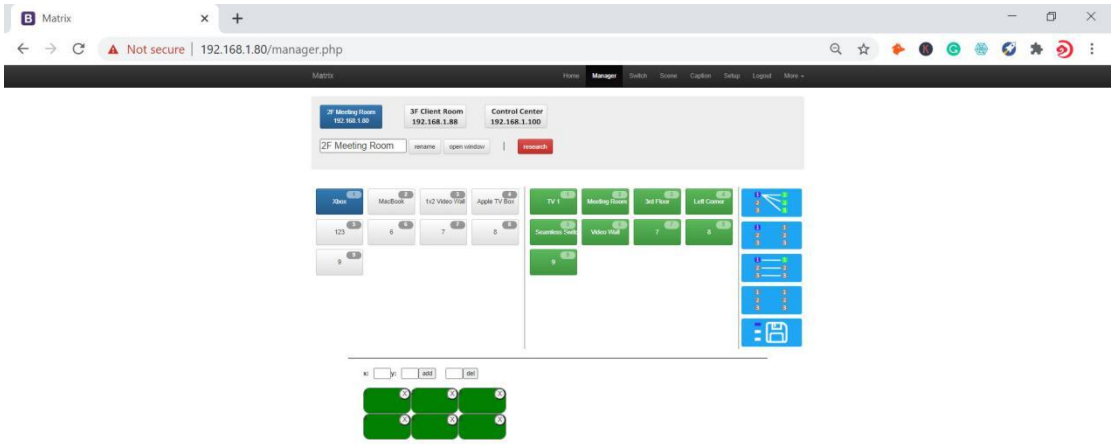
5. More:

For the more interface, users mainly can do the firmware upgrade here.
Screen is for the other matrix models which with the touch screen, so users can monitor the touch screen switching status.

For the upgrade, users need to check with the factory to get the firmwares, the firmware is ".zip" format. License and Debug is for factory engineering team to have the technical support.

6. Manager:

This Manager interface, it allows the users to manage at most 254 units of the matrices which are installed at the same area network and at the same gateway but different IP addresses. As below are showing 3 matrices, users can rename each matrix and click button to do the switching or open in a new manage window.



7. APP Control:

The matrix switchers also can support the iOS and Android APP control, users can search the keyword "Matrix Control System" in Apple store or the Google Play Store.

Step 1: Make sure the matrix well connected with the WIFI router, and the iPad/Android devices are connected to this same WIFI.

Then open on the MCS (matrix control system) APP and Enter the IP address of the matrix switcher (the default IP addresses are LAN1: 192.168.0.80 LAN2: 192.168.1.80)

Step 2: After Enter the IP address, it will need to login, the default user name and password both are the admin.

Step 3: After log in successfully, users can do the same functions as the WEB GUI operation.

- **COM and TCP/IP Control Commands**

RS232 cable with straight-through connection(USB-RS232 can be used directly to control)

Communication protocol:

Baud rate: 115200, Data bit: 8, Stop bit: 1, Check bit: None

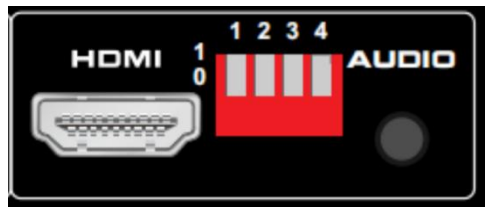
The TCP port is 5000 and UDP is 4000

Commands	Explanation	Function description
YAll.	Y=1,2,3,4.....	Switch Input Y to all the outputs Eg. "**1ALL.**" means switch input 1 to all outputs
All1.	One to one	Switch all the channels to be one to one. Eg.1->1， 2->2， 3->3……
YXZ.	Y=1,2,3,4..... Z=1,2,3,4.....	Switch Input Y to Output Z Eg. "**1X2.**" means switch Input 1 to output 2
YXZ&Q&W.	Y=1,2,3,4..... Z=1,2,3,4..... Q=1,2,3,4..... W=1,2,3,4.....	Switch Input Y to Output Z, Q, W Eg. "**1X2&3&4.**" means switch Input 1 to Output 2, 3, 4
SaveY.	Y=1,2,3,4.....	Save current status to scene Y Eg. "**Save2**." means saving current status to Scene 2
RecallY.	Y=1,2,3,4.....	Recall the saved scene Y Eg. "**Recall2**." means recall the saved Scene 2
BeepON.	Beep sound	Buzzer on
BeepOFF.		Buzzer off
Y?.	Y=1,2,3,4.....	Check the Input Y to outputs switching status Eg. "**1?.**" means to check Input 1 switching status

Note:

- ❖ Every command ends with a period "." and it can't be missing.
- ❖ The letter can be capital or small letter.
- ❖ Switch success will return as "OK", and failed will return as "ERR".'

- **Input card EDID:**

DIP 1	DIP 2	DIP 3	Functions	DIP 4 (For audio selection)
0	0	0	Pass-through	**1:** For 3.5mm embedded audio
0	0	1	DVI-1080	**0:** For using the HDMI audio
0	1	0	DVI-1200	
1	0	0	1080P 2.1	
0	1	1	1440*900	
1	0	1	HDMI-1200	
1	1	0	4K 2.1	

- **Output card EDID:**

DIP 1	Functions	DIP 2	Functions
0	HDMI audio	0	Remote control function off
1	DVI audio	1	Remote control function on