

PANIO

CH1620K_B User manual

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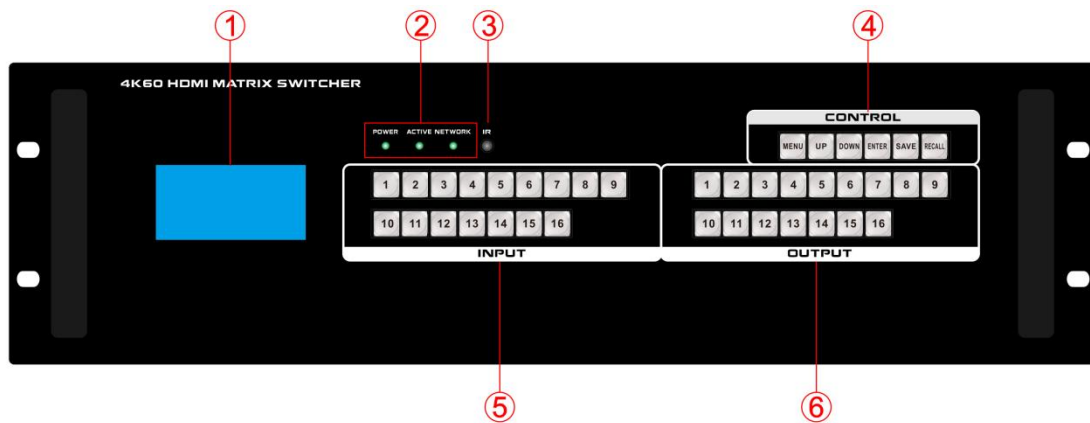
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1. Packing

No.	Name	Qty	Unit
1	CH1620K_B	1	Pcs.
2	Power Cord	1	Pcs
3	Remote Control	1	Pcs

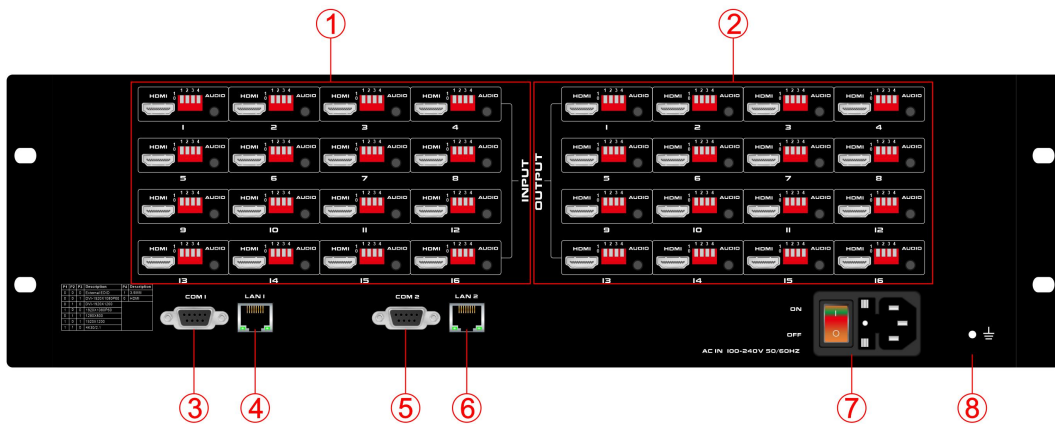
2. Panel description

Front panel



- ① LCD screen: for the switching, IP etc information display.
- ② Status LED
- ③ IR sensor
- ④ CONTROL:
 - MENU:** Select between View, Switch, Scene Save/ Recall and Setup
 - UP:** for upward controlling
 - Down:** for upward controlling
 - SAVE:** Press to save the switching status.
 - ENTER:** Press to confirm to save the setting.
 - RECALL:** Press it to recall the presets/ scenes.
- ⑤ **INPUT:** 16 HDMI input buttons
- ⑥ **OUTPUT:** 16 HDMI output buttons

Back panel



- ① **INPUT:** 16 female HDMI Input ports
- ② **OUTPUT:** 16 female HDMI output ports
- ③ Dual RS232 ports for 3rd parties control
- ④ Dual LAN ports for WEB/TCP/IP control
- ⑤ Dual RS232 ports for 3rd parties control
- ⑥ Dual LAN ports for WEB/TCP/IP control
- ⑦ **ON/OFF:** power off/on switch

3. 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:

Switch mode: input number + Auto + output number + Enter

Scene Save:

Press the scene number from “1~16” then press “SAVE”

Eg, Save switching to scene 2:

2 → SAVE

Scene Recall :

Press the scene number from “1~16” then press “RECALL”

Eg, Recall scene 2:

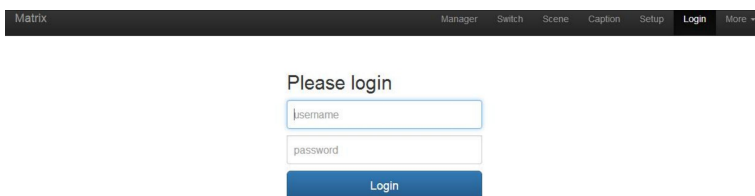
2 → RECALL

Other buttons have no effect on this model



● **WEB GUI browser Control**

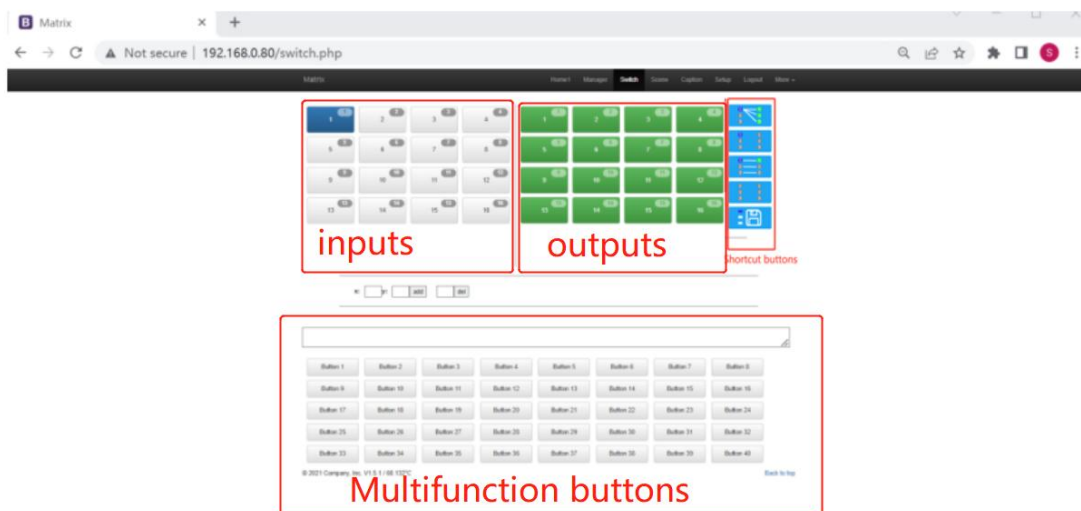
The default IP address are 192.168.0.80 (LAN1) and 192.168.1.80 (LAN2).



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**.

Switch interface:

All input and output ports can be renamed, Multi-function buttons area, through simple Settings, can be controlled through the serial port peripheral devices, such as projector switch. No setting is the scene call shortcut button.



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

Scene Interface:

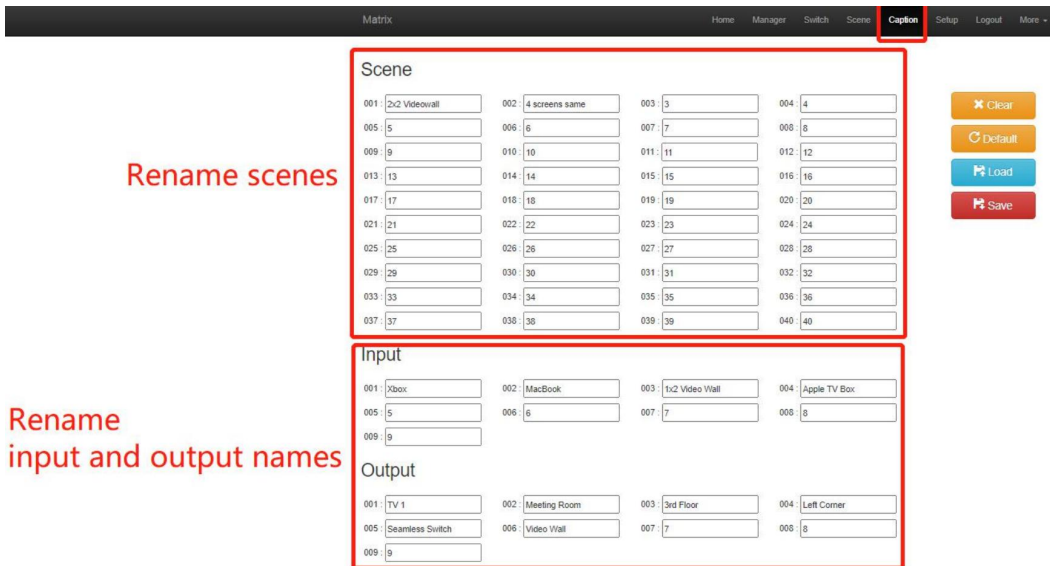
It can support 40 scenes in total, users can preview each scene switching status by clicking on any of the scene number. Click “Save” to save the switching status, and “Load” to recall the scenes. “Back” to return back to the switch interface.



Caption interface:

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.



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.

More:

For the more interface, users mainly can do the firmware upgrade here.

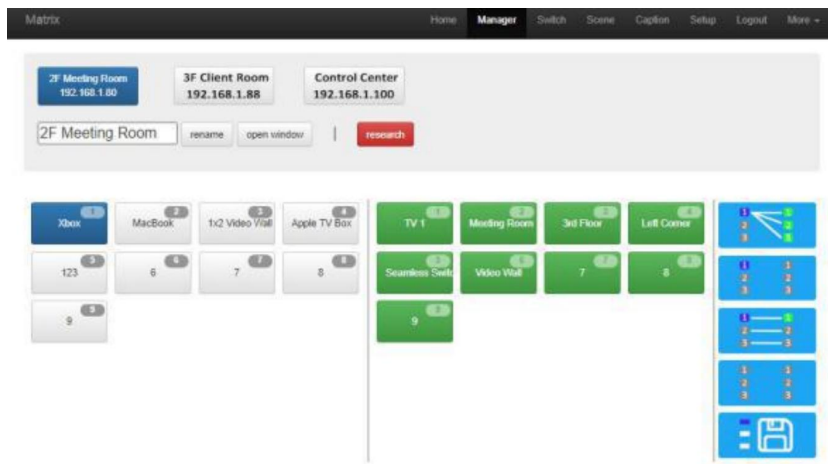
Screen is for the other matrix models which with the touch screen, so users can monitor the touch screen switching status.

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.

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.



● 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: 192.168.0.80 or 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:

● 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 16 input buttons, 16 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(1~16), then press SAVE. If want to reload the saved scene, press the scene number and press RECALL button
- Note: When the scene save/recall is made through the front button, the maximum number of save/recall is 16.

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

● COM 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

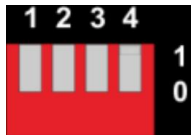
Commands	Explanation	Function description
YAll.	Y=1,2,3,4.....	Switch Input Y to all the outputs Eg. "1ALL." means switch input 1 to all outputs
All1.	One to one	Switch all the channels to be one to one. Eg.1->1, 2->2, 3->3.....
YXZ.	Y=1,2,3,4..... Z=1,2,3,4.....	Switch Input Y to Output Z Eg. "1X2." 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".

4. Dip-switch

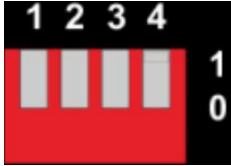
- Output

No.1	No.2		No.3
0	0	bypass	0: means HDCP open
0	1	Coerce 1080P60/50	1: means HDCP close
Input Source: 4K 60/50Hz (444/420/422/RGB)--output 1080P 60/50Hz, Frame rate same 1080P 60Hz----output bypass 4K 30Hz-----output bypass			

1	0	Coerce 4K60/50 444 output	
Input Source: 4K 60/50Hz 420--outout 4K 60/50Hz, Frame rate same In addition to the above resolution-----output bypass			
1	1	Coerce 1080P	
Input Source: Exceed or contain any resolution above 4K 30Hz-----output 1080P, Frame rate same			

Note: No.4 non functional

● **Input**

No.1	No.2	No.3		No.4
0	0	0	bypass	3.5mm Audio 1: 3.5mm Audio embed 0: 3.5mm Audio De-embed 
0	0	1	DVI-1080	
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	