

CH1620K_B User manual

Contents

1. P	Packing3
2. P	Panel description
3. N	Aatrix Switcher control
	Remote Control
	WEB GUI Browser control 4
	Application(MCS) Control7
	Front Panel Switching Operation
	COM Control Commands8
	Dip switch9

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	2 3	4	
	Power Active Network In 1 2 3 4 5 6 7 8 9	Low UP DOWN EVITE SAVE HEALL 1 2 3 4 5 6 7 8 9	•
	10 11 12 13 14 15 16 INPUT	10 11 12 13 14 15 16 OUTPUT	
	(5)	6	

- 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

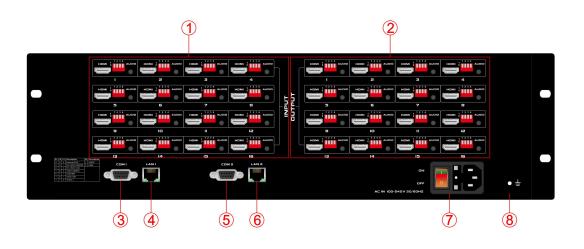
SAVE: Press to save the switching status.

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:

 $2 \longrightarrow SAVE$

Scene Recall :

Press the scene number from "1~16" then press "RECALL" Eg, Recall scene 2:

 $2 \longrightarrow \text{RECALL}$

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).

Matrix		Manager	Switch	Scene	Caption	Setup	Login	More +
	Please login							
	usemame							
	password							
	Login							

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.

B Matrix	× +												· Y	-	 ^
← → C ▲ Not secur	re 192.168.0.80/swi	tch.php										QB	\$	*	
		Matrix				Harwi Ma	-	Sania Capitan	Selar Lique	t Sheri -					
		,• ,• inp	, e , e , e , e uts	, 0		out	tput	60	hortcut						
	Г	[Æ]				
		Bullet 1	Bullor 2	Baltan 3	Balter-L	Eather 5	Rather-1	Ballan 7	Bulley 3						
		Dullar 9	Bullon 12	Bullon 11	Balline C2	Button (3	Ballon 14	Baltan 15	Datas 15						
		Bullow 17	Buller 12	Rollow 10	Bolton 20	Baltor 21	Bullon 22	Bullium 23	Outor 24						
		Bullow 25	Butter 25	Bulley 27	Ballow 20	Batter 29	Ballon 20	Bultun 31	Robor 32						
		Bullet 33	Buller 34	Dates 25	Dollars 35	Balton 37	Balton 35	Dollar 20	Datase 40						
		B 2021 Cargany, Inc.	/ult	ifur	ictic	n b	utto	ns		Each to by					

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

	Switch one input to all the outputs
10 1 12 2 13 3	Close one input to all the outputs
8 1 2 2 3 3	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.

Matrix			Home	Manager	Switch Scene	Caption Setup	Logout More -
•	1 : 2x2 Videowall	2 : 4 screens sa	3:3	4 : 4	5 : 5		Save
	6:6	7:7	8:8	9 : 9	10 ; 10		Load
•	11 : 11	12 : 12	13 : 13	14 : 14	15 : 15		
• ///•	16 : 16	17 : 17	18 : 18	19 : 19	20 : 20		Back
• /// •	21 : 21	22 : 22	23 : 23	24 : 24	25 : 25		
•	26 : 26	27 : 27	28 : 28	29 : 29	30 : 30		
•	31 : 31	32 : 32	33 : 33	34 : 34	35 : 35		
•	36 : 36	37 : 37	38 : 38	39 : 39	40 : 40		
Scenes preview		Suppo	rts 40 sc	enes			

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.

	Matrix		Home	Manager Switch Scene	Caption Setup Logout More +
	Scene				Τ
	001 : 2x2 Videowall	002 : 4 screens same	003 : 3	004 4	× Clear
	005:5	006 : 6	007 : 7	008 : 8	C Default
-	009:9	010 : 10	011: 11	012 : 12	
Rename scenes	013 : 13	014 : 14	015 : 15	016 : 16	🛤 Load
	017 : 17	018 : 18	019 : 19	020 : 20	R Save
	021 : 21	022 : 22	023 : 23	024 : 24	
	025 : 25	026 : 26	027 : 27	028 : 28	
	029 : 29	030 : 30	031: 31	032 : 32	
	033 : 33	034 : 34	035 : 35	036 : 36	
	037 : 37	038 : 38	039 : 39	040 : 40	
	Input				7
	001 : Xbox	002 : MacBook	003 : 1x2 Video Wall	004 : Apple TV Box	
Rename	005:5	006 : 6	007 : 7	008 : 8	
	009:9				
input and output names	Output				
	001 : TV 1	002 : Meeting Room	003 : 3rd Floor	004 : Left Corner	
	005 : Seamless Switch	006 : Video Wall	007 : 7	008 8	
	009 : 9				

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.

192 168 1 80 F Meeting	1.00	92.168.1.88 ename open	192.168.	research				
Xbox	MacBook	1x2 Video Via		TV1	Moding Room	3rd Floor	Left Corner	1
123	6 0	, 0	, O	Seamless Switz	Video Wat	7	. •	8 8 2 8 3 3
, 0				, •				

• 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):

4:56 PM 🖸 🖌	
192.168.1.80	ENTER

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			
YAII.	X 1 2 2 4	Switch Input Y to all the outputs			
YAII. Y=1,2,3,4		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	Switch Input Y to Output Z			
YAZ.	Z=1,2,3,4	Eg. " 1X2. " means switch Input 1 to output 2			
	Y=1,2,3,4				
	Z=1,2,3,4	Switch Input Y to Output Z, Q, W			
YXZ&Q&W.	Q=1,2,3,4	Eg. " 1X2&3&4. " means switch Input 1 to Output 2, 3, 4			
	W=1,2,3,4				
Grand	× 4 2 2 4	Save current status to scene Y			
SaveY.	Y=1,2,3,4	Eg. "Save2." means saving current status to Scene 2			
		Recall the saved scene Y			
RecallY.	Y=1,2,3,4	Eg. "Recall2." means recall the saved Scene 2			
BeepON.	5	Buzzer on			
BeepOFF.	Beep sound	Buzzer off			
Y?.	Y=1.2.3.4	Check the Input Y to outputs switching status			
Ĭŗ.	1=1,2,3,4	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:		1234
4K 60,	/50Hz (4	444/420/422/RGB)output 1080P 60/50Hz, Frame rate same	
1080P	9 60Hz	U	
4K 30	Hz		

1	0	Coerce 4K60/50 444 output					
Input Source: 4K 60/50Hz 420outout 4K 60/50Hz, Frame rate same							
In addition to the above resolutionoutput bypass							
1	1	Coerce 1080P					
•	Input Source: Exceed or contain any resolution above 4K 30Hzoutput 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	
0	0	1	DVI-1080	1: 3.5mm Audio embed	
0	1	0	DVI-1200	0: 3.5mm Audio De-embed	
1	0	0	1080P 2.1		
0	1	1	1440*900		
1	0	1	HDMI-1200		
1	1	0	4К 2.1		