

HDMI Multi-format 8 Buttons Controller C-8B





Introduction

The C-8B is multi-format 8 buttons controller with 2 x Rs-232, 2 x Relay and IR. As one of the Multi Video Plus series C-8B support webserver and App for buttons controller programming, it also support IR learning. The controller has Europe and US standard front panel.

Panel Description

Front panel



All the buttons can be programed to control each Rs-232, relay and IR. The cover of each buttons can be take out easily for labelling.

Rear Panel



- 1. Power: DC Power Input;
- 2. Relay 1: An electrically operated switch;
- 3. IR output power jump: left 2 pin jump for output 5V, right 2 pin jump for output 10V;
- 4. Relay2: An electrically operated switch;
- 5. IR: Infrared radiation digital data output;
- 6. Rs-232_2: Rs-232 data output;
- 7. Rs-232_1: Rs-232 data output;
- 8. LAN (PoE): LAN port with PoE power and wed server control.

Top Panel:



1. IR reader: Learning IR sensor.

Initialization configure

Before first use, user need to initial 8BC configuration. Keep pressing first, third and fifth button, the light of the buttons will off, after that the red light one by one. Pressing the buttons until all the buttons become red and flash to green. The process as below. This method also is restore factory settings.



Web Server The factory default IP: 192.168.2.10

To access to the product we server, user could direct connect the PC LAN port to the MVP-8BC LAN port with the straight RJ45 cable. After making the connection, got to network connection of the PC and revised the IP property to static IP as below. Once done, open a web brower and enter the 192.168.2.10 to access to the web server.

Seneral	
You can get IP settings assigned a this capability. Otherwise, you nee for the appropriate IP settings.	utomatically if your network supports ad to ask your network administrator
Obtain an IP address automa	atically
Use the following IP address:	
IP address:	192 . 168 . 2 . 178
Subnet mask:	255.255.255.0
Default gateway:	192.168.2.1
Obtain DNS server address a	utomatically
Use the following DNS server	addresses:
Preferred DNS server:	
Alternate DNS server:	
🔲 Validate settings upon exit	Advanced

For the C-8B connected to the local area network, please update the C-8B product IP to match the LAN network setting from the web server.

For example if the LAN IP is set as 192.168.88.XXX, then please revise the product to 192.168.88.1XX. Once the IP is set, then you could access to the device from and PC in the same network.

Once access to the C-8B web server, the factory default the user ID is **user** and the password is **123456**. Default IP: 192.168.2.10

Rs-232 Setting

After login to web server, at **Functional Config** page there are Rs-232 parameter setting. User can set Rs-232_1 and Rs-232_2 Baud Rate, Data Bits, Stop bit and Parity. The factory default as blow.

Rs232_	1
Baud rate:	115200 💌
Data bits:	8 💌
Stop bits:	1 💌
Parity bits:	None 💌

Rs23	2_2
Baud rate:	115200 💌
Data bits:	8 💌
Stop bits:	1 💌
Parity bits:	None 💌

Buttons layout

As a reminder of the buttons layout, for user easily configure. Using IR reader as reference the IR reader side is top, the buttons layout as below.

SW1	SW5
SW2	SW6
SW3	SW7
SW4	SW8

Action

Action is showed the button order number, for user easily manage and configure the buttons function.

Action
Button1
Button2
Button3
Button4
Button5
Button6
Button7
Button8

Mode options

Multi Video plus Button Controller has Standard and Toggle mode configuration. User can select the suitable mode for customized configuration. For the Standard mode the LED change from green to red to green; for the Toggle mode the first order is red, the second order is green, shows as figure below.





First Press

Second Press

Event Options

Event options: User can choose the event for each button, there are 6 objects can be choose: None, RS232_1, RS232_2, IR, Relay1 and Relay2.

Event	
None 🔻	
None	
Rs232_1	
Rs232_2	
IR	
Relay1_NO	
Relay2_NO	

None Event

Standard Mode: at Standard Mode with None Event the LED will off, there is no respond when user press the programed with None Event button. And factory settings are all None Event.

Action	Mode	Event	Command Data	Hex	Learn	Label
Button1	Standard 🗸	None 🗸				Input Remark
Action	Mode	E				
	Mode	Event	Command Data	Hex	Learn	Label
Button1	Toggle V	None V	Command Data	Hex	Learn	Label Input Remark
Button1	Toggle V	None V	Command Data	Hex	Learn	Label Input Remark

Rs232 Event

User can choose RS232_1 or RS232_2 port to send data, the factory settings: Baud rate 115200, Data bits 8, Stop bits 1 and none Parity bits.

Standard Mode:

In this Mode and Event, when press the button the button controller will send command data through Rs232 port showed below.

Action	Mode	Event		Command Data	Не	Learn	Label
Button1	Standard 🗸	Rs232_1	~	Welcome to use MVP-8BC			Input Remark



Hex: When click Hex, user can type Hex data in Command Data the Button Controller will send Hex data through Rs232 port.

Action	Mode Event	Command Data	He	x Learn	Label
Button1	Standard V Rs232_1	✓ 48 45 4c 4c 4f	✓		Input Remark
Action Button1	Mode Event Standard Rs232_1 CDMSettings PortNum PortNum CDM6 BaudR 115200 DPaity NONE DPaity NONE DataB 8 StopB 1 Image: Close Receive to file Show timestamp Receive pause Save. Clear Send Options Send Options	Command Data 48 45 4c 4c 4f Communary Assistant COM port data receive 48 45 4C 4C 4F	Hez ✓	x Learn	Label Input Remark
	Data from file Auto checksum Auto clear inpu				
	Send as hex Send cyclic				
	Interval 1000 ms Load Clear			Send	
	💣 Ready!	S	end:0 Recv:1117	Reset	

IR Even

IR learn: When user want to send IR Command Data, the Button Controller need learn IR Command Data first. There are few steps:

- 1. Select IR Event;
- 2. Click Learn;
- 3. Click Program;
- 4. Click OK;
- 5. Send IR signal to IR Learner;
- 6. IR learning completed.



If the Learn mode is active and IR learner does not receive any IR signal, the Learn mode will turn off. The Command Data will show' Learning over time......', redo IR Learn.

Action	Mode	Event	Command Data	Hex	Learn	Label
Button1	Standard 🗸	IR 🗸	Learning over time			Input Remark

Send IR signal

When IR learning completed the Command Data will show 'INFRARED MODULE STUDY COMPLETED'. The button controller store the IR data and ready to send out.

Button Preset								
Notice: In Toggle Mode the first command LED is red, the second command is green								
Action	Mode	Event	Command Data	Hex	Learn	Label		
Button1	Standard 🗸	IR 🗸	INFRARED MODULE STUDY COMPLETED]		Input Remark		
Button2	Standard 🗸	None 🗸]		Input Remark		
Button3	Standard 🗸	None 🗸]		Input Remark		
Button4	Standard 🗸	None 🗸]		Input Remark		
Button5	Standard 🗸	None 🗸]		Input Remark		
Button6	Standard 🗸	None 🗸]		Input Remark		
Button7	Standard 🗸	None 🗸]		Input Remark		
Button8	Standard 🗸	None 🗸]		Input Remark		
Program								

IR Sending mode

At the Standard Mode press button controller will send IR signal as the times user press. The LED light will change from green to red and back to green. The button controller also can send IR signal loop, with hold the button on 3 sec, the LED should flash green and red.

1	SW5	1	SW5	1	SW5
SW2	SW6	SW2	SW6	SW2	SW6
SW3	SW7	SW3	SW7	SW3	SW7
SW4	SW8	SW4	SW8	SW4	SW8

Single



loop

For the Toggle Mode the IR output only can send one by one, it cannot send signal loop.

Relay Event

Relay configure:

Connect Button controller relay port with power supply (Up to DC 24V) and the device user want to control (or other relay to control high voltage). The relay contact of button controller is normally open. Select Relay and press Program, shows as below.

			Button Preset			
	No	tice: In Toggle Mo	de the first command LED is red, the second comman	d is green		
Action	Mode	Event	Command Data	Hex	Learn	Label
Button1	Standard 🗸	Relay1_NO 🗸	Relay1 Contact Open!]		Input Remark
Button2	Standard 🗸	None 🗸]		Input Remark
Button3	Standard V	None 🗸]		Input Remark
Button4	Standard 🗸	None 🗸]		Input Remark
Button5	Standard 🗸	None 🗸]		Input Remark
Button6	Standard 🗸	None 🗸]		Input Remark
Button7	Standard 🗸	None 🗸]		Input Remark
Button8	Standard 🗸	None V]		Input Remark
Program						

At standard mode when press the button programed with relay, the led become red and the relay contact is close. If hold the button the relay contact stay on close, after release the button the led change to green and relay contact open.





For the Toggle mode:

If the user wan to hold the relay in open or close situation, select the Toggle Mode and select both Even in same Relay, click the Program. First press the led change to red and the relay contact stay in close. Second press the relay stay in open and the led change to green.



1	SW5
SW2	SW6
SW3	SW7
SW4	SW8

Label

User can mark the buttons for easy configuration.



System Config

The System Config can set Network config: User DHCP, IP Address, Net Mask, Gate way, TCP protocol and TCP port. The Version Information also can be checked, System Software, System Hardware and Bootloader Software version

Functional	Config	I	System Config
System			
	-Network		Version Information
Use DHCP:	🔘 On	● Off	System Software: V0.0
IP Address:	192.168.2.10		System Hardware: V0.0
Net Mask:	255.255.255.	0	Bootloader Software: V0.0
Gateway:	192.168.2.1		
TCP Protocol:	Server	🔘 Client	
TCP Port:	1001		
Apply			

Update Firmware

Connect the Button controller with the PC with a network cable.

1. Press the first and the last button then connect the Button controller with power supply. The Button controller will get into bootloader mode and the LED will flash green from first button to last button.



2. Open Boot Loader software, type the IP address and TCP Port of the Button Controller as below.

ocal Host IP: 192.168.2	.10 Local Host Po	it 1001	Close 🏠 Appli
Device Name	Card Name	Hardware Version	Software Version
Buttoncontroller	Main	V0.0.0	V0.0.0

Click the Button Controller and select the file, after that click Upgrade. Waite for few seconds for upgrading.

- 3. Restore factory settings with hold the first, third and fifth buttons at the same time.
- 4. Upgrade succeed.