C-8B
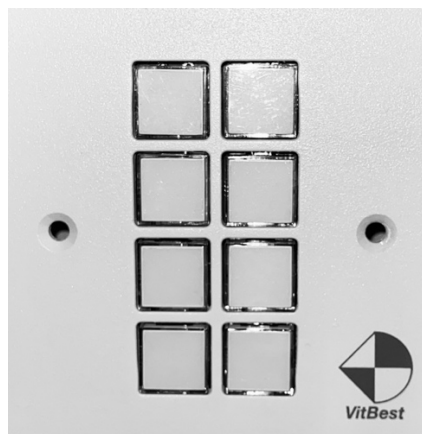
Multi-Format 8 Buttons Controller

User Manual

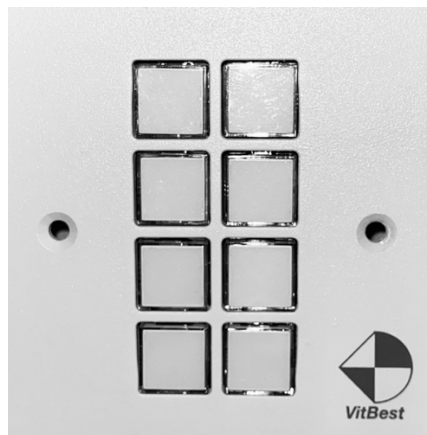# Introduction

The VitBest C-8B is multi-format 8 buttons controller with 2 x Rs-232, 2 x Relay,1 IR and LAN. As one of the Multi Video Plus series C-8B support webserver and IP control for buttons controller programming, it also support IR learning. The controller has Europe and US standard front panel.
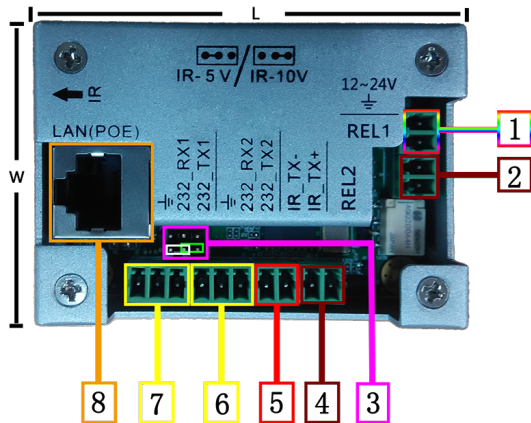
Panel Description

Front panel

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

Rear panel

1. Power: DC Power Input; 12-24V DC 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 digitaldata 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
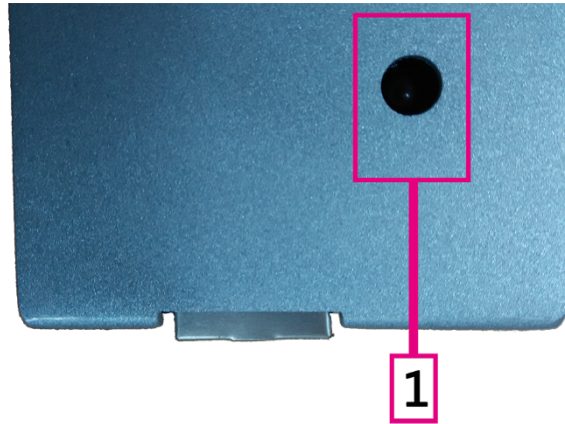
1. IR reader: Learning IR sensor. Frequency is 38K.

Initialization configure

Before first use,user need to initial C-8B configuration. Keep pressing first, third and fifth button, the light of the buttons will be 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 can restore factory settings.
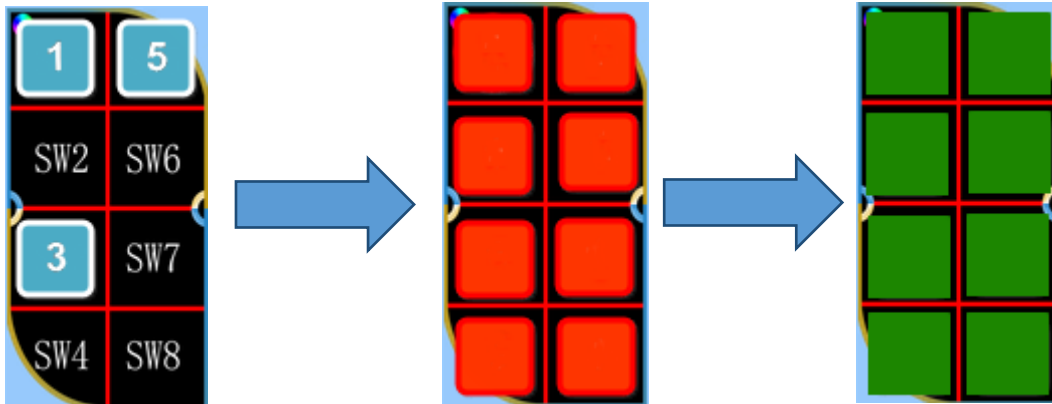
Web Server

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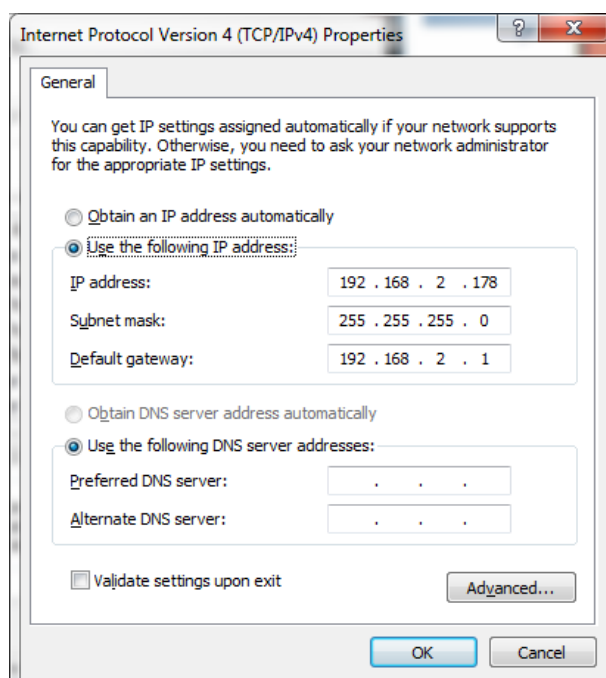
For the C-8B connected to the local area network, please update the C-8B product IP to match the LAN network setting from the web server.

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 the PC in the same network.

The factory default:
IP: 192.168.2.10
User ID: user
Password: 132456

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

Setting Menu

After login to web server, at **Setting** Menu there are IR, Lan and Rs-232 parameter setting.

IR_Learning
Please go to IR Event chapters to learn detail info.

Lan _Control

User could set DHCP, IP Address, Net Mask,Gateway,Tcp Server or Client and Host IP TCP Port info in the Net Control Menu.
System hardware, boot loader and software version info is listed in Version information Menu.

Rs-232 Setting

User can set Rs-232_1 and Rs-232_2 Baud Rate, Data Bits, Stop bit and Parity. The factory default as blow.

Virtual Keypad Menu
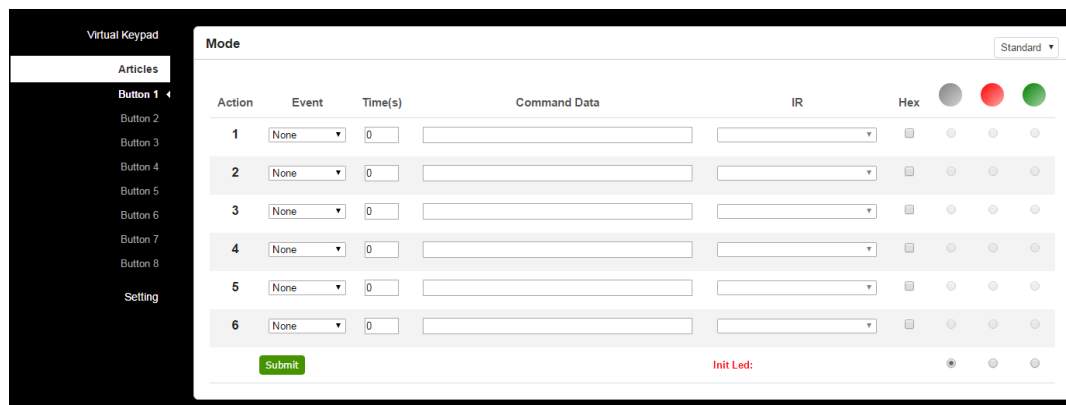
User could click Virtual Keypad to toggle real button function on web page.

Articles Menu

Articles Menu is for button function setting. There are 8 button inside, each button support 2 Mode,6 Action, timer control between each Action , and 11 Events selection of each Action.

Mode Selection

Button function of C-8B support Standard and Toggle Mode. When button is in Standard Mode, each time of press execute the same action. Toggle Mode support 2 different action in 1 button, it could be execution alternately when user press it. We call it Release and Latch. User could define Led color to distinct the working mode. It is widely use in turning on and off application.

Standard Mode

Toggle Mode

Event Selection

Note: Introduction is base on Standard Mode as Toggle Mode is same operation.

C-8B support 11 events

None: Do nothing

IR: Sent out IR code

IP_Send: Sent data to TCP Server by LAN

IP_Ack: Get data from TCP Client by LAN

Led: Led color control

Relay1_NO: Trigger Relay1

Relay2_NO:Trigger Relay2

Rs232_1: Sent data to RS232 Port 1

Rs232_2: Sent data to RS232 Port 2

Rs232_1Ack: Get data From RS232 Port 1

Rs232_2Ack: Get data from RS232 Port 2

None Event

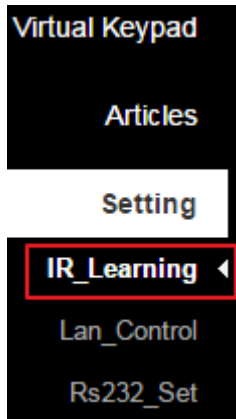Both at Standard and Toggle Mode, none event do nothing and will clear all the Command Data

IR Event

User should learned IR code before using the IR code sent function. Go to Setting\IR Learning menu.

System support 10 IR code storage.

1. input the name of IR code(use underscore to replace space bar)
2. click IR Learning
3. click Save, ”INFRARED MODULE IS LEARNING….” will display on the State Frame
4. present an IR signal to the IR receiver port within 30 seconds
5. “INFRARED MODULE STUDY COMPLETED” display on the State Frame mean learning is finish
6. If IR receiver did not get IR signal input within 30 seconds, it will close the learning action and display

IR code sending

Connect IR transmitter to system and select the IR code in the IR pull-down menu and click Submit button.

User also could input IR code directly into the Command Data area

IP_Send Event

IP Send Event could sent ASII or HEX to IP address.
Format: IP address*Port*Data
Example:
Sent 123456789 to 192.168.2.51, the format is 192.168.2.51*1001*123456789, ASII so do not click Hex.

IP_Ack Event

IP Ack Event is for the IP controller get the feedback of device and compare with predefine data to decide the action continue or stop. If controller did not get feedback, it will auto resend data 5 times again. If there are many IP_Send event in the system, IP address and port of IP_Ack event will relate to the previous IP_Send evnt. Make Sure there is a IP_Send event before IP_Ack event.

IP Button Trigger Command   >BtnX<cr>

IP command is a command for many Button Controllers work together. It could trigger Button Controller to execute a button event.
>BtnX<cr>
X is button number in 1-8, <cr> is HEX 0D
Example: Sent IP command " >Btn3<cr> " to
trigger IP address 192.2.168.2.100 ,Port 1001 button controller Button 3 event.
1. Select IP_Send event
2. Input   192.2.168.2.100*1001* 3E 42 74 6E 33 0D   at   Command Data area and click Hex (3E 42 74 6E 33 0D is the Hex code of >Btn3<cr>)
3. Click Submit Button

IP_Send/ IP_Ack Event and IP Button Trigger Command is a main feature of IP control, user could build up flexible IP control application by making good use of them.

LED Event

LED Event is for changing button LED color, system offer LED off, LED Green and LED Red function. User could select LED Event than input button number at the Command Data area and select the color.

Relay1_NO/Relay2_NO   Event

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 Submit, shows as below.
Once press button, Relay is closed and will open when press it again.
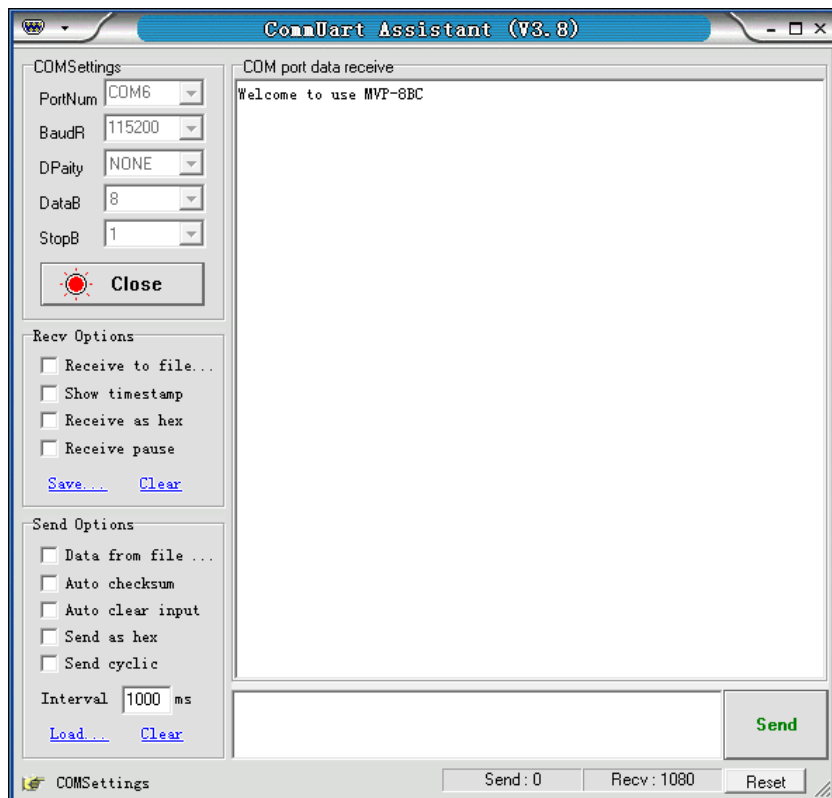
Rs232_1/Rs232_2　Event

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.
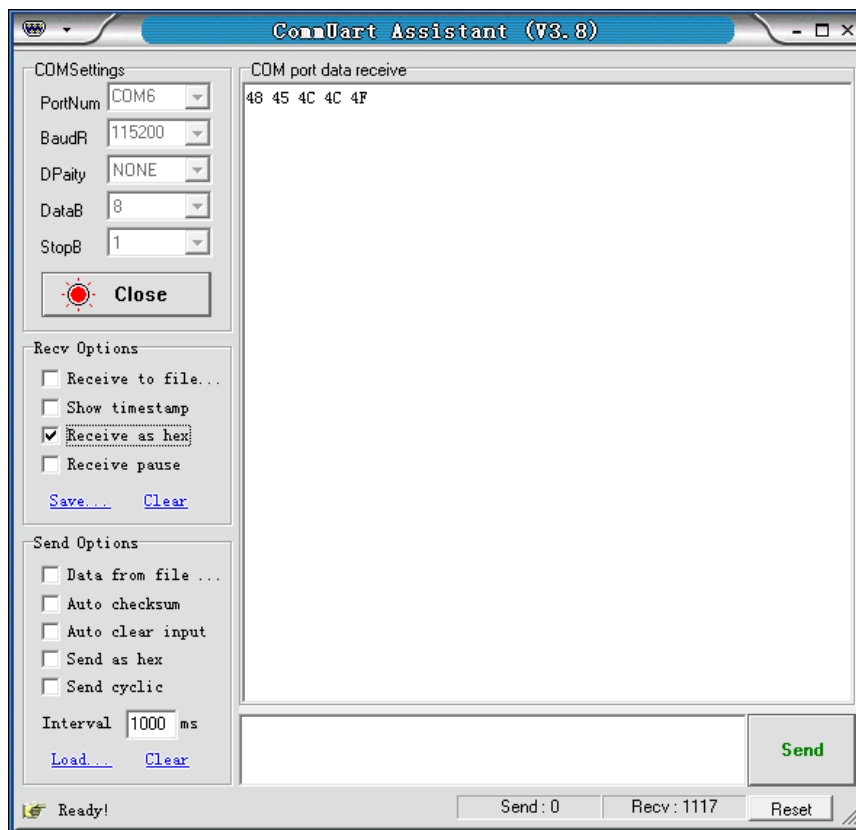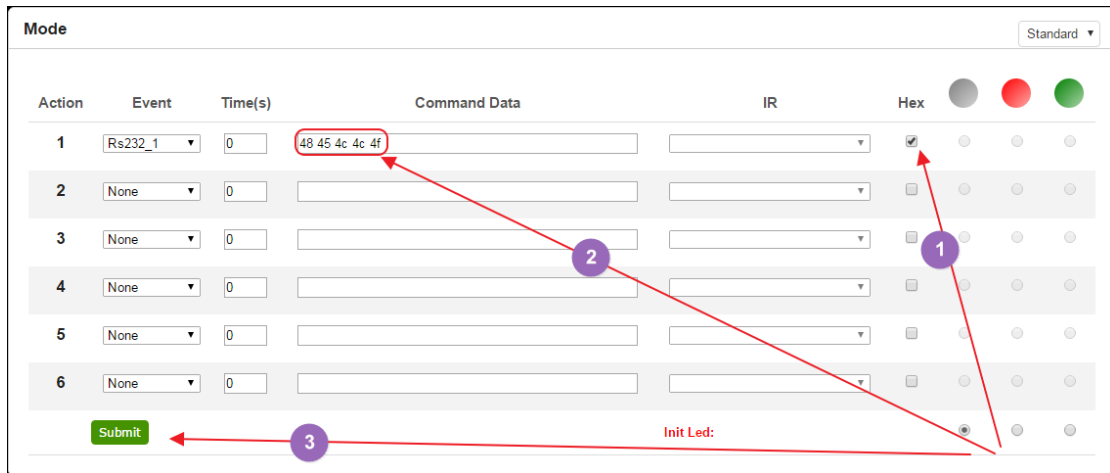
Standard Mode:

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

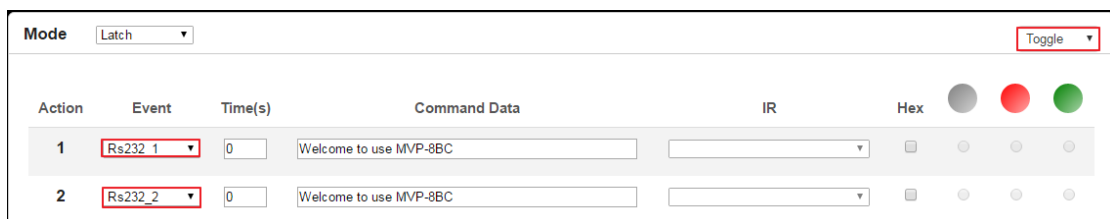Hex: When click Hex, user can type Hex data in Command Data the Button Controller will send Hex data through Rs232 port.

Note: Same operation is in the Toggle Mode.

Rs232_1Ack and Rs232_2Ack Event

Rs232_1Ack and Rs232_2Ack Event is for the button controller get the feedback of Rs232 device and compare with predefine data to decide the action continue or stop. If controller did not get feedback, it will auto resend data 5 times again. Make Sure there is a Rs232 event before Rs232_Ack event.

IP pass through RS232 Command

IP pass through RS232 command is for user sent data from IP to RS232 or opposite. It mean Button controller act as a control repeater.
>CSNUMTXMsg<CR>
NUM: 0 LAN   1:Rs232 port 1   2:Rs232 port 2
MSG: Data for pass through
<CR> is 0D of HEX
Example:
Hello from RS232 to LAN

```
3E 43 53 30 54 58 48 65 6C 6C 6F 0D
```

>CS0TXHello<CR>

```
>CS0TXHello
```

Hello from LAN to RS232 port 1

```
3E 43 53 31 54 58 77 6F 72 6C 64 0D
```

>CS1TXworld<CR>

```
>CS1TXworld
```

Time(S)　application

Each button could execute 6 events in maximum. Time(S) is the time space between 2 events.


Update Firmware

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

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

Open Boot Loader software, type the IP address and TCP Port of the Button Controller as below.
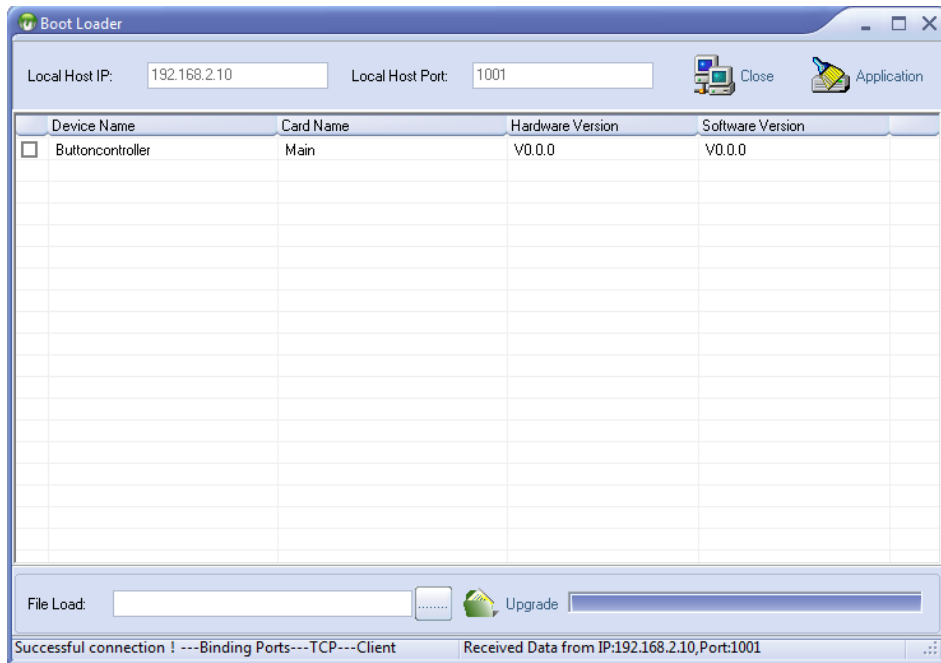
Click the Button Controller and select the file, after that click Upgrade.
Waiting for few seconds for upgrading.

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