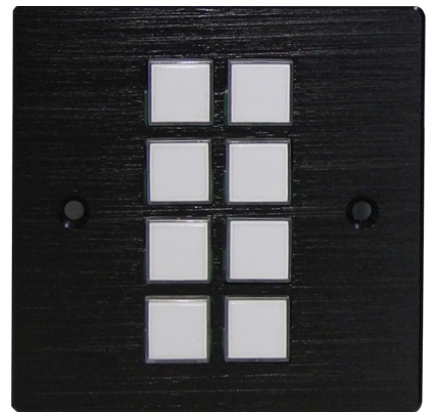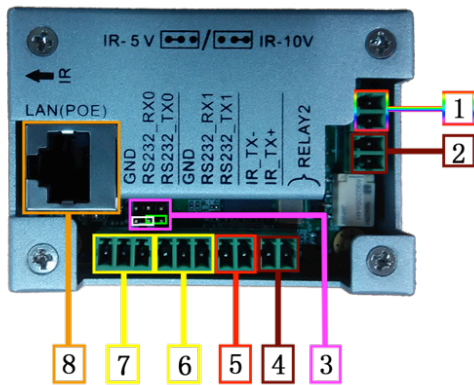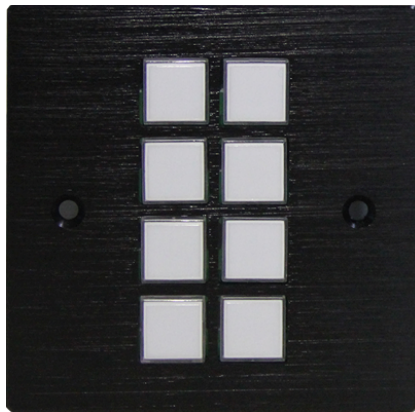# HDMI Multi-format 8 Buttons Controller
C-8B

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.
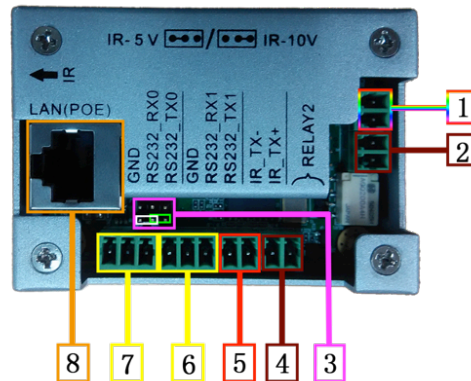
Panel Description
Front panel

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:
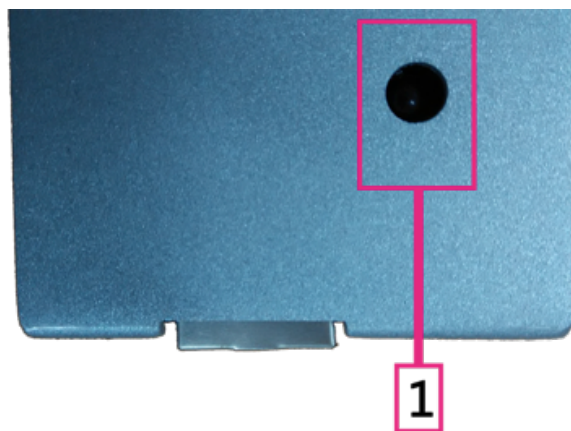
1. IR reader: Learning IR sensor.

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.
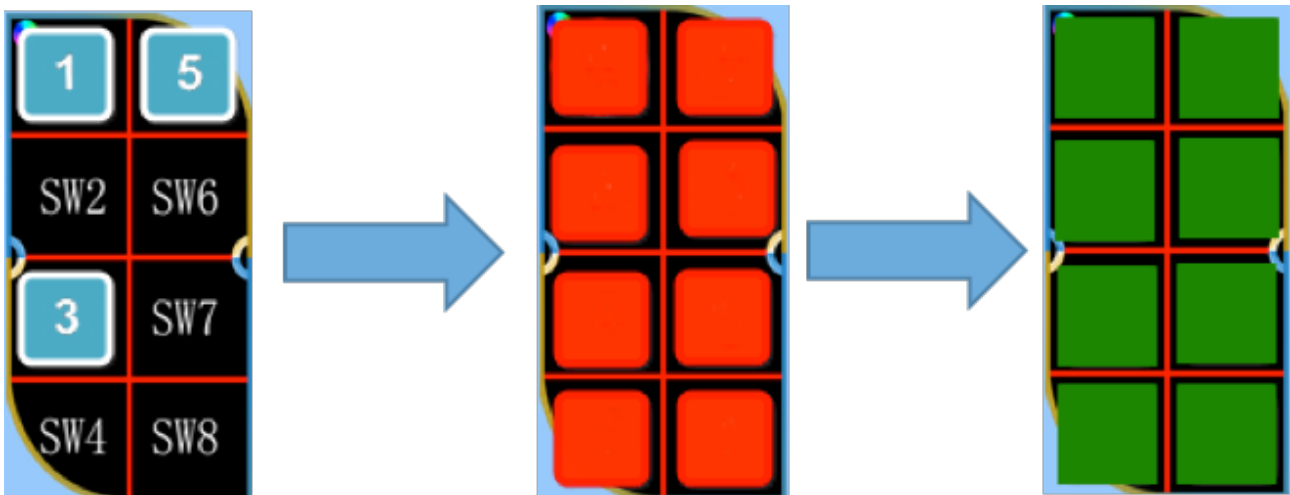
Web Server

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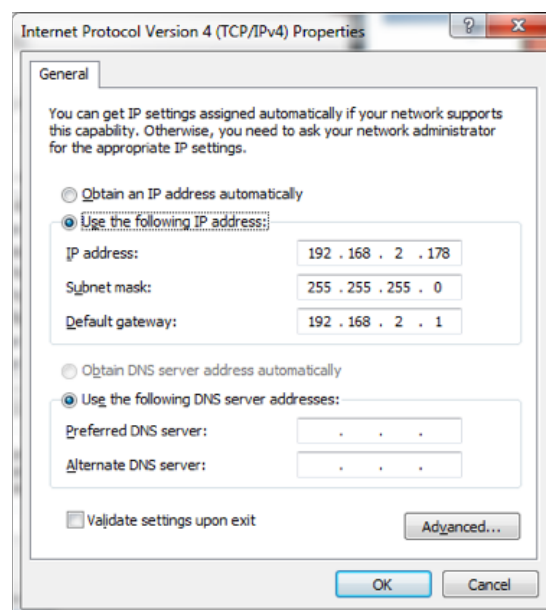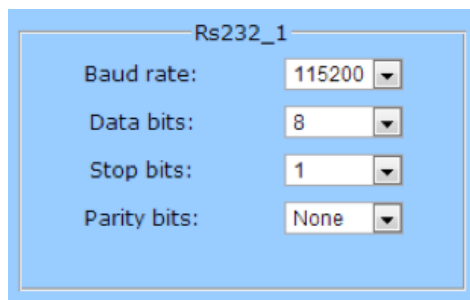
For the C-8B connected to the local area network, please update the C-8B product IP to match the LAN network setting from the web server.

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
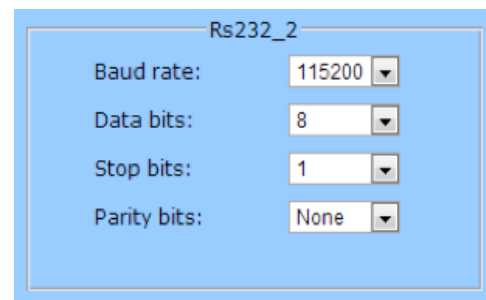
Rs-232 Setting

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.

<table>
<tr><td colspan="2">Rs232_1</td><td colspan="2">Rs232_2</td></tr>
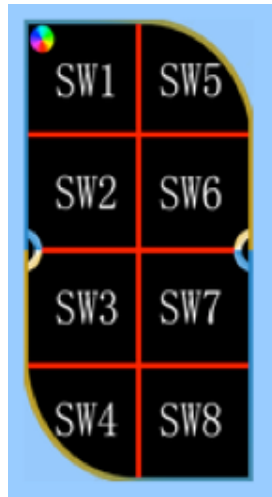<tr><td>Baud rate:</td><td>115200 ▾</td><td>Baud rate:</td><td>115200 ▾</td></tr>
<tr><td>Data bits:</td><td>8 ▾</td><td>Data bits:</td><td>8 ▾</td></tr>
<tr><td>Stop bits:</td><td>1 ▾</td><td>Stop bits:</td><td>1 ▾</td></tr>
<tr><td>Parity bits:</td><td>None ▾</td><td>Parity bits:</td><td>None ▾</td></tr>
</table>

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.

Action

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

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.
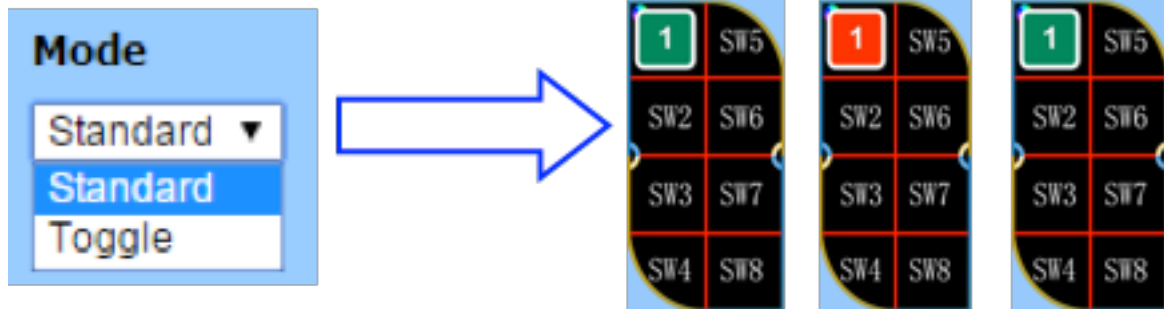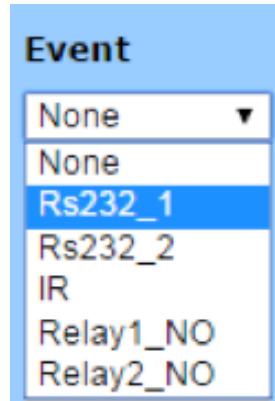

First Press   Second Press

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.

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.

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	Hex	Learn	Label
Button1	Standard ∨	Rs232_1 ∨	Welcome to use MVP-8BC	☐	☐	Input Remark
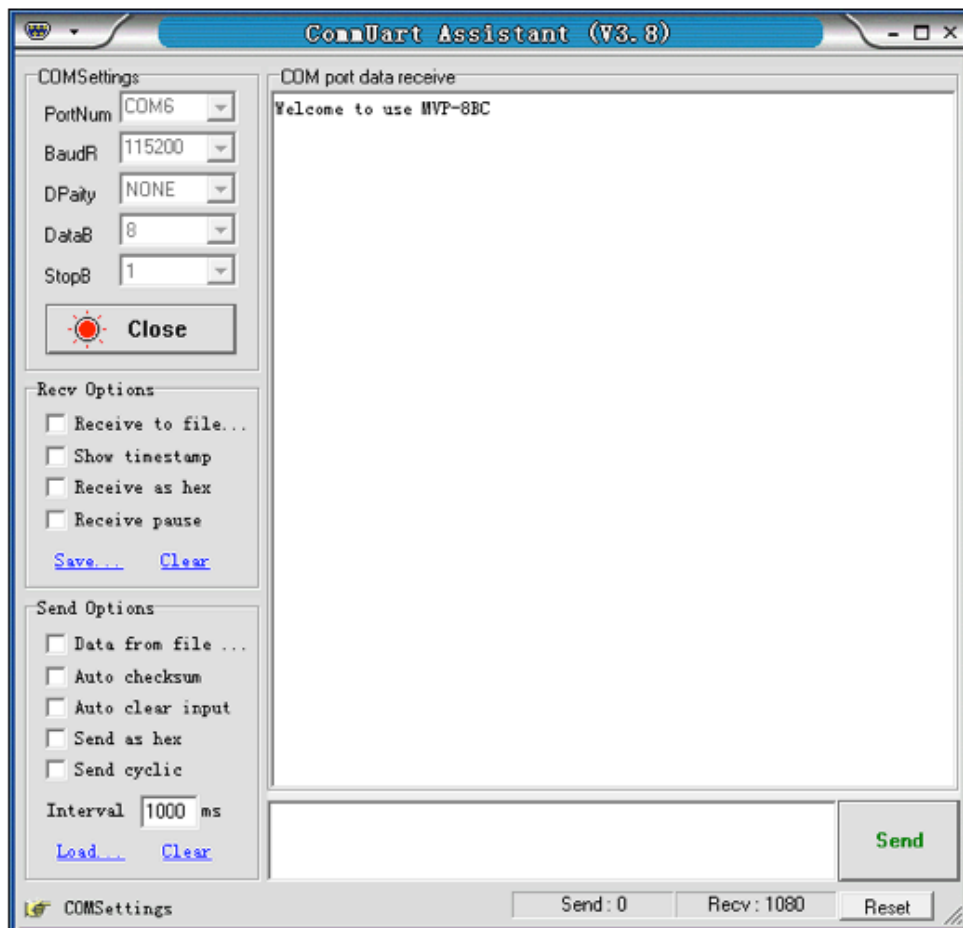
Hex: When click Hex, user can type Hex data in Command Data the Button Controller will send Hex data through Rs232 port.

Action	Mode	Event	Command Data		Hex	Learn	Label
Button1	Standard ∨	Rs232_1 ∨	48 45 4c 4c 4f		☑	☐	Input Remark
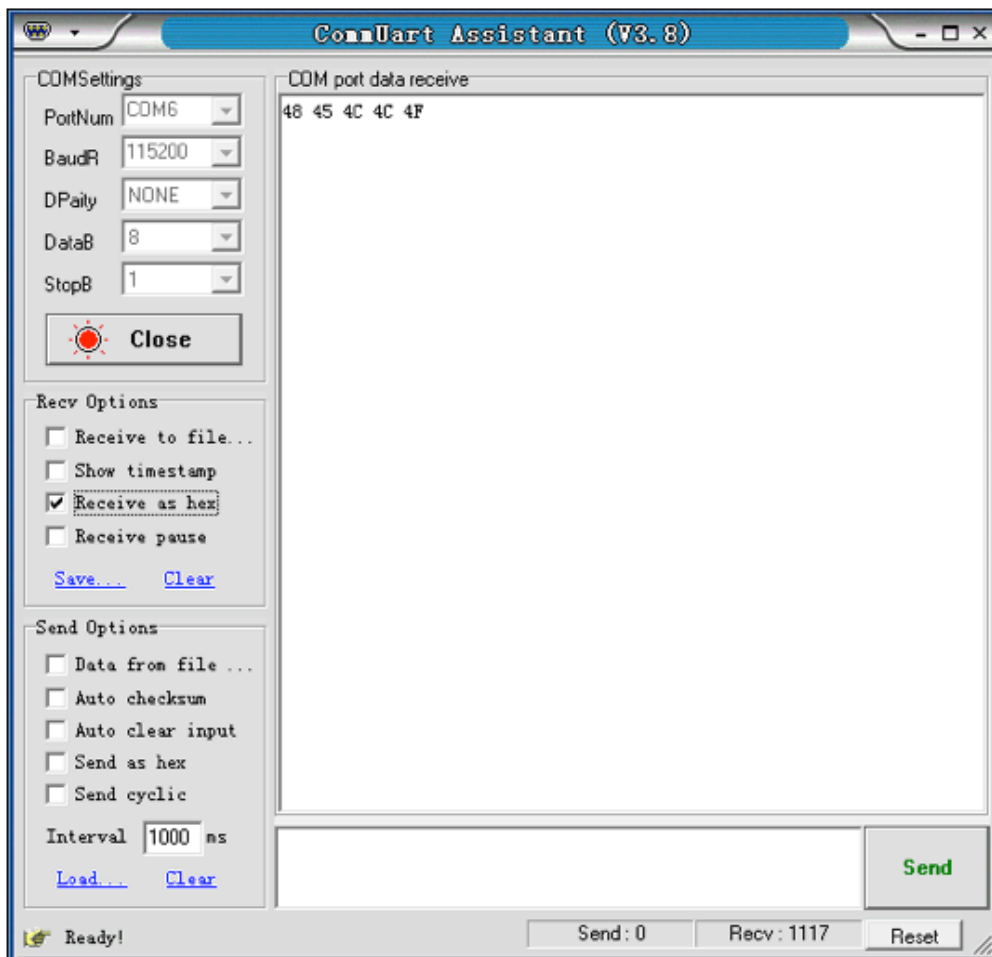
IR Even

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.

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 ⌄		☐	☑	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

Message from webpage

⚠ Program Success

OK

1   2   3   4

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.
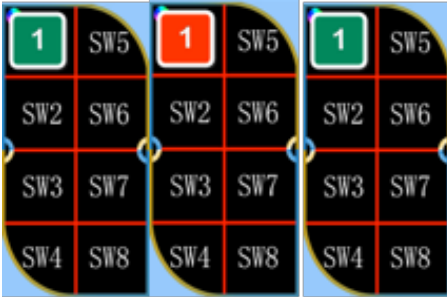

Button Preset

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.

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.

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.
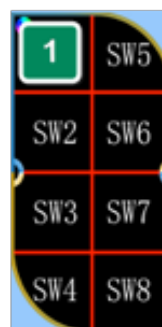
Label

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

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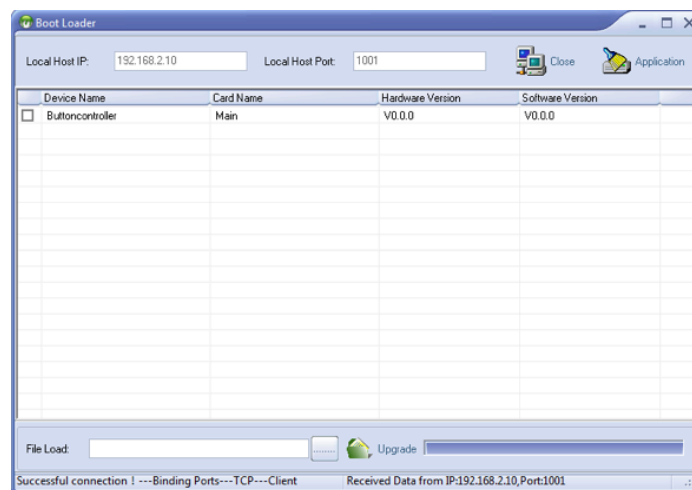
Click the Button Controller and select the file, after that click Upgrade. Waite for few seconds for upgrading.

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