### **RF Wireless Remote Control Radio Controller / Transmitter & Receiver**

# The receiver is designed for one-transmitter-many-receivers system. You can use a 4 buttons transmitter to control 4 receivers, or use a 6 buttons transmitter to control 6 receivers, or use a 8 buttons transmitter to control 8 receivers, or use a 12 buttons transmitter to control 12 receivers.

#### Feature:

Application: It can be used in industry automation, agriculture automation and home automation, such as factory, house, farm, pasture, vehicle, ship, offshore operation, aerial vehicle, field call, etc. It can remote control equipments on land, water and air, such as remote control lights, sirens, locks, motors, fans, winches, blinds, linear actuators, doors, windows, electric solenoid valves, security alarm, business signs and various devices.

Wireless control, easy to install

Waterproof case with waterproof connector.

Relay Output: This receiver is relay output, it can be used to operate both DC and AC equipments. The terminal is NO / NC (normally open / normally closed), which serves as a switch. That means you should also connect a separate power supply to it.

High Power: Each relay output can work at maximum current 30A. The maximum power of the device is 360W/12V, 180W/6V, 270W/9V, 720W/24V, 3000W/110V, 6000W/220V.

With manual terminals: The receiver allows you to connect external devices, sensors, or manual switches to control the receiver.

With the external antenna, it can have a further working range.

Use an 8-bit microprocessor designed and developed with low-power and high-speed CMOS technology.

You can turn on/ off the receiver with transmitter (remote control) from any place within a reliable distance; the wireless RF signal can pass through walls, floors and doors.

With characteristics of reverse power protection and over current protection.

Reliable control: The receiver only works with the transmitter which use same code.

One/several transmitters can control one/several receivers simultaneously.

You can use two or more units in the same place.

You can use one transmitter to control several receivers, such as each two buttons on transmitter controls one receiver. They can pair different model transmitters, includes model CV-4 (500M), CV-6 (500M), CV-8 (500M), CV-12 (500M) and CB-4 (1000M), CB-6 (1000M), CB-8 (1000M), CB-12 (1000M), etc... For example, you can use one 4 buttons transmitter CV-4 or CB-4 to control two receivers, use one 6 buttons transmitter CV-6 or CB-6 to control three receivers, use one 8 buttons transmitter CV-8 or CB-8 to control four receivers, use one 12 buttons transmitter CV-12 or CB-12 to control six receivers, etc...

#### **Receiver Parameters:**

Model No.: S1UB-AC220 Power Supply (Operating Voltage): AC100~240V (110V/120V/220V/240V) Working Frequency: 315MHz / 433MHz Channel: 1 CH Control Modes: Toggle, Momentary, Latched Output: Relay output (Normally open and normally closed) Working Voltage Range of Relay: AC110~240V or DC0~28V Maximum Working Current of Relay: 10A Static Current: ≤6mA PCB size: 88mm x 80mm x 18mm Case size: 115mm x 90mm x 55mm Wire range for the terminals: 22-11 AWG Work with Fixed code transmitters.

#### Working Range:

With a transmitter (such as CV-12) to form a complete set, the maximum working distance can reach 500M in an open ground.

The maximum working distance is an ideal range, it shall be operated with no barriers and interference in an open ground. But in the practice, it will be hindered by trees, walls or other constructions, and will be interfered by other wireless sign. Therefore, the actual distance may not reach this maximum working distance.

If you want to have a further working range, you can install an external antenna to the receiver, and you also can use a powerful transmitter, such as CB series transmitters.

#### Usage (with the transmitter):

The receiver can be used to control both DC 0~28V and AC 110~240V equipments.

Notice: The receiver is relay output, not DC/AC power output. Initial state of relay output terminals: Terminals B and C are Normally Open; Terminals A and B are Normally Closed.

If you want to control DC 12V lamp, do as following:

1) Connect the live wire of the AC power supply to terminal "L / +" of receiver, and the neutral wire of the AC power supply to terminal "N / -"of receiver.

2) Connect terminal C of receiver to the positive pole of the DC power supply, connect terminal B of receiver to the positive pole of the DC lamp, and connect the negative pole of the DC lamp to the negative pole of the DC power supply.

If you want to control AC 220V lamp, do as following:

1) Connect the live wire of the AC power supply to terminal "L / +" of receiver, and the neutral wire of the AC power supply to terminal "N / -"of receiver.

2) Connect terminal C of receiver to the live wire of the AC power supply, connect terminal B of receiver to one side of the AC lamp, and connect another side of the AC lamp to the neutral wire of the AC power supply.

# Setting different control modes (We have set the receiver as Toggle control mode before delivery. If you want to use other control modes, do as following operation):

1) Setting control mode Toggle: Connect Jumper-2.

Control mode Toggle (with transmitter CV-12): Press -> On; Press again -> Off.

Press button 1 on the transmitter: Turn on the relay of receiver 1 (connect terminals B and C, disconnect terminals A and B of receiver 1), the lamp 1 is on.

Press button 1 again: Turn off the relay of receiver 1 (disconnect terminals B and C, connect terminals A and B of receiver 1), the lamp 1 is off Press button 2 on the transmitter: Turn on the relay of receiver 2 (connect terminals B and C, disconnect terminals A and B of receiver 2), the lamp 2 is on.

Press button 2 again: Turn off the relay of receiver 2 (disconnect terminals B and C, connect terminals A and B of receiver 2), the lamp 2 is off.

Press button 12 on the transmitter: Turn on the relay of receiver 12 (connect terminals B and C, disconnect terminals A and B of receiver 12), the lamp 12 is on.

Press button 12 again: Turn off the relay of receiver 12 (disconnect terminals B and C, connect terminals A and B of receiver 12), the lamp 12 is off.

#### 2) Setting control mode Momentary: Connect Jumper-1.

Control mode Momentary (with transmitter CV-12): Press and hold -> On; Release -> Off.

Press and hold button 1: Turn on the relay of receiver 1 (connect terminals B and C, disconnect terminals A and B of receiver 1), the lamp 1 is on. Release button 1: Turn off the relay of receiver 1 (disconnect terminals B and C, connect terminals A and B of receiver 1), the lamp 1 is off. Press and hold button 2: Turn on the relay of receiver 2 (connect terminals B and C, disconnect terminals A and B of receiver 2), the lamp 2 is off. Release button 2: Turn off the relay of receiver 2 (disconnect terminals B and C, connect terminals A and B of receiver 2), the lamp 2 is off.

Press and hold button 12: Turn on the relay of receiver 12 (connect terminals B and C, disconnect terminals A and B of receiver 12), the lamp 12 is on.

Release button 12: Turn off the relay of receiver 12 (disconnect terminals B and C, connect terminals A and B of receiver 12), the lamp 12 is off.

3) Setting control mode Latched: Disconnect Jumper-1 and Jumper-2.

Control mode Latched (with transmitter CV-12): Press a button -> On; Press another button -> Off.

Press button 1: Turn on the relay of receiver 1(connect terminals B and C, disconnect terminals A and B of receiver 1), the lamp 1 is on. Press button 2: Turn on the relay of receiver 2 turn off the relay 1 (connect terminals B and C, disconnect terminals A and B of receiver 2), the lamp 2 is on and the other lamps are off.

Press button 12: Turn on the relay of receiver 12(connect terminals B and C, disconnect terminals A and B of receiver 1 of receiver 12), the lamp 12 is on and the other lamps are off.

#### Manual control terminals:

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The receiver has manual control terminals, you can connect external devices, sensors, or manual switches to control the receiver. 1) Signal input:

You can connect external devices (with low level output signal) to terminals "1", "3", the external device's output signal can control the receiver. When the external device outputs low level signal to terminal "1" and "3", turn on the relay (connect terminals B and C, disconnect terminals A and B).

When the external device does not output signal to terminal "1" and "3", turn off the relay (disconnect terminals B and C, connect terminals A and B).

#### 2) The manual switches:

You can connect one manual switch to terminals "1", "3", and then you can use this manual switch to control the receiver. When connect terminals "1" and "3", turn on the relay (connect terminals B and C, disconnect terminals A and B). And when disconnect terminals "1" and "3", turn off the relay (disconnect terminals B and C, connect terminals A and B).

#### How to pair the transmitter to the receiver:

1) Press the learning button of receiver; signal LED on the receiver keeps shining. The receiver enters into status of LEARNING.

- 2) Press any one button on remote control. If signal LED flashes quickly 15 times and turns off, it means learning is successful.
- 3) When receiver is in the status of LEARNING, press again the button of receiver, signal LED turns off, learning process will be discontinued.

4) The receiver can learn several remote controls with different codes.

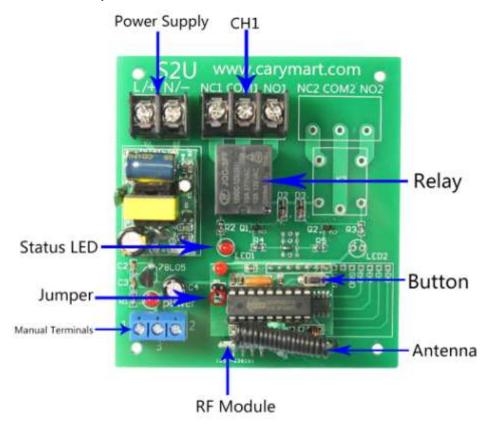
## Note:

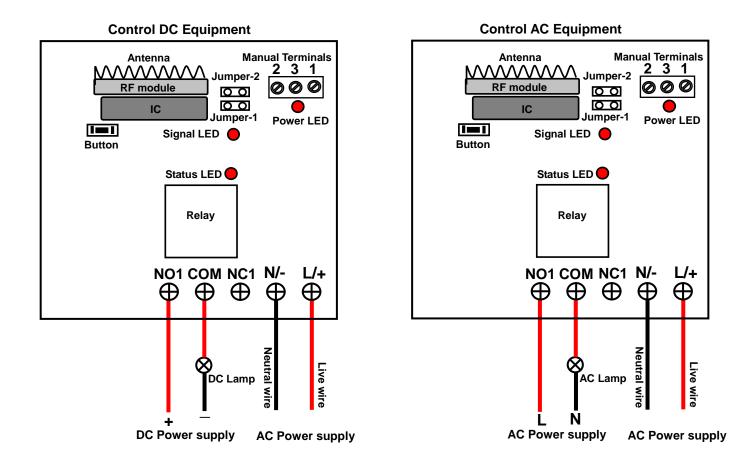
When the receiver enters into status of LEARNING, you should press the button of transmitter that you want to use it to control the receiver. For example, if you want to control the receiver 1 by pressing button 1 of transmitter, you should press button 1 when the receiver 1 enters into status of LEARNING.

#### Delete all transmitters:

We have learned remote control to the receiver. If you don't want the receiver to work with the remote control, you can delete all codes of remote controls, which are stored in the receiver.

Operation: Press and hold the button of receiver until signal LED flashes slowly; release the button, LED keeps slow flash. That means all stored codes have been deleted successfully.





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