

## 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.

### Package Include:

12 x Receiver: S1UB-AC220-ANT2 (1 Channel / Three Control Modes)  
1 x Transmitter: CB-12  
1 x User manual

### 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.

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-ANT2

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.

### External Magnetic Sucker Antenna:

Frequency Range: 300~450MHz

Impedance: 50Ω

Antenna Length: 15cm

Cable Length: 1.5m, we also can offer longer cable, such as 5 meters, 10 meters or 30 meters.

Anti-interference, waterproof, shielded wire set inside.

Magnetic stand design for easy to install.

### Transmitter Parameters:

Model No.: CB-12

Channel: 12 CH

Remote Control Distance: 1000m / 3000ft (theoretically)

Encode: Fixed code by soldering

Unit size: 135mm x 42mm x 25mm

Power Supply: 1 x 6F22-9V battery (included, can be used for 12 months)

### 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 CB-12): Press -> On; Press again -> Off.

Press button 1: Turn on relay of receiver 1 (connect B and C, disconnect A and B), the lamp1 is on.

Press button 1 again: Turn off relay of receiver 1 (disconnect B and C, connect A and B), the lamp1 is off.

Press button 2: Turn on relay of receiver 2 (connect B and C, disconnect A and B), the lamp2 is on.

Press button 2 again: Turn off relay of receiver 2 (disconnect B and C, connect A and B), the lamp2 is off.

...

Press button 12: Turn on relay of receiver 12 (connect B and C, disconnect A and B), the lamp12 is on.

Press button 12 again: Turn off relay of receiver 12 (disconnect B and C, connect A and B), the lamp12 is off.

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

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

Press and hold button 1: Turn on relay of receiver 1 (connect B and C, disconnect A and B), the lamp1 is on.

Release button 1: Turn off relay of receiver 1 (disconnect B and C, connect A and B), the lamp1 is off.

Press and hold button 2: Turn on relay of receiver 2 (connect B and C, disconnect A and B), the lamp2 is on.

Release button 2: Turn off relay of receiver 2 (disconnect B and C, connect A and B), the lamp2 is off.

...

Press and hold button 12: Turn on relay of receiver 12 (connect B and C, disconnect A and B), the lamp12 is on.

Release button 12: Turn off relay of receiver 12 (disconnect B and C, connect A and B), the lamp12 is off.

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

Control mode Latched (with transmitter CV-12 or CB-12): Press -> On, another relay Off; Press another button -> Off.

Press button 1: Turn on relay of receiver 1 (connect B and C, disconnect A and B), the lamp1 is on.

Turn off the other relays of receivers (disconnect B and C, connect A and B), the other lamps are off.

Press button 2: Turn on relay of receiver 1 (connect B and C, disconnect A and B), the lamp2 is on.

Turn off the other relays of receivers (disconnect B and C, connect A and B), the other lamps are off.

...

Press button 12: Turn on relay of receiver 12 (connect B and C, disconnect A and B), the lamp12 is on.

Turn off the other relays of receivers (disconnect B and C, connect A and B), the other lamps are off.

#### **Manual control terminals:**

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.

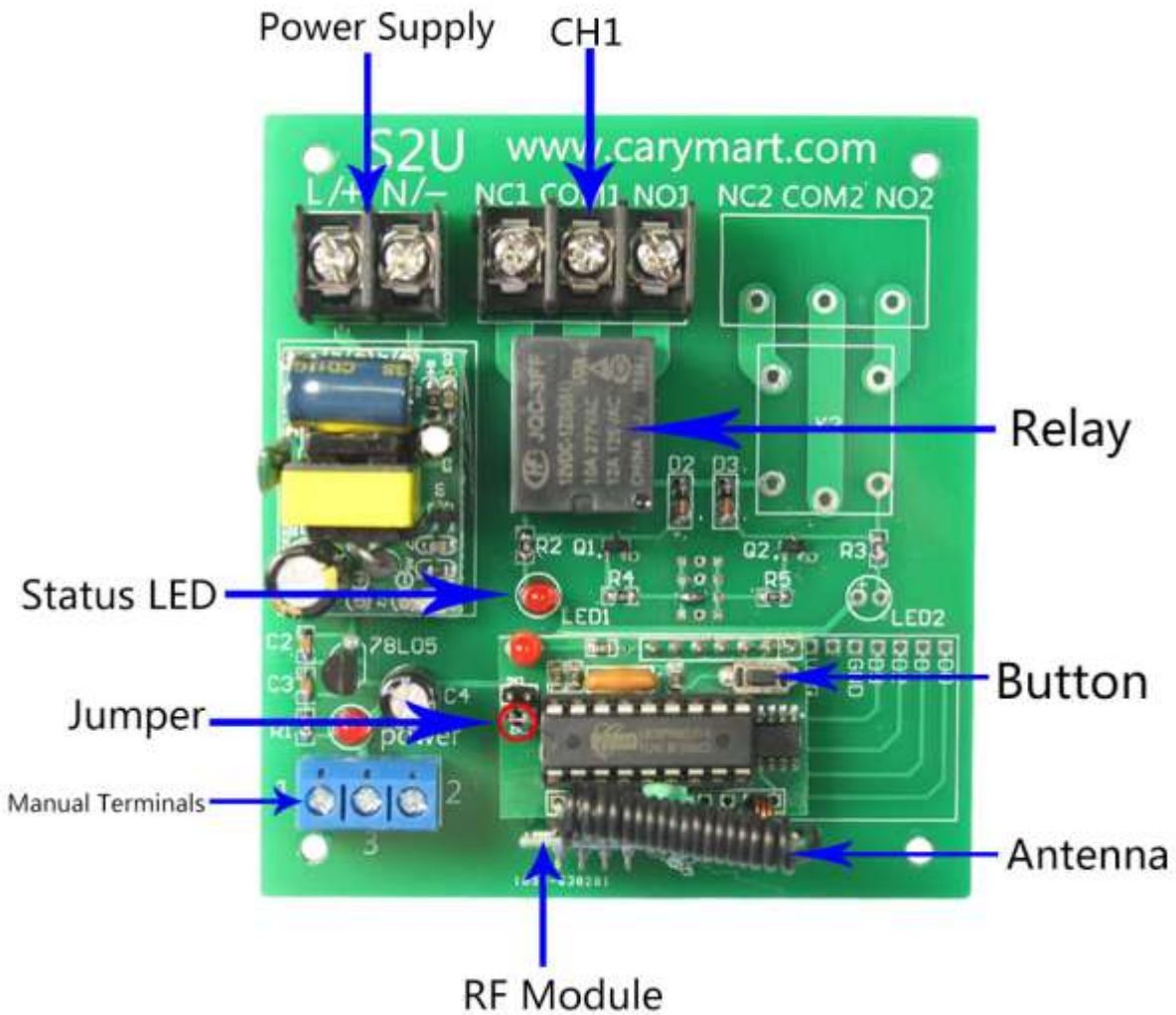
**Note:**

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.

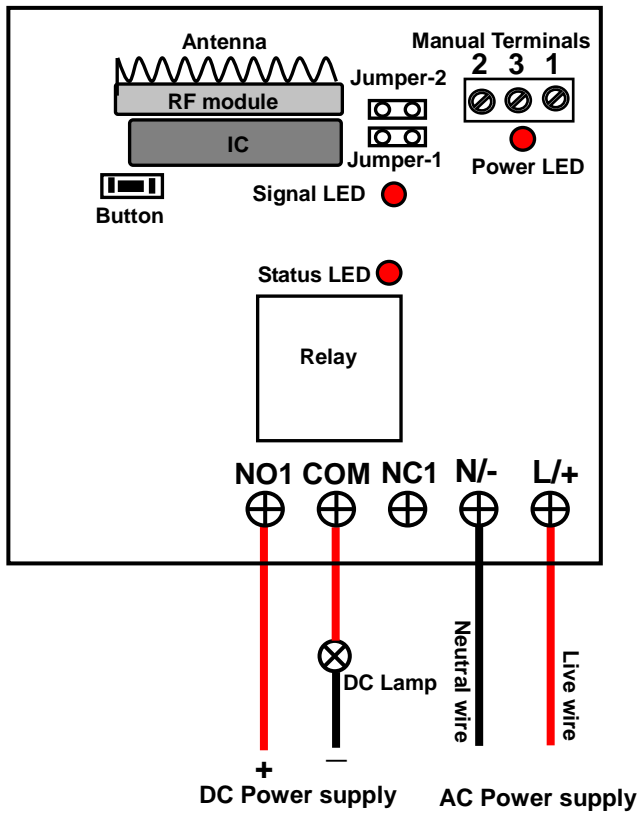
**Delete all transmitters:**

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.



### Control DC Equipment



### Control AC Equipment

