RF Wireless Receiver (Model 0020275 S1PU-AC220)

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: The receiver has waterproof case and waterproof connector, it can be installed outdoors.

Universal input: Support voltage of AC110V (100V~120V), widely used in US, Canada... and voltage of AC220V (200V~240V), used in UK, France...

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 channel can work at maximum current 30A, such as 360W/12V, 180W/6V, 270W/9V, 720W/24V, 3000W/110V, 6000W/220V.

With wired control terminals: You can connect sensors, limit switches, manual switches or external devices to control the receiver.

Design 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.

Wireless RF signal can pass through walls, floors, doors or windows.

With 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.

Receiver Parameters:

Model No. S1PU-AC220

Power Supply (Operating Voltage): AC100~240V (110V/120V/220V/240V)

Output: Relay output (Normally open and normally closed)

Working Voltage Range of Relay: AC110~240V or DC0~28V

Working Frequency: 315MHz / 433MHz

Channel: 1CH

Control Modes: Toggle, Momentary, Latched

Static Current: ≤6mA

Maximum Working Current: 30A / each channel

PCB size: 90mm x 59mm x 18mm

Case size: 100mm x 68mm x 50mm

Work with Fixed code transmitters or Learning code transmitters.

Matching Transmitters:

The receiver can work with different transmitters, such as model C-1 / C-2 (100M), CWB-1 / CWB-2 (50M, waterproof), CP-1 / CP-2 (500M), or CB-1 / CB-2 (1000M) etc.

When you set the receiver in toggle or momentary mode, it should work with single button transmitter, such as model C-1 (100M), CWB-1 (50M, waterproof), CP-1 (500M), or CB-1 (1000M) etc. When you set the receiver in latched mode, it should work with two buttons transmitter, such as model C-2 (100M), CWB-2 (50M, waterproof), CP-2 (500M), CV-2 (500M), or CB-2 (1000M) etc.

Usage (with the transmitter like C-2):

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 C are Normally Closed.

Wiring:

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

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

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

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

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

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

Setting different control modes：

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):

Setting control mode Toggle: Only connect Jumper-2.

Control mode Toggle: Press -> On; Press again -> Off.

Press button 1: Turn on the relay (connect B and C, disconnect A and C)

Press button 1 again: Turn off the relay (disconnect B and C, connect A and C)

Setting control mode Momentary: Only connect Jumper-1.

Control mode Momentary: Press and hold -> On; Release -> Off.

Press and hold button 1: Turn on the relay (connect B and C, disconnect A and C)
Release button 1: Turn off the relay (disconnect B and C, connect A and C)

Setting control mode Latched: Disconnect Jumper-1 and Jumper-2.
Control mode Latched: Press -> On, other relays Off; Press another button -> Off.
Press button 1: Turn on the relay (connect B and C, disconnect A and C)
Press button 2: Turn off the relay (disconnect B and C, connect A and C)

Wired 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 manual terminals 1 (Signal -) and terminal 2 (Signal +), then the external device's output signal can control the receiver.
When the external device outputs low level signal to manual terminal 1 and terminal 2, the receiver turns on the relay. (connect B and C, disconnect A and C)
When the external device stops to output signal, the receiver turns off the relay. (disconnect B and C, connect A and C).

2) The manual switches:
You can connect manual switch to terminals 1 and 2, and then you can use this manual switch to control the receiver.
When connect terminals 1 and 2, the receiver turns on the relay. (connect B and C, disconnect A and C).
And when disconnect terminals 1 and 2, the receiver turns off the relay. (disconnect B and C, connect A and C).
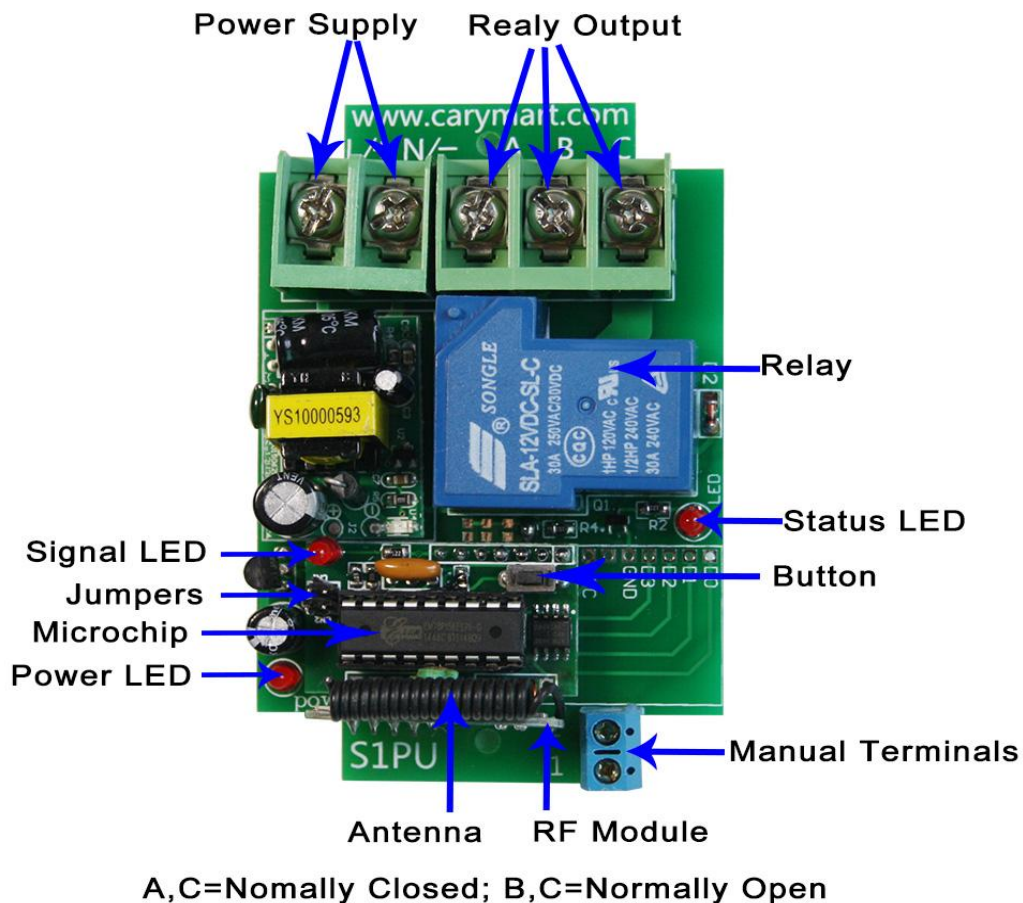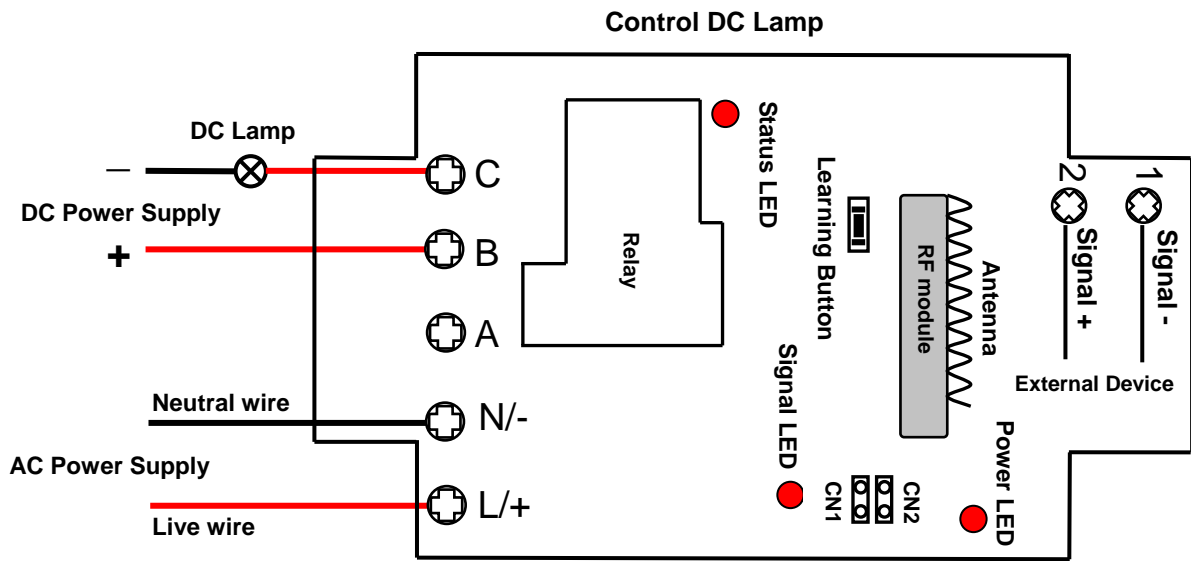
How to pair the transmitter to the receiver:
1) Press the learning button of receiver for 1- 2 seconds; signal LED on the receiver is on. The receiver enters into status of LEARNING.
2) Press any one button on transmitter. If signal LED flashes quickly 15 times and turns off, it means learning is successful.
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.
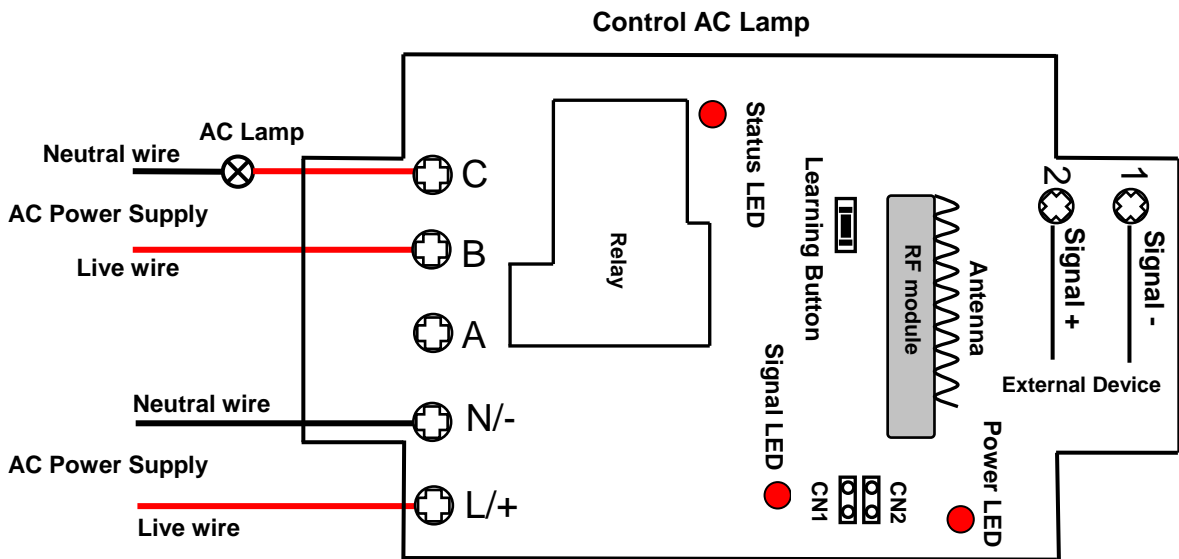
Delete all transmitters:
We have learned remote control to the receiver. If you don't want the receiver to work with the remote control, you can delete all codes of remote controls, which are stored in the receiver.
Operation: Press and hold the button of receiver until signal LED flashes slowly; release the button, LED keeps slow flash. That means all stored codes have been deleted successfully.

A,C=Nomally Closed; B,C=Normally Open

Control DC Lamp

DC Lamp

DC Power Supply — +

C
B
A

Relay

Status LED

Learning Button

Signal LED

RF module

Antenna

CN1 CN2

Power LED

Signal -
Signal +
2
1

External Device

Neutral wire

N/-

AC Power Supply

Live wire

L/+

B, C = Normally Open; A, C = Normally Closed

Control AC Lamp

AC Lamp

Neutral wire

AC Power Supply

Live wire

C
B
A

Relay

Status LED

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Signal LED

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Antenna

CN1 CN2

Power LED

Signal -
Signal +
2
1

External Device

Neutral wire

N/-

AC Power Supply

Live wire

L/+

B, C = Normally Open; A, C = Normally Closed