## 5000 Meters RF Wireless Receiver (Model 0020090)

#### 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.

America imported chips, which can ensure reliability and assure the high quality of the products.

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 transmitter (Encoding) and the receiver (Decoding) use the custom code.

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

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

Feedback function: Can let the user know whether he/she had already connect the transmitter and receiver successfully in such a long distance.

Two-way working mode: When you press the remote control to send RF signal to the receiver, if the receiver has been successfully triggered or operated, the receiver will immediately transmit a RF feedback signal to the remote control. Then the remote control will send out a buzzing sound to inform you that the receiver has been successfully operated.

Waterproof: The receiver has waterproof case and waterproof connectors, it can be installed outdoors. We also have waterproof transmitters, such as CCW-1, CCW-2, CCW-4.

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

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.

Power Supply: Support operating voltage of DC 6V, 9V, 12V, 24V.

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.

Working Range: Super long range, with a transmitter to form a complete set, the working distance can reach 5000m in an open ground. The maximum working distance 5000m is a theoretical data, it shall be operated in an open ground, no barriers, no any interference. But in the practice, it will be hindered by trees, walls or other constructions, and will be interfered by other wireless signals. Therefore, the actual distance may or may not reach 5000m.

#### Receiver Parameters:

Model No. S1PUW-DC06-ANT3 / S1PUW-DC09-ANT3 / S1PUW-DC12-ANT3 / S1PUW-DC24-ANT3

Power Supply (Operating Voltage): DC6V (S1PUW-DC06-ANT3), DC9V±1V (S1PUW-DC09-ANT3), DC12V±1V (S1PUW-DC12-ANT3), DC24V±2V (S1PUW-DC24-ANT3)

Working Frequency: 433.92MHz

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: 30A

Static Current: ≤6mA

PCB size: 90mm x 59mm x 18mm Case size: 100mm x 68mm x 50mm

The receiver can only work with 5000m transmitters, such as model CC-1 / CC-2, or CCW-1 / CCW-2 (waterproof).

### **External Telescopic Antenna:**

Length of external telescopic antenna: 108mm / 445mm (stretch)

External telescopic antenna use SMA connector.

If you stretches the external telescopic antenna, it can have a further working range.

# 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 C are Normally Closed.

## Wiring:

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

- 1) Connect the positive pole of DC power supply to terminal "L / +" of INPUT, and connect the negative pole of DC power supply to terminal "N / -" of INPUT.
- 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 positive pole of DC power supply to terminal "L / +" of INPUT, and connect the negative pole of DC power supply to terminal "N / -" of INPUT.
- 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 (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: Turn on the first bit of the dip switch.

Control mode Toggle (with transmitter CC-1): Press -> On; Press again -> Off.

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

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

Setting control mode Momentary: Turn on the first and the second bits of the dip switch.

Control mode Momentary (with transmitter CC-1): Press and hold -> On; Release -> Off.

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

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

Setting control mode Latched: Turn on the second bit of the dip switch.

Control mode Latched (with transmitter CC-2): Press button 1 -> On; Press button 2 -> Off.

 $Press\ the\ big\ button\ of\ the\ transmitter: Turn\ on\ the\ relay\ (connect\ B\ and\ C,\ disconnect\ A\ and\ C),\ the\ lamp\ is\ on.$ 

Press the small button of the transmitter: Turn off the relay (disconnect B and C, connect A and C), the lamp is off.

### Notice:

The receiver can only pair 5000M transmitters, such as model CC-1 / CC-2 (5000m), or CCW-1 / CCW-2 (5000m, waterproof). If you set the receiver with Toggle mode or Momentary mode, you just need to use one button transmitter (like CC-1) to control the receiver. Otherwise, if you set the receiver with Latched mode, you should use two buttons transmitter (like CC-2) to control the receiver.

#### Manual control terminals:

With manual terminals: The receiver allows you to 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 (Signal -) and terminal 2 (Signal +), the receiver turns on the relay (connect terminals B and C, disconnect terminals A and C).

When the external device stops to output signal, the receiver turns off the relay (disconnect terminals B and C, connect terminals A and C).

### 2) The manual switches:

You can connect one 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 terminals B and C, disconnect terminals A and C).

And when disconnect terminals 1 and 2, the receiver turns off the relay (disconnect terminals B and C, connect terminals A and C)

### Setting feedback function:

If you want to have a feedback function: Turn on the third bit of the dip switch.

When the receiver gets the signal of transmitter, it will immediately send a return signal to the transmitter. When the transmitter receive the feedback signal of the receiver, the transmitter will exude a buzzing sound like "D~" which means it receive the feedback signal successfully.

## 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 twice, it means learning is successful.
- 3) The receiver can learn several transmitters 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 three times. That means all stored codes have been deleted successfully.



