#### RF Wireless Receiver (Model 0020447 S4PU-AC)

#### Package Include:

1×Reciver S4PU-AC
1×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 remote control, easy to install.

Super long working range, with a transmitter to form a complete set, the working distance can reach 2000m in an open ground.

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 terminals are NO / NC (normally open / normally closed), which serves as a switch. That means you should also connect a separate power supply to equipments.

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.

You can control the equipments by using 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 characteristics of reverse power protection and over current protection.

Reliable control: The code has thousands of different combinations, and the receiver only works with the transmitter which use the 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.: S4PU-AC

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

Output: Relay output (Normally open and normally closed)

4 Control Modes: Toggle, Momentary, Latched, Momentary + Toggle

Working Frequency: 315MHz / 433MHz Maximum Working Current: 30A / each channel

Static Current: ≤6mA

Operating Temperature: -20 ° C to +70 ° C PCB size: 170mm x 109mm x 18mm Case size: 200mm x 120mm x 53mm Wire range for the terminals: 22-9AWG

Work with Fixed code transmitters or Learning code transmitters.

# **Matching Transmitters For Receiver:**

The receiver can pair different model transmitters, includes model C-4 (200M), CWB-4 (50M, waterproof), CP-4 (1000M) and CB-4 (2000M) etc...

# The working range:

With a transmitter (such as CWB-4) to form a complete set, the maximum working distance can reach 50M 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 CWB-4):

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 A and B are Normally Open; Terminals A and C are Normally Closed.

## Wiring:

- 1) If you want to control a DC 12V lamp, do as following:
- 1.1 Connect the live wire of AC power supply to terminal "L / +", and connect the neutral wire of AC power supply to terminal "N / -".
- 1.2 Connect terminal B to the positive pole of DC power supply, connect terminal A to the positive pole of DC lamp, and connect the negative pole of DC lamp to the negative pole of DC power supply.
- 2) If you want to control an AC 220V lamp, do as following:
- 2.1 Connect the live wire of AC power supply to terminal "L / +", and connect the neutral wire of AC power supply to terminal "N / -".
- 2.2 Connect terminal B to the live wire of AC power supply, connect terminal A 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 in toggle mode before delivery, if you want to use other modes, do as following operation.

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

Control mode Latched (Channel A, B, C, D): Press -> On, other relays Off; Press other button -> Off.

Press button A: The relay 1 is activated (connect A and B, disconnect A and C), and the lamp 1 is turned on.

Other relays are deactivated (disconnect A and B, connect A and C), and other lamps are turned off.

P: The relays are deactivated (disconnect A and B, disconnect A and C), and the lamps are turned an

Press button B: The relay 2 is activated (connect A and B, disconnect A and C), and the lamp 2 is turned on.

Other relays are deactivated (disconnect A and B, connect A and C), and other lamps are turned off.

Press button C: The relay 3 is activated (connect A and B, disconnect A and C), and the lamp 3 is turned on.

Other relays are deactivated (disconnect A and B, connect A and C), and other lamps are turned off.

Press button D: The relay 4 is activated (connect A and B, disconnect A and C), and the lamp 4 is turned on.

Other relays are deactivated (disconnect A and B, connect A and C), and other lamps are turned off.

Setting control mode Momentary: Only connect Jumper-1.

Control mode Momentary (Channel A, B, C, D): Press and hold -> On; Release -> Off.

Press and hold button A: The relay 1 is activated (connect A and B, disconnect A and C), and the lamp 1 is turned on. Release button A: The relay 1 is deactivated (disconnect A and B, connect A and C), and the lamp 1 is turned off. Press and hold button B: The relay 2 is activated (connect A and B, disconnect A and C), and the lamp 2 is turned on. Release button B: The relay 2 is deactivated (disconnect A and B, connect A and C), and the lamp 2 is turned off. Press and hold button C: The relay 3 is activated (connect A and B, disconnect A and C), and the lamp 3 is turned on. Release button C: The relay 3 is deactivated (disconnect A and B, connect A and C), and the lamp 3 is turned off. Press and hold button D: The relay 4 is activated (connect A and B, disconnect A and C), and the lamp 4 is turned on.

Release button D: The relay 4 is deactivated (disconnect A and B, connect A and C), and the lamp 4 is turned off.

Setting control mode Toggle: Only connect Jumper-2.

Control mode Toggle (Channel A, B, C, D): Press -> On; Press again -> Off.

Press button A: The relay 1 is activated (connect A and B, disconnect A and C), and the lamp 1 is turned on.

Press button A again: The relay 1 is deactivated (disconnect A and B, connect A and C), and the lamp 1 is turned off.

Press button B: The relay 2 is activated (connect A and B, disconnect A and C), and the lamp 2 is turned on.

Press button B again: The relay 2 is deactivated (disconnect A and B, connect A and C), and the lamp 2 is turned off.

Press button C: The relay 3 is activated (connect A and B, disconnect A and C), and the lamp 3 is turned on.

Press button C again: The relay 3 is deactivated (disconnect A and B, connect A and C), and the lamp 3 is turned off.

Press button D: The relay 4 is activated (connect A and B, disconnect A and C), and the lamp 4 is turned on.

Press button D again: The relay 4 is deactivated (disconnect A and B, connect A and C), and the lamp 4 is turned off.

Setting control mode Momentary + Toggle: Connect Jumper-1 and Jumper-2.

Control mode Momentary (Channel A, B): Press and hold -> On; Release -> Off.

Press and hold button A: The relay 1 is activated (connect A and B, disconnect A and C), and the lamp 1 is turned on. Release button A: The relay 1 is deactivated (disconnect A and B, connect A and C), and the lamp 1 is turned off. Press and hold button B: The relay 2 is activated (connect A and B, disconnect A and C), and the lamp 2 is turned on. Release button B: The relay 2 is deactivated (disconnect A and B, connect A and C), and the lamp 2 is turned off.

Control mode Toggle (Channel C, D): Press -> On; Press again -> Off.

Press button C: The relay 3 is activated (connect A and B, disconnect A and C), and the lamp 3 is turned on.

Press button C again: The relay 3 is deactivated (disconnect A and B, connect A and C), and the lamp 3 is turned off.

Press button D: The relay 4 is activated (connect A and B, disconnect A and C), and the lamp 4 is turned on.

Press button D again: The relay 4 is deactivated (disconnect A and B, connect A and C), and the lamp 4 is turned off.

#### Wired control terminals:

The receiver has wired control terminals, and you can connect external devices, sensors, or manual switches to the receiver's manual terminals, then use them to trigger the receiver.

## 1) By low level signal:

You can connect external devices (with low level output signal) to trigger the receiver.

When the external device outputs low level signal to terminal "COM" and "Signal 1", Relay1 is activated

When the external device outputs low level signal to terminal "COM" and "Signal 2", Relay2 is activated

When the external device outputs low level signal to terminal "COM" and "Signal 3", Relay3 is activated

When the external device outputs low level signal to terminal "COM" and "Signal 4", Relay4 is activated

# 2) By NO/NC contact:

You can connect manual switches (with NO/NC contact) to trigger the receiver.

When connect terminals "Signal 1" and "Com", Relay1 is activated. And when disconnect "Signal 1" and "Com", Relay1 is deactivated.

When connect terminals "Signal 2" and "Com", Relay2 is activated. And when disconnect "Signal 2" and "Com", Realy2 is deactivated.

When connect terminals "Signal 3" and "Com", Realy3 is activated. And when disconnect "Signal 3" and "Com", Realy3 is deactivated.

When connect terminals "Signal 4" and "Com", Realy4 is activated. And when disconnect "Signal 4" and "Com", Realy4 is deactivated.

## How to pair the transmitter to the receiver:

- 1) Press the button of receiver; signal LED on the receiver keeps shining. 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 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 slowly; release the button, LED keeps slow flash. That means all stored codes have been deleted successfully.





