

## RF Wireless Receiver (Model 0020513)

### 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.

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 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.

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

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, 250W/9V, 700W/24V, 3000W/110V, 6000W/220V.

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

DC Power Output: It can control equipment in the power DC 6V/ 9V/ 12V / 24V and its wiring is easier.

Working Range: With a transmitter to form a complete set, the working distance can reach 100m in an open ground. The maximum working distance 100m 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 100m. If you need longer range, please choose powerful transmitters, such as CB Series (1000m/3000ft); or you can add the external antenna to the receiver for improving the range.

### Receiver parameters:

Model No.: S2PX-DC06-ANT2 / S2PX-DC09-ANT2 / S2PX-DC12-ANT2 / S2PX-DC24-ANT2

Power Supply (Operating Voltage): DC6V (S2PX-DC06-ANT2), DC9V±1V (S2PX-DC09-ANT2), DC12V±1V (S2PX-DC12-ANT2), DC24V±2V (S2PX-DC24-ANT2)

Output: DC6V (S2PX-DC06-ANT2), DC9V (S2PX-DC09-ANT2), DC12V (S2PX-DC12-ANT2), DC24V (S2PX-DC24-ANT2)

Working Frequency: 315MHz / 433MHz

Channel: 2 CH

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

Maximum Working Current: 30A / each channel

Static Current: ≤6mA

PCB size: 140mm x 73mm x 18mm

Case size: 192mm x 100mm x 45mm

Work with custom code transmitters.

### External Extend Antenna:

Frequency Range: 300~450MHz

Impedance: 50Ω

Antenna Length: 15cm

Cable Length: 150cm

Weight: 35g

Anti-interference, waterproof, shielded wire set inside

Magnetic stand design for easy to install

With SMA connector

### Usage (with the transmitter like C-2 and C-3):

The receiver can be used to control DC 6V/ 9V/ 12V / 24V equipments. You can use it to control two DC equipments. If the power supply of those equipments is DC 12V, you should choose the receiver with same DC 12V version; and if the power supply of those equipments is DC 24V, you should choose the receiver with same DC 24V version.

### Wiring:

If you want to control two DC 12 lamps, do as following:

- 1) Connect the red wire of the DC power supply to terminal "L / +", and connect the black wire of the DC power supply to terminal "N / -".
- 2) Connect lamp 1 to terminal "A" and "B" of OUT 1, and connect lamp 2 to terminal "A" and "B" of OUT 2..

**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 (with transmitter C-2): Press -> On; Press again -> Off.

Press button 1 of the transmitter: Terminal OUT1 outputs DC power, the lamp 1 is on.

Press button 1 again: Terminal OUT1 stops outputting, the lamp 1 is off.

Press button 2 of the transmitter: Terminal OUT2 outputs DC power, the lamp 2 is on.  
Press button 2 again: Terminal OUT2 stops outputting, the lamp 2 is off.

Setting control mode Momentary: Only connect Jumper-1.

Control mode Momentary (with transmitter C-2): Press and hold -> On; Release -> Off.

Press and hold button 1 of the transmitter: Terminal OUT1 outputs DC power, the lamp 1 is on.

Release button 1 of the transmitter: Terminal OUT1 stops outputting, the lamp 1 is off.

Press and hold button 2 of the transmitter: Terminal OUT2 outputs DC power, the lamp 2 is on.

Release button 2 of the transmitter: Terminal OUT2 stops outputting, the lamp 2 is off.

Setting control mode Latched: Do not connect Jumper-1 and Jumper-2.

Control mode Latched (with transmitter C-3): Press -> On, Press another button -> Off.

Press button A of the transmitter: Terminals OUT1 outputs DC power, the lamp 1 is on; And terminals OUT2 no output, the lamp 2 is off.

Press button B of the transmitter: Terminals OUT2 outputs DC power, the lamp 2 is on; And terminals OUT1 no output, the lamp 1 is off.

Press button C of the transmitter: Terminals OUT1 and OUT2 stops outputting, the lamps 1 and 2 are off.

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

Control mode Momentary (Channel 1) + Toggle (Channel 2), with transmitter C-2:

Press and hold button 1 of the transmitter: Terminal OUT1 outputs DC power, the lamp 1 is on.

Release button 1 of the transmitter: Terminal OUT1 stops outputting, the lamp 1 is off.

Press button 2 of the transmitter: Terminal OUT2 outputs DC power, the lamp 2 is on.

Press button 2 again: Terminal OUT2 stops outputting, the lamp 2 is off.

#### **Notice:**

The receiver can pair different transmitters, includes model C-2 / C-3 (100M), CWB-2 / CWB-3 (50M, waterproof), CP-2 / CP-4 (500M) and CB-2 / CB-3 (1000M) etc..If you set the receiver with Toggle mode or Momentary mode, you just need to use two buttons transmitter (like C-2) to control the receiver. Otherwise, if you set the receiver with Latched mode, you should use three buttons transmitter (like C-3) to control the receiver.

#### **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 manual terminals 1 (Signal 1 "+"), terminal 2 (Signal 2 "+") and 3 (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 1 "+") and 3 (Signal "-"), terminals A and B of OUT1 outputs DC power. And when disconnect manual terminals 1 (Signal 1 "+") and 3 (Signal "-"), terminals A and B of OUT1 stop outputting.

When the external device outputs low level signal to manual terminal 2 (Signal 2 "+") and 3 (Signal "-"), Terminals A and B of OUT2 outputs DC power. And when disconnect manual terminals 2 (Signal 2 "+") and 3 (Signal "-"), terminals A and B of OUT2 stop outputting.

##### 2) The manual switches:

You can connect one manual switch to manual terminals 1, 2, 3, then you can use this manual switch to control the receiver.

When connect terminals 1 and 3, terminals A and B of OUT1 outputs DC power. And when disconnect terminals 1 and 3, terminals A and B of OUT1 stop outputting.

When connect terminals 2 and 3, terminals A and B of OUT2 outputs DC power. And when disconnect terminals 2 and 3, terminals A and B of OUT2 stop outputting.

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

1) Press the button of receiver; 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.

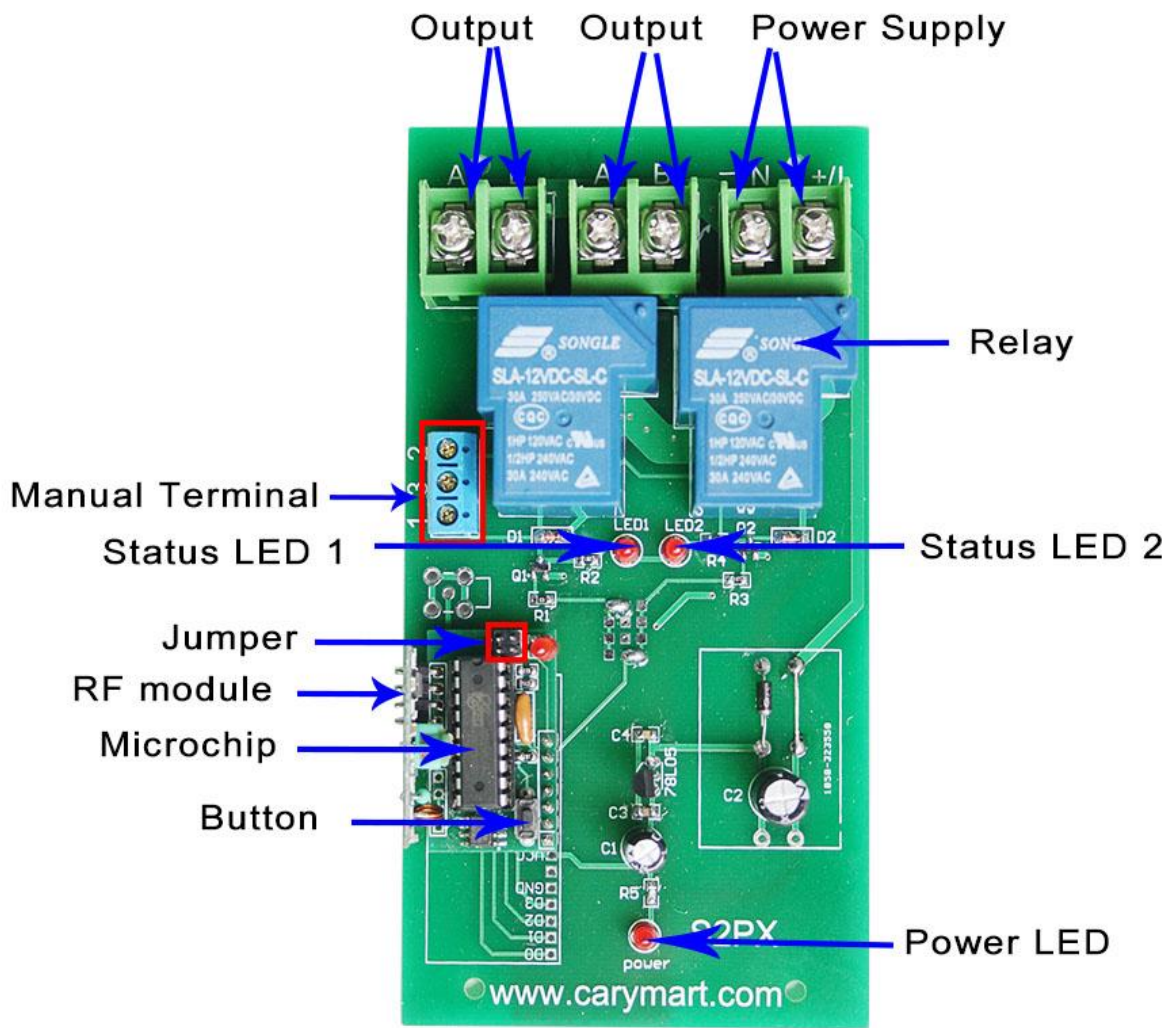
3) When receiver is in the status of LEARNING, press again the button of receiver, signal LED turns off, learning process will be discontinued.

4) The receiver can learn several 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.



### Control DC Lamp

