# RF Wireless Remote Control Kit (Model 0020725 6S2XB-DC12-ANT3+1CB-12)

The receiver is designed for one-transmitter-many-receivers system. Use a 12 buttons transmitter to control 6 receivers.

# Package Include:

6 x Receiver: S2XB-DC06-ANT3 / S2XB-DC09-ANT3 / S2XB-DC12-ANT3 / S2XB-DC24-ANT3

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

DC Power Output: It can control DC equipment with voltage DC 6V / 9V / 12V / 24V.

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

With the external antenna, it can have a further working range.

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.: S2XB-DC06-ANT3 / S2XB-DC09-ANT3 / S2XB-DC12-ANT3 / S2XB-DC24-ANT3

Power Supply (Operating Voltage): DC6V (S2XB-DC06-ANT3), DC9V±1V (S2XB-DC09-ANT3), DC12V±1V (S2XB-DC12-ANT3), DC24V±2V

(S2XB-DC24-ANT3)

Output: DC6V (S2XB-DC06-ANT3), DC9V (S2XB-DC09-ANT3), DC12V (S2XB-DC12-ANT3), DC24V (S2XB-DC24-ANT3)

Working Frequency: 315MHz / 433MHz

Channel: 2 CH

Control Modes: Toggle, Momentary, Latched

Static Current: ≤6mA

Maximum Working Current: 10A / each channel

PCB size: 90mm x 59mm x 18mm Case size: 100mm x 68mm x 50mm Work with Fixed code transmitters

## Transmitter:

Model No.: CB-12 Channel/Button: 12

Button Symbol: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12

Operating Voltage: 9V (1 x 6F22 -9V battery, can be used for 12 months)

Operating Current: 30mA

Operating Frequency: 315 Mhz/ 433Mhz Encoding Chip: PT2262 / PT2264 / SC2262

Encoding Type: Fixed code by soldering, up to 6561 codes Transmitting Distance: 1000m / 3000ft (theoretically)

Modulation Mode: ASK

Operating Temperature: -20  $^{\circ}$  C to +70  $^{\circ}$  C Unit Size: 135mm x 42mm x 25mm

Weight: 95g

# **Matching Transmitters:**

The receiver can work with different transmitters, such as model CV-12(500M), or CB-12 (1000M) etc.

## Working Range:

Super long range, with a transmitter (such as CB-12) to form a complete set, the maximum working distance can reach 2000M in an open ground. The maximum working distance 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 not reach this maximum working distance.

## **External Telescopic Antenna:**

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

With SMA connector.

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

#### Usage

The receiver can be used to control DC 6V / 9V / 12V / 24V 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 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 the positive pole of lamp to terminal "L / +" of OUTPUT, and connect the negative pole of lamp to terminal "N / -" of OUTPUT.

### Setting different control modes:

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 Toggle: Only connect Jumper-2.

Control mode Toggle (with transmitter CB-12): Press -> On; Press again -> Off.

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

Press button 1 of the transmitter again: Terminals "OUT1" of receiver 1 stops outputting, the lamp 1 is off.

Press button 2 of the transmitter: Terminals "OUT2" of receiver 1 outputs DC power, the lamp 2 is on.

Press button 2 of the transmitter again: Terminals "OUT2" of receiver 1 stops outputting, the lamp 2 is off.

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Press button 11 of the transmitter: Terminals "OUT1" of receiver 6 outputs DC power, the lamp 11 is on. Press button 11 of the transmitter again: Terminals "OUT1" of receiver 6 stops outputting, the lamp 11 is off.

Press button 12 of the transmitter: Terminals "OUT2" of receiver 6 outputs DC power, the lamp 12 is on. Press button 12 of the transmitter again: Terminals "OUT2" of receiver 6 stops outputting, the lamp 12 is off.

Setting control mode Momentary: Only connect Jumper-1.

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

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

Release button 1 of the transmitter: Terminals "OUT1" of receiver 1 stops outputting, the lamp 1 is off.

Press and hold button 2 of the transmitter: Terminals "OUT2" of receiver 1 outputs DC power, the lamp 2 is on.

Release button 2 of the transmitter: Terminals "OUT2" of receiver 1 stops outputting, the lamp 2 is off.

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Press and hold button 11 of the transmitter: Terminals "OUT1" of receiver 6 outputs DC power, the lamp 11 is on.

Release button 11 of the transmitter: Terminals "OUT1" of receiver 6 stops outputting, the lamp 11 is off.

Press and hold button 12 of the transmitter: Terminals "OUT2" of receiver 6 outputs DC power, the lamp 12 is on.

Release button 12 of the transmitter: Terminals "OUT2" of receiver 6 stops outputting, the lamp 12 is off.

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

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

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

Press other buttons of the transmitter: Terminals "OUT1" of receiver 1 stops outputting, the lamp 1 is off.

Press button 2 of the transmitter: Terminals "OUT2" of receiver 1 outputs DC power, the lamp 2 is on.

Press other buttons of the transmitter: Terminals "OUT2" of receiver 1 stops outputting, the lamp 2 is off.

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Press button 11 of the transmitter: Terminals "OUT1" of receiver 6 outputs DC power, the lamp 11 is on.

Press other buttons of the transmitter: Terminals "OUT1" of receiver 6 stops outputting, the lamp 11 is off.

Press button 12 of the transmitter: Terminals "OUT2" of receiver 6 outputs DC power, the lamp 12 is on.

Press other buttons of the transmitter: Terminals "OUT2" of receiver 6 stops outputting, the lamp 12 is off.

## 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 +), terminal 2 (Signal +) and terminal 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 and terminal 3, turns on the relay 1. Terminals "OUT1" outputs DC power, the lamp 1 is on.

When the external device stops to output signal, turns off the relay 1. Terminals "OUT1" stops outputting, the lamp 1 is off.

When the external device outputs low level signal to manual terminal 2 and terminal 3, turns on the relay 2. Terminals "OUT2" outputs DC power, the lamp 2 is on.

When the external device stops to output signal, turns off the relay 2. Terminals "OUT2" stops outputting, the lamp 2 is off.

## 2) The manual switches:

You can connect manual switches to manual terminals 1, 2 and 3, then you can use manual switches to control the receiver.

When connect terminals 1 and 3, turns on the relay 1. Terminals "OUT1" outputs DC power, the lamp 1 is on.

And when disconnect terminals 1 and 3, turns off the relay 1. Terminals "OUT1" stops outputting, the lamp 1 is off.

When connect terminals 2 and 3, turns on the relay 2. Terminals "OUT2" outputs DC power, the lamp 2 is on.

And when disconnect terminals 2 and 3, turns off the relay 2. Terminals "OUT2" stops outputting, the lamp 2 is off.

## 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 singular number 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 learning button, 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 learning button of receiver until signal LED flashes slowly; release the button, LED keeps slow flash. That means all stored codes have been deleted successfully.



