

## Water Tank Water Level Wireless Automatic Remote Control System

### Package Include:

1 x Receiver: S1PU-AC-ANT3  
1 x Transmitter: CB-2  
1 x Transmitter: CB-2N-2  
2 x Water Level Sensors  
1 x User manual

### Working Principle:

Transmitter CB-2N-2 is a special remote control with normally open contact trigger. It has 3 input wires for connecting two devices with normally open contact, such as warning host, cable detectors, various sensors, limit switches, Programmable Logic Controllers and so on.

This transmitter can be combined with different types of receivers to form a wireless control system, and this system is used to wirelessly control the device A through the device B with normally open contact.

### Application:

You can connect two water level sensors to this transmitter, and connect the water pump to the receiver, then the pump will automatically work according to the water level.

When the water reaches the low water level, the water level sensor 1 is triggered, the transmitter automatically emits a wireless signal "ON". When the receiver receives this wireless signal, it will turn on the pump motor to pump water into the tank.

When the water reaches the high water level, the water level sensor 2 is triggered, the transmitter automatically emits a wireless signal "OFF".

When the receiver receives this wireless signal, it will turn off the pump motor to stop pumping water.

### Feature:

Wireless control, easy to install

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

Automatic control AC110~240V water pump motors by two water level sensors.

Universal input: Support 110V AC (100V~120V) used in US, Canada, etc, and 220V AC (200V~240V) used in Germany, UK, France, etc.

Relay Output: This receiver is dry relay output, it can be used to operate both DC and AC equipments. The output 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: Maximum load current 30A.

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

With external telescopic antenna, the receiver have a farther working range.

You can control the pump by the receiver with the transmitter from any place within a reliable distance.

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

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:

Model No.: S1PU-AC-ANT3

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

Wire range for the terminals: 22-12 AWG

Working Frequency: 315MHz

Channel: 1CH

Control Modes: Interlocking

Quiescent Current:  $\leq 6\text{mA}$

Maximum Load Current: 30A

Operating Temperature:  $-20^{\circ}\text{C}$  to  $+70^{\circ}\text{C}$

PCB size: 90mm x 59mm x 18mm

Case size: 100mm x 68mm x 50mm

### Transmitters:

Model No.: CB-2

Channel / Button: 2

Button Symbol: A, B

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

Working Current: 30mA

Operating Frequency: 315MHz

Modulation Mode: ASK

Transmitting Distance: 1000m / 3000ft (theoretically)

With power switch on the side.

Operating Temperature:  $-20^{\circ}\text{C}$  to  $+70^{\circ}\text{C}$

Unit size: 135mm x 42mm x 25mm

Model No.: CB-2N-2

With External Trigger Wires.

Triggering method: When wire 1 and wire 3 are connected, it will send wireless signal "ON". When wire 2 and wire 3 are connected, it will send wireless signal "OFF".

Channel / Button: 2

Button Symbol: A, B

Operating Voltage: 9V (1 x 6F22-9V battery, can be used for a week; or 1 x 9V Rechargeable Lithium Battery, can be used for two weeks. If you want a longer working time, please use a 9V power adapter, or use our solar power supply system.)

Working Current: 30mA

Operating Frequency: 315MHz

Modulation Mode: ASK

Transmitting Distance: 1000m / 3000ft (theoretically)

With waterproof case and external antenna.

With power switch on the side.

Operating Temperature: -20°C to +70°C

Unit Size: 135mm x 42mm x 25mm

#### **Water Level Sensor:**

Body Material: PP

Float Material: PP

Operating Temperature: -10°C to +85°C

Maximum Voltage: DC 100V

Maximum Current: 0.5A

Maximum Power: 10W

#### **Working Range:**

The maximum working distance can reach 1000M 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.

#### **Usage:**

##### **1. Installation:**

- 1) Put the water level sensor 1 downwards and install at the low water level position in the tank; Put the water level sensor 2 upwards and install at the high water level position in the tank.
- 2) Connect the water level sensor 1 to wire 1 and wire 3 of transmitter CB-2N-2.
- 3) Connect the water level sensor 2 to wire 2 and wire 3 of transmitter CB-2N-2.
- 4) Connect the live wire of AC power supply to the receiver's terminal "L / +", and connect the neutral wire of AC power supply to the receiver's terminal "N / -".
- 5) Connect the live wire of AC power supply to the receiver's terminal B, connect one side of the pump to the terminal C, and connect another side of the pump to the neutral wire of AC power supply.

##### **2. Operation:**

###### **1) Control pump by transmitter CB-2:**

Press button A of the transmitter CB-2, the relay of receiver is activated, and the pump is turned on.

Press button B of the transmitter CB-2, the relay of receiver is deactivated, and the pump is turned off.

###### **2) Automatically control pump by transmitter CB-2N-2 & Water Level Sensors:**

When the water reaches the low water level, two wires of the water level sensor 1 is connected, the transmitter CB-2N-2 automatically emits a wireless signal "ON", which is equivalent to the function of the button A on the transmitter. When the receiver receives this wireless signal, it will turn on the pump motor to pump water into the tank.

When the water reaches the high water level, two wires of the water level sensor 2 is connected, the transmitter CB-2N-2 automatically emits a wireless signal "OFF", which is equivalent to the function of the button B on the transmitter. When the receiver receives this wireless signal, it will turn off the pump motor to stop pumping water.

You also can press button A or button B on the transmitter to turn on / off the pump.

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

- 1) Press the learning button of receiver; signal LED on the receiver is turned on, it means the receiver enters the learning status.
- 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 learning status, press again the learning button, if signal LED turns off, it means learning process was discontinued.
- 4) The receiver can learn several transmitters with different codes.

#### **Delete all transmitters:**

We have learned transmitter to the receiver. If you don't want the receiver to work with the transmitter, you can delete all codes of transmitters, which are stored in the receiver.

Operation: Press and hold the learning button of receiver until signal LED flashes slowly, then release the button, signal LED remains flashing slowly, it means all stored codes have been deleted successfully.

**Application: For AC water pump motor**

