# **Operation Instructions**

M-505MHWS Wireless Open Mounted Infrared Touchless Switch

Make your choice .....



## Safety instruction

Thank you very much for your purchasing, in order to use this product correctly, please be careful read this operating manual before using it.

### 2 Overview

Transmitter:



#### Receiver:



GND:Connect the negative pole of power supply LOW\_POWER:transmitter battery power signal OPEN:opening signal VCC:connect the positive pole of power supply LEARN:enter learning mode or delete all IDs

**3** Overall characteristic

- The transmitter with standard 86 switch panel, strong commonality and flexible installation.
- The panel adopts laser engraving technology, with backlight display, novel and fashion style.
- The receiver is small in size, and is installed in a straight-line way for flexible replacement.
- The transmitter and receiver adopt low-power consumption technology, which saves electricity and extends battery life.
- The transmitter and receiver adopt ID pairing to achieve many-to-one control, which is convenient for uses to quickly add transmitters.
- Both the transmitter and receiver have indicator lights to facilitate uses to understand the working status of the system.
- Using 2.4G wireless communication technology, which is convenient for equipment maintenance and saves the cost of the upgrading wiring.

#### 4 Receiver wiring definition and instruction

#### Receiver diagram:

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GND		Connect the negative pole of power supply
OPEN		Opening signal
	VCC	Connect the positive pole of power supply
Receiver	LEARN	Enter learning mode or delete all IDs

Receiver wiring definition and instruction:

VCC : connect the positive pole of power supply, the power supply is 3.3V; GND : contact the negative pole of power supply;

OPEN : opening signal, the pin is high level when idle, when the receiver

receives open signal, the pin will output a low level signal of 50ms; LOW\_POWER : transmitter battery low power indicator pin, when the

transmitter battery voltage is higher than 2.8V, this pin will outputs a high level. When the transmitter battery voltage is lower than 2.8V, this pin will outputs a low level.

LEARN : enter learning mode or delete all transmitter IDs control pin, when the pin inputs a low level signal less than 3s, the receiver enter the learning mode; When a low level signal greater than 3s is input, the receiver deletes all transmitter IDs.

#### 5 Instructions

- 1. Receiver and transmitter are paired (1 receiver can be paired with up to 20 transmitters) and delete ID
- up to 20 transmitters) and delete ID Step 1: Control the input level signal of LEARN pin to enter learning mode or delete all Ids



Input low level less than 3s, the receiver enters learning mode Or deletes all IDs

Step 2: In learning mode, wave your hand to make the transmitter panel sense it, and will emit a pairing signal;

Step 3: Check the receiver's indicator light, the indicator light flashes to indicates that the pairing is successful.

 After the receiver and transmitter are paired successfully, the transmitter will be sensed, and receiver OPEN pin will output a 50ms low level signal.



- 3. Description of the transmitter's indicator light
- 1 ) When the battery power is nomal and the system is idle, the blue indicator light flashes once at an interval of about 1.5s;
- 2) In the sensing state, the blue indicator light is always on;
- 3) When the battery power is low(lower than 2.8V, but greater than 2.7V)
- and the system is idle state, the red indicator light flashes once every 1.5s;
- $4\,$  ) When the battery power is low(lower than 2.7V) and the system is idle
- state, the red indicator light flashes once every 700ms.
- 4、Description of the receiver's indicator light
- 1) When the signal is received, the indicator light will be on(the lighting time is depends on the sensing time of the transmitter );
- 2) Enter the learning mode, the indicator light is on for about 5s.
- 3) Successfully paired with the transmitter, the indicator light flashes 3
- times at an interval of about 300ms; 4) The transmitter ID is deleted, the indicator light flashes at 120ms
- interval until LEARN becomes high level.

#### 6 Parameters

Receiver parameter			
Power supply:	DC3.3V		
Action current:	27mA		
Static current:	260uA		
Dimension:	27.5mm (L) $\times 15.5$ mm (W) $\times 0.1$ mm (H)		
Transmitter parameter			
Power supply:	DC3V		
Standby current:	100uA		
Emission current:	41mA		
Induction distance:	3-30cm		
Launch distance: Open area more than 30 m, or a metal shielding/wall environment 10 m			
Dimension:	86mm×86mm		