

Installation Guide of FT-89R

Wireless PIR Detector

1. Introduction

FT-89R is the best indoor/outdoor motion detector with passive infrared and microwave. It's water proof and all weather resistant with two layer stable housings. FT-89R combines a variety of detection techniques which enable it to work in the most difficult environment where needs high security while maintaining immunity to false alarm. The infrared sensor adopts nice lens produce three-dimensional thermal imaging of the protected area. Combining the four-element microwave scanning contributes to an amazing detection capacity. Using this technique allows high sensitivity but lowest false alarm. FT-89R is equipped with unique protection mechanisms against any attempt to damage or to disable its operation.

2. Specification

External powered DC12V

Static current consumption: $\leq 18\text{mA}$

Alarm current consumption: $\leq 30\text{mA}$

When powered, the green LED light for 3 seconds and flicker 2 seconds and off the red LED flicker about 1 second, after 3 minutes, the detector comes into work states.

Alarm mode: Red LED light about 3S

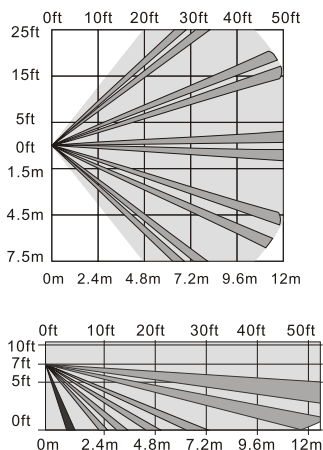
Relay output: NC

Wireless transmitting distance: 150m

Transmitting frequency: 433MHz

The max recharge current: $\leq 120\text{mA}$

Detection range: 12m(25°C)



Internal battery-powered

Low battery alarm: It will send Low battery report when the detector low battery and send battery resume report when the battery resume

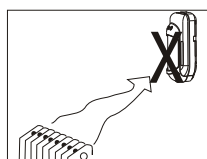
Relay output: N/O (when external power disconnect, the Relay output will convert to N/O from N/C after powered by battery about 2 minutes, external power resume by contrary.)

Static current consumption: $\leq 18\text{mA}$

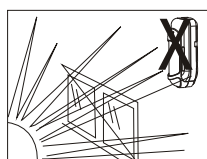
Alarm current consumption: $\leq 80\text{uA}$

3. Installation

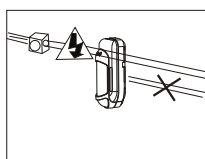
3.1 Guide



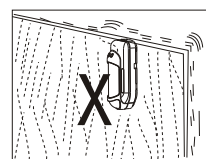
Do not face to cold or heat source



Do not face to sun light



Keep away from high-voltage wire

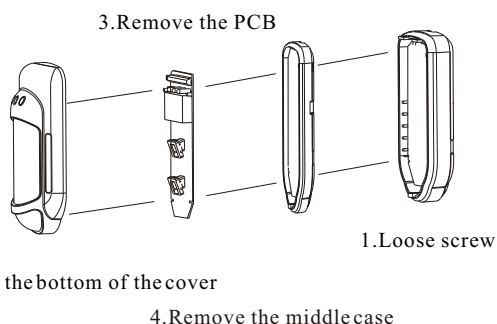


Installation base should be stable



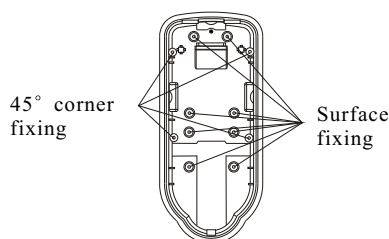
Do not face to metal wall

3.2 Disassemble guide



Enstarlation

Suggest installation height: 2-3 meters from ground



Suggest corner installation

A. Mark the drilling points and make holes.

B. Draw the cable from back channel

C. Fix the base cover on the wall with two screws.

D. Put the PCB back on the cover with clips and fasten screws.

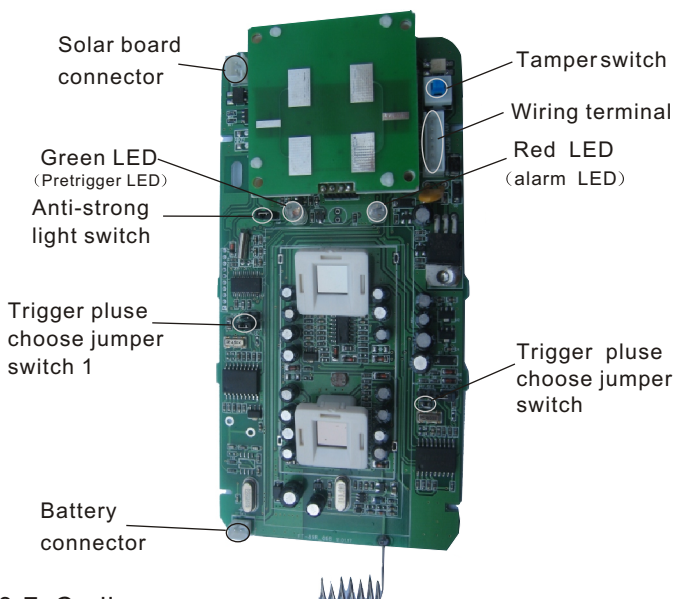
3.3. Stand-by battery replacing and using

When battery is lower power, it will send related signal to control panel, so user should replace battery with same spec. (as right fig.)

On BUS working mode, if this model of detector more than 4 pcs in the system, you need put battery inside to assure the system will not overload.



3.4 Function explanation:



3.7 Coding

When the alarm panel enters coding mode, please press the tamper switch of FT-89R for 3 seconds, immediately then loose, when you can hear a hingsonnd from panel, which means coding successfully.

3.5、Function of jumper switch:

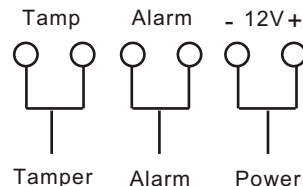
Trigger pluse count, choose jumper switch 1, accroding to infrnred sensor 1



Trigger pluse connt, choose jumper switch 2, accroding to infrnred sensor 2



3.6、Wiring terminal

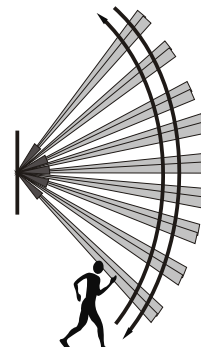


Alarm: When the external power supply for 2-10 minutes, Alarm ouput is N/C

Alarm: When the external power disconnect about 2-10 minutes, Alarm output convert to N/O on wireless mode

3.8、Perform motion test to the detection area: install the cover and close the fasten part (refer to the right diagram)

1. Start the test at least 2 minutes after power supply
2. Crossing to any direction of the detection area, your walking with 0.75m/s will cause the LED indicator to light for 2-3 seconds (refer to the right diagram)
3. Perform motion test from contrary directions in order to confirm the boundary of two sides. Make confirmed that detection center pointing to the center of protected area.
4. Away from the detector 3 to 6 m, raise slowly your arm and reach into the detection zone, mark the lower limit of PIR detection. Do the same step to confirm the upper limit.
5. the center of detection zone should not uphill incline. To obtain a good detection range, please adjust the vertical detection range, ensure the detector is in a correct position.
6. After MW sensitivity or detection angle are adjusted, walking test must be performed according to the above steps.



FCC WARNING

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.