Manual for MC-435R Series Wireless PIR Detector

1.Brief Introduction

MC-435R series wireless PIR detector It with pet immunity function.Adopts advanced software technology, can make accurate judgments between the real intruder and others interference factor. With high sensitivity and has good prevention for false alarm. Detection pulse count optional, can be used in different indoor environments . it has more excellent function than other common PIR detectors.

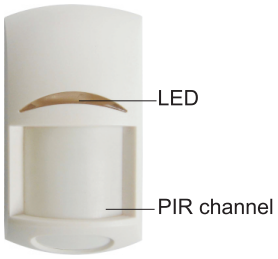


Fig.1 Overall appearance

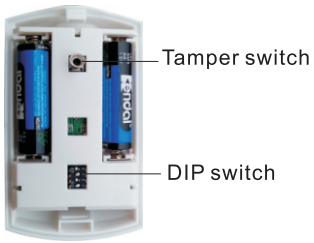
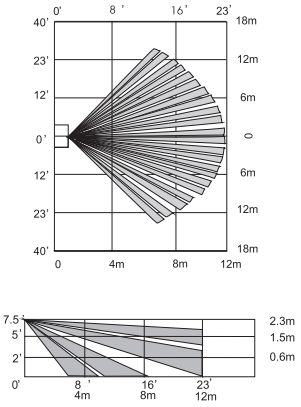


Fig.2 Internal structure diagram

2. Specification

Model：MC-435R
Detection distance：12m/25℃
Transmission distance：120-150m（open area）
Input power：3VDC(2×1.5V)
Power consumption：static≤10μA;
alarm≤20mA(433MHz)
Modulation：ASK
Transmission frequency：433MHz/868MHz
Alarm indication：LED turns on for 2-3seconds

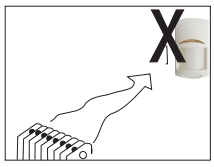


Installation
Surface installation:2.0-2.4m high.

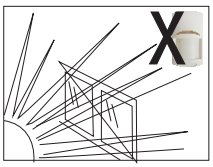
Operation environment
Operation temperature:−10℃~50℃（14℉~122℉）
Operation temperature:−20℃~60℃（−4℉~140℉）
Anti white light:（indoor）:≥6500LUX
Dimension:（L*W*H）108*60*48mm

3.Installation

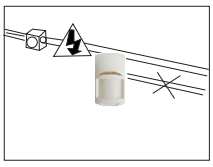
3.1 Installation guide



Don't face hot/cold source



Avoid direct sunshine

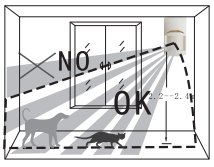


Wire connection should be away from high-pressure cable

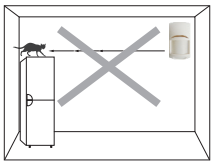
Installation base should be stable

Installation should not face metal wall direction.

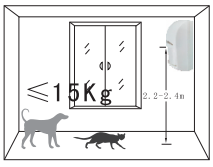
3.2 Anti-pet installation



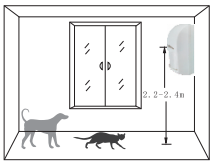
the top of detected area is not pet-immunity area



do not install detector confront the place where pet can get easily.



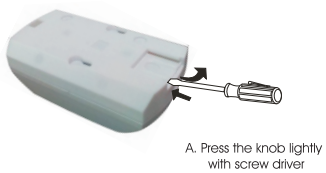
the pet which can be prevented should less than 15kg



the safe installation height is from 2.2m to 2.4m.

3.3Installation illustration

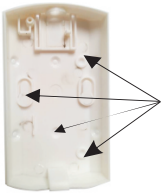
①.Disassemble steps:



A. Press the knob lightly with screw driver

② Wall mounting without brackets：
2.0-2.4M above ground

B. Take the upper part of cover and draw it out.



B. Mark the drilled hole and drill

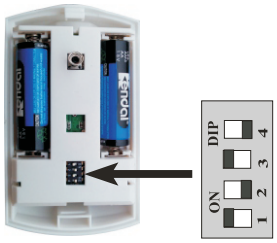
C. Insert two expandable dowels and attach the base into wall by four screws

D. Replace the dismantled parts to base cover

③Bracket—sketch map (bracket is an optional accessory)

3.4 DIP switch function description

MC-435R can choose the following two kinds of pulses:
Two pulses: the detector will alarm when it detects two pulse signals (factory default setting).
Three pulses: the detector will alarm when it detects three pulse signals.
The higher the pulse count, the lower the sensitivity, but it can reduce false alarms.



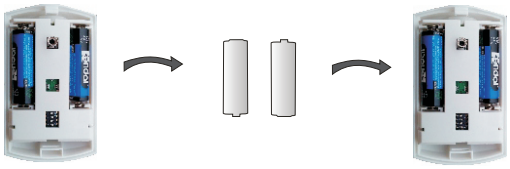
MC-435R can set the following two working modes
Test mode: After the detector is triggered, the alarm can be triggered again after an interval of more than 5 seconds.
Energy-saving mode: After the detector is triggered, the alarm can be triggered again after an interval of more than 3 minutes.
(Factory default setting)

Description: Send a monitoring signal every 2 hours to report the status of the detector and battery.

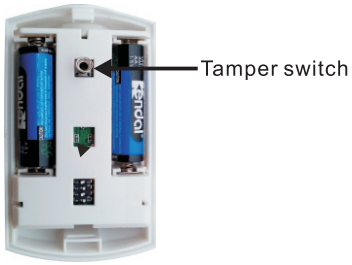
Switch	Meaning	ON	OFF
DIP1	sensitivity	Low sensitivity	High sensitivity
DIP2	Working mode	3 minutes	5 seconds
DIP3	Pulse number	3 pulses	2 pulses
DIP4	LED enable	ON	OFF

3.5 Battery replacement

When the battery of the detector is low, the detector will send a corresponding signal to the alarm host. At this time, the customer should purchase the battery by himself and replace it in time. Remove the detector cover and replace with new batteries according to the correct polarity (as shown in the right picture).



4. Setting method of code matching between detector and host

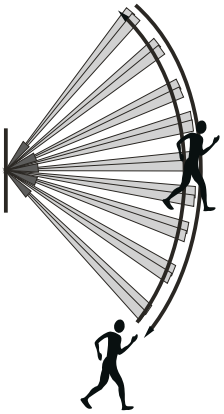


①Set the detector to test mode. After the battery is installed correctly, the LED indicator should be on for 30 seconds. Set the host in the code matching mode (please refer to the host manual for the host code setting), within 3 seconds of pressing the confirm button on the host:
Wave your hand near the front of the MC-435R detector, the detector will send an alarm signal to the host, if the host sends out a corresponding prompt tone, it means that the code is successfully matched;
②Check the code with the host by entering the address code: set the host in manual code matching mode, and then enter the 9-digit address code on the detector label, so that the chance of successful code matching will be higher.

5. Walk test the coverage area

①Set the detector to test mode for walking test. The pulse count setting is set to 2 or 3 as required.

②At the far end of the coverage area, moving laterally within the detection range at a speed of one step per second (approximately 0.75m/s) from any direction, will cause the LED indicator to light up for a few seconds, which will cause an alarm. (As shown on the right)



③Take a walk test from the opposite direction to determine the perimeter on both sides. The detection center should point to the center of the protected area.

④The center of the detection area should not tilt upward. If the ideal detection distance cannot be obtained, the detection range should be adjusted up and down to ensure that the pointing of the detector is not too high or too low.

⑤After adjusting the detection angle of the detector, the walk test should be performed again with the above steps.

⑥After passing the walking test, switch the test mode to energy-saving mode.