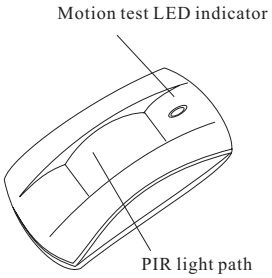
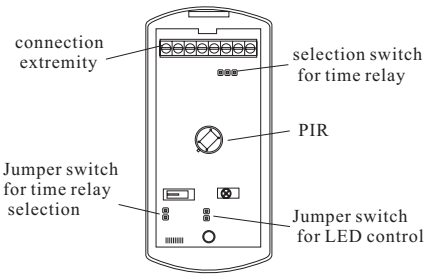
Installation Guide of MD-448 Curtain Style Intelligent PIR Intruder Detector

1.Brief Introduction

MD-448 curtain style intelligent PIR intruder detector adopts digital micro-processor control with motion direction recognition. Its PIR part uses imported quadruple PIR pipe and two built-in checking units. It combines refined paraboloid Fresenel lens to increase the effect of energy reception. Its three-grade digital relay structure makes itself convenient in usage in different environment. It appears elegant and ingenious with pearl white color combined with clipper-built design, which is flexible in wall and ceil mounting. When installed reasonably, it can avoid animals below 10 kg. It is much excellent in function than other common PIR detector with its high sensitivity, accurate judgment, excellent technique, strong ability of anti-interference that other detector can't avoid, avoidance of wrong alarm and alarm missing etc.



Picture 1:
picture for appearance



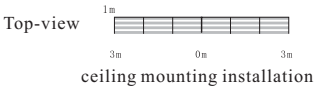
Picture 2:
picture for internal structure

2.Specification

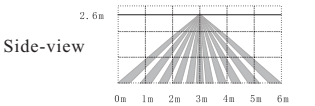
Model MD-448
Detection distance:9m
Input voltage:9-16V
Power : around 13mA@12VDC
Relay time: three grades optional

PIR part (as right diagram)
Optical lens data
PIR area:11*2
Max. covering area:9*4.5m
Starting indication: lights for 3s

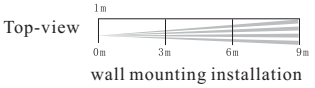
Alarm and tamper
Alarm output: solid relay, N.C
Relay output: solid relay, N.C
Over 100mA/30V,
Tamper connector: N.C
Circuit will open for 2-3s when alarm triggered
Alarm extremity output indication:
Red LED indicator lights for 2 seconds



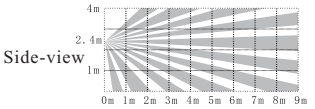
ceiling mounting installation



ceiling mounting installation



wall mounting installation



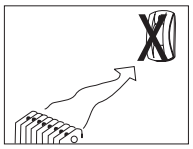
wall mounting installation

Relay extremity output indication:
Green LED indicator lights for 2 seconds
Installation:
Wall or ceiling mounting, height 1.8-2.8m
Accessories:
Bracket 1: surface mounting twist bracket,
down 30° and horizontal 45° adjustable
Operation environment:
Operation temperature: -10℃-50℃
Storage temperature:-20℃-60℃
Anti white light: ＞8000LUX
Anti electromagnetism interference: ＞30V/m 30MHz-1GHz
Dimension:
(L*W*H) :90*50*40mm

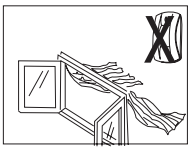
This device is coherent to Europe parliament direct 1999/5/EC necessary items and rules, and also coherent to the main spirits of radio and telecom terminal equipments on March 9th. 1999. The device also reaches the Canadian standard RSS-210. It can be used indoor and outdoor, which can reach its maximum protection and avoidance of above interference.

3.Installation

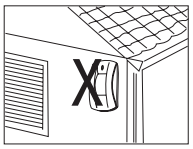
3.1General guide for installation



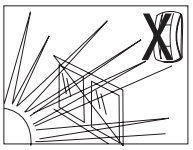
Don't face cold or heat directly



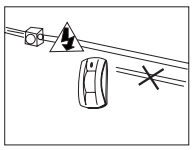
Windows can't be open in detection space



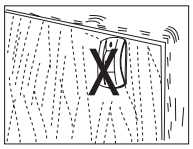
Can not be installed outdoor



Don't face the sunshine directly

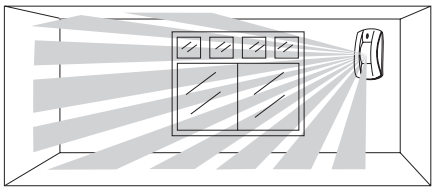


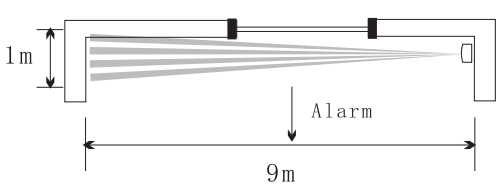
Wire connection or detector can't be near to high-pressure cable

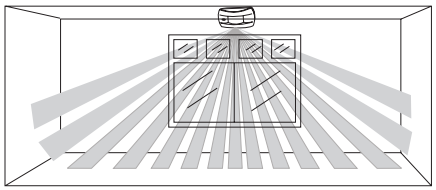


Don't install on a unstable base.

3.2Correct installation illustration







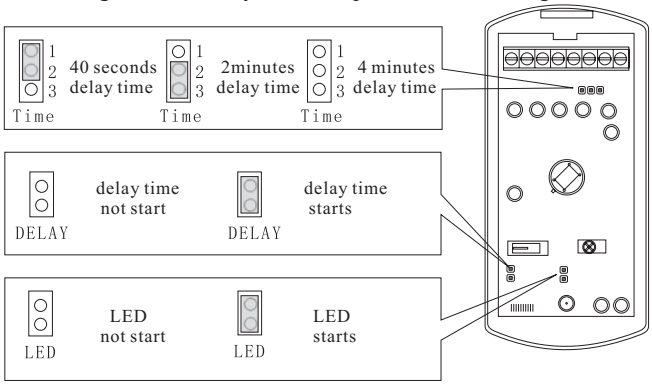
3.3 Installation illustration

1.Separate steps:
A.Use a single-line screw-driver to press the knob on one side and open the cover
B.Turn down the PCB screw, fetch down the PCB for the convenience of installation
2.Installation base
A.Mark the spot for hole and drill a hole on the wall
B.Lead the wire into the base from the back slot
C.Insert two nails and install the base onto the wall with two screws
Fasten the PCB board onto the base with screw

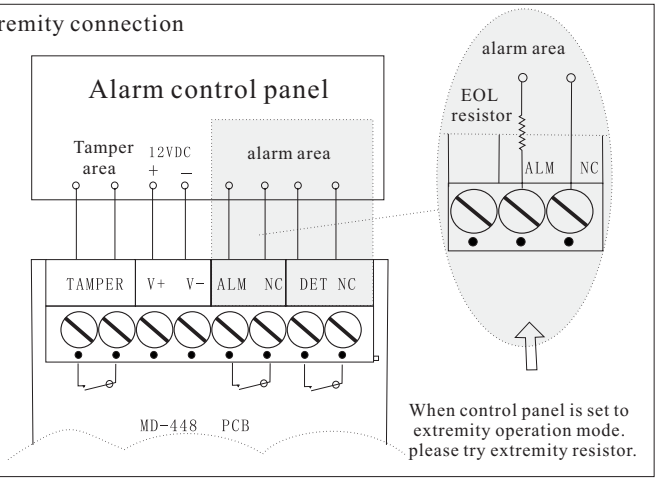
3.Operation and test

After power connection, the detector needs 60 seconds for pre-heating.

Introduction of alarm delay: alarm delay function is specially designed in order to avoid wrong alarm when the master is moving in the protecting area. When the master is approaching the protection area, no alarm will be triggered. When permitted movement is detected, the detector begin to account alarm delay time; each time when moving objects are detected, the timer will restart to account the time. The detector allows movement in two directions in alarm delay time. Delay jumper switch must be installed in order to get alarm delay function; in additional, for the convenience of different backg round usage, alarm delay can be separated into three grades.



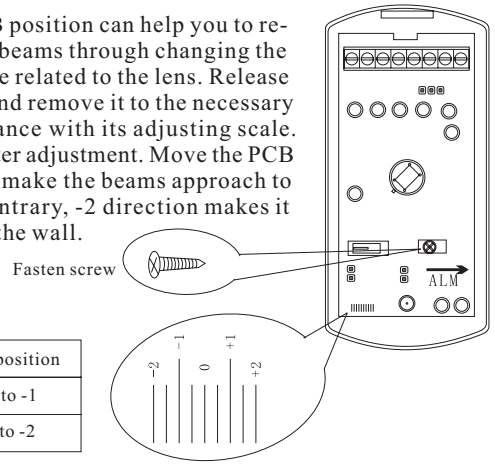
4.Extremity connection



When control panel is set to extremity operation mode. please try extremity resistor.

5.Adjustment of PCB position to change beams angle:

Adjustment of PCB position can help you to regulate the angle of beams through changing the position of PIR tube related to the lens. Release the screw of PCB and remove it to the necessary position in accordance with its adjusting scale. Fasten the screw after adjustment. Move the PCB to +2 direction can make the beams approach to the wall, on the contrary, -2 direction makes it further away from the wall.



Beams scale	PCB position
Wall---4m	0 to -1
4m---9m	-1 to -2

5.Walk Test:

A Walk Test enables you to determine the effectiveness of the installation.Before you perform a Walk Test,remove the Delay jumper to cancel the Alam Delay.To perform a Walk Test.,leave the protected area and enter the room; the red LED should light up as soom as you enter the room.Allow ten seconds between walk tests.

In certain cases,it is notpossible to test the sensor in this way. For example,if the sensor is protecting a first floor window it would not be practical to test non-permitted montion.In this case ,mask half of the PIR sensor using the rubber PIR sensor mask provided.

To test the outer beams (fou maximum catch performance):

1 . Position the mask so that the side of the PIR sensor closest to the protected window is covered

2. Stand a few meters away from the window and walk slowly towards the wall; the green LED should light up when you are as close as possible to the wall. If the LED is not lit,move PCB slightly towards the 2 position. If the LED is lit too early,move the PCB slightly towards the +2 position.

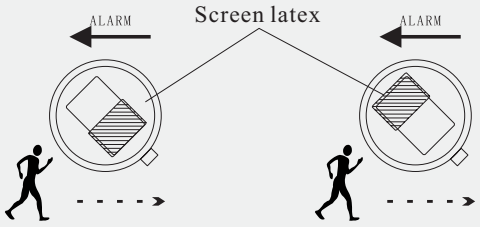
You should not place furniture such as beds and sofas between the inner and outer beams of thesensor .To determine this area you must test the linit of the inner beams as follows.

1.Position the mask so that the side of the PIR sensor closest to the protected window is not masked .

2. Stand a few meters away from the window and walk slowly towards the wall. The green LED should be lit approximately 50-70cm away from the wall.If the LED is lit when you are too far away from the wall , move the PCB slightly towards the +2 position.

After performing the second walk test, repeat the first walk test to make sure that the catch performance has not been affected by the adjustments you made .

LED Indication: The LED indicator turnd red to indicate non-permitted motion and green to indicate permitted motion .To disable the LED ,remove the LED jumper located next to the LED indicator.



Note: Do not disable the LED until you have successfully walk tested the sensor .

Note: Do not forget to remove the PIR sensor mask and replace it with the original rubber thermal shield after the walk test.

Important mention: Motion test shall be performed at least one time each week in order to guarantee that each detector can keep excellent function.

4.Special comments

Even the most sophisticated detcetors can sometimes be defeated or may fail to warn due to :DC power failure/improper connection,malicious masking of the lens,tampering with the optical system, decreased sensitivity in ambient temperatures near that of the human body and unexpected failure of a component part.The above list includes the most common reasons for failure recommendedthat the detector and the entire alarm system be checked weekly, to ensure proper performance.

An alarm system should not be regarded as a substitute for insurance. Home & property owners or renters shouldbe prudent enough to continue insuring their lives & property, even though they are protected by an alarm system.

This device has been tested and found to comply with the limits for a Class B digitaldevice, pursuant harmful interference in residential installations .This equipment generates,uses and can radiate radio frequency energy and ,if not installed and used in accordance with the instructions ,may cause harmful in-terference to radio and television reception. However, there is no guarantee that interference will not occur in a particular installation .If this device does cause such interference , which can be verfied by turning the device off and on ,the user is encouraged to eliminate the interference by one or more of the followingmeasures:

- Increase the distance between the device and the receiver.
- Connect the device to an outlet on a circuit different from the one that supplies power to the receiver.
- Consult the dealer or an expericnced radio/TV technician.

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

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