Wireless Indoor Intelligent Ceiling Mount PIR Detector
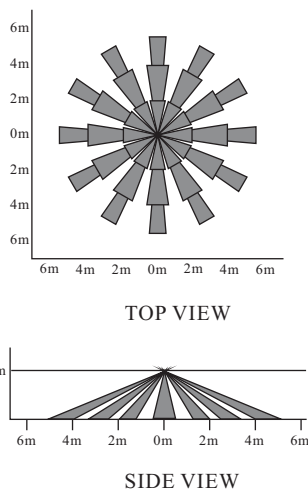## Installation Manual

1.Brief Introduction

This is an indoor ceiling mount dual-element pir detector with mini power consumption. It is with few false alarm and missing alarm. It adopts bi-direction temperature compensation which enables its effective detection in a wide temperature range; it also adopts unique pets paramater calculation technology which can avoid false alarm from pets up to 10kg. It is with remarkable functions in anti-hot air, window curtain waving etc. It is very stable in detection with 2 grades of sensitivities. Its low power consumption design can support battery life up to 2 years. Its functions and stability is sure to be much better than those detectors available in the market with similar prices!

2.Main functions

- Super low power consumption design
- 2-grade sensitivity detection
- Digital pet immunity up to 10kg
- Bi-direction temperature compensation
- High capacity battery(Factory battery can support more than 24 months)
- EDS/anti electric strike/Anti mobile interference
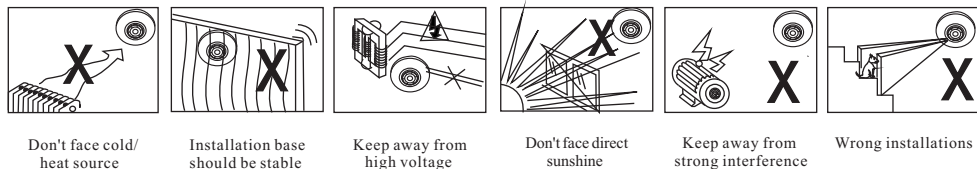- Anti white light interference
- 360°Fresnel lens

3.Technical parameter

Power：   1.5V*2 AA Alkaline battery
Current：   20uA（stand by） 14mA (alarm)
Installation height：   2.4m.-3.6m
Detection range：   φ8m   360°
Temperature compensation：   digital compensation
Pulse：   2/3 for option
Sensitivity：   high/low for option
Anti EMI：   0.1-500MHz/30V/m
Anti white light：   >10000LUX
Alarm data：   EV1527/PT2262 for option
Alarm period：   2s
Alarm cycle：   4 mins(USE mode)
Wireless distance：   over 200m（open area）
Wireless frequencies：   315/433/868MHz
Operation temperature：   -10℃/+55℃
Detection speed：   0.2m/s - 3.5m/s
Fire proof：   flame retardant ABS
Pet immunity：   10Kg
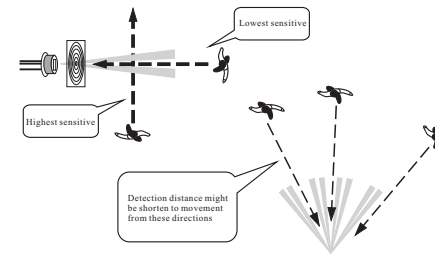Size ：   diameter 115mm*32

TOP VIEW

SIDE VIEW

4.Installation guide

Select a best installation suitable for PIR detection and fasten ceiling mount detector on proper position, keep away from door, window, running machine and heat.
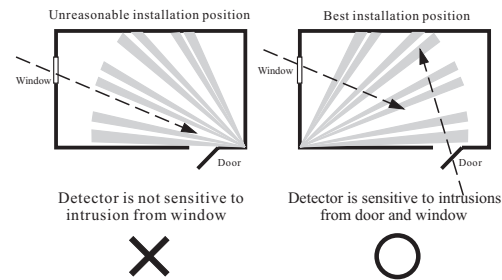

Don't face cold/heat source   Installation base should be stable   Keep away from high voltage   Don't face direct sunshine   Keep away from strong interference   Wrong installations

On installation angle (For reference)
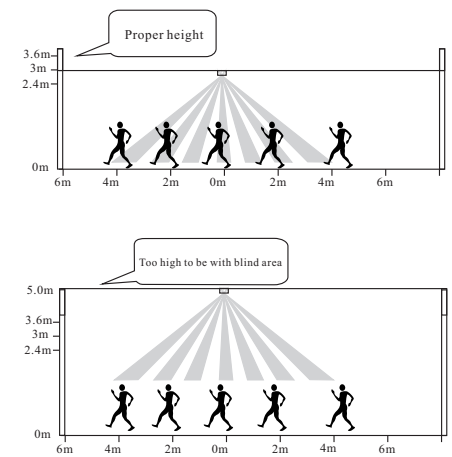Detector is with physical difference to different intrusion angles

Lowest sensitive
Highest sensitive
Detection distance might be shorten to movement from these directions

On installation position (For reference)

Unreasonable installation position   Best installation position

Window   Window

Door   Door

Detector is not sensitive to intrusion from window   Detector is sensitive to intrusions from door and window

✕   ◯

On installation height
Recommend installation height is 2.4-3.6m

Proper height
3.6m
3m
2.4m
0m
6m 4m 2m 0m 2m 4m 6m

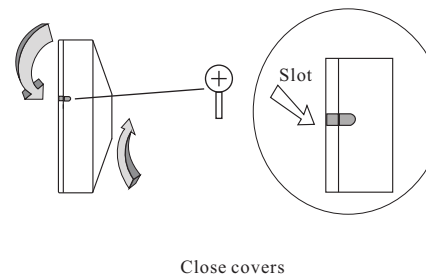Too high to be with blind area
5.0m
3.6m
3m
2.4m
0m
6m 4m 2m 0m 2m 4m 6m
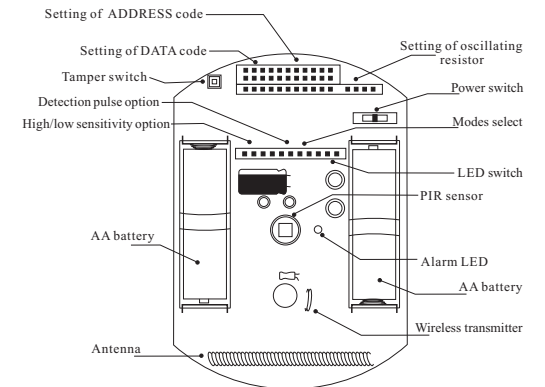
5.Installation and internal parts

Take the upper and lower covers by 2 different hands and press them slightly and then rotate the upper and lower covers anticlockwise to open the detector.
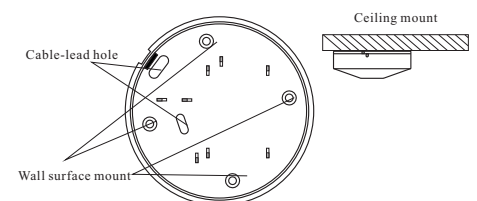

Open covers
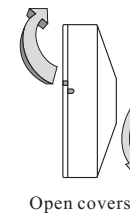
Align the indentation of upper and lower covers and rotate the covers clockwise to fasten the detector

Slot

Close covers

Internal parts

Setting of ADDRESS code
Setting of DATA code
Tamper switch
Detection pulse option
High/low sensitivity option
Setting of oscillating resistor
Power switch
Modes select
LED switch
PIR sensor
AA battery
Alarm LED
AA battery
Wireless transmitter
Antenna

Ceiling mount figure

Ceiling mount
Cable-lead hole
Wall surface mount

6.Various setting and walking test

TEST/USE modes option

When jumper is set to TEST mode, detector can be triggered whenever there is intrusion
When jumper is set to USE mode, 2nd alarm will be triggered 4 minutes after first trigger (this design is used for battery energy saving, recommend to use)

USE
TEST

USE mode
(energy-save)

TEST mode

Setting on detector pulse (PULSE)

When jumper is set to pulse 3, detector is in low sensitivity and alarm can be triggered when more than 3 pulses are detected
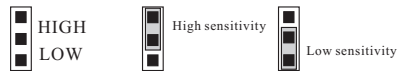When jumper is set to pulse 2, detector is in high sensitivity and alarm can be triggered when 2 pulses are detected

3P
2P

PULSES

3 pulses
(low sensitivity)

2pulses
(high sensitivity)
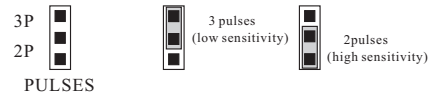
Setting on sensitivity (SEN)

When jumper is set to high sensitivity, detector is in high sensitivity.
When jumper is set to low sensitivity, detector is in low sensitivity.

HIGH
LOW

SENSITIVITY

High sensitivity

Low sensitivity

Notes: when pulse and sensitivity are combined for setting, 4 detection grades can be reached to be suitable for different installation operation.

7.Wireless DATA forms setting

PT2262 form

Setting on oscillating resistor

Setting on oscillating resistance on coding chip can make detector be compatible with other control panels in PT2262 form. Please refer to below diagram:
We have 3 modes: 4.7M, 3.3M,1.5M

Setting on DATA pin

Proper coding data can be obtained by setting on DATA SET for control panel recognition: D3\D2\D1\D0

Setting on ADDRESS codes

Different address codes can be obtained by setting on 8 different pins in order that control panel can recognize different zones

Alarm LED control (LED)

When jumper is set to OFF mode, even detector is triggered, LED will not turn on. This is just for concealment and battery energy-saving. (recommended)
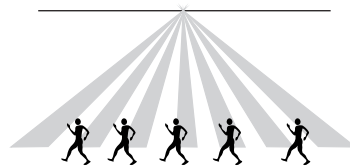
LED

ON
（LED on）

OFF
（LED off）

Walking test

Set detector to TEST mode, turn on POWER and LED and then close the covers till LED turns off. Make horizontal movement in the detection area and check PIR detection status from LED (when alarm triggered, LED will flash for 2 times). This test can avoid blind area to PIR. And when intruder makes horizontal movement to detector, sensitivity is the highest.

When detector is installed in different environments, please adjust the PIR sensitivity and detection pulse in order to get best detection. When pulse is set to 2, detector is with high sensitivity; when pulse is set to 3, detector is with low sensitivity. Usually detector is set to 2 pulse.

When test is finished, you can turn off alarm led or keep it on as you like.

Note: strongly suggested settings: "USE" mode and "LED off" in order to last battery life.

DATA Set   ADDRESS Set

L
H

D0D1D2 D3   A0A1A2A3A4A5A6A7

H=high level
L=low level

1.5M   3.3M   4.7M

Setting on resistaxce

P T2262

### E V1527 form setting

Setting on oscillating resistor

When EV1527 is used, oscillating resistance is set to 330k. User can make modification according to self needs.

Setting on DATA pin

Proper coding data can be obtained by setting on DATA SET for control panel recognition: D3\D2\D1\D0

Setting on ADDRESS codes

Chip is with built-in 1048576 codes, user doesn't need to make change.
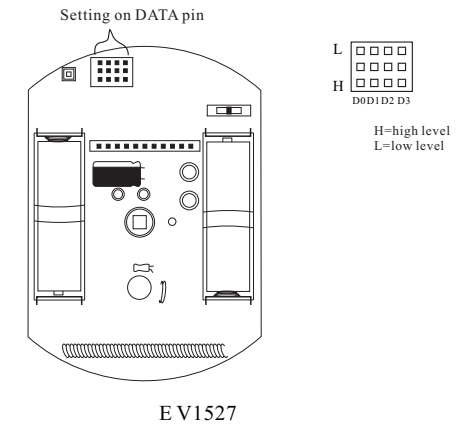
8.On pet immunity

It is a high index to detector: to avoid false alarm caused by small animals. Our company adopts 2 different ways on pet immunity:
1.Physical way: special processing on Fresnels lens detection area to reduce false alarm caused by small animals.
2.Adopts software analysis way: mainly process on detector signals parameter and then make comparison with the data sheet in the microchip in detector, then it will judge whether movement is from human being or small animals.
So we can know that pet immunity on pir detector is relative. This kind of relativity includes 2 points:
1.False alarm to pets is relative. There is much lower false alarm comparing with those detectors which is not with pet immunity, at the same time, it is with limitation to pets quantity and size.
2.There is requirement to installation position. Random installation can't avoid false alarm from pets. During installation, please read manuals very carefully.

Setting on DATA pin

L
H

D0D1D2 D3

H=high level
L=low level

E V1527

9.Explanation on different alarm messages

Tamper/reset:
When front cover is moved, signal of "tamper switch open" will be sent out; when front cover is recovered, tamper switch stops send out signal.
PIR intrusion alarm:
When detector is in alarm status, alarm signal will be transmitted immediately.
Low voltage alarm:
A special battery signal, when battery voltage is not enough, it will send out low voltage alarm. (When battery voltage is low to 2.2V)