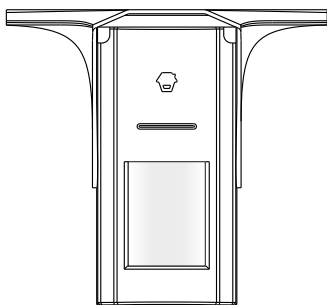# Solar-Powered Dual-Tech Motion Detector

PIR-926

User Manual

Introduction

PIR-926 is a solar-powered motion detector utilizing a single passive infrared element and microwave technology. It consists of digital dual-core fuzzy logic infrared control chip and intelligent analysis which effectively identify interference signal from body movement signal and reduce false alarm. The detector is battery powered and kept re-charging by the solar panel to save energy. Unique housing material and structure improves waterproof level for outdoor use.

Features

1. Accurate detection
   - It has microwave and infrared dual detections to prevent false alarm.
   - It consists of digital dual-core fuzzy logic infrared control chip and intelligent analysis which effectively identify interference signal from body movement signal.
   - With automatic temperature compensation and anti-air turbulence technology, it easily adapts to environmental changes.
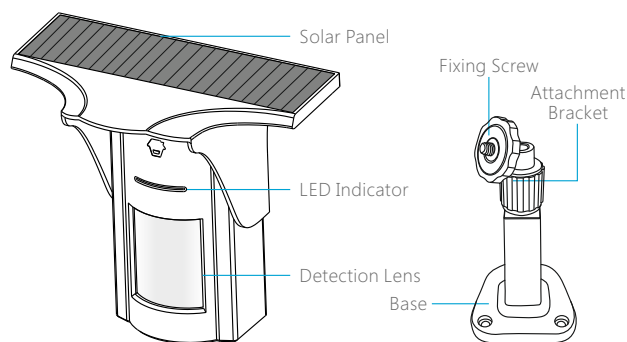2. Outdoor use
   It adopts ABS and anti-UV material for outdoor use with IP65 rating.
3. Energy saving
   Rechargeable by solar power .
   Energy saving mode to reduce battery charging times, extending battery life.
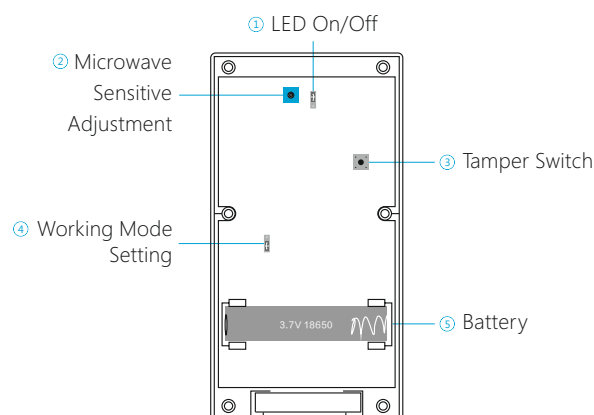
Product Overview

Detector

Installation Bracket

LED Indication

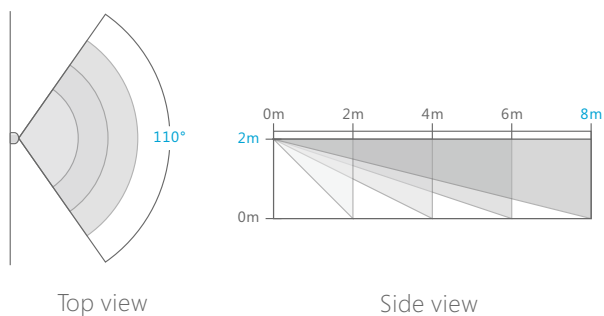| LED Status	Meaning
Red and orange LED flash continuously for 1min	Self-testing
Red LED flashes once	Infrared is triggered
Orange LED flashes once	Microwave is triggered
Red and orange LED flash once at the same time	Both infrared and microwave are triggered, the detector sends alarm signal.
Red and orange LED flash once every 3 seconds	Low battery, please install on place with sufficient sunlight

PCBA Layout

1. LED ON/OFF (default setting is ON).
2. Sensitivity adjustment: MAX=high, MIN=low (default setting is optimum).
3. Tamper switch: In working state, if the housing is opened, detector will send alarm signal.
4. Working mode: 10S=Test mode, 3MIN=Power saving mode (default setting is Power saving mode).
5. Battery: One piece of 18650 rechargeable lithium battery.

Note: 1. High microwave sensitivity may cause false alarm, while low microwave sensitivity may cause missing alarm, so please do not adjust the sensitivity randomly.
2. The PIR motion detector is set in zone A in default (that is, in home mode zone. Details please refer to the relative control panel user manual), and this setting is unchangeable.
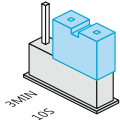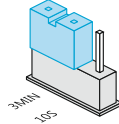
Detection Scope

Top view

Side view

Working Mode Selection

After the battery is loaded, the detector enters 1min self-testing with the red and orange LED flashing continuously, and then it starts to work according to the pre-set working mode.

Testing Mode

Power Saving Mode

Testing mode: The detector detects once every 10 seconds.

Power saving mode (default setting): The detector enters 5min testing mode firstly (detects once every 10 seconds), then switches to power saving mode. Under power saving mode, if the detector is triggered twice within 3 minutes, it will enter sleeping state immediately to save power. During this period, any body movement detected will not trigger the detector. After no body movement in the next 3 minutes, it goes back to working state.

Note: It is suggested to set the detector in power saving mode for daily use to save power. In power saving mode, the premise of alarm is that no body movement is detected in detection scope within 3 minutes; otherwise the detector will stay in sleeping state. If the detector is in sleeping state, it is suggested to arm the control panel and then leave the room where the detector is located in. Make sure there is no body movement in detection scope, and then come back after more than 3 minutes, the detector will send alarm signal to the control panel immediately.
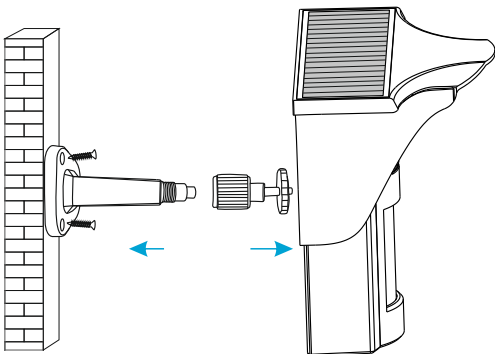
Test

Unscrew the fixing screws on the back to open the case, set the jumper cap to testing mode, remove the battery activation strip. After red and orange LED flash continuously for 1min, it enters working state. By then, put the detector on a shelf, walks from the left to right(or right to left) within the detection scope to trigger it, red and orange LED will flash once. This indicates the detector is working properly.
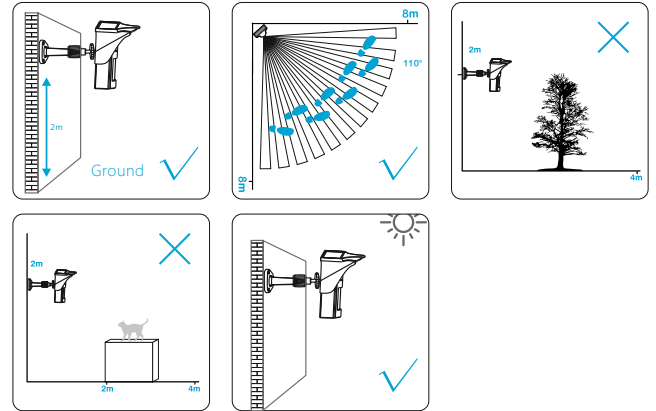
Installation & Notices

Installation steps:

1. Make the attachment bracket and base apart.
2. Fix the base on the right place (see notices).
3. Tighten the attachment bracket with the detector.
4. Tighten the attachment bracket with the base and adjust to proper detecting angle.

Notices:

1. It is recommended to mount the detector at height of 2m from the ground.
2. The detector is more sensitive to cross movement than vertical movement, so it is suggested to mount it facing vertical to the walking direction of people.
3. Please avoid big objects in front of the detector which will influence the detection.
4. Please avoid any cases that pets can climb over to avoid false alarm.
5. As it is a solar-powered detector, please install it where adequate sunlight is ensured.

Connect to Control Panel

Make sure the control panel is in pairing state, press the tamper switch or trigger the detector to alarm until the panel gives out a beep, which indicates the connection succeeded. Arm the system, trigger the detector again, the siren of control panel will hoot which confirms the connection is successful.

Specifications

Power supply 18650 3.7V 1200mAh rechargeable lithium battery

Standby current ≤0.35mA

High volume alarm current ≤700mA

Mute alarm current ≤30mA

Solar panel output current 2000LX illumination ≤4mA

Battery standby time 30 days

Detection scope 8m/110°

Wireless transmitting distance ≤80m (in open area)

Radio frequency 315MHz or 433.92MHz (±75KHz)

Operating condition
Temperature -10℃~+55℃
Relative humidity ≤80% (non-condensing)

Housing material PC+ABS+ANTI-UV

Detector dimensions (L x W x H) 186 x 200 x 125mm

Bracket dimensions (L x W x H) 75 x 72 x 155mm

CHUANGO®

产品型号	PIR-926	部件名称	说明书
设　计	林寿	材　料	80克书写纸
印刷尺寸	210X285mm	成品尺寸	105X95mm
工　艺	折页	版　本	Ver: PIR-926-EN-1403-V2.0

注:
双色、双面印刷