

# HomeKeeper PIR Motion Detector

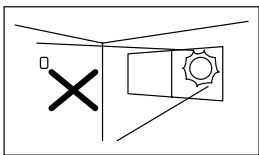
## HK-IR868P

### GENERAL

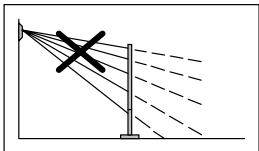
The HK-IR868P is a battery powered, pet immune passive infrared motion detector specially designed for HomeKeeper Security & Automation Management System. It detects the movement of human body within its detection coverage and transmits a coded radio signal to the HomeKeeper Main Controller for proper response.

This detector should be mounted on wall or corner at 2.2 ~ 2.4 m high and perpendicular with the floor. To ensure optimum detection performance of this detector, please read all contents of this instructions carefully before installing.

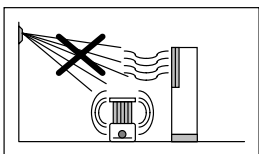
### INSTALLATION NOTES



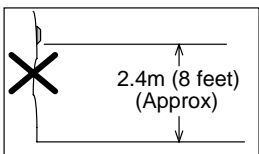
The detector should not face direct or mirror-reflected sunlight. Also avoid receiving car's head light through window.



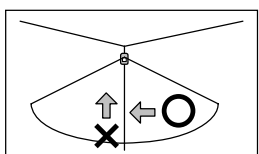
Ensure that there are no obstructions (plants, screens, furniture etc.) in the field of view. The objects may block the detection coverage.



Avoid locating the detector in the area with equipment that may change the environment temperature rapidly.



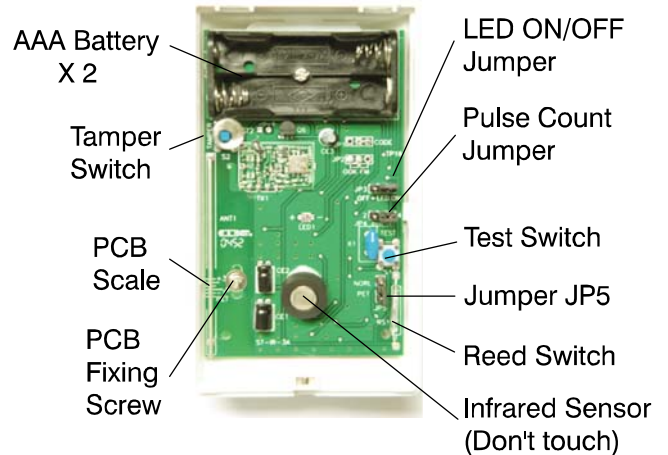
Install the detector at proper height on a rigid surface. Ensure that the detector is mounted perpendicular with the floor.



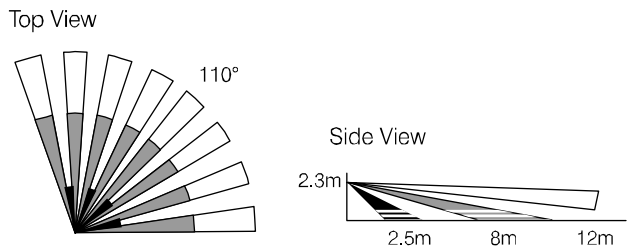
PIR detector is more sensitive to the movements "across" the detection zones than "toward" or "away" the sensor.

## Installation Instructions

### SENSOR DESCRIPTION



### DETECTION PATTERN



### SYSTEM ENROLLMENT

Each detector has to enroll to the HomeKeeper system before installation, so that the Main Controller can recognize its coded signal. Refer to the operation manual of HomeKeeper Main Controller, select the "Installer Mode" and enter "Installer Code" to gain the access authority, then select \Set Device\Change Device\Burglar Sensor\ Enter Zone No.

Open the front cover and insert two AAA alkaline batteries into the holder. Pressing the "TEST" button on the PCB to enroll the ID of the detector into the system. The attribute of sensor can also be changed under \Set Device\Change Device Setting\Burglar Sensor Change, to fulfill different requirements.

**Note:** In order to properly reset the microprocessor, please press "TEST" button for 5 seconds to discharge the capacitor before placing the battery.

## RADIO LINK TEST

After the detector enrolled, it is necessary to carry out the radio link test to ensure that PIR is installed within its radio communication range with the Main Controller.

Take the detector to the selected mounting position, pressing the “TEST” button or placing a magnet close to the reed switch to activate the radio test signal. See if the Main Controller can receive the signal.

**Note:** If the Main Controller cannot receive the signal, relocate the detector or using a Radio Signal Repeater in between the detector and Main Controller to improve the radio link.

## DETECTOR MOUNT

The detector can be mounted after system enrollment and radio link test are completed. **Do not mount HK-IR868P with any mounting bracket.**

1. Loosen the screw and carefully remove the PCB from the unit base.
2. Knockout the proper mounting holes. Drill holes on the wall, insert the screw plug into the holes.
3. Mount the unit base with the provided screws.
4. Assemble the PCB to the unit base and replace the front cover. Walk test can be proceeded.

### PET IMMUNITY NOTICES

- If animal activity takes place above 1 m high, the pet immunity performance will be significantly reduced. It is therefore recommended to select a mounting location that can avoid animal moving within 1.8 m of the detector.
- Ensure to place the PCB at “P” scale position and Jumper JP5 is set at “PET” position.
- Avoid aiming the detector at stairways that animal can pass. If not possible, apply a white paper sticker on the respective lens segments to proportionally mask the detection.

## WALK TEST

It is necessary to perform a walk test to verify optimum detection coverage.

To activate walk test, pressing the “TEST” button or placing a magnet to the reed switch for at least 3 seconds, release until the LED turns ON→OFF→ON. The detector will enter into a 3-minute TEST mode.

Replace the front cover and then walk within the detection area at normal speed, while observing the LED indicator. **The LED will stay ON during test mode, and turn OFF when motion is detected.** It is a must to verify the pet immunity function after installation. If pet is detected, sliding the PCB to -1 or 0 scale and test again.

**Note:** Test mode can be terminated anytime by pressing the “TEST” button or placing a magnet close to the reed switch, until the LED turns OFF. The detector will return to NORMAL mode. The LED will be disabled during NORMAL mode.

## DETECTOR PERFORMANCE

### PULSE COUNT SELECTION

The HK-IR868P features a programmable pulse count to eliminate false detection caused by environmental interferences. 2 or 4 pulses can be set by placing the jumper head on corresponding pins.

**2 pulses:** This setting provides higher detection sensitivity.

**4 pulses:** Alarm signal will only be sent if 4 detection pulses are generated within 1 minute. This setting can be used to reduce false alarm at hostile environment.

### RADIO TRANSMISSION

During normal operation mode, the detector will transmit the alarm radio signal when it detects the first movement, and then enter into a 3-minute snooze period to reduce battery power consumption. The radio transmission will resume only if no further movement is detected during snooze period.

## SPECIFICATIONS

Power supply	2 X AAA alkaline battery
Current drain	10 uA quiescent, 12 mA @ transmission
Detection range	110°, 15 m @ 25°C
Radio frequency	868 MHz
Detectable speed	0.3 ~ 1.5 m/sec.
Mounting height	2.2 ~ 2.4 m
Pet immunity	Up to 18 kg or 60 cm, floor movement
Pulse count	2 / 4 pulses selectable
Battery life	Approx. 2 years (40 transmission/day)
RFI immunity	Ave. 20 v/m (10 ~ 1,000 MHz)
Op. humidity	95% RH maximum, non-condensate
Op. temperature	-10C ~ 50°C (14°F ~ 122°F)
Dimensions	112 x 66 x 45 mm

Specifications are subject to change without prior notice.

2006/02