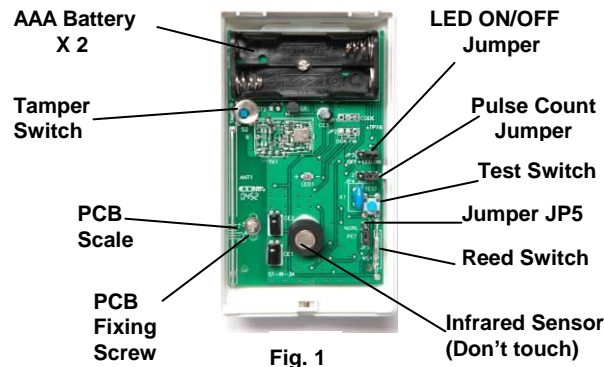## Pet-Immune PIR Motion Detector, i4H-PIR-3SP
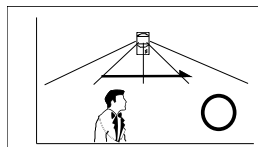
INTRODUCTION

The i4H-PIR-3SP Passive Infrared Detector detects the movement of human body heat within its effective coverage; thus, when an intruder crosses or enters the area, the resulting change in infrared energy from the intruder will be detected and an alarm signal will transmit to the Base Unit.
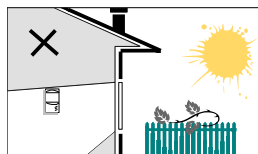

Fig. 1

PET IMMUNE DETECTOR

- This detector is immune to one domestic pet up to 18 kg or 60 cm moving on the floor.
- If animal activity takes place above 1 meter high, the pet immunity allowance will be significantly reduced. Therefore Do Not aim the detector at stairways that animal can pass.
- This detector should be mounted on the wall or corner at 2.0 m high and **perpendicular to the floor**. Please note under this condition, **the human motion within 1 m from the detector is undetectable.**
- Do NOT use any mounting bracket with swivel adjustment. Should you must use a bracket, it should be used for horizontal alignment only, **do not tilt down.**
- Place the PCB at the "0" scale position. And jumper JP5 at "PET" position.
- It's a must to verify the pet immune function after installation. In case animal is detected, sliding the PCB to +1~+2 scale to test again
- The weight of the animal can only be used as a reference. Other factors such as height and color of fur could also affect the level of immunity.
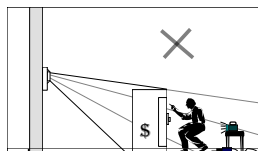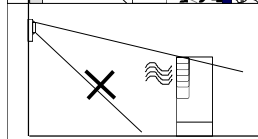
IMPORTANT NOTE

To get the best sensitivity, PIR should be mounted to detect movement of the intruder **across** a room rather than **toward** the detector.

Do not install where the detector faces a window, since movement outside could cause unwanted alarms.

Make sure the detection area does not have obstructions (curtains, screens, large pieces of furniture, plants, etc.) that could block the pattern of coverage.

Avoid placing the sensor in areas containing objects likely to produce a rapid change in temperature, such as central heating radiators or ducts (or heaters of any kind), air conditioners, open flame, etc.

Fig. 2

Fig. 3

Fig. 4
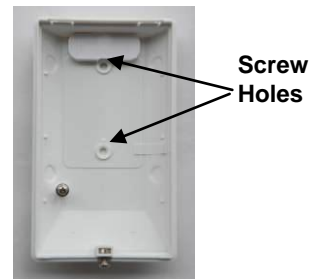
Test Button
Simulation
←ON
→OFF

Screw
Holes

Fig. 5

INSTALLATION

1. Refer to FIG. 2, and loosen the screw on the PIR bottom, and then remove the front cover.
2. Insert two AAA alkaline batteries.
3. Press the Clear/Enroll button of the i4H-LS-20 base unit for 3 seconds, the LEDs start flashing and buzzer beeps means the Base Unit enters the device enroll state.
4. Within 30 seconds, press the TEST button on the PIR PC board (refer to Fig. 1) or put a magnet near the mark of external test sensor (refer to Fig. 4). If you hear 3 short beeps from the i4H-LS-20 soon later then enrolling successes, otherwise you will hear one long beep after 30 seconds that means enrolling fails, you have to repeat enrolling action.

    Note: Avoid activating any other sensors during the 30 seconds Device Enroll period.

    Remarks: In case you have to change the device's attribute, please do it on the cloud web directly, or refer to HyperSecureLink software user guide to change it by computer.
5. Wait 3 minutes after battery insertion. Because the i4H-PIR-3SP is low-power design, it takes a few moments for the sensor to reach stable state.
6. Mount the base with two screws (refer to Fig. 4) or use Velcro tab provided at a selected location, and 2 m above the floor. Make sure the distance between PIR and Base Unit is within RF transmission range.

WALK TEST

It is essential to perform a walk test to verify optimum detection coverage. To do this, first hold the "TEST" button on the i4H-PIR-3SP board down for at least 3 seconds, until the LED turns ON→OFF→ON, then release the button. Afterward, the i4H-PIR-3SP enters "TEST" mode for 3 minutes. Replace the cover of the i4H-PIR-3SP, then walk into the detection area at normal speed, while observing the LED indicator. **The LED stays ON normally, and turns OFF when motion is detected.** If the detection pattern is not satisfactory, re-aiming the detector or adjusting the vertical pattern by sliding the PIR board to -1 or 0 scale to test again.

Notes: 1. For the sake of convenience, the PIR is built in a reed switch; refer to its location on Fig. 1.   You may use a magnet to simulate the function of TEST button without opening the case. When a magnet is placed close to the reed switch, the PIR responses as the TEST button is pressed; refer to Fig. 5. And when a magnet is removed, the PIR responses as the TEST button is released.

2. Test mode can be terminated before the 3-minute timeout by pressing the "TEST" button again (or use a magnet to approach for a second) until the LED turns OFF. Afterward, it returns to NORMAL mode.

3. In NORMAL mode, the i4H-PIR-3SP activates the transmitter when it initially detects movement, then disables itself. The unit will resume operation only after about 3 minutes with no further detection of movement. In other words, if installed in a heavy traffic area, the i4H-PIR-3SP will not transmit until the area has been evacuated for 3 minutes. The purpose of this feature is to reduce power consumption and prolong battery life.

RADIO LINK TEST

Open the top cover of the i4H-PIR-3SP and press the TEST button on the PC Board, or use a magnet to activate the reed switch, to see whether the Base Unit can receive the radio signal.

PULSE COUNT SELECTION

The i4H-PIR-3SP is equipped with a programmable pulse counter that can be set by placing the jumper on the desired setting (2 or 4). The i4H-PIR-3SP automatically overrides to one-pulse mode while in "TEST" mode.
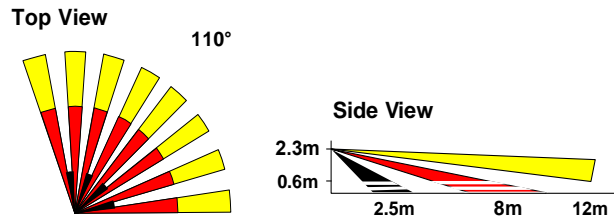
2 pulses: This setting has high sensitivity of detection. Two pulses should be selected when the detection range is longer (over 5 m)

4 pulses: Alarm signal will only be sent if 4 pulses are detected within approximately 10 seconds. This setting provides the maximum protection against false alarms caused by all types of environmental disturbances.

LED ON/OFF SELECTION

To prevent the PIR from being discovered by an intruder, LED can be disabled by putting LED ON/OFF jumper at OFF position. Nevertheless, the LED is enabled automatically when the i4H-PIR-3SP is in "TEST" mode, even with the jumper at the OFF position.

DETECTION PATTERN

Top View

110°

Side View

2.3m
0.6m

2.5m   8m   12m

SPECIFICATIONS

Detector Type: dual element
Coverage Angle: 110°
Pet-immunity: Up to 18kg, 60cm high
Effective Distance: max. 12 m @ ambient temp. 25℃
RFI Immunity: Ave. 20V/m (10~10000MHZ)
Detectable Speed: 0.3~1.5m/sec.
Power: two AAA alkaline batteries
Current: 10uA @ standby, 12mA @ activation
Estimated Battery Life: 2 years (@ actuated 40 times/day)
Pulse Count: 2 or 4 pulses selectable
Mounting height: typical 2 m
Working Temperature : -20℃~50℃
Humidity: max. 95% RH
Size: 112 x 66 x 45 mm
Weight (w/o battery): about 90g

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