ACCESSORIES

The LS-30 system includes a full range of accessories, so you can customize many feature of your security system.
All the radio transmitters used in the LS-30 system, except the Remote Controller, have a unique random code that is set by the factory with 16,777,216 combinations in total. Also with specially designed transmission timing control, the LS-30 system can effectively prevent mutual interference from other transmitters in the system. The Remote Controller uses copy-preventing hopping-code technology, changing its radio code every time you press the button. The combinations possible through this hopping-code are up to 7.3×10^{19}. To comply with the regulations in most countries, radio power is limited to below 10mW, and effective range is about 100 meters measured at open field. The range may be somewhat less indoors, depending on the layout of building construction and furniture.
You may enroll all the wireless accessories and change their related settings, either through the guidance of the interactive LCD display on the Base Unit explained in the "INSTALLATION" section that follows, or by using a computer with the proprietary software "HyperSecureLink" through an interface adapter, which offers a quicker and simpler way to perform the installation in.

NOTE: The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
The comply with the FCC RF exposure compliance requirements, this device and its antenna must not be co-located or operating to conjunction with any other antenna or transmitter.
This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

PIR MOTION DETECTOR

INTRODUCTION

The 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.

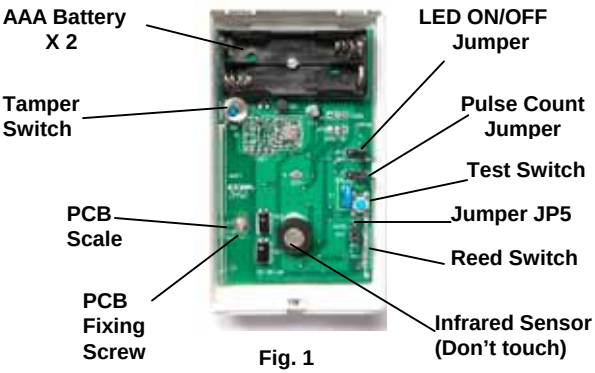
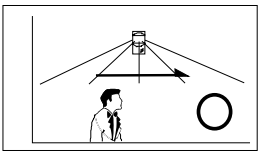


Fig. 1

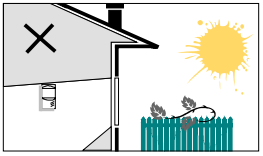
PET IMMUNE DETECTOR

- 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. It is therefore recommended to select a mounting location that can avoid animal moving within 1.8 m of the detector.
- This detector should be mounted on the wall or corner at 2.3 m high and perpendicular to the floor.
- 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.**
- 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.
- Do NOT aim the detector at stairways that animal can pass.
- Place the PCB at the "P" 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 or 0 scale to test again.

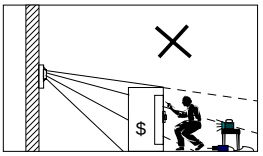
IMPORTANT NOTE



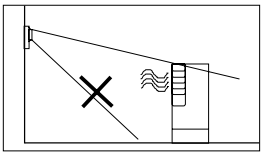
To get the best sensitivity, PIR should be mounted to detect movement of the intruder **across** a room rather than **toward** the detector.



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

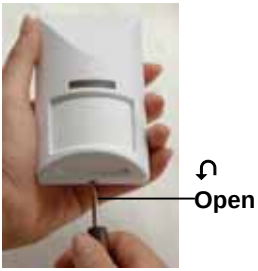


Fig. 3

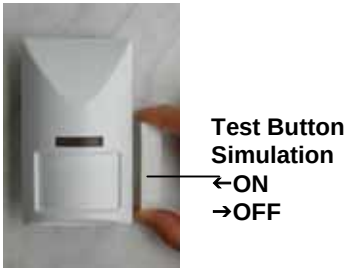


Fig. 4

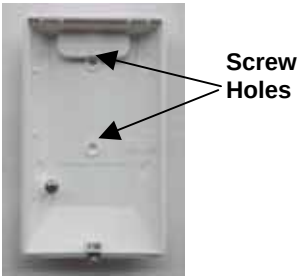


Fig. 5

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. Select “Installer Mode” on the Base Unit and enter the Installer Code to gain access authority. Then select \Set Device\Enroll Device\Burglar Sensor\Enter Zone No. to enroll the ID of PIR-3SP by pressing its TEST button on the PIR board. You may change its various attributes under \Set Device\Change Device Setting\Burglar Sensor Change, to fulfill different requirements.
   Important Notice: In order to reset the microprocessor properly, before replacing the batteries in the PIR-3SP, press the TEST button for 5 seconds to discharge the energy that remains in the capacitor on the PC board. Otherwise, it may not restart.
3. After power on, wait one minute for sensor warm-up.
4. Mount the base with two screws (refer to Fig. 4) or use Velcro tab provided at a selected location, and 2.3m 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 PIR-3SP board down for at least 3 seconds, until the LED turns ON→OFF→ ON, then release the button. Afterward, the PIR-3SP enters "TEST" mode for 3 minutes. Replace the cover of the 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 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 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 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 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 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)

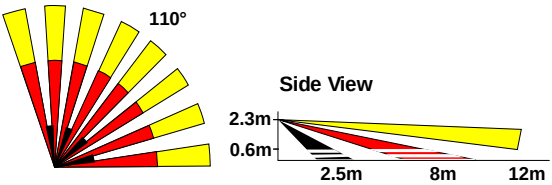
4 pulses: Alarm signal will only be sent if 4 pulses are detected within approximately 1 minute. This setting provides the maximum protection against false alarms caused by all types of environmental disturbances.

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 PIR-3SP is in "TEST" mode, even with the jumper at the OFF position.

DETECTION PATTERN (PIR-3SP)

Top View



SPECIFICATIONS

Detector Type: dual element
Coverage Angle: 110**º**
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: 2.2~2.4m, typical 2.3 m
Working Temperature : 0℃~40℃
Humidity: max. 95% RH
Size: 112 x 66 x 45 mm
Weight (w/o battery): about 90g

APPENDIX

The PIR-3SP can be used as a conventional detector (non pet-immune) if changing lens to LN-N type (refer to Fig 6). And the model no. becomes PIR-3S.

Note: 1. When you use LN-N lens, you must place JP5 at "NORL" position.

2. The detection patter of PIR-3S is as below, and you may adjust PCB scale position to fit detection coverage, or use bracket IRB-3 to adjust detection coverage. Besides, you may change the installation height properly.

DETECTION PATTERN (PIR-3S)

Top View

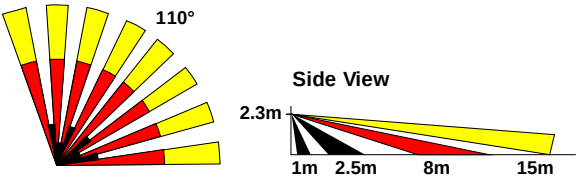


Fig. 6