

D.A.S.P. PET IMMUNE PIR Motion Sensor (IRP-9)

14-Sept-2010

The PIR Pet-Immune Motion Sensor ensures the excellent catch performance of its original purpose in the security sense and in addition, eliminates unnecessary false alarms caused by those jumpy little loved pets. IRP-9 is designed to detect movements within an assigned area and signals the Control Panel to activate the alarm if an intruder crosses its' path of detection but will not detect a dog up to 27 kilos, 10 cats, or numerous rodents.

The PIR consists of a two-part design made up of a cover and a base. The cover contains all the electronics and optics and the base provides a means of fixing. The base has knockouts to allow mounting on either a flat surface or in a corner situation with a triangular bracket for corner mounting.

Provision for a tamper switch that will be activated when the cover is detached from the base prevents unauthorized access and removal from the mounting surface. The PIR can also alert you to signal communication problems and low battery situations.

The PIR is designed to give a typical detection range of 12 meters when mounted at 2 meters above ground.

● Identifying the Parts

1. Test Button aka LED indicator

It is the test button and also doubles as the LED indicator. The test button is used for testing the radio performance and for learning purpose. The LED indicator is used to indicate the status of system.

2. Tamper Switch

The Tamper switch protects the enclosure from being opened.

3. Battery Insulator

4. Corner mounting bracket

5. Supervision Enable/Disable Jumper Switch (JP2)



Jumper On

The jumper link is inserted connecting the two pins



Jumper Off

if the jumper link is removed or "parked" on one pin.

- When the jumper is set as ON, the Supervision is disabled. **(Factory default)**
- When the jumper is set as OFF, the Supervision is enabled.

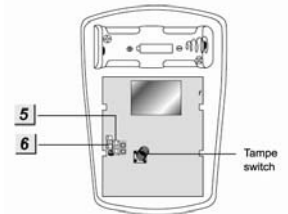
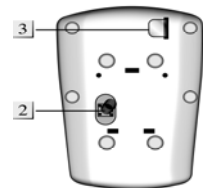
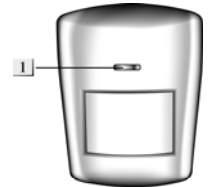
6. Sensitivity Inreater Jumper Switch (JP3)



- If the jumper is ON, the IPR-9/ IPR-9/IRP-A9's detection sensitivity is high. **(Factory default)**



- If the jumper is OFF (if the jumper link is removed or "parked" on one pin), IPR-9/IRP-A9's detection sensitivity is in normal level.



● Sleep Timer

The PIR has a "sleep time" of approximately 1 minute to conserve power. After transmitting a detected movement, the PIR will not retransmit for 1 minute; any further movement detected during this sleep period will extend the sleep time by another minute. In this way continuous movement in front of a PIR will not unduly exhaust the battery.

● Test Mode

The PIR can be put into Test mode by pressing the Test Button aka LED on the front cover. In Test mode, it will disable the sleep timer and will enable the LED indicator to flash every time a movement is detected. Each time press the Test Button, the PIR will transmit a test signal to the Control Panel for radio range test and enter the test mode for 3 mins. It will exit Test Mode automatically after 3 mins and returns to normal mode.

● Supervision Function

When the PIR is in Normal operation mode it will conduct a Self-test Periodically by transmitting a supervisory signal once every 30 to 50 min. If the Control Panel can't receive the Supervisory signals transmitted from a certain PIR, an "Out-Of-Order" fault message will be generated.

● Sensitivity Inreater Function

You can use the sensitivity inreater function to increase the PIR's detection sensitivity. To increase detection sensitivity, please enable the Jumper to **ON** position (default). To maintain the normal detection sensitivity, enable the Jumper to **OFF** position.

● LED Indicator

In Normal operation mode, the LED Indicator will not light except in the following situations:

- When the PIR is in low battery condition, every time it transmits a detected movement, the LED will flash for about 2 seconds.
- When the cover is opened and the tamper switch is violated, the LED will light up for 2 sec. to indicate it is transmitting the "Tamper" signal.
- When the Tamper condition persists, every time it transmits a detected movement, the LED will light up.

However, if the PIR is in Test mode, the LED will light up every time a movement is detected.

● Battery

The PIR uses one 3.6 V Lithium battery as its power source. The PIR will have a typical battery life of 3 years at an average of 20 activations a day.

Low battery detection operates where the PIR has enough reserve energy to typically operate for 1 month before complete exhaustion. A low battery signal will be sent to the Control Panel along with regular signal transmissions for the Control Panel to display the status accordingly.

For each installation, the battery is installed in by the factory before shipment with an Insulator inserted.

<NOTE>

- ☞ When changing batteries, after removing the old batteries, press the Tamper Switch twice to fully discharge before inserting new batteries.

● **Getting Started**

- Pull out the battery Insulator steadily.
- The LED indicator steadily flashes for 30 seconds. (The PIR is warming up). During the warming period, the PIR will not be activated. It is recommended that you stay away from the detection area during this time. After the warming period is over, the light will turn off and the PIR will be ready for operation.
- Put the Control Panel into “**Device +/-**” menu and then select “**Add Device**” menu.
- Press the test buttons on the front cover.
- Refer to the operation manual of your control panel under the section of “**Device +/-**” to complete the learn-in process.
- After the PIR is learnt-in, put the Control Panel into “**Walk Test**” mode, hold the PIR in the desired location, and press the Test button to confirm this location is within signal range of the Control Panel.
- When you are satisfied that the PIR work in the chosen location, you can proceed with installation.

● **Mounting Method**

- The PIR is designed to be mounted on either a flat surface or in a corner situation with fixing screws and plugs provided.
- The base has knockouts, where the plastic is thinner, for mounting purpose. Four knockouts are for surface fixing and four knockouts are for corner fixing as shown in the picture
- For corner mounting, at user’s own discretion, an optional triangular bracket is provided to add Back Tamper Protection. Mount the triangular bracket on the wall first with the two pointing sticks on top facing you. Then, you can just fit the PIR onto the hooks of the triangular bracket or screw the PIR onto it.

◆ **Surface mounting:**

- I. Remove the fixing screw and cover assembly.
- II. Break through the appropriate knockouts on the base.
- III. Using the holes as a template, drill holes in the surface.
- IV. Insert the wall plugs if fixing it into plaster or brick.
- V. Screw the base into the wall plugs.
- VI. Screw the cover back onto its base.

◆ **Corner mounting:**

- I. Break through the two knockouts on the triangular bracket.
- II. Using the two holes as a template, drill holes in the surface of the corner
- III. Insert the wall plugs
- IV. Screw the triangular bracket into the wall plugs with the two pointing sticks on top facing you.
- V. Fit the PIR onto the hooks of the triangular bracket
- VI. If necessary, open the PIR by removing the fixing screw and cover assembly
- VII. Break through the appropriate corner fixing knockouts.
- VIII. Using the corner fixing knockouts as a template, drill holes in the surface in the corner again
- IX. Insert the wall plugs if fixing it into plaster or brick.
- X. Screw the base into the wall plugs
- XI. Screw the cover back onto its base

● **Installation**

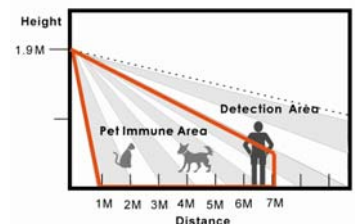
- Decide on the location of the PIR and if it is to be corner or surface mounted.
- After the installation site is selected, follow the steps described above to mount the PIR.
- Press the Test Button to enter Test Mode. Walk around the protected area noting when the LED lights up and check that the detection coverage is adequate.
- When detection coverage is found to be satisfying, installation is now completed.

● **Installation Recommendations**

The PIR is designed to give a typical detection range of 12 meters when mounted at 2 meters above ground. When mounted at 1.9 meters above ground, it gives a typical PET IMMUNE range of 7 meters. As the PIR is higher from above ground, it gives a farther PET IMMUNE range. To take full advantage of IRP-9, the following guidelines should be considered:

◆ **It is recommended to install the PIR in the following locations**

- Mount the detector at 1.8 M ~ 2.0 M high for best performance:



<IMPORTANT NOTE>

- ☞ For the most desired performance of IRP-9, remember to adjust the height of IRP-9 mounting site respectively to the height of the tallest animal in the house. As the taller than average dogs require the IRP-9 to be mounted higher for the Pet Immunity purpose.
- ☞ When deciding on the height of the IRP-9 mounting site, remember to take the possible blind spot into consideration. The blind spot underneath the IRP-9 enlarges proportionally to the height of the IRP-9 mounting site.
- ☞ Please note that the performance is affected by external factors, such as height of detected object, desired detection range, installation area...etc. The suggested mounting height could be adjusted according to actual installation environment.
- Mount where the animals cannot come to the detection area by climbing on furniture or other objects.
- Don't aim the detector at stairways the animals can climb on.
- In a position such that an intruder would normally move across the PIR's field of view.
- In a corner to give the widest view.
- Where its field of view will not be obstructed e.g. by curtains, ornaments etc.
- For a small 3 to 5m room, install between 1.9 to 2m above ground.

◆ **Limitations**

- Do not position a PIR to look directly at a door protected by a Door Contact, this could cause the Door Contact and PIR radio signals to be transmitted at the same instant when entering, canceling each other out.

- Do not install the PIR completely exposed to direct sunlight.
- Avoid installing the PIR in areas where devices may cause rapid change of temperature in the detection area, i.e. air conditioner, heaters, etc.
- Avoid large obstacles in the detection area.
- Not pointing directly at sources of heat e.g. fires or boilers, and not above radiators.
- Avoid moving objects in the detection area i.e. curtain, wall hanging etc.

Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- . Reorient or relocate the receiving antenna.
- . Increase the separation between the equipment and receiver.
- . Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- . Consult the dealer or an experienced radio/TV technician for help.

FCC Caution:

To assure continued compliance, any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. (Example - use only shielded interface cables when connecting to computer or peripheral devices).