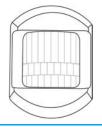
FCC ID: WDQ-PIR1345 Industry Canada ID: 7794A-PIR1345





# **INSTALL INSTRUCTIONS**

The Passive Infrared Motion Detector is a wall-mounted unit with wide angle motion protection. When set to High Sensitivity Mode, the Passive Infrared Motion Detector (PIR) has a maximum range of 30 feet deep x 50 feet wide. The PIR is pet immune up to 55 lbs.

#### **Box Contents**

- Detector
- 3V Lithium battery
- 3 screws and 2 dowels
- Bracket
- Flat wall mount
- Corner mount

## Programming

The following steps describe general guidelines for programming (learning) the PIR into the Control Panel. Scroll between options using the  $\leftarrow$  and  $\rightarrow$  arrows. Move to the previous or next prompt by pressing the  $\uparrow$  and  $\downarrow$  arrows.

- 1 Select RF sensor # (01 to 48). Assign the PIR to a new zone.
- Select RF sensor type:
  - (04) interior follower
  - (10) interior with delay
- 3 Select RF sensor equipment code. Enter 0533 for the Passive Infrared Motion Detector.
- 4 Select RF equipment type.
  - (2) motion
  - Enter RF sensor serial number (7 digits).

**Manual Entry:** Type in the last 7 digits of the TX ID that is found outside of the box or on the back of the device.

**Auto Entry:** With the panel in Learn-in mode, (press **Shift** then **Learn**) press the tamper switch. The correct TX ID should appear. Accept the correct TX ID by pressing **ok**.

Remember to press the  $\downarrow$  arrow to continue going through the system configuration prompts.

- 6 Select RF sensor equipment age (0 to 1).
  - (0) new (product is new)
  - (1) existing (product already exists)
- 7 Select RF sensor loop number (1 to 3).
- 8 Select RF Sensor dialer delay (0 to 1)
  - (0) disabled
  - (1) enabled
- 9 Construct RF sensor voice descriptor. Press Insert then press any number between 002 and 255 to add a word. Repeat this for each word. For example, if you want to name this PIR as the "master bedroom," press Insert then press 140 for master. Press Insert then press 024 for bedroom.
- **10** Select RF sensor reports (0 to 1).
  - (0) disabled (PIR does not report to the central station)
  - (1) enabled (PIR reports to the central station)
- 11 Select RF sensor supervised (0 to 1)
  - (0) disabled (detector does not report loss of supervision/low battery)
  - (1) enabled (detector reports loss of supervision/low battery)
- 12 Select RF sensor chime (0 to 13).
  - (0) disabled (panel will NOT chime when PIR is activated)
  - (1-13) enabled (selects a voice and chime to sound on the panel when the PIR is activated)
- 13 To program another sensor click next.
- 14 To exit programming, click skip then end and exit. Upon exit, the panel takes several seconds to reboot.

#### Testing

Before mounting the detector, ensure that the PIR mounting location provides good RF communication to the panel. To verify, do the following:

- 1 From the Installer Toolbox, select walk test.
- 2 Place the a magnet over the arrow on the left side of the PIR, (the detector's LED indicates that a magnet has been detected) and then remove the magnet (a magnet is not supplied).
- 3 Place the PIR in the location that you plan on mounting it.
- 4 Move in the area that is to be covered by the PIR and make sure that the LED on the PIR flashes every time you move. The LED flashing continues for 1 minute so you can check the PIR beam coverage.

NOTE: There is a 3-second delay between flashes on the LED.

**IMPORTANT:** The following can cause a **false alarm** when testing:

- Leaving the cover off
- · Removing jumpers
- Positioning the PIR in direct sunlight or close proximity to a heating or an air conditioning duct
- 5 Exit installer toolbox.

# Inserting and Replacing Batteries

If a supervised PIR battery is low, a low battery notification is indicated on the Control Panel's touch screen. If indicated, replace the battery immediately. Use *only* the recommended replacement batteries (See Specifications).

 Remove back cover by unscrewing bottom screw and pull back cover from bottom to top. Observe the polarity of the battery. See Figure 2.

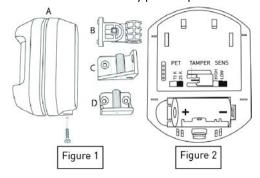
WARNING: Improper handling of lithium batteries may result in heat generation, explosion or fire, resulting in personal injuries. Replace only with the same or equivalent type of battery as recommended by the manufacturer (see Specifications). Batteries must not be recharged, disassembled or disposed of in fire. Disposal of used batteries must be made in accordance with the waste recovery and recycling regulations in your area. Keep Away From Small Children. If batteries are swallowed, promptly seek medical attention.

**California Only:** This Perchlorate warning applies only to Manganese Dioxide Lithium cells sold or distributed ONLY in /California, U.S.A. Perchlorate Material-special handling may apply. See dtsc.ca.gov/hazardouswaste/perchlorate.

#### Installing and Mounting

Remove the screw from the bottom of the case and open the PIR (see Figure 1).

- 1 Install the 3V Lithium battery from the box.
- 2 Set the left jumper (PET IMMUNITY) to either 33 lbs. (15 kg) or 55 lbs. (25 kg; default). (see Figure 2)
- 3 Set the right jumper (SENSITIVITY) to either LO (default) or HI (see Figure 2).
- Press and release the tamper switch to begin the power up process.
- **5** Wait 10 seconds for the PIR to fully power up.

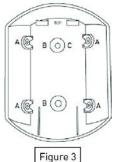


## Mounting the PIR with the bracket (see Figure 2)

- 1 Use short Phillips head screws to screw part A into part B.
- **2** Select either the corner mount (part C) or flat wall mount (part D).
- 3 Mount the selected bracket (C or D) at a height of 7.5 ft (2.3 m). on the wall using the supplied long screws with anchors.
- 4 Place the assembly of parts A and B on the shaft of bracket C or D.
- 5 Screw a Phillips head screw with washer into the top of par B to hold the assembly to the shaft of bracket C or D.
- **6** Attach the main body of the PIR to the mounted back with a screw at the bottom of the case.

## Mounting the PIR without bracket (see Figure 3)

1 For corner mounting use the supplied long screws with anchors and mount the PIR case back using either the right two corner mount screw holes (A) or the left two corner mount screw holes and mount the PIR back at a height of 7.5 ft. (2.3 m). Attach the main body of the PIR to the mounted back with the screw at the bottom of the PIR.



2For mounting the PIR on a flat wall use the supplied long screws with anchors and mount the PIR case back using the 2 wall mount screw holes in the center of the back and mount the back at a height of 7.5 ft. (2.3 m). Attach the main body of the PIR to the mounted back with the screw at the bottom of the PIR.

- A Corner mounting screw holes
- B Flat wall mounting screw holes
- C Bracket screw holes

# Using the PIR with Pets

To take full advantage of the pet immunity features, do the following:

- 1 Ensure that the PIR is mounted 7.5-8 feet above floor level.
- 2 Set the right jumper (SENSITIVITY) to low (default).
- 3 Ensure that the left jumper (PET IMMUNITY) is set to your pet's weight.
- 4 Do not aim the PIR at stairs or furniture that your pet could climb on. **NOTE:** The PIR provides immunity to false alarms for an individual

animal or a group of animals whose total weight is equal to or less than 55 pounds when the room temperature is above 50° F and below 90° F. If you used the optional mounting bracket, ensure that the PIR is mounted with NO tilt.

#### Environmental and other Useful Information

While the PIR is a highly reliable intrusion detection device, it does not guarantee against burglary. Any intrusion device is subject to a "failure to warn" for a variety of reasons. Consider the following when installing the PIR for the first time or when you are troubleshooting:

- 1 This PIR has built-in protection, that keeps bugs from getting into the sensor area and causing false alarms. This does not prevent insects from crawling across the lens of the PIR, which could trigger the PIR.
- Infrared energy can be reflected off any glossy surfaces such as mirrors, windows, floors or counter tops with glossy finish, and slick finished concrete. Some surfaces reflect less than others. For example, the PIR can see a change in infrared energy off of reflective surfaces even if the heat or cold source is not within the PIR detection pattern.
- 3 Windows cannot only reflect infrared energy, but they can also allow sunlight or lights from cars to pass through to the PIR. For example, a PIR can detect a quick change in infrared energy if sunlight comes through a window and shines on a hardwood floor. If the change in infrared energy is quick enough on the hardwood floor, the PIR can trigger an alarm. The same applies if the PIR area includes a window, even though the pattern of protection cannot "see" through glass. Lights from a passing car can also pass through the window at night and directly in the lens of the PIR.
- 4 Heating and air conditioning ducts are also important because if they blow air onto an object within the field of the PIR's view, the temperature of that object could change quickly enough for the detector to "see" a change in infrared energy. PIR's CANNOT see air current, only the change in temperature of a physical object.
- 5 The PIR senses change in temperature; however, as the ambient temperature of the protected area approaches the temperature range of 95° to 120° F, the detection performance of the PIR decreases.

- 6 Ensure that the area you wish the PIR to cover is free of obstructions (curtains, screens, plants, etc.) that may block the pattern of coverage.
- 7 Anything that can sway or move due to air current can cause a change in infrared energy within the fields of view. Drafts from doors or windows can cause this to happen. Plants, balloons, curtains and hanging baskets should never be left in the PIR's field of view.
- 8 Do not mount the PIR on a surface that allows for any vibration. Vibrations not only cause the PIR to move a little, but it also causes the fields of view in a room to move with respect the PIR. A little vibration can cause havoc with the PIR's field of view, thus the PIR may see a change in energy and trigger the alarm.
- 9 An installation often requires that the PIR is aimed at the door. The PIR may detect door movement before the door contact can initiate an entry delay, causing the alarm to trigger. If you install the PIR facing a door, then while programming the PIR, choose an entry delay.
- 10 The PIR ONLY detects intrusion within the pattern of coverage.
- 11 The PIR does not provide volumetric area protection.
- **12** The PIR creates multiple beams of protection. Intrusion can only be detected in unobstructed areas covered by those beams.
- 13 The PIR cannot detect motion or intrusion that occurs behind walls, ceilings, floors, closed doors, partitions, glass doors or windows.
- 14 Tampering with, masking, painting, or spraying of any material on the PIR lens or any part of the optical system can impair detection ability.
- **15** The PIR, like other electrical devices, are subject to component failure. Even though the PIR is designed to last as long as 10 years, the electronic components are subject to failure.

## Specifications

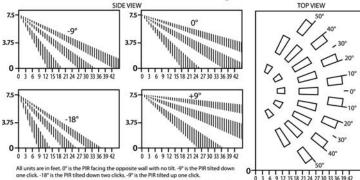
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Wireless Signal Range	350 ft., open air, with 2GIG Control Panel
Code Outputs	Alarm; Alarm Restore; Tamper; Tamper Restore; Supervisory;
	Low Battery
Transmitter Frequency	345,000 MHz (crystal controlled)
Transmitter Frequency Tolerance	±15 kHz
Transmitter Bandwidth	24 kHz
Modulation Type	Amplitude Shift Keying-On/Off Keying (ASK-OOK)
Unique ID Codes	Over 1 million different code combinations
Supervisory Interval	70 minutes
Peak Field Strength	Typical 50,000 uV/m at 3m
Sensor Type	Quad element
Pet immunity	Selectable: 15 kg (33 lbs) or 25 kg (55 lbs; default)
Sensitivity Jumper	Selectable: High or Low (default)
Suggested Mounting Height	7.5 ft (2.3 m)
Sensor Range	30 ft. (9.1 m) x 50 ft. (15.2 m)
Max. Horizontal Sensing Angle	90°
Dimensions (LxWxH)	3.2 x 2.5 x 1.9 in. (8.12 x 6.35 x 4.82 cm)
Weight (inc. battery & bracket)	3.7 oz. (104.9 g)
Housing Material	ABS plastic and poly-carbonate
Color	White
Operating Temperature	32° to 120° F (0° to 49°)
Relative Humidity	5-95% Non-Condensing
Battery (included, not installed)	1 Panasonic CR123A, or equivalent Lithium battery
Regulatory Listings	ETL, FCC Part 15, Industry Canada
Warranty*	2 years
Included Accessories	Mounting brackets, 2 long Phillip's head screws, 2 plastic wall anchors

#### FCC Compliance Statement\*

**Notice:** Unauthorized changes or modifications could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC Rules and Industry Canada license-exempt RSS standard(s). Operating 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 of the device.

#### Lens Pattern Diagrams



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