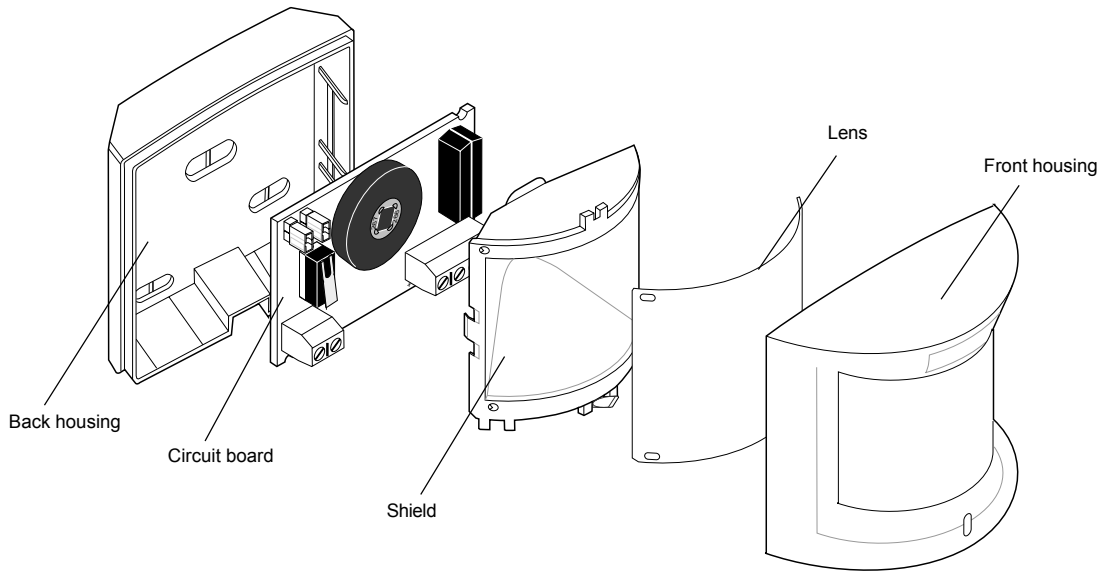


6000 Series PIR

Model PI6000 - with 30 lb. pet immunity
Model 6000 - with high density (HD) performance lens



Installation Instructions



Note

Use a screwdriver to undo the latch on the bottom of the detector.

Figure 1. Detector (Exploded)

Description

The 6000 Series Passive Infrared Detectors are designed for use in residential applications. These detectors utilize dual pyroelectric sensors with jumper selectable pulse count (two- or three-pulse mode). Advanced signal processing provides high immunity to false trips - RFI, lightning, vibration, and rapid temperature changes.

An interchangeable, opaque Fresnel lens blocks visible light and provides the ability to select the best coverage pattern for the site. The lens is part of a sealed optic enclosure which isolates the pyroelectric sensor from drafts and insects, common sources of false trips.

The 6000 series comes with a closed loop alarm contact and a closed loop tamper switch.

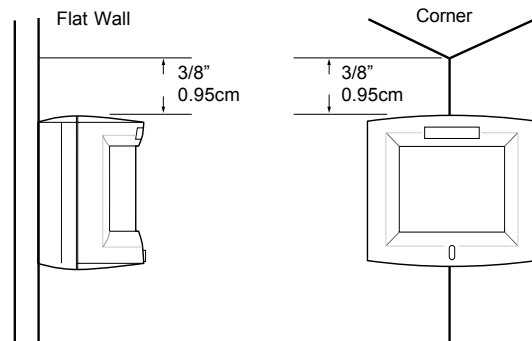


Figure 2. Mounting

Selecting a Location

- Mount the detector at a height of 7 to 9 feet (2.1 to 2.7m) . See *Mounting Height Settings*.
- Mount the detector either flat on the wall or in a corner and at least 3/8" (0.95cm) from the ceiling. See Figure 2.
- Do not locate the detector where it may be exposed to false alarm sources, such as:
 - heat sources in the field of view
 - direct or reflected sunlight
 - strong air drafts (fans, air conditioners, etc.) on unit
- Do not aim the detector at windows or glass doors.
- Mount the detector on a rigid, vibration-free surface.
- Do not locate the detector on a surface exposed to moisture.
- Do not locate the detector where the ambient temperature is below 14°F (-10°C) or above 122°F (50°C).
- PIRs require a clear line of sight. Inform end-users not to block the coverage pattern with inventory, furniture, decorations etc.

6000 Series PIR

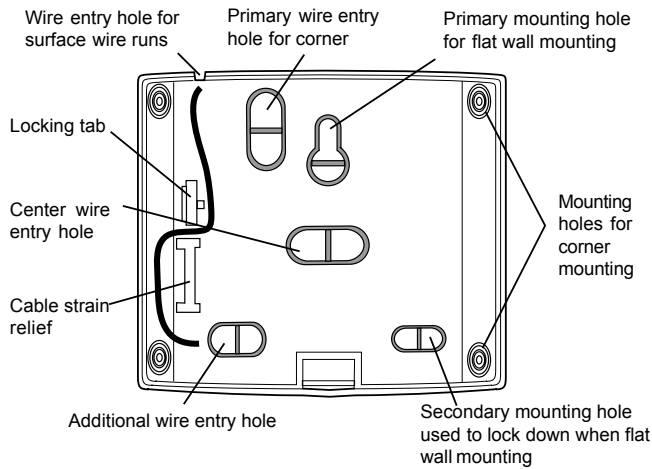


Figure 3. Back Housing

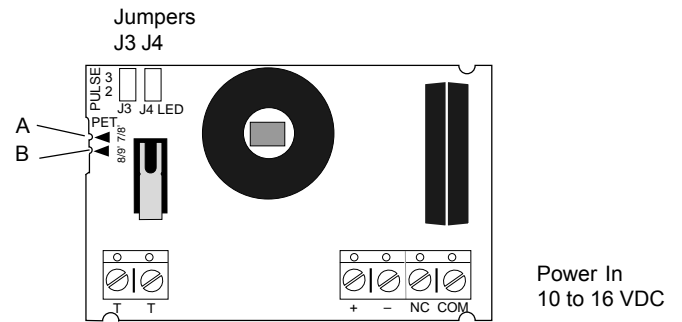


Figure 4 . Circuit Board

Installing the Detector

1. Select an appropriate mounting location.
2. Route wiring to the detector's location.
3. Open the detector and, after selecting appropriate mounting and wire entry options, remove the knockouts by depressing from the inside of the detector in the center of desired knockout (see Figure 3). The circuit board may be removed to facilitate mounting and removal of knockouts if desired.

⚠ CAUTION

You must be free of all electricity before handling sensor circuit boards. Touch a grounded bare metal surface before touching circuit boards or wear a grounding strap. Promptly reinstall the circuit board when finished with knockout removal and mounting the back housing.

4. Pull cable through the appropriate knockout and fasten the detector to the wall.
5. Strip back the outer jacket and individual wires of the cable and connect the conductors to the proper terminals (see Figure 4). The alarm contacts are not polarity sensitive.

Note

Use caution not to strip more insulation than needed, approximately 1/4" (0.6cm), so that bare wires do not touch and cause a short.

6. Route the cable through the strain relief located on the far left side of the back housing (see Figure 3). Snap on the front housing.
7. Walk test the detector and check for desired coverage.

Note

Most units walk test more accurately if the person testing waits 10 seconds between tripping the unit and walking again. This allows the detector to stabilize between trips.

Mounting Height Settings

The factory setting of the detector is for mounting heights of 7 to 8 feet (2.1 to 2.4m). For this setting, the locking tab on the back housing is in the notch by the 7-8' arrow on the circuit board (position A in Figure 4).

For proper operation at mounting heights above 8 feet (2.4m), the locking tab must be in the notch by the 8-9' arrow (position B in Figure 4).

Setting the Jumpers

J3 Pulse Count -



ON = Three-pulse mode



OFF = Two-pulse mode (**factory default**)

Note

Use two-pulse mode for all residential applications including pet applications.

J4 LED -



ON = LED enabled (**factory default**)



OFF = LED disabled

Pet Applications

A. For pet applications, the detector should be installed at the standard 7 to 8 feet (2.1 to 2.4m) mounting height. Verify that the circuit board is properly positioned in the back housing (see *Mounting Height Settings*).

B. Place the pulse count selection jumper in two-pulse mode (see *Setting the Jumpers*).

C. Make sure animals cannot get within 6 feet (1.8m) of the detector's line of sight or climb on furniture within 6 feet (1.8m) of the detector.

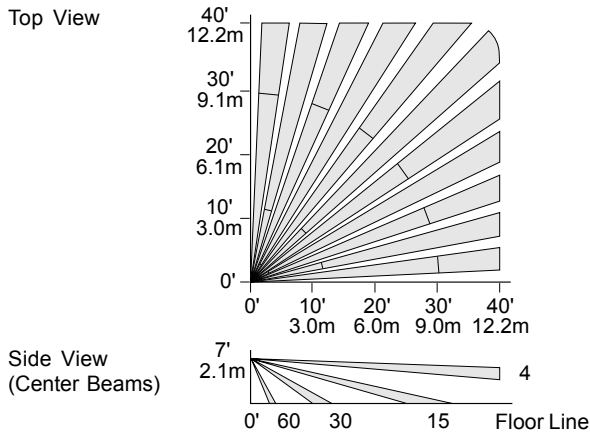
Note

False alarm immunity from any number of small pets and rodents can be expected as long as the total combined weight does not exceed 30 lbs. and room temperature does not fall below 50° F (10° C).

Long Hair Up to 50 lbs	Short Hair Up to 30 lbs	Not Recommended
Cocker Spaniel	Basenji	Doberman
Eskimo	Border Terrier	Greyhound
Husky	French Bulldog	Mastiff
Pekinese	Welsh Corgi	Shepherd
Sheepdog	Cats	St. Bernard

The pet immunity feature has not been tested by Underwriters Laboratories Inc.

**PI6000
Pet Immune Lens**



**6000
High Density Lens**

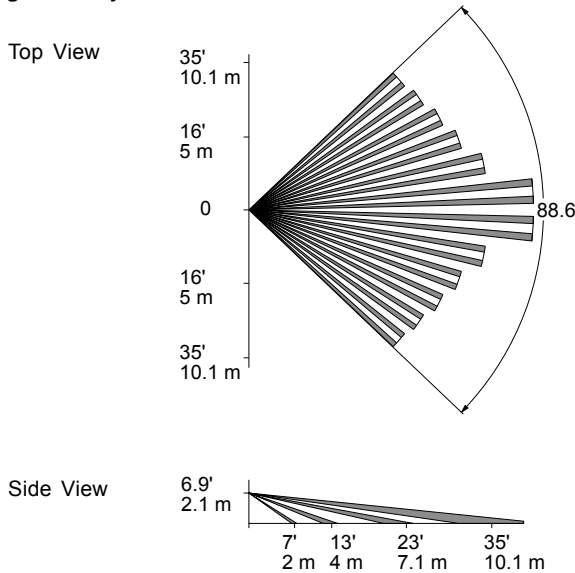


Figure 5. Zone Patterns

Masking

1. Unsnap the shield from the front cover by grasping the edge of the two tabs holding the shield in place and gently pulling the shield away from the front housing. Remove the lens from the front housing. Make sure fingers are clean.
2. Identify the lettered zone on the mask that corresponds to the letter on the lens.
3. Peel off the masking strip and press it onto the corresponding grooved segment on the lens.
4. Reinstall the lens in the front housing. The notch on the lens matches the notch on the front housing. (bottom right corner).
5. Snap the shield assembly back into the front cover.

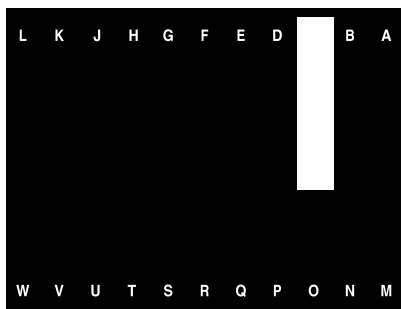
Maintaining the Detector

When installed and used properly, the detectors provide up to 5 years of service with minimal maintenance. To ensure proper operation, walk test the detector annually.

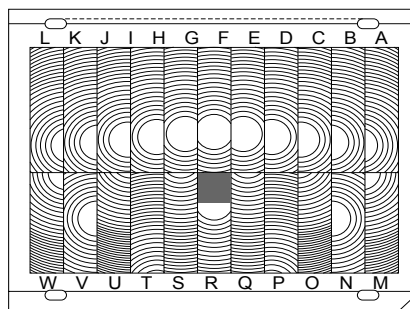
Clean the inside of the detector with a soft bristled brush or compressed air. Clean the outside with a damp (water) cloth as needed to keep it free of dust and dirt. Always test the detector after cleaning.

PI6000 Lens Mask

Peel and stick groove side of lens



PI6000 Pet Immune



6000 High Density

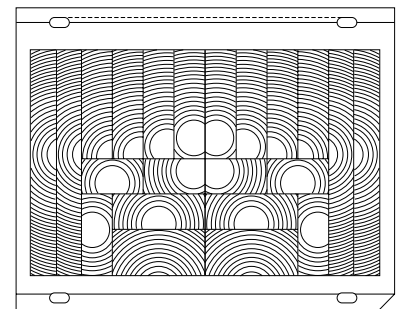


Figure 6. Masks

Specifications

Voltage	10 to 16VDC
Current	14mA Typical 20mA max.
Maximum loop rating	16 VDC, 50mA
Alarm output	Fail safe contacts-closed loop Normally Closed (N.C.)
Alarm duration	5 seconds (± 0.5 sec.)
Cover tamper contacts	Closed loop
Rating	16V, 50mA
Operating temperature	14°F to 122°F (-10°C to 50°C)
Humidity	5 to 95% non-condensing
Pulse count	Two-pulse or three-pulse
RFI immunity	Greater than 10V/meter from 10 to 1000MHz
Static Immunity	20 kV
Lightning immunity	2.4 kV, 1.2 joules max. energy impulse, 100 usec duration on field wiring
Detection range:	
PI6000 Pet Immune	40' (12.2m) x 90°
6000 High Density	35' (10.1m) x 90°
Mounting	Flat wall or corner
Dimensions:	
Width	3.05" (7.75cm)
Depth	1.90" (4.83cm)
Height	2.68" (6.81cm)
Color	White

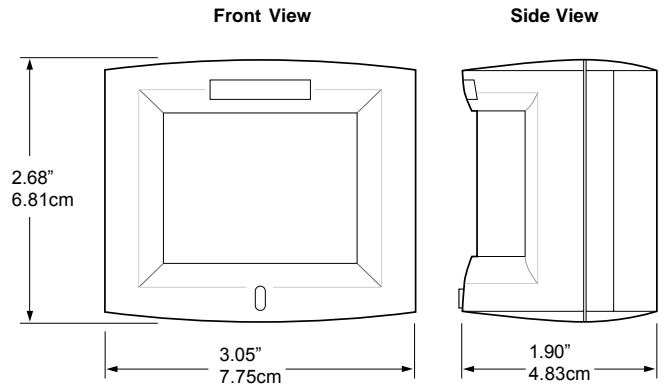


Figure 7. Dimensions

*The unit should be connected to a UL Listed power supply or control unit capable of providing a minimum of 4 hours standby power.
The equipment should be installed in accordance with NFPA 70.
The unit should be tested at least once a year.*

Product Ordering

Model	Description	Listing
PI6000	40' x 40' PIR with 30 lb Pet Immune Lens, closed loop, with tamper	C-UL US
6000	35' x 35' PIR with High Density Lens, closed loop, with tamper	C-UL US

